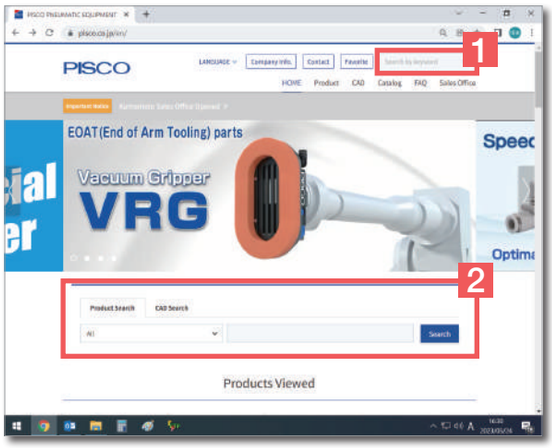
Guide for PISCO's web site

Point

1 Easy Products search!



Stainless steel fittings?

Any products for use with water?

What product does this model code mean?

Drawings of products?

Search by product name, product spec. or related key words.

Direct search by a product model code

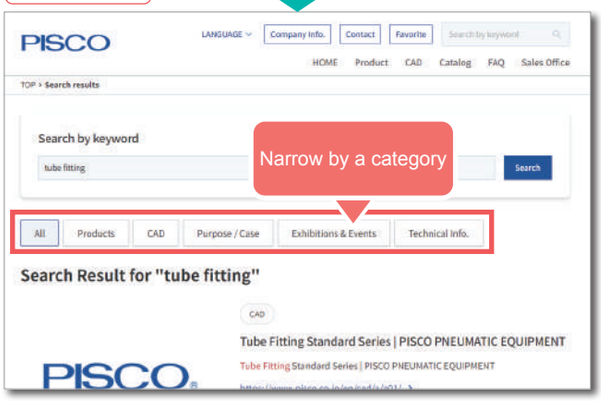
1 Search by free words

Input key words (e.g. tube fitting)

2 Direct search

Input a model code (e.g. PC4-M5)

Search result



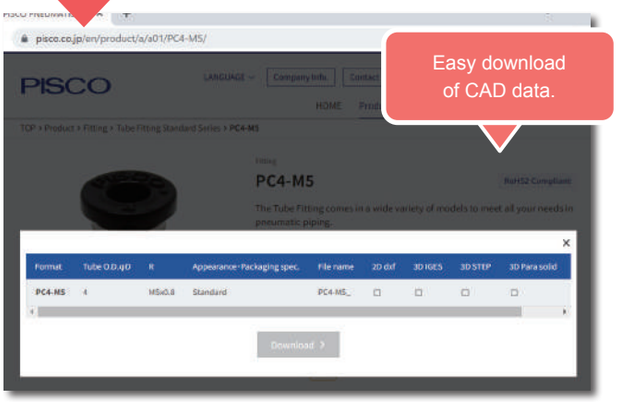
Individual product page

Try **Search by Industry** for products search also!

Point

2 Extensive product information!

Each product page has >>>



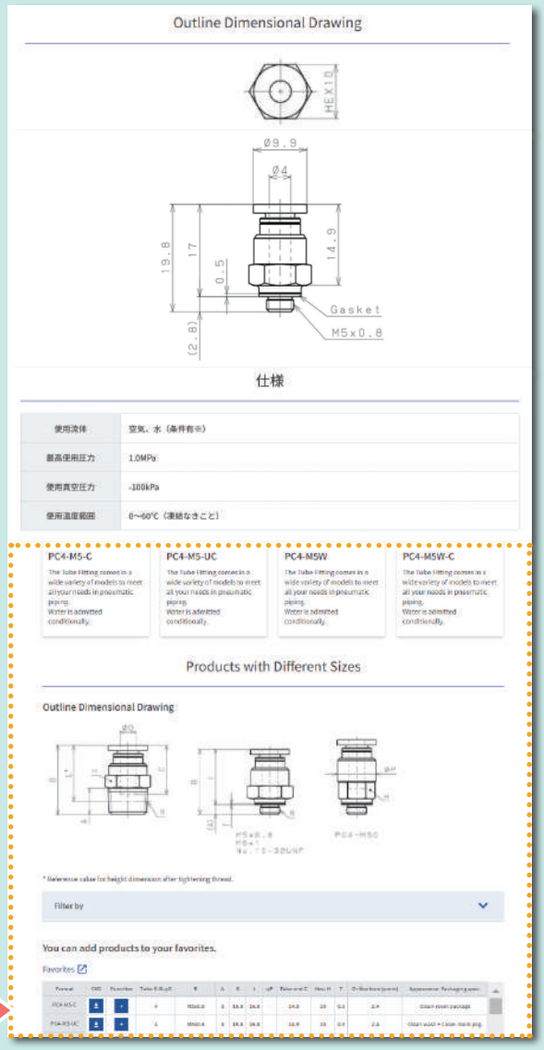
CAD data is downloadable on each product page.

CAD data types PISCO provides

2D DXF **3D** Parasolid, STEP, IGES, ACIS

List of characteristics, outline dimensional drawing and specifications.

*Some products are excluded.



Easy access to different sizes and specifications.

Overview of "-S3" specifications

We offer products with limited use of copper-based materials for secondary battery and solar cell production lines.

- **No copper-based metallic materials used in flow paths with "-S3" spec. products.**
  (Some alloys, such as aluminum, contain small amounts of copper. Also, copper is used in the products that limit the use of copper-free materials only in flow paths and in others for some parts, such as electric wires and circuit boards, when copper-free equivalents are difficult to procure.)
- **Improved resistance to dry air and low-concentration ozone.**
  Durability is ensured by changing the rubber material and using fluorine grease for the sliding parts.

* For detailed specifications of S3 for each product, please contact your nearest sales office.

Guide to RoHS compliant and Eco-friendly products

PISCO achieved the early acquisition of ISO 14001 in the industry. Contributing to sustainable development and prosperity of humankind and further protection of global environment, PISCO offers "Eco-friendly products compliant with Revised RoHS Directive (so called RoHS2)" in all product range.

About RoHS Directive (2011/65/EU and EU2015/863)

It is originated in the European Union and restricts the use of specific hazardous materials found in electronic products in EU market.
RoHS Directive (2002/95/EC) took effect in July 2006, and after the revision and amendment, 2011/65/EU and EU2015/863 (so-called RoHS2) are effective now.

Guide to Food Sanitation Act in Japan compliant products (*1, 2)

Our products use materials that comply with testing described in Food Sanitation Law, Article 18, Specifications and Standards for Food, Food Additives, Etc. (Ministry of Health and Welfare Notification No. 370, 1959) and with Article 18, Paragraph 3 (Positive List System) of the Revised Law. (Compliant state as of October, 2021)

Test method: III-D-2 (synthetic resin apparatus or containers and packaging), III-D-3 (rubber apparatus [excluding baby utensils] or containers and packaging), III-D-4 (metal cans)

*1. Carefully check the compatibility of the materials used for each equipment with the fluid medium, operating atmosphere, cleaning conditions, etc., by referring to "Chemical-Resistance Chart" on our web site.
*2. Details of the subjected products are on our website.

Guide to FDA (U.S. Food and Drug Administration) compliant products (*1, 2)

We provide FDA-compliant products that can be used in food processing equipment.

About FDA

FDA is an abbreviation of the U.S. Food and Drug Administration, which is an agency that regulates food, etc. and ensures the safety and efficacy of products such as food, pharmaceuticals, veterinary drugs, cosmetics, medical devices, toys, and more.

About PISCO's FDA-compliant products

·Vacuum pad (pad rubber): using materials that comply with the FDA 21 CFR § 177.2600 "Rubber Articles Intended for Repeated Use" test
·Oversuction preventing adapter (resin part): using materials compliant with 21 CFR § 177, "Substances for Use as Basic Components of Single and Repeat Used Food Contact Surfaces"

*1. Carefully check the compatibility of the materials used for each equipment with the fluid medium, operating atmosphere, cleaning conditions, etc., by referring to "Chemical-Resistance Chart" on our web site.
*2. Details of the subjected products are on our website.

PISCO brand marking

PISCO brand products ensure the trust and satisfaction of our customers.

PISCO brand products have one of those logos or markings, ensuring the high performance/quality.

- Push-in fitting series
- Products incorporating push-in fitting

- All Brass Compression Fitting

- Vacuum Pad

- Tube

*No marking or logo is on the following products: Push-in fittings with extra small sized tube dia. (ø1.8, ø2 mm), Minimal fittings, Products incorporating push-in fittings with tube dia. ø1.8, ø2 mm, Fluororesin tube (PFA and FEP), Polyolefin tube, and Soft polyolefin tube.

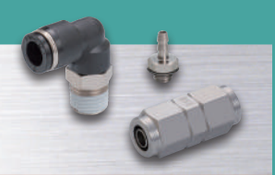
In October 2021, we began using " 碧士克 " for our trademarks used in China and other Chinese-speaking countries.

With the start of " 碧士克 " trademark use, plastic bags for products package come with " 碧士克 " trademark as well as "PISCO".

"PISCO" and "PISCO" logos are registered trademarks of NIHON PISCO CO.,LTD.
" 碧士克 " is a registered trademark of NIHON PISCO CO.,LTD. in People's Republic of China, Hong Kong and Taiwan.

Tube fitting series
Index►P.8 to Details►P.17 to

For general piping: Push-in fitting, Compression fitting, Minimal fitting
For special environment piping: Push-in fitting, Compression fitting, Minimal fitting



Tube series
Index►P.8 to Details►P.87 to

For general environments: Polyurethane tube, Nylon tube, Coiling tube, Multi-core planner tube
For special environments: Fluororesin tube, Nylon tube, Polyolefin tube, Polyurethane tube
Accessories: Tube Cutter, Tube Binder, Insert Ring

Control/Air preparation series
Index►P.10 to Details►P.117 to

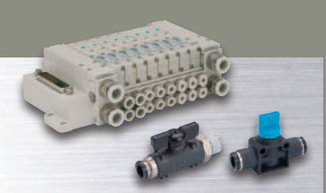
For general environments: Speed control valve, Flow control valve, Pressure control valve, Directional control valve, Dust removal, Silencer, Air preparation equipment
For special environments: Speed control valve, Flow control valve, Hollow fiber membrane filter

Pressure gauge/Sensor series
Index►P.11 to Details►P.175 to

Pressure gauge: Pressure gauge (Analog/Digital)
Sensor: Pressure sensor, Flow sensor

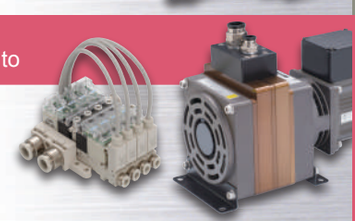
Valve series
Index►P.12 to Details►P.201 to

Manual control valve: Direction change valve, Shut-off valve, Push-type valve
Solenoid valve: Resin made type incorporating push-in fittings, Metal type



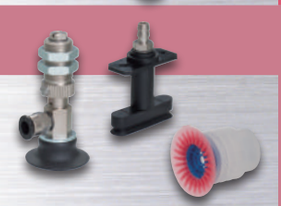
Vacuum equipment series
Index►P.12 to Details►P.249 to

Vacuum generator: Stand-alone type, Complex type, Vacuum transfer
Vacuum pump: Rotary vacuum pump, External vacuum controller
Vacuum accessories: Vacuum regulator, Vacuum filter, Vacuum Release Unit



Vacuum pad series
Index►P.14 to Details►P.367 to

Vacuum pad: Standard, Soft, Bellows, Skidproof, For packaging bag, Ultrathin, Mark-free, Flat, Sponge, Oval, With Mechanical Release Function type
Vacuum pad accessories: Vacuum filter, Fall prevention valve, Ball swivel joint, Flexible swing joint



Robot Accessories
Index►P.15 to Details►P.739 to

End of Arm tooling (EOAT): Plate type, Flange type, Aluminum bar type, Vacuum Grippers, Vacuum Suction Transfer Test Kit
Related products: EOAT Direct Mountable Vacuum Generator, Vacuum & Air Control Unit

Actuator series
Index►P.15 to Details►P.775 to

Gripper: Angular gripper, Parallel gripper

Plarailchain series
Index►P.16 to Details►P.791 to

Cable/Hose carrier: Snap open flap type, Full-cover type, No flap type, Low noise type, Low friction type, Low dust emission type
Related products: Cable Clamp, Dividing Sheet, Spacer

Index

New ▶New product -S3 ▶-S3 spec. (Standard product) (*1) Food ▶Food Sanitation Law in Japan or FDA compliant (*2)

Tube fittings for general piping

Standard

Tube fitting Standard
Various models for market needs and applications. ▶P.20

Tube fitting Mini
Ultra-small Tube fitting, 40% down sizing. ▶P.29

Minimal fitting
Ultra-small Barb joints for space-saving piping. ▶P.34

Piping support item

Color Cap

Color identification by mounting on a release ring. ▶P.84

Release Jig

Support for releasing a tube from a tube fitting. ▶P.85

Functional type

Stop fitting
Self-seal fitting that stops an air flow when tubes are disconnected. ▶P.68

Rotary Joint
For swiveling and swinging connections. ▶P.69

High Rotary Joint
For high speed swiveling and swinging connections. ▶P.72

Multi-circuit Rotary Block
Air multi-distributor for index tables or other rotary equipment. ▶P.73

Distribution Manifold & Coupling

Main Block
Manifold blocks for distribution piping with free combination. ▶P.74

2-circuit Junction Block
Distribution joint for serving two lines at the same time. ▶P.76

Connector
For easy connection and disconnection when devices are relocated. ▶P.78

Light coupling
Compatible with other brand's couplings. ▶P.80

Tubes for general piping -S3

Single straight

Polyurethane Tube
For compact piping. Small dia. tubes are also available. ▶P.90

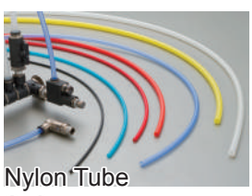
Soft Polyurethane Tube
Excellent flexibility fits to piping in narrow space. ▶P.92

Polyurethane Tube Dedicated for Air
Cost-saving polyurethane tube. ▶P.93

Low Friction Polyurethane Tube
Suitable for the piping inside of plarailchains. ▶P.94

Single straight

Vacuum tube
Excellent flexibility. Suitable for piping at swinging section. ▶P.95



Nylon Tube
Soft Nylon Tube
Excellent pressure resistance. For applications under high pressure. ▶P.96

Multi-core straight

Multi-colored Ribbon Tube
Soft Multi-colored Ribbon Tube
Suitable for air supply to multiple drivers. ▶P.98

Coiling

Spiral Coiled Tube
Twin Spiral Coiled Tube
Best suitable for piping to air tools. ▶P.100 ▶P.102

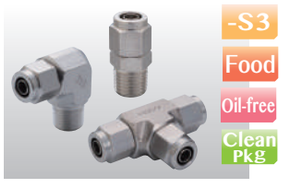
*1. "-S3 spec. (Standard product)" means standard product spec. includes "-S3 spec". Please refer to page 6 for the details about "-S3 spec.". *2. Please refer to page 6 about Food Sanitation Act in Japan and FDA.

Oil-free ▶ Oil-free Clean Pkg ▶ Clean-room package Clean Wash ▶ Clean-wash

Tube fittings for special environments

Corrosion resistant type

Tube Fitting SUS316
Good for food, chemical, medical and semiconductor industries. ▶P.36



Tube Fitting SUS316 Compression Fitting
Good for food, chemical, medical and semiconductor industries. ▶P.38

Tube Fitting SUS304
Tube Fitting SUS 303 equiv. corrosivity
Best suitable in chemical atmosphere. ▶P.41 ▶P.43

Minimal Fitting SUS 303 equiv. corrosivity
Best suitable in chemical atmosphere. ▶P.47

Chemical resistant type

Tube Fitting Chemical
Made of resins, for a wide range of applications. ▶P.48

Clean environment type

Tube Fitting PP with SUS304
Tube Fitting PP with SUS303 equiv. corrosivity
Adopting polypropylene for clean environment. ▶P.50 ▶P.55

Antistatic type

Tube Fitting Anti-static
Best suitable where dissipation of static electricity is required. ▶P.58

Functional type

Rotary Joint SUS304
For use with water and swinging and rotation applications. ▶P.70

Spatter resistant type

Tube Fitting Anti-spatter
Flame retardant resin (V-0 equivalent) is used. ▶P.59

Tube fitting Brass
All brass push-in fitting. ▶P.60

All Brass Compression Fitting
All brass compression fitting. For use at high temperature. ▶P.63

Die temperature control type

Die Temperature Control Fitting
Thread part and fitting part are detachable. ▶P.65

Tubes for special environments -S3

Single straight

Fluoropolymer (PFA) Tube
For chemical, food, medical and semiconductor industries. ▶P.104

Fluoropolymer (FEP) Tube
More reasonable than PFA Tube ▶P.105

Single straight

Polyolefin Tube
Soft polyolefin Tube
Adopting polyolefin suitable for clean environment. ▶P.106

Anti-spatter Tube
For spark-generated atmosphere. ▶P.108

Anti-static Tube
For the piping requiring dissipation of static electricity. ▶P.109

Related products

Tube Cutter, Tube Shears

For cutting tube by a preferable length ▶P.112 ▶P.113

Tube Stripper for Anti-spatter tube

To strip only the flame retardant cover ▶P.114

Insert Ring
Food

To prevent shrinkage from inside ▶P.111

Tube binder, Tube Reel

For bundling and storing of tubes ▶P.110 ▶P.115

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Add ▶ Addition of type, size, material and others
-S3 ▶ -S3 spec. (Standard product) (*1)
-S3 ▶ -S3 spec. (Optional) (*1)
Food ▶ Food Sanitation Law in Japan or FDA compliant (*2)

Controller/Air prep. equipment for general environments

Speed control

Speed Controller
The most standard speed control valve for actuators. ▶P.119

Speed Controller High-Flow type
Speed Controller Low-Flow type
Suitable for high /low speed cylinders. ▶P.119

Speed Controller Push-lock type with Indicator
With every 1/2 turn scale, easy speed controlling. ▶P.123

Slot-head Speed Controller
No external needle, low height, space-saving. ▶P.127

Speed control

2-stage Speed Controller
Two-stage exhaust flow rate adjustment with 3 needles. ▶P.129

Orifice Flow Speed Controller
For keeping actuators at a constant speed. ▶P.139

Flow direction control

Check Valve
Good for vacuum retention and piping under low pressure. ▶P.154

Check Valve with Low Cracking Pressure
Good for vacuum retention and piping under low pressure. ▶P.156

Flow control

Throttle (Needle) Valve
To control flow rate of driving device. ▶P.140

Quick Exhaust Valve
Respond to high-speed drive cylinder. ▶P.146

Exhaust Port Needle Valve
For controlling exhaust air flow by directly mounting on a solenoid valve. ▶P.148

Orifice Fitting
Throttle of compressed air. ▶P.150

Pressure control

Pressure Regulator Push-lock type
Push-lock type allows easy adjustment and setting of air pressure. ▶P.151

Compact Pre-set In-Line Pressure Regulator
Saving adjustment work load of secondary side air pressure. ▶P.152

Pressure Controller
Pressure controller saves compressed air. ▶P.153

Silencer

Silencer
On connecting to the exhaust port of a device, the exhaust noise is suppressed. ▶P.149

Air preparation

In-line Air Filter
No tool is necessary to replace filter element. Easy maintenance. ▶P.158

Filter and Regulator Comb. Unit
Various combinations and easy maintenance. ▶P.164

Fiber Dry
Dry Unit
No need of electric power, hollow fiber membrane type air dryer. ▶P.168 ▶P.170

Air Tank
For reduction of pressure fluctuation or pulsation in compressed/vacuum air. ▶P.173

*1. "-S3 spec. (Standard product)" means standard product spec. includes "-S3 spec.". "-S3 spec. (Optional)" means "-S3 spec." is selectable as an option. Please refer to page 6 for the details about "-S3 spec.".
*2. Please refer to page 6 about Food Sanitation Act in Japan and FDA.

Oil-free ▶ Oil-free　Clean Pkg ▶ Clean-room package　2in1 ▶ Products with 2 different functions in one body　Saving air ▶ Saving compressed air consumption

Controller/Air prep. equipment for special environments

Corrosion resistant type

Speed Controller SUS316
Throttle (Needle) Valve SUS316
For food, chemical, medical and semiconductor industries. ▶P.131 ▶P.142

Speed Controller SUS303 Equiv. Corrosivity
Applicable for speed control in corrosive environment. ▶P.133

Spatter resistant type

Speed Controller Anti-spatter
For speed control in spark-generated atmosphere. ▶P.136

Speed Controller Brass
Throttle (Needle) Valve Brass
For high heat and spatter-generated environments. ▶P.137 ▶P.145

Clean environment type

Speed Controller PP
Throttle (Needle) Valve PP
Adopting polypropylene for clean environment. ▶P.134 ▶P.143

Check Valve PP with Low Cracking Pressure
For applications where limited use of copper alloy, low-level ozone resistance and oil-free are required. ▶P.157

Hollow Fiber Membrane Filter
Filtering accuracy: 0.01 um,
Filtering efficiency: 99.99% ▶P.159

Pressure gauge/Sensor

Pressure display

Pressure Gauge
Digital Pressure Gauge
Pressure can be checked easily. ▶P.176 ▶P.177

Handy Manometer
Easy to handle, handy type pressure sensor. ▶P.178

Flow sensor

Flow Sensor 21 with 2-color dual digital display
For suction check of small work-pieces, which is difficult to do with pressure sensor. ▶P.192

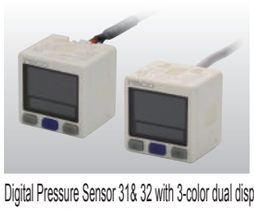
8mm width Flow Sensor
Super compact, light weighed flow sensor. ▶P.197

Pressure sensor

LED Digital Pressure Sensor
Vacuum sensor with LED display with enhanced visibility. ▶P.179

8mm width LED Digital Pressure Sensor
Incorporated energy-saving function contributes to reducing supply air consumption. ▶P.180

Display for Compact Pressure Sensor
11 & 12 with analog output
The head and display components are separated. High visibility. ▶P.184 ▶P.186 ▶P.188



Digital Pressure Sensor 31& 32 with 3-color dual display
High visibility is realized with large LED display. ▶P.190

Index

Renewal ▶Renewed product　Add ▶Addition of type, size, material and others　-S3 ▶-S3 spec. (Standard product) (*1)　-S3 ▶-S3 spec. (Optional) (*1)

Valve

Manual Valve (Shut-off Valve)

Hand Valve
Turning on/off of air pressure to devices. 3-way valve type exhausts residual pressure. ▶P.203

Ball Valve
Water can be used with this shut-off valve. ▶P.205

Ball Valve SUS304
Shut-off valve made of stainless steel. ▶P.208

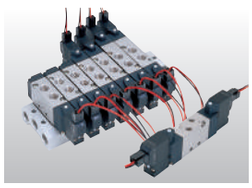
Ball Valve SUS316 Equivalent
Manual open and close of chemicals, mixed gas, and liquid. ▶P.210

Manual valve

Change Valve
Turning the valve handle by 90° changes the airflow direction. ▶P.202

Mechanical Valve
This push-type valve turns on and off air supply. ▶P.212

Solenoid valve



Solenoid valve SVB
Suitable to control our Vacuum Generator with solenoid valve direct mounting type. ▶P.214

Solenoid valve SVA
Lightweight yet large-capacity is achieved. ▶P.228

Solenoid valve SVR
Controlled pressure can be set from 0 MPa. ▶P.238

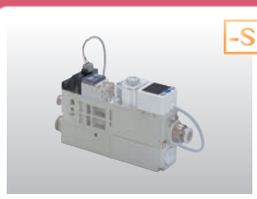
Sub-D connector
Cable lead-out direction is selectable. ▶P.246

Vacuum pump & External vacuum controller

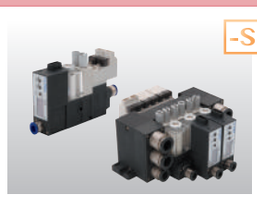
Vacuum pump

Rotary Vacuum Pump
Contributing to cost saving with eco-design and easy maintenance. ▶P.317

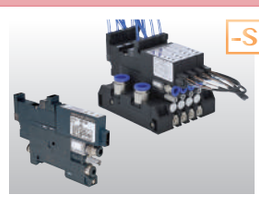
External vacuum controller



External Vacuum Controller VQP
31.5 mm wide vacuum unit suitable for controlling large flow. ▶P.326

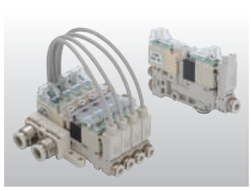


External Vacuum Controller VJP
Blow-off pressure can be controlled. ▶P.328



External Vacuum Controller VXP & VXPT
To realizes high-cycle vacuum system. ▶P.333

External vacuum controller



External Vacuum Controller VNP
Speedy and stable response is achieved. ▶P.342

External Vacuum Controller VZP
Designed for exclusive use with manifolds. Valve wiring are concentrated. ▶P.349

External Vacuum Controller VIP
Suitable for suction check of small work-pieces with built-in flow sensor. ▶P.355

*"-S3 spec. (Standard product)" means standard product spec. includes "-S3 spec.". "-S3 spec. (Optional)" means "-S3 spec." is selectable as an option. Please refer to page 6 for the details about "-S3 spec.".

Fitting

Fitting

Index

New ▶ New product

For general piping

Push-in type
Tube Fitting Standard ····· P.20
Tube Fitting Mini ····· P.29
Barb type
Minimal Fitting ····· P.34
Identification of release-ring
Color Cap ····· P.84
Piping support aids
Release Jig ····· P.85

For special environment

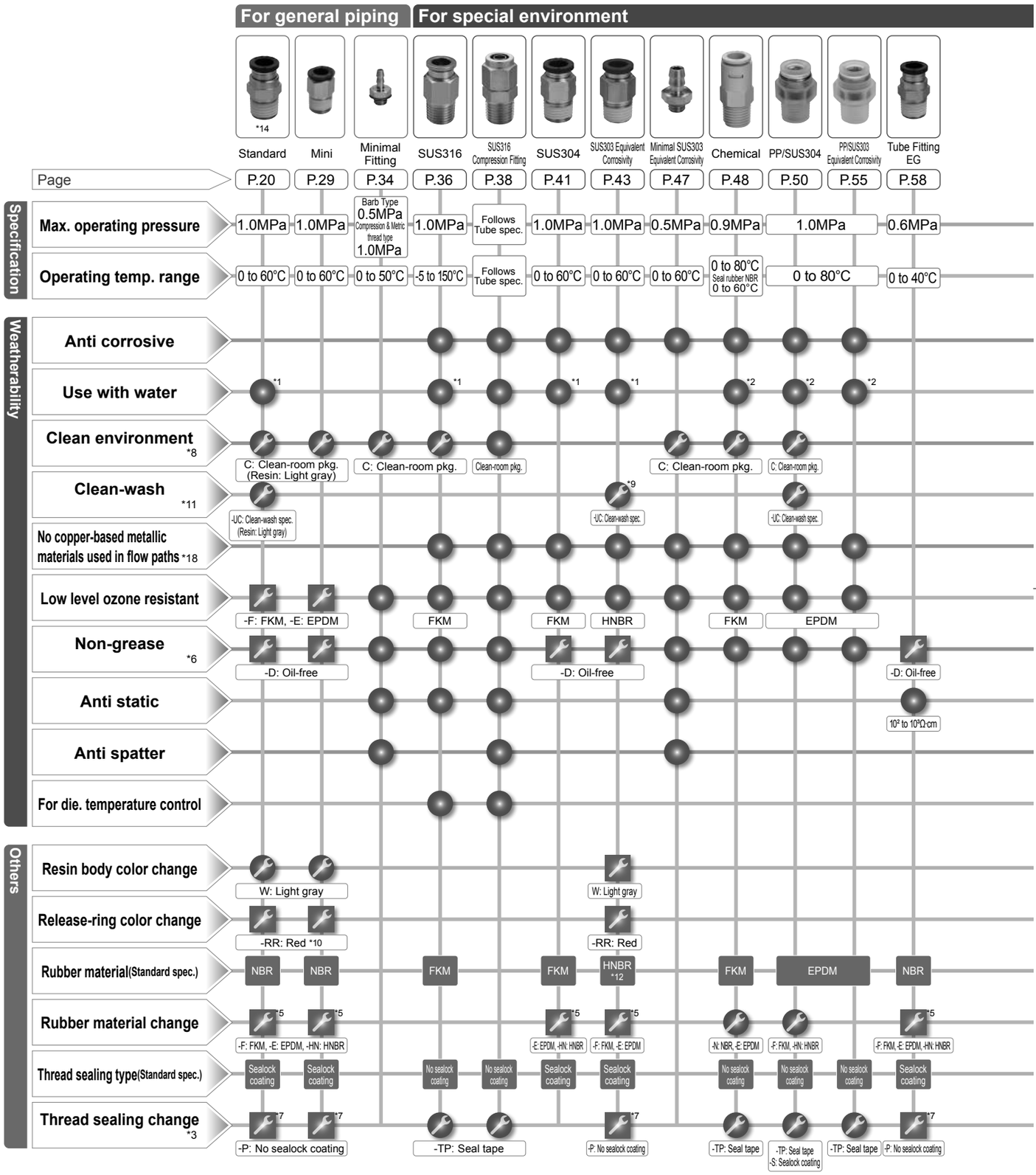
Anti corrosive
Tube Fitting SUS316 ····· P.36
Tube Fitting SUS316 Compression Fitting ····· P.38
Tube Fitting SUS304 ····· P.41
Tube Fitting Stainless SUS303 ····· P.43
Minimal Fitting Stainless SUS303 ····· P.47
Chemical resistan
Tube Fitting Chemical ····· P.48
For clean environment
Tube Fitting PP SUS304 ····· P.50
Tube Fitting PP SUS303 ····· P.55
For static electricity dissipation
Tube Fitting Anti-Static ····· P.58
Anti-spatter
Tube Fitting Anti-spatter ····· P.59
Tube Fitting Brass ····· P.60
All Brass Compression Fitting ····· P.63
For die. temperature control
Die Temperature Control Fitting ····· P.65
Tube Fitting Long ····· P.67
For Swiveling & Swinging part
Rotary Joint SUS304 ····· New P.70

Functional Fitting

Built-in stop mechanism
Stop Fitting ····· P.68
For Swiveling & Swinging part
Rotary Joint ····· P.69
High Rotary Joint ····· P.72
Multi-Circuit Rotary Block ····· P.73
Distribution
Main Block ····· P.74
2-Circuit Junction Block ····· P.76
Separation
Connector ····· P.78
Light Coupling ····· P.80

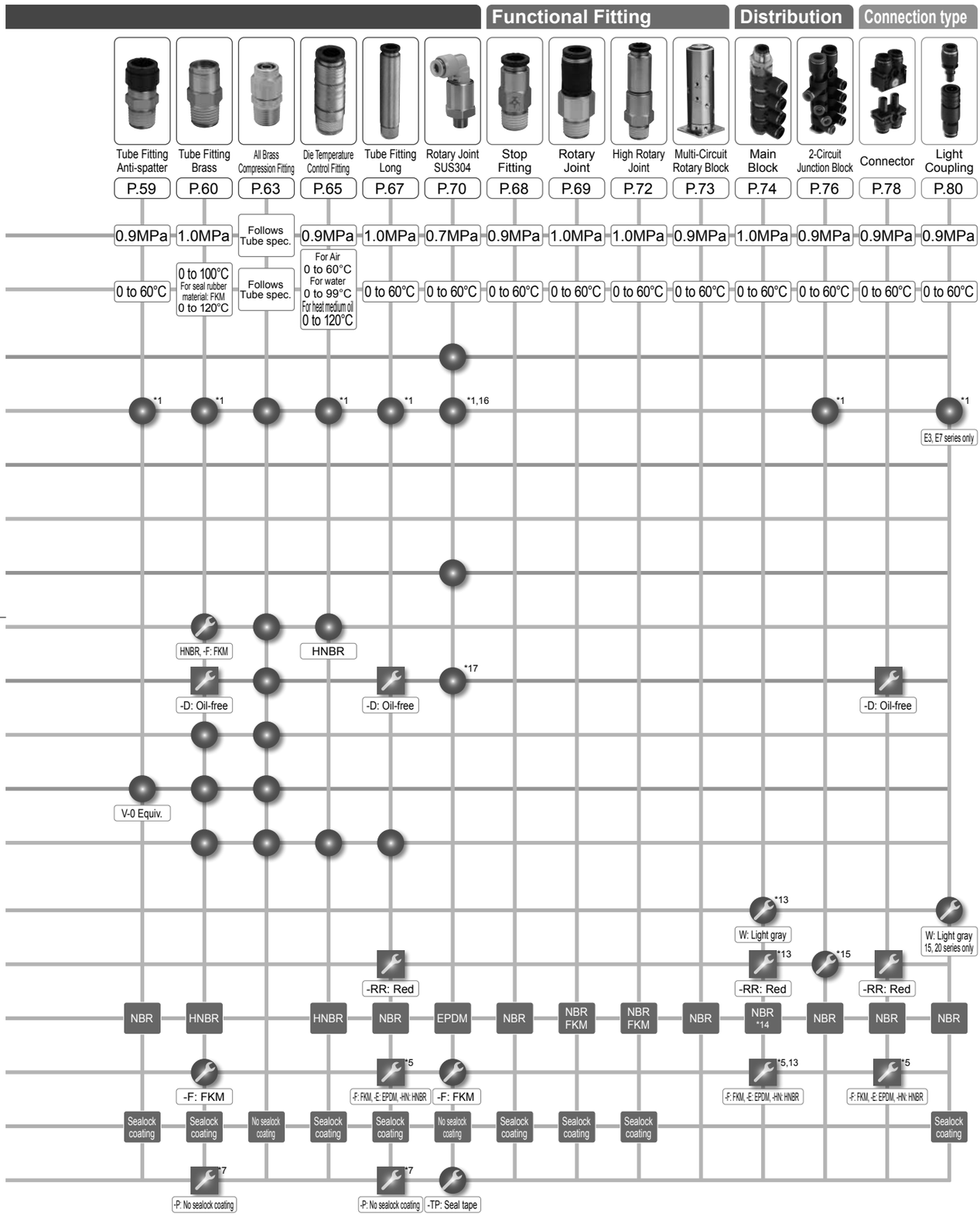
Quick Guide

Fitting Series Selection Guide



●: Standard ◐: Optional (Standard) ◐: Optional (Non-standard)

*1. Be sure to use PISCO's Insert Ring (WR).
*2. Use of PISCO's Insert Ring (WR) is recommended, except for the applications where metal-free for fluid contacting parts is required.
*3. Thread sealing change is available for R(PT) thread only.
*4. Gasket material corresponds to rubber material change.
*5. For EPDM (-E) specification, the product is assembled as oil-free specification, and not available with grease option.



*6. There is no intentional use of lubricants in the normal assembly process for oil-free spec. Therefore the problem of reducing airtightness or increasing frictions of rubber parts may be resulted.
*7. No sealock coating (-P) spec. is not available with Fluorine material (FKM).
*8. Make sure to evaluate the products in an actual system for the cleanliness level and dust emission.
*9. Clean -Wash is not suitable for some shapes.
*10. Only black resin body color is supported.
*11. Rubber material: FKM is not available for Clean-wash spec.
*12. NBR and FKM are partially used depending on the shape.
*13. Large bore type is excluded. HNBR is used for seal rubber material for the large bore type.
*14. Space-saving type spec. follows Tube Fitting Mini. Series
*15. Available only for 107 series, B and C types.
*16. Limited to water and other liquid specifications.
*17. Wetted fluid part only.
*18. No copper-based metallic materials used in flow paths.

Tube Fitting Standard

Push-in fitting for general pneumatic piping

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

P C 6 - 01 -C
(1) (2) (3) (4) (5)

(1) Tube Fitting Standard

(2) Type

(3) Tube dia. (øD, øD1, øD2)

	mm size (mm)						inch size (inch)							
Code	4	6	8	10	12	16	1/8	5/32	3/16	1/4	5/16	3/8	1/2	5/8
Tube O.D.	ø4	ø6	ø8	ø10	ø12	ø16	ø1/8	ø5/32	ø3/16	ø1/4	ø5/16	ø3/8	ø1/2	ø5/8

*In case that (3) indicates thread size, select thread size from table (4).

(4) Thread size (R, Rc, Rc1, Rc2)

	Metric thread		Taper pipe thread			
Code	M5	M6	01	02	03	04
Thread size	M5×0.8	M6×1	R1/8	R1/4	R3/8	R1/2

*For unequal union types, (4) is the tube size, which should be selected from the table in (3).

● We support unified thread, NPT and British standard pipe thread parallel on a make-to-order basis.

	UNF thread	National pipe thread tapered					British pipe thread parallel			
Code	U10U	N0U	N1U	N2U	N3U	N4U	G1	G2	G3	G4
Thread size	10-32UNF	NPT1/16	NPT1/8	NPT1/4	NPT3/8	NPT1/2	G1/8	G1/4	G3/8	G1/2

*Contact us for the price.

(5) Body color and Clean-wash & Clean-room pkg. spec. (Optional)

Code	No code	-C	W	W-C	-UC
Spec.	Standard	Clean-room package	Light gray	Light-gray & Clean-room pkg.	Clean-wash + Clean-room pkg.
Appearance spec.					
Release-ring color (*)	Black	Light blue	Light gray	Light gray	Light blue
Resin body color	Black	Light gray			

*Release-ring color is white for all spec. of inch-size products listed on the left.
*Clean-room pkg. spec. and Clean-wash spec. use special cosmetic bags for each. Code W-C is not selectable for inch sizes.

Code: No code (inch)
Code: -C, W, -UC (inch)

Characteristics

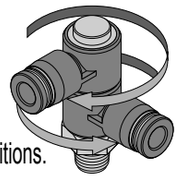
Standard type

This push-in fitting can be used in various pneumatic piping.

Various types are available.

The direction of the tubing can be changed freely.

As for some models, the direction of the tubing can be changed freely after installation.



Use with water is possible depending on the conditions.

General push-in fitting that can be used with water.
(Make sure to check the conditions in the specifications.)

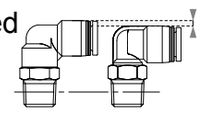
Centerized piping is possible.

Compact centralized piping is possible with Triple type (PKD, PKG, PKJ) and Twin Triple type (PKVD, PKVG).

Space saving type

Suitable for Installing in limited spaces.

*Please note that the structure and specifications are different from the standard type.



Clean-room pkg. spec. (Optional)

Best suited for piping in clean environment.

The products are assembled with fluorine grease, washed by clean air, then packed in ISO class 6 equivalent clean-room.

Clean-wash spec. (Optional)

For manufacturing process where particles and oil should be avoided.

The products goes through vacuum ultrasonic cleaning by HFE (hydro fluoro ether) in a clean-room and is packed with deaeration packaging.

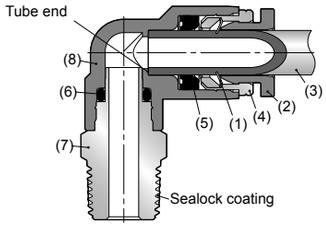
Specifications

Type	Standard	Space saving Optional
Fluid medium	Air, Water (Conditional*)	Air
Max. operating pressure	1.0 MPa	
Max. vacuum	-100 kPa	
Operating temp. range	0 to 60°C (no freezing)	

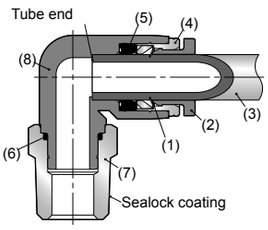
⚠ Warning
*Make sure to follow the instructions below when the fluid medium is water.
1. Surge pressure must be controlled lower than max. operating pressure when using water as a fluid medium.
2. General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
3. The gasket material of M and UNF threads is SUS304 & NBR or SPCC & NBR depending on the model as standard. (The material of cartridge PCC is POM). The gasket material of M and UNF threads for Clean-room pkg. spec. is POM as standard. Contact us for details.

Sectional drawing

Elbow type: PL



Elbow space saving type: PL-M



No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Polyurethane, Nylon, etc
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	O-ring	NBR
(7)	Metallic body	Nickel-plated brass
(8)	Resin body	PBT

*The gasket of M or UNF thread for Standard and Light gray spec. is made of SUS304 & NBR or SPCC & NBR as standard. The gasket material of M5 & M6 threads for Clean-room pkg. and Clean-wash spec. is POM as standard. Contact us for details.
*The gasket material of G threads is Aluminum & PBT.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code	
	PCøD-R□	PCøD-RU
Straight **PC**	PC4-M5□	PC5/32-U10U
	PC4-M50□*	PC5/32-N0U
	PC4-M6□	PC5/32-N1U
	PC4-01□	PC5/32-N2U
	PC4-02□	PC3/16-U10U
	PC6-M5□	PC3/16-N0U
	PC6-M6□	PC3/16-N1U
	PC6-01□	PC3/16-N2U
	PC6-02□	PC3/16-N3U
	PC6-03□	PC1/4-U10U
	PC8-01□	PC1/4-N0U
	PC8-02□	PC1/4-N1U
	PC8-03□	PC1/4-N2U
	PC10-01□	PC1/4-N3U
	PC10-02□	PC5/16-N1U
	PC10-03□	PC5/16-N2U
	PC10-04□	PC5/16-N3U
	PC12-02□	PC3/8-N1U
	PC12-03□	PC3/8-N2U
	PC12-04□	PC3/8-N3U
	PC16-03□	PC3/8-N4U
	PC16-04□	PC1/2-N2U
	PC5/32-M5□	PC1/2-N3U
	PC5/32-01□	PC1/2-N4U
	PC5/32-02□	PC5/8-N3U
Model code PCøD-R	PC3/16-M5□	PC5/8-N4U
	PC3/16-01□	PC4-N0U
PC4-G1	PC3/16-02□	PC4-N1U
PC6-G1	PC1/4-M5□	PC4-N2U
PC6-G2	PC1/4-01□	PC6-N0U
PC8-G1	PC1/4-02□	PC6-N1U
PC8-G2	PC1/4-03□	PC6-N2U
PC8-G3	PC5/16-01□	PC6-N3U
PC10-G2	PC5/16-02□	PC8-N1U
PC10-G3	PC5/16-03□	PC8-N2U
PC10-G4	PC3/8-01□	PC8-N3U
PC12-G2	PC3/8-02□	PC10-N1U
PC12-G3	PC3/8-03□	PC10-N2U
PC12-G4	PC3/8-04□	PC10-N3U
PC16-G3	PC1/2-02□	PC10-N4U
PC16-G4	PC1/2-03□	PC12-N2U
	PC1/2-04□	PC12-N3U
*PC4-M50□ is a slim type of PC4-M55□. (Wrench size: 8mm)	PC5/8-03□	PC12-N4U
	PC5/8-04□	PC16-N3U
		PC16-N4U

Type	Model code	
	PLøD-R□	PLøD-RU
Elbow **PL**	PL4-M5□	PL5/32-U10U
	PL4-M6□	PL5/32-N0U
	PL4-01□	PL5/32-N1U
	PL4-02□	PL5/32-N2U
	PL6-M5□	PL3/16-U10U
	PL6-M6□	PL3/16-N0U
	PL6-01□	PL3/16-N1U
	PL6-02□	PL3/16-N2U
	PL6-03□	PL3/16-N3U
	PL8-01□	PL1/4-U10U
	PL8-02□	PL1/4-N0U
	PL8-03□	PL1/4-N1U
	PL10-01□	PL1/4-N2U
	PL10-02□	PL1/4-N3U
	PL10-03□	PL5/16-N1U
	PL10-04□	PL5/16-N2U
	PL12-02□	PL5/16-N3U
	PL12-03□	PL3/8-N1U
	PL12-04□	PL3/8-N2U
	PL16-03□	PL3/8-N3U
	PL16-04□	PL3/8-N4U
	PL5/32-M5□	PL1/2-N2U
	PL5/32-01□	PL1/2-N3U
	PL5/32-02□	PL1/2-N4U
	PL3/16-M5□	PL5/8-N3U
	PL3/16-01□	PL5/8-N4U
	PL3/16-02□	PL4-U10U
Model code PLøD-R	PL1/4-M5□	PL4-N0U
	PL1/4-01□	PL4-N1U
PL4-G1	PL1/4-02□	PL4-N2U
PL6-G1	PL1/4-03□	PL6-U10U
PL6-G2	PL5/16-01□	PL6-N0U
PL8-G1	PL5/16-02□	PL6-N1U
PL8-G2	PL5/16-03□	PL6-N2U
PL8-G3	PL3/8-01□	PL6-N3U
PL10-G2	PL3/8-02□	PL8-N1U
PL10-G3	PL3/8-03□	PL8-N2U
PL10-G4	PL3/8-04□	PL8-N3U
PL12-G2	PL1/2-02□	PL8-N4U
PL12-G3	PL1/2-03□	PL10-N1U
PL12-G4	PL1/2-04□	PL10-N2U
PL16-G3	PL5/8-03□	PL10-N3U
PL16-G4	PL5/8-04□	PL10-N4U
		PL12-N2U
		PL12-N3U
		PL12-N4U
		PL16-N3U
		PL16-N4U

Type	Model code PLøD-RM
Elbow space saving type **PL-M**	PL8-01M
	PL8-02M
	PL8-03M
	PL10-02M
	PL10-03M

Type	Model code	
	PBøD-R□	PBøD-RU
Branch Tee **PB**	PB4-M5□	PB5/32-U10U
	PB4-M6□	PB5/32-N1U
	PB4-01□	PB5/32-N2U
	PB4-02□	PB3/16-U10U
	PB6-M5□	PB3/16-N1U
	PB6-M6□	PB3/16-N2U
	PB6-01□	PB3/16-N3U
	PB6-02□	PB1/4-U10U
	PB6-03□	PB1/4-N1U
	PB8-01□	PB1/4-N2U
	PB8-02□	PB1/4-N3U
	PB8-03□	PB5/16-N1U
	PB10-01□	PB5/16-N2U
	PB10-02□	PB5/16-N3U
	PB10-03□	PB3/8-N1U
	PB10-04□	PB3/8-N2U
	PB12-02□	PB3/8-N3U
	PB12-03□	PB3/8-N4U
	PB12-04□	PB1/2-N2U
	PB16-03□	PB1/2-N3U
	PB16-04□	PB1/2-N4U
	PB5/32-01□	PB4-N1U
	PB5/32-02□	PB4-N2U
	PB3/16-01□	PB6-N1U
Model code PBøD-R	PB3/16-02□	PB6-N2U
	PB1/4-01□	PB6-N3U
PB4-G1	PB1/4-02□	PB8-N1U
PB6-G1	PB1/4-03□	PB8-N3U
PB6-G2	PB5/16-01□	PB10-N2U
PB8-G1	PB5/16-02□	PB10-N3U
PB8-G2	PB5/16-03□	PB10-N4U
PB8-G3	PB3/8-01□	PB12-N3U
PB10-G2	PB3/8-02□	PB12-N4U
PB10-G3	PB3/8-03□	
PB12-G3	PB3/8-04□	
PB12-G4	PB1/2-02□	
PB16-G3	PB1/2-03□	
PB16-G4	PB1/2-04□	

Type	Model code PBøD-RM
Branch Tee space saving type **PB-M**	PB8-01M
	PB8-02M
	PB8-03M
	PB10-02M
	PB10-03M

CAD data is available at PISCO website.

Packaging specifications
10 pcs. /bag: Standard and Light gray spec.
10 pcs. (individual packaging) /bag: Clean-room pkg. spec. and Light gray & Clean-room pkg. spec.
1 pc. /bag: Clean-wash spec.

Options

Code	□ : -C	□ : -UC	□ : W	□ : W-C
Specifications	Clean-room pkg. (Fill in □ with "-C".)	Clean-wash & Clean-room pkg. * (Fill in □ with "-UC".)	Light gray (Fill in □ with "W".)	Light gray & Clean-room pkg. (Fill in □ with "W-C".)

*Rubber material: FKM is not available for Clean-wash spec.

Non-standard options (details ► P.893)
· Seal rubber material options: FKM, EPDM or HNBR
· Oil-free
· Copper free spec.
· Release-ring color change (Red)
►Contact us for the price.

Tube Fitting Standard

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code PDøD-R[5]	Model code PDøD-RU
Run Tee **PD**	PD4-M5[5]	PD5/32-U10U
	PD4-M6[5]	PD5/32-N1U
	PD4-01[5]	PD5/32-N2U
	PD4-02[5]	PD3/16-U10U
	PD6-M5[5]	PD3/16-N1U
	PD6-M6[5]	PD3/16-N2U
	PD6-01[5]	PD3/16-N3U
	PD6-02[5]	PD1/4-U10U
	PD6-03[5]	PD1/4-N1U
	PD8-01[5]	PD1/4-N2U
	PD8-02[5]	PD1/4-N3U
	PD8-03[5]	PD5/16-N1U
	PD10-01[5]	PD5/16-N2U
	PD10-02[5]	PD5/16-N3U
	PD10-03[5]	PD3/8-N1U
	PD10-04[5]	PD3/8-N2U
	PD12-02[5]	PD3/8-N3U
	PD12-03[5]	PD3/8-N4U
	PD12-04[5]	PD1/2-N2U
	PD16-03[5]	PD1/2-N3U
	PD16-04[5]	PD1/2-N4U
	PD5/32-01[5]	PD6-N1U
	PD5/32-02[5]	PD6-N2U
	PD3/16-01[5]	PD6-N3U
	PD3/16-02[5]	PD8-N1U
Model code PDøD-R	PD1/4-01[5]	PD8-N2U
	PD1/4-02[5]	PD8-N3U
PD4-G1	PD1/4-03[5]	PD10-N2U
PD6-G1	PD5/16-01[5]	PD10-N3U
PD6-G2	PD5/16-02[5]	
PD8-G1	PD5/16-03[5]	
PD8-G2	PD3/8-01[5]	
PD8-G3	PD3/8-02[5]	
PD10-G2	PD3/8-03[5]	
PD10-G3	PD3/8-04[5]	
PD12-G3	PD1/2-02[5]	
PD12-G4	PD1/2-03[5]	
PD16-G4	PD1/2-04[5]	

Type	Model code PDøD-RM
Run Tee space saving type **PD-M**	PD8-01M
	PD8-02M
	PD8-03M
	PD10-02M
	PD10-03M

Type	Model code PXøD-R[5]	Model code PXøD-RU
Branch Y **PX**	PX4-M5[5]	PX5/32-U10U
	PX4-M6[5]	PX5/32-N1U
	PX4-01[5]	PX5/32-N2U
	PX4-02[5]	PX3/16-U10U
	PX6-M5[5]	PX3/16-N1U
	PX6-M6[5]	PX3/16-N2U
	PX6-01[5]	PX3/16-N3U
	PX6-02[5]	PX1/4-U10U
	PX6-03[5]	PX1/4-N1U
	PX8-01[5]	PX1/4-N2U
	PX8-02[5]	PX1/4-N3U
	PX8-03[5]	PX5/16-N1U
	PX10-01[5]	PX5/16-N2U
	PX10-02[5]	PX5/16-N3U
	PX10-03[5]	PX3/8-N1U
	PX10-04[5]	PX3/8-N2U
	PX12-02[5]	PX3/8-N3U
	PX12-03[5]	PX3/8-N4U
	PX12-04[5]	PX1/2-N2U
	PX16-03[5]	PX1/2-N3U
	PX16-04[5]	PX1/2-N4U
	PX5/32-01[5]	PX6-N1U
	PX5/32-02[5]	PX6-N2U
	PX3/16-01[5]	PX6-N3U
	PX3/16-02[5]	PX8-N2U
	PX1/4-01[5]	PX8-N3U
Model code PXøD-R	PX1/4-02[5]	PX10-N1U
	PX1/4-03[5]	PX10-N2U
PX4-G1	PX5/16-01[5]	PX10-N4U
PX6-G1	PX5/16-02[5]	PX12-N4U
PX6-G2	PX5/16-03[5]	PX16-N4U
PX8-G1	PX3/8-01[5]	
PX8-G2	PX3/8-02[5]	
PX8-G3	PX3/8-03[5]	
PX10-G2	PX3/8-04[5]	
PX10-G3	PX1/2-02[5]	
PX12-G3	PX1/2-03[5]	
PX12-G4	PX1/2-04[5]	

Type	Model code PUøD[5]
Union Straight **PU**	PU4[5]
	PU6[5]
	PU8[5]
	PU10[5]
	PU12[5]
	PU16[5]
	PU5/32[5]
	PU3/16[5]
	PU1/4[5]
	PU5/16[5]
	PU3/8[5]
	PU1/2[5]
	PU5/8[5]

Type	Model code POCøD-R[5]	Model code POCøD-RU
Inner Hex. Straight **POC**	POC4-M5[5]	POC5/32-U10U
	POC4-M6[5]	POC5/32-N1U
	POC4-01[5]	POC3/16-U10U
	POC6-M5[5]	POC3/16-N1U
	POC6-M6[5]	POC1/4-U10U
	POC6-01[5]	POC1/4-N1U
	POC6-02[5]	POC1/4-N2U
	POC8-01[5]	POC5/16-N1U
	POC8-02[5]	POC5/16-N2U
	POC8-03[5]	POC5/16-N3U
	POC10-01[5]	POC3/8-N1U
	POC10-02[5]	POC3/8-N2U
	POC10-03[5]	POC3/8-N3U
	POC10-04[5]	POC3/8-N4U
	POC12-02[5]	POC1/2-N2U
Model code POCøD-R	POC12-03[5]	POC1/2-N3U
	POC12-04[5]	POC1/2-N4U
POC4-G1	POC16-03[5]	POC4-U10U
POC6-G1	POC16-04[5]	POC6-U10U
POC6-G2	POC3/16-01[5]	POC6-N1U
POC8-G1	POC1/4-M5[5]	POC6-N2U
POC8-G2	POC1/4-01[5]	POC8-N1U
POC8-G3	POC1/4-02[5]	POC8-N2U
POC10-G1	POC5/16-01[5]	POC12-N3U
POC10-G2	POC5/16-02[5]	POC12-N3U
POC10-G3	POC5/16-03[5]	
POC12-G3	POC3/8-02[5]	
POC12-G4	POC3/8-03[5]	
	POC3/8-04[5]	

Type	Model code PGøD1-øD2[5]
Unequal Union Straight **PG**	PG6-4[5]
	PG8-4[5]
	PG8-6[5]
	PG10-6[5]
	PG10-8[5]
	PG12-8[5]
	PG12-10[5]
	PG16-10[5]
	PG16-12[5]
	PG12-3/8[5]
	PG1/4-4[5]
	PG3/16-5/32[5]
	PG1/4-3/16[5]
	PG1/4-5/32[5]
	PG5/16-3/16[5]
	PG5/16-1/4[5]
	PG3/8-1/4[5]
	PG3/8-5/16[5]
	PG1/2-1/4[5]
	PG1/2-5/16[5]
	PG1/2-3/8[5]
	PG5/8-1/2[5]

CAD 2D 3D CAD data is available at PISCO website.

Package Packaging specifications
10 pcs. /bag: Standard and Light gray spec.
10 pcs. (individual packaging) /bag: Clean-room pkg. spec. and Light gray & Clean-room pkg. spec.
1 pc. /bag: Clean-wash spec.

Option Options

Code	[5] : -C	[5] : -UC	[5] : W	[5] : W-C
Specifications	Clean-room pkg. (Fill in [5] with "-C".)	Clean-wash & Clean-room pkg. * (Fill in [5] with "-UC".)	Light gray (Fill in [5] with "W".)	Light gray & Clean-room pkg. (Fill in [5] with "W-C".)

*Rubber material: FKM is not available for Clean-wash spec.

Order Non-standard options (details ► P.893)
· Seal rubber material options: FKM, EPDM or HNBR
· Oil-free
· Copper free spec.
· Release-ring color change (Red)
►Contact us for the price.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code	
	PHøD-R[5]	PHøD-RU
Single Banjo **PH**	PH4-M5[5]	PH5/32-U10U
	PH4-M6[5]	PH5/32-N1U
	PH4-01[5]	PH3/16-U10U
	PH6-M5[5]	PH3/16-N1U
	PH6-M6[5]	PH3/16-N2U
	PH6-01[5]	PH1/4-U10U
	PH6-02[5]	PH1/4-N1U
	PH8-01[5]	PH1/4-N2U
	PH8-02[5]	PH1/4-N3U
	PH8-03[5]	PH5/16-N1U
	PH10-02[5]	PH5/16-N2U
	PH10-03[5]	PH5/16-N3U
	PH12-03[5]	PH3/8-N2U
	PH12-04[5]	PH3/8-N3U
	PH16-03[5]	PH1/2-N3U
	PH16-04[5]	PH1/2-N4U
	PH5/32-M5[5]	PH4-N1U
	PH5/32-01[5]	PH6-U10U
Model code PHøD-R	PH3/16-M5[5]	PH6-N1U
	PH3/16-01[5]	PH6-N2U
PH4-G1	PH3/16-02[5]	PH8-N1U
PH6-G1	PH1/4-M5[5]	PH8-N2U
PH6-G2	PH1/4-01[5]	PH8-N3U
PH8-G1	PH1/4-02[5]	PH10-N2U
PH8-G2	PH5/16-01[5]	PH10-N3U
PH8-G3	PH5/16-02[5]	
PH10-G2	PH5/16-03[5]	
PH10-G3	PH3/8-02[5]	
PH12-G3	PH3/8-03[5]	
PH12-G4	PH1/2-03[5]	
PH16-G4	PH1/2-04[5]	

Type	Model code	
	POLøD-R[5]	POLøD-RU
Hex. Holed Banjo **POL**	POL4-M5[5]	POL1/4-N1U
	POL6-01[5]	POL1/4-N2U
	POL6-02[5]	POL5/16-N1U
	POL8-01[5]	POL3/8-N2U
	POL8-02[5]	POL8-N1U
	POL8-03[5]	POL12-N3U
	POL10-02[5]	POL6-N1U
	POL10-03[5]	POL6-N2U
	POL12-03[5]	POL10-N2U
	POL12-04[5]	

Type	Model code	
	PHFøD-R&Rc[5]	PHFøD-R&Rc (U)
Link-up Banjo **PHF** Rc	PHF4-M5[5]	PHF4-G1
	PHF4-01[5]	PHF6-G1
	PHF6-M5[5]	PHF6-G2
	PHF6-01[5]	PHF8-G1
	PHF6-02[5]	PHF8-G2
	PHF8-01[5]	PHF8-G3
	PHF8-02[5]	PHF10-G2
	PHF8-03[5]	PHF10-G3
	PHF10-02[5]	PHF12-G3
	PHF10-03[5]	PHF12-G4
	PHF12-03[5]	PHF1/4-N1U
	PHF12-04[5]	PHF3/8-N2U
	PHF5/32-M5[5]	PHF3/8-N3U
	PHF5/32-01[5]	
	PHF3/16-M5[5]	
	PHF3/16-01[5]	
	PHF3/16-02[5]	
	PHF1/4-M5[5]	
	PHF1/4-01[5]	
	PHF1/4-02[5]	
	PHF5/16-01[5]	
	PHF5/16-02[5]	
	PHF5/16-03[5]	
	PHF3/8-02[5]	
	PHF3/8-03[5]	
	PHF1/2-03[5]	
	PHF1/2-04[5]	

Type	Model code
	PVøD[5]
Union Elbow **PV**	PV4[5]
	PV6[5]
	PV8[5]
	PV10[5]
	PV12[5]
	PV16[5]
	PV5/32[5]
	PV3/16[5]
	PV1/4[5]
	PV5/16[5]
	PV3/8[5]
	PV1/2[5]

Type	Model code	
	PLLøD-R[5]	PLLøD-RU
Long Elbow **PLL**	PLL4-M5[5]	PLL5/32-U10U
	PLL4-01[5]	PLL5/32-N1U
	PLL4-02[5]	PLL5/32-N2U
	PLL6-M5[5]	PLL3/16-U10U
	PLL6-01[5]	PLL3/16-N1U
	PLL6-02[5]	PLL3/16-N2U
	PLL6-03[5]	PLL3/16-N3U
	PLL8-01[5]	PLL1/4-U10U
	PLL8-02[5]	PLL1/4-N1U
	PLL8-03[5]	PLL1/4-N2U
	PLL10-01[5]	PLL1/4-N3U
	PLL10-02[5]	PLL5/16-N1U
	PLL10-03[5]	PLL5/16-N2U
	PLL10-04[5]	PLL5/16-N3U
	PLL12-02[5]	PLL3/8-N1U
	PLL12-03[5]	PLL3/8-N2U
	PLL12-04[5]	PLL3/8-N3U
	PLL16-03[5]	PLL3/8-N4U
	PLL16-04[5]	PLL1/2-N2U
	PLL5/32-01[5]	PLL1/2-N3U
	PLL5/32-02[5]	PLL1/2-N4U
	PLL3/16-01[5]	PLL6-N1U
	PLL3/16-02[5]	PLL6-N2U
Model code PLLøD-R	PLL1/4-01[5]	PLL6-N3U
	PLL1/4-02[5]	PLL8-N1U
PLL4-G1	PLL1/4-03[5]	PLL8-N2U
PLL6-G1	PLL5/16-01[5]	PLL10-N2U
PLL6-G2	PLL5/16-02[5]	PLL10-N3U
PLL8-G1	PLL5/16-03[5]	PLL12-N3U
PLL8-G2	PLL3/8-01[5]	
PLL8-G3	PLL3/8-02[5]	
PLL10-G2	PLL3/8-03[5]	
PLL10-G3	PLL3/8-04[5]	
PLL12-G3	PLL1/2-02[5]	
PLL12-G4	PLL1/2-03[5]	
PLL16-G4	PLL1/2-04[5]	

Type	Model code	
	PLHøD-R[5]	PLHøD-RU
45°Elbow **PLH**	PLH8-01[5]	PLH1/4-N1U
	PLH8-02[5]	PLH1/4-N2U
	PLH8-03[5]	PLH8-N1U
	PLH10-01[5]	PLH8-N2U
	PLH10-02[5]	PLH12-N3U
	PLH10-03[5]	
	PLH10-04[5]	
	PLH12-02[5]	
	PLH12-03[5]	
	PLH12-04[5]	
	PLH16-03[5]	
	PLH16-04[5]	

CAD data is available at PISCO website.

Packaging specifications
10 pcs. /bag: Standard and Light gray spec.
10 pcs. (individual packaging) /bag: Clean-room pkg. spec. and Light gray & Clean-room pkg. spec.
1 pc. /bag: Clean-wash spec.

Options

Code	[5] : -C	[5] : -UC	[5] : W	[5] : W-C
Specifications	Clean-room pkg. (Fill in [5] with "-C".)	Clean-wash & Clean-room pkg. * (Fill in [5] with "-UC".)	Light gray (Fill in [5] with "W".)	Light gray & Clean-room pkg. (Fill in [5] with "W-C".)

*Rubber material: FKM is not available for Clean-wash spec.

Non-standard options (details ► P.893)
· Seal rubber material options: FKM, EPDM or HNBR
· Oil-free
· Copper free spec.
· Release-ring color change (Red)
►Contact us for the price.

Tube Fitting Standard

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code PEøD[5]
Union Tee **PE**	PE4[5]
	PE6[5]
	PE8[5]
	PE10[5]
	PE12[5]
	PE16[5]
	PE5/32[5]
	PE3/16[5]
	PE1/4[5]
	PE5/1[5]
	PE3/8[5]
	PE1/2[5]

Type	Model code PYøD[5]
Union Y **PY**	PY4[5]
	PY6[5]
	PY8[5]
	PY10[5]
	PY12[5]
	PY16[5]
	PY5/32[5]
	PY3/16[5]
	PY1/4[5]
	PY5/16[5]
	PY3/8[5]
	PY1/2[5]

Type	Model code PAUøD[5]
Branch Union Elbow **PAU**	PAU4[5]
	PAU6[5]
	PAU8[5]
	PAU10[5]
	PAU12[5]
	PAU5/32[5]
	PAU3/16[5]
	PAU1/4[5]
	PAU5/16[5]
	PAU3/8[5]
	PAU1/2[5]

Type	Model code PVUøD[5]
Tripod Union **PVU**	PVU4[5]
	PVU6[5]
	PVU8[5]
	PVU10[5]
	PVU12[5]
	PVU5/32[5]
	PVU3/16[5]
	PVU1/4[5]
	PVU5/16[5]
	PVU3/8[5]
	PVU1/2[5]

Type	Model code PEGøD1-øD2[5]
Unequal Union Tee **PEG**	PEG4-6[5]
	PEG6-4[5]
	PEG6-8[5]
	PEG8-4[5]
	PEG8-6[5]
	PEG8-10[5]
	PEG10-6[5]
	PEG10-8[5]
	PEG10-12[5]
	PEG12-8[5]
	PEG12-10[5]
	PEG12-16[5]
	PEG16-10[5]
	PEG16-12[5]
	PEG5/32-3/16[5]
	PEG5/32-1/4[5]
	PEG3/16-5/32[5]
	PEG3/16-1/4[5]
	PEG1/4-3/16[5]
	PEG1/4-5/32[5]
	PEG1/4-5/16[5]
	PEG5/16-5/32[5]
	PEG5/16-3/16[5]
	PEG5/16-1/4[5]
	PEG5/16-3/8[5]
	PEG3/8-1/4[5]
	PEG3/8-5/16[5]
	PEG3/8-1/2[5]
	PEG1/2-5/16[5]
	PEG1/2-3/8[5]

Type	Model code PWøD1-øD2[5]
Unequal Union Y **PW**	PW6-4[5]
	PW8-4[5]
	PW8-6[5]
	PW10-6[5]
	PW10-8[5]
	PW12-8[5]
	PW12-10[5]
	PW16-12[5]
	PW1/4-4[5]
	PW3/16-5/32[5]
	PW1/4-3/16[5]
	PW1/4-5/32[5]
	PW5/16-5/32[5]
	PW5/16-1/4[5]
	PW3/8-1/4[5]
	PW3/8-5/16[5]
	PW1/2-5/16[5]
	PW1/2-3/8[5]

Type	Model code PAXøD-R[5]	Model code PAXøD-RU
Branch Elbow **PAX**	PAX4-M5[5]	PAX5/32-U10U
	PAX4-M6[5]	PAX5/32-N1U
	PAX4-01[5]	PAX5/32-N2U
	PAX4-02[5]	PAX3/16-U10U
	PAX6-M5[5]	PAX3/16-N1U
	PAX6-M6[5]	PAX3/16-N2U
	PAX6-01[5]	PAX3/16-N3U
	PAX6-02[5]	PAX1/4-U10U
	PAX6-03[5]	PAX1/4-N1U
	PAX8-01[5]	PAX1/4-N2U
	PAX8-02[5]	PAX1/4-N3U
	PAX8-03[5]	PAX5/16-N1U
	PAX10-01[5]	PAX5/16-N2U
	PAX10-02[5]	PAX5/16-N3U
	PAX10-03[5]	PAX3/8-N1U
	PAX10-04[5]	PAX3/8-N2U
	PAX12-02[5]	PAX3/8-N3U
	PAX12-03[5]	PAX3/8-N4U
	PAX12-04[5]	PAX1/2-N2U
		PAX1/2-N3U
		PAX1/2-N4U
		PAX4-N1U
		PAX6-N1U
		PAX6-N2U
		PAX10-N3U

Type	Model code PAXøD-R
	PAX4-G1
	PAX6-G1
	PAX6-G2
	PAX8-G1
	PAX8-G2
	PAX8-G3
	PAX10-G2
	PAX10-G3
	PAX12-G3
	PAX12-G4

Type	Model code PVXøD-R[5]	Model code PVXøD-RU
Tripod Elbow **PVX**	PVX4-M5[5]	PVX5/32-U10U
	PVX4-M6[5]	PVX5/32-N1U
	PVX4-01[5]	PVX5/32-N2U
	PVX4-02[5]	PVX3/16-U10U
	PVX6-M5[5]	PVX3/16-N1U
	PVX6-M6[5]	PVX3/16-N2U
	PVX6-01[5]	PVX3/16-N3U
	PVX6-02[5]	PVX1/4-U10U
	PVX6-03[5]	PVX1/4-N1U
	PVX8-01[5]	PVX1/4-N2U
	PVX8-02[5]	PVX1/4-N3U
	PVX8-03[5]	PVX5/16-N1U
	PVX10-01[5]	PVX5/16-N2U
	PVX10-02[5]	PVX5/16-N3U
	PVX10-03[5]	PVX3/8-N1U
	PVX10-04[5]	PVX3/8-N2U
	PVX12-02[5]	PVX3/8-N3U
	PVX12-03[5]	PVX3/8-N4U
	PVX12-04[5]	PVX1/2-N2U
		PVX1/2-N3U
		PVX1/2-N4U
		PVX4-U10U

CAD data is available at PISCO website.

Packaging specifications
10 pcs /bag: Standard and Light gray spec.
10 pcs. (individual packaging) /bag: Clean-room pkg. spec. and Light gray & Clean-room pkg. spec.
1 pc. /bag: Clean-wash spec.

Options

Code	5 : -C	5 : -UC	5 : W	5 : W-C
Specifications	Clean-room pkg. (Fill in 5 with "-C".)	Clean-wash & Clean-room pkg. * (Fill in 5 with "-UC".)	Light gray (Fill in 5 with "W".)	Light gray & Clean-room pkg. (Fill in 5 with "W-C".)

*Rubber material: FKM is not available for Clean-wash spec.

Non-standard options (details ► P.893)
· Seal rubber material options: FKM, EPDM or HNBR
· Oil-free
· Copper free spec.
· Release-ring color change (Red)
►Contact us for the price.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code	
	PLFøD-Rc[5]	PLFøD-RcU
Female Elbow **PLF**	PLF4-M5[5]	PLF5/32-U10U
	PLF4-M6[5]	PLF5/32-N1U
	PLF4-01[5]	PLF5/32-N2U
	PLF4-02[5]	PLF3/16-U10U
	PLF6-M5[5]	PLF3/16-N1U
	PLF6-M6[5]	PLF3/16-N2U
	PLF6-01[5]	PLF3/16-N3U
	PLF6-02[5]	PLF1/4-U10U
	PLF6-03[5]	PLF1/4-N1U
	PLF8-01[5]	PLF1/4-N2U
	PLF8-02[5]	PLF1/4-N3U
	PLF8-03[5]	PLF5/16-N1U
	PLF10-02[5]	PLF5/16-N2U
	PLF10-03[5]	PLF5/16-N3U
	PLF10-04[5]	PLF3/8-N2U
	PLF12-02[5]	PLF3/8-N3U
	PLF12-03[5]	PLF3/8-N4U
	PLF12-04[5]	PLF1/2-N2U
	PLF5/32-M5[5]	PLF1/2-N3U
	PLF5/32-01[5]	PLF1/2-N4U
	PLF5/32-02[5]	PLF4-N1U
	PLF3/16-M5[5]	PLF4-N2U
	PLF3/16-01[5]	PLF6-N1U
	PLF3/16-02[5]	PLF6-N2U
	PLF3/16-03[5]	PLF6-N3U
	PLF1/4-M5[5]	PLF8-N1U
	PLF1/4-01[5]	PLF8-N2U
	PLF1/4-02[5]	PLF8-N3U
Model code PLFøD-Rc	PLF1/4-03[5]	PLF10-N2U
PLF4-G1	PLF5/16-01[5]	PLF12-N2U
PLF6-G1	PLF5/16-02[5]	PLF12-N3U
PLF6-G2	PLF5/16-03[5]	
PLF8-G1	PLF3/8-02[5]	
PLF8-G2	PLF3/8-03[5]	
PLF8-G3	PLF3/8-04[5]	
PLF10-G2	PLF1/2-02[5]	
PLF10-G3	PLF1/2-03[5]	
	PLF1/2-04[5]	

Type	Model code	
	PCFøD-Rc[5]	PCFøD-RcU
Female Straight **PCF**	PCF4-M5[5]	PCF5/32-U10U
	PCF4-01[5]	PCF5/32-N1U
	PCF4-02[5]	PCF5/32-N2U
	PCF6-M5[5]	PCF3/16-U10U
	PCF6-01[5]	PCF3/16-N1U
	PCF6-02[5]	PCF3/16-N2U
	PCF6-03[5]	PCF1/4-U10U
	PCF8-01[5]	PCF1/4-N1U
	PCF8-02[5]	PCF1/4-N2U
	PCF8-03[5]	PCF1/4-N3U
	PCF10-02[5]	PCF5/16-N1U
	PCF10-03[5]	PCF5/16-N2U
	PCF12-02[5]	PCF5/16-N3U
	PCF12-03[5]	PCF3/8-N1U
	PCF12-04[5]	PCF3/8-N2U
	PCF16-03[5]	PCF3/8-N3U
Model code PCFøD-Rc	PCF16-04[5]	PCF1/2-N2U
PCF4-G1	PCF5/32-01[5]	PCF1/2-N3U
PCF4-G2	PCF5/32-02[5]	PCF1/2-N4U
PCF6-G1	PCF3/16-01[5]	PCF4-N1U
PCF6-G2	PCF3/16-02[5]	PCF4-N2U
PCF6-G3	PCF1/4-01[5]	PCF6-N1U
PCF8-G1	PCF1/4-02[5]	PCF6-N2U
PCF8-G2	PCF1/4-03[5]	PCF8-N1U
PCF8-G3	PCF5/16-01[5]	PCF8-N2U
PCF10-G2	PCF5/16-02[5]	PCF8-N3U
PCF10-G3	PCF5/16-03[5]	PCF10-N2U
PCF12-G2	PCF3/8-02[5]	PCF12-N2U
PCF12-G3	PCF3/8-03[5]	PCF12-N3U
PCF12-G4	PCF1/2-02[5]	
PCF16-G4	PCF1/2-03[5]	
	PCF1/2-04[5]	

Type	Model code	
	PMFøD-Rc[5]	PMFøD-RcU
Bulkhead Female Straight **PMF**	PMF4-01[5]	PMF5/32-N1U
	PMF4-02[5]	PMF5/32-N2U
	PMF6-01[5]	PMF3/16-N1U
	PMF6-02[5]	PMF3/16-N2U
	PMF6-03[5]	PMF1/4-N1U
	PMF8-01[5]	PMF1/4-N2U
	PMF8-02[5]	PMF1/4-N3U
	PMF8-03[5]	PMF5/16-N1U
	PMF10-02[5]	PMF5/16-N2U
Model code PMFøD-Rc	PMF10-03[5]	PMF5/16-N3U
PMF4-G1	PMF12-02[5]	PMF3/8-N1U
PMF4-G2	PMF12-03[5]	PMF3/8-N2U
PMF6-G1	PMF12-04[5]	PMF3/8-N3U
PMF6-G2	PMF16-03[5]	PMF1/2-N2U
PMF6-G3	PMF16-04[5]	PMF1/2-N3U
PMF8-G1	PMF1/4-015[5]	PMF1/2-N4U
PMF8-G2	PMF1/4-02[5]	PMF4-N1U
PMF8-G3	PMF3/8-02[5]	PMF6-N1U
PMF10-G2	PMF3/8-03[5]	PMF6-N2U
PMF10-G3		PMF8-N2U
PMF12-G3		PMF8-N3U
PMF12-G4		PMF10-N2U
PMF16-G4		PMF10-N3U

Type	Model code	
	PMøD[5]	PMøDU
Bulkhead Union **PM**	PM4[5]	PM5/32U
	PM6[5]	PM3/16U
	PM8[5]	PM1/4U
	PM10[5]	PM5/16U
	PM12[5]	PM3/8U
	PM16[5]	PM1/2U
	PM5/32[5]	
	PM3/16[5]	
	PM1/4[5]	
	PM5/16[5]	
	PM3/8[5]	
	PM1/2[5]	

Type	Model code PMPøD[5]
Bulkhead Union P **PMP**	PMP4[5]
	PMP6[5]
	PMP8[5]
	PMP10[5]
	PMP12[5]
	PMP5/32[5]
	PMP1/4[5]
	PMP5/16[5]
	PMP3/8[5]
	PMP1/2[5]

Type	Model code PMLøD[5]
Bulkhead Union Elbow **PML**	PML4[5]
	PML6[5]
	PML8[5]
	PML10[5]
	PML12[5]
	PML5/32[5]
	PML1/4[5]
	PML5/16[5]
	PML3/8[5]
	PML1/2[5]

CAD data is available at PISCO website.

Packaging specifications

10 pcs. /bag: Standard and Light gray spec.
10 pcs. (individual packaging) /bag: Clean-room pkg. spec. and Light gray & Clean-room pkg. spec.
1 pc. /bag: Clean-wash spec.

Options

Code	[5] : -C	[5] : -UC	[5] : W	[5] : W-C
Specifications	Clean-room pkg. (Fill in [5] with "-C".)	Clean-wash & Clean-room pkg. * (Fill in [5] with "-UC".)	Light gray (Fill in [5] with "W".)	Light gray & Clean-room pkg. (Fill in [5] with "W-C".)

*Rubber material: FKM is not available for Clean-wash spec.

Non-standard options (details ► P.893)

· Seal rubber material options: FKM, EPDM or HNBR
· Oil-free
· Copper free spec.
· Release-ring color change (Red)

►Contact us for the price.

Tube Fitting Standard

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code PGJøD$_2$-øD$_1$[5]
Unequal Plug-in Straight **PGJ**	PGJ4-6[5]
	PGJ6-4[5]
	PGJ6-8[5]
	PGJ8-4[5]
	PGJ8-6[5]
	PGJ8-10[5]
	PGJ10-4[5]
	PGJ10-6[5]
	PGJ10-8[5]
	PGJ10-12[5]
	PGJ12-6[5]
	PGJ12-8[5]
	PGJ12-10[5]
	PGJ16-10[5]
	PGJ16-12[5]
	PGJ8-$^1/_4$[5]
	PGJ10-$^1/_4$[5]
	PGJ10-$^5/_{16}$[5]
	PGJ12-$^1/_4$[5]
	PGJ12-$^5/_{16}$[5]
	PGJ12-$^3/_8$[5]
	PGJ$^1/_4$-$^5/_{32}$[5]
	PGJ$^5/_{16}$-$^5/_{32}$[5]
	PGJ$^5/_{16}$-$^1/_4$[5]
	PGJ$^3/_8$-$^1/_4$[5]
	PGJ$^3/_8$-$^5/_{16}$[5]
	PGJ$^1/_2$-$^1/_4$[5]
	PGJ$^1/_2$-$^5/_{16}$[5]
	PGJ$^1/_2$-$^3/_8$[5]

Type	Model code PLJøD[5]
Plug-in Elbow **PLJ**	PLJ4[5]
	PLJ6[5]
	PLJ8[5]
	PLJ10[5]
	PLJ12[5]
	PLJ16[5]
	PLJ$^5/_{32}$[5]
	PLJ$^1/_4$[5]
	PLJ$^5/_{16}$[5]
	PLJ$^3/_8$[5]
	PLJ$^1/_2$[5]

Type	Model code PLGJøD$_2$-øD$_1$[5]
Unequal Plug-in Elbow **PLGJ**	PLGJ6-4[5]
	PLGJ8-4[5]
	PLGJ8-6[5]
	PLGJ10-6[5]
	PLGJ10-8[5]
	PLGJ12-8[5]
	PLGJ12-10[5]
	PLGJ16-12[5]
	PLGJ$^1/_4$-6[5]
	PLGJ$^1/_2$-12[5]
	PLGJ$^1/_4$-$^5/_{32}$[5]
	PLGJ$^1/_4$-$^3/_{16}$[5]
	PLGJ$^5/_{16}$-$^3/_{16}$[5]
	PLGJ$^5/_{16}$-$^1/_4$[5]
	PLGJ$^3/_8$-$^1/_4$[5]
	PLGJ$^3/_8$-$^5/_{16}$[5]
	PLGJ$^1/_2$-$^5/_{16}$[5]
	PLGJ$^1/_2$-$^3/_8$[5]

Type	Model code PLLJøD[5]
Long Plug-in Elbow **PLLJ**	PLLJ4[5]
	PLLJ6[5]
	PLLJ8[5]
	PLLJ10[5]
	PLLJ12[5]
	PLLJ$^5/_{32}$[5]
	PLLJ$^1/_4$[5]
	PLLJ$^5/_{16}$[5]
	PLLJ$^3/_8$[5]
	PLLJ$^1/_2$[5]

Type	Model code PLLGJøD$_2$-øD$_1$[5]
Unequal Plug-in Long Elbow **PLLGJ**	PLLGJ6-4[5]

Type	Model code PLHJøD[5]
45°Plug-in Elbow **PLHJ**	PLHJ8[5]
	PLHJ10[5]
	PLHJ12[5]
	PLHJ16[5]

Type	Model code PYJøD[5]
Plug-in Y **PYJ**	PYJ4[5]
	PYJ6[5]
	PYJ8[5]
	PYJ10[5]
	PYJ12[5]
	PYJ16[5]
	PYJ$^1/_4$[5]
	PYJ$^5/_{16}$[5]
	PYJ$^3/_8$[5]
	PYJ$^1/_2$[5]

Type	Model code PWJøD$_2$-øD$_1$[5]
Unequal Plug-in Y **PWJ**	PWJ6-4[5]
	PWJ8-6[5]
	PWJ10-8[5]
	PWJ12-10[5]
	PWJ16-12[5]
	PWJ$^1/_4$-$^5/_{32}$[5]
	PWJ$^5/_{16}$-$^1/_4$[5]
	PWJ$^3/_8$-$^1/_4$[5]
	PWJ$^3/_8$-$^5/_{16}$[5]
	PWJ$^1/_2$-$^3/_8$[5]

Type	Model code PRJøD$_2$-øD$_1$[5]
Plug-in Double Y **PRJ**	PRJ6-4[5]
	PRJ8-6[5]

Type	Model code	
	PRXøD-R[5]	PRXøD-RU
Double Branch Y **PRX**	PRX4-01[5]	PRX$^5/_{32}$-N1U
	PRX4-02[5]	PRX$^5/_{32}$-N2U
	PRX6-01[5]	PRX$^3/_{16}$-N1U
		PRX$^1/_4$-N1U
		PRX$^1/_4$-N2U

Type	Model code PRGøD$_1$-øD$_2$[5]
Unequal Double Y **PRG**	PRG6-4[5]
	PRG8-6[5]
	PRG$^3/_{16}$-$^5/_{32}$[5]
	PRG$^1/_4$-$^5/_{32}$[5]
	PRG$^5/_{16}$-$^1/_4$[5]

CAD data is available at PISCO website.

Packaging specifications

10 pcs. /bag: Standard and Light gray spec.
10 pcs. (individual packaging) /bag: Clean-room pkg. spec. and Light gray & Clean-room pkg. spec.
1 pc. /bag: Clean-wash spec.

Options

Code	[5] : -C	[5] : -UC	[5] : W	[5] : W-C
Specifications	Clean-room pkg. (Fill in [5] with "-C".)	Clean-wash & Clean-room pkg. * (Fill in [5] with "-UC".)	Light gray (Fill in [5] with "W".)	Light gray & Clean-room pkg. (Fill in [5] with "W-C".)

*Rubber material: FKM is not available for Clean-wash spec.

Non-standard options (details ► P.893)

- Seal rubber material options: FKM, EPDM or HNBR
- Oil-free
- Copper free spec.
- Release-ring color change (Red)

►Contact us for the price.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code	
	PAøD-R	PAøD-RU
Twin Banjo **PA**	PA6-G1	PA5/32-U10U
	PA8-G2	PA3/16-N1U
	PA10-G3	PA1/4-N1U
	PA12-G4	PA5/16-N2U
	Model code PAøD-R5	PA3/8-N3U
		PA1/2-N4U
	PA4-M55	
	PA6-015	
	PA8-025	
	PA10-035	
	PA12-045	

Type	Model code	
	PAFøD-R&Rc	PAFøD-R&RcU
Link-up Twin Banjo **PAF**	PAF6-G1	PAF1/4-N1U
	PAF8-G2	PAF1/4-N2U
	PAF10-G3	PAF10-N3U
	PAF12-G4	
	Model code PAFøD-R&Rc5	
	PAF4-M55	
	PAF6-015	
	PAF8-025	
	PAF10-035	
	PAF12-035	
	PAF12-045	

Type	Model code
	PZAøD5
Union Cross **PZA**	PZA85
	PZA105
	PZA125
	PZA1/45
	PZA5/165
	PZA3/85
	PZA1/25

Type	Model code
	PZBøD1-øD25
Unequal Cross **PZB**	PZB8-65
	PZB10-85
	PZB12-105
	PZB5/16-1/45
	PZB3/8-5/165
	PZB1/2-3/85

Type	Model code
	PZCøD1-øD25
Reducing Cross **PZC**	PZC8-65
	PZC10-85
	PZC12-105
	PZC5/16-1/45
	PZC3/8-5/165
	PZC1/2-3/85

Type	Model code	
	PHWøD-R5	PHWøD-RU
Double Banjo **PHW**	PHW4-015	PHW5/32-N1U
	PHW4-025	PHW5/32-N2U
	PHW4-035	PHW1/4-N1U
	PHW6-015	PHW1/4-N2U
	PHW6-025	PHW1/4-N3U
	PHW6-035	PHW5/16-N2U
	PHW8-015	PHW5/16-N3U
	PHW8-025	PHW5/16-N4U
	PHW8-035	PHW3/8-N2U
	PHW8-045	PHW3/8-N3U
	PHW10-025	PHW3/8-N4U
	PHW10-035	PHW1/2-N3U
	PHW10-045	PHW1/2-N4U
Model code PHWøD-R	PHW12-025	PHW4-N2U
	PHW12-035	PHW6-N1U
PHW4-G1	PHW12-045	PHW8-N3U
PHW6-G1	PHW1/4-015	PHW10-N4U
PHW6-G2	PHW1/4-025	PHW12-N4U
PHW8-G1	PHW1/4-035	
PHW8-G2	PHW5/16-025	
PHW8-G3	PHW5/16-035	
PHW10-G2	PHW5/16-045	
PHW10-G3	PHW3/8-025	
PHW12-G3	PHW3/8-035	
PHW12-G4	PHW3/8-045	

Type	Model code	
	PHTøD-R5	PHTøD-RU
Triple Banjo **PHT**	PHT4-015	PHT5/32-N1U
	PHT4-025	PHT5/32-N2U
	PHT4-035	PHT1/4-N1U
	PHT6-015	PHT1/4-N2U
	PHT6-025	PHT1/4-N3U
	PHT6-035	PHT5/16-N2U
	PHT8-015	PHT5/16-N3U
	PHT8-025	PHT5/16-N4U
	PHT8-035	PHT3/8-N2U
	PHT8-045	PHT3/8-N3U
	PHT10-025	PHT3/8-N4U
	PHT10-035	PHT1/2-N3U
	PHT10-045	PHT1/2-N4U
Model code PHTøD-R	PHT12-025	
	PHT12-035	
PHT4-G1	PHT12-045	
PHT6-G1	PHT1/4-015	
PHT6-G2	PHT1/4-025	
PHT8-G1	PHT1/4-035	
PHT8-G2	PHT5/16-025	
PHT8-G3	PHT5/16-035	
PHT10-G2	PHT5/16-045	
PHT10-G3	PHT3/8-025	
PHT12-G3	PHT3/8-035	
PHT12-G4	PHT3/8-045	

Type	Model code	
	PAWøD-R5	PAWøD-RU
Double Twin Banjo **PAW**	PAW4-015	PAW5/32-N1U
	PAW4-025	PAW5/32-N2U
	PAW4-035	PAW1/4-N1U
	PAW6-015	PAW1/4-N2U
	PAW6-025	PAW1/4-N3U
	PAW6-035	PAW5/16-N2U
	PAW8-015	PAW5/16-N3U
	PAW8-025	PAW5/16-N4U
	PAW8-035	PAW3/8-N2U
	PAW8-045	PAW3/8-N3U
	PAW10-025	PAW3/8-N4U
	PAW10-035	PAW1/2-N3U
	PAW10-045	PAW1/2-N4U
Model code PAWøD-R	PAW12-025	
	PAW12-035	
PAW4-G1	PAW12-045	
PAW6-G1	PAW1/4-015	
PAW6-G2	PAW1/4-025	
PAW8-G1	PAW1/4-035	
PAW8-G2	PAW5/16-025	
PAW8-G3	PAW5/16-035	
PAW10-G2	PAW5/16-045	
PAW10-G3	PAW3/8-025	
PAW12-G3	PAW3/8-035	
PAW12-G4	PAW3/8-045	

Type	Model code	
	PATøD-R5	PATøD-RU
Triple Twin Banjo **PAT**	PAT4-015	PAT5/32-N1U
	PAT4-025	PAT5/32-N2U
	PAT4-035	PAT1/4-N1U
	PAT6-015	PAT1/4-N2U
	PAT6-025	PAT1/4-N3U
	PAT6-035	PAT5/16-N1U
	PAT8-015	PAT5/16-N2U
	PAT8-025	PAT5/16-N3U
	PAT8-035	PAT5/16-N4U
	PAT8-045	PAT3/8-N2U
	PAT10-025	PAT3/8-N3U
	PAT10-035	PAT3/8-N4U
	PAT10-045	PAT1/2-N3U
Model code PATøD-R	PAT12-025	PAT1/2-N4U
	PAT12-035	
PAT4-G1	PAT12-045	
PAT6-G1	PAT1/4-015	
PAT6-G2	PAT1/4-025	
PAT8-G1	PAT1/4-035	
PAT8-G2	PAT5/16-025	
PAT8-G3	PAT5/16-035	
PAT10-G2	PAT5/16-045	
PAT10-G3	PAT3/8-025	
PAT12-G3	PAT3/8-035	
PAT12-G4	PAT3/8-045	

CAD data is available at PISCO website.

Packaging specifications
10 pcs. /bag: standard spec. (excluding PHW, PHT, PAW, PAT) and Light grey spec.
10 pcs. (individual packaging) /bag: Clean-room pkg. spec. and Light gray & Clean-room pkg. spec.
1 pc. /bag: PHW, PHT, PAW and PAT, Clean-wash spec.

Options

Code	5 : -C	5 : -UC	5 : W	5 : W-C
Specifications	Clean-room pkg. (Fill in 5 with "-C".)	Clean-wash & Clean-room pkg. * (Fill in 5 with "-UC".)	Light gray (Fill in 5 with "W".)	Light gray & Clean-room pkg. (Fill in 5 with "W-C".)

*Rubber material: FKM is not available for Clean-wash spec.

Non-standard options (details ► P.893)
· Seal rubber material options: FKM, EPDM or HNBR
· Oil-free
· Copper free spec.
· Release-ring color change (Red)
►Contact us for the price.

Tube Fitting Standard

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code PKDøD1-øD2-R[5]	Model code PKDøD1-øD2-RU
Triple Run Tee PKD	PKD6-4-01[5]	PKD3/16-5/32-N1U
	PKD8-4-02[5]	PKD5/16-5/32-N2U
	PKD8-6-02[5]	PKD5/16-3/16-N2U
	PKD10-8-03[5]	PKD5/16-1/4-N2U
		PKD3/8-5/16-N3U

Type	Model code PKJøD1-øD2[5]
Plug-in Triple Tee PKJ	PKJ6-4[5]
	PKJ8-4[5]
	PKJ8-6[5]
	PKJ10-8[5]

Type	Model code PKGøD1-øD2[5]
Unequal Triple Tee PKG	PKG6-4[5]
	PKG8-4[5]
	PKG8-6[5]
	PKG10-6[5]
	PKG10-8[5]
	PKG3/16-5/32[5]
	PKG5/16-5/32[5]
	PKG5/16-3/16[5]
	PKG5/16-1/4[5]
	PKG3/8-1/4[5]
	PKG3/8-5/16[5]

Type	Model code PKVDøD1-øD2-R[5]
Twin Triple Run Tee PKVD	PKVD8-4-02[5]
	PKVD8-4-03[5]
	PKVD8-6-02[5]
	PKVD8-6-03[5]
	PKVD10-6-03[5]
	PKVD10-6-04[5]
	PKVD10-8-03[5]
	PKVD10-8-04[5]

Type	Model code PKVGøD1-øD2[5]
Unequal Twin Triple Tee PKVG	PKVG8-4[5]
	PKVG8-6[5]
	PKVG10-6[5]
	PKVG10-8[5]
	PKVG5/16-5/32[5]
	PKVG5/16-3/16[5]
	PKVG5/16-1/4[5]
	PKVG3/8-3/16[5]
	PKVG3/8-1/4[5]
	PKVG3/8-5/16[5]

Type	Model code PIJøD[5]
Union Stem PIJ	PIJ4[5]
	PIJ6[5]
	PIJ8[5]
	PIJ10[5]
	PIJ12[5]
	PIJ16[5]
	PIJ5/32[5]
	PIJ3/16[5]
	PIJ1/4[5]
	PIJ5/16[5]
	PIJ3/8[5]
	PIJ1/2[5]

Type	Model code PIGøD1-øD2[5]
Unequal Union Stem PIG	PIG6-4[5]
	PIG8-4[5]
	PIG8-6[5]
	PIG10-6[5]
	PIG10-8[5]
	PIG12-8[5]
	PIG12-10[5]
	PIG16-10[5]
	PIG16-12[5]
	PIG3/16-5/32[5]
	PIG1/4-5/32[5]
	PIG1/4-3/16[5]
	PIG5/16-1/4[5]
	PIG3/8-5/16[5]
	PIG1/2-3/8[5]

Type	Model code PPøD[5]
Plug PP	PP4[5]
	PP6[5]
	PP8[5]
	PP10[5]
	PP12[5]
	PP16[5]
	PP5/32[5]
	PP3/16[5]
	PP1/4[5]
	PP5/16[5]
	PP3/8[5]
	PP1/2[5]

Type	Model code PPFøD[5]
Cap PPF	PPF4[5]
	PPF6[5]
	PPF8[5]
	PPF10[5]
	PPF12[5]
	PPF16[5]
	PPF1/8[5]
	PPF5/32[5]
	PPF3/16[5]
	PPF1/4[5]
	PPF5/16[5]
	PPF3/8[5]
	PPF1/2[5]

Type	Model code PTJøD-R[5]
Plug-in Male Adapter PTJ	PTJ4-M5[5]
	PTJ4-01[5]
	PTJ6-M5[5]
	PTJ6-01[5]
	PTJ6-02[5]
	PTJ8-01[5]
	PTJ8-02[5]
	PTJ8-03[5]
	PTJ10-03[5]

Type	Model code PF R-Rc[5]	Model code PF R-RcU
Extension Screw Adapter PF	PFM5-M5[5]	PFU10-U10U
	PFM5-M5L[5]*	PFU10-N1U
	PFM5-01[5]	PFN1-U10U
	PF01-M5[5]	PFN1-N1U
	PF01-01[5]	PFN1-N2U
	PF01-02[5]	PFN1-N3U
	PF01-03[5]	PFN2-U10U
	PF02-M5[5]	PFN2-N1U
	PF02-01[5]	PFN2-N2U
	PF02-02[5]	PFN2-N3U
	PF02-03[5]	PFN2-N4U
	PF02-04[5]	PFN3-N1U
	PF03-01[5]	PFN3-N2U
	PF03-02[5]	PFN3-N3U
	PF03-03[5]	PFN3-N4U
	PF03-04[5]	PFN4-N4U
	PF04-04[5]	

*PFM5-M5L[5] is a long type of PFM5-M5[5].

Type	Model code PFF Rc1-Rc2[5]	Model code PFF Rc1-Rc2U
Unequal Screw Union PFF	PFF01-M5[5]	PFFN1-U10U
	PFF02-01[5]	PFFN2-N1U
	PFF03-01[5]	PFFN3-N1U
	PFF03-02[5]	PFFN3-N2U
	PFF04-02[5]	PFFN4-N2U
	PFF04-03[5]	PFFN4-N3U

CAD data is available at PISCO website.

Packaging specifications

10 pcs. /bag: Standard and Light gray spec.
10 pcs. (individual packaging) /bag: Clean-room pkg. spec. and Light gray & Clean-room pkg. spec.
1 pc. /bag: Clean-wash spec.

Options

Code	[5] : -C	[5] : -UC	[5] : W	[5] : W-C
Specifications	Clean-room pkg. (Fill in [5] with "-C".)	Clean-wash & Clean-room pkg. * (Fill in [5] with "-UC".)	Light gray (Fill in [5] with "W".)	Light gray & Clean-room pkg. (Fill in [5] with "W-C".)

*Rubber material: FKM is not available for Clean-wash spec.

Non-standard options (details ► P.893)

- Seal rubber material options: FKM, EPDM or HNBR
- Oil-free
- Copper free spec.
- Release-ring color change (Red)

►Contact us for the price.

Tube Fitting Mini

PISCO

>>> https://www.pisco.co.jp/en/

Ultra-small push-in fitting for general pneumatic piping

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

P C 6 - 01 M -C
(1) (2) (3) (4) (5) (6)

(1) Tube fitting **(2) Type**

(3) Tube dia. (øD, øD1, øD2)

	mm size (mm)					inch size (inch)			
Code	180	2	3	4	6	1/8	5/32	3/16	1/4
Tube O.D.	ø1.8	ø2	ø3	ø4	ø6	ø1/8	ø5/32	ø3/16	ø1/4

*In case that (3) indicates thread size, select thread size from table (4).

(4) Thread size (R, Rc)

	Metric thread			Taper pipe thread		
Code	M3	M5	M6	01	02	03
Thread size	M3×0.5	M5×0.8	M6×1	R1/8	R1/4	R3/8

*For different diameter union types, (4) is the tube size, which should be selected from the table in (3).

● We handle unified thread, NPT and British standard pipe thread parallel on a make-to-order basis.

	UNF thread	National pipe thread tapered				British pipe thread parallel
Code	U10MU	N0MU	N1MU	N2MU	N3MU	G1
Thread size	10-32UNF	NPT1/16	NPT1/8	NPT1/4	NPT3/8	G1/8

*1. Unified thread and National pipe thread tapered include (5) M (mini type) notation in the thread size code, so it is not necessary to enter M in the order form.
*2. Contact us for the price.

(5) Mini

(6) Body color & Clean-room pkg. spec. (Optional)

Code	No code	-C	W	W-C
Spec.	Standard	Clean-room pkg.	Light gray	Light gray and Clean-room pkg.
Appearance spec.				
Release-ring color (*)	Black	Light blue	Light gray	Light gray
Resin body color	Black	Light gray		

*Release-ring color is white for all spec. of inch-size products.
*Clean-room pkg. spec. use special cosmetic bags. Code W-C is not selectable for inch sizes.

Code: No code (inch)
Code: -C, W (inch)

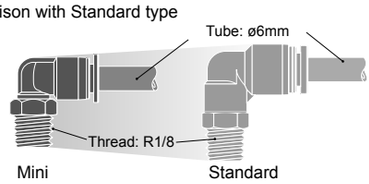
Shape of the release-ring
■ Tube O.D. ø1.8 mm
◄ Round (A notch on it)
■ Tube O.D. ø2 mm
◄ Round (2 notches on it)
■ Tube O.D. ø3, ø4, ø6 mm
ø1/8, ø5/32, ø1/4 in.
◄ Oval shape
*Some models have round shape

Characteristics

Down sized push-in fitting.

Tube fitting Mini series is 40% smaller than the standard type Tube fitting, yet assures equivalent flow rate to Standard series.

■Comparison with Standard type



Easy insertion/disconnection of a tube even with small body.

Oval shaped release ring is equipped.

● Clean-room packaging type

Best suited for piping in clean environment.

The products are assembled with fluorine grease, washed by clean air, then packed in ISO class 6 equivalent clean-room.

● ø1.8 & ø2 mm size

Push-in fitting for piping with extremely thin tube.

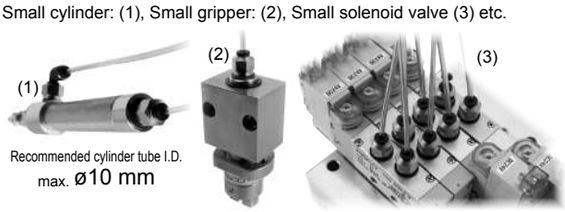
Exclusive for PISCO's tube O.D. 1.8 and tube O.D. 2 mm Polyurethane tube.

18 types are available for Tube fitting shape.

Corresponding to various piping method.

Best suited for piping of small actuators.

Small cylinder: (1), Small gripper: (2), Small solenoid valve (3) etc.



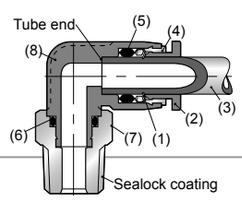
Recommended cylinder tube I.D.
max. ø10 mm

Specifications

Fluid medium	Air
Max. operating pressure	1.0 MPa
Max. vacuum	-100 kPa
Operating temp. range	0 to 60°C (no freezing)

Sectional drawing

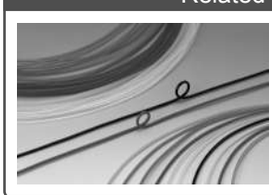
Elbow type : PL-M



No,	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Polyurethane, Nylon, etc
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	O-ring	NBR
(7)	Metallic body	Nickel-plated brass*1
(8)	Resin body	PBT

*1. Metallic body material of M3 thread is nickel-plated free cutting steel. M3 thread of tube O.D. 1.8 and 2mm is either nickel-plated free cutting steel or special stainless (Austenite or ferritic).
*2. The gasket material of M and UNF threads is SUS304 & NBR or SPCC & NBR depending on the model as standard. (The material of cartridge PCC is POM). The gasket material of M and UNF threads for Clean-room pkg. spec. is POM as standard. Contact us for details.
*3. The gasket material of G threads is Aluminum & PBT.

Related Products



Polyurethane Tube (small dia.)
► P.90

Tube Fitting Mini

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code	
	PCøD-RM[6]	PCøD-RMU
Straight **PC**	PC180-M3M[6]	PC1/8-U10MU
	PC180-M5M[6]	PC1/8-N0MU
	PC180-01M[6]	PC1/8-N1MU
	PC2-M3M[6]	PC1/8-N2MU
	PC2-M5M[6]	PC5/32-U10MU
	PC2-01M[6]	PC5/32-N0MU
	PC3-M3M[6]	PC5/32-N1MU
	PC3-M5M[6]	PC5/32-N2MU
	PC3-M6M[6]	PC1/4-U10MU
	PC3-01M[6]	PC1/4-N0MU
	PC4-M3M[6]	PC1/4-N1MU
	PC4-M5M[6]	PC1/4-N2MU
	PC4-M6M[6]	PC1/4-N3MU
	PC4-01M[6]	PC4-N1MU
	PC4-02M[6]	PC6-U10MU
	PC6-M5M[6]	PC6-N1MU
	PC6-M6M[6]	
	PC6-01M[6]	
	PC6-02M[6]	
	PC6-03M[6]	
	PC1/8-M3M[6]	
	PC1/8-M5M[6]	
	PC1/8-M6M[6]	
	PC1/8-01M[6]	
	PC1/8-02M	
	PC5/32-M3M[6]	
	PC5/32-M5M[6]	
	PC5/32-M6M[6]	
	PC5/32-01M[6]	
	PC5/32-02M[6]	
	PC1/4-M5M[6]	
Model code PCøD-RM	PC1/4-M6M[6]	
	PC1/4-01M[6]	
PC4-G1M	PC1/4-02M[6]	
PC6-G1M	PC1/4-03M[6]	

Type	Model code
	PUøDM[6]
Union Straight **PU**	PU180M[6]
	PU2M[6]
	PU3M[6]
	PU4M[6]
	PU6M[6]
	PU1/8M[6]
	PU5/32M[6]
	PU1/4M[6]

Type	Model code	
	PLøD-RM[6]	PLøD-RMU
Elbow **PL**	PL180-M3M[6]	PL1/8-U10MU
	PL180-M5M[6]	PL1/8-N0MU
	PL180-01M[6]	PL1/8-N1MU
	PL2-M3M[6]	PL1/8-N2MU
	PL2-M5M[6]	PL5/32-U10MU
	PL2-01M[6]	PL5/32-N0MU
	PL3-M3M[6]	PL5/32-N1MU
	PL3-M5M[6]	PL5/32-N2MU
	PL3-M6M[6]	PL1/4-U10MU
	PL3-01M[6]	PL1/4-N0MU
	PL4-M3M[6]	PL1/4-N1MU
	PL4-M5M[6]	PL1/4-N2MU
	PL4-M6M[6]	PL1/4-N3MU
	PL4-01M[6]	PL4-U10MU
	PL4-02M[6]	PL4-N0MU
	PL6-M5M[6]	PL4-N1MU
	PL6-M6M[6]	PL6-U10MU
	PL6-01M[6]	PL6-N1MU
	PL6-02M[6]	
	PL6-03M[6]	
	PL1/8-M3M[6]	
	PL1/8-M5M[6]	
	PL1/8-M6M[6]	
	PL1/8-01M[6]	
	PL5/32-M3M[6]	
	PL5/32-M5M[6]	
	PL5/32-M6M[6]	
	PL5/32-01M[6]	
	PL5/32-02M[6]	
	PL1/4-M5M[6]	
Model code PLøD-RM	PL1/4-M6M[6]	
	PL1/4-01M[6]	
PL4-G1M	PL1/4-02M[6]	
PL6-G1M	PL1/4-03M[6]	

Type	Model code
	PVøDM[6]
Union Elbow **PV**	PV180M[6]
	PV2M[6]
	PV3M[6]
	PV4M[6]
	PV6M[6]
	PV1/8M[6]
	PV5/32M[6]
	PV1/4M[6]

Type	Model code	
	PBøD-RM[6]	PBøD-RMU
Branch Tee **PB**	PB180-M3M[6]	PB1/8-U10MU
	PB180-M5M[6]	PB1/8-N0MU
	PB2-M3M[6]	PB1/8-N1MU
	PB2-M5M[6]	PB1/8-N2MU
	PB3-M3M[6]	PB5/32-U10MU
	PB3-M5M[6]	PB5/32-N0MU
	PB3-M6M[6]	PB5/32-N1MU
	PB3-01M[6]	PB5/32-N2MU
	PB4-M3M[6]	PB1/4-U10MU
	PB4-M5M[6]	PB1/4-N0MU
	PB4-M6M[6]	PB1/4-N1MU
	PB4-01M[6]	PB1/4-N2MU
	PB4-02M[6]	PB1/4-N3MU
	PB6-M5M[6]	
	PB6-M6M[6]	
	PB6-01M[6]	
	PB6-02M[6]	
	PB6-03M[6]	
	PB1/8-M3M[6]	
	PB1/8-M5M[6]	
	PB1/8-M6M[6]	
	PB1/8-01M[6]	
	PB5/32-M3M[6]	
	PB5/32-M5M[6]	
	PB5/32-M6M[6]	
	PB5/32-01M[6]	
	PB5/32-02M[6]	
	PB1/4-M5M[6]	
Model code PBøD-RM	PB1/4-M6M[6]	
	PB1/4-01M[6]	
PB4-G1M	PB1/4-02M[6]	
PB6-G1M	PB1/4-03M[6]	

Type	Model code PGøD1-øD2M[6]
Unequal Union Straight **PG**	PG3-180M[6]
	PG3-2M[6]
	PG4-180M[6]
	PG4-2M[6]
	PG4-3M[6]
	PG6-3M[6]
	PG6-4M[6]
	PG1/4-3M
	PG4-1/8M[6]
	PG6-1/8M[6]
	PG5/32-1/8M[6]
	PG1/4-1/8M[6]
	PG1/4-5/32M[6]

Notes
* "180" in Model code indicates Tube O.D. 1.8 mm.

CAD data is available at PISCO website.

Packaging specifications
10 pcs. /bag: Standard and Light gray spec.
10 pcs. (individual packaging) /bag: Clean-room pkg. spec. and Light gray & Clean-room pkg. spec.

Options.

Code	[6] : -C	[6] : W	[6] : W-C
Specifications	Clean-room pkg. (Fill in [6] with "-C".)	Light gray (Fill in [6] with "W".)	Light gray & Clean-room pkg. (Fill in [6] with "W-C".)

Non-standard options (details ► P.893)
· Seal rubber material options: FKM, EPDM or HNBR
· Oil-free
· Copper free spec.
· Release-ring color change (Red)
►Contact us for the price.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code POCøD-RM6	Model code POCøD-RMU
Inner Hex. Straight POC	POC180-M3M6	POC1/8-U10MU
	POC2-M3M6	POC5/32-U10MU
	POC3-M3M6	POC5/32-N1MU
	POC3-M5M6	POC3/16-U10MU
	POC3-M6M6	POC3/16-N1MU
	POC4-M3M6	POC1/4-U10MU
	POC4-M5M6	POC1/4-N0MU
	POC4-M6M6	POC1/4-N1MU
	POC4-01M6	
	POC6-M5M6	
	POC6-M6M6	
	POC6-01M6	
	POC1/8-M3M6	
	POC1/8-M5M6	
	POC1/8-M6M6	
	POC5/32-M3M6	
	POC5/32-M5M6	
	POC5/32-M6M6	
	POC5/32-01M6	
Model code POCøD-RM	POC3/16-M3M6	
	POC1/4-M5M6	
POC4-G1M	POC1/4-M6M6	
POC6-G1M	POC1/4-01M6	

Type	Model code PCCøD-RM6
Cartridge PCC	PCC3-M6M6
	PCC4-M6M6
	PCC4-M8M6
	PCC6-M8M6
	PCC1/8-M6M6

*The thread pitch for cartridge is as below.
M6×0.75
M8×0.75

Type	Model code PCFøD-RcM6	Model code PCFøD-RcMU
Female Straight PCF	PCF180-M3M6	PCF1/8-U10MU
	PCF2-M3M6	PCF5/32-U10MU
	PCF3-M3M6	PCF1/4-U10MU
	PCF3-M5M6	PCF4-U10MU
	PCF4-M3M6	
	PCF4-M5M6	
	PCF6-M5M6	
	PCF1/8-M3M6	
	PCF1/8-M5M6	
	PCF5/32-M3M6	
	PCF5/32-M5M6	
	PCF1/4-M5M6	

Type	Model code PLLøD-RM6	Model code PLLøD-RMU
Long Elbow PLL	PLL180-M3M6	PLL1/8-U10MU
	PLL180-M5M6	PLL1/8-N0MU
	PLL2-M3M6	PLL1/8-N1MU
	PLL2-M5M6	PLL5/32-U10MU
	PLL3-M3M6	PLL5/32-N0MU
	PLL3-M5M6	PLL5/32-N1MU
	PLL3-M6M6	PLL5/32-N2MU
	PLL3-01M6	PLL1/4-U10MU
	PLL4-M3M6	PLL1/4-N0MU
	PLL4-M5M6	PLL1/4-N1MU
	PLL4-M6M6	PLL1/4-N2MU
	PLL4-01M6	PLL1/4-N3MU
	PLL4-02M6	
	PLL6-M5M6	
	PLL6-M6M6	
	PLL6-01M6	
	PLL6-02M6	
	PLL6-03M6	
	PLL1/8-M3M6	
	PLL1/8-M5M6	
	PLL1/8-M6M6	
	PLL1/8-01M6	
	PLL5/32-M3M6	
	PLL5/32-M5M6	
	PLL5/32-M6M6	
	PLL5/32-01M6	
	PLL5/32-02M6	
	PLL1/4-M5M6	
Model code PLLøD-RM	PLL1/4-M6M6	
	PLL1/4-01M6	
PLL4-G1M	PLL1/4-02M6	
PLL6-G1M	PLL1/4-03M6	

Type	Model code PYøDM6
Union Y PY	PY180M6
	PY2M6
	PY3M6
	PY4M6
	PY6M6
	PY1/8M6
	PY5/32M6
	PY1/4M6

Type	Model code PLHøD-RM6	Model code PLHøD-RMU
45°Elbow PLH	PLH3-M3M6	PLH5/32-U10MU
	PLH3-M5M6	PLH5/32-N1MU
	PLH4-M3M6	
	PLH4-M5M6	
	PLH4-M6M6	
	PLH4-01M6	
	PLH6-M5M6	
	PLH6-M6M6	
	PLH6-01M6	
	PLH6-02M6	
	PLH5/32-M3M	
	PLH5/32-M5M	
	PLH5/32-M6M	

Type	Model code POLøD-RM6	Model code POLøD-RMU
Hex. Holed Banjo POL	POL3-M5M6	POL1/8-U10MU
	POL4-M5M6	POL5/32-U10MU
	POL6-M5M6	
	POL1/8-M5M6	
	POL5/32-M5M6	

Type	Model code POLLøD-RM6	Model code POLLøD-RMU
Hex. Holed Long Banjo POLL	POLL3-M5M6	POLL1/8-U10MU
	POLL4-M5M6	POLL5/32-U10MU
	POLL6-M5M6	
	POLL1/8-M5M6	
	POLL5/32-M5M6	

Type	Model code PWøD1-øD2M6
Unequal Union Y PW	PW4-3M6
	PW6-3M6
	PW6-4M6
	PW4-1/8M6
	PW6-1/8M6
	PW1/8-3M6
	PW1/4-3M
	PW5/32-1/8M6
	PW1/4-1/8M6
	PW1/4-5/32M6

Notes
* "180" in Model code indicates Tube O.D. 1.8 mm.

CAD data is available at PISCO website.

Packaging specifications
10 pcs. /bag: Standard and Light gray spec.
10 pcs. (individual packaging) /bag: Clean-room pkg. spec. and Light gray & Clean-room pkg. spec.

Options.

Code	6 : -C	6 : W	6 : W-C
Specifications	Clean-room pkg. (Fill in 6 with "-C".)	Light gray (Fill in 6 with "W".)	Light gray & Clean-room pkg. (Fill in 6 with "W-C".)

Non-standard options (details ► P.893)
· Seal rubber material options: FKM, EPDM or HNBR
· Oil-free
· Copper free spec.
· Release-ring color change (Red)
►Contact us for the price.

Tube Fitting Mini

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code PDøD-RM⑥	Model code PDøD-RMU
Run Tee **PD**	PD180-M3M⑥	PD1/8-U10MU
	PD180-M5M⑥	PD1/8-N0MU
	PD2-M3M⑥	PD1/8-N1MU
	PD2-M5M⑥	PD1/8-N2MU
	PD3-M3M⑥	PD5/32-U10MU
	PD3-M5M⑥	PD5/32-N0MU
	PD3-M6M⑥	PD5/32-N1MU
	PD3-01M⑥	PD5/32-N2MU
	PD4-M3M⑥	PD1/4-U10MU
	PD4-M5M⑥	PD1/4-N0MU
	PD4-M6M⑥	PD1/4-N1MU
	PD4-01M⑥	PD1/4-N2MU
	PD4-02M⑥	PD1/4-N3MU
	PD6-M5M⑥	PD6-N1MU
	PD6-M6M⑥	
	PD6-01M⑥	
	PD6-02M⑥	
	PD6-03M⑥	
	PD1/8-M3M⑥	
	PD1/8-M5M⑥	
	PD1/8-M6M⑥	
	PD1/8-01M⑥	
	PD5/32-M3M⑥	
	PD5/32-M5M⑥	
	PD5/32-M6M⑥	
	PD5/32-01M⑥	
	PD5/32-02M⑥	
	PD1/4-M5M⑥	
Model code PDøD-RM	PD1/4-M6M⑥	
	PD1/4-01M⑥	
PD4-G1M	PD1/4-02M⑥	
PD6-G1M	PD1/4-03M⑥	

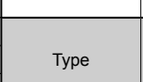
Type	Model code PYJøDM⑥
Plug-in Y **PYJ**	PYJ3M⑥
	PYJ4M⑥
	PYJ6M⑥
	PYJ1/8M⑥
	PYJ5/32M⑥

Type	Model code PEøDM⑥
Union Tee **PE**	PE180M⑥
	PE2M⑥
	PE3M⑥
	PE4M⑥
	PE6M⑥
	PE1/8M⑥
	PE5/32M⑥
	PE1/4M⑥

Type	Model code PEGøD1-øD2M⑥
Unequal Union Tee **PEG**	PEG3-180M⑥
	PEG3-2M⑥
	PEG3-4M⑥
	PEG4-3M⑥
	PEG4-6M⑥
	PEG6-4M⑥
	PEG4-1/8M⑥
	PEG1/8-5/32M⑥
	PEG5/32-1/8M⑥
	PEG5/32-1/4M⑥
	PEG1/4-5/32M⑥

Type	Model code PWJøD2-øD1M⑥
Unequal Plug-in Y **PWJ**	PWJ4-3M⑥
	PWJ6-3M⑥
	PWJ6-4M⑥
	PWJ4-1/8M⑥
	PWJ6-1/8M⑥
	PWJ5/32-1/8M⑥

Type	Model code PZAøDM⑥
Union Cross **PZA**	PZA3M⑥
	PZA4M⑥
	PZA6M⑥
	PZA1/8M⑥
	PZA5/32M⑥

Type	Model code PZBøD1-øD2M⑥
Unequal Cross **PZB** 	PZB4-3M⑥
	PZB6-4M⑥
	PZB4-1/8M⑥
	PZB6-1/8M⑥
	PZB1/8-3M⑥
	PZB5/32-1/8M⑥

Type	Model code PZCøD1-øD2M⑥
Reducing Cross **PZC**	PZC4-3M⑥
	PZC6-4M⑥
	PZC4-1/8M⑥
	PZC6-1/8M⑥
	PZC1/8-3M⑥
	PZC5/32-1/8M⑥

Type	Model code	
	PMøDM⑥	PMøDMU
Bulkhead Union **PM**	PM180M⑥	PM1/8MU
	PM2M⑥	PM5/32MU
	PM3M⑥	PM1/4MU
	PM4M⑥	
	PM6M⑥	
	PM1/8M⑥	
	PM5/32M⑥	
	PM1/4M⑥	

Notes
* "180" in Model code indicates Tube O.D. 1.8 mm.

CAD data is available at PISCO website.

Packaging specifications
10 pcs. /bag: Standard and Light gray spec.
10 pcs. (individual packaging) /bag: Clean-room pkg. spec. and Light gray & Clean-room pkg. spec.

Options.

Code	⑥ : -C	⑥ : W	⑥ : W-C
Specifications	Clean-room pkg. (Fill in ⑥ with "-C".)	Light gray (Fill in ⑥ with "W".)	Light gray & Clean-room pkg. (Fill in ⑥ with "W-C".)

Non-standard options (details ► P.893)
· Seal rubber material options: FKM, EPDM or HNBR
· Oil-free
· Copper free spec.
· Release-ring color change (Red)
►Contact us for the price.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code PGJøD2-øD1M6
Unequal Plug-in Straight PGJ	PGJ3-180M6
	PGJ3-2M6
	PGJ3-4M6
	PGJ3-6M6
	PGJ3-1/8M6
	PGJ4-180M6
	PGJ4-2M6
	PGJ4-3M6
	PGJ4-6M6
	PGJ4-1/8M6
	PGJ6-3M6
	PGJ6-4M6
	PGJ6-1/8M6
	PGJ6-1/4M6
	PGJ1/8-5/32M6
	PGJ1/8-1/4M6
	PGJ5/32-1/8M6
	PGJ5/32-1/4M6
	PGJ3/16-1/8M6
	PGJ3/16-5/32M6
	PGJ3/16-1/4M6
	PGJ1/4-1/8M6
	PGJ1/4-5/32M6
	PGJ1/4-6M6

Type	Model code PLGJøD2-øD1M6
Unequal Plug-in Elbow PLGJ	PLGJ3-180M6
	PLGJ3-2M6
	PLGJ3-4M6
	PLGJ3-6M6
	PLGJ3-1/8M6
	PLGJ4-180M6
	PLGJ4-2M6
	PLGJ4-3M6
	PLGJ4-6M6
	PLGJ4-1/8M6
	PLGJ6-3M6
	PLGJ6-4M6
	PLGJ6-1/8M6
	PLGJ6-1/4M6
	PLGJ1/8-3M6
	PLGJ1/8-5/32M6
	PLGJ1/8-1/4M6
	PLGJ5/32-1/8M6
	PLGJ5/32-1/4M6
	PLGJ3/16-1/8M6
	PLGJ3/16-5/32M6
	PLGJ3/16-1/4M6
	PLGJ1/4-1/8M6
	PLGJ1/4-5/32M6
	PLGJ1/4-6M6

Type	Model code PFM1-M2M6
Extension Screw Adapter PF	PFM5-M3M6
	PF01-M3M6

Type	Model code PPFøDM6
Cap PPF	PPF180M6
	PPF2M6
	PPF3M6

Type	Model code PLJøDM6
Plug-in Elbow PLJ	PLJ3M6
	PLJ4M6
	PLJ6M6
	PLJ1/8M6
	PLJ5/32M6
	PLJ3/16M6
	PLJ1/4M6

Type	Model code PIJøDM6
Union Stem PIJ	PIJ3M6
	PIJ1/8M6

Type	Model code PLHJøDM6
45°Plug-in Elbow PLHJ	PLHJ4M6
	PLHJ6M6

Type	Model code PPøDM6
Plug PP	PP180M6
	PP2M6
	PP3M6
	PP1/8M6

Notes
* "180" in Model code indicates Tube O.D. 1.8 mm.

CAD data is available at PISCO website.

Packaging specifications
10 pcs. /bag: Standard and Light gray spec.
10 pcs. (individual packaging) /bag: Clean-room pkg. spec. and Light gray & Clean-room pkg. spec.

Options.

Code	6 : -C	6 : W	6 : W-C
Specifications	Clean-room pkg. (Fill in 6 with "-C".)	Light gray (Fill in 6 with "W".)	Light gray & Clean-room pkg. (Fill in 6 with "W-C".)

Non-standard options (details ► P.893)
· Seal rubber material options: FKM, EPDM or HNBR
· Oil-free
· Copper free spec.
· Release-ring color change (Red)
►Contact us for the price.

Minimal Fitting

Ultra-small barb fitting for general pneumatic piping

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

L (1) C (2) – 0425 (3) – M5 (4) -C (5)

(1) Minimal Fitting

(2) Type

(3)-a. Tube dia. (øD)

	mm size (mm)				inch size (inch)	
Code	0320	0425	0535	0640	5/32	1/4
Tube O.D.	ø3	ø4	ø5	ø6	ø5/32	ø1/4
Tube I.D.	ø2	ø2.5	ø3	ø4	ø0.098	Polyurethane Tube : ø0.163 Nylon Tube: ø0.180

(3)-b. Tube dia. (M, FM)

	Male thread		Female thread	
Code	M3	M5	FM3	FM5
Size	M3×0.5	M5×0.8	M3×0.5	M5×0.8

(4) Thread size (M)

	Metric thread			UNF thread	Taper pipe thread
Code	M3	M5	M6	U10U	01
Size	M3×0.5	M5×0.8	M6×1	10-32UNF	R1/8

(5) Specifications (Optional)

Code	No code	-C
Spec.	Standard	Clean-room pkg.

Characteristics

Barb type fitting suitable for space-saving piping.

Best suited for piping of small device or in narrow space.

Suitable for vacuum piping.

Vacuum tube (UD) is recommended to be used with.

Compression types can be tightened only by hand and easy insertion of tubes.

● Clean-room pkg. spec. (Optional)

Best suited for space-saving piping in clean environment.

The products are washed by clean air, then packed in ISO class 6 equivalent clean-room.

Related Products

Vacuum Tube

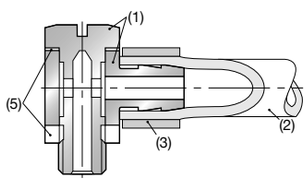
► P.95

Specifications

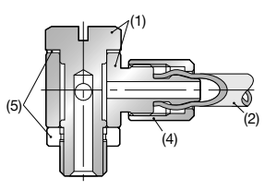
Type	Barb type	Compression & Female thread type
Fluid medium	Air	
Max. operating pressure	0.5 MPa (with Vacuum tube: 0.4 MPa)	1.0 MPa (with Vacuum tube: 0.4 MPa)
Max. vacuum	-100 kPa	
Operating temp. range	0 to 50°C (no freezing)	

Sectional drawing

Barb Single Banjo
: LH



Compression Single Banjo
: LHN



No.	Parts	Material
(1)	Metallic body	Nickel-plated brass*1
(2)	Tube	Vacuum tube or Clean-room pkg. tube
(3)	Tube clamp sleeve	Fluororesin (Order separately)
(4)	Cap nut	Nickel-plated brass
(5)	Gasket	POM, SUS304 + NBR (LC, LCN, LN, LP, LLC) *2

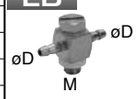
*1. For M3 male threads, its material is SUS303 or special stainless steel (SUS303 Equivalent Corrosivity, Austenite or Ferritic).
*2. For clean-room pkg. spec., gasket material is POM.

RoHS2 (2011/65/EU+EU2015/863) compliant

Barb Type

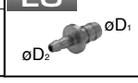
Type	Model code LC-øD-M(U)5
Barb Straight LC 	LC-0320-M3[5] LC-0320-M5[5] LC-0320-01[5] LC-0425-M3[5] LC-0425-M5[5] LC-0425-M6[5] LC-0425-01[5] LC-0535-M5[5] LC-0640-M3[5] LC-0640-M5[5] LC-0640-M6[5] LC-0640-01[5] LC-5/32-U10U LC-1/4-U10U

Type	Model code LH-øD-M(U)5
Barb Single Banjo LH 	LH-0320-M3[5] LH-0320-M5[5] LH-0425-M3[5] LH-0425-M5[5] LH-0640-M5[5] LH-5/32-U10U LH-0640-U10U

Type	Model code LB-øD-M(U)5
Barb Branch Tee LB 	LB-0320-M3[5] LB-0320-M5[5] LB-0425-M3[5] LB-0425-M5[5] LB-0640-M5[5] LB-0640-U10U

Type	Model code LS-øD-M5
Tube Clamp Sleeve LS 	LS-0425[5] LS-0640[5]

Type	Model code LU-øD5
Barb Union Straight LU 	LU-0320[5] LU-0425[5] LU-0640[5]

Type	Model code LG-øD1-øD2[5]
Unequal Barb Union Straight LG 	LG-0425-0320[5] LG-0640-0320[5] LG-0640-0425[5]

Thread Type

Type	Model code LH-FM-M5
Female Screw Banjo LH-F 	LH-FM3-M3[5] LH-FM5-M5[5]

Type	Model code LB-FM-M5
Female Screw Branch Tee LB-F 	LB-FM3-M3[5] LB-FM5-M5[5]

Type	Model code LZ-FM-M5
Female Screw Cross LZ 	LZ-FM5-M5[5]

Type	Model code LL-FM5
Female Screw Elbow LL 	LL-FM5[5]

Type	Model code LE-FM5
Female Screw Tee LE 	LE-FM5[5]

Type	Model code LU-FM5
Female Screw Union LU-F 	LU-FM3[5] LU-FM5[5]

Type	Model code LM-FM5
Bulkhead Union LM 	LM-FM5[5]

Type	Model code LD-FM-M5
Female Screw Run Tee LD 	LD-FM5-M5[5]

Type	Model code LLC-FM-M5
Extension Screw Adapter LLC 	LLC-FM3-M3[5] LLC-FM5-M5[5]

Type	Model code LN-M-M5
Male Screw Union LN 	LN-M3-M3[5] LN-M5-M5[5]

Type	Model code LP-M5
Plug LP 	LP-M3[5] LP-M5[5]

Compression type

Type	Model code LCN-øD-M5
Compression Straight LCN 	LCN-0320-M3[5] LCN-0320-M5[5] LCN-0320-01[5] LCN-0425-M5[5] LCN-0425-01[5] LCN-0640-M5[5] LCN-0640-01[5]

Type	Model code LHN-øD-M5
Compression Single Banjo LHN 	LHN-0320-M5[5] LHN-0425-M5[5] LHN-0640-M5[5]

CAD data is available at PISCO website.

Packaging specifications
10 pcs. /bag

Optional
[5]: -C ⇒ Clean-room pkg. (Fill in [5] with "-C".)

Tube Fitting SUS316

Anti corrosive SUS316 Push-in fitting.

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

SSP	C	6	–	01			
(1)	(2)	(3)		(4)	(5)	(6)	(7)

(1) Tube Fitting SUS316

(2) Type

(3) Tube dia. (øD)

Code	4	6	8	10	12	16
Tube O.D. (mm)	ø4	ø6	ø8	ø10	ø12	ø16

(4) Thread size (R)

	Metric thread	Taper pipe thread			
Code	M5	01	02	03	04
Size	M5×0.8	R1/8	R1/4	R3/8	R1/2

* In case that (4) indicates tube dia., select tube dia. from table(3).

(5) grease spec. (Optional)

Code	No code	-X
Grease	Oil-free *1	Fluorine-based grease spec. *2

*1. Seal rubber (FKM) has a fluorine coating.
*2. Fluorine grease applied on seal rubber (FKM).

(6) Thread sealing spec. (Optional) (British standard pipe thread tapered only)

Code	No code	-TP
Thread sealing	Without Sealock No seal tape	Thread sealing (Seal tape is applied on thread part)

(7) Packaging spec. (Optional)

Code	No code	-C
Spec.	Standard pkg.	Clean-room pkg.

Characteristics

Operatability in tube release is widely improved by adopting lock-claws.

Ease of handling is improved compared to the conventional collet type.

Down-sizing compared with conventional products resulting in lower cost.

Approximately 20% down sized by volume (For elbow). Cost reduction is also realized.

Push-in fitting made of SUS316 with high resistance to corrosion.

Best suited for industrial fields such as Chemical, Medical, Semiconductor, Solar cell, Secondary battery.

Fitting components are all oil-free.

Food Sanitation Act. (Japan) compliant.

* Refer to Page 6 for details.

● Clean-room pkg. spec. (Optional)

Best suited for piping in clean environment.

The products are assembled with fluorine grease, washed by clean air, then packed in ISO class 6 equivalent clean-room.

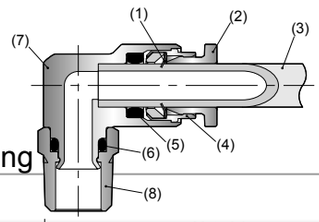
Specifications

Fluid medium	Air, Water (Conditional*), Other chemicals (Conditional*)
Max. operating pressure	1.0 MPa
Max. vacuum	-100 kPa
Operating temp. range	-5 to 150°C (no freezing)

⚠ Warning
* The following conditions must be observed when the fluid medium is water or liquid.
1. Surge pressure must be controlled lower than max. operating pressure when using water or liquid as a fluid medium.
2. General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
3. Be sure to use Insert Ring (WR) when using water or liquid as a fluid medium.
4. As for chemicals, mixed gas, etc., they may vary depending on the conditions of use, so please check the compatibility of our specifications before use.

Sectional drawing

Elbow type: SSPL



No.	Parts	Material
(1)	Lock-claws	SUS316
(2)	Release-ring	SUS316 *1
(3)	Tube	Fluororesin (PFA), (FEP) or Polyamide, etc.
(4)	Guide-ring	SUS316
(5)	Elastic sleeve	FKM *1
(6)	O-ring	FKM *1
(7)	Metallic body	SUS316
(8)	Threaded metallic body	SUS316 *2

*1. Fluorine coating
*2. Gasket material of metric (M) thread is SUS316 + FKM. No Sealock coating is applied on taper pipe thread.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code SSPCøD-R[5][6][7]
Straight SSPC	SSPC4-M5[5][7]
	SSPC4-01[5][6][7]
	SSPC4-02[5][6][7]
	SSPC6-M5[5][7]
	SSPC6-01[5][6][7]
	SSPC6-02[5][6][7]
	SSPC6-03[5][6][7]
	SSPC8-01[5][6][7]
	SSPC8-02[5][6][7]
	SSPC8-03[5][6][7]
	SSPC10-01[5][6][7]
	SSPC10-02[5][6][7]
	SSPC10-03[5][6][7]
	SSPC10-04[5][6][7]
	SSPC12-02[5][6][7]
	SSPC12-03[5][6][7]
	SSPC12-04[5][6][7]
	SSPC16-03[5][6][7]
	SSPC16-04[5][6][7]

Type	Model code SSPLøD-R[5][6][7]
Elbow SSPL	SSPL4-M5[5][7]
	SSPL4-01[5][6][7]
	SSPL4-02[5][6][7]
	SSPL6-M5[5][7]
	SSPL6-01[5][6][7]
	SSPL6-02[5][6][7]
	SSPL6-03[5][6][7]
	SSPL8-01[5][6][7]
	SSPL8-02[5][6][7]
	SSPL8-03[5][6][7]
	SSPL10-01[5][6][7]
	SSPL10-02[5][6][7]
	SSPL10-03[5][6][7]
	SSPL10-04[5][6][7]
	SSPL12-02[5][6][7]
	SSPL12-03[5][6][7]
	SSPL12-04[5][6][7]
	SSPL16-03[5][6][7]
	SSPL16-04[5][6][7]

Type	Model code SSPBøD-R[5][6][7]
Branch Tee SSPB	SSPB4-M5[5][7]
	SSPB4-01[5][6][7]
	SSPB4-02[5][6][7]
	SSPB6-M5[5][7]
	SSPB6-01[5][6][7]
	SSPB6-02[5][6][7]
	SSPB6-03[5][6][7]
	SSPB8-01[5][6][7]
	SSPB8-02[5][6][7]
	SSPB8-03[5][6][7]
	SSPB10-01[5][6][7]
	SSPB10-02[5][6][7]
	SSPB10-03[5][6][7]
	SSPB10-04[5][6][7]
	SSPB12-02[5][6][7]
	SSPB12-03[5][6][7]
	SSPB12-04[5][6][7]
	SSPB16-03[5][6][7]
	SSPB16-04[5][6][7]

Type	Model code SSPOCøD-R[5][6][7]
Inner Hex. Straight SSPOC	SSPOC4-M5[5][7]
	SSPOC4-01[5][6][7]
	SSPOC6-M5[5][7]
	SSPOC6-01[5][6][7]
	SSPOC6-02[5][6][7]
	SSPOC8-01[5][6][7]
	SSPOC8-02[5][6][7]
	SSPOC8-03[5][6][7]
	SSPOC10-01[5][6][7]
	SSPOC10-02[5][6][7]
	SSPOC10-03[5][6][7]
	SSPOC10-04[5][6][7]
	SSPOC12-02[5][6][7]
	SSPOC12-03[5][6][7]
	SSPOC12-04[5][6][7]
	SSPOC16-03[5][6][7]
	SSPOC16-04[5][6][7]

Type	Model code SSPUøD[5][7]
Union Straight SSPU	SSPU4[5][7]
	SSPU6[5][7]
	SSPU8[5][7]
	SSPU10[5][7]
	SSPU12[5][7]
	SSPU16[5][7]

Type	Model code SSPVøD[5][7]
Union Elbow SSPV	SSPV4[5][7]
	SSPV6[5][7]
	SSPV8[5][7]
	SSPV10[5][7]
	SSPV12[5][7]
	SSPV16[5][7]

Type	Model code SSPGøD1-øD2[5][7]
Unequal Union Straight SSPG	SSPG6-4[5][7]
	SSPG8-6[5][7]
	SSPG10-8[5][7]
	SSPG12-10[5][7]
	SSPG16-12[5][7]

Type	Model code SSPEøD[5][7]
Union Tee SSPE	SSPE4[5][7]
	SSPE6[5][7]
	SSPE8[5][7]
	SSPE10[5][7]
	SSPE12[5][7]
	SSPE16[5][7]

Type	Model code SSPMøD[5][7]
Bulkhead Union SSPM	SSPM4[5][7]
	SSPM6[5][7]
	SSPM8[5][7]
	SSPM10[5][7]
	SSPM12[5][7]
	SSPM16[5][7]

Type	Model code SSPYøD[5][7]
Union Y SSPY	SSPY4[5][7]
	SSPY6[5][7]
	SSPY8[5][7]
	SSPY10[5][7]
	SSPY12[5][7]
	SSPY16[5][7]

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Standard Optional

Code	[5] : -X	[6] : -TP	[7] : -C
Specifications	Fluorine-based grease (Fill in [5] with "-X")	Seal tape on thread (Fill in [6] with "-TP")	Clean-room pkg. (Fill in [7] with "-C")

Tube Fitting SUS316 Compression Fitting

Anti corrosive SUS316 Compression fitting.

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

NS (1) C (2) 0640 (3) – 01 (4) (5)

(1) SUS316 Compression Fitting

(2) Type

(3) Tube dia. øD (O.D. x I.D.)

	mm size (mm)													inch size (inch)		
Code	0420	0425*1	0640	0850*2	0860*2	1065	1075	1080	1280	1290	1210	1611*3	1613*3	1/4	3/8	1/2
Tube O.D.	ø4	ø4	ø6	ø8	ø8	ø10	ø10	ø10	ø12	ø12	ø12	ø16	ø16	ø1/4	ø3/8	ø1/2
Tube I.D.	ø2	ø2.5	ø4	ø5	ø6	ø6.5	ø7.5	ø8	ø8	ø9	ø10	ø11	ø13	ø0.180	ø0.275	ø0.376
Cap nut	4		6	8		10			12			16		1/4	3/8	1/2
Disc spring washer	12		14	16		18			20			24		14	18	20

*1. Please order tube O.D. 4 mm size for inch size 5/32.
*2. Please order tube O.D. 8 mm size for inch size 5/16.
*3. Please order tube O.D. 16 mm size for inch size 5/8.
*4. To order Cap nut alone, please select the code from "Cap nut".
*5. To order Disc spring washer alone for Bulkhead type fitting, please select the code from "Disc spring washer". However, please select the code from (4) for the disc spring washer for Bulkhead socket type fitting (NSMFF).

(4) Thread size (R, Rc)

	British standard pipe thread tapered			
Code	01	02	03	04
Male thread size	R1/8	R1/4	R3/8	R1/2
Female thread size	Rc1/8	Rc1/4	Rc3/8	Rc1/2
Disc spring washer	14	18	22	27

* To order Disc spring washer alone for Bulkhead type fitting (NSMFF), please select the code from "Disc spring washer".

(5) Thread sealing spec .(Optional) (British standard pipe thread tapered only)

Code	No code	-TP
Thread sealing	Without Sealock No seal tape	Seal tape spec. (Seal tape is applied on thread part)

Characteristics

Compression fitting made of SUS316 with high resistance to corrosion.

Best suited for piping in a special environment in the market requiring airtightness (Medical, Semiconductor, Solar cell, Secondary battery, Food-related), as well as Chemical.

Inch tube size is available.

Various sizes and types

Tube size for Polyurethane tube is available.

* Available for Straight (NSC) and Elbow (NSL) type only.

Food Sanitation Act. (Japan) compliant.

* See page 6 for details.

Clean-room pkg.

Best suited for piping in clean environment.

The products are washed by clean air, then packed in ISO class 6 equivalent clean-room.

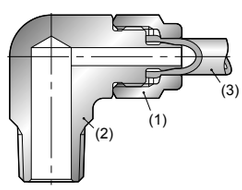
Specifications

Fluid medium	Air, Water (Conditional*), Other chemicals (Conditional*)
Max. operating pressure	Follow max. operating pressure of tube specifications
Max. vacuum	-100 kPa
Operating temp. range	Follow operating temp. range of tube specifications. (No freezing) *2

⚠ Warning
*1. The following conditions must be observed when the fluid medium is water or liquid.
1. Surge pressure must be controlled lower than max. operating pressure when using water or liquid as a fluid medium.
2. General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
3. As for chemicals, mixed gas, etc., they may vary depending on the conditions of use, so please check the compatibility of our specifications before use.
*2. The operating temperature range of the product conforms to the operating temperature range of the tube used, but there is a risk of damage if the unit is subjected to excessive strain when used at high temperatures.
*3. Due to the structure of the fitting, product performance will deteriorate when using a soft tube. Be sure to check the tube before use.

Sectional drawing

Elbow type : NSL



No,	Parts	Material
(1)	Cap nut	SUS316 (Fluorine coating)
(2)	Metallic body	SUS316
(3)	Tube	Various PISCO tubes can be used.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code NSCøD-R5
Straight NSC 	NSC0420-01 5
	NSC0420-02 5
	NSC0425-01 5
	NSC0425-02 5
	NSC0640-01 5
	NSC0640-02 5
	NSC0640-03 5
	NSC0850-01 5
	NSC0850-02 5
	NSC0850-03 5
	NSC0860-01 5
	NSC0860-02 5
	NSC0860-03 5
	NSC1065-02 5
	NSC1065-03 5
	NSC1065-04 5
	NSC1075-02 5
	NSC1075-03 5
	NSC1075-04 5
	NSC1080-02 5
	NSC1080-03 5
	NSC1080-04 5
	NSC1280-02 5
	NSC1280-03 5
	NSC1280-04 5
	NSC1290-02 5
	NSC1290-03 5
	NSC1290-04 5
	NSC1210-02 5
	NSC1210-03 5
	NSC1210-04 5
	NSC1611-03 5
	NSC1611-04 5
	NSC1613-03 5
	NSC1613-04 5
	NSC1/4-01 5
	NSC1/4-02 5
	NSC1/4-03 5
	NSC3/8-02 5
	NSC3/8-03 5
	NSC3/8-04 5
	NSC1/2-02 5
	NSC1/2-03 5
	NSC1/2-04 5

Type	Model code NSLøD-R5
Elbow NSL 	NSL0420-01 5
	NSL0420-02 5
	NSL0425-01 5
	NSL0425-02 5
	NSL0640-01 5
	NSL0640-02 5
	NSL0640-03 5
	NSL0850-01 5
	NSL0850-02 5
	NSL0850-03 5
	NSL0860-01 5
	NSL0860-02 5
	NSL0860-03 5
	NSL1065-02 5
	NSL1065-03 5
	NSL1065-04 5
	NSL1075-02 5
	NSL1075-03 5
	NSL1075-04 5
	NSL1080-02 5
	NSL1080-03 5
	NSL1080-04 5
	NSL1280-02 5
	NSL1280-03 5
	NSL1280-04 5
	NSL1290-02 5
	NSL1290-03 5
	NSL1290-04 5
	NSL1210-02 5
	NSL1210-03 5
	NSL1210-04 5
	NSL1611-03 5
	NSL1611-04 5
	NSL1613-03 5
	NSL1613-04 5
	NSL1/4-01 5
	NSL1/4-02 5
	NSL1/4-03 5
	NSL3/8-02 5
	NSL3/8-03 5
	NSL3/8-04 5
	NSL1/2-02 5
	NSL1/2-03 5
	NSL1/2-04 5

Type	Model code NSBøD-R5
Branch Tee NSB 	NSB0420-01 5
	NSB0420-02 5
	NSB0425-01 5
	NSB0425-02 5
	NSB0640-01 5
	NSB0640-02 5
	NSB0640-03 5
	NSB0860-01 5
	NSB0860-02 5
	NSB0860-03 5
	NSB1075-02 5
	NSB1075-03 5
	NSB1075-04 5
	NSB1080-02 5
	NSB1080-03 5
	NSB1080-04 5
	NSB1290-02 5
	NSB1290-03 5
	NSB1290-04 5
	NSB1210-02 5
	NSB1210-03 5
	NSB1210-04 5
	NSB1613-03 5
	NSB1613-04 5

Type	Model code NSDøD-R5
Run Tee NSD 	NSD0420-01 5
	NSD0420-02 5
	NSD0425-01 5
	NSD0425-02 5
	NSD0640-01 5
	NSD0640-02 5
	NSD0640-03 5
	NSD0860-01 5
	NSD0860-02 5
	NSD0860-03 5
	NSD1075-02 5
	NSD1075-03 5
	NSD1075-04 5
	NSD1080-02 5
	NSD1080-03 5
	NSD1080-04 5
	NSD1290-02 5
	NSD1290-03 5
	NSD1290-04 5
	NSD1210-02 5
	NSD1210-03 5
	NSD1210-04 5
	NSD1613-03 5
	NSD1613-04 5

Type	Model code NSUøD
Union Straight NSU 	NSU0420
	NSU0425
	NSU0640
	NSU0860
	NSU1075
	NSU1080
	NSU1290
	NSU1210
	NSU1613

Type	Model code NSVøD
Union Elbow NSV 	NSV0420
	NSV0425
	NSV0640
	NSV0860
	NSV1075
	NSV1080
	NSV1290
	NSV1210
	NSV1613

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Standard Optional

Code	5 : -TP
Specifications	Seal tape on thread (Fill in 5 with "-TP")

Tube Fitting SUS316 Compression Fitting

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code NSEøD
Union Tee NSE	NSE0420
	NSE0425
	NSE0640
	NSE0860
	NSE1075
	NSE1080
	NSE1290
	NSE1210
	NSE1613
	NSE1/4
	NSE3/8
	NSE1/2

Type	Model code NSMCøD-R5
Bulkhead Straight NSMC	NSMC0420-01 5
	NSMC0420-02 5
	NSMC0425-01 5
	NSMC0425-02 5
	NSMC0640-01 5
	NSMC0640-02 5
	NSMC0640-03 5
	NSMC0860-01 5
	NSMC0860-02 5
	NSMC0860-03 5
	NSMC1075-01 5
	NSMC1075-02 5
	NSMC1075-03 5
	NSMC1075-04 5
	NSMC1080-01 5
	NSMC1080-02 5
	NSMC1080-03 5
	NSMC1080-04 5
	NSMC1290-02 5
	NSMC1290-03 5
	NSMC1290-04 5
	NSMC1210-02 5
	NSMC1210-03 5
	NSMC1210-04 5
	NSMC1613-03 5
	NSMC1613-04 5

Type	Model code NSMøD
Bulkhead Union Straight NSM	NSM0420
	NSM0425
	NSM0640
	NSM0860
	NSM1075
	NSM1080
	NSM1290
	NSM1210
	NSM1613

Type	Model code NSMFøD-Rc
Bulkhead Female Straight NSMF	NSMF0420-01
	NSMF0420-02
	NSMF0425-01
	NSMF0425-02
	NSMF0640-01
	NSMF0640-02
	NSMF0640-03
	NSMF0860-01
	NSMF0860-02
	NSMF0860-03
	NSMF1075-01
	NSMF1075-02
	NSMF1075-03
	NSMF1075-04
	NSMF1080-01
	NSMF1080-02
	NSMF1080-03
	NSMF1080-04
	NSMF1290-02
	NSMF1290-03
	NSMF1290-04
	NSMF1210-02
	NSMF1210-03
	NSMF1210-04
	NSMF1613-03
	NSMF1613-04
	NSMF1/4-01
	NSMF1/4-02
	NSMF1/4-03
	NSMF3/8-01
	NSMF3/8-02
	NSMF3/8-03
	NSMF3/8-04
	NSMF1/2-02
	NSMF1/2-03
	NSMF1/2-04

Type	Model code NSMFF Rc
Bulkhead Socket NSMFF	NSMFF01
	NSMFF02
	NSMFF03
	NSMFF04

Type	Model code NSPøA
Disc Spring Washer for Bulkhead Type NSP	NSP12
	NSP14
	NSP16
	NSP18
	NSP20
	NSP22
	NSP24
	NSP27

Type	Model code NSCFøD-Rc
Female Straight NSCF	NSCF0420-01
	NSCF0420-02
	NSCF0425-01
	NSCF0425-02
	NSCF0640-01
	NSCF0640-02
	NSCF0640-03
	NSCF0860-01
	NSCF0860-02
	NSCF0860-03
	NSCF1075-01
	NSCF1075-02
	NSCF1075-03
	NSCF1075-04
	NSCF1080-01
	NSCF1080-02
	NSCF1080-03
	NSCF1080-04
	NSCF1290-02
	NSCF1290-03
	NSCF1290-04
	NSCF1210-02
	NSCF1210-03
	NSCF1210-04
	NSCF1613-03
	NSCF1613-04
	NSCF1/4-01
	NSCF1/4-02
	NSCF1/4-03
	NSCF3/8-01
	NSCF3/8-02
	NSCF3/8-03
	NSCF3/8-04
	NSCF1/2-02
	NSCF1/2-03
	NSCF1/2-04

Type	Model code NSNøD
Cap Nut NSN	NSN4
	NSN6
	NSN8
	NSN10
	NSN12
	NSN16
	NSN1/4
	NSN3/8
	NSN1/2

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag
1 Set (2 pcs. / bag): Disc spring washer

Options

Code	5 : -TP
Specifications	Seal tape on thread (Fill in 5 with "-TP")

Tube Fitting SUS304

PISCO

>>> https://www.pisco.co.jp/en/

Anti corrosive SUS304 Push-in fitting.

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

P (1) C (2) 6 (3) – 01 (4) SUS (5)

(1) Tube fitting **(2) Type**

(3) Tube dia. (øD)

Code	4	6	8	10	12	16
Tube O.D. (mm)	ø4	ø6	ø8	ø10	ø12	ø16

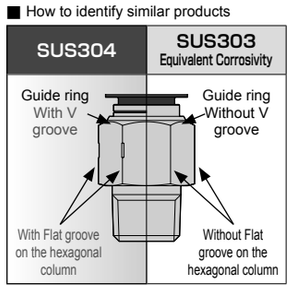
(4) Thread size (R)

	Metric thread		British standard pipe thread tapered			
Code	M5	M6	01	02	03	04
Thread size	M5×0.8	M6×1	R1/8	R1/4	R3/8	R1/2

* In case that (4) indicates tube dia., select tube dia. from table (3)

(5) Metal material
SUS: SUS304

■ How to identify similar products



Characteristics

Push-in fitting that can be used in chemical atmosphere.

Best suitable where strength is required or the atmosphere contains chemicals.

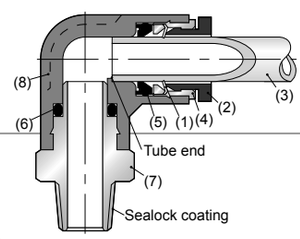
Specifications

Fluid medium	Air, Water (Conditional*), Other chemicals (Conditional*)
Max. operating pressure	1.0 MPa
Max. vacuum	-100 kPa
Operating temp. range	0 to 60°C (no freezing)

⚠ Warning
* Make sure to follow the instructions below when the fluid medium is water.
1. When using water or liquid, the surge pressure must be kept below the maximum operating pressure.
2. General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
3. Be sure to use Insert Ring (WR) when using water or liquid as a fluid medium.
4. As for chemicals, mixed gas, etc., they may vary depending on the conditions of use, so please check the compatibility of our specifications before use.

Sectional drawing

Elbow type : PL-SUS



No.	Parts	Material
(1)	Lock-claws	Stainless steel
(2)	Release-ring	PBT containing glass
(3)	Tube	Fluororesin (PFA), (FEP) or Polyamide, etc.
(4)	Guide-ring	SUS304
(5)	Elastic sleeve	FKM
(6)	O-ring	FKM
(7)	Metallic body	SUS304
(8)	Resin body	PBT

* The gasket of Metric thread is SUS316 + FKM.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code PCøD-RSUS	Type	Model code PLøD-RSUS	Type	Model code PBøD-RSUS
Straight PC	PC4-M5SUS	Elbow PL	PL4-M5SUS	Branch Tee PB	PB4-M5SUS
	PC4-M6SUS		PL4-M6SUS		PB4-M6SUS
	PC4-01SUS		PL4-01SUS		PB4-01SUS
	PC4-02SUS		PL4-02SUS		PB4-02SUS
	PC6-M5SUS		PL6-M5SUS		PB6-M5SUS
	PC6-M6SUS		PL6-M6SUS		PB6-M6SUS
	PC6-01SUS		PL6-01SUS		PB6-01SUS
	PC6-02SUS		PL6-02SUS		PB6-02SUS
	PC6-03SUS		PL6-03SUS		PB6-03SUS
	PC8-01SUS		PL8-01SUS		PB8-01SUS
	PC8-02SUS		PL8-02SUS		PB8-02SUS
	PC8-03SUS		PL8-03SUS		PB8-03SUS
	PC10-01SUS		PL10-01SUS		PB10-01SUS
	PC10-02SUS		PL10-02SUS		PB10-02SUS
	PC10-03SUS		PL10-03SUS		PB10-03SUS
	PC10-04SUS		PL10-04SUS		PB10-04SUS
	PC12-02SUS		PL12-02SUS		PB12-02SUS
	PC12-03SUS		PL12-03SUS		PB12-03SUS
	PC12-04SUS		PL12-04SUS		PB12-04SUS
	PC16-03SUS		PL16-03SUS		PB16-03SUS
	PC16-04SUS		PL16-04SUS		PB16-04SUS

Type	Model code PUøDSUS	Type	Model code PVøDSUS	Type	Model code PEøDSUS
Union Straight PU	PU4SUS	Union Elbow PV	PV4SUS	Union Tee PE	PE4SUS
	PU6SUS		PV6SUS		PE6SUS
	PU8SUS		PV8SUS		PE8SUS
	PU10SUS		PV10SUS		PE10SUS
	PU12SUS		PV12SUS		PE12SUS
	PU16SUS		PV16SUS		PE16SUS

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Non-standard options (details ► P.893)
· Seal rubber material optional (EPDM or HNBR)
· Oil-free
►Contact us for the price.

Tube Fitting SUS304

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code PGøD1-øD2SUS
Unequal Union Straight PG	PG6-4SUS
	PG8-6SUS
	PG10-8SUS
	PG12-10SUS
	PG16-12SUS

Type	Model code PEGøD1-øD2SUS
Unequal Union Tee PEG	PEG6-4SUS
	PEG8-6SUS
	PEG10-8SUS
	PEG12-10SUS

Type	Model code PAXøD-RSUS
Branch Elbow PAX	PAX4-M5SUS
	PAX4-M6SUS
	PAX4-01SUS
	PAX4-02SUS
	PAX6-M5SUS
	PAX6-M6SUS
	PAX6-01SUS
	PAX6-02SUS
	PAX6-03SUS
	PAX8-01SUS
	PAX8-02SUS
	PAX8-03SUS
	PAX10-01SUS
	PAX10-02SUS
	PAX10-03SUS
	PAX10-04SUS
	PAX12-02SUS
	PAX12-03SUS
	PAX12-04SUS

Type	Model code PDøD-RSUS
Run Tee PD	PD4-M5SUS
	PD4-M6SUS
	PD4-01SUS
	PD4-02SUS
	PD6-M5SUS
	PD6-M6SUS
	PD6-01SUS
	PD6-02SUS
	PD6-03SUS
	PD8-01SUS
	PD8-02SUS
	PD8-03SUS
	PD10-01SUS
	PD10-02SUS
	PD10-03SUS
	PD10-04SUS
	PD12-02SUS
	PD12-03SUS
	PD12-04SUS
	PD16-03SUS
	PD16-04SUS

Type	Model code PYøDSUS
Union Y PY	PY4SUS
	PY6SUS
	PY8SUS
	PY10SUS
	PY12SUS
	PY16SUS

Type	Model code PRXøD-RSUS
Double Branch Y PRX	PRX4-01SUS
	PRX4-02SUS
	PRX6-01SUS

Type	Model code PXøD-RSUS
Branch Y PX	PX4-M5SUS
	PX4-M6SUS
	PX4-01SUS
	PX4-02SUS
	PX6-M5SUS
	PX6-M6SUS
	PX6-01SUS
	PX6-02SUS
	PX6-03SUS
	PX8-01SUS
	PX8-02SUS
	PX8-03SUS
	PX10-01SUS
	PX10-02SUS
	PX10-03SUS
	PX10-04SUS
	PX12-02SUS
	PX12-03SUS
	PX12-04SUS

Type	Model code PRGøD1-øD2SUS
Unequal Double Y PRG	PRG6-4SUS
	PRG8-6SUS

Type	Model code PVXøD-RSUS
Tripod Elbow PVX	PVX4-M5SUS
	PVX4-M6SUS
	PVX4-01SUS
	PVX4-02SUS
	PVX6-M5SUS
	PVX6-M6SUS
	PVX6-01SUS
	PVX6-02SUS
	PVX6-03SUS
	PVX8-01SUS
	PVX8-02SUS
	PVX8-03SUS
	PVX10-01SUS
	PVX10-02SUS
	PVX10-03SUS
	PVX10-04SUS
	PVX12-02SUS
	PVX12-03SUS
	PVX12-04SUS

Type	Model code PWøD1-øD2SUS
Unequal Union Y PW	PW6-4SUS
	PW8-6SUS
	PW10-8SUS
	PW12-10SUS

Type	Model code PKDøD1-øD2-RSUS
Triple Run Tee PKD	PKD6-4-01SUS
	PKD8-4-02SUS
	PKD8-6-02SUS
	PKD10-8-03SUS

Type	Model code PVUøDSUS
Tripod Union PVU	PVU4SUS
	PVU6SUS
	PVU8SUS
	PVU10SUS
	PVU12SUS

Type	Model code PAUøDSUS
Branch Union Elbow PAU	PAU4SUS
	PAU6SUS
	PAU8SUS
	PAU10SUS
	PAU12SUS

Type	Model code PKGøD1-øD2SUS
Unequal Triple Tee PKG	PKG6-4SUS
	PKG8-4SUS
	PKG8-6SUS
	PKG10-6SUS
	PKG10-8SUS

Type	Model code PPFøDSUS
Cap PPF	PPF4SUS
	PPF6SUS
	PPF8SUS
	PPF10SUS
	PPF12SUS

CAD 2D 3D CAD data is available at PISCO website.

Package Packaging specifications
1 pc. /bag

Order Non-standard options (details ► P.893)
· Seal rubber material optional (EPDM or HNBR)
· Oil-free
►Contact us for the price.

Tube Fitting Stainless SUS303 Equivalent Corrosivity

PISCO
>>> https://www.pisco.co.jp/en/

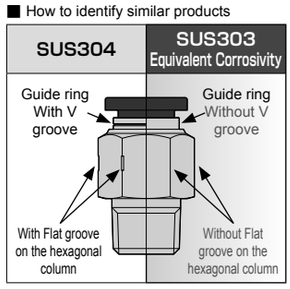
SUS303 Equivalent Corrosivity Push-in fittings Series

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

SP (1) C (2) 6 (3) – 01 (4) (5)

■ How to identify similar products



(1) Tube Fitting Stainless SUS303 Equivalent Corrosivity

(2) Type

(3) Tube dia. (øD)

Code	4	6	8	10	12	16
Tube O.D. (mm)	ø4	ø6	ø8	ø10	ø12	ø16

(4) Thread size(R)

	Metric thread		Taper pipe male thread			
Code	M5	M6	01	02	03	04
Male thread size	M5×0.8	M6×1	R1/8	R1/4	R3/8	R1/2

* In case that (4) indicates tube dia., select tube dia. from table (3).

(5) Wash & Packaging spec. (Optional)

Code	No code	-UC
Specifications	No clean wash, Standard pkg.	Clean-wash & Clean-room pkg.

* SPHW, SPHT, SPAW, SPAT is not compatible with clean washing and clean room pkg. spec.

Characteristics

Special stainless steel, which corrosive resistance is equivalent to SUS303 stainless steel is used.

This tube fitting serves best where strength is required or in a corrosive atmosphere.

Copper Alloy free.

Seal rubber material is suitable for low level ozone resistance.

HNBR is used for seal rubber material.

● Clean-wash spec. (Optional)

For manufacturing process where particles and oil should be avoided.

The products goes through vacuum ultrasonic cleaning by HFE (hydro fluoro ether) in a clean-room and is packed with deaeration packaging.

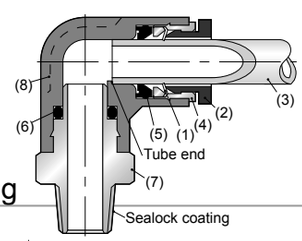
Specifications

Fluid medium	Air, Water (Conditional*)
Max. operating pressure	1.0 MPa
Max. vacuum	-100 kPa
Operating temp. range	0 to 60°C (no freezing)

⚠ Warning
* Make sure to follow the instructions below when the fluid medium is water.
1. Surge pressure must be controlled lower than max. operating pressure when using water as a fluid medium.
2. General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
3. Be sure to use Insert Ring (WR) when using water or liquid as a fluid medium.

Sectional drawing

Elbow type: SPL



No.	Parts	Material
(1)	Lock-claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Fluororesin (PFA), (FEP) or Polyamide, etc.
(4)	Guide ring	Special stainless steel (Austenite or ferritic)*2
(5)	Elastic sleeve	HNBR
(6)	O-ring	HNBR
(7)	Metallic body	Special stainless steel (Austenite or ferritic) or SUS303.*1,2
(8)	Resin body	PBT

*1. The gasket of Metric thread is PPS.
*2. The corrosive resistance is equivalent to SUS303.
*3. SPHW, SPHT, SPAW, and SPAT use FKM and POM as part of the seal material in contact with the fluid.
*4. SPML uses NBR for nut stops.

Tube Fitting Stainless SUS303 Equivalent Corrosivity

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code SPCøD-R5
Straight SPC	SPC4-M5 5
	SPC4-M50 5*
	SPC4-M6 5
	SPC4-01 5
	SPC4-02 5
	SPC6-M5 5
	SPC6-M6 5
	SPC6-01 5
	SPC6-02 5
	SPC6-03 5
	SPC8-01 5
	SPC8-02 5
	SPC8-03 5
	SPC10-01 5
	SPC10-02 5
	SPC10-03 5
	SPC10-04 5
	SPC12-02 5
	SPC12-03 5
	SPC12-04 5
	SPC16-03 5
	SPC16-04 5

*SPC4-M50 5 is a slim type of SPC4-M5 5. (Wrench size: 8 mm)

Type	Model code SPOCøD-R5
Inner Hex. Straight SPOC	SPOC4-M5 5
	SPOC4-01 5
	SPOC6-M5 5
	SPOC6-01 5
	SPOC6-02 5
	SPOC8-01 5
	SPOC8-02 5
	SPOC8-03 5
	SPOC10-01 5
	SPOC10-02 5
	SPOC10-03 5
	SPOC10-04 5
	SPOC12-02 5
	SPOC12-03 5
	SPOC12-04 5

Type	Model code SPUøD5
Union Straight SPU	SPU4 5
	SPU6 5
	SPU8 5
	SPU10 5
	SPU12 5
	SPU16 5

Type	Model code SPGøD1-øD2 5
Unequal Union Straight SPG	SPG6-4 5
	SPG8-6 5
	SPG10-8 5
	SPG12-10 5
	SPG16-12 5

Type	Model code SPLøD-R5
Elbow SPL	SPL4-M5 5
	SPL4-M6 5
	SPL4-01 5
	SPL4-02 5
	SPL6-M5 5
	SPL6-M6 5
	SPL6-01 5
	SPL6-02 5
	SPL6-03 5
	SPL8-01 5
	SPL8-02 5
	SPL8-03 5
	SPL10-01 5
	SPL10-02 5
	SPL10-03 5
	SPL10-04 5
	SPL12-02 5
	SPL12-03 5
	SPL12-04 5
	SPL16-03 5
	SPL16-04 5

Type	Model code SPHøD-R5
Banjo type SPH	SPH4-M5 5
	SPH4-01 5
	SPH6-M5 5
	SPH6-01 5
	SPH6-02 5
	SPH8-01 5
	SPH8-02 5
	SPH8-03 5
	SPH10-02 5
	SPH10-03 5
	SPH12-03 5
	SPH12-04 5

Type	Model code SPVøD5
Union Elbow SPV	SPV4 5
	SPV6 5
	SPV8 5
	SPV10 5
	SPV12 5
	SPV16 5

Type	Model code SPEøD5
Union Tee SPE	SPE4 5
	SPE6 5
	SPE8 5
	SPE10 5
	SPE12 5
	SPE16 5

Type	Model code SPDøD-R5
Run Tee SPD	SPD4-M5 5
	SPD4-M6 5
	SPD4-01 5
	SPD4-02 5
	SPD6-M5 5
	SPD6-M6 5
	SPD6-01 5
	SPD6-02 5
	SPD6-03 5
	SPD8-01 5
	SPD8-02 5
	SPD8-03 5
	SPD10-01 5
	SPD10-02 5
	SPD10-03 5
	SPD10-04 5
	SPD12-02 5
	SPD12-03 5
	SPD12-04 5
	SPD16-03 5
	SPD16-04 5

Type	Model code SPEGøD1-øD2 5
Unequal Union Tee SPEG	SPEG6-4 5
	SPEG8-6 5
	SPEG10-8 5
	SPEG12-10 5

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options

Code	5 : -UC
Specifications	Clean-wash and Clean-room pkg. (*) (Fill in 5 with "-UC".)

* Rubber material: FKM is not available for Clean-wash spec.

Non-standard options (details ► P. 893)
· Body color Optional (Light gray)
· Seal rubber material optional (FKM or EPDM)
· Oil-free
· Copper free spec.
· Release-ring color change (Red)
►Contact us for the price.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code SPXøD-R5
Branch Y **SPX**	SPX4-M5 5
	SPX4-M6 5
	SPX4-01 5
	SPX4-02 5
	SPX6-M5 5
	SPX6-M6 5
	SPX6-01 5
	SPX6-02 5
	SPX6-03 5
	SPX8-01 5
	SPX8-02 5
	SPX8-03 5
	SPX10-01 5
	SPX10-02 5
	SPX10-03 5
	SPX10-04 5
	SPX12-02 5
	SPX12-03 5
	SPX12-04 5
	SPX16-03 5
	SPX16-04 5

Type	Model code SPYøD5
Union Y **SPY**	SPY4 5
	SPY6 5
	SPY8 5
	SPY10 5
	SPY12 5
	SPY16 5

Type	Model code SPWøD1-øD2 5
Unequal Union Y **SPW**	SPW6-4 5
	SPW8-6 5
	SPW10-8 5
	SPW12-10 5
	SPW16-12 5

Type	Model code SPAUøD5
Branch Union Elbow **SPAU**	SPAU4 5
	SPAU6 5
	SPAU8 5
	SPAU10 5
	SPAU12 5

Type	Model code SPAXøD-R5
Branch Elbow **SPAX**	SPAX4-M5 5
	SPAX4-M6 5
	SPAX4-01 5
	SPAX4-02 5
	SPAX6-M5 5
	SPAX6-M6 5
	SPAX6-01 5
	SPAX6-02 5
	SPAX6-03 5
	SPAX8-01 5
	SPAX8-02 5
	SPAX8-03 5
	SPAX10-01 5
	SPAX10-02 5
	SPAX10-03 5
	SPAX10-04 5
	SPAX12-02 5
	SPAX12-03 5
	SPAX12-04 5

Type	Model code SPVXøD-R5
Tripod Elbow **SPVX**	SPVX4-M5 5
	SPVX4-M6 5
	SPVX4-01 5
	SPVX4-02 5
	SPVX6-M5 5
	SPVX6-M6 5
	SPVX6-01 5
	SPVX6-02 5
	SPVX6-03 5
	SPVX8-01 5
	SPVX8-02 5
	SPVX8-03 5
	SPVX10-01 5
	SPVX10-02 5
	SPVX10-03 5
	SPVX10-04 5
	SPVX12-02 5
	SPVX12-03 5
	SPVX12-04 5

Type	Model code SPVUøD5
Tripod Union **SPVU**	SPVU4 5
	SPVU6 5
	SPVU8 5
	SPVU10 5
	SPVU12 5

Type	Model code SPCFøD-Rc5
Female Straight **SPCF**	SPCF4-M5 5
	SPCF4-01 5
	SPCF4-02 5
	SPCF6-M5 5
	SPCF6-01 5
	SPCF6-02 5
	SPCF6-03 5
	SPCF8-01 5
	SPCF8-02 5
	SPCF8-03 5
	SPCF10-02 5
	SPCF10-03 5
	SPCF12-02 5
	SPCF12-03 5
	SPCF12-04 5

Type	Model code SPMFøD-Rc5
Bulkhead Female Straight **SPMF**	SPMF4-01 5
	SPMF4-02 5
	SPMF6-01 5
	SPMF6-02 5
	SPMF6-03 5
	SPMF8-01 5
	SPMF8-02 5
	SPMF8-03 5
	SPMF10-02 5
	SPMF10-03 5
	SPMF12-02 5
	SPMF12-03 5
	SPMF12-04 5
	SPMF16-03 5
	SPMF16-04 5

Type	Model code SPMøD5
Bulkhead Union **SPM**	SPM4 5
	SPM6 5
	SPM8 5
	SPM10 5
	SPM12 5
	SPM16 5

Type	Model code SPMLøD5
Bulkhead Union Elbow **SPML**	SPML4 5
	SPML6 5
	SPML8 5
	SPML10 5
	SPML12 5

CAD 2D 3D CAD data is available at PISCO website.

Package Packaging specifications
1 pc. /bag

Option Options

Code	5 : -UC
Specifications	Clean-wash and Clean-room pkg. (*) (Fill in 5 with "-UC".)

* Rubber material: FKM is not available for Clean-wash spec.

Order Non-standard options (details ► P. 893)
· Body color Optional (Light gray)
· Seal rubber material optional (FKM or EPDM)
· Oil-free
· Copper free spec.
· Release-ring color change (Red)
►Contact us for the price.

Tube Fitting Stainless SUS303 Equivalent Corrosivity

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code SPHWøD-R
Double Banjo SPHW	SPHW4-01
	SPHW4-02
	SPHW4-03
	SPHW6-01
	SPHW6-02
	SPHW6-03
	SPHW8-01
	SPHW8-02
	SPHW8-03
	SPHW8-04
	SPHW10-02
	SPHW10-03
	SPHW10-04
	SPHW12-02
	SPHW12-03
	SPHW12-04

Type	Model code SPAWøD-R
Double Twin Banjo SPAW	SPAW4-01
	SPAW4-02
	SPAW4-03
	SPAW6-01
	SPAW6-02
	SPAW6-03
	SPAW8-01
	SPAW8-02
	SPAW8-03
	SPAW8-04
	SPAW10-02
	SPAW10-03
	SPAW10-04
	SPAW12-02
	SPAW12-03
	SPAW12-04

Type	Model code SPGJøD₂-øD₁5
Plug-in Reducer SPGJ	SPGJ4-65
	SPGJ6-45
	SPGJ8-45
	SPGJ8-65
	SPGJ10-45
	SPGJ10-65
	SPGJ10-85
	SPGJ12-65
	SPGJ12-85
	SPGJ12-105
	SPGJ16-105
	SPGJ16-125

Type	Model code SPLJøD5
Plug-in Elbow SPLJ	SPLJ45
	SPLJ65
	SPLJ85
	SPLJ105
	SPLJ125
	SPLJ165

Type	Model code SPHTøD-R
Triple Banjo SPHT	SPHT4-01
	SPHT4-02
	SPHT4-03
	SPHT6-01
	SPHT6-02
	SPHT6-03
	SPHT8-01
	SPHT8-02
	SPHT8-03
	SPHT8-04
	SPHT10-02
	SPHT10-03
	SPHT10-04
	SPHT12-02
	SPHT12-03
	SPHT12-04

Type	Model code SPATøD-R
Triple Twin Banjo SPAT	SPAT4-01
	SPAT4-02
	SPAT4-03
	SPAT6-01
	SPAT6-02
	SPAT6-03
	SPAT8-01
	SPAT8-02
	SPAT8-03
	SPAT8-04
	SPAT10-02
	SPAT10-03
	SPAT10-04
	SPAT12-02
	SPAT12-03
	SPAT12-04

Type	Model code SPLGJøD₂-øD₁5
Unequal Plug-in Elbow SPLGJ	SPLGJ6-45
	SPLGJ8-45
	SPLGJ8-65
	SPLGJ10-65
	SPLGJ10-85
	SPLGJ12-85
	SPLGJ12-105
	SPLGJ16-125

Type	Model code SPRXøD-R5
Double Branch Y SPRX	SPRX4-015
	SPRX4-025
	SPRX6-015
	SPRX6-025

Type	Model code SPKDøD₁-øD₂-R5
Triple Run Tee SPKD	SPKD6-4-015
	SPKD8-4-025
	SPKD8-6-025
	SPKD10-8-035

Type	Model code SPRGøD₁-øD₂5
Unequal Double Y SPRG	SPRG6-45
	SPRG8-65

Type	Model code SPKGøD₁-øD₂5
Unequal Triple Tee SPKG	SPKG6-45
	SPKG8-45
	SPKG8-65
	SPKG10-65
	SPKG10-85

Type	Model code SPWJøD₂-øD₁5
Unequal Plug-in Y SPWJ	SPWJ6-45
	SPWJ8-65
	SPWJ10-85
	SPWJ12-105
	SPWJ16-125

Type	Model code SPTJøD-R5
Plug-in Male Adapter SPTJ	SPTJ4-M55
	SPTJ4-015
	SPTJ6-M55
	SPTJ6-015
	SPTJ6-025
	SPTJ8-015
	SPTJ8-025
	SPTJ8-035
	SPTJ10-035

Type	Model code SPPFøD5
Cap SPPF	SPPF45
	SPPF65
	SPPF85
	SPPF105
	SPPF125
	SPPF165

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options

Code	5 : -UC
Specifications	Clean-wash and Clean-room pkg. (*) (Fill in 5 with "-UC".)

* Rubber material: FKM is not available for Clean-wash spec.

Non-standard options (details ► P. 893)

- Body color Optional (Light gray)
- Seal rubber material optional (FKM or EPDM)
- Oil-free
- Copper free spec.
- Release-ring color change (Red)

►Contact us for the price.

Minimal Fitting Stainless SUS303 Equivalent Corrosivity

PISCO
>>> https://www.pisco.co.jp/en/

SUS303 Equivalent Corrosivity Barb small fittings

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

SL (1) C (2) – 0425 (3) – M5 (4) –C (5)

(1) Minimal Fitting Stainless SUS303 Equivalent Corrosivity

(2) Type

(3) -a. Tube dia. (øD)

Code	mm size (mm)		
	0320	0425	0640
Tube O.D.	ø3	ø4	ø6
Tube I.D.	ø2	ø2.5	ø4

(3) -b. Tube dia. (M, FM)

Code	Metric male thread		Metric female thread
	M3	M5	FM5
Size	M3×0.5	M5×0.8	M5×0.8

(4) Thread size (M)

Code	Metric thread		
	M3	M5	M6
Size	M3×0.5	M5×0.8	M6×1

(5) Packaging spec. (Optional)

Code	No code	-C
Spec.	Standard pkg.	Clean-room package

Characteristics

Ultra-small barb fitting is suitable for piping in a narrow space.

Suitable in corrosive environment and chemical atmosphere.

See below drawing for the materials.

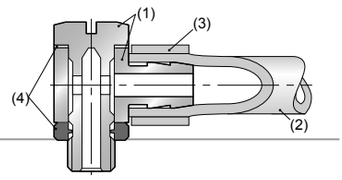
● Clean-room pkg. (Optional)

Best suited for space-saving piping in clean environment.

The products are washed by clean air, then packed in ISO class 6 equivalent clean-room.

Sectional drawing

Barb Single Banjo : SLH



No.	Parts	Material
(1)	Metallic body	Special stainless steel (Austenite or ferritic) (*) or SUS303
(2)	Tube	Vacuum tube or Clean-room pkg. tube
(3)	Tube Clamp Sleeve	Fluororesin (Order separately)
(4)	Gasket	PPS

* The corrosive resistance is equivalent to SUS303.

Specifications

Type	Barb type	Female thread type
Fluid medium	Air	
Max. operating pressure	0.5 MPa (with Vacuum tube : 0.4 MPa)	1.0 MPa
Max. vacuum	-100 kPa	
Operating temp. range	0 to 60°C (no freezing)	

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code SLC-øD-M5
Barb Straight SLC	SLC-0320-M3 5
	SLC-0320-M5 5
	SLC-0425-M3 5
	SLC-0425-M5 5
	SLC-0425-M6 5
	SLC-0640-M3 5
	SLC-0640-M5 5
	SLC-0640-M6 5

Type	Model code SLG-øD1-øD2 5
Unequal Barb Union Straight SLG	SLG-0425-0320 5
	SLG-0640-0425 5

Type	Model code LS-øD 5
Tube Clamp Sleeve LS	LS-0425 5
	LS-0640 5

Type	Model code SLH-øD-M5
Barb Single Banjo SLH	SLH-0320-M3 5
	SLH-0320-M5 5
	SLH-0425-M3 5
	SLH-0425-M5 5
	SLH-0640-M5 5

Type	Model code SLH-FM-M5
Female Screw Banjo SLH-F	SLH-FM5-M5 5

Type	Model code SLL-FM5
Female Screw Elbow SLL	SLL-FM5 5

Type	Model code SLN-M-M5
Male Screw Union SLN	SLN-M3-M3 5
	SLN-M5-M5 5

Type	Model code SLB-øD-M5
Barb Branch Tee SLB	SLB-0320-M3 5
	SLB-0320-M5 5
	SLB-0425-M3 5
	SLB-0425-M5 5
	SLB-0640-M5 5

Type	Model code SLB-FM-M5
Female Screw Branch Tee SLB-F	SLB-FM5-M5 5

Type	Model code SLE-FM5
Female Screw Tee SLE	SLE-FM5 5

Type	Model code SLP-M5
Plug SLP	SLP-M3 5
	SLP-M5 5

CAD data is available at PISCO website.

Packaging specifications
10 pcs. /bag

Options
5: –C ⇒ Clean-room pkg.

Tube Fitting Chemical

PPS all-plastic collet type Push-in fittings for chemical resistance

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

AP	C	6	-	01			
(1)	(2)	(3)		(4)	(5)	(6)	(7)

(1) Tube Fitting Chemical Series

(2) Type

(3) Tube dia. (øD, øD1, øD2)

Code	4	6	8	10	12
Tube O.D. (mm)	ø4	ø6	ø8	ø10	ø12

(4) Thread size (R)

Code	01	02	03	04
Thread size	R1/8	R1/4	R3/8	R1/2

* For Unequal Union Stem (APIG) (4) is the tube size, which should be selected from the table in (3).

(5) Seal rubber material (Optional)

Code	No code	-E	-N
Seal rubber material	FKM	EPDM	NBR

(6) Thread sealing spec. (Optional)

Code	No code	-TP
Thread sealing	Without Sealock No seal tape	Seal tape spec. (Seal tape is applied on thread part)

(7) Packaging spec. (Optional)

Code	No code	-C
Specifications	Standard pkg.	Clean-room pkg.

Characteristics

PPS resin fittings to meet the needs of a wide range of sectors.

The fitting is made of PPS GF30% (polyphenylene sulfide), which possesses excellent heat resistance flame resistance (UL94 V-0 equivalent) and chemical resistance. Fluorine rubber (FKM) is used as the seal material.

Push-in type fitting enables easy insertion / disconnection of a tube.

Seal rubber material option is available.

Seal rubber material (standard specification: FKM) can be changed to EPDM or NBR according to the application.

There is no need to worry about rust or metal ion, because the fitting is all-resin made.

The weight is about 1/3 of the standard fitting, and 1/5 of SUS316 compression fitting.

Oil-free.

Food Sanitation Act. (Japan) compliant (Only fits seal rubber material FKM)

* See page 6 for details.

● Clean-room pkg. spec. (Optional)

Best suitable for piping in clean environment.

The products are washed by clean air, then packed in ISO class 6 equivalent clean-room.

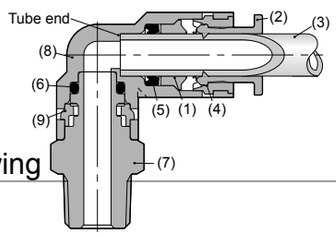
Specifications

Fluid medium	Air, Water (Conditional*), Other chemicals (Conditional*)
Max. operating pressure	0.9 MPa (at 0 to 20ºC)
Max. vacuum	-100 kPa
Operating temp. range	0 to 80°C (For seal rubber material NBR: 0 to 60°C) (No freezing)

⚠ Warning
* Make sure to follow the instructions below when the fluid medium is water or liquid.
1. When using water or liquid, the surge pressure must be kept below the maximum operating pressure.
2. General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
3. Be sure to use Insert Ring (WR) when using water or liquid as a fluid medium.
4. As for chemicals, mixed gas, etc., they may vary depending on the conditions of use, so please check the compatibility of our specifications before use.

Sectional drawing

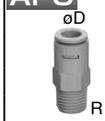
Elbow type : APL



No.	Parts	Material
(1)	Tapered bush	PPS GF30%
(2)	Collet	PPS GF30%
(3)	Tube	Fluororesin (PFA), (FEP) or Polyamide, etc.
(4)	Tapered sleeve	PPS GF30%
(5)	Elastic sleeve	FKM*
(6)	O-ring	FKM*
(7)	Thread body	PPS GF30%
(8)	Fitting body	PPS GF30%
(9)	C-ring	PPS GF30%

* Seal rubber materials are also available in EPDM (ethylene propylene) and NBR (nitrile rubber) on a make-to-order basis.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code APCøD-R5 6 7
Straight APC 	APC4-01 5 6 7
	APC6-01 5 6 7
	APC6-02 5 6 7
	APC6-03 5 6 7
	APC8-01 5 6 7
	APC8-02 5 6 7
	APC8-03 5 6 7
	APC10-02 5 6 7
	APC10-03 5 6 7
	APC12-02 5 6 7
	APC12-03 5 6 7
	APC12-04 5 6 7

Type	Model code APLøD-R5 6 7
Elbow APL	APL4-01 5 6 7
	APL6-01 5 6 7
	APL6-02 5 6 7
	APL6-03 5 6 7
	APL8-01 5 6 7
	APL8-02 5 6 7
	APL8-03 5 6 7
	APL10-02 5 6 7
	APL10-03 5 6 7
	APL12-02 5 6 7
	APL12-03 5 6 7
	APL12-04 5 6 7

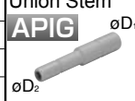
Type	Model code APBøD-R5 6 7
Branch Tee APB	APB4-01 5 6 7
	APB6-01 5 6 7
	APB6-02 5 6 7
	APB6-03 5 6 7
	APB8-01 5 6 7
	APB8-02 5 6 7
	APB8-03 5 6 7
	APB10-02 5 6 7
	APB10-03 5 6 7
	APB12-02 5 6 7
	APB12-03 5 6 7
	APB12-04 5 6 7

Type	Model code APUøD5 7
Union Straight APU	APU4 5 7
	APU6 5 7
	APU8 5 7
	APU10 5 7
	APU12 5 7

Type	Model code APVøD5 7
Union Elbow APV	APV4 5 7
	APV6 5 7
	APV8 5 7
	APV10 5 7
	APV12 5 7

Type	Model code APEøD5 7
Union Tee APE	APE4 5 7
	APE6 5 7
	APE8 5 7
	APE10 5 7
	APE12 5 7

Type	Model code APYøD5 7
Union Y APY	APY4 5 7
	APY6 5 7
	APY8 5 7
	APY10 5 7
	APY12 5 7

Type	Model code APIGøD1-øD2 7
Unequal Union Stem APIG 	APIG6-4 7
	APIG8-6 7
	APIG10-8 7
	APIG12-10 7

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options

Code	5 : -E	5 : -N	6 : -TP	7 : -C
Specifications	Seal rubber EPDM (Fill in 5 with "-E")	Seal rubber NBR (Fill in 5 with "-N")	Seal Tape on thread (Fill in 6 with "-TP")	Clean-room pkg. (Fill in 7 with "-C")

Tube Fitting PP /SUS304

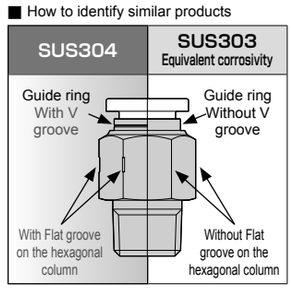
Resin (PP) made Push-in fitting for clean environment (Metal part is SUS304)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

PP	C	6	–	01				
(1)	(2)	(3)		(4)	(5)	(6)	(7)	(8)

■ How to identify similar products



* When the screw body is made of resin, only the guide ring part can be identified.

(1) Tube Fitting PP Series/SUS304

(2) Type

(3) Tube dia. (øD)

Code		mm size					inch size		
		4*1	6	8*1	10	12	1/4	3/8	1/2
Tube O.D.	mm	ø4	ø6	ø8	ø10	ø12	–	–	–
	inch	ø5/32	–	ø5/16	–	–	ø1/4	ø3/8	ø1/2

* Apply the code "4" for ø5/32in., and "8" for ø5/16in.

(4) Thread size (R)

Code	Metric thread		Taper pipe thread			
	M3	M5	01	02	03	04
Size	M3×0.5	M5×0.8	R1/8	R1/4	R3/8	R1/2

* In case that (4) indicates tube dia., select tube dia. from table (3).

(5) Thread body material

Code	No code	SUS
Material	PP (Polypropylene)	SUS304

(6) Seal rubber material (Optional)

Code	No code	–F*	–HN
Material	EPDM	FKM	HNBR

* Not available with Clean-wash spec. (-UC).

(7) Thread sealing spec. (Optional) (Taper pipe thread only)

Code	No code	–S*1	–TP*2
Thread sealing	No sealock, no sealing tape	With Sealock coating	Seal tape spec. (Seal tape is applied on thread part)

*1 Not selectable if the thread material is PP.
*2 Not available with Clean-wash spec. (-UC).

(8) Wash & Packaging spec.(Optional)

Code	No code	–C	–UC
Spec.	Standard pkg. without clean-wash	Clean-room pkg. without clean-wash	Clean-room pkg. with clean-wash

Characteristics

- PP (Polypropylene) is selected for the body material to adapt to clean environment.
- Metal material is SUS304 and EPDM is used for seal material.
  The sealing rubber can be changed to FKM or HNBR depending on the application.
- Oil-free specification meets needs in a wide range of fields.
- Food Sanitation Act. (Japan) compliant. (Excluding sealock coating type.)
  * See page 6 for details.
- Visible Fluid by Transparent Body Color.
  Easy to check sanitary conditions visually.
- Thread body material: Resin (PP) and SUS304. Resin screws have no exposed metal in the wetted parts and weight is less than half of the standard tube fitting.
- Seal tape or Sealock coating on thread options available.
  * Only sealing tape is available for resin thread body
- Inch tube size is available.

● Clean-room pkg. spec. (Optional)

- Best suitable for piping in clean environment.
  The products are washed by clean air, then packed in ISO class 6 equivalent clean-room.

● Clean-wash spec. (Optional)

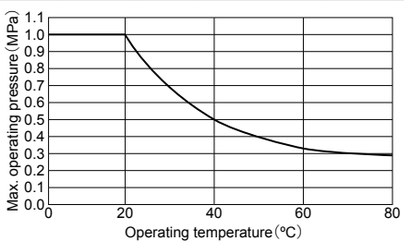
- For manufacturing process where particles and oil should be avoided.
  The product goes through vacuum ultrasonic cleaning by HFE (hydro fluoro ether) in a clean-room and is packed with deaeration packaging.

Specifications

Fluid medium	Air, Water (Conditional*1), Other chemicals (Conditional*1)
Max. operating pressure	1.0 MPa(at 0 to 20°C) *2
Max. vacuum	-100 kPa
Operating temp. range	Without Sealock coating 0 to 80°C (no freezing) With Sealock coating：0 to 60°C (no freezing)

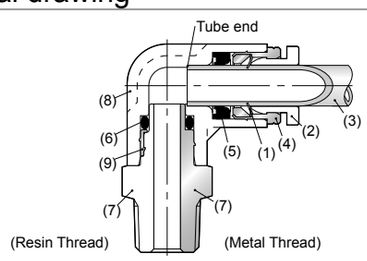
⚠ Warning
*1. Make sure to follow the instructions below when the fluid medium is water or liquid.
1. When using water or liquid, the surge pressure must be kept below the maximum operating pressure.
2. General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
3. Be sure to use Insert Ring (WR) when using water or liquid as a fluid medium.
4. As for chemicals, mixed gas, etc., they may vary depending on the conditions of use, so please check the compatibility of our specifications before use.
*2. When operating temp. exceeds 20°C, refer to the following chart "Relation of Operating Temp. & Max. Operating Pressure ".

Relation of Operating Temp. & Max. Operating Pressure



Sectional drawing

Elbow type: PPL



Thread material		Resin	Metal
No.	Parts	Material	
(1)	Lock claws	Stainless steel	
(2)	Release-ring	PP	
(3)	Tube	Fluororesin, Polyolefin, Clean-room pkg. etc.	
(4)	Guide ring	SUS304	
(5)	Elastic sleeve	EPDM	
(6)	O-ring	EPDM	
(7)	Thread body	PP	SUS304 *
(8)	Resin body	PP	
(9)	Press fitted ring	SUS304	—

* Gaskets are attached to a metal type of M3 and M5 threads. Gasket material is shown below.
When rubber material is EPDM (standard spec.) : SUS304 + EPDM
When Rubber Material is FKM : SUS316 + FKM
When Rubber Material is HNBR : SUS304 + HNBR

RoHS2 (2011/65/EU+EU2015/863) compliant

Thread body material: PP

Type	Model code PPCøD-R6 7 8
Straight PPC øD R	PPC4-01 6 7 8
	PPC4-02 6 7 8
	PPC6-01 6 7 8
	PPC6-02 6 7 8
	PPC6-03 6 7 8
	PPC8-01 6 7 8
	PPC8-02 6 7 8
	PPC8-03 6 7 8
	PPC10-02 6 7 8
	PPC10-03 6 7 8
	PPC12-02 6 7 8
	PPC12-03 6 7 8
	PPC12-04 6 7 8
	PPC1/4-01 6 7 8
	PPC1/4-02 6 7 8
	PPC1/4-03 6 7 8
	PPC3/8-02 6 7 8
	PPC3/8-03 6 7 8
	PPC1/2-03 6 7 8
	PPC1/2-04 6 7 8

Thread body material: SUS304

Type	Model code PPCøD-RSUS6 7 8
Straight PPC øD R	PPC4-M3SUS 6 8
	PPC4-M5SUS 6 8
	PPC4-01SUS 6 7 8
	PPC4-02SUS 6 7 8
	PPC6-M5SUS 6 8
	PPC6-01SUS 6 7 8
	PPC6-02SUS 6 7 8
	PPC6-03SUS 6 7 8
	PPC8-01SUS 6 7 8
	PPC8-02SUS 6 7 8
	PPC8-03SUS 6 7 8
	PPC10-02SUS 6 7 8
	PPC10-03SUS 6 7 8
	PPC12-03SUS 6 7 8
	PPC12-04SUS 6 7 8
	PPC1/4-M5SUS 6 8
	PPC1/4-01SUS 6 7 8
	PPC1/4-02SUS 6 7 8
	PPC1/4-03SUS 6 7 8
	PPC3/8-02SUS 6 7 8
	PPC3/8-03SUS 6 7 8
	PPC1/2-03SUS 6 7 8
	PPC1/2-04SUS 6 7 8

Notes

* Tube O.D. 5/32 inch is used with tube O.D. 4mm, tube O.D. 5/16 inch is used with tube O.D. 8mm. For tube O.D. 5/32 inch, select tube O.D. 4 mm. For tube O.D. 5/16 inch, select tube O.D. 8mm.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options

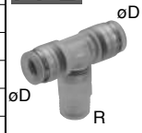
Code	6 : -F	6 : -HN	7 : -S	7 : -TP	8 : -C	8 : -UC
Spec.	Seal rubber FKM (Fill in 6 with "-F")	Seal rubber HNBR (Fill in 6 with "-HN")	Sealock coating *1 (Fill in 7 with "-S")	Seal tape *1 (Fill in 7 with "-TP")	Clean-room pkg. (Fill in 8 with "-C")	Clean-wash & Clean-room pkg. *2 (Fill in 8 with "-UC")

*1 Sealock coating and sealing tape spec. are not available for metric thread.
*2 Rubber material: FKM and seal tape spec. ("-TP") is not available for Clean-wash spec.

Tube Fitting PP /SUS304

RoHS2 (2011/65/EU+EU2015/863) compliant

Thread body material : PP

Type	Model code PPLøD-R[6][7][8]	Type	Model code PPBøD-R[6][7][8]
Elbow PPL 	PPL4-01[6][7][8]	Branch Tee PPB 	PPB4-01[6][7][8]
	PPL4-02[6][7][8]		PPB4-02[6][7][8]
	PPL6-01[6][7][8]		PPB6-01[6][7][8]
	PPL6-02[6][7][8]		PPB6-02[6][7][8]
	PPL6-03[6][7][8]		PPB6-03[6][7][8]
	PPL8-01[6][7][8]		PPB8-01[6][7][8]
	PPL8-02[6][7][8]		PPB8-02[6][7][8]
	PPL8-03[6][7][8]		PPB8-03[6][7][8]
	PPL10-02[6][7][8]		PPB10-02[6][7][8]
	PPL10-03[6][7][8]		PPB10-03[6][7][8]
	PPL12-02[6][7][8]		PPB12-02[6][7][8]
	PPL12-03[6][7][8]		PPB12-03[6][7][8]
	PPL12-04[6][7][8]		PPB12-04[6][7][8]
	PPL1/4-01[6][7][8]		PPB1/4-01[6][7][8]
	PPL1/4-02[6][7][8]		PPB1/4-02[6][7][8]
	PPL1/4-03[6][7][8]		PPB1/4-03[6][7][8]
	PPL3/8-02[6][7][8]		PPB3/8-02[6][7][8]
	PPL3/8-03[6][7][8]		PPB3/8-03[6][7][8]
	PPL1/2-03[6][7][8]		PPB1/2-03[6][7][8]
	PPL1/2-04[6][7][8]		PPB1/2-04[6][7][8]

Thread body material : SUS304

Type	Model code PPLøD-RSUS[6][7][8]	Type	Model code PPBøD-RSUS[6][7][8]
Elbow PPL 	PPL4-M3SUS[6][8]	Branch Tee PPB 	PPB4-M3SUS[6][8]
	PPL4-M5SUS[6][8]		PPB4-M5SUS[6][8]
	PPL4-01SUS[6][7][8]		PPB4-01SUS[6][7][8]
	PPL4-02SUS[6][7][8]		PPB4-02SUS[6][7][8]
	PPL6-M5SUS[6][8]		PPB6-M5SUS[6][8]
	PPL6-01SUS[6][7][8]		PPB6-01SUS[6][7][8]
	PPL6-02SUS[6][7][8]		PPB6-02SUS[6][7][8]
	PPL6-03SUS[6][7][8]		PPB6-03SUS[6][7][8]
	PPL8-01SUS[6][7][8]		PPB8-01SUS[6][7][8]
	PPL8-02SUS[6][7][8]		PPB8-02SUS[6][7][8]
	PPL8-03SUS[6][7][8]		PPB8-03SUS[6][7][8]
	PPL10-02SUS[6][7][8]		PPB10-02SUS[6][7][8]
	PPL10-03SUS[6][7][8]		PPB10-03SUS[6][7][8]
	PPL12-03SUS[6][7][8]		PPB12-03SUS[6][7][8]
	PPL12-04SUS[6][7][8]		PPB12-04SUS[6][7][8]
	PPL1/4-M5SUS[6][8]		PPB1/4-M5SUS[6][8]
	PPL1/4-01SUS[6][7][8]		PPB1/4-01SUS[6][7][8]
	PPL1/4-02SUS[6][7][8]		PPB1/4-02SUS[6][7][8]
	PPL1/4-03SUS[6][7][8]		PPB1/4-03SUS[6][7][8]
	PPL3/8-02SUS[6][7][8]		PPB3/8-02SUS[6][7][8]
	PPL3/8-03SUS[6][7][8]		PPB3/8-03SUS[6][7][8]
	PPL1/2-03SUS[6][7][8]		PPB1/2-03SUS[6][7][8]
	PPL1/2-04SUS[6][7][8]		PPB1/2-04SUS[6][7][8]

Notes
* Tube O.D. 5/32 inch is used with tube O.D. 4mm, tube O.D. 5/16 inch is used with tube O.D. 8mm. For tube O.D. 5/32 inch, select tube O.D. 4 mm. For tube O.D. 5/16 inch, select tube O.D. 8mm.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

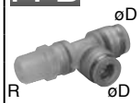
Options

Code	[6] : -F	[6] : -HN	[7] : -S	[7] : -TP	[8] : -C	[8] : -UC
Spec.	Seal rubber FKM (Fill in [6] with "-F")	Seal rubber HNBR (Fill in [6] with "-HN")	Sealock coating *1 (Fill in [7] with "-S")	Seal tape *1 (Fill in [7] with "-TP")	Clean-room pkg. (Fill in [8] with "-C")	Clean-wash & Clean-room pkg. *2 (Fill in [8] with "-UC")

*1 Sealock coating and sealing tape spec. are not available for metric thread.
*2 Rubber material: FKM and seal tape spec. ("-TP") is not available for Clean-wash spec.

RoHS2 (2011/65/EU+EU2015/863) compliant

Thread body material : PP

Type	Model code PPDøD-R6 7 8	Type	Model code PPXøD-R6 7 8
Run Tee PPD 	PPD4-01 6 7 8	Branch Y PPX	PPX4-01 6 7 8
	PPD4-02 6 7 8		PPX4-02 6 7 8
	PPD6-01 6 7 8		PPX6-01 6 7 8
	PPD6-02 6 7 8		PPX6-02 6 7 8
	PPD6-03 6 7 8		PPX6-03 6 7 8
	PPD8-01 6 7 8		PPX8-01 6 7 8
	PPD8-02 6 7 8		PPX8-02 6 7 8
	PPD8-03 6 7 8		PPX8-03 6 7 8
	PPD10-02 6 7 8		PPX10-02 6 7 8
	PPD10-03 6 7 8		PPX10-03 6 7 8
	PPD12-02 6 7 8		PPX12-02 6 7 8
	PPD12-03 6 7 8		PPX12-03 6 7 8
	PPD12-04 6 7 8		PPX12-04 6 7 8
	PPD1/4-01 6 7 8		PPX1/4-01 6 7 8
	PPD1/4-02 6 7 8		PPX1/4-02 6 7 8
	PPD1/4-03 6 7 8		PPX1/4-03 6 7 8
	PPD3/8-02 6 7 8		PPX3/8-02 6 7 8
	PPD3/8-03 6 7 8		PPX3/8-03 6 7 8
	PPD1/2-03 6 7 8		PPX1/2-03 6 7 8
	PPD1/2-04 6 7 8		PPX1/2-04 6 7 8

Thread body material : SUS304

Type	Model code PPDøD-RSUS6 7 8	Type	Model code PPXøD-RSUS6 7 8
Run Tee PPD	PPD4-M3SUS6 8	Branch Y PPX	PPX4-M3SUS6 8
	PPD4-M5SUS6 8		PPX4-M5SUS6 8
	PPD4-01SUS6 7 8		PPX4-01SUS6 7 8
	PPD4-02SUS6 7 8		PPX4-02SUS6 7 8
	PPD6-M5SUS6 8		PPX6-M5SUS6 8
	PPD6-01SUS6 7 8		PPX6-01SUS6 7 8
	PPD6-02SUS6 7 8		PPX6-02SUS6 7 8
	PPD6-03SUS6 7 8		PPX6-03SUS6 7 8
	PPD8-01SUS6 7 8		PPX8-01SUS6 7 8
	PPD8-02SUS6 7 8		PPX8-02SUS6 7 8
	PPD8-03SUS6 7 8		PPX8-03SUS6 7 8
	PPD10-02SUS6 7 8		PPX10-02SUS6 7 8
	PPD10-03SUS6 7 8		PPX10-03SUS6 7 8
	PPD12-03SUS6 7 8		PPX12-03SUS6 7 8
	PPD12-04SUS6 7 8		PPX12-04SUS6 7 8
	PPD1/4-M5SUS6 8		PPX1/4-M5SUS6 8
	PPD1/4-01SUS6 7 8		PPX1/4-01SUS6 7 8
	PPD1/4-02SUS6 7 8		PPX1/4-02SUS6 7 8
	PPD1/4-03SUS6 7 8		PPX1/4-03SUS6 7 8
	PPD3/8-02SUS6 7 8		PPX3/8-02SUS6 7 8
	PPD3/8-03SUS6 7 8		PPX3/8-03SUS6 7 8
	PPD1/2-03SUS6 7 8		PPX1/2-03SUS6 7 8
	PPD1/2-04SUS6 7 8		PPX1/2-04SUS6 7 8

Notes
* tube O.D.: tube O.D. 5/32 inch is used with tube O.D. 4mm, tube O.D. 5/16 inch is used with tube O.D. 8mm. For tube O.D. 5/32 inch, select tube O.D. 4 mm. For tube O.D. 5/16 inch, select tube O.D. 8mm.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options

Code	6 : -F	6 : -HN	7 : -S	7 : -TP	8 : -C	8 : -UC
Spec.	Seal rubber FKM (Fill in 6 with "-F")	Seal rubber HNBR (Fill in 6 with "-HN")	Sealock coating *1 (Fill in 7 with "-S")	Seal tape *1 (Fill in 7 with "-TP")	Clean-room pkg. (Fill in 8 with "-C")	Clean-wash & Clean-room pkg. *2 (Fill in 8 with "-UC")

*1 Sealock coating and sealing tape spec. are not available for metric thread.
*2 Rubber material: FKM and seal tape spec. ("-TP") is not available for Clean-wash spec.

Tube Fitting PP Series/SUS304

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code PPUøD6 8
Union Straight PPU	PPU4 6 8
	PPU6 6 8
	PPU8 6 8
	PPU10 6 8
	PPU12 6 8
	PPU1/4 6 8
	PPU3/8 6 8
	PPU1/2 6 8

Type	Model code PPGøD1-øD2 6 8
Unequal Union Straight PPG	PPG6-4 6 8
	PPG8-6 6 8
	PPG10-8 6 8
	PPG12-10 6 8
	PPG1/4-4 6 8
	PPG8-1/4 6 8
	PPG3/8-8 6 8
	PPG1/2-3/8 6 8

Type	Model code PPPøD8
Plug PPP	PPP4 8
	PPP6 8
	PPP8 8
	PPP10 8
	PPP12 8
	PPP1/4 8
	PPP3/8 8
	PPP1/2 8

Type	Model code PPEøD6 8
Union Tee PPE	PPE4 6 8
	PPE6 6 8
	PPE8 6 8
	PPE10 6 8
	PPE12 6 8
	PPE1/4 6 8
	PPE3/8 6 8
	PPE1/2 6 8

Type	Model code PPEGøD1-øD2 6 8
Unequal Union Tee PPEG	PPEG6-4 6 8
	PPEG8-6 6 8
	PPEG10-8 6 8
	PPEG12-10 6 8
	PPEG1/4-4 6 8
	PPEG8-1/4 6 8
	PPEG3/8-8 6 8
	PPEG1/2-3/8 6 8

Type	Model code PPYøD6 8
Union Y PPY	PPY4 6 8
	PPY6 6 8
	PPY8 6 8
	PPY10 6 8
	PPY12 6 8
	PPY1/4 6 8
	PPY3/8 6 8
	PPY1/2 6 8

Type	Model code PPWøD1-øD2 6 8
Unequal Union Y PPW	PPW6-4 6 8
	PPW8-6 6 8
	PPW10-8 6 8
	PPW12-10 6 8
	PPW1/4-4 6 8
	PPW8-1/4 6 8
	PPW3/8-8 6 8
	PPW1/2-3/8 6 8

Type	Model code PPVøD6 8
Union Elbow PPV	PPV4 6 8
	PPV6 6 8
	PPV8 6 8
	PPV10 6 8
	PPV12 6 8
	PPV1/4 6 8
	PPV3/8 6 8
	PPV1/2 6 8

Type	Model code PPGJøD1-øD2 6 8
Plug-in Reducer PPGJ	PPGJ6-4 6 8
	PPGJ8-4 6 8
	PPGJ8-6 6 8
	PPGJ10-6 6 8
	PPGJ10-8 6 8
	PPGJ12-8 6 8
	PPGJ12-10 6 8
	PPGJ1/4-4 6 8
	PPGJ8-1/4 6 8
	PPGJ3/8-8 6 8
	PPGJ1/2-8 6 8
	PPGJ3/8-1/4 6 8
	PPGJ1/2-1/4 6 8
	PPGJ1/2-3/8 6 8

Type	Model code PPMPøD6 8
Bulkhead Union P PPMP	PPMP4 6 8
	PPMP6 6 8
	PPMP8 6 8
	PPMP10 6 8
	PPMP12 6 8
	PPMP1/4 6 8
	PPMP3/8 6 8
	PPMP1/2 6 8

Notes

* Tube O.D. 5/32 inch is used with tube O.D. 4mm, tube O.D. 5/16 inch is used with tube O.D. 8mm. For tube O.D. 5/32 inch, select tube O.D. 4 mm. For tube O.D. 5/16 inch, select tube O.D. 8mm.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options

Code	6 : -F	6 : -HN	8 : -C	8 : -UC
Spec.	Seal rubber FKM (Fill in 6 with "-F")	Seal rubber HNBR (Fill in 6 with "-HN")	Clean-room pkg. (Fill in 8 with "-C")	Clean-wash & Clean-room pkg. *1 (Fill in 8 with "-UC")

*1 Rubber material: FKM is not available for Clean-wash spec.

Tube Fitting PP SUS303 Equivalent Corrosivity

PISCO
>>> https://www.pisco.co.jp/en/

PP resin Push-in fitting for clean environment (metal part: SUS303 equivalent corrosivity)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

SPP (1) C (2) 6 (3) – 01 (4) (5)

(1) Tube Fitting PP Series SUS303 Equivalent Corrosivity

(2) Type

(3) Tube dia. (øD)

Code	4	6	8	10	12
Tube O.D.(mm)	ø4	ø6	ø8	ø10	ø12

(4) Thread size(R)

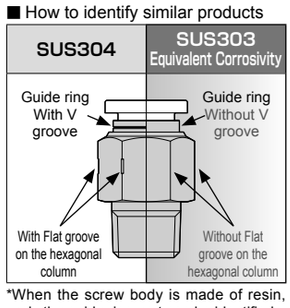
	Metric thread		Taper pipe thread			
Code	M3	M5	01	02	03	04
Size	M3×0.5	M5×0.8	R1/8	R1/4	R3/8	R1/2

*In case that (4) indicates tube dia., select tube dia. from table (3).

(5) Thread body material

Code	No code	SP
Material	PP (Polypropylene)	SUS303 Equivalent corrosivity

■ How to identify similar products



*When the screw body is made of resin, only the guide ring part can be identified.

Characteristics

Metal material: Up to 30% cost reduction compared to SUS304 type.

Low price is achieved by omitting options and selling in units of 10 pieces/1 bag.

PP (Polypropylene) is selected for the body material to adapt to clean environment.

The metal material is special stainless steel of SUS303 equivalent corrosivity, and EPDM is used as the seal material.

Oil-free specification meets needs in a wide range of fields.

Visible fluid by transparent body color.

Easy to check sanitary conditions visually.

Resin and metal are available as thread body materials.

Resin screws have no exposed metal in the wetted parts and weight is less than half of the standard tube fitting.

Selectable from PP resin or special stainless steel (SUS303 equivalent corrosivity), according to the application.

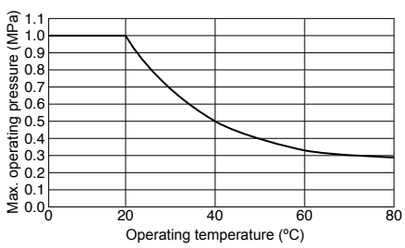
Specifications

Fluid medium	Air, Water (Conditional*1), Other chemicals (Conditional*1)
Max. operating pressure	1.0 MPa (at 0 to 20°C)*2
Max. vacuum	-100 kPa
Operating temp. range	0 to 80°C (no freezing)

⚠ Warning
*1. Make sure to follow the instructions below when the fluid medium is water or liquid.
1. When using water or liquid, the surge pressure must be kept below the maximum operating pressure.
2. General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
3. Be sure to use Insert Ring (WR) when using water or liquid as a fluid medium.
4. As for chemicals, mixed gas, etc., they may vary depending on the conditions of use, so please check the compatibility of our specifications before use.

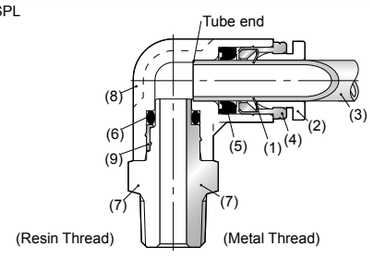
*2. When operating temp. exceeds 20°C, refer to the following chart "Relation of Operating Temp. & Max. Operating Pressure".

Relation of Operating Temp. & Max. Operating Pressure



Sectional drawing

Elbow type: SSPL



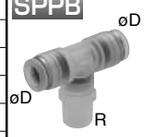
Thread material		Resin	Metal
No.	Parts	Material	
(1)	Lock claws	Stainless steel	
(2)	Release-ring	PP	
(3)	Tube	Fluororesin and Polyolefin etc.	
(4)	Guide ring	Special stainless steel (Austenite or ferritic)	
(5)	Elastic sleeve	EPDM	
(6)	O-ring	EPDM	
(7)	Thread body	PP	Special stainless steel (Austenite or ferritic) or SUS303. *1
(8)	Resin body	PP	
(9)	Press fitted ring	Special stainless steel (Austenite or ferritic)	-

*1. Gaskets (SUS304 + EPDM) are attached to a metal type of M3 and M5 threads.
*2. Corrosion resistance of special stainless steel is equivalent to SUS303.

Tube Fitting PP SUS303 Equivalent Corrosivity

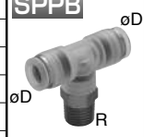
RoHS2 (2011/65/EU+EU2015/863) compliant

Thread body material: PP

Type	Model code SPPCøD-R	Type	Model code SPPLøD-R	Type	Model code SPPBøD-R
Straight SPPC	SPPC4-01	Elbow SPPL	SPPL4-01	Branch Tee SPPB 	SPPB4-01
	SPPC4-02		SPPL4-02		SPPB4-02
	SPPC6-01		SPPL6-01		SPPB6-01
	SPPC6-02		SPPL6-02		SPPB6-02
	SPPC6-03		SPPL6-03		SPPB6-03
	SPPC8-01		SPPL8-01		SPPB8-01
	SPPC8-02		SPPL8-02		SPPB8-02
	SPPC8-03		SPPL8-03		SPPB8-03
	SPPC10-02		SPPL10-02		SPPB10-02
	SPPC10-03		SPPL10-03		SPPB10-03
	SPPC12-03		SPPL12-03		SPPB12-03
	SPPC12-04		SPPL12-04		SPPB12-04

Type	Model code SPPDøD-R	Type	Model code SPPXøD-R
Run Tee SPPD	SPPD4-01	Branch Y SPPX	SPPX4-01
	SPPD4-02		SPPX4-02
	SPPD6-01		SPPX6-01
	SPPD6-02		SPPX6-02
	SPPD6-03		SPPX6-03
	SPPD8-01		SPPX8-01
	SPPD8-02		SPPX8-02
	SPPD8-03		SPPX8-03
	SPPD10-02		SPPX10-02
	SPPD10-03		SPPX10-03
	SPPD12-03		SPPX12-03
	SPPD12-04		SPPX12-04

Thread body material: Special stainless steel of SUS303 equivalent corrosivity

Type	Model code SPPCøD-RSP	Type	Model code SPPLøD-RSP	Type	Model code SPPBøD-RSP
Straight SPPC	SPPC4-M3SP	Elbow SPPL	SPPL4-M3SP	Branch Tee SPPB 	SPPB4-M3SP
	SPPC4-M5SP		SPPL4-M5SP		SPPB4-M5SP
	SPPC4-01SP		SPPL4-01SP		SPPB4-01SP
	SPPC4-02SP		SPPL4-02SP		SPPB4-02SP
	SPPC6-M5SP		SPPL6-M5SP		SPPB6-M5SP
	SPPC6-01SP		SPPL6-01SP		SPPB6-01SP
	SPPC6-02SP		SPPL6-02SP		SPPB6-02SP
	SPPC6-03SP		SPPL6-03SP		SPPB6-03SP
	SPPC8-01SP		SPPL8-01SP		SPPB8-01SP
	SPPC8-02SP		SPPL8-02SP		SPPB8-02SP
	SPPC8-03SP		SPPL8-03SP		SPPB8-03SP
	SPPC10-02SP		SPPL10-02SP		SPPB10-02SP
	SPPC10-03SP		SPPL10-03SP		SPPB10-03SP
	SPPC12-03SP		SPPL12-03SP		SPPB12-03SP
	SPPC12-04SP		SPPL12-04SP		SPPB12-04SP

Type	Model code SPPDøD-RSP	Type	Model code SPPXøD-RSP
Run Tee SPPD	SPPD4-M3SP	Branch Y SPPX	SPPX4-M3SP
	SPPD4-M5SP		SPPX4-M5SP
	SPPD4-01SP		SPPX4-01SP
	SPPD4-02SP		SPPX4-02SP
	SPPD6-M5SP		SPPX6-M5SP
	SPPD6-01SP		SPPX6-01SP
	SPPD6-02SP		SPPX6-02SP
	SPPD6-03SP		SPPX6-03SP
	SPPD8-01SP		SPPX8-01SP
	SPPD8-02SP		SPPX8-02SP
	SPPD8-03SP		SPPX8-03SP
	SPPD10-02SP		SPPX10-02SP
	SPPD10-03SP		SPPX10-03SP
	SPPD12-03SP		SPPX12-03SP
	SPPD12-04SP		SPPX12-04SP

CAD data is available at PISCO website.

Packaging specifications
10 pcs. /bag

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code SPPUøD
Union Straight SPPU	SPPU4
	SPPU6
	SPPU8
	SPPU10
	SPPU12

Type	Model code SPPYøD
Union Y SPPY	SPPY4
	SPPY6
	SPPY8
	SPPY10
	SPPY12

Type	Model code SPPEøD
Union Tee SPPE	SPPE4
	SPPE6
	SPPE8
	SPPE10
	SPPE12

Type	Model code SPPGøD1-øD2
Unequal Union Straight SPPG	SPPG6-4
	SPPG8-6
	SPPG10-8
	SPPG12-10

Type	Model code SPPWøD1-øD2
Unequal Union Y SPPW	SPPW6-4
	SPPW8-6
	SPPW10-8
	SPPW12-10

Type	Model code SPPEGøD1-øD2
Unequal Union Tee SPPEG	SPPEG6-4
	SPPEG8-6
	SPPEG10-8
	SPPEG12-10

Type	Model code SPPVøD
Union Elbow SPPV	SPPV4
	SPPV6
	SPPV8
	SPPV10
	SPPV12

Type	Model code SPPGJøD1-øD2
Plug-in Reducer SPPGJ	SPPGJ6-4
	SPPGJ8-4
	SPPGJ8-6
	SPPGJ10-6
	SPPGJ10-8
	SPPGJ12-8
	SPPGJ12-10

Type	Model code PPPøD
Plug PPP	PPP4
	PPP6
	PPP8
	PPP10
	PPP12

Type	Model code SPPMPøD
Bulkhead Union P SPPMP	SPPMP4
	SPPMP6
	SPPMP8
	SPPMP10
	SPPMP12

CAD data is available at PISCO website.

Packaging specifications
10 pcs. / bag: Except PPP.
1 pc. / bag: PPP

Tube Fitting Anti-Static

Antistatic conductive resin Push-in fittings

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

P (1) C (2) 6 (3) – 01 (4) EG (5)

(1) Tube Fitting

(2) Type

(3) Tube dia. (øD)

Code	3	4	6	8	10	12
Tube O.D.(mm)	ø3	ø4	ø6	ø8	ø10	ø12

(4) Thread size (R)

	Metric thread		Taper pipe thread			
Code	M5	M6	01	02	03	04
Size	M5×0.8	M6×1.0	R1/8	R1/4	R3/8	R1/2

(5) Resin material

EG: Static electricity dissipation resin ("MEG" for tube O.D. 3 mm.)

Related Products

Anti-static Tube ► P.109

Characteristics

Best suitable for piping where static electricity dissipation is required.

Static dissipative resin is used for this push-in fitting.

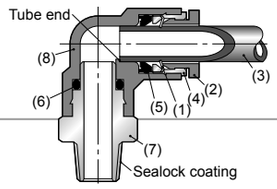
Specifications

Fluid medium	Air
Max. operating pressure	0.6 MPa
Max. vacuum	-100 kPa
Operating temp. range	0 to 40°C (no freezing)
Volume resistance	Conductive PBT: 1×10³Ω·cm, Conductive POM: 1×10²Ω·cm

*Volume resistance value is a representative value from a material manufacturer and is not a guaranteed value.

Sectional drawing

Elbow type: PL-EG



No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	Conductive POM
(3)	Tube	Anti-static Tube
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	O-ring	NBR
(7)	Metallic body	Nickel-plated brass
(8)	Resin body	Conductive PBT

*The gasket of Metric thread is SUS304 + NBR.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code PCøD-REG	Type	Model code PLøD-REG	Type	Model code PBøD-REG
Straight PC	PC3-M5MEG	Elbow PL	PL3-M5MEG	Branch Tee PB	PB3-M5MEG
	PC4-M5EG		PL4-M5EG		PB4-M5EG
	PC4-M6EG		PL4-M6EG		PB4-M6EG
	PC4-01EG		PL4-01EG		PB4-01EG
	PC4-02EG		PL4-02EG		PB4-02EG
	PC6-M5EG		PL6-M5EG		PB6-M5EG
	PC6-M6EG		PL6-M6EG		PB6-M6EG
	PC6-01EG		PL6-01EG		PB6-01EG
	PC6-02EG		PL6-02EG		PB6-02EG
	PC6-03EG		PL6-03EG		PB6-03EG
	PC8-01EG		PL8-01EG		PB8-01EG
	PC8-02EG		PL8-02EG		PB8-02EG
	PC8-03EG		PL8-03EG		PB8-03EG
	PC10-02EG		PL10-02EG		PB10-02EG
	PC10-03EG		PL10-03EG		PB10-03EG
	PC12-03EG		PL12-03EG		PB12-03EG
	PC12-04EG		PL12-04EG		PB12-04EG
Type	Model code PUøDEG	Type	Model code PVøDEG	Type	Model code PEøDEG
Union Straight PU	PU3MEG	Union Elbow PV	PV3MEG	Union Tee PE	PE3MEG
	PU4EG		PV4EG		PE4EG
	PU6EG		PV6EG		PE6EG
	PU8EG		PV8EG		PE8EG
	PU10EG		PV10EG		PE10EG
	PU12EG		PV12EG		PE12EG

CAD data is available at PISCO website.

Packaging specifications
10 pcs. /bag

Special product Optional (details ► P. 893)
· Seal rubber material(FKM, EPDM or HNBR)
· Grease change spec. (oil-free and Copper free)
►Contact PISCO for the price.

Tube Fitting Anti-spatter Series

PISCO®

>>> https://www.pisco.co.jp/en/

Anti-spatter flame-retardant resin Push-in fittings

⚠ Safety instructions for this product

Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

P (1) C (2) 6 (3) – 01 (4) V-0 (5)

(1) Tube Fitting

(2) Type

(3) Tube dia. (øD)

Code	4	6	8	10	12
Tube O.D.(mm)	ø4	ø6	ø8	ø10	ø12

(4) Thread size (R)

	Metric thread		Taper pipe thread				National pipe thread tapered			
Code	M5	M6	01	02	03	04	N1U	N2U	N3U	N4U
Size	M5×0.8	M6×1.0	R1/8	R1/4	R3/8	R1/2	NPT1/8	NPT1/4	NPT3/8	NPT1/2

(5) Flame retardant resin (Code: V-0)

UL94 V-0 UL94 is specified by Underwriters Laboratories Inc. . Ranking of self-extinguishing materials is divided into V-0, V-1, V-2, and HB. V-0 is the most severe ranking among UL94V class.

Related Products

Anti-spatter Tube ► P.108
Tube Stripper for Anti-spatter Tube ► P.114

Characteristics

The fitting made of a flame-retardant resin is highly resistant to flame and spark. (UL94 V-0 equivalent)

Suitable for environment where spatter is generated. The cover prevents malfunction of the release ring due to spatter.

It can prevent the entry of fine weld spatter.

By installing an optional release-ring cover (CS), the entry of fine spatter from the clearance between the release-ring and the tube can be prevented.

Specifications

Fluid medium	Air, Water (Conditional*)
Max. operating pressure	0.9 MPa
Max. vacuum	-100 kPa
Operating temp. range	0 to 60°C (no freezing)

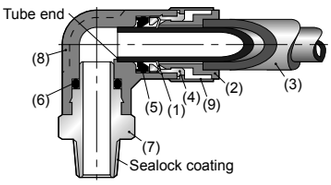
⚠ Warning

*Make sure to follow the instructions below when the fluid medium is water.

1. Surge pressure must be controlled below the maximum operating pressure when using water as a fluid medium.
2. General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
3. Be sure to use Insert Ring (WR) when using water or liquid as a fluid medium.

Sectional drawing

Elbow type: PL-V-0



No,	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	Flame retardant resin
(3)	Tube	Anti-spatter tube
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	O-ring	NBR
(7)	Metallic body	Nickel-plated brass
(8)	Resin body	Flame retardant resin
(9)	Cover	Flame retardant resin

*The gasket of Metric thread (M5, M6) is SUS304 + NBR.

RoHS2 (2011/65/EU+EU2015/863) compliant

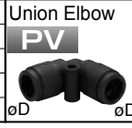
Type	Model code PCøD-R(U)V-0	Type	Model code PLøD-R(U)V-0	Type	Model code PBøD-R(U)V-0
Straight PC	PC4-M5V-0	Elbow PL	PL4-M5V-0	Branch Tee PB	PB4-M5V-0
	PC4-M50V-0(*)		PL4-M6V-0		PB4-M6V-0
	PC4-M6V-0		PL4-01V-0		PB4-01V-0
	PC4-01V-0		PL4-02V-0		PB4-02V-0
	PC4-02V-0		PL6-01V-0		PB6-01V-0
	PC6-01V-0		PL6-02V-0		PB6-02V-0
	PC6-02V-0		PL6-03V-0		PB6-03V-0
	PC6-03V-0		PL8-01V-0		PB8-01V-0
	PC8-01V-0		PL8-02V-0		PB8-02V-0
	PC8-02V-0		PL8-03V-0		PB8-03V-0
	PC8-03V-0		PL10-01V-0		PB10-02V-0
	PC10-01V-0		PL10-02V-0		PB10-03V-0
	PC10-02V-0		PL10-03V-0		PB10-04V-0
	PC10-03V-0		PL10-04V-0		PB12-02V-0
	PC10-04V-0		PL12-02V-0		PB12-03V-0
	PC12-02V-0		PL12-03V-0		PB12-04V-0
	PC12-03V-0		PL12-04V-0		PB12-N4UV-0
	PC12-04V-0		PL4-N1UV-0		
	PC10-N1UV-0		PL6-N2UV-0		
	PC10-N3UV-0		PL8-N1UV-0		
	PC12-N3UV-0		PL8-N2UV-0		
	PC12-N4UV-0		PL8-N3UV-0		
			PL10-N1UV-0		
			PL10-N4UV-0		

PC4-M50V-0 is a slim type of PC4-M5V-0. (Wrench size: 8mm)

CAD data is available at PISCO website.

Packaging specifications
10 pcs. /bag

Type	Model code PUøD V-0	Type	Model code PVøD V-0	Type	Model code PEøD V-0	Type	Model code PPøD V-0
Union Straight PU	PU4V-0	Union Elbow PV	PV4V-0	Union Tee PE	PE4V-0	Plug PP	PP4V-0
	PU6V-0		PV6V-0		PE6V-0		PP6V-0
	PU8V-0		PV8V-0		PE8V-0		PP8V-0
	PU10V-0		PV10V-0		PE10V-0		PP10V-0
	PU12V-0		PV12V-0		PE12V-0		PP12V-0



Tube Fitting Brass

Brass Push-in fitting for use in environments of high heat, spatter resistance, and die temperature control.

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

KC6-01 (5) (6)

(1) (2) (3) (4)

(1) Tube Fitting Brass Series

(2) Type

(3) Tube dia. (øD)

Code	4	6	8	10	12
Tube O.D.(mm)	ø4	ø6	ø8	ø10	ø12

(4) Thread size (R)

	Metric thread	Taper pipe thread			
Code	M5	01	02	03	04
Size	M5×0.8	R1/8	R1/4	R3/8	R1/2

(5) Cover

Code	No code	-1
Cover	With cover	Without cover

(6) Seal rubber material (Optional)

Code	No code	-F
Material	HNBR	FKM

Characteristics

Not only the body but also the release ring is made of brass.

A cover is equipped, which prevents malfunction of the release ring due to spatter. Suitable for environment where weld spatter is generated.

Without cover type is available. Suitable for various applications.

For use in environments other than spatter-resistant environments (e.g., mold cooling water piping), the uncovered type is recommended.

Seal rubber material options.

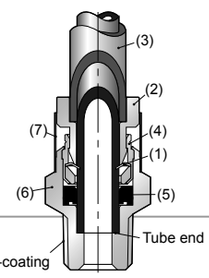
Seal rubber material (standard spec.: HNBR) can be changed to FKM according to the application.

It can prevent the entry of fine weld spatter.

By installing an optional release-ring cover (CS), the entry of fine spatter from the clearance between the release-ring and the tube can be prevented.

Sectional drawing

Straight: KC



No,	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	Nickel-plated brass
(3)	Tube	Anti-spatter tube, etc.
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	HNBR
(6)	Metallic body	Nickel-plated brass
(7)	Cover	Nickel-plated brass

*The gasket of Metric thread (M5) is SUS316 + FKM.

Specifications

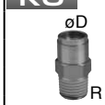
Fluid medium	Air, Water (Conditional*), Heat medium oil (Conditional*)	
Max. operating pressure	1.0 MPa	
Max. vacuum	-100 kPa	
Operating temp. range	HNBR spec. 0 to 100°C (no freezing)	FKM spec. 0 to 120°C (no freezing)

⚠ Warning
*Make sure to follow the instructions below when the fluid medium is water or heat medium oil.
1. Surge pressure must be controlled lower than max. operating pressure when using water or heat medium oil as a fluid medium.
2. General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
3. Be sure to use Insert Ring (WR) when using water or heat medium oil as a fluid medium.

Tube Fitting Brass series will be design changed (more shape variations and product redesign) in Aug. 2024.

RoHS2 (2011/65/EU+EU2015/863) compliant

With cover

Type	Model code KCøD-R6	Type	Model code KOCøD-R6	Type	Model code KLøD-R6
Straight KC 	KC4-M56	Inner Hex. Straight KOC	KOC4-M56	Elbow KL	KL4-M56
	KC4-0156		KOC4-0156		KL4-0156
	KC4-0256		KOC4-0256		KL4-0256
	KC6-M56		KOC6-M56		KL6-M56
	KC6-0156		KOC6-0156		KL6-0156
	KC6-0256		KOC6-0256		KL6-0256
	KC6-0356		KOC6-0356		KL6-0356
	KC8-0156		KOC8-0156		KL8-0156
	KC8-0256		KOC8-0256		KL8-0256
	KC8-0356		KOC8-0356		KL8-0356
	KC10-0156		KOC10-0156		KL10-0156
	KC10-0256		KOC10-0256		KL10-0256
	KC10-0356		KOC10-0356		KL10-0356
	KC10-0456		KOC10-0456		KL10-0456
	KC12-0256		KOC12-0256		KL12-0256
	KC12-0356		KOC12-0356		KL12-0356
	KC12-0456		KOC12-0456		KL12-0456

Type	Model code KBøD-R6	Type	Model code KDøD-R6	Type	Model code KHøD-R6
Branch Tee KB	KB4-M56	Run Tee KD	KD4-M56	Single Banjo KH	KH4-M56
	KB4-0156		KD4-0156		KH4-0156
	KB4-0256		KD4-0256		KH6-M56
	KB6-M56		KD6-M56		KH6-0156
	KB6-0156		KD6-0156		KH6-0256
	KB6-0256		KD6-0256		KH6-0356
	KB6-0356		KD6-0356		KH8-0156
	KB8-0156		KD8-0156		KH8-0256
	KB8-0256		KD8-0256		KH8-0356
	KB8-0356		KD8-0356		KH10-0256
	KB10-0156		KD10-0156		KH10-0356
	KB10-0256		KD10-0256		KH10-0456
	KB10-0356		KD10-0356		KH12-0356
	KB10-0456		KD10-0456		KH12-0456
	KB12-0256		KD12-0256		
	KB12-0356		KD12-0356		
	KB12-0456		KD12-0456		

Type	Model code KUøD6	Type	Model code KVøD6	Type	Model code KEøD6
Union Straight KU	KU46	Union Elbow KV	KV46	Union Tee KE	KE46
	KU66		KV66		KE66
	KU86		KV86		KE86
	KU106		KV106		KE106
	KU126		KV126		KE126

Type	Model code KMøD6	Type	Model code KYøD6
Bulkhead Union KM	KM46	Union Y KY	KY46
	KM66		KY66
	KM86		KY86
	KM106		KY106
	KM126		KY126

CAD 2D 3D CAD data is available at PISCO website.

Option Standard Optional
Seal rubber FKM (Fill in 6 with "-F")

Package Packaging specifications
10 pcs. /bag

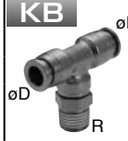
Order Special product optional (details►P.893)
· Oil-free spec.
· Copper free spec.

Tube Fitting Brass

RoHS2 (2011/65/EU+EU2015/863) compliant

Without cover

Type	Model code KCøD-R-1⬜	Type	Model code KOCøD-R-1⬜	Type	Model code KLøD-R-1⬜
Straight **KC**	KC4-M5-1⬜	Inner Hex. Straight **KOC**	KOC4-M5-1⬜	Elbow **KL**	KL4-M5-1⬜
	KC4-01-1⬜		KOC4-01-1⬜		KL4-01-1⬜
	KC4-02-1⬜		KOC4-02-1⬜		KL4-02-1⬜
	KC6-M5-1⬜		KOC6-M5-1⬜		KL6-M5-1⬜
	KC6-01-1⬜		KOC6-01-1⬜		KL6-01-1⬜
	KC6-02-1⬜		KOC6-02-1⬜		KL6-02-1⬜
	KC6-03-1⬜		KOC6-03-1⬜		KL6-03-1⬜
	KC8-01-1⬜		KOC8-01-1⬜		KL8-01-1⬜
	KC8-02-1⬜		KOC8-02-1⬜		KL8-02-1⬜
	KC8-03-1⬜		KOC8-03-1⬜		KL8-03-1⬜
	KC10-01-1⬜		KOC10-01-1⬜		KL10-01-1⬜
	KC10-02-1⬜		KOC10-02-1⬜		KL10-02-1⬜
	KC10-03-1⬜		KOC10-03-1⬜		KL10-03-1⬜
	KC10-04-1⬜		KOC10-04-1⬜		KL10-04-1⬜
	KC12-02-1⬜		KOC12-02-1⬜		KL12-02-1⬜
	KC12-03-1⬜		KOC12-03-1⬜		KL12-03-1⬜
	KC12-04-1⬜		KOC12-04-1⬜		KL12-04-1⬜

Type	Model code KBøD-R-1⬜	Type	Model code KDøD-R-1⬜	Type	Model code KHøD-R-1⬜
Branch Tee **KB** 	KB4-M5-1⬜	Run Tee **KD**	KD4-M5-1⬜	Single Banjo **KH**	KH4-M5-1⬜
	KB4-01-1⬜		KD4-01-1⬜		KH4-01-1⬜
	KB4-02-1⬜		KD4-02-1⬜		KH6-M5-1⬜
	KB6-M5-1⬜		KD6-M5-1⬜		KH6-01-1⬜
	KB6-01-1⬜		KD6-01-1⬜		KH6-02-1⬜
	KB6-02-1⬜		KD6-02-1⬜		KH6-03-1⬜
	KB6-03-1⬜		KD6-03-1⬜		KH8-01-1⬜
	KB8-01-1⬜		KD8-01-1⬜		KH8-02-1⬜
	KB8-02-1⬜		KD8-02-1⬜		KH8-03-1⬜
	KB8-03-1⬜		KD8-03-1⬜		KH10-02-1⬜
	KB10-01-1⬜		KD10-01-1⬜		KH10-03-1⬜
	KB10-02-1⬜		KD10-02-1⬜		KH10-04-1⬜
	KB10-03-1⬜		KD10-03-1⬜		KH12-03-1⬜
	KB10-04-1⬜		KD10-04-1⬜		KH12-04-1⬜
	KB12-02-1⬜		KD12-02-1⬜		
	KB12-03-1⬜		KD12-03-1⬜		
	KB12-04-1⬜		KD12-04-1⬜		

Type	Model code KUøD-1⬜	Type	Model code KVøD-1⬜	Type	Model code KEøD-1⬜
Union Straight **KU**	KU4-1⬜	Union Elbow **KV**	KV4-1⬜	Union Tee **KE**	KE4-1⬜
	KU6-1⬜		KV6-1⬜		KE6-1⬜
	KU8-1⬜		KV8-1⬜		KE8-1⬜
	KU10-1⬜		KV10-1⬜		KE10-1⬜
	KU12-1⬜		KV12-1⬜		KE12-1⬜

Type	Model code KMøD-1⬜	Type	Model code KYøD-1⬜	Type	Model code CSøD	The image of Release-ring cover installed
Bulkhead Union **KM**	KM4-1⬜	Union Y **KY**	KY4-1⬜	Release-ring cover **CS**	CS6	
	KM6-1⬜		KY6-1⬜		CS8	
	KM8-1⬜		KY8-1⬜		CS10	
	KM10-1⬜		KY10-1⬜		CS12	
	KM12-1⬜		KY12-1⬜			

CAD data is available at PISCO website.

Standard Optional
Seal rubber FKM (Fill in ⬜ with "–F")

Packaging specifications
10 pcs. /bag

Special product optional (details►P.893)
· Oil-free spec.
· Copper free spec.

All Brass Compression Fitting

PISCO
>>> https://www.pisco.co.jp/en/

Brass made compression fitting for use in environments of high heat, spatter resistance, and die temperature control.

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

NK (1) C (2) 0640 (3) – 01 (4)

(1) All Brass Compression Fitting

(2) Type

(3) Tube dia. (øD)

Code	0425	0640	0850	0860	1065	1075	1280	1290	1611	1613
Tube O.D. (mm)	ø4	ø6	ø8	ø8	ø10	ø10	ø12	ø12	ø16	ø16
Tube I.D. (mm)	ø2.5	ø4	ø5	ø6	ø6.5	ø7.5	ø8	ø9	ø11	ø13
Identification groove	×	×	✓	×	✓	×	✓	×	✓	×
Connection with Polyurethane tube	✓	✓	✓		✓		✓		✓	
Connection with Nylon tube	✓	✓		✓		✓		✓		✓
Code for Cap nut	4	6	8		10		12		16	

*See the sectional drawing below for the identification groove.

(4) Thread size (R, Rc)

	Taper pipe thread			
Code	01	02	03	04
Male thread	R1/8	R1/4	R3/8	R1/2
Female thread	Rc1/8	Rc1/4	Rc3/8	Rc1/2

*Blank for Cap Nut only.

Characteristics

- Suitable for automobile industry and thermal control for mold tooling.
- By using special brass in the main metal body, this product line has achieved high water corrosivity.
- This product line does not require connecting sleeve, therefore, no more need to worry about installing or missing sleeves.
- A wide range of choices for a wide range of applications.

5 types are available: C (Straight), CF (Female straight), MF (Bulkhead female straight), L (Elbow), E (Union Tee).
10 tube sizes are available: tube O.D. 4 mm to O.D.16 mm

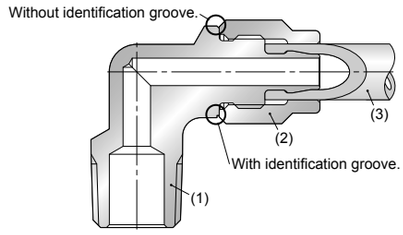
Specifications

Fluid medium	Air, Water (Conditional*1), Other chemicals (Conditional*1)
Max. operating pressure	Follow max. operating pressure of tube specifications
Max. vacuum	-101.3 kPa
Operating temp. range	Follows the operating temperature range of the tubing.(no freezing)

⚠ Warning
*1. Make sure to follow the instructions below when the fluid medium is water or liquid.
1. Surge pressure must be controlled lower than max. operating pressure when using water or liquid as a fluid medium.
2. General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
3. For fluids medium other than air or water, check the suitability of our specifications before use, as they may differ depending on the operating conditions.
*2. The operating temperature range of the product conforms to the operating temperature range of the tube used, but there is a risk of damage if the unit is subjected to excessive strain when used at high temperatures.
*3. Because of the fitting's structure, the performance decreases if soft tube is inserted. Be sure to confirm the practical effect with a using tube before actual operation.

Sectional drawing

Elbow type: NKL



No,	Parts	Material
(1)	Metallic body	Special brass
(2)	Cap nut	Brass (Fluorine coating)
(3)	Tube	Various PISCO tubes can be used.

All Brass Compression Fitting

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code NKCøD-R
Straight NKC 	NKC0425-01
	NKC0425-02
	NKC0640-01
	NKC0640-02
	NKC0640-03
	NKC0850-01
	NKC0850-02
	NKC0850-03
	NKC0860-01
	NKC0860-02
	NKC0860-03
	NKC1065-02
	NKC1065-03
	NKC1065-04
	NKC1075-02
	NKC1075-03
	NKC1075-04
	NKC1280-02
	NKC1280-03
	NKC1280-04
	NKC1290-02
	NKC1290-03
	NKC1290-04
	NKC1611-03
	NKC1611-04
	NKC1613-03
	NKC1613-04

Type	Model code NKLøD-R
Elbow NKL 	NKL0425-01
	NKL0425-02
	NKL0640-01
	NKL0640-02
	NKL0640-03
	NKL0850-01
	NKL0850-02
	NKL0850-03
	NKL0860-01
	NKL0860-02
	NKL0860-03
	NKL1065-02
	NKL1065-03
	NKL1065-04
	NKL1075-02
	NKL1075-03
	NKL1075-04
	NKL1280-02
	NKL1280-03
	NKL1280-04
	NKL1290-02
	NKL1290-03
	NKL1290-04
	NKL1611-03
	NKL1611-04
	NKL1613-03
	NKL1613-04

Type	Model code NKEøD
Union Tee NKE 	NKE0425
	NKE0640
	NKE0850
	NKE0860
	NKE1065
	NKE1075
	NKE1280
	NKE1290

Type	Model code NKNøD
Cap Nut NKN 	NKN4
	NKN6
	NKN8
	NKN10
	NKN12
	NKN16

CAD data is available at PISCO website.

Packaging specifications
10 pcs. /bag

Type	Model code NKCFøD-Rc
Female Straight NKCF 	NKCF0425-01
	NKCF0425-02
	NKCF0640-01
	NKCF0640-02
	NKCF0640-03
	NKCF0850-01
	NKCF0850-02
	NKCF0850-03
	NKCF0860-01
	NKCF0860-02
	NKCF0860-03
	NKCF1065-02
	NKCF1065-03
	NKCF1065-04
	NKCF1075-02
	NKCF1075-03
	NKCF1075-04
	NKCF1280-02
	NKCF1280-03
	NKCF1280-04
	NKCF1290-02
	NKCF1290-03
	NKCF1290-04

Type	Model code NKMFøD-Rc
Bulkhead Female Straight NKMF 	NKMF0425-01
	NKMF0425-02
	NKMF0640-01
	NKMF0640-02
	NKMF0640-03
	NKMF0850-01
	NKMF0850-02
	NKMF0850-03
	NKMF0860-01
	NKMF0860-02
	NKMF0860-03
	NKMF1065-02
	NKMF1065-03
	NKMF1065-04
	NKMF1075-02
	NKMF1075-03
	NKMF1075-04
	NKMF1280-02
	NKMF1280-03
	NKMF1280-04
	NKMF1290-02
	NKMF1290-03
	NKMF1290-04

Die Temperature Control Fitting

PISCO

>>> https://www.pisco.co.jp/en/

Separable Push-in fitting for die temperature control

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

A (1) K (2) C (3) 10 (4) – 6 (5) 01 (6) (7)

(1) Die Temperature Control Fitting Series

(2) Type

Code	K	S
Type	Standard type (without stop valve)	With stop valve

(3) Fitting type

Code	C	L	No code
Type	Straight	Elbow	Thread part (socket) only

(4) Connection size

Code	08	10
Type	8 Series (Standard type only)	10 Series

(5) Tube dia. (øD) · **Female thread size** (Rc)

	Push-in fitting type						Female thread type			Barb fitting for hose		
	Tube O.D. (mm)				Tube O.D. (inch)		Taper pipe thread			Tube I.D. (inch)		
Code	6	8	10	12	5/16	3/8	01F	02F	03F	ID06B	ID09B	No code
Size	ø6	ø8	ø10	ø12	ø5/16	ø3/8	Rc1/8	Rc1/4	Rc3/8	1/4	3/8	Thread part (socket) only

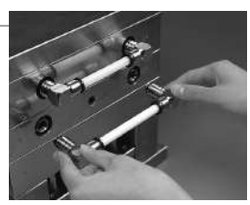
(6) Thread size (R)

	Taper pipe thread				National pipe thread tapered			
Code	01	02	03	04	N1U	N2U	N3U	No code
Thread size	R1/8	R1/4	R3/8	R1/2	NPT1/8	NPT1/4	NPT3/8	Fitting part (plug) only

(7) Parts

Code	P	S	No code
Parts	Plug	Socket	Plug and Socket

Characteristics



Brass for metal material and HNBR for seal material.

The die temperature control fitting can be used with heat medium oil, clean water or air.

Fitting part and thread part can be separated.

Prepare the molding die according to the thread size, embed the socket part in the die, using an Allen wrench, and then just fit in the plug part.
No projection left on the die, after uncoupling the plug by pushing the release-sleeve.

Stop valve built-in type enables safe coupling and uncoupling.

Stop valve built-in type prevents hot water ejection when uncoupling plug. (10 series only)

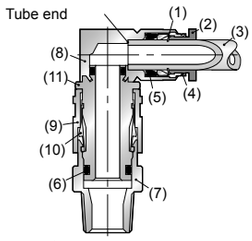
Specifications

Fluid medium	Air	Water (Clean water / Conditional*)	Heat medium oil (Conditional*)
Max. operating pressure	0.9 MPa		
Max. vacuum	-100 kPa	—	
Operating temp. range	0 to 60°C (no freezing)	0 to 99°C (no freezing)	0 to 120°C (no freezing)

⚠ Warning
*Make sure to follow the instructions below when the fluid medium is water or heat medium oil.
1. Surge pressure must be controlled lower than max. operating pressure when using water or heat medium oil as a fluid medium.
2. General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
3. Be sure to use Insert Ring (WR) when using water or heat medium oil as a fluid medium.

Sectional drawing

Elbow type: AKL



No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Nylon, Soft nylon, etc.
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	HNBR
(6)	O-ring	HNBR
(7)	Thread body	Nickel-plated brass
(8)	Fitting body	Nickel-plated brass
(9)	Sleeve	Nickel-plated brass
(10)	Collet	Nickel-plated brass
(11)	Plug body	Nickel-plated brass

Die Temperature Control Fitting

RoHS2 (2011/65/EU+EU2015/863) compliant

Standard type (without stop valve)

Plug & Socket combination

Type	Model code AKC4-øDR
Straight AKC	AKC08-601
	AKC08-602
	AKC08-801
	AKC08-802
	AKC10-801
	AKC10-802
	AKC10-803
	AKC10-804
	AKC10-1001
	AKC10-1002
	AKC10-1003
	AKC10-1004
	AKC10-1201
	AKC10-1202
	AKC10-1203
	AKC10-1204

Model code AKC4-øDRU
AKC08-5/16N1U
AKC08-5/16N2U
AKC10-5/16N1U
AKC10-5/16N2U
AKC10-5/16N3U
AKC10-1201
AKC10-1202
AKC10-1203
AKC10-1204

Type	Model code AKC4-RcFR
Female Straight AKC	AKC08-01F01
	AKC08-01F02
	AKC08-02F01
	AKC08-02F02
	AKC10-01F01
	AKC10-01F02
	AKC10-01F03
	AKC10-01F04
	AKC10-02F01
	AKC10-02F02
	AKC10-02F03
	AKC10-02F04
	AKC10-03F01
	AKC10-03F02
	AKC10-03F03
	AKC10-03F04

Type	Model code AKL4-øDR
Elbow AKL	AKL08-601
	AKL08-602
	AKL08-801
	AKL08-802
	AKL10-801
	AKL10-802
	AKL10-803
	AKL10-804
	AKL10-1001
	AKL10-1002
	AKL10-1003
	AKL10-1004
	AKL10-1201
	AKL10-1202
	AKL10-1203
	AKL10-1204

Model code AKL4-øDRU
AKL08-5/16N1U
AKL08-5/16N2U
AKL10-5/16N1U
AKL10-5/16N2U
AKL10-5/16N3U
AKL10-3/8N1U
AKL10-3/8N2U
AKL10-3/8N3U

Type	Model code AKC4-øDBR
Straight Barb AKC	AKC08-ID06B01
	AKC08-ID06B02
	AKC08-ID09B01
	AKC08-ID09B02
	AKC10-ID06B01
	AKC10-ID06B02
	AKC10-ID06B03
	AKC10-ID06B04
	AKC10-ID09B01
	AKC10-ID09B02
	AKC10-ID09B03
	AKC10-ID09B04

Plug only

Type	Model code AKC4-øDP
Straight Plug AKC	AKC08-6P
	AKC08-8P
	AKC10-8P
	AKC10-10P
	AKC10-12P
	AKC08-5/16P
	AKC10-5/16P
	AKC10-3/8P

Type	Model code AKL4-øDP
Elbow Plug AKL	AKL08-6P
	AKL08-8P
	AKL10-8P
	AKL10-10P
	AKL10-12P
	AKL08-5/16P
	AKL10-5/16P
	AKL10-3/8P

Type	Model code AKC4-RcFP
Female Straight Plug AKC	AKC08-01FP
	AKC08-02FP
	AKC10-01FP
	AKC10-02FP
	AKC10-03FP

Type	Model code AKC4-øDBP
Straight Barb Plug AKC	AKC08-ID06BP
	AKC08-ID09BP
	AKC10-ID06BP
	AKC10-ID09BP

Socket only

Type
Socket only AK

*Not compatible with the type with built-in stop valve

Model code AK4-RS(U)
AK08-01S
AK08-02S
AK10-01S
AK10-02S
AK10-03S
AK10-04S
AK08-N1SU
AK08-N2SU
AK10-N1SU
AK10-N2SU
AK10-N3SU

With stop valve

Plug & Socket combination

Type	Model code ASC10-øDR
Straight ASC	ASC10-601
	ASC10-602
	ASC10-603
	ASC10-801
	ASC10-802
	ASC10-803
	ASC10-1001
	ASC10-1002
	ASC10-1003
	ASC10-1201
	ASC10-1202
	ASC10-1203

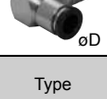
Type	Model code ASC10-RcFR
Female Straight ASC	ASC10-01F01
	ASC10-01F02
	ASC10-01F03
	ASC10-02F01
	ASC10-02F02
	ASC10-02F03
	ASC10-03F01
	ASC10-03F02
	ASC10-03F03

Type	Model code ASL10-øDR
Elbow ASL	ASL10-601
	ASL10-602
	ASL10-603
	ASL10-801
	ASL10-802
	ASL10-803
	ASL10-1001
	ASL10-1002
	ASL10-1003
	ASL10-1201
	ASL10-1202
	ASL10-1203

Type	Model code ASC10-øDBR
Straight Barb ASC	ASC10-ID06B01
	ASC10-ID06B02
	ASC10-ID06B03
	ASC10-ID09B01
	ASC10-ID09B02
	ASC10-ID09B03

Plug only

Type	Model code ASC10-øDP
Straight Plug ASC	ASC10-6P
	ASC10-8P
	ASC10-10P
	ASC10-12P

Type	Model code ASL10-øDP
Elbow Plug ASL 	ASL10-6P
	ASL10-8P
	ASL10-10P
	ASL10-12P

Type	Model code ASC10-RcFP
Female Straight Plug ASC	ASC10-01FP
	ASC10-02FP
	ASC10-03FP

Type	Model code ASC10-øDBP
Straight Barb Plug ASC	ASC10-ID06BP
	ASC10-ID09BP

Socket only

Type
Socket only AS

*Not compatible with standard type.

Model code AS10-RS
AS10-01S
AS10-02S
AS10-03S

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Tube Fitting Long

PISCO

>>> https://www.pisco.co.jp/en/

Built-in type of Push-in fitting for die temperature control

⚠ Safety instructions for this product

For Safety instructions, Common safety instructions for products in this catalog, and Detailed safety instructions for the product in this page, make sure to check our Website.

Model Designation (Example)

P (1) OC (2) 8 (3) – 01 (4) – L80 (5)

(1) Tube Fitting

(2) Type

OC: Inner Hex. Straight

(3) Tube dia. (øD)

Code	8
Tube O.D. (mm)	ø8

(4) Thread size(R)

Code	01	02
Thread size	R1/8	R1/4

(5) Total length

Code	L40	L50	L60	L70	L80	L90	L100	L110
Total Length (mm)	40	50	60	70	80	90	100	110

*The actual total length is a little longer than the length above.

Characteristics

8 lengths are available.

Suitable for a narrow or limited space.

The tube fitting, provided with a hexagonal hole, can be easily installed using a hex key.

Specifications

Fluid medium	Air, Water (Conditional*)
Max. operating pressure	1.0 MPa
Max. vacuum	-100 kPa
Operating temp. range	0 to 60°C (no freezing)

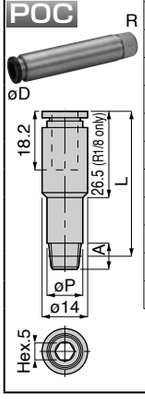
⚠ Warning

*Make sure to follow the instructions below when the fluid medium is water.

1. Surge pressure must be controlled lower than max. operating pressure when using water as a fluid medium.
2. General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
3. Be sure to use Insert Ring (WR) when using water or liquid as a fluid medium.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code POCøD-R-5	L	øP	A
Inner Hex. Straight	POC8-01-L40	44.5	11	8
POC R	POC8-01-L50	54.5	11	8
	POC8-01-L60	64.5	11	8
	POC8-01-L70	74.5	11	8
	POC8-01-L80	84.5	11	8
	POC8-01-L90	94.5	11	8
	POC8-01-L100	104.5	11	8
	POC8-01-L110	114.5	11	8
	POC8-02-L50	52.5	—	11
	POC8-02-L60	62.5	—	11
	POC8-02-L70	72.5	—	11
	POC8-02-L80	82.5	—	11



Notes

*"L" is a reference value for height dimension after tightening thread.

CAD data is available at PISCO website.

Packaging specifications

10 pcs. /bag

Special product optional (details ► P.893)

· Seal rubber material options: FKM, EPDM or HNBR
· Oil-free
· Copper free spec.
· Release-ring color change (Red)

►Contact us for the price.

Stop Fitting

Push-in fitting with built-in stop valve

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

PS (1) C (2) 6 (3) – 01 (4) M (5) (6)

(1) Stop Fitting **(2) Type**

(3) Tube dia. (øD)

	mm size (mm)					inch size (inch)					
Code	4 or 4M	6 or 6M	8	10	12	1/8	5/32	1/4	5/16	3/8	1/2
Tube O.D.	ø4	ø6	ø8	ø10	ø12	ø1/8	ø5/32	ø1/4	ø5/16	ø3/8	ø1/2

*Code: 4 or 6 for Straight and Elbow type. Code: 4M or 6M for Union type.

(4) Thread size (R)

	Metric thread	Taper pipe thread				UNF thread	National pipe thread tapered				
Code	M5	01	02	03	04	U10	N0	N1	N2	N3	N4
Thread size	M5×0.8	R1/8	R1/4	R3/8	R1/2	10-32UNF	NPT1/16	NPT1/8	NPT1/4	NPT3/8	NPT1/2

(5) Size specification

Code	No code	M
Spec.	Standard type	Mini type
Tube O.D. (mm)	ø8, ø10, ø12	ø4, ø6
Tube O.D. (inch)	ø5/16, ø3/8, ø1/2	ø1/8, ø5/32, ø1/4

(6) Wrench size spec.

Code	No code	U
Wrench spec.	mm size spec.	inch size spec.

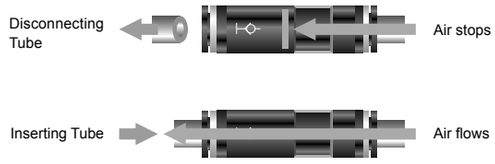
Characteristics

Air flow can be controlled by Tube insertion and disconnection.

The flow-shut mechanism operates to stop the air flow when the tube is disconnected and allows air flow when the tube is inserted.

Easy insertion and disconnection of the tube.

The double-passage structure is adopted.

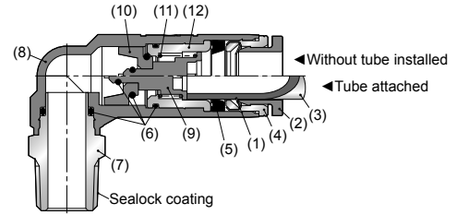


Specifications

Fluid medium	Air
Max. operating pressure	0.9 MPa
Max. vacuum	-100 kPa
Operating temp. range	0 to 60°C (no freezing)

Sectional drawing

Elbow type: PSL



No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Polyurethane, Nylon, etc
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	O-ring	NBR
(7)	Metallic body	Nickel-plated brass
(8)	Resin body	PBT
(9)	Cross-shaped valve	POM
(10)	Vane valve	POM
(11)	Spring	Piano wire
(12)	Valve guide	Nickel-plated brass

*1. The gasket of Metric and UNF thread is SUS304 + NBR.
*2. Vane valve is not incorporated in tube size: ø4 and ø6mm.
*3. Vane valve material of PSC8-01 is nickel-plated brass.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code PSCøD-R	Model code PSCøD-RU	Type	Model code PSLøD-R	Model code PSLøD-RU	Type	Model code PSUøD
Straight PSC	PSC4-M5M*	PSC1/8-U10MU*	Elbow PSL	PSL4-M5M*	PSL1/8-U10MU*	Union Straight PSU	PSU4M*
	PSC4-01M*	PSC5/32-U10MU*		PSL4-01M*	PSL5/32-U10MU*		PSU6M*
	PSC6-M5M*	PSC5/32-N1MU*		PSL6-M5M*	PSL5/32-N1MU*		PSU8
	PSC6-01M*	PSC1/4-U10MU*		PSL6-01M*	PSL1/4-U10MU*		PSU10
	PSC6-02M*	PSC1/4-N1MU*		PSL6-02M*	PSL1/4-N0MU*		PSU12
	PSC8-01	PSC1/4-N2MU*		PSL8-01	PSL1/4-N1MU*		PSU1/8M*
	PSC8-02	PSC5/16-N3U		PSL8-02	PSL1/4-N2MU*		PSU5/32M*
	PSC8-03	PSC3/8-N2U		PSL8-03	PSL3/8-N2U		PSU1/4M*
	PSC10-02	PSC3/8-N3U		PSL10-02	PSL3/8-N3U		PSU3/8
	PSC10-03	PSC1/2-N3U		PSL10-03	PSL1/2-N3U		PSU1/2
	PSC10-04	PSC1/2-N4U		PSL10-04	PSL1/2-N4U		
	PSC12-03			PSL12-03			
	PSC12-04			PSL12-04			

Type	Model code PSMøD1-øD2
Bulkhead Union PSM	PSM4M-4*
	PSM6M-6*
	PSM8
	PSM10
	PSM12
	PSM3/8

Notes
Model codes with tube dia. ø4 mm, ø6 mm, ø1/8", ø5/32" and ø1/4" are Tube fitting Mini series specifications.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Rotary Joint

PISCO

>>> https://www.pisco.co.jp/en/

Push-in fitting for swinging and rotation applications

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

R (1) C (2) 6 (3) - 01 (4)

(1) Rotary Joint

(2) Type

(3) Tube dia. (øD)

	mm size (mm)					inch size (inch)					
Code	4	6	8	10	12	5/32	3/16	1/4	5/16	3/8	1/2
Tube O.D.	ø4 (5/32in.)	ø6	ø8	ø10	ø12	ø5/32	ø3/16	ø1/4	ø5/16	ø3/8	ø1/2

(4) Thread size (R)

	Metric thread		Taper pipe thread				Unified thread	National pipe thread tapered			
Code	M5	M6	01	02	03	04	U10U	N1U	N2U	N3U	N4U
Thread size	M5×0.8	M6×1	R1/8	R1/4	R3/8	R1/2	10-32UNF	NPT1/8	NPT1/4	NPT3/8	NPT1/2

Characteristics

Push-in fitting for swinging and rotation applications.

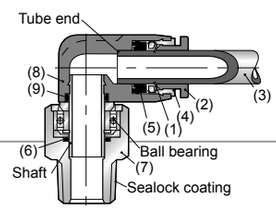
Rotary joint series with bearing incorporated is suitable for swinging and rotating applications.

Specifications

Fluid medium	Air
Max. operating pressure	1.0 MPa
Max. vacuum	-100 kPa
Operating temp. range	0 to 60°C (no freezing)

Sectional drawing

Elbow type: RL



No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Polyurethane, Soft polyurethane, etc
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	Co-rotating O-ring	FKM
(7)	Metallic body	Chrome-plated brass
(8)	Resin body	PBT
(9)	O-ring	NBR

*The gasket of Metric and UNF thread is SUS304 + NBR.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code RCøD-R	Allowable rotation (min^{-1})	Model code RCøD-RU	Allowable rotation (min^{-1})	Type	Model code RLøD-R	Allowable rotation (min^{-1})	Model code RLøD-RU	Allowable rotation (min^{-1})
Straight RC	RC4-M5	500	RC5/32-U10U	500	Elbow RL	RL4-M5	500	RL5/32-U10U	500
	RC4-M6		RC5/32-N1U			RL4-M6		RL5/32-N1U	
	RC4-01		RC3/16-N1U	500		RL4-01		RL3/16-N1U	500
	RC6-M5	500	RC3/16-N2U			RL6-M5	500	RL3/16-N2U	
	RC6-M6		RC1/4-N1U	500		RL6-M6		RL1/4-N1U	500
	RC6-01		RC1/4-N2U			RL6-01		RL1/4-N2U	
	RC6-02		RC5/16-N1U	400		RL6-02		RL5/16-N1U	400
	RC8-01	400	RC5/16-N2U			RL8-01	400	RL5/16-N2U	
	RC8-02		RC5/16-N3U			RL8-02		RL5/16-N3U	
	RC8-03		RC3/8-N3U	300		RL8-03		RL3/8-N3U	300
	RC10-01	300	RC3/8-N4U			RL10-01	300	RL3/8-N4U	
	RC10-02		RC1/2-N3U	250		RL10-02		RL1/2-N3U	250
	RC10-03		RC1/2-N4U			RL10-03		RL1/2-N4U	
	RC10-04					RL10-04			
	RC12-02	250				RL12-02	250		
	RC12-03					RL12-03			
	RC12-04					RL12-04			
	RC1/4-01	500				RL1/4-01	500		
	RC1/4-02					RL1/4-02			
	RC5/16-01	400				RL5/16-01	400		
	RC5/16-02					RL5/16-02			
	RC5/16-03					RL5/16-03			
	RC3/8-03	300				RL3/8-03	300		
	RC3/8-04					RL3/8-04			

Notes
*Release-ring color for inch size is white.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Rotary Joint SUS304

Push-in fitting for swinging and rotation applications

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

R	W	L	6	-	01	SUS		
(1)	(2)	(3)	(4)		(5)	(6)	(7)	(8)

(1) Rotary Joint

(2) Fluid medium

Code	W	A
Fluid medium	Water	Air

(3) Type
L: Elbow

(4) Tube dia. (øD)

	mm size (mm)					inch size (inch)		
Code	4	6	8	10	12	1/4	3/8	1/2
Tube O.D.	ø4(5/32in.)	ø6	ø8(5/16in.)	ø10	ø12	ø1/4	ø3/8	ø1/2

(5) Thread size (R)

	Metric thread		Taper pipe thread				UNF thread	National pipe thread tapered			
Code	M5	M6	01	02	03	04	U10	N1	N2	N3	N4
Thread size	M5×0.8	M6×1	R1/8	R1/4	R3/8	R1/2	10-32UNF	NPT1/8	NPT1/4	NPT3/8	NPT1/2

(6) Metal material
SUS: SUS304

(7) Seal rubber material (Optional)

Code	No code	-F
Material	EPDM	FKM

(8) Thread sealing spec. (Optional) (Taper pipe thread and NPT thread only)

Code	No code	-TP
Thread sealing	No sealock, no sealing tape	Seal tape spec. (Seal tape is applied on thread part)

Characteristics

- Use with water(*)SUS304 Push-in fitting for swinging and rotation applications.
  *For Water Spec. (RWL)
- Two types are available depending on the fluid used: Water Spec. Type (RWL) and Air Spec. Type (RAL).
- PPS, SUS304, etc. with chemical resistance and corrosion resistance are used for the fluid contact part.
- Copper Alloy free.
- Oil-free for all of fluid contact parts.
  *Non-contact fluid part is not applicable.
- The lineup of seal rubber materials is EPDM and FKM.

Specifications

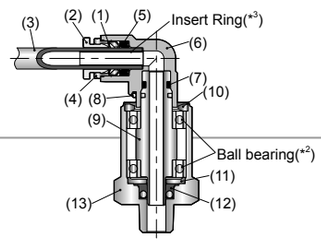
Fluid medium code	W	A
Fluid medium	Water, other liquid (Conditional*)	Air, other gases (Conditional*)
Max. operating pressure	0.7 MPa	
Max. vacuum	-	-100 kPa
Operating temp. range	0 to 60°C (no freezing)	
Allowable rotation	500 min^{-1}	

⚠ Warning
*1. Make sure to follow the instructions below when the fluid medium is water or liquid.
1. Surge pressure must be controlled lower than max. operating pressure when using water or liquid as a fluid medium.
2. General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
3. Be sure to use Insert Ring (WR) when using water or liquid as a fluid medium.
4. The specification above may not be applied, depending on the kind of chemicals used as fluid medium. Make sure to use PISCO products after verifying their suitability on the user side.

*2. The specification above may not be applied, depending on the kind of mixed gases used as fluid medium. Make sure to use PISCO products after verifying their suitability on the user side.

Sectional drawing

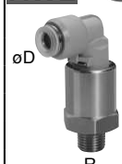
Water Spec.: for RWL



No,	Parts	Material	
		RWL	RAL
(1)	Lock claws	Stainless steel	
(2)	Release-ring	PP (Transparent)	PP (Blue)
(3)	Tube	Fluororesin (PFA) or (FEP) etc.	
(4)	Guide ring	SUS304	
(5)	Elastic sleeve	EPDM (Optional: FKM)	
(6)	Resin body	PPS	
(7)	O-ring	EPDM (Optional: FKM)	
(8)	Fixing pin	SUS304	
(9)	Shaft	SUS304	
(10)	Retainer	SUS304	
(11)	Seal retainer	SUS304	
(12)	Radial seal	Polyolefin & SUS302	Fluororesin & SUS302
(13)	Metallic body	SUS304	

*1. The gasket of Metric thread and UNF thread is PPS.
*2. NBR is used for bearings.
*3. The Insert Ring (sold separately) uses SUS304.
*4. For RAL, Insert Ring (sold separately) is not required.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code RWLøD-R	Model code RWLøD-R	Type	Model code RALøD-R	Model code RALøD-R
Water, other liquid spec. RWL New 	RWL4-M5SUS7	RWL4-U10SUS7	Air, other gases spec. RAL New	RAL4-M5SUS7	RAL4-U10SUS7
	RWL4-M6SUS7	RWL4-N1SUS78		RAL4-M6SUS7	RAL4-N1SUS78
	RWL4-01SUS78	RWL8-N1SUS78		RAL4-01SUS78	RAL8-N1SUS78
	RWL6-M5SUS7	RWL8-N2SUS78		RAL6-M5SUS7	RAL8-N2SUS78
	RWL6-M6SUS7	RWL8-N3SUS78		RAL6-M6SUS7	RAL8-N3SUS78
	RWL6-01SUS78	RWL1/4-N1SUS78		RAL6-01SUS78	RAL1/4-N1SUS78
	RWL6-02SUS78	RWL1/4-N2SUS78		RAL6-02SUS78	RAL1/4-N2SUS78
	RWL8-01SUS78	RWL3/8-N1SUS78		RAL8-01SUS78	RAL3/8-N1SUS78
	RWL8-02SUS78	RWL3/8-N2SUS78		RAL8-02SUS78	RAL3/8-N2SUS78
	RWL8-03SUS78	RWL3/8-N3SUS78		RAL8-03SUS78	RAL3/8-N3SUS78
	RWL10-01SUS78	RWL3/8-N4SUS78		RAL10-01SUS78	RAL3/8-N4SUS78
	RWL10-02SUS78	RWL1/2-N3SUS78		RAL10-02SUS78	RAL1/2-N3SUS78
	RWL10-03SUS78	RWL1/2-N4SUS78		RAL10-03SUS78	RAL1/2-N4SUS78
	RWL10-04SUS78			RAL10-04SUS78	
	RWL12-02SUS78			RAL12-02SUS78	
	RWL12-03SUS78			RAL12-03SUS78	
	RWL12-04SUS78			RAL12-04SUS78	
	RWL1/4-01SUS78			RAL1/4-01SUS78	
	RWL1/4-02SUS78			RAL1/4-02SUS78	
	RWL3/8-01SUS78			RAL3/8-01SUS78	
	RWL3/8-02SUS78			RAL3/8-02SUS78	
	RWL3/8-03SUS78			RAL3/8-03SUS78	
	RWL3/8-04SUS78			RAL3/8-04SUS78	
	RWL1/2-02SUS78			RAL1/2-02SUS78	
	RWL1/2-03SUS78			RAL1/2-03SUS78	
	RWL1/2-04SUS78			RAL1/2-04SUS78	

Package Packaging specifications
1 pc. /bag

Option Standard Optional

Code	7 : -F	8 : -TP
Specifications	Seal rubber material optional: FKM (Fill in 7 with "-F")	Seal tape on thread (Fill in 8 with "-TP")

Related Products

Oil-free | -S3 spec. (Standard Optional)

Water filter

- ►Remove debris from water.
- ►Filtering accuracy: 100 μm (Trapping efficiency: 95%)
- ►The element material is PP with excellent durability and chemical resistance.
- ►Compatible with Tube O.D. 4 mm to 12 mm.

For details, please see the official website "Non-standard".
►https://www.pisco.co.jp/product/special/

Insert Ring

► P.111

High Rotary Joint

Push-in fitting for Ultra High Speed Swiveling application

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

RH (1) C (2) 6 (3) – 01 (4)

(1) High Rotary Joint **(2) Type**

(3) Tube dia. (øD)

	mm size (mm)					inch size (inch)					
Code	4	6	8	10	12	5/32	3/16	1/4	5/16	3/8	1/2
Tube O.D.	ø4 (5/32in.)	ø6	ø8	ø10	ø12	ø5/32	ø3/16	ø1/4	ø5/16	ø3/8	ø1/2

(4) Thread size (R, Rc, R1, R2)

	Metric thread		Taper pipe thread				UNF thread	National pipe thread tapered			
Code	M5	M6	01	02	03	04	U10U	N1U	N2U	N3U	N4U
Thread size	M5×0.8	M6×1	R1/8	R1/4	R3/8	R1/2	10-32UNF	NPT1/8	NPT1/4	NPT3/8	NPT1/2

Characteristics

Push-in fitting for high speed swinging and rotation applications.

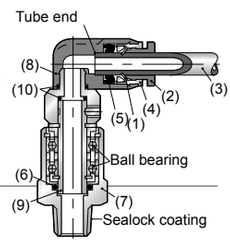
High rotary joint series with two bearings incorporated is suitable for high-speed swinging and rotating applications where the Rotary joint series can not cover.

Specifications

Fluid medium	Air
Max. operating pressure	1.0 MPa
Max. vacuum	-100 kPa
Operating temp. range	0 to 60°C (no freezing)

Sectional drawing

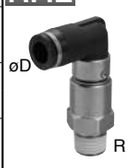
Elbow type: RHL

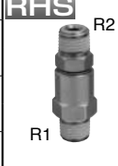


No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Polyurethane, Soft polyurethane, etc
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	Co-rotating O-ring	FKM
(7)	Metallic body	Nickel-plated brass
(8)	Resin body	PBT
(9)	Shaft	Stainless steel
(10)	O-ring	NBR

*The gasket of Metric and UNF thread is SUS304 + NBR.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code RHCøD-R	Allowable rotation (min⁻¹)	Model code RHCøD-RU	Allowable rotation (min⁻¹)	Type	Model code RHLøD-R	Allowable rotation (min⁻¹)	Model code RHLøD-RU	Allowable rotation (min⁻¹)
Straight RHC	RHC4-M5	1,500	RHC5/32-U10U	1,500	Elbow RHL 	RHL4-M5	1,500	RHL5/32-U10U	1,500
	RHC4-M6		RHC5/32-N1U			RHL4-M6		RHL5/32-N1U	
	RHC4-01		RHC3/16-N1U	1,200		RHL4-01		RHL3/16-N1U	1,500
	RHC6-01	1,200	RHC3/16-N2U			RHL6-01	1,200	RHL3/16-N2U	
	RHC6-02		RHC1/4-N1U	1,200		RHL6-02		RHL1/4-N1U	1,200
	RHC8-01	1,200	RHC1/4-N2U			RHL8-01	1,200	RHL1/4-N2U	
	RHC8-02		RHC5/16-N1U	1,200		RHL8-02		RHL5/16-N1U	1,200
	RHC10-03	1,000	RHC5/16-N2U			RHL10-03	1,000	RHL5/16-N2U	
	RHC10-04		RHC3/8-N3U	1,000		RHL10-04		RHL3/8-N3U	1,000
	RHC12-03	1,000	RHC3/8-N4U			RHL12-03	1,000	RHL3/8-N4U	
	RHC12-04		RHC1/2-N3U	1,000		RHL12-04		RHL1/2-N3U	1,000
	RHC1/4-01	1,200	RHC1/2-N4U			RHL1/4-01	1,200	RHL1/2-N4U	
	RHC1/4-02					RHL1/4-02			
	RHC5/16-01	1,200				RHL5/16-01	1,200		
	RHC5/16-02					RHL5/16-02			
	RHC3/8-03	1,000				RHL3/8-03	1,000		
	RHC3/8-04					RHL3/8-04			

Type	Model code RHF R-Rc	Allowable rotation (min⁻¹)	Model code RHF R-RcU	Allowable rotation (min⁻¹)	Type	Model code RHS R1-R2	Allowable rotation (min⁻¹)	Model code RHS R1-R2U	Allowable rotation (min⁻¹)
Bush RHF	RHF01-01	1,200	RHFN1-N1U	1,200	Union Stem RHS 	RHS01-01	1,200	RHSN1-N1U	1,200
	RHF01-02		RHFN1-N2U			RHS01-02		RHSN1-N2U	
	RHF02-01	1,200	RHFN2-N1U	1,200		RHS02-01	1,200	RHSN2-N1U	1,200
	RHF02-02		RHFN2-N2U			RHS02-02		RHSN2-N2U	
	RHF03-03	900	RHFN3-N3U	900		RHS03-03	900	RHSN3-N3U	900
	RHF03-04		RHFN3-N4U			RHS03-04		RHSN3-N4U	
	RHF04-03	900	RHFN4-N3U	900		RHS04-03	900	RHSN4-N3U	900
	RHF04-04		RHFN4-N4U			RHS04-04		RHSN4-N4U	

Notes
*Release-ring color for inch size is white.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Multi-Circuit Rotary Block

PISCO

>>> https://www.pisco.co.jp/en/

Multi-circuit block for rotating applications

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

RB (1) 4 (2) – M5 (3)

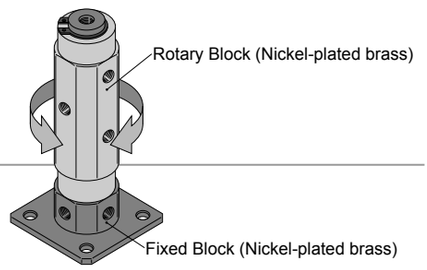
(1) Multi-Circuit Rotary Block

(2) Number of circuits

Code	4	6	8
	4 circuits	6 circuits	8 circuits
Number of circuits			

(3) Joint thread size

	Metric thread		Taper pipe thread
Code	M5	M6	01
Thread size	M5×0.8	M6×1	R1/8



Characteristics

- Suitable for piping of index tables or other rotary equipment.
- A single block can serve 4 circuits, 6 circuits or 8 circuits.
  Other circuit number can be ordered as special item. Consult with PISCO for details.

Specifications

Fluid medium	Air
Max. operating pressure	0.9 MPa
Max. vacuum	-100 kPa
Operating temp. range	0 to 60°C (no freezing)

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code	Allowable rotation (min^{-1})
Multi-Circuit Rotary Block RB	RB4-M5	140
	RB4-01	110
	RB6-M5	100
	RB6-M6	100
	RB8-M5	70
	RB8-M6	70

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Main Block

Customizable swivel manifolds, assembly type of fitting manifold is used for concentrated branching.

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

M (1) HQ (2) 14 (3) 08 (4) (5)

(1) Main Block

(2) Type

(3) Joint connecting thread size (M)

Code	08	12	14	18	30
Size	M8×1.0	M12×1.0	M14×1.0	M18×1.0	M30×1.5

(4) Air port size (Inlet/Outlet)

•Tube dia. (øD)

	mm size (mm)						inch size (inch)			
Code	04	06	08	10	12	16	1/4	3/8	1/2	5/8
Tube O.D.	ø4	ø6	ø8	ø10	ø12	ø16	ø1/4	ø3/8	ø1/2	ø5/8

*Tube size ø1/2" and ø5/8" are only available in large bore type (Joint connecting thread size 30).

•Thread size (R)

	Metric thread		Taper pipe thread						National pipe thread tapered	
Code	M5	M6	01	02	03	04	06	08	N1	N2
Size	M5×0.8	M6×1.0	R1/8	R1/4	R3/8	R1/2	R3/4	R1	NPT1/8	NPT1/4

(5) Resin color (Optional) *Large bore type (Joint connecting thread size 30) is not available.

Code	No code	W
Body color	Standard (Black)	Light gray

Model Designation of Module Socket (Example)

*Joint connecting thread size is M18×1.

QMC20 (1)

(1) Resin color (Option)

Code	B	W
Body color	Standard (Black)	Light gray

Characteristics

Assuring the same flow rate as steel piping.

Outer dimensions are about a half of steel piping.

Easily detachable Coupling module is available.

Can be connected with Coupling of other Brand.

Added a large bore type that is ideal for high-flow air piping.

The applicable thread sizes are R3/4 and R1. Connectable to our vacuum generator VLM and large flow vacuum filter VFL.
Aluminum is used for metal parts and HNBR for rubber parts, making it lightweight and usable in low-concentration ozone environments.

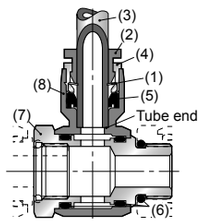
Can be combined freely.

Specifications

Fluid medium	Air
Max. operating pressure	1.0 MPa (For use with Module socket QMC20: 0.9MPa)
Max. vacuum	-100 kPa
Operating temp. range	0 to 60°C (no freezing)

Sectional drawing

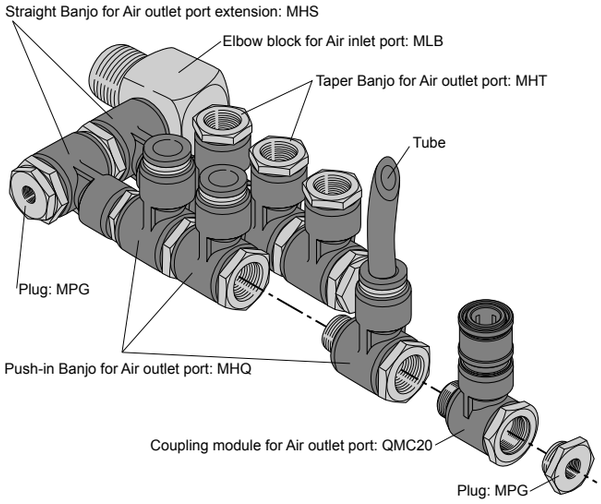
Push-in Banjo: MHQ



No,	Parts	Material	
		Standard type	Large bore type
(1)	Lock claws	Stainless steel	
(2)	Release-ring	POM	
(3)	Tube	Polyurethane, Nylon, etc.	
(4)	Guide ring	Nickel-plated brass	
(5)	Elastic sleeve	NBR	HNBR
(6)	O-ring	NBR	HNBR
(7)	Metallic body	Nickel-plated brass	Aluminum (anodized)
(8)	Resin body	PBT	

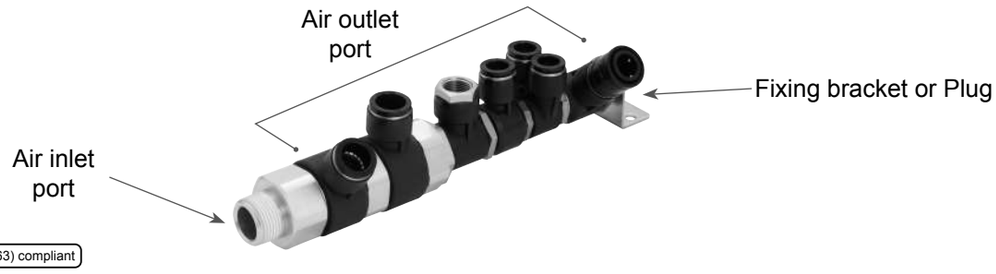
Assembly Procedure

Straight Banjo for Air outlet port extension: MHS



•The metric threads "M" shown in photos in the model code list connect Main Blocks to each other. Therefore, any main blocks of the same thread size can be combined freely. (See combinations example below)

- Air inlet port: MBA, MLB, MBC, MST, MKR
- Air outlet port: MHQ, MHB, MHT, QMC20
- Plug: MPG, MCP
- In case two or more rows of air outlet ports are required: MHS
- In case thread sizes are different: MBB
- In case of connecting female thread to each other: MBN
- Fixing or securing bracket for Main block: MZB



RoHS2 (2011/65/EU+EU2015/863) compliant

Air inlet port

Type	Model code MBA M R
Bush A MBA	MBA0801
	MBA1201
	MBA1202
	MBA1203
	MBA1402
	MBA1403
	MBA1404
	MBA1803
	MBA1804
	MBA3006
	MBA3008
	MBA12N2
	MBA14N2

Type	Model code MLB M R
Elbow MLB	MLB0801
	MLB1201
	MLB1202
	MLB1402
	MLB1403
	MLB1404
	MLB1803
	MLB1804

Type	Model code MKR M øD□
Bulkhead Reducer MKR	MKR0804□
	MKR0806□
	MKR1206□
	MKR1208□
	MKR1210□
	MKR1408□
	MKR1410□
	MKR1412□
	MKR1812□

Type	Model code MBC M Rc
Bush C MBC	MBC08M5
	MBC12M6
	MBC1401
	MBC1802

Type	Model code MST M Rc
Socket MST	MST0801
	MST1202
	MST1403
	MST1804

Air outlet port

Type	Model code MHQ M øD□
Push-in Banjo MHQ	MHQ0804□
	MHQ0806□
	MHQ1206□
	MHQ1208□
	MHQ1408□
	MHQ1410□
	MHQ1412□
	MHQ1812□
	MHQ1816□
	MHQ3012
	MHQ3016
	MHQ30 1/2
	MHQ30 5/8
	MHQ12-1/4
	MHQ14-3/8
	MHQ14-1/2

Type	Model code MHB M øD□
Double Push-in Banjo MHB	MHB1408□
	MHB1410□
	MHB1812□
	MHB12-1/4

Type	Model code MHT M Rc□
Taper Banjo MHT	MHT08M5□
	MHT08M6□
	MHT0801□
	MHT12M6□
	MHT1201□
	MHT1401□
	MHT1402□
	MHT1802□
	MHT1803□
	MHT12N1

Type	Model code QMC
Module Socket QMC	QMC20□

*Joint connecting thread size is M18×1.
*For the plug, see "Light Coupling 20 Series" (page 82).

To make two or more air outlet port rows

Type	Model code MHS M1 M2□
Straight Banjo MHS	MHS1208□
	MHS1212□
	MHS1412□
	MHS1414□
	MHS1814□
	MHS1818□

For assembly thread size conversion

Type	Model code MBB M1 M2
Bush B MBB	MBB1208
	MBB1412
	MBB1814
	MBB3018

For female thread connection to each other

Type	Model code MBN M1 M2
Union Stem MBN	MBN0808
	MBN1212
	MBN1414
	MBN1818

Fixing bracket

Type	Model code MZB øA	Applicable models
Bracket MZB	MZB06	MPG, MCP
	MZB12	MKR0804
	MZB14	MKR□06
	MZB16	MKR□08
	MZB20	MKR□10
	MZB22	MKR□12

Type	Model code MZB
Bracket MZB	MZB061B
	MZB062B
	MZB161B
	MZB162B

*MZB061B, 062B, 161B and 162B are for MPG and MCP.

Plug

Type
Plug MPG

Model code MPG M
MPG08
MPG12
MPG14
MPG18
MPG30

Type
Cap MCP

Model code MCP M
MCP08
MCP12
MCP14
MCP18

Assembly Tools

Assembling wrench set

Model code
Assembling wrench set

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Standard Optional

Code	□(*1) : -W
Specifications	Light gray (Fill in □ with "-W".)

*1. 1 for QMC

*2. Light gray spec. is not available for Large bore type (Joint connecting thread size 30).

Special product Optional (details ▶ page 893)
· Seal rubber material optional: FKM, EPDM or HNBR.
· Release-ring color change (Red)
▶Contact us for the price.
*Large bore type (Joint connecting thread size 30) is not available.

2-Circuit Junction Block

This add-on type of concentrated branching manifolds comprises 2 independent lines.

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

MA (1) 106 (2) – 12 (3) 08 (4) A (5) (6)

(1) 2-Circuit Junction Block

(2) Series

Code	106	107
Series	106 series (Fixed type)	107 series (Free type)

(3) Inlet-port tube dia. (øD1)

Code	10	12
Tube O.D. (mm)	ø10	ø12

*Code entry only for Port type: A (inlet port).

(4) Outlet-port tube dia. (øD2)

Code	6	8
Tube O.D. (mm)	ø6	ø8

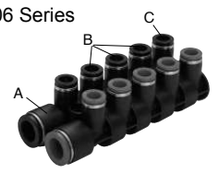
*For 106 series, code entry for Port type: A (inlet port), B (middle outlet port) and C (end outlet port).For 107 series, code entry only for Port type: B (middle outlet port) and C (end outlet port).

(5) Port type

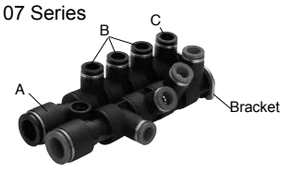
Code	A	B	C
Port type	Inlet port	Middle outlet port	End outlet port

*After connecting blocks, fix them by using brackets or locking holes. Admit the fluid only after locking of blocks.

106 Series



107 Series



(6) Release-ring color (Code entry for 107 series, Port type: B and C)

Code	No code	B	R
Release-ring color	A set of Black and Red	A set of Black and Black	A set of Red and Red

Characteristics

Serving two lines the same time.
Manifolds comprises add-on type of push-in fittings.

Blocks can be added freely.
Mount type (Direct connection)

107 Series has free direction of air outlet.
106 Series is a Fixed type.

Any number of Blocks can be connected.
Suitable for use with cylinders.

Can be used for circulating cooling water of up to 40°C
However, please use our insert ring together.

The release ring can have a different color for each line.

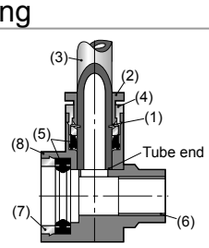
Specifications

Fluid medium	Air, Water (Conditional*)
Max. operating pressure	0.9 MPa
Max. vacuum	-100 kPa
Operating temp. range	0 to 60°C (no freezing)

⚠ Warning
*Make sure to follow the instructions below when the fluid medium is water.
1. Surge pressure must be controlled below the maximum operating pressure when using water as a fluid medium.
2. General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
3. Be sure to use Insert Ring (WR) when using water or liquid as a fluid medium.

Sectional drawing

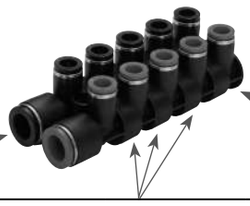
107 series, Port type: B



No,	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Polyurethane, Nylon, etc.
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	Insert ring	Stainless steel
(7)	J-ring	Nickel-plated brass
(8)	Resin body	PBT

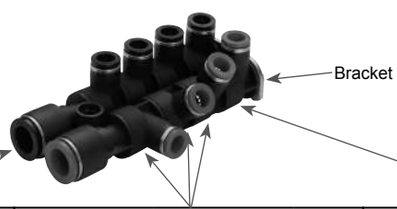
RoHS2 (2011/65/EU+EU2015/863) compliant

106 series (Fixed type)



Inlet port		Middle outlet port		End outlet port	
Type	Model code MA106-øD1øD2A	Type	Model code MA106-øD2B	Type	Model code MA106-øD2C
MA	MA106-1006A	MA	MA106-06B	MA	MA106-06C
	MA106-1008A		MA106-08B		MA106-08C
	MA106-1206A				
	MA106-1208A				

107 series (Free type)



Inlet port		Middle outlet port		End outlet port	
Type	Model code MA107-øD1A	Type	Model code MA107-øD2B	Type	Model code MA107-øD2C
MA	MA107-10A	MA	MA107-06B6	MA	MA107-06C6
	MA107-12A		MA107-08B6		MA107-08C6

Bracket	
Type	Model code MA107D
MA	MA107D

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag
*For 107 Series, middle outlet port (B) and end outlet port (C) are packed in 1 set / bag.

Standard Optional

Code	6 : B	6 : R
Specifications	*Release-ring color A set of Black and Black (Fill in 6 with "B")	*Release-ring color A set of Red and Red (Fill in 6 with "R")

*Only middle outlet port (B) and end outlet port (C) for 107 Series.

Connector

Connection detachable type two-circuit block Push-in fitting

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation of Connector Set (Example)

QC (1) 4 (2) – 6 (3) M (4)

(1) Connector set

(2) Male terminal tube dia. (øD1)

		mm size (mm)				inch size (inch)			
Code	Straight	3	4	6	8	1/8	5/32	1/4	5/16
	Elbow	3L	4L	6L	8L	1/8L	5/32L	1/4L	5/16L
Tube O.D.		ø3	ø4	ø6	ø8	ø1/8	ø5/32	ø1/4	ø5/16

(3) Female terminal tube dia. (øD2)

	mm size (mm)				inch size (inch)			
Code	3	4	6	8	1/8	5/32	1/4	5/16
Tube O.D.	ø3	ø4	ø6	ø8	ø1/8	ø5/32	ø1/4	ø5/16

(4) Specifications

Code	No code	M
Specifications	Standard type	Mini type

Model Designation of Male, Female Connector unit (Example)

PQ (1) 4 (2) ML (3) – A (4)

(1) Male, Female Connector unit

(2) Tube dia. (øD)

	mm size (mm)				inch size (inch)			
Code	3	4	6	8	1/8	5/32	1/4	5/16
Tube O.D.	ø3	ø4	ø6	ø8	ø1/8	ø5/32	ø1/4	ø5/16

(3) Type

Code	No code	L	M	ML
Specifications	Standard type	Standard type, elbow	Mini type	Mini type, elbow

(4) Specifications

Code	A	B
Specifications	Male unit	Female unit

Model Designation of Connector Band (Example)

QB (1) – H (2)

(1) Connector band

(2) Specifications

Code	T	H
Specifications	Vertical connection	Horizontal connection

Characteristics

Easy pneumatic piping is possible when moving devices.

The Connector realizes simultaneous insertion and disconnection of multiple tubes.

Multiple connectors can be connected or disconnected at once as a single unit.

By use of connector bands, multiple connectors can be combined either vertically or horizontally.

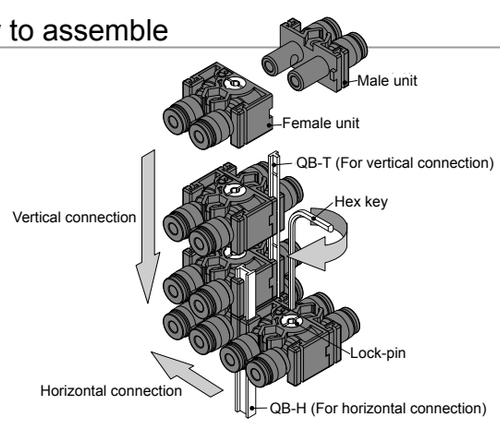
Connectors can be used with different diameter tubes.

Even if the tube size is different, it is possible to connect between standard connectors or between mini connectors.

Specifications

Fluid medium	Air
Max. operating pressure	0.9 MPa
Max. vacuum	-100 kPa
Operating temp. range	0 to 60°C (no freezing)

How to assemble



■ After coupling male and female connectors, make sure to use a flathead screwdriver or a hex key to turn a lock-pin and fix them.

*1. Standard type can not be connected with mini type
*2. Maximum vertical connection is up to 4 connectors.

RoHS2 (2011/65/EU+EU2015/863) compliant

Connector set (Male and Female terminal)

Type	Model code QCøD1-øD2(M)
Straight QC (Male) øD1 / (Female) øD2 Mini type	QC3-3M
	QC3-4M
	QC3-6M
	QC4-3M
	QC4-4M
	QC4-6M
(Male) øD1 / (Female) øD2 Standard type	QC6-3M
	QC6-4M
	QC6-6M
	QC6-6
	QC6-8
	QC8-6
	QC8-8
	QC5/32-3M
	QC1/8-1/8M
	QC1/8-5/32M
	QC5/32-5/32M
	QC1/4-1/4
	QC1/4-5/16
	QC5/16-5/16
	QC5/16-1/4

Type	Model code QCøD1L-øD2(M)
Elbow QC (Male) øD1 / (Female) øD2 Mini type	QC3L-3M
	QC3L-4M
	QC3L-6M
	QC4L-3M
	QC4L-4M
	QC4L-6M
(Male) øD1 / (Female) øD2 Standard type	QC6L-3M
	QC6L-4M
	QC6L-6M
	QC6L-6
	QC6L-8
	QC8L-6
	QC8L-8
	QC1/8L-1/8M
	QC1/8L-5/32M
	QC5/32L-1/8M
	QC5/32L-5/32M
	QC1/4L-1/4
	QC1/4L-5/16
	QC5/16L-5/16
	QC5/16L-1/4

Connector band

Type	Model code
Connector band QB	QB-T
	QB-H

QB-H
QB-T

Male / Female terminal

Type	Model code PQøD(M)-A
Straight Male Only PQ øD Mini type	PQ3M-A
	PQ4M-A
	PQ6M-A
	PQ6-A
	PQ8-A
	PQ1/8M-A
	PQ5/32M-A
øD Standard type	PQ1/4-A
	PQ5/16-A

Type	Model code PQøD(M)L-A
Elbow Male Only PQ øD Mini type	PQ3ML-A
	PQ4ML-A
	PQ6ML-A
	PQ6L-A
	PQ8L-A
	PQ1/8ML-A
	PQ5/32ML-A
	PQ1/4L-A
øD Standard type	PQ5/16L-A

Type	Model code PQøD(M)-B
Female Only PQ øD Mini type	PQ3M-B
	PQ4M-B
	PQ6M-B
	PQ6-B
	PQ8-B
	PQ1/8M-B
	PQ5/32M-B
øD Standard type	PQ1/4-B
	PQ5/16-B

Notes
*Release-ring color for inch size is white.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag
10 pcs. / bag: Connector Band

Special product Optional (details ► page 893)
· Seal rubber material optional: FKM, EPDM or HNBR.
· Oil-free
· Release-ring color change (Red)
►Contact us for the price.

Light Coupling

Push-in fitting type light-weight coupling

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation of Socket (Example)

CP (1) S (2) E3 (3) H (4) – M5 (5) (6)

(1) Light Coupling **(2) Coupling type**
S: Socket

(3) Connection size

Code	E3	E7	15	20
Effective area (mm^2)	3	7	15	20

*Light couplings with different effective area can not be connected.

(4) Type

Code	H	M	No code
Type	Banjo type (*1)	Bulkhead type (*2)	Straight

*1. Banjo type is available for E3 and E7 series only.
*2. Bulkhead type is available for E3, E7 and 15 series only.

(5) Tube dia. (øD) or **Thread size** (R)

■ Tube dia.

	mm size (mm)					inch size (inch)					
Code	4	6	8	10	12	1/8	5/32	1/4	5/16	3/8	1/2
Tube O.D.	ø4	ø6	ø8	ø10	ø12	ø1/8	ø5/32	ø1/4	ø5/16	ø3/8	ø1/2
E3Series	✓					✓	✓				
E7Series		✓									
15Series		✓	✓	✓				✓	✓	✓	
20Series		✓	✓	✓	✓			✓	✓	✓	✓

■ Thread size

	Metric thread	Taper pipe thread				UNF thread	National pipe thread tapered			
Code	M5	01	02	03	04	U10U	N1U	N2U	N3U	N4U
Thread size	M5×0.8	R1/8	R1/4	R3/8	R1/2	10-32UNF	NPT1/8	NPT1/4	NPT3/8	NPT1/2
E3, E7Series	✓	✓				✓	✓			
15Series		✓	✓	✓			✓	✓	✓	
20Series		✓	✓	✓	✓			✓	✓	✓

(6) Resin color (Optional)
(Code entry for 15 and 20 series)

Code	W	B
Resin color	Light gray	Black

Model Designation of Plug (Example)

CP (1) P (2) E3 (3) L (4) – 4 (5) (6) (7)

(1) Light Coupling **(2) Coupling type**
P: Plug

(3) Connection size

Code	E3	E7	15	20
Effective area (mm^2)	3	7	15	20

*Light couplings with different effective area can not be connected.

(4) Type

Code	H	L	No code
Type	Banjo type	Elbow	Straight

*Banjo type is available for E3 and E7 Series only.

(5) Tube dia. (øD) or **Thread size** (R)

■ Tube dia.

	mm size (mm)					inch size (inch)					
Code	4	6	8	10	12	1/8	5/32	1/4	5/16	3/8	1/2
Tube O.D.	ø4	ø6	ø8	ø10	ø12	ø1/8	ø5/32	ø1/4	ø5/16	ø3/8	ø1/2
E3Series	✓					✓	✓				
E7Series		✓									
15Series		✓	✓	✓				✓	✓	✓	
20Series		✓	✓	✓	✓			✓	✓	✓	✓

■ Thread size

	Metric thread	Taper pipe thread				UNF thread	National pipe thread tapered			
Code	M5	01	02	03	04	U10U	N1U	N2U	N3U	N4U
Thread size	M5×0.8	R1/8	R1/4	R3/8	R1/2	10-32UNF	NPT1/8	NPT1/4	NPT3/8	NPT1/2
E3, E7Series	✓	✓				✓	✓			
15Series		✓	✓	✓			✓	✓	✓	
20Series		✓	✓	✓	✓			✓	✓	✓

(6) Plug function (Code entry for Straight type of 20 series)

Code	S	C	No code
Functions	With Silencer	With Check valve	Standard

(7) Resin color (Optional) (Code entry for 15 and 20 series)

Code	W	B
Resin color	Light gray	Black

Characteristics

Easy coupling and uncoupling with one-hand operation is possible.

Connection resistance is designed low.

Flow-shut mechanism is incorporated.

The socket stops air flow simultaneously with the uncoupling.

Two types of Plug (Silencer built-in and Check valve built-in) are available.*20 Series only

The silencer type which reduces the noise and shock at the release of the residual pressure, and the check valve type which does not allow the flow of the residual pressure are available.

Compatible with other brand's coupling.

Piping identification by color (Light gray and Black) is possible.

● E3,E7Series

E3 and E7 series with compact design and space-saving piping.

Specifications

Series	E3, E7	15, 20
Fluid medium	Air, Water (Conditional*1)	Air
Max. operating pressure	0.9 MPa	
Max. vacuum	-100 kPa (*2)	
Operating temp. range	0 to 60°C (no freezing)	

⚠ Warning

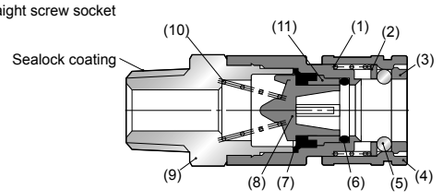
*1. Make sure to follow the instructions below when the fluid medium is water.

1. Surge pressure must be controlled lower than max. operating pressure when using water as a fluid medium.
2. General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
3. Be sure to use Insert Ring (WR) when using water or liquid as a fluid medium.

*2. 15 series socket itself does not have vacuum retention function.

Sectional drawing of Socket

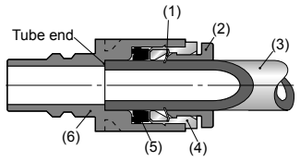
15 series, Straight screw socket



No,	Parts	Material
(1)	Sleeve spring	Stainless steel
(2)	Ball holder	POM
(3)	Socket body	POM
(4)	Sleeve	POM
(5)	Lock ball	Stainless steel
(6)	O-ring	NBR
(7)	Valve seal	NBR
(8)	Valve	POM
(9)	Metallic body	Nickel-plated brass
(10)	Valve spring	Stainless steel
(11)	Valve guide	POM

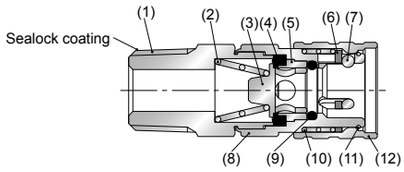
Sectional drawing of Plug

15 series, Straight tube plug



No,	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Polyurethane or nylon
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	Plug body	PBT containing glass

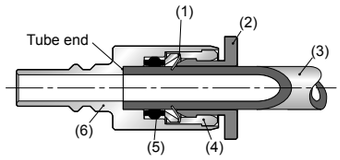
E3 Series: Straight tapered thread type



No,	Parts	Material
(1)	Metallic body1	Nickel-plated brass
(2)	Valve spring	Stainless steel
(3)	Valve	Nickel-plated brass
(4)	Valve seal	NBR
(5)	Valve guide	Nickel-plated brass
(6)	Ball holder	POM
(7)	Lock ball	Stainless steel
(8)	Metallic body2	Nickel-plated brass
(9)	O-ring	NBR
(10)	Sleeve spring	Stainless steel
(11)	Retaining ring	Stainless steel
(12)	Sleeve	Nickel-plated brass

*The gasket of Metric thread and UNF thread for E3 and E7 series is SUS304 + NBR.

E3 series: Straight type with push-in fitting



No,	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Polyurethane or nylon
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	Plug body	Nickel-plated brass

Light Coupling

RoHS2 (2011/65/EU+EU2015/863) compliant

20 Series

Socket

Type	Model code CPS20-øD6
Straight Tube Socket CPS øD	CPS20-6 6
	CPS20-8 6
	CPS20-10 6
	CPS20-12 6
	CPS20-1/4 6
	CPS20-5/16 6
	CPS20-3/8 6
	CPS20-1/2 6

Type	Model code CPS20-R6(U)
Straight Screw Socket CPS R	CPS20-02 6
	CPS20-03 6
	CPS20-04 6
	CPS20-N2 6 U
	CPS20-N3 6 U
	CPS20-N4 6 U

Plug

Type	Model code CPP20-øD7
Straight Tube Plug CPP øD	CPP20-6 7
	CPP20-8 7
	CPP20-10 7
	CPP20-12 7
	CPP20-1/4 7
	CPP20-5/16 7
	CPP20-3/8 7
	CPP20-1/2 7

Type	Model code CPP20-øDS7
Straight Tube Plug with Silencer CPP øD	CPP20-6S 7
	CPP20-8S 7
	CPP20-10S 7
	CPP20-12S 7
	CPP20-1/4S 7
	CPP20-5/16S 7
	CPP20-3/8S 7
	CPP20-1/2S 7

Type	Model code CPP20-øDC7
Straight Tube Plug with Check valve CPP øD	CPP20-6C 7
	CPP20-8C 7
	CPP20-10C 7
	CPP20-12C 7
	CPP20-1/4C 7
	CPP20-5/16C 7
	CPP20-3/8C 7
	CPP20-1/2C 7

Type	Model code CPP20L-øD7
Elbow Tube Plug CPP øD	CPP20L-6 7
	CPP20L-8 7
	CPP20L-10 7
	CPP20L-12 7
	CPP20L-1/4 7
	CPP20L-5/16 7
	CPP20L-3/8 7
	CPP20L-1/2 7

Type	Model code CPP20-R(U)
Screw Plug CPP R	CPP20-02
	CPP20-03
	CPP20-N2U
	CPP20-N3U

Notes
*Release-ring color for inch size is white.

15 Series

Socket

Type	Model code CPS15-øD6
Straight Tube Socket CPS øD	CPS15-6 6
	CPS15-8 6
	CPS15-10 6
	CPS15-1/4 6
	CPS15-5/16 6
	CPS15-3/8 6

Type	Model code CPS15-R6(U)
Straight Screw Socket CPS R	CPS15-01 6
	CPS15-02 6
	CPS15-03 6
	CPS15-N1 6 U
	CPS15-N2 6 U
	CPS15-N3 6 U

Type	Model code CPS15M-øD6(U)
Bulkhead type CPS øD	CPS15M-8 6
	CPS15M-5/16 6 U

Plug

Type	Model code CPP15-øD7
Straight Tube Plug CPP øD	CPP15-6 7
	CPP15-8 7
	CPP15-10 7
	CPP15-1/4 7
	CPP15-5/16 7
	CPP15-3/8 7

Type	Model code CPP15L-øD7
Elbow Tube Plug CPP øD	CPP15L-6 7
	CPP15L-8 7
	CPP15L-10 7
	CPP15L-1/4 7
	CPP15L-5/16 7
	CPP15L-3/8 7

Type	Model code CPP15-R(U)
Screw Plug CPP R	CPP15-01
	CPP15-02
	CPP15-03
	CPP15-N1U
	CPP15-N2U
	CPP15-N3U

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Standard Optional

Code	6 or 7 : W
Specifications	Light gray

RoHS2 (2011/65/EU+EU2015/863) compliant

E3, E7 Series

Socket

Type	Model code CPS3-øD
Straight Tube Socket CPS	CPSE3-4
	CPSE7-6
	CPSE3-1/8
	CPSE3-5/32

Type	Model code CPS3-R(U)
Straight Screw Socket CPS	CPSE3-M5
	CPSE3-01
	CPSE7-M5
	CPSE7-01
	CPSE3-U10U
	CPSE3-N1U
	CPSE7-U10U
	CPSE7-N1U

Type	Model code CPS3M-øD(U)
Bulkhead type CPS	CPSE3M-4
	CPSE7M-6
	CPSE3M-1/8U
	CPSE3M-5/32U

Type	Model code CPS3H-R(U)
Banjo Socket CPS	CPSE3H-M5
	CPSE7H-M5
	CPSE3H-U10U
	CPSE7H-U10U

Plug

Type	Model code CPP3-øD
Straight Tube Plug CPP	CPPE3-4
	CPPE7-6
	CPPE3-1/8
	CPPE3-5/32

Type	Model code CPP3L-øD
Elbow Tube Plug CPP	CPPE3L-4
	CPPE7L-6
	CPPE3L-1/8
	CPPE3L-5/32

Type	Model code CPP3-R(U)
Straight Screw Socket CPP	CPPE3-M5
	CPPE3-01
	CPPE7-M5
	CPPE7-01
	CPPE3-U10U
	CPPE3-N1U
	CPPE7-U10U
	CPPE7-N1U

Type	Model code CPP3H-R(U)
Banjo Plug CPP	CPPE3H-M5
	CPPE7H-M5
	CPPE3H-U10U
	CPPE7H-U10U

Notes
*Release-ring color for inch size is white.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Color Cap

Release-ring cover for piping identification

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

CAPH (1) 6 (2) – BU (3)

(1) Type

Code	CAPH	CAPL
Type	Color Cap	Color Lock Cap

(2) Applicable release-ring size

Release-ring shape		Standard type					
Code		4	6	8	10	12	16
Tube O.D.	mm	ø4	ø6	ø8	ø10	ø12	ø16
	inch	ø5/32	ø3/16, ø1/4	ø5/16	ø3/8	ø1/2	ø5/8

Release-ring shape		Mini type			
		Oval		Round*	
Code		4M	6M	4MQ	6MQ
Tube O.D.	mm	ø4	ø6	ø4	ø6
	inch	ø1/8, ø5/32	ø1/4	ø1/8, ø5/32	–

*Only CAPL (Color Lock Cap) is available for Mini type with Round release-ring.

Standard type and Mini type (some) Release-ring

Mini type Release-ring

(3) Color

Code	B	R	O	YB	Y	G	BU	CB	GR	W
Color	Black	Red	Orange	Ocher	Yellow	Green	Blue	Sky blue	Gray	White

■ Available color cap type according to the release-ring type.

Release-ring type		Standard type						Mini type			
Release-ring shape		Round						Oval		Round	
Color cap size code		4	6	8	10	12	16	4M	6M	4MQ	6MQ
Applicable tube O.D.	mm	ø4	ø6	ø8	ø10	ø12	ø16	ø4	ø6	ø4	ø6
	inch	ø5/32	ø3/16, ø1/4	ø5/16	ø3/8	ø1/2	ø5/8	ø1/8, ø5/32	ø1/4	ø1/8, ø5/32	–
CAPH		✓	✓	✓	✓	✓	✓	✓	✓	–	–
CAPL		–	–	–	–	–	–	✓	✓	✓	✓

*Cannot be used with the release-ring made of materials other than POM, PBT or PP. Check the sectional drawing of each product before use.

Characteristics

Attached to the Release-ring to identify the piping. To make the piping identification easier.

By attaching it to a place where many pipes are concentrated, it can be color-coded in 10 colors according to the application.

Color cap can fit on push-in fittings with release ring placed next to next.

For Union Y types (PY type)

● Color Lock Cap

Available for Mini type release-ring. (Oval and Round type)

Applicable release-ring ► Tube fitting mini series, Tube O.D.: ø4 mm, ø6 mm.

Color lock cap prevents tube escape due to mis-operation.

10 colors are available.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code CAPH[2]-[3]
Color Cap CAPH	CAPH[2]-[3]
	CAPH16-[3]

Type	Model code CAPL[2]-[3]
Color Lock Cap CAPL	CAPL4M-[3]
	CAPL6M-[3]

Type	Model code CAPL[2]-[3]
Color Lock Cap CAPL	CAPL4MQ-[3]
	CAPL6MQ-[3]

Notes
*Material of color cap is POM.

Packaging specifications
1 set (10 pcs.) /bag

Release Jig

PISCO®

>>> https://www.pisco.co.jp/en/

Tube pulling aids

⚠ Safety instructions for this product

Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation of Release Jig for standard fittings

OJ(B)
(1)

(1) Release Jig for standard fittings

■ Removable Tube size

	mm size (mm)				inch size (inch)		
Code	6	8	10	12	5/16	3/8	1/2
Tube O.D.	ø6	ø8	ø10	ø12	ø5/16	ø3/8	ø1/2

*1. All tube sizes shown in the above table can be removed with a single Release Jig.
*2. The available color is only black.

Model Designation of Release Jig for Tube Fitting Mini

OJ-M(B)
(1)

(1) Release Jig for Tube Fitting Mini

■ Removable Tube size

	mm size (mm)			inch size (inch)		
Code	3	4	6	1/8	5/32	1/4
Tube O.D.	ø3	ø4	ø6	ø1/8	ø5/32	ø1/4

*1. All tube sizes shown in the above table can be removed with a single Release Jig.
*2. The available color is only black.

Characteristics

- Tubes can be easily removed simply by pressing Release Jig against the Release-ring.
- Ideal for hard-to-reach work environments.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code
Release Jig OJ	OJ(B)
	OJ-M(B)

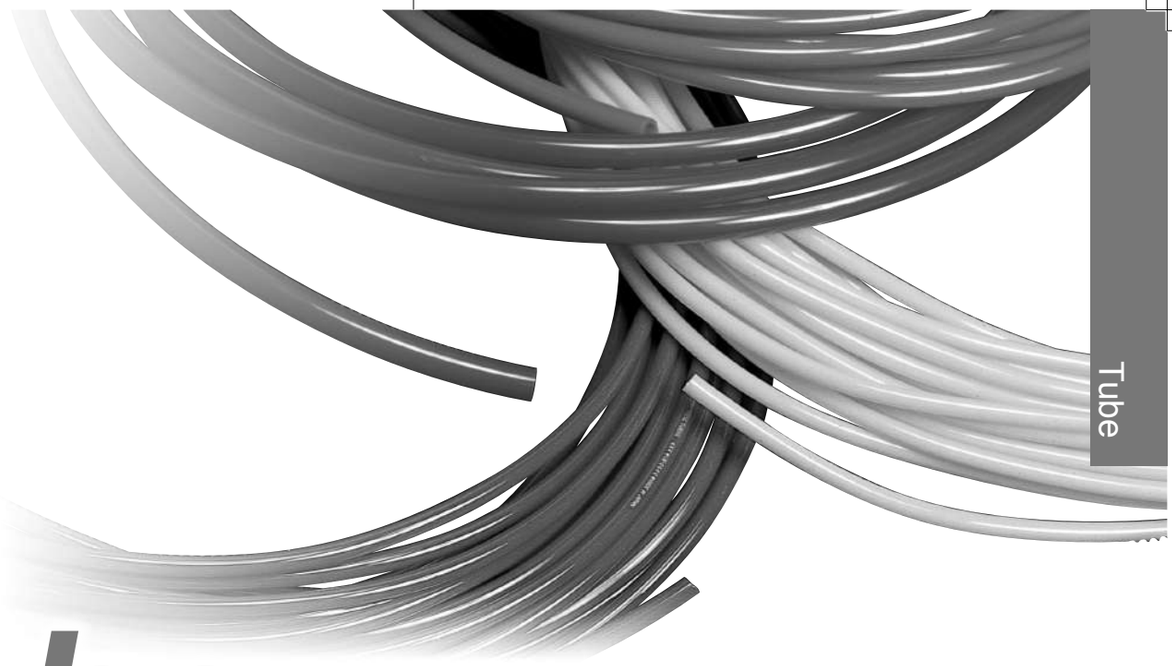
Package Packaging specifications
1 pc. /bag

Related Products

Tube End Marker (not for sale)

►Enables to mark tube insertion dimensions and prevent insufficient insertion.
►Can be used for PISCO Push-in fittings

If you are interested in Tube End Markers, please contact us.



Tube

Tube

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For general piping

Straight
Polyurethane Tube ····· P.90
Soft Polyurethane Tube ····· P.92
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Low-friction Polyurethane Tube ····· P.94
Vacuum Tube ····· P.95
Nylon Tube ····· P.96
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Twin Spiral Coiled Tube ····· P.102
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For special environmental piping

Straight
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Binder for tube
Tube Binder ····· P.110

Tube inner diameter protection
Insert Ring ····· P.111

Tube Cutter
Tube Cutter ····· P.112
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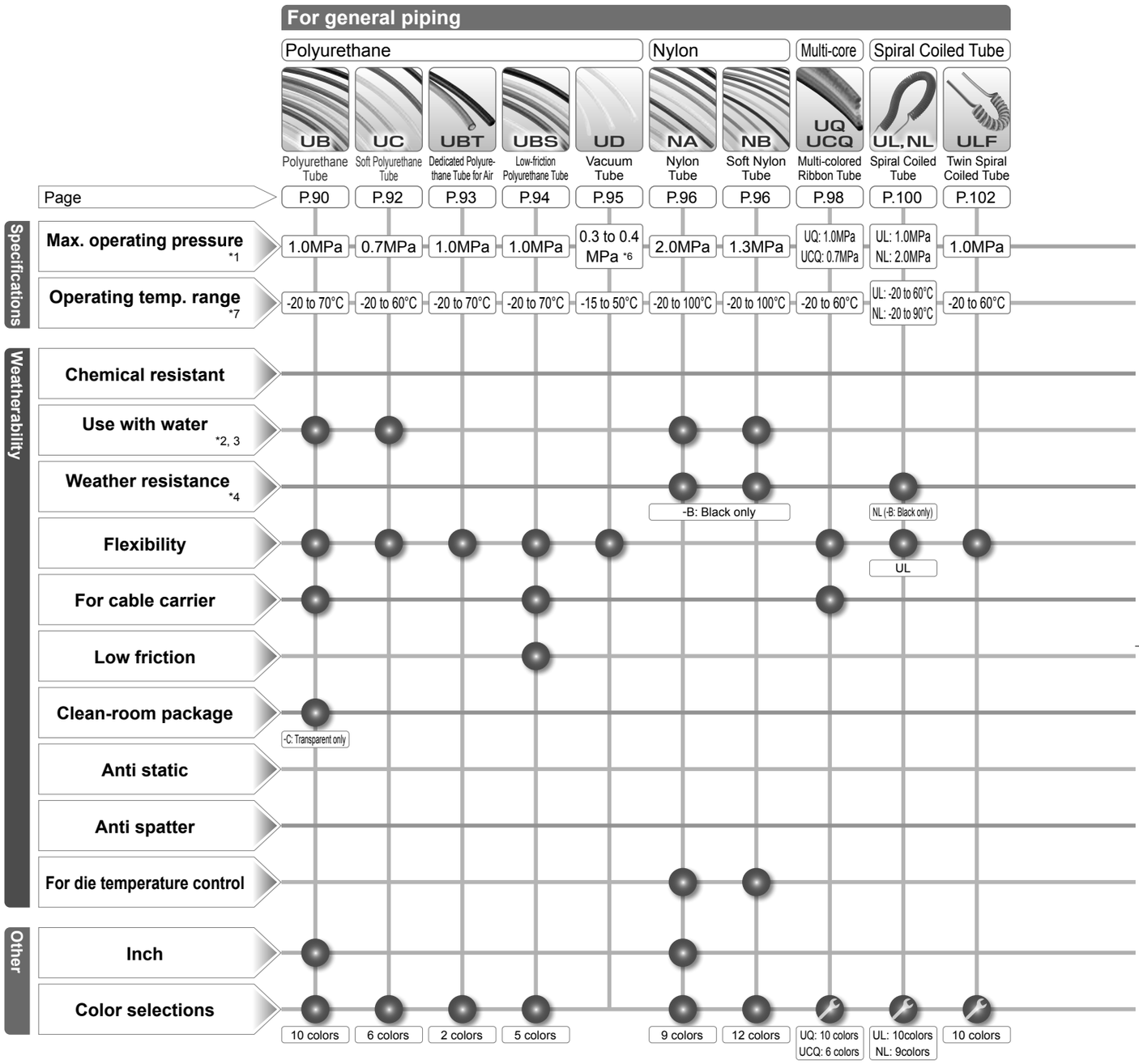
Spatter cover remover
Tube Stripper for Anti-spatter Tube ··· P.114

All resin tube reel
Tube Reel ····· P.115

Quick Guide

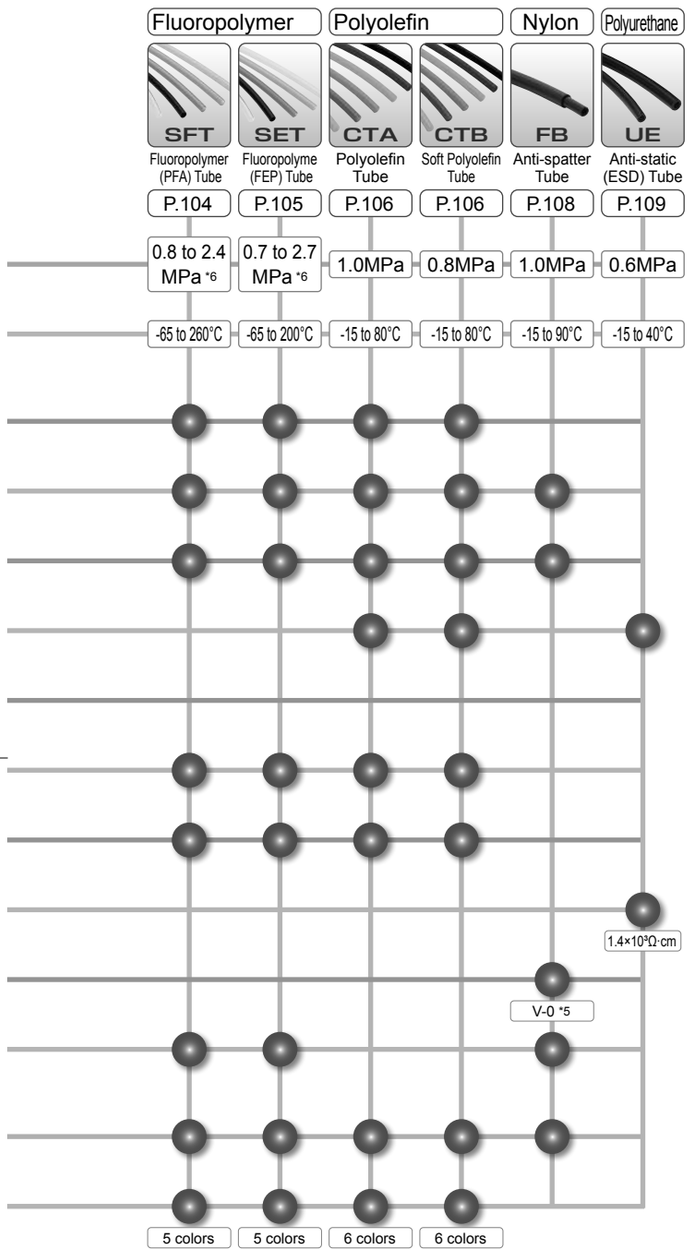
Selection Guide Chart of Tube Series



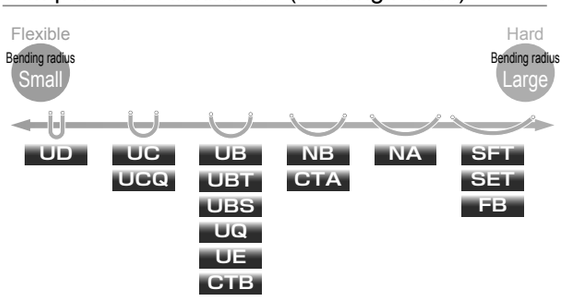
●: Standard ●: Optional (Standard options that can be specified in the model designation)

*1. The value of max. operating pressure is measured at 20ºC and 65% RH.
*2. Be sure to place our Insert ring (WR) into the tube edge when the tube is inserted into Push-in fittings.
*3. When using all-resin made push-in fittings (Chemical/PP type) in applications that metal free is not required, we recommend using our Insert Ring (WR) for the tube.
*4. Not suitable for outdoor use.
*5. The cover is PVC.
*6. Max. operating pressure of Vacuum tube and Fluoropolymer tube is different according to the tube sizes.
*7. The temp. ranges listed are for air as the fluid medium. The operating temp. range varies for liquids.

For special environmental piping



Comparison of flexibilities (bending radius)



Tube size list (O.D.×I.D.) ●: Available size

mm size (Unit: ømm)

Polyurethane

Model \ Size	1.8×1	2×1.2	3×2	4×2.5	6×4	8×5	10×6.5	12×8	16×11
UB	●	●	●	●	●	●	●	●	●
UC	–	–	–	●	●	●	●	●	–
UBT	–	–	●	●	●	●	●	●	–
UBS	–	–	–	●	●	●	●	●	–
UD	–	–	–	●	●	● (8×6)	● (10×7.5)	● (12×9)	–
UQ	–	–	●	●	●	●	●	●	–
UL	–	–	●	●	●	●	●	●	–
ULF	–	–	●	●	●	●	●	●	–
UE	–	–	●	●	●	●	●	●	–

Nylon

Model \ Size	4×2.5	6×4	8×6	10×7.5	12×9	16×13
NA	●	●	●	●	●	●
NB	●	●	●	●	●	●
FB	●	●	●	●	●	–

Polyolefin

Model \ Size	4×2	4×2.5	6×4	8×5	8×6	10×6.5	10×7.5	10×8	12×8	12×9	12×10	16×13
CTA	●	●	●	–	●	–	●	●	–	●	●	●
CTB	–	●	●	●	–	●	–	–	●	–	–	–

Fluoropolymer

Model \ Size	4×2	4×2.5	6×4	8×6	10×7.5	10×8	12×9	12×10	16×13
SFT	●	●	●	●	●	●	●	●	●
SET	●	●	●	●	●	●	●	●	●

inch size (Unit: øinch)

Polyurethane

Model \ Size	1/8 (1/8×0.08)	5/32* (5/32×0.10)	3/16 (3/16×0.12)	1/4 (1/4×0.16)	5/16* (5/16×0.20)	3/8 (3/8×0.24)	1/2 (1/2×0.33)	5/8* (5/8×0.43)
UB	●	●	●	●	●	●	●	●

Nylon

Model \ Size	1/8 (1/8×0.08)	5/32* (5/32×0.10)	3/16 (3/16×0.12)	1/4 (1/4×0.18)	5/16* (5/16×0.24)	3/8 (3/8×0.28)	1/2 (1/2×0.38)	5/8* (5/8×0.51)
NA	●	●	●	●	●	●	●	●
FB	–	●	–	●	●	●	●	–

Polyolefin

Model \ Size	5/32* (5/32×0.08)	5/32* (5/32×0.10)	1/4 (1/4×0.18)	5/16* (5/16×0.24)	3/8 (3/8×0.28)	1/2 (1/2×0.38)	5/8* (5/8×0.51)
CTA	●	●	●	●	●	●	●
CTB	–	●	● (1/4×0.16)	● (5/16×0.20)	● (3/8×0.24)	● (1/2×0.33)	–

Fluoropolymer

Model \ Size	1/8 (1/8×0.09)	5/32* (5/32×0.10)	1/4 (1/4×0.18)	5/16* (5/16×0.24)	3/8 (3/8×0.28)	1/2 (1/2×0.38)	5/8* (5/8×0.51)
SFT	–	●	●	●	●	●	●
SET	–	●	●	●	●	●	●

*Inch size: 5/32, 5/16 and 5/8 are for common use with mm size.

Polyurethane Tube

Straight Tube for General Pneumatic Piping

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

UB (1) 0640 (2) – 20 (3) – C (4) -C (5)

(1) Polyurethane Tube

(2) Tube dia. (O.D.×I.D.)

	mm size (mm)								
Code	01810	0212	0320	0425(5/32)	0640	0850(5/16)	1065	1280	1611(5/8)
O.D.	ø1.8	ø2	ø3	ø4	ø6	ø8	ø10	ø12	ø16
I.D.	ø1	ø1.2	ø2	ø2.5	ø4	ø5	ø6.5	ø8	ø11

	inch size (inch)							
Code	1/8	0425 (5/32)	3/16	1/4	0850 (5/16)	3/8	1/2	1611 (5/8)
O.D.	ø1/8	ø5/32	ø3/16	ø1/4	ø5/16	ø3/8	ø1/2	ø5/8
I.D.	ø0.08	ø0.10	ø0.12	ø0.16	ø0.20	ø0.24	ø0.33	ø0.43

*1. Consult us when using non-PISCO brand tube fittings for our Polyurethane tube with tube O.D. 1.8 mm. It may cause fluid leakage or tube escape.
*2. The values in ( ) in the row Code represent the tube O.D. in inches.

(3) Tube length

Code	20	50	100
Length (m)	20	50	100

*1. UB01810, UB0212, UB1611, and UB5/8 are available only in 20 m length.
*2. 50 m length is available only in black color with tube dia. of mm size.

(4) Tube color (○: Available)

Code	B	R	O	YB	Y	G	BU	CB	C	W
Tube color	Black	Red	Orange	Ocher	Yellow	Green	Blue	Clear blue	Transparent	Milky white
mm size	○	○	○	○	○	○	○	○	○	○
inch size	○	○	○		○	○	○		○	

*Standard colors of tube size UB0212 do not include ocher.

(5) Packaging spec. (Optional)

Code	No code	-C
Packaging	Standard packaging	Clean-room package

*Clean-room packaging is only available for Transparent with outer diameters of dia. 4 to 12 mm and total tube length of 20 m.

Characteristics

Best suitable for compact piping.

Featuring excellent flexibility and can be used with small bending radius.

A wide variety of tube colors.

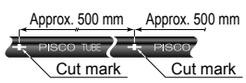
Pipings can be identified by color or can be completed in the same colors as the devices.

Ultra-small diameter 1.8 mm and 2 mm are available.

NEW New color dia. 2 mm tubes are now available.

Six new colors, including red, orange, yellow, green, blue, and milky white, are now available.

The cut marks at 500 mm interval are printed on the tube as a guide.



*The marks are just as a guide and the accuracy is not guaranteed.

Tubings longer than the packaged length can be requested as make-to-order production.

Tube diameter/Length List

Model code	Length (m)
UB0320	300
UB0425	500
UB0640	500
UB0850	500
UB1065	250
UB1280	200
UB1611	100

*1.The minimum order quantity of tubings longer than the packaged length is 500 m or more per order.
*2. Contact us for lengths not listed.
*3. Contact us for the reel winding.
*4. Contact us for tubes longer than the packaged length in inch size.

● Clean-room package (Optional)

Suitable for clean environment.

Cleaned and packaged in cleanroom ISO class 6 equivalent. Packaged in antistatic packaging material that prevents dust from sticking.

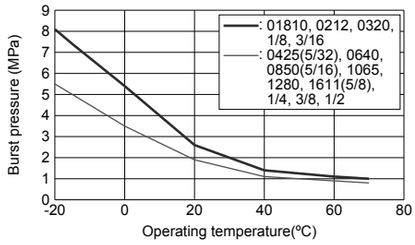
Specifications (○: Available)

	Model code	mm size (mm)									inch size (inch)				
		UB01810	UB0212	UB0320	UB0425 (5/32")	UB0640	UB0850 (5/16")	UB1065	UB1280	UB1611 (5/8")	UB1/8	UB3/16	UB1/4	UB3/8	UB1/2
Size	O.D.×I.D.	1.8×1	2×1.2	3×2	4×2.5	6×4	8×5	10×6.5	12×8	16×11	1/8×0.08	3/16×0.12	1/4×0.16	3/8×0.24	1/2×0.33
Size	Tube length (m)	20		20 · 50(*) · 100						20	20 · 100				
Tube color: 10 colors	Black (B)	○	○	○							○				
Tube color: 10 colors	Red (R)	○	○	○							○				
Tube color: 10 colors	Orange (O)	○	○	○							○				
Tube color: 10 colors	Ocher (YB)	○	–	○							–				
Tube color: 10 colors	Yellow (Y)	○	○	○							○				
Tube color: 10 colors	Green (G)	○	○	○							○				
Tube color: 10 colors	Blue (BU)	○	○	○							○				
Tube color: 10 colors	Clear blue (CB)	○	○	○							–				
Tube color: 10 colors	Transparent (C)	○	○	○							○				
Tube color: 10 colors	Milky white (W)	○	○	○							–				
Specifications	Fluid medium	Air, Water (Conditional *1)													
Specifications	Max. operating pressure (MPa)	1.0 (65% RH at 20ºC *2)													
Specifications	Max. vacuum (kPa)	-100													
Specifications	Operating temp. range (ºC)	Air: -20 to 70 (No freezing) Water: -15 to 60 (No freezing)													
Specifications	Min. bending radius (JIS) (mm)	4		8	10	15		20	30	60	8	15		20	30
Specifications	Min. installation radius (Vice) (mm)	6		12	15	23		30	45	90	12	23		30	45

⚠ Warning
*1. The following conditions must be observed when the fluid medium is water.
(1) Surge pressure must be controlled lower than max, operating pressure when using water as a fluid medium.
(2) General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
(3) Be sure to place Insert Ring (WR) into the tube edge when tube is inserted into push-in fittings and using water as a fluid medium. Except UB01810, 0212.
*2. The value of max. operating pressure is measured at 20ºC and 65% RH. For other temperatures, the Burst Pressure Curve should be used with a sufficient safety margin. In addition, if the tube is in a moving part, such as a swinging or bending part, the temperature may rise due to self-heating caused by intermolecular heat generation, which may cause the tube to break.

⊕Note* 50 m Length is available only in Black.

Burst Pressure Curve (Reference Value)



Related product

Tube End Marker (not for sale)

►Enables to mark the tube insertion dimension and prevent insufficient insertion.
► Can be used for PISCO Push-in fittings.

Contact us for more information about Tube End Markers.

RoHS2 (2011/65/EU+EU2015/863) compliant

Tube type	Model code
Polyurethane Tube UB	UB01810-20-4
	UB0212-20-4
	UB0320-3-4
	UB0425-3-4 5
	UB0640-3-4 5
	UB0850-3-4 5
	UB1065-3-4 5
	UB1280-3-4 5
	UB1611-20-4
	UB1/8-3-4
	UB3/16-3-4
	UB1/4-3-4
	UB3/8-3-4
	UB1/2-3-4

Notes
*1. Tubes with desired length are available as make-to-order items. Contact us for the price.
*2. For 3 in model code, please select a code of tube length, for 4, please select a tube color code.

Packaging specifications
20 M lengths/bag: Applicable to all types
50 M lengths/bag: Only black color in mm size except UB01810, 0212 is available
100 M lengths/box: All types except UB01810, 0212, 1611.

Option
5 : -C ⇒ Clean-room package

Soft Polyurethane Tube

Straight Soft Tube for General Pneumatic Piping

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

UC (1) 0640 (2) – 20 (3) – CG (4)

(1) Soft Polyurethane Tube

(2) Tube dia. (O.D.×I.D.)

	mm size (mm)				
Code	0425	0640	0850	1065	1280
O.D.	ø4	ø6	ø8	ø10	ø12
I.D.	ø2.5	ø4	ø5	ø6.5	ø8

(3) Tube length

Code	20	100
Length (m)	20	100

(4) Tube color

Code	CBL	CO	CY	CG	CB	C
Tube color	Clear black	Clear orange	Clear yellow	Clear green	Clear blue	Transparent

Characteristics

Best suitable for compact piping.

The excellent flexibility enables piping in a narrow space and achieves a small bend radius.

Clear type of 6 colors are available.

Multi-core tube is also available.

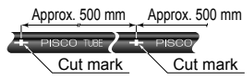
No. of cores: 2 to 6 cores are available. See page 98 for details.

Possible to use water as a fluid medium.

Extruded from ether type polyurethane.

The cut marks at 500 mm interval are printed on the tube.

It is useful to cut tubing.
*The marks are just as a guide and the accuracy is not guaranteed.

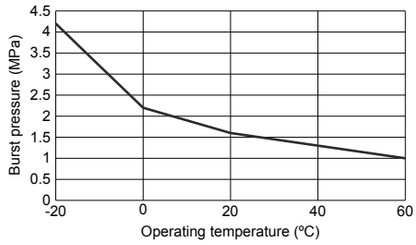


Specifications

	Model code	UC0425	UC0640	UC0850	UC1065	UC1280
Size	O.D.×I.D. (mm)	4×2.5	6×4	8×5	10×6.5	12×8
	Tube length (m)	20 · 100				
Tube color: 6 colors		Clear black (CBL), Clear orange (CO), Clear yellow (CY), Clear green (CG), Clear blue (CB), Transparent (C)				
Specifications	Fluid medium	Air, Water (Conditional *1)				
	Max. operating pressure (MPa)	0.7 (65% RH at 20ºC *2)				
	Max. vacuum (kPa)	-100				
	Operating temp. range (ºC)	Air: -20 to 60 (No freezing) Water: -15 to 60 (No freezing)				
	Min. bending radius (JIS) (mm)	9	13		18	27
	Min. installation radius (Vice) (mm)	14	21	22	26	35
	Remark	Use of Insert ring is recommended. (Insert ring is necessary to conform the pull-out strength defined by JISB 8381-1, if it requires.)				

⚠ Warning
*1. The following conditions must be observed when the fluid medium is water.
(1) Surge pressure must be controlled lower than max. operating pressure when using water as a fluid medium.
(2) General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
(3) Be sure to place Insert Ring (WR) into the tube edge when tube is inserted into push-in fittings and using water as a fluid medium.
*2. The value of max. operating pressure is measured at 20ºC and 65%RH. For other temperatures, the Burst Pressure Curve should be used with a sufficient safety margin. In addition, if the tube is in a moving part, such as a swinging or bending part, the temperature may rise due to self-heating caused by intermolecular heat generation, which may cause the tube to break.

Burst Pressure Curve (Reference Value)



RoHS2 (2011/65/EU+EU2015/863) compliant

Tube type	Model code
Soft Polyurethane Tube	UC0425-3-4
	UC0640-3-4
	UC0850-3-4
	UC1065-3-4
	UC1280-3-4

Notes
*1. Tubes with desired length are available as make-to-order items. Contact us for the price.
*2. For 3 in model code, please select a code of tube length, for 4, please select a tube color code.

Packaging specifications
20 M lengths/bag: Applicable to all types
100 M lengths/box: Applicable to all types

Dedicated Polyurethane Tube for Air

PISCO
>>> https://www.pisco.co.jp/en/

Polyurethane Tube for General Pneumatic Piping

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

UBT (1) 0640 (2) – 20 (3) – B (4)

(1) Dedicated Polyurethane Tube for Air

(2) Tube dia. (O.D.×I.D.)

	mm size (mm)					
Code	0320	0425	0640	0850	1065	1280
O.D.	ø3	ø4	ø6	ø8	ø10	ø12
I.D.	ø2	ø2.5	ø4	ø5	ø6.5	ø8

(3) Tube length

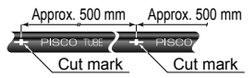
Code	20	50	100
Length (m)	20	50	100

(4) Tube color

Code	B	CB
Tube color	Black	Clear blue

Characteristics

- Achieved cost saving compared to conventional Polyurethane Tube (UB).
- Excelled in mechanical strength and oil resistance, and best suitable for air piping in factories.
- Featuring excellent flexibility, best suitable for the compact piping requiring small bending radius.
- Two standard tube colors, Black and Clear Blue are available.
- The cut marks at 500 mm interval are printed on the tube as a guide.
  *The marks are just as a guide and the accuracy is not guaranteed.

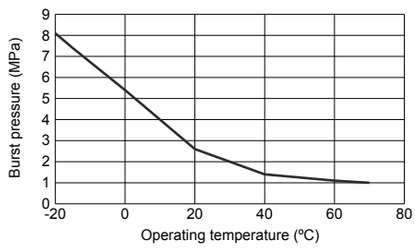


Specifications

	Model code	UBT0320	UBT0425	UBT0640	UBT0850	UBT1065	UBT1280
Size	O.D.×I.D. (mm)	3×2	4×2.5	6×4	8×5	10×6.5	12×8
	Tube length (m)	20 · 50 · 100					
	Tube color: 2 colors	Black (B), Clear blue (CB)					
Specifications	Fluid medium	Air					
	Max. operating pressure (MPa)	1.0 (65% RH at 20ºC*)					
	Max. vacuum (kPa)	-100					
	Operating temp. range (ºC)	-20 to 70 (No freezing)					
	Min. bending radius (JIS) (mm)	8	10	15		20	30
	Min. installation radius (Vice) (mm)	12	15	23		30	45

⚠ Warning
*The value of max. operating pressure is measured at 20ºC and 65% RH. For other temperatures, the Burst Pressure Curve should be used with a sufficient safety margin. In addition, if the tube is in a moving part, such as a swinging or bending part, the temperature may rise due to self-heating caused by intermolecular heat generation, which may cause the tube to break.

Burst Pressure Curve (Reference Value)



RoHS2 (2011/65/EU+EU2015/863) compliant

Tube type	Model code
Dedicated Polyurethane Tube for Air UBT	UBT0320-3-4
	UBT0425-3-4
	UBT0640-3-4
	UBT0850-3-4
	UBT1065-3-4
	UBT1280-3-4

Notes
*1. Tubes with desired length are available as make-to-order items. Contact us for the price.
*2. For 3 in model code, please select a code of tube length, for 4, please select a tube color code.

Packaging specifications
20 M lengths/bag: Applicable to all types
50 M lengths/bag: Applicable to all types
100 M lengths/box: Applicable to all types

Low-friction Polyurethane Tube

Low-friction Polyurethane Tube

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

UBS (1) 0640 (2) – 20 (3) – B (4)

(1) Low-friction Polyurethane Tube

(2) Tube dia. (O.D.×I.D.)

	mm size (mm)				
Code	0425	0640	0850	1065	1280
O.D.	ø4	ø6	ø8	ø10	ø12
I.D.	ø2.5	ø4	ø5	ø6.5	ø8

(3) Tube length

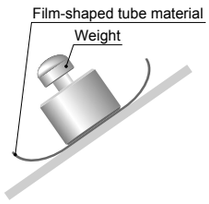
Code	20	100
Length (m)	20	100

(4) Tube color

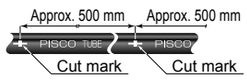
Code	B	Y	G	BU	W
Tube color	Black	Yellow	Green	Blue	Milky white

Characteristics

- Suitable for piping which goes through cable guides and protectors.
- The friction factor is 1/3 of PISCO's most versatile polyurethane tubings (UB).
  *Based on the results of the test (see the right fig.) in which a weight was slid on a film-shaped tube material.



- Featuring excellent flexibility, best suitable for the compact piping requiring small bending radius.
- Tubes come in a variety of colors for identification and color-coding.
- The cut marks at 500 mm interval are printed on the tube as a guide.
  *The marks are just as a guide and the accuracy is not guaranteed.

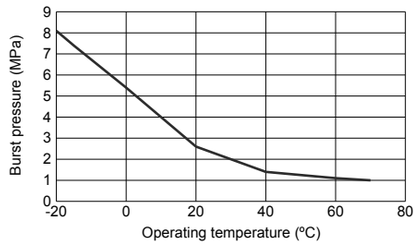


Specifications

	Model code	UBS0425	UBS0640	UBS0850	UBS1065	UBS1280
Size	O.D.×I.D. (mm)	4×2.5	6×4	8×5	10×6.5	12×8
	Tube length (m)	20 · 100				
Tube color: 5 colors		Black (B), Yellow (Y), Green (G), Blue (BU), Milky white (W)				
Specifications	Fluid medium	Air				
	Max. operating pressure (MPa)	1.0 (65% RH at 20ºC*)				
	Max. vacuum (kPa)	-100				
	Operating temp. range (ºC)	-20 to 70 (No freezing)				
	Min. bending radius (JIS) (mm)	10	15		20	30
	Min. installation radius (Vice) (mm)	15	23		30	45

⚠ Warning
*The value of max. operating pressure is measured at 20ºC and 65% RH. For other temperatures, the Burst Pressure Curve should be used with a sufficient safety margin. In addition, if the tube is in a moving part, such as a swinging or bending part, the temperature may rise due to self-heating caused by intermolecular heat generation, which may cause the tube to break.

Burst Pressure Curve (Reference Value)



RoHS2 (2011/65/EU+EU2015/863) compliant

Tube type	Model code
Low-friction Polyurethane Tube	UBS0425-3-4
	UBS0640-3-4
	UBS0850-3-4
	UBS1065-3-4
	UBS1280-3-4

Notes
*1. Tubes with desired length are available as make-to-order items. Contact us for the price.
*2. For 3 in model code, please select a code of tube length, for 4, please select a tube color code.

Packaging specifications
20 M lengths/bag: Applicable to all types
100 M lengths/box: Applicable to all types

Related product

Plarailchain Series
► P.791

Vacuum Tube

PISCO

>>> https://www.pisco.co.jp/en/

Ultra Soft Polyurethane Straight Tube

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

UD (1) **0640** (2) – **20** (3) – **C** (4)

(1) Vacuum Tube

(2) Tube dia. (O.D.×I.D.)

	mm size (mm)				
Code	0425	0640	0860	1075	1290
O.D.	ø4	ø6	ø8	ø10	ø12
I.D.	ø2.5	ø4	ø6	ø7.5	ø9

(3) Tube length

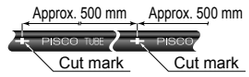
Code	20	100
Length (m)	20	100

(4) Tube color

Code	C
Tube color	Transparent

Characteristics

- Very soft and flexible suitable for piping of moving parts.
- Suitable for applications where maneuverability or small bend radius is required.
- The cut marks at 500 mm interval are printed on the tube as a guide.
  *The marks are just as a guide and the accuracy is not guaranteed.

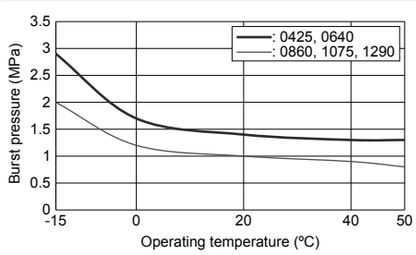


Specifications

	Model code	UD0425	UD0640	UD0860	UD1075	UD1290
Size	O.D.×I.D. (mm)	4×2.5	6×4	8×6	10×7.5	12×9
	Tube length (m)	20 · 100				
Tube color: 1 color		Transparent (C)				
Specifications	Fluid medium	Air				
	Max. operating pressure (MPa)	0.4 (65% RH at 20ºC *1)		0.3 (65% RH at 20ºC *1)		
	Max. vacuum (kPa)	-100				
	Operating temp. range (ºC)	-15 to 50 (No freezing)				
	Min. bending radius (JIS) (mm)	8	12	27	34	38
	Min. installation radius (Vice) (mm)	12	18	41	51	57

⚠ Warning
*1. The value of max. operating pressure is measured at 20ºC and 65% RH. For other temperatures, the Burst Pressure Curve should be used with a sufficient safety margin. In addition, if the tube is in a moving part, such as a swinging or bending part, the temperature may rise due to self-heating caused by intermolecular heat generation, which may cause the tube to break.
*2. Be sure to place Insert Ring into the tube edge when Vacuum Tube is inserted into Push-in Fittings. There is a possibility of escape of Tube without Insert Ring.

Burst Pressure Curve (Reference Value)



RoHS2 (2011/65/EU+EU2015/863) compliant

Tube type	Model code
Vacuum Tube UD	UD0425-3-C
	UD0640-3-C
	UD0860-3-C
	UD1075-3-C
	UD1290-3-C

Notes
*1. Tubes with desired length are available as make-to-order items. Contact us for the price.
*2. For 3 in model code, please select a code of tube length.

Packaging specifications
20 M lengths/bag: Applicable to all types
100 M lengths/box: Applicable to all types

Nylon Tube, Soft Nylon Tube

Straight Tube for General Pneumatic Piping and Mold Temperature Control Piping

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

NA (1) 0640 (2) – 20 (3) – B (4)

(1) Tube type

Code	NA	NB
Tube type	Nylon Tube	Soft Nylon Tube

(2) Tube dia. (O.D.×I.D.)

	mm size (mm)					
Code	0425(5/32)	0640	0860(5/16)	1075	1290	1613(5/8)
O.D.	ø4	ø6	ø8	ø10	ø12	ø16
I.D.	ø2.5	ø4	ø6	ø7.5	ø9	ø13

	inch size (inch)							
Code	1/8	0425 (5/32)	3/16	1/4	0850 (5/16)	3/8	1/2	1613 (5/8)
O.D.	ø1/8	ø5/32	ø3/16	ø1/4	ø5/16	ø3/8	ø1/2	ø5/8
I.D.	ø0.08	ø0.10	ø0.12	ø0.18	ø0.24	ø0.28	ø0.38	ø0.51

*1. Figures in () in the row Code represent the O.D. of the tube in inches.
*2. Soft Nylon Tube (NB) is not available in inch size as standard.

(3) Tube length

Code	20	100
Length (m)	20	100

*NA1613, NB1613 and NA5/8 are available only in 20 m length.

(4) Tube color (○: Available)

Code		B	R	O	YB	Y	G	BU	CB	W	BR	YG	P
Tube color		Black	Red	Orange	Ocher	Yellow	Green	Blue	Clear blue	Milky white	Brown	Yellow green	Pink
NA	mm size	○	○	○	○	○	○	○	○	○			
	inch size	○								○			
NB		○	○	△*2	△*2	○	△*2	○	○	○	△*2	△*2	△*2

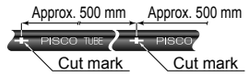
*1. The standard colors for inch size 1/8, 3/16, 1/4, 3/8 and 1/2: Black and Milky white only.
*2. Color selection with marking △ is available as a make-to-order product. (MOQ is 500 m.)
*3. Standard colors for NB1613 are Black, Blue, and Milky white only. Other colors are available as a make-to-order product. (MOQ is 500 m.)

Characteristics

Featuring excellent pressure resistance, can be used under high pressure.

The cut marks at 500 mm interval are printed on the tube as a guide.

*The marks are just as a guide and the accuracy is not guaranteed.



Tubings longer than the packaged length can be requested as make-to-order production.

Tube diameter / Length List

Model code	Length (m)
NA0425, NB0425	500
NA0640, NB0640	500
NA0860, NB0860	500
NA1075, NB1075	250
NA1290, NB1290	200
NA1613, NB1613	50

*1. The minimum order quantity of tubings longer than the packaged length is 500 m or more per order.
*2. Contact us for lengths not listed.
*3. Contact us for the reel winding.
*4. Contact us for tubes longer than the packaged length in inch size.

A wide variety of color options are available: 9 colors for NA, 12 colors for NB.

For the details, see the table of (4).Tube color in "Model Designation (Example)".

Can be used with hot water and heat medium oil.

Used as hot water resistant tube, best suitable for the piping of mold cooling water.

Specifications (○: Available, △: Available as a make-to-order)

		NA										
		mm size (mm)						inch size (inch)				
Model code		NA0425 (5/32")	NA0640	NA0860 (5/16")	NA1075	NA1290	NA1613 (5/8")	NA1/8	NA3/16	NA1/4	NA3/8	NA1/2
Size	O.D.×I.D.	4×2.5	6×4	8×6	10×7.5	12×9	16×13	1/8×0.08	3/16×0.12	1/4×0.18	3/8×0.28	1/2×0.38
	Tube length (m)	20 · 100					20	20 · 100				
Tube color: 9 colors	Black (B)	○						○				
	Red (R)	○						–				
	Orange (O)	○						–				
	Ocher (YB)	○						–				
	Yellow (Y)	○						–				
	Green (G)	○						–				
	Blue (BU)	○						–				
	Clear blue (CB)	○						–				
	Milky white (W)	○						○				
Specifications	Fluid medium	Air, Water (Conditional *1), Heat medium oil (Conditional *1)										
	Max. operating pressure (MPa)	2.0 (265% RH at 20ºC *2)										
	Max. vacuum (kPa)	-100										
	Operating temp. range (ºC)	Air: -20 to 100 (No freezing) Water, Heat medium oil: -15 to 90 (No freezing)										
	Min. bending radius (JIS) (mm)	10	15	24	30	36	80	8	12	18	32	38
	Min. installation radius (Vice) (mm)	14	21	40	46	54	94	12	18	27	48	57
	Tube hardness (Ref)	shore D 65										

		NB					
Model code		NB0425	NB0640	NB0860	NB1075	NB1290	NB1613
Size	O.D.×I.D. (mm)	4×2.5	6×4	8×6	10×7.5	12×9	16×13
	Tube length (m)	20 · 100					20
Tube color: 12 colors	Black (B)	○					○
	Red (R)	○					△
	Orange (O)	△					△
	Ocher (YB)	△					△
	Yellow (Y)	○					△
	Green (G)	△					△
	Blue (BU)	○					○
	Clear blue (CB)	○					△
	Milky white (W)	○					○
	Brown (BR)	△					△
	Yellow green (YG)	△					△
	Pink (P)	△					△
Specifications	Fluid medium	Air, Water (Conditional *1), Heat medium oil (Conditional *1)					
	Max. operating pressure (MPa)	1.3 (65% RH at 20ºC*2)					
	Max. vacuum (kPa)	-100					
	Operating temp. range (ºC)	Air: -20 to 100 (No freezing) Water, Heat medium oil: -15 to 90 (No freezing)					
	Min. bending radius (JIS) (mm)	9	14	25	30	34	80
	Min. installation radius (Vice) (mm)	14	21	40	46	54	94
	Tube hardness (Ref)	shore D 58					

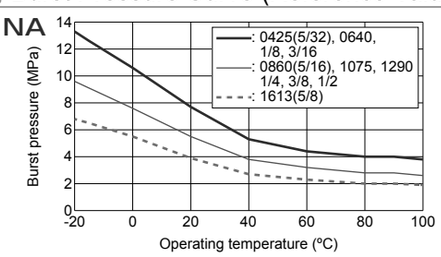
⚠ Warning

*1. The following conditions must be observed when the fluid medium is water or heat medium oil.
(1) Surge pressure must be controlled lower than max. operating pressure when using water or heat medium oil as a fluid medium.
(2) General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
(3) Be sure to place Insert Ring (WR) into the tube edge when tube is inserted into push-in fittings and using water as a fluid medium.

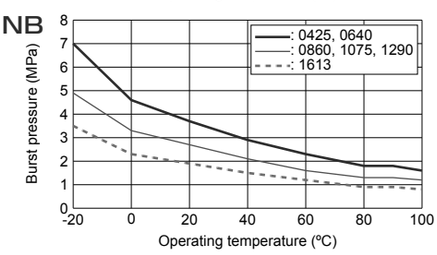
*2. The value of max. operating pressure is measured at 20ºC and 65% RH. For other temperatures, the Burst Pressure Curve should be used with a sufficient safety margin.

Burst Pressure Curve (Reference Value)

NA



NB



RoHS2 (2011/65/EU+EU2015/863) compliant

Tube type	Model code	Model code	Tube type	Model code
Nylon Tube NA	NA0425-□-□	NA1/8-□-□	Soft Nylon Tube NB	NB0425-□-□
	NA0640-□-□	NA3/16-□-□		NB0640-□-□
	NA0860-□-□	NA1/4-□-□		NB0860-□-□
	NA1075-□-□	NA3/8-□-□		NB1075-□-□
	NA1290-□-□	NA1/2-□-□		NB1290-□-□
	NA1613-20-□			NB1613-20-□

Notes
*1. Tubes with desired length are available as make-to-order items. Contact us for the price.
*2. For □ in model code, please select a code of tube length, for □, please select a tube color code.

Packaging specifications
20 M lengths/bag: Applicable to all types
100 M lengths/box: All types except NA1613, NB1613 and NA5/8

Related product

Tube End Marker (not for sale)

►Enables to mark the tube insertion dimension and prevent insufficient insertion.
►Can be used for PISCO Push-in fittings.

Contact us for more information about Tube End Markers.

Multi-colored Ribbon Tube, Soft Multi-colored Ribbon Tube

Multi-core Polyurethane Tube for General Pneumatic Piping

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

UQ	06	–	2F	–	20	–	BU	–	R	–	(7)	–	(8)	–	(9)	–	(10)
(1)	(2)		(3)		(4)		(5)		(6)								

(1) Tube type

Code	UQ	UCQ
Tube type	Multi-colored Ribbon Tube	Soft Multi-colored Ribbon Tube

(2) Tube dia. (O.D.×I.D.)

Code	03*	04	06	08	10	12
O.D. (mm)	ø3	ø4	ø6	ø8	ø10	ø12
I.D. (mm)	ø2	ø2.5	ø4	ø5	ø6.5	ø8

*Tube O.D. 3 mm is available only for UQ type.

(3) No. of cores

Code	2F	3F*	4F*	5F*	6F*
No. of cores	2 cores	3 cores	4 cores	5 cores	6 cores

*3 to 6 cores with same tube sizes are available as a make-to-order product.

(4) Tube length

Code	20	100
Length (m)	20	100

*Other length is available as a make-to-order product. Refer to the right table.

Tube dia. and max. length of each tube core (make-to-order product)
(Unit: m)

Tube O.D. (mm) / No. of cores	ø3	ø4	ø6	ø8	ø10	ø12
2	100	100	100	100	100	100
3	100	100	100	100	80	65
4	100	100	100	75	60	50
5	100	100	80	60	50	40
6	100	100	65	50	40	30

(5), (6), (7), (8), (9), (10) Tube color

■ UQ

Code	B	R	O	YB	Y	G	BU	CB	C	W
Tube color	Black	Red	Orange	Ocher	Yellow	Green	Blue	Clear blue	Transparent	Milky white

■ UCQ

Code	CBL	CO	CY	CG	CB	C
Tube color	Clear black	Clear orange	Clear yellow	Clear green	Clear blue	Transparent

Tube color 1 ◯◯ Tube color 2

*Color combinations other than black are available as make-to-order products.

Characteristics

Flexible multi-core tube

Flexible polyurethane tube (UB) and Ultra Soft Polyurethane Tube (UC) are used.

For the black 2 cores tube, the discernment line is printed on one tube.

It helps to prevent a piping mistake.

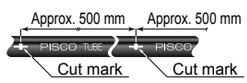
As make-to-order production, No. of cores, tube arrangements and colors are freely arranged.

No. of cores: 3 to 6 cores, Configuration: flat or pyramid ,Color : 10 color selection (UQ) and 6 color selection (UCQ)

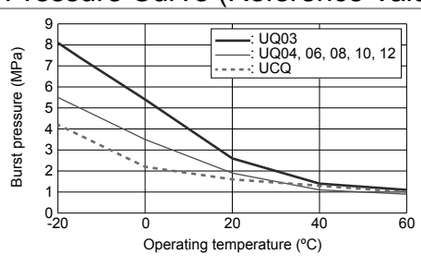
Best suitable for air supply to multiple drives.

The cut marks at 500 mm interval are printed on the tube

It is useful to cut tubing.
*The marks are just as a guide and the accuracy is not guaranteed.



Burst Pressure Curve (Reference Value)



Specifications of UQ

	Model code	UQ03	UQ04	UQ06	UQ08	UQ10	UQ12
Size	O.D.×I.D. (mm)	3×2	4×2.5	6×4	8×5	10×6.5	12×8
	Tube length (m)	20 · 100					
Tube color: 10 colors		Black (B), Red (R), Orange (O), Ocher (YB), Yellow (Y), Green (G), Blue (BU), Clear blue (CB), Transparent (C), Milky white (W)					
Specifications	Fluid medium	Air, Water (Conditional *1)					
	Max. operating pressure (MPa)	1.0 (65%RH at 20ºC *2)					
	Max. vacuum (kPa)	-100					
	Operating temp. range (ºC)	Air: -20 to 60 (No freezing), Water: -15 to 60 (No freezing)					

Specifications of UCQ

	Model code	UCQ04	UCQ06	UCQ08	UCQ10	UCQ12
Size	O.D.×I.D. (mm)	4×2.5	6×4	8×5	10×6.5	12×8
	Tube length (m)	20 · 100				
Tube color: 6 colors		Clear black (CBL), Clear orange (CO), Clear yellow (CY), Clear green (CG), Clear blue (CB), Transparent (C)				
Specifications	Fluid medium	Air, Water (Conditional *1)				
	Max. operating pressure (MPa)	0.7 (65%RH at 20ºC *2)				
	Max. vacuum (kPa)	-100				
	Operating temp. range (ºC)	Air: -20 to 60 (No freezing), Water: -15 to 60 (No freezing)				

⚠ Warning

*1. The following conditions must be observed when the fluid medium is water.
(1) Surge pressure must be controlled lower than max, operating pressure when using water as a fluid medium.
(2) General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
(3) Be sure to place Insert Ring (WR) into the tube edge when tube is inserted into push-in fittings and using water as a fluid medium..

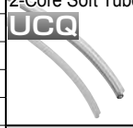
*2. The value of max. operating pressure is measured at 20ºC and 65% RH. For other temperatures, the Burst Pressure Curve should be used with a sufficient safety margin. In addition, if the tube is in a moving part, such as a swinging or bending part, the temperature may rise due to self-heating caused by intermolecular heat generation, which may cause the tube to break.

RoHS2 (2011/65/EU+EU2015/863) compliant

Multi-colored Ribbon Tube

Tube type	Model code	Available in 100 m length 4: 100
2-Core Tube 	UQ03-2F-4-5-6	●
	UQ04-2F-4-5-6	●
	UQ06-2F-4-5-6	●
	UQ08-2F-4-5-6	●
	UQ10-2F-4-5-6	●
	UQ12-2F-4-5-6	●
3-Core Tube 	UQ03-3F-4-5-6-7	●
	UQ04-3F-4-5-6-7	●
	UQ06-3F-4-5-6-7	●
	UQ08-3F-4-5-6-7	●
	UQ10-3F-4-5-6-7	–
	UQ12-3F-4-5-6-7	–
4-Core Tube 	UQ03-4F-4-5-6-7-8	●
	UQ04-4F-4-5-6-7-8	●
	UQ06-4F-4-5-6-7-8	●
	UQ08-4F-4-5-6-7-8	–
	UQ10-4F-4-5-6-7-8	–
	UQ12-4F-4-5-6-7-8	–
5-Core Tube 	UQ03-5F-4-5-6-7-8-9	●
	UQ04-5F-4-5-6-7-8-9	●
	UQ06-5F-4-5-6-7-8-9	–
	UQ08-5F-4-5-6-7-8-9	–
	UQ10-5F-4-5-6-7-8-9	–
	UQ12-5F-4-5-6-7-8-9	–
6-Core Tube 	UQ03-6F-4-5-6-7-8-9-10	●
	UQ04-6F-4-5-6-7-8-9-10	●
	UQ06-6F-4-5-6-7-8-9-10	–
	UQ08-6F-4-5-6-7-8-9-10	–
	UQ10-6F-4-5-6-7-8-9-10	–
	UQ12-6F-4-5-6-7-8-9-10	–

Soft Multi-colored Ribbon Tube

Tube type	Model code	Available in 100 m length 4: 100
2-Core Soft Tube 	UCQ04-2F-4-5-6	●
	UCQ06-2F-4-5-6	●
	UCQ08-2F-4-5-6	●
	UCQ10-2F-4-5-6	●
	UCQ12-2F-4-5-6	●
3-Core Soft Tube 	UCQ04-3F-4-5-6-7	●
	UCQ06-3F-4-5-6-7	●
	UCQ08-3F-4-5-6-7	●
	UCQ10-3F-4-5-6-7	–
	UCQ12-3F-4-5-6-7	–
4-Core Soft Tube 	UCQ04-4F-4-5-6-7-8	●
	UCQ06-4F-4-5-6-7-8	●
	UCQ08-4F-4-5-6-7-8	–
	UCQ10-4F-4-5-6-7-8	–
	UCQ12-4F-4-5-6-7-8	–
5-Core Soft Tube 	UCQ04-5F-4-5-6-7-8-9	●
	UCQ06-5F-4-5-6-7-8-9	–
	UCQ08-5F-4-5-6-7-8-9	–
	UCQ10-5F-4-5-6-7-8-9	–
	UCQ12-5F-4-5-6-7-8-9	–
6-Core Soft Tube 	UCQ04-6F-4-5-6-7-8-9-10	●
	UCQ06-6F-4-5-6-7-8-9-10	–
	UCQ08-6F-4-5-6-7-8-9-10	–
	UCQ10-6F-4-5-6-7-8-9-10	–
	UCQ12-6F-4-5-6-7-8-9-10	–

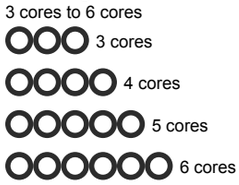
Notes
*1. For 5, 6, 7, 8, 9 and 10 in model code, please select a tube color code. Other colors except Black color of UQ and Clear black color of UCQ are available as a make-to-order product.
*2. Other length is also available as make-to-order products. Contact us for the price.
*3. Over 3 cores tube (3-cores to 6-cores) is also available as a make-to-order product.

Packaging specifications
20 M lengths/bag: Applicable to all types
100 M lengths/box: Applicable to tubes with ● in the line of "4: 100" in the above table.

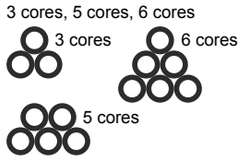
Producible core numbers & arrangement as make-to order products

Equal tube dia.

· Flat arrangement:
3 cores to 6 cores

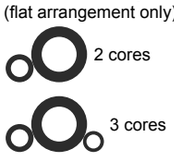


· Pyramidal arrangement:
3 cores, 5 cores, 6 cores



Unequal tube dia.

2 and 3 cores only
(flat arrangement only)



Spiral Coiled Polyurethane Tube, Spiral Coiled Nylon Tube

Spiral Coiled Tube for General Pneumatic Piping

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

UL (1) 06 (2) – 10 (3) – B (4)

(1) Tube type

Code	UL	NL
Tube type	Polyurethane Coiling Tube	Nylon Coiling Tube

(2) Tube dia. (O.D.×I.D.)

Code		03*	04	06	08	10	12
O.D. (mm)		ø3	ø4	ø6	ø8	ø10	ø12
I.D. (mm)	UL	ø2	ø2.5	ø4	ø5	ø6.5	ø8
	NL	–			ø6	ø7.5	ø9

* Tube O.D. ø 3mm is only available for UL (Polyurethane Coiling Tube).

(3) Tube length (before being coiled) (○: Available)

Code		1	2	3	5	7	10	14	20
Length (m)		1	2	3	5	7	10	14	20
Tube O.D.	ø3 mm	○	○	○	○				
	ø4 mm		○	○	○	○	○	○	○
	ø6 mm		○	○	○	○	○	○	○
	ø8 mm			○	○	○	○	○	○
	ø10 mm				○	○	○	○	○
	ø12 mm				○	○	○	○	○

*List above is tube full length before coiling process. Dimension after coiling is specified model code list of next page.

(4) Tube color (○: Available)

Code	B	R	O	YB	Y	G	BU	CB	C	W
Tube color	Black	Red	Orange	Ocher	Yellow	Green	Blue	Clear blue	Transparent	Milky white
UL	○	△	△	△	△	△	△	△	△	△
NL	○	△	△	△	△	△	△	△	–	△

* Marking △ is available as a make-to-order product.

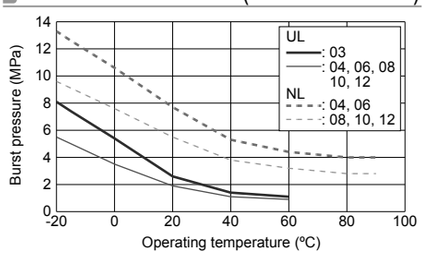
Characteristics

- Best suitable for piping such as air guns or air screwdrivers.
- The piping in movabing part is completed in a small space without distorting the joints.

Specifications (○: Available, △: Available as a make-to-order)

		Polyurethane Coiling Tube						Nylon Coiling Tube				
Model code		UL03	UL04	UL06	UL08	UL10	UL12	NL04	NL06	NL08	NL10	NL12
Size	O.D.×I.D. (mm)	3×2	4×2.5	6×4	8×5	10×6.5	12×8	4×2.5	6×4	8×6	10×7.5	12×9
Tube color	Black (B)	○						○				
	Red (R)	△						△				
	Orange (O)	△						△				
	Ocher (YB)	△						△				
	Yellow (Y)	△						△				
	Green (G)	△						△				
	Blue (BU)	△						△				
	Clear blue (CB)	△						△				
	Transparent (C)	△						–				
	Milky white (W)	△						△				
Specifications	Fluid medium	Air, Water (Conditional *1)						Air, Water (Conditional *1), Heat medium oil (Conditional *1)				
	Max. operating pressure (MPa)	1.0 (65%RH at 20ºC *2)						2.0 (65%RH at 20ºC *2)				
	Max. vacuum (kPa)	-100										
	Operating temp. range (ºC)	Air: -20 to 60 (No freezing) Water: -15 to 60 (No freezing)						Air: -20 to 90 (No freezing) Water, Heat medium oil: -15 to 90 (No freezing)				

Burst Pressure Curve (Reference Value)



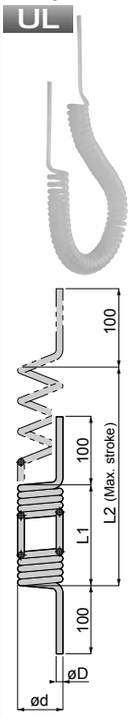
⚠ Warning

*1. The following conditions must be observed when the fluid medium is water or heat medium oil.
(1) Surge pressure must be controlled lower than max. operating pressure when using water as a fluid medium, for NL: water and heat medium oil.
(2) General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
(3) Be sure to place Insert Ring (WR) into the tube edge when tube is inserted into push-in fittings and using water as a fluid medium.

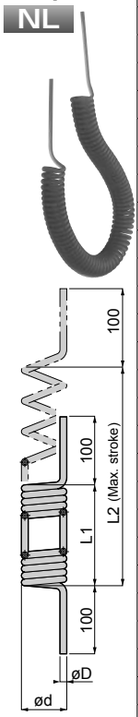
*2. The value of max. operating pressure is measured at 20ºC and 65% RH. For other temperatures, the Burst Pressure Curve should be used with a sufficient safety margin. In addition, if the tube is in a moving part, such as a swinging or bending part, the temperature may rise due to self-heating caused by intermolecular heat generation, which may cause the tube to break.

RoHS2 (2011/65/EU+EU2015/863) compliant

Tube type	Model code	øD (mm)	L1 (mm)	ød (mm)	L2 (mm)
Polyurethane Coiling Tube UL	UL03-1-4	3	70	16	210
	UL03-2-4		150		450
	UL03-3-4		230		700
	UL03-5-4		390		1,200
	UL04-2-4	4	120	24	360
	UL04-3-4		180		540
	UL04-5-4		350		1,100
	UL04-7-4		480		1,500
	UL04-10-4		700		2,100
	UL04-14-4		1,040		3,200
	UL04-20-4		1,450		4,400
	UL06-2-4	6	160	30	500
	UL06-3-4		230		700
	UL06-5-4		430		1,300
	UL06-7-4		620		1,900
	UL06-10-4		910		2,800
	UL06-14-4		1,300		3,900
	UL06-20-4		1,850		5,600
	UL08-3-4	8	250	42	750
	UL08-5-4		390		1,200
	UL08-7-4		540		1,700
	UL08-10-4		770		2,400
	UL08-14-4		1,045		3,200
	UL08-20-4		1,550		4,700
	UL10-5-4	10	330	58	1,000
	UL10-7-4		470		1,400
	UL10-10-4		680		2,100
	UL10-14-4		970		3,000
	UL10-20-4		1,380		4,200
	UL12-5-4	12	310	72	1,000
	UL12-7-4		450		1,400
	UL12-10-4		660		2,000
	UL12-14-4		920		2,800
	UL12-20-4		1,320		4,000



Tube type	Model code	øD (mm)	L1 (mm)	ød (mm)	L2 (mm)
Nylon Coiling Tube NL	NL04-2-4	4	100	27	300
	NL04-3-4		165		500
	NL04-5-4		280		900
	NL04-7-4		395		1,200
	NL04-10-4		580		1,800
	NL04-14-4		820		2,500
	NL04-20-4		1,200		3,600
	NL06-2-4	6	140	35	420
	NL06-3-4		210		650
	NL06-5-4		340		1,100
	NL06-7-4		480		1,500
	NL06-10-4		680		2,100
	NL06-14-4		960		2,900
	NL06-20-4		1,400		4,200
	NL08-3-4	8	140	62	420
	NL08-5-4		230		700
	NL08-7-4		330		1,000
	NL08-10-4		500		1,500
	NL08-14-4		700		2,100
	NL08-20-4		1,000		3,000
	NL10-5-4	10	220	85	660
	NL10-7-4		325		1,000
	NL10-10-4		460		1,400
	NL10-14-4		650		2,000
	NL10-20-4		930		2,800
	NL12-5-4	12	200	114	600
	NL12-7-4		280		900
	NL12-10-4		410		1,300
	NL12-14-4		590		1,800
	NL12-20-4		820		2,500



Notes

*1. Coilings other than the above type are available as special made items.
*2. For 4 in model code, please select a tube color code.
*3. Spiral Coiled tubes for UC, UBT, UBS, SET, CTA, CTB, FB, and UE are available as special made items. Please contact us for the details.

Packaging specifications

1 pc. /bag

Twin Spiral Coiled Tube

Two-core Spiral Coiled Polyurethane Tube for General Pneumatic Piping

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

ULF (1) 06 (2) – 2F (3) – 5 (4) – BU (5) – R (6)

(1) Twin Spiral Coiled Tube

(2) Tube dia. (O.D.)

	mm size (mm)					
Code	03	04	06	08	10	12
O.D.	ø3	ø4	ø6	ø8	ø10	ø12

(3) No. of cores
2F : 2 cores

(4) Tube length (before being coiled) (○: Available)

Code		1	2.5	5	7	10
Length (m)		1	2.5	5	7	10
Tube O.D.	ø3 mm	○	○			
	ø4 mm	○	○	○	○	○
	ø6 mm	○	○	○	○	○
	ø8 mm		○	○	○	○
	ø10 mm		○	○	○	○
	ø12 mm		○	○	○	○

*Above list is that of tube full length before coiling process. Dimension after coiling process is specified in following model code list. Refer to dimension of "L".

(5) Tube color 1, (6) Tube color 2 (○: Available)

Tube color 1 ○○ Tube color 2

Code	B	R	O	YB	Y	G	BU	CB	C	W
Tube color	Black	Red	Orange	Ocher	Yellow	Green	Blue	Clear blue	Transparent	Milky white
	○	△	△	△	△	△	△	△	△	△

*Color selection with marking △ is available as a make-to-order product.

Characteristics

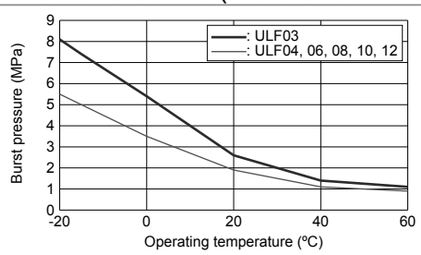
- This coiled tube has two cores.
- The twin coiled tube enables compact piping in moving parts.

Specifications

Model code		ULF03-2F	ULF04-2F	ULF06-2F	ULF08-2F	ULF10-2F	ULF12-2F
Size	O.D. (mm)	3	4	6	8	10	12
Tube color: 10 colors		Black (B), Red (R), Orange (O), Ocher (YB), Yellow (Y), Green (G), Blue (BU), Clear blue (CB), Transparent (C), Milky white (W)					
Specifications	Fluid medium	Air, Water (Conditional *1)					
	Max. operating pressure (MPa)	1.0 (65% RH at 20ºC *2)					
	Max. vacuum (kPa)	-100					
	Operating temp. range (ºC)	Air: -20 to 60(No freezing) Water: -15 to 60(No freezing)					

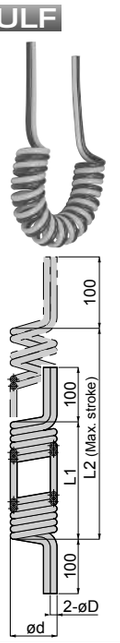
⚠ Warning
*1. The following conditions must be observed when the fluid medium is water.
(1) Surge pressure must be controlled lower than max. operating pressure when using water as a fluid medium.
(2) General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
(3) Be sure to place Insert Ring (WR) into the tube edge when tube is inserted into push-in fittings and using water as a fluid medium.
*2. The value of max. operating pressure is measured at 20ºC and 65% RH. For other temperatures, the Burst Pressure Curve should be used with a sufficient safety margin. In addition, if the tube is in a moving part, such as a swinging or bending part, the temperature may rise due to self-heating caused by intermolecular heat generation, which may cause the tube to break.

Burst Pressure Curve (Reference Value)



RoHS2 (2011/65/EU+EU2015/863) compliant

Tube type	Model code	øD (mm)	L1 (mm)	ød (mm)	L2 (mm)
Twin Spiral Coiled Tube ULF	ULF03-2F-1-5-6	3	80	21	240
	ULF03-2F-2.5-5-6		230		700
	ULF04-2F-1-5-6	4	90	26	270
	ULF04-2F-2.5-5-6		230		700
	ULF04-2F-5-5-6		510		1,530
	ULF04-2F-7-5-6		730		2,200
	ULF04-2F-10-5-6		1,060		3,200
	ULF06-2F-1-5-6	6	90	38	270
	ULF06-2F-2.5-5-6		240		720
	ULF06-2F-5-5-6		525		1,600
	ULF06-2F-7-5-6		750		2,300
	ULF06-2F-10-5-6		1,090		3,300
	ULF08-2F-2.5-5-6	8	390	42	1,200
	ULF08-2F-5-5-6		770		2,300
	ULF08-2F-7-5-6		1,045		3,200
	ULF08-2F-10-5-6		1,550		4,700
	ULF10-2F-2.5-5-6	10	330	58	1,000
	ULF10-2F-5-5-6		680		2,100
	ULF10-2F-7-5-6		970		3,000
	ULF10-2F-10-5-6		1,380		4,200
	ULF12-2F-2.5-5-6	12	310	72	1,000
	ULF12-2F-5-5-6		650		2,000
	ULF12-2F-7-5-6		980		2,800
	ULF12-2F-10-5-6		1,320		4,000



Notes
*1. For 5 and 6 in model code, please select a tube color code.
*2. Twin Spiral Coiled tubes for UC, UBT, and UE are available as special made items. Please contact us for the details.

Packaging specifications
1 pc. /bag

Spiral Coiled Tube with Twist-proof Fitting

PISCO
>>> https://www.pisco.co.jp/en/

Push-In Fitting Type Anti-Twisting Spiral Coiled Tube for Air Tool

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

ULT (1) 8 (2) – 02 (3) – 5 (4) – Y (5)

(1) Spiral Coiled Tube with Twist-proof Fitting

(2) Tube dia. (O.D.)

	mm size
Code	8
O.D. (mm)	ø8

(3) Thread size
02: R1/4, Rc1/4

(4) Tube length

Code	2.5	5	7.5	10
Length (m)	2.5	5	7.5	10

(5) Tube color

Code	Y
Tube color	Yellow

*Other colors are available as special made items. Contact us for details.

Model Designation of Twist-proof Fitting only (Example)

PCT (1) 8 (2) – 02 (3)

(1) Twist-proof Fitting

(2) Tube dia. (O.D.)

	mm size
Code	8
O.D. (mm)	ø8

(3) Thread size
02: R1/4

Characteristics

The fitting on the coiled tube absorbs the twist in the tubing of pneumatic tools, etc.

The fitting is provided at each end of the tube. The fitting with male screw incorporates twist proof function.

Specifications of Spiral Coiled Tube with Twist-proof Fitting

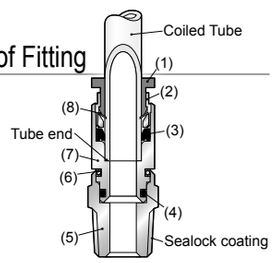
Fluid medium	Air
Max. operating pressure	0.8 MPa*
Max. vacuum	-100 kPa
Operating temp. range	0 to 60ºC (No freezing)

⚠ Warning
*The value of max. operating pressure is measured at 20ºC and 65% RH. For other temperatures, the Burst Pressure Curve (refer to ULF08 in previous page.) should be used with a sufficient safety margin. In addition, if the tube is in a moving part, such as a swinging or bending part, the temperature may rise due to self-heating caused by intermolecular heat generation, which may cause the tube to break.

Specifications of Twist-proof Fitting

Fluid medium	Air
Max. operating pressure	0.9 MPa
Max. vacuum	-100 kPa
Operating temp. range	0 to 60 (No freezing)

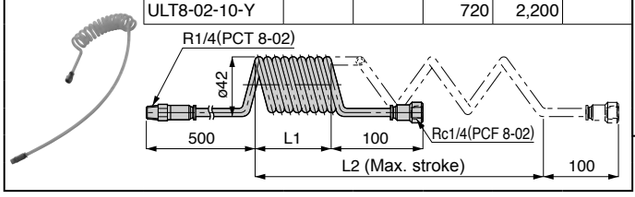
Sectional drawing of Twist-proof Fitting



No,	Parts	Material
(1)	Release-ring	POM
(2)	Guide ring	Nickel-plated brass
(3)	Elastic sleeve	NBR
(4)	O-ring	NBR
(5)	Thread body	Nickel-plated brass
(6)	Ring	Spring steel
(7)	Metal body	Nickel-plated brass
(8)	Lock claws	Stainless steel

RoHS2 (2011/65/EU+EU2015/863) compliant

Tube type	Model Code	Tube dia. O.D. (mm)	Tube dia. I.D. (mm)	L1 (mm)	L2 (mm)
Spiral Coiled Tube with Twist-proof Fitting ULT	ULT8-02-2.5-Y	8	5	155	470
	ULT8-02-5-Y			340	1,100
	ULT8-02-7.5-Y			530	1,600
	ULT8-02-10-Y			720	2,200



Tube type	Model Code
Twist-proof Fitting PCT	PCT8-02

Packaging specifications
1 pc. /bag

Fluoropolymer (PFA) Tube

Straight Tube with Chemical and Heat Resistance

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

SFT (1) 0640 (2) – 20 (3) – C (4) -C (5)

(1) Fluoropolymer (PFA) **Tube**

(2) Tube dia. (O.D. x I.D.) *Figures in () in the row Code represent the O.D. of the tube in inches.

	mm size (mm)									inch size (inch)		
Code	0420(5/32)	0425(5/32)	0640	0860(5/16)	1075	1080	1290	1210	1613(5/8)	1/4	3/8	1/2
O.D.	ø4	ø4	ø6	ø8	ø10	ø10	ø12	ø12	ø16	ø1/4	ø3/8	ø1/2
I.D.	ø2	ø2.5	ø4	ø6	ø7.5	ø8	ø9	ø10	ø13	ø0.18	ø0.28	ø0.38

(3) Tube length

Code	5	20	50	100
Length (m)	5	20	50	100

*100 m length is not available for SFT1613.

(4) Tube color

Code	B	C	CR	CY	CB
Tube color	Black	Transparent	Clear red	Clear yellow	Clear blue

*Only Transparent and Black colors are available for inch size.

(5) Packaging spec. (Optional)

Code	No code	-C
Packaging	Standard packaging	Clean-room package

*Clean room packaging is not available for SFT1613 or tube lengths longer than 50 m.

Characteristics

- A choice of five colors for pipe identification
- Excellent in chemical and weather resistance, suitable for chemical, medical and semiconductor industries.
- Japan Food Sanitation Act compliant. (Transparent only.)

*Refer to P. 6 for details.

- Extensive operating temperature range.
- Superior interior surface smoothness, transparency and purity.
- Inch size models, perfect to be used with the inch-sized SUS316 Compression Fitting, are available.

● Clean-room package (Optional)

Suitable for clean environment.

Cleaned and packaged in cleanroom ISO class 6 equivalent. Packaged in antistatic packaging material that prevents dust from sticking.

Specifications

		mm size (mm)								inch size (inch)		
Model code		SFT0420 (5/32")	SFT0425 (5/32")	SFT0640	SFT0860 (5/16")	SFT1075	SFT1080	SFT1290	SFT1210	SFT1613 (5/8")	SFT1/4	SFT3/8	SFT1/2
Size	O.D. x I.D.	4×2	4×2.5	6×4	8×6	10×7.5	10×8	12×9	12×10	16×13	1/4x0.18	3/8x0.28	1/2x0.38
	Tube length (m)	5 · 20 · 50 · 100								5 · 20 · 50	5 · 20 · 50 · 100		
Tube color: 5 colors		Black (B), Transparent (C), Clear red (CR), Clear yellow (CY), Clear blue (CB)									Black (B), Transparent (C)		
Specifications	Fluid medium	Air, Water (Conditional *1), Other chemicals (Conditional *1)											
	Max. operating pressure (MPa) (*2)	2.4	1.4		1		0.8	1	0.8		1		
	Max. vacuum (kPa)	-100											
	Operating temp. range (°C)	-65 to 260 (No freezing)											
	Min. bending radius (JIS) (mm)	7	14	27	40	50	47	67	94	14	40	47	
	Min. installation radius (Vice) (mm)	10	20	40	60	75	70	100	140	20	60	70	

⚠ Warning

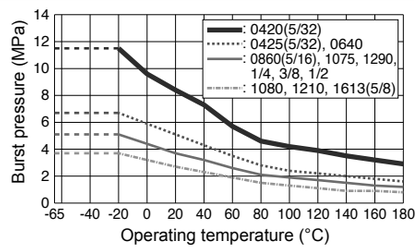
*1. The following conditions must be observed when the fluid medium is water or liquid.
(1). When using water or liquid, the surge pressure must be kept below the maximum operating pressure.
(2). General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
(3). Be sure to place Insert Ring (WR) into the tube edge when tube is inserted into push-in fittings and using water as a fluid medium.
(4). As for chemicals, mixed gas, etc., they may vary depending on the conditions of use, so please check the compatibility of our specifications before use.

*2. The value of max. operating pressure is measured at 20ºC and 65% RH. For other temperatures, the Burst Pressure Curve should be used with a sufficient safety margin.

RoHS2 (2011/65/EU+EU2015/863) compliant

Tube type	Model Code
Fluoropolymer (PFA) Tube SFT	SFT0420-3-4 5
	SFT0425-3-4 5
	SFT0640-3-4 5
	SFT0860-3-4 5
	SFT1075-3-4 5
	SFT1080-3-4 5
	SFT1290-3-4 5
	SFT1210-3-4 5
	SFT1613-3-4
	SFT1/4-3-4 5
	SFT3/8-3-4 5
	SFT1/2-3-4 5

Burst Pressure Curve (Reference Value)



Notes
*For 3 in model code, please select a code of tube length, for 4, please select a tube color code.

Packaging specifications
5 M lengths / bag: Applicable to all types
20 M lengths / bag: Applicable to all types
50 M lengths /bag: Applicable to all types
100 M lengths / box: All types except SFT1613

Option
5 : -C ⇒ Clean-room package

Fluoropolymer (FEP) Tube

PISCO®

>>> https://www.pisco.co.jp/en/

Straight Tube with Chemical and Heat Resistance

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

SET (1) 0640 (2) – 20 (3) C (4) -C (5)

(1) Fluoropolymer (FEP) Tube

(2) Tube dia. (O.D. x I.D.) *Figures in () in the row Code represent the O.D. of the tube in inches.

	mm size (mm)									inch size (inch)		
Code	0420(5/32)	0425(5/32)	0640	0860(5/16)	1075	1080	1290	1210	1613(5/8)	1/4	3/8	1/2
O.D.	ø4	ø4	ø6	ø8	ø10	ø10	ø12	ø12	ø16	ø1/4	ø3/8	ø1/2
I.D.	ø2	ø2.5	ø4	ø6	ø7.5	ø8	ø9	ø10	ø13	ø0.18	ø0.28	ø0.38

(3) Tube length

Code	5	20	50	100
Length (m)	5	20	50	100

*100 m length is not available for SET1613.

(4) Tube color

Code	B	C	CR	CY	CB
Tube color	Black	Transparent	Clear red	Clear yellow	Clear blue

*Only Transparent and Black colors are available for inch size.

(5) Packaging spec. (Optional)

Code	No code	-C
Packaging	Standard packaging	Clean-room package

*Clean room packaging is not available for SET1613 or tube lengths longer than 50 m.

Characteristics

- A choice of five colors for pipe identification
- Achieved average 44% cost cut compared with PISCO SFT Tube series.
- Excellent chemical and weather resistance. Ideal for use in chemical, medical, and semi-conductor industries
- Japan Food Sanitation Act compliant. (Transparent only.) *Refer to page 6 for details.
- Extensive operating temperature range.
- Inch size models, perfect to be used with the inch-sized SUS316 Compression Fitting, are available.

● Clean-room package (Optional)

Suitable for clean environment.

Cleaned and packaged in cleanroom ISO class 6 equivalent. Packaged in antistatic packaging material that prevents dust from sticking.

Specifications

		mm size (mm)								inch size (inch)		
Model code		SET0420 (5/32")	SET0425 (5/32")	SET0640	SET0860 (5/16")	SET1075	SET1080	SET1290	SET1210	SET1613 (5/8")	SET1/4	SET3/8	SET1/2
Size	O.D. x I.D.	4×2	4×2.5	6×4	8×6	10×7.5	10×8	12×9	12×10	16×13	1/4x0.18	3/8x0.28	1/2x0.38
	Tube length (m)	5 · 20 · 50 · 100								5 · 20 · 50	5 · 20 · 50 · 100		
Tube color: 5 colors		Black (B), Transparent (C), Clear red (CR), Clear yellow (CY), Clear blue (CB)									Black (B), Transparent (C)		
Specifications	Fluid medium	Air, Water (Conditional *1), Other chemicals (Conditional *1)											
	Max. operating pressure (MPa) (*2)	2.7	1.6		1		0.7	1	0.7		1		
	Max. vacuum (kPa)	-100											
	Operating temp. range (°C)	-65 to 200 (No freezing)											
	Min. bending radius (JIS) (mm)	7	14		27	40	50	47	67	94	14	40	47
	Min. installation radius (Vice) (mm)	10	20	30	55	60	100	80	150	180	30	60	85

⚠ Warning

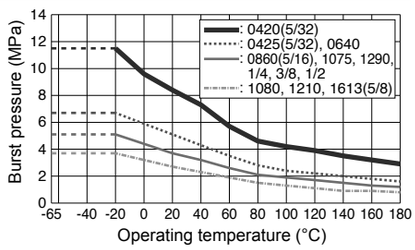
*1. The following conditions must be observed when the fluid medium is water or liquid.
(1). When using water or liquid, the surge pressure must be kept below the maximum operating pressure.
(2). General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
(3). Be sure to place Insert Ring (WR) into the tube edge when tube is inserted into push-in fittings and using water as a fluid medium.
(4). As for chemicals, mixed gas, etc., they may vary depending on the conditions of use, so please check the compatibility of our specifications before use.

*2. The value of max. operating pressure is measured at 20ºC and 65% RH. For other temperatures, the Burst Pressure Curve should be used with a sufficient safety margin.

RoHS2 (2011/65/EU+EU2015/863) compliant

Tube type	Model Code
Fluoropolymer (FEP) Tube SET	SET0420-3-4 5
	SET0425-3-4 5
	SET0640-3-4 5
	SET0860-3-4 5
	SET1075-3-4 5
	SET1080-3-4 5
	SET1290-3-4 5
	SET1210-3-4 5
	SET1613-3-4
	SET1/4-3-4 5
	SET3/8-3-4 5
	SET1/2-3-4 5

Burst Pressure Curve (Reference Value)



Notes
*For 3 in model code, please select a code of tube length, for 4, please select a tube color code.

Packaging specifications
5 M lengths / bag: Applicable to all types
20 M lengths / bag: Applicable to all types
50 M lengths /bag: Applicable to all types
100 M lengths / box: All types except SET1613

Option
5 : **-C** ⇒ Clean-room package

Polyolefin Tube, Soft Polyolefin Tube

Tube for Clean Environment

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

CTA (1) **0640** (2) – **20** (3) – **CG** (4) **-C** (5)

(1) Tube type

Code	CTA	CTB
Tube type	Polyolefin	Soft Polyolefin

(2) Tube dia. (O.D. x I.D.) *The values in ( ) in the row Code represent the tube O.D. in inches.

■ Polyolefin Tube (CTA)

	mm size (mm)									inch size (inch)		
Code	0420(5/32)	0425(5/32)	0640	0860(5/16)	1075	1080	1290	1210	1613(5/8)	1/4	3/8	1/2
O.D.	ø4	ø4	ø6	ø8	ø10	ø10	ø12	ø12	ø16	ø1/4	ø3/8	ø1/2
I.D.	ø2	ø2.5	ø4	ø6	ø7.5	ø8	ø9	ø10	ø13	ø0.18	ø0.28	ø0.38

■ Soft Polyolefin Tube (CTB)

	mm size (mm)					inch size (inch)		
Code	0425(5/32)	0640	0850(5/16)	1065	1280	1/4	3/8	1/2
O.D.	ø4	ø6	ø8	ø10	ø12	ø1/4	ø3/8	ø1/2
I.D.	ø2.5	ø4	ø5	ø6.5	ø8	ø0.16	ø0.24	ø0.33

(3) Tube length

Code	20	100
Length (m)	20	100

*CTA1613 is available only in 20 m.

(4) Tube color

Code	B	CR	CY	CG	CB	CW
Tube color	Black	Clear red	Clear yellow	Clear green	Clear blue	Clear white

*The fluid medium inside the tube may difficult to observe when using a certain size of Clear red color tube.

(5) Packaging spec. (Optional)

Code	No code	-C
Packaging	Standard packaging	Clean-room package

*1. Clean-room packaging is only available for tube length of 20 m.
*2. Clean-room packaging is not available for CTA1613.

Characteristics

Adopting a polyolefin type resin suitable for clean environment.

Food Sanitation Act compliant.

*Refer to P.6 for details.

Superior water resistance.

Two types of tube hardness are available depending on the application.

CTA is suitable for application requiring sufficient flow rate, and CTB is for compact piping.

Tubing color comes in 6 colors.

● Clean-room package (Optional)

Suitable for clean environment.

Cleaned and packaged in cleanroom ISO class 6 equivalent. Packaged in antistatic packaging material that prevents dust from sticking.

Specifications

		CTA											
		mm size (mm)									inch size (inch)		
Size	Code	0420 (5/32")	0425 (5/32")	0640	0860 (5/16")	1075	1080	1290	1210	1613 (5/8")	1/4	3/8	1/2
Size	O.D. x I.D.	4×2	4×2.5	6×4	8×6	10×7.5	10×8	12×9	12×10	16×13	1/4x0.18	3/8x0.28	1/2x0.38
Size	Tube length (m)	20 · 100								20	20 · 100		
Tube color: 6 colors		Black (B), Clear red (CR), Clear yellow (CY), Clear green (CG), Clear blue (CB), Clear white (CW)											
Specifications	Fluid medium	Air, Water (Conditional *1), Other chemicals (Conditional *1)											
Specifications	Max. operating pressure(MPa)	1.0(*2)				0.7(*2)	1.0(*2)		0.7(*2)		1.0(*2)		
Specifications	Max. vacuum(kPa)	-100											
Specifications	Operating temp. range (°C)	-15 to 80 (No freezing)											
Specifications	Min. bending radius (JIS) (mm)	5	7	12	23	27	39	33	60	66	15	27	33
Specifications	Min. installation radius (Vice) (mm)	9	13	21	37	46	60	54	96	120	27	46	54

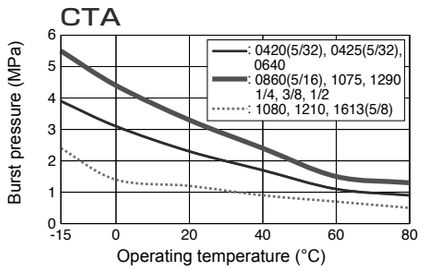
		CTB							
		mm size (mm)					inch size (inch)		
Size	Code	0425 (5/32")	0640	0850 (5/16")	1065	1280	1/4	3/8	1/2
Size	O.D. x I.D.	4×2.5	6×4	8×5	10×6.5	12×8	1/4x0.16	3/8x0.24	1/2x0.33
Size	Tube length (m)	20 · 100							
Tube color: 6 colors		Black (B), Clear red (CR), Clear yellow (CY), Clear green (CG), Clear blue (CB), Clear white (CW)							
Specifications	Fluid medium	Air, Water (Conditional *1), Other chemicals (Conditional *1)							
Specifications	Max. operating pressure(MPa)	0.8(65% RH at 20ºC*2)							
Specifications	Max. vacuum(kPa)	-100							
Specifications	Operating temp. range (°C)	-15 to 80 (No freezing)							
Specifications	Min. bending radius (JIS) (mm)	7	12		18	20	12	18	22
Specifications	Min. installation radius (Vice) (mm)	15	25		29	41	25	29	45

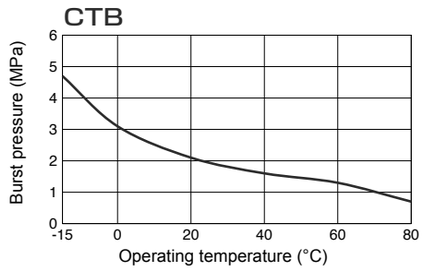
⚠ Warning

*1. The following conditions must be observed when the fluid medium is water or liquid.
(1). When using water or liquid, the surge pressure must be kept below the maximum operating pressure.
(2). General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
(3). Be sure to place Insert Ring (WR) into the tube edge when tube is inserted into push-in fittings and using water or liquid as a fluid medium.
(4). The use of water may cause discoloration of the tube, but it does not affect the performance.
(5). As for chemicals, mixed gas, etc., they may vary depending on the conditions of use, so please check the compatibility of our specifications before use.

*2. The value of max. operating pressure is measured at 20ºC and 65% RH. For other temperatures, the Burst Pressure Curve should be used with a sufficient safety margin.

Burst Pressure Curve (Reference Value)





RoHS2 (2011/65/EU+EU2015/863) compliant

Tube type	Model Code	Tube type	Model Code
Polyolefin CTA	CTA0420-3-4 5	Soft Polyolefin CTB	CTB0425-3-4 5
	CTA0425-3-4 5		CTB0640-3-4 5
	CTA0640-3-4 5		CTB0850-3-4 5
	CTA0860-3-4 5		CTB1065-3-4 5
	CTA1075-3-4 5		CTB1280-3-4 5
	CTA1080-3-4 5		CTB1/4-3-4 5
	CTA1290-3-4 5		CTB3/8-3-4 5
	CTA1210-3-4 5		CTB1/2-3-4 5
	CTA1613-20-4		
	CTA1/4-3-4 5		
	CTA3/8-3-4 5		
	CTA1/2-3-4 5		

Notes

*1. Tubes with desired length are available as make-to-order items. Contact us for the price.
*2. For 3 in model code, please select a code of tube length, for 4, please select a tube color code.

Packaging specifications

20 M lengths / bag: Applicable to all types
100 M lengths / box: Applicable to all types except CTA1613.

Option

5 : -C ⇒ Clean-room package

Anti-spatter Tube

Flame Retardant Resin-covered Spatter-Proof Nylon Tube

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

FB (1) 0640 (2) – 20 (3)

*Tubes are available only in black for the tube and dark gray for the cover part.
Only for orders of 500 m or more, the following colors can be selected for the cover color as a special option.
Available cover colors as special products: Red, Blue, Green, Yellow, and White

(1) Anti-spatter Tube

(2) Tube dia. (O.D. x I.D.) *The values in ( ) in the row Code represent the tube O.D. in inches.

	mm size (mm)					inch size (inch)		
Code	0425(5/32)	0640	0860(5/16)	1075	1290	1/4	3/8	1/2
O.D.	ø4	ø6	ø8	ø10	ø12	ø1/4	ø3/8	ø1/2
I.D.	ø2.5	ø4	ø6	ø7.5	ø9	ø0.18	ø0.28	ø0.38
Cover O.D. (mm)	ø6	ø8	ø10	ø12	ø14	ø0.33	ø0.45	ø0.58

*inch size tube : Make-to-order item (MOQ 500 m or more)

(3) Tube length (0425 to 1075, 1/4, 3/8)

Code	20	100
Length (m)	20	100

(3) Tube length (1290, 1/2)

Code	20	50
Length (m)	20	50

Characteristics

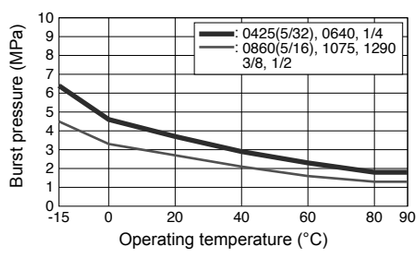
This tube, covered with flame-retardant resin (V-0 equivalent), exhibits an excellent spatter resistance and best suitable for spark-generating environment.

Specifications

		mm size (mm)					inch size (inch)		
Model code		FB0425 (5/32")	FB0640	FB0860 (5/16")	FB1075	FB1290	FB1/4	FB3/8	FB1/2
Size	O.D. x I.D.	4×2.5	6×4	8×6	10×7.5	12×9	(1/4x0.18)	(3/8x0.28)	(1/2x0.38)
	Tube length (m)	20 • 100				20 • 50	20 • 100		20 • 50
Color		Tube: black, Cover: dark gray							
Specifications	Fluid medium	Air, Heat medium oil (Conditional *1), Water (Conditional *1)							
	Max. operating pressure (MPa)	1.0 (65% RH at 20ºC*2)							
	Max. vacuum (kPa)	-100							
	Operating temp. range (°C)	-15 to 90 (No freezing)							
	Min. bending radius (JIS) (mm)	14	18	28	36	40	24	40	40
	Min. installation radius (Vice) (mm)	21	27	42	54	60	35	57	64

⚠ Warning
*1. The following conditions must be observed when the fluid medium is water or heat medium oil.
(1) Surge pressure must be controlled lower than max. operating pressure when using water or heat medium oil as a fluid medium.
(2) General tap water in Japan, free from foreign substances or contamination, can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
(3) Be sure to place Insert Ring (WR) into the tube edge when tube is inserted into push-in fittings and using water (for NL: water, heat medium oil) as a fluid medium.
*2. The value of max. operating pressure is measured at 20ºC and 65% RH. For other temperatures, the Burst Pressure Curve should be used with a sufficient safety margin.

Burst Pressure Curve (Reference Value)



RoHS2 (2011/65/EU+EU2015/863) compliant

Tube type	Model Code	Model Code
Anti-spatter Tube FB	FB0425-□	FB1/4-□
	FB0640-□	FB3/8-□
	FB0860-□	FB1/2-□
	FB1075-□	
	FB1290-□	

Notes
*1. Tubes with desired length are available as make-to-order items. Contact us for the price.
*2. For □ in model code, please select a code of tube length.

Packaging specifications
20 M lengths / bag: Applicable to all types
50 M lengths / box: Only FB1290 and FB1/2.
100 M lengths / box: All types except FB1290 or FB1/2.

Related product

Tube Fitting Anti-spatter
► P.59
Speed Controller Anti-spatter
► P.136

Tube Stripper for Anti-spatter Tube
► P.114
Before inserting Anti-spatter tube to a fitting, peel the cover on the portion that will be inserted into a fitting.

Anti-static Tube

PISCO

>>> https://www.pisco.co.jp/en/

Anti-static conductive Polyurethane Tube

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

UE (1) 0640 (2) – 20 (3) – B (4)

(1) Anti-static Tube

(2) Tube dia. (O.D. x I.D.)

	mm size (mm)					
Code	0320	0425	0640	0850	1065	1280
O.D. (mm)	ø3	ø4	ø6	ø8	ø10	ø12
I.D. (mm)	ø2	ø2.5	ø4	ø5	ø6.5	ø8

(3) Tube length

Code	20	100
Length (m)	20	100

(4) Tube color

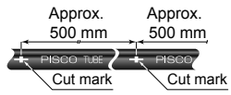
Code	B
Tube color	Black

Characteristics

Best suited for use on the manufacturing or assembly line that requires dissipation of static electricity and prevention of electrification.

The cut marks at 500 mm interval are printed on the tube as a guide.

*The marks are just as a guide and the accuracy is not guaranteed.

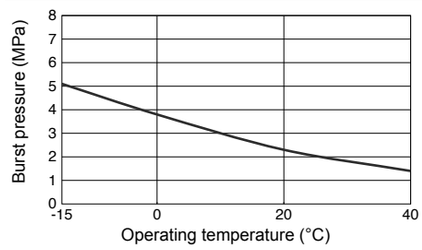


Specifications

Model code		UE0320	UE0425	UE0640	UE0850	UE1065	UE1280
Size	O.D. x I.D. (mm)	3×2	4×2.5	6×4	8×5	10×6.5	12×8
Size	Tube length (m)	20 · 100					
Tube color: 1 color		Black (B)					
Specifications	Fluid medium	Air					
Specifications	Max. operating pressure (MPa)	0.6 (65% RH at 20ºC*1)					
Specifications	Max. vacuum (kPa)	-100					
Specifications	Operating temp. range (°C)	-15 to 40 (No freezing)					
Specifications	Min. bending radius (JIS) (mm)	8	10	15		20	30
Specifications	Min. installation radius (Vice) (mm)	12	15	23		30	45
Specifications	Volume resistance (Ω·cm)*2	1.4×10^3					

⚠ Warning
*1. The value of max. operating pressure is measured at 20ºC and 65% RH. For other temperatures, the Burst Pressure Curve should be used with a sufficient safety margin. In addition, if the tube is in a moving part, such as a swinging or bending part, the temperature may rise due to self-heating caused by intermolecular heat generation, which may cause the tube to break.
*2. The value of volume resistivity is from the data of the material supplier, which is just for reference but not guaranteed.

Burst Pressure Curve (Reference Value)



RoHS2 (2011/65/EU+EU2015/863) compliant

Tube type	Model Code
Anti-static Tube UE	UE0320-3-B
	UE0425-3-B
	UE0640-3-B
	UE0850-3-B
	UE1065-3-B
	UE1280-3-B

Notes
*1. Tubes with desired length are available as make-to-order items. Contact us for the price.
*2. For 3 in model code, please select a code of tube length.

Packaging specifications
20 M lengths / bag: Applicable to all types
100 M lengths / box: Applicable to all types

Realated product

Tube Fitting Anti-static
► P.58

Tube Binder

Binder for Tube

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

TB (1) 6 (2) – 4 (3)

(1) Tube Binder

(2) Tube dia. (O.D.)

Code	4	6	8	10	12
O.D. (mm)	ø4	ø6	ø8	ø10	ø12

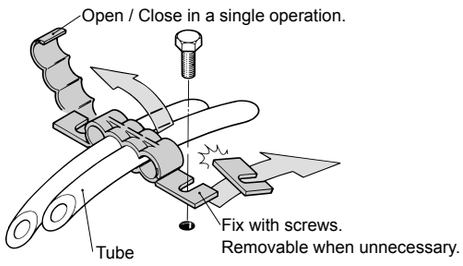
(3) Number of bound tubes

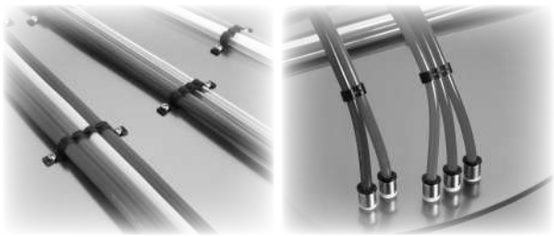
Code	2	3	4
No. of tubes	2	3	4

Characteristics

Tubes can be bundled easily by simply tucking multiple tubes into Tube Binder.

Tube binder is equipped with fixing holes.





RoHS2 (2011/65/EU+EU2015/863) compliant

Tube Binder TB	Model Code
	TB4-2
	TB4-3
	TB4-4
	TB6-2
	TB6-3
	TB6-4
	TB8-2
	TB8-3
	TB8-4
	TB10-2
	TB10-4
	TB12-2
	TB12-4

Notes
*1. Ordering unit: bag (10pcs / bag)
*2. Material of Binder is PP (polypropylene). (polypropylene) for the others.

CAD data is available at PISCO website.

Packaging specifications
10 pcs. /bag

Insert Ring

For shrinkage prevention from inside.

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

WR (1) **0640** (2) **–** (3)

(1) Insert Ring

(2) Tube dia. (O.D. x I.D.) *For inch sizes, only O.D.s are listed.

Code	mm size (mm)											
	0320	0425	0640	0850	0860	1065	1075	1280	1290	1210	1611	1613
O.D.	ø3	ø4	ø6	ø8	ø8	ø10	ø10	ø12	ø12	ø12	ø16	ø16
I.D.	ø2	ø2.5	ø4	ø5	ø6	ø6.5	ø7.5	ø8	ø9	ø10	ø11	ø13

Code	inch size (inch)			
	3/16	1/4	3/8	1/2
O.D.	ø3/16	ø1/4	ø3/8	ø1/2

(3) Tube I.D. (For inch size)

Code	30	42	46	60	70	85	96
I.D. (inch)	ø0.12	ø0.17	ø0.18	ø0.24	ø0.28	ø0.33	ø0.38

Characteristics

Prevents tube shrinkage, leaks, and disconnections.

Be sure to place Incert Ring (WR) when using liquid as a fluid medium or using soft tubes such as Vacuum Tube (UD).

Japan Food Sanitation Act. compliant

*Refer to P.6 for details.

RoHS2 (2011/65/EU+EU2015/863) compliant

Insert Ring WR	Model Code
	WR0320
	WR0425
	WR0640
	WR0850
	WR0860
	WR1065
	WR1075
	WR1280
	WR1290
	WR1210
	WR1611
	WR1613
	WR3/16-30
	WR1/4-42
	WR1/4-46
	WR3/8-60
	WR3/8-70
	WR1/2-85
	WR1/2-96

Notes
*1. Ordering unit: bag (10pcs / bag)
*2. Material of Insert Ring is SUS304.
*3. Contact us about prevention of dropping-off of Insert Ring from a tube edge into the piping.

CAD data is available at PISCO website.

Packaging specifications
10 pcs. /bag

■ Tube size chart

mm size

Tube dia.			Tube type					
Code	O.D. (mm)	I.D. (mm)	UB	UC UBS CTB	UBT UE	UD FB	NA NB	SFT SET CTA
0320	3	2	WR0320	—	WR0320	—	—	—
0420	4	2	—	—	—	—	—	WR0320
0425		2.5	WR0425	WR0425	WR0425	WR0425	WR0425	WR0425
0640	6	4	WR0640	WR0640	WR0640	WR0640	WR0640	WR0640
0850	8	5	WR0850	WR0850	WR0850	—	—	—
0860		6	—	—	—	WR0860	WR0860	WR0860
1065	10	6.5	WR1065	WR1065	WR1065	—	—	—
1075		7.5	—	—	—	WR1075	WR1075	WR1075
1080		8	—	—	—	—	—	WR1280
1280	12	8	WR1280	WR1280	WR1280	—	—	—
1290		9	—	—	—	WR1290	WR1290	WR1290
1210		10	—	—	—	—	—	WR1210
1611	16	11	WR1611	—	—	—	—	—
1613		13	—	—	—	—	WR1613	WR1613

Inch size

Tube dia.			Tube type			
Code	O.D. (inch)	I.D. (inch)	UB	CTB	NA	SFT SET CTA FB
1/8	1/8	0.08	WR0320	—	WR0320	—
5/32	5/32	0.10	WR0425	—	WR0425	—
3/16	3/16	0.12	WR3/16-30	—	WR3/16-30	—
1/4	1/4	0.16	WR1/4-42	WR1/4-42	—	—
		0.18	—	—	WR1/4-46	WR1/4-46
5/16	5/16	0.20	WR0850	—	—	—
		0.24	—	—	WR0860	—
3/8	3/8	0.24	WR3/8-60	WR3/8-60	—	—
		0.28	—	—	WR3/8-70	WR3/8-70
1/2	1/2	0.33	WR1/2-85	WR1/2-85	—	—
		0.38	—	—	WR1/2-96	WR1/2-96
5/8	5/8	0.43	WR1611	—	—	—
		0.51	—	—	WR1613	—

Tube Cutter

Tube Cutter with Double-sided Angle Blade

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

TC – 21
(1)

(1) Tube Cutter

RoHS2 (2011/65/EU+EU2015/863) compliant

Tube Cutter TC-21	Model Code
	TC-21

Packaging specifications
1 pc. /pack

Model Designation of spare blade (Example)

TC – C
(1)

(1) Spare blade for Tube Cutter

RoHS2 (2011/65/EU+EU2015/863) compliant

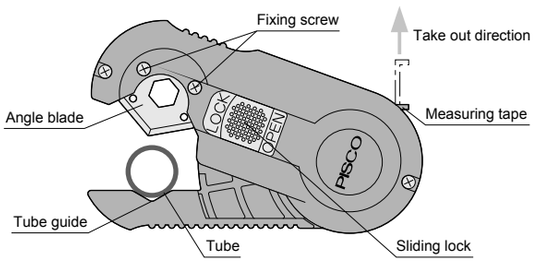
Spare blade for Tube Cutter TC-C	Model Code
	TC-C

Notes
*Ordering unit of spare blade: set (10pcs / set)

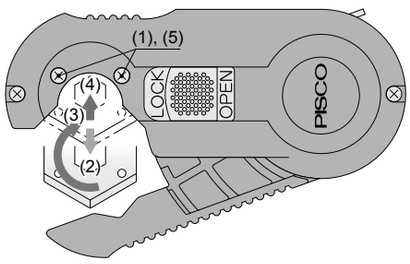
Packaging specifications
10 pcs. /set

Characteristics

- New blade edge is ready just by rotating a double sided angle blade.
- Built-in tape measure for measuring tube length. (length: 1 m)
- The tube cutting plane becomes right angled and fine with the tube guide.
- The lock mechanism keeps the cutter safely locked.



How to replace the angle blade



(1) Loosen two screws after unlocking the safety lock.
(2) Take the blade out from the blade groove by holding the hexagonal hole of the blade.
(3) Rotate the blade by 180º to use the other side of it.
(4) Install it into the blade groove by holding the hexagonal hole of the blade.
(5) Tighten the screws until the blade is fixed properly. (Tightening torque: 0.2 to 0.24Nm)

Tube Shears

PISCO

>>> https://www.pisco.co.jp/en/

Tube Cutter

⚠ Safety instructions for this product

Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

TCN – 20
(1)

(1) Tube Shears

RoHS2 (2011/65/EU+EU2015/863) compliant

Tube Shears TCN-20	Model Code
	TCN-20

Package Packaging specifications
1 pc. /pack

Characteristics

- The Tube Shears is capable of smoothly cutting tubes for piping of pneumatic equipment. (It comes with a tube guide.)
- High-class cutter stainless assures superior cutting performance and endurance.
- It comes with a spring to reduce fatigue after prolonged use.

Tube Stripper for Anti-spatter Tube

Cover Stripping Cutter for Anti-spatter Tube.

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

TSC (1) **8** (2)

(1) Tube Stripper for Anti-spatter Tube

(2) Tube dia.

Code	4	6	8	10	12
O.D. (mm)	ø4	ø6	ø8	ø10	ø12
Applicable Tube type	FB0425	FB0640	FB0860	FB1075	FB1290

RoHS2 (2011/65/EU+EU2015/863) compliant

Tube Stripper for Anti-spatter Tube	Model Code
TSC	TSC4
	TSC6
	TSC8
	TSC10
	TSC12

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Characteristics

Peels only the flame retardant cover like sharpening a pencil to fit the insertion dimensions of our Anti-spatter fittings.

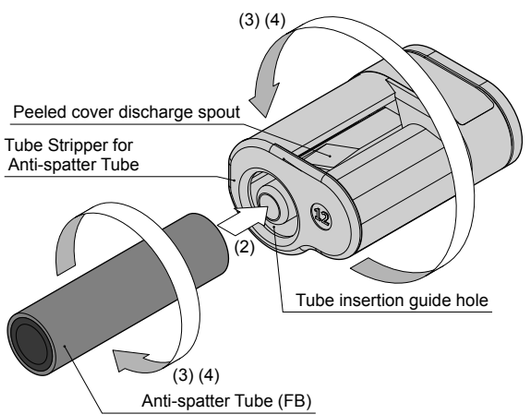
Exclusive for PISCO's Anti-spatter Tube

Push-in fitting		Speed controller		Flow controller
Tube Fitting Anti-spatter	Tube Fitting Brass	Speed Controller Anti-spatter	Speed Controller Brass	Needle Valve Brass

Peels only the flame retardant cover without damaging the inner tube.

The transparent cover enables to check cutting progress easily.

How to use the Cutter



(1) When cutting an Anti-spatter Tube (FB), make sure to form the cut end surface of the tube orthogonally.
(2) Inert an Anti-spatter Tube (FB) from tube insertion guide hole until it hits the blade.
(3) Insert the Anti-spatter Tube (FB) further with rotating the tube or Tube Stripper for Anti-spatter Tube clockwise until the tubing edge hits the end in the peeler.
(4) Keep rotating the tube (FB) or the stripper until the cover gets stripped completely, and then take out the tube from the stripper.
*Rotate either Anti-spatter tube (FB) or Tube Stripper for Anti-spatter Tube whichever earier to rotate.

Related products

Anti-spatter Tube
► P.108

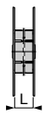
Tube Reel

Reel for Tube

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

TR (1) – **075** (2)

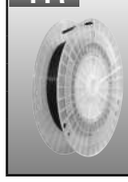


(1) Tube Reel

(2) Reel width (L)

Code	075	100	160	200
L (mm)	75	100	160	200

RoHS2 (2011/65/EU+EU2015/863) compliant

Tube Reel TR	Model Code
	TR-075
	TR-100
	TR-160
	TR-200
	*Tube does not come with the tube reel.

Package Packaging specifications
1 set /box

Characteristics

It is very easy to reload/replace tubes.

It succeeded in reducing environmental load.

Reel can be used repeatedly, and the amount of waste material can be reduced.
Material of the reel is all plastic.

4 types of reels are available in accordance with the tube diameter to be used.

Specifications

Operating temp. range (°C)	-10 to 50

■ Applicable tube dia.

(Optimum combination with 100M roll of each tube)

Tube dia. (mm or inch)	Tube reel			
	TR-075	TR-100	TR-160	TR-200
ø4 (5/32)	◎	○	○	○
ø6	◎	○	○	○
ø8 (5/16)	×	◎	○	○
ø10	×	×	◎	○
ø12	×	×	×	◎
ø16 (5/8) (*2,3)	×	◎	○	○
ø1/8	◎	○	○	○
ø3/16	◎	○	○	○
ø1/4	◎	○	○	○
ø3/8	×	×	◎	○
ø1/2	×	×	×	◎

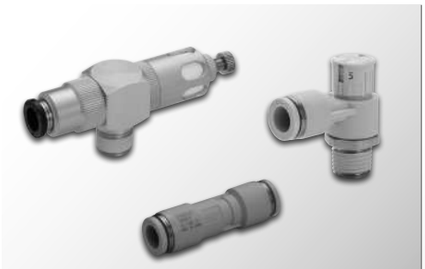
*1. ◎ : The most suitable, ○ : Can be used, ×: Can not be used.
*2. For 20M roll of ø16 (5/8) tube.
*3. Not applicable for Fluoropolymer tube (SFT, SET).

Control·Air Prep.

Control·Air Prep.

Index

Add ▶ Additional model or design change



Flow rate·Flow direction control

Speed control (One-way flow control)

Speed Controller ····· P.119
Speed Controller Large-Flow type ·· P.119
Speed Controller Low-Flow type ····· P.119
Speed Controller Push-lock type with Indicator Add P.123
Slot-head Speed Controller ····· P.127
2-stage Speed Controller ····· P.129
Speed Controller SUS316 ····· P.131
Speed Controller SUS303 Equivalent Corrosivity P.133
Speed Controller PP ····· P.134
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Orifice Flow Speed Controller ··· P.139

Flow rate control

Throttle (Needle) Valve ····· P.140
Throttle (Needle) Valve SUS316 ····· P.142
Throttle (Needle) Valve PP ····· P.143
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Pressure control

Pressure Regulator Push-lock type P.151
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Pressure Controller ····· P.153

Air preparation

Silencer

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Filter

In-line Air Filter ····· P.158
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Air Tank

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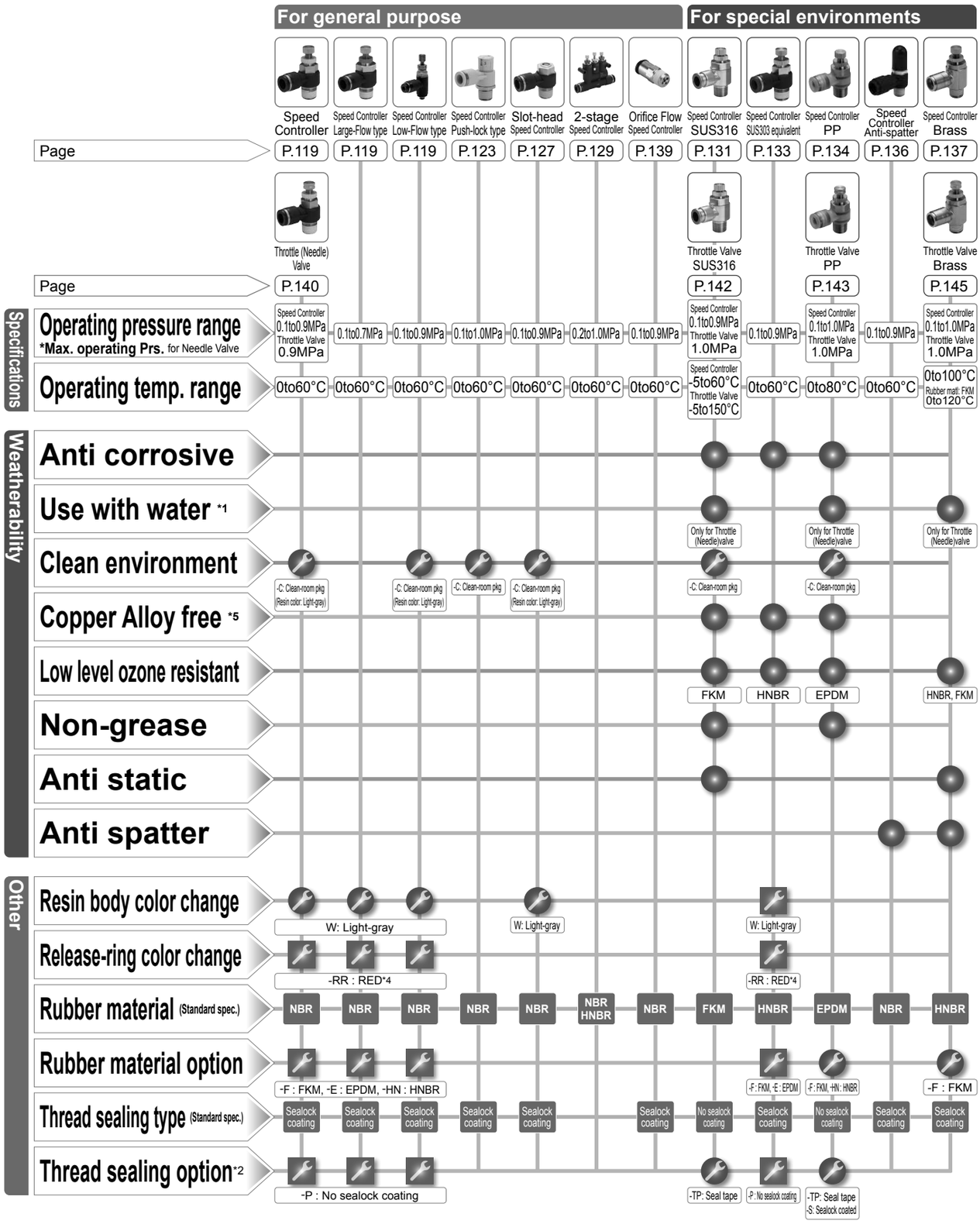
Selection Guide for Flow Control Valve



●: Standard ◐: Optional (Standard) ◪: Optional (Non-standard)

*1. Be sure to use PISCO's Insert Ring (WR).
*2. Thread sealing change is available for R (PT) thread only.
*3. Gasket material corresponds to rubber material change.
*4. Available only with Resin body color : Black
*5. No copper-based metallic materials used in flow paths.

Speed Controller

PISCO

Push-In fitting type one-way flow control valve

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example) *Please see page 121-122 for the combinations of applicable tube dia. and thread size.

JS	C	6	-	01	A				
(1)	(2)	(3)		(4)	(5)	(6)	(7)	(8)	(9)

(1) Speed Controller

(2) Type

Code	C	S	MU	M
Type	Elbow	Free	Small Union Straight	Universal

(3) Tube dia. (øD)

	mm size (mm)								inch size (inch)						
Code	180	2	3	4	6	8	10	12	1/8	5/32	3/16	1/4	5/16	3/8	1/2
Tube O.D.	ø1.8	ø2	ø3	ø4	ø6	ø8	ø10	ø12	ø1/8	ø5/32	ø3/16	ø1/4	ø5/16	ø3/8	ø1/2

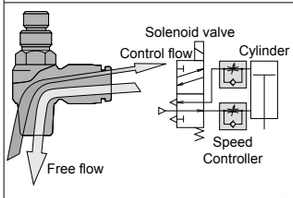
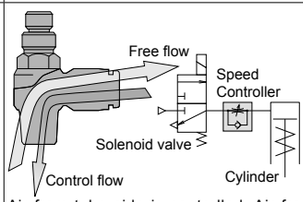
*1. Tube dia. ø1.8mm, 2mm and 3mm of Small Union Straight type are only available in low-flow type, which requires "**L**" in (7).
*2. Tube dia. ø1.8mm and 2mm are only available in low-flow type.

(4) Thread size (R) (No code entry for Small Union Straight type : JSMU)

	Metric thread		Taper pipe thread				Unified fine thread	National pipe therad tapered			
Code	M3	M5	01	02	03	04	U10	N1	N2	N3	N4
Thread size	M3×0.5	M5×0.8	R1/8	R1/4	R3/8	R1/2	10-32UNF	NPT1/8	NPT1/4	NPT3/8	NTP1/2

*M3 thread is only available in standard and low-flow type.

(5) Control direction (No code entry for Small Union Straight type : JSMU)

Code	A	B
	Meter-out control	Meter-in control
Control direction	 Air from thread side is controlled. Air from tube side is not controlled and flows out from thread side	 Air from tube side is controlled. Air from thread side is not controlled and flows out from tube side.
Identification	Color of lock nut : Silver (Large-flow type: Blue) 	Color of lock nut : Black

(6) Low cracking pressure type (No code entry for Small Union Straight, High/Low-flow type)

Code	No code	K
Check valve specifications	Standard	Low cracking pressure type (Check valve opening pressure: 0.02MPa, Operating pressure range: 0.05 to 0.5MPa)

(7) Flow type (Please select the flow type by referring to the characteristics on the next page.)

Code	No code	H(*)	L
Type	Standard	High-flow	Low-flow
Marking on needle	A, B, AK, BK	AG	AT, BT (No marking for ø1.8, ø2, ø3mm)

*The High-flow type comes with meter-out control (A) only.

Release-ring shape

■Tube O.D. : ø1.8mm ◀ Round shape(One cut)
■Tube O.D. : ø2mm ◀ Round shape(Two cuts)
■Tube O.D. : ø3, ø4, ø6mm ø1/8, ø5/32, ø3/16, ø1/4in. ◀ Oval shape
■Tube O.D. : ø8, ø10, ø12mm ø5/16, ø3/8, ø1/2in. ◀ Round shape

(8) Body color + Packaging option (Optional)

Code	No code	-C	W	W-C
Check valve specifications	Standard	Clean-room package	Light-gray	Light-gray + Clean-room package
Appearance spec.				
Release-ring color (*2)	Black	Light-blue	Light-gray	Light-gray
Resin body color	Black	Light-gray		

*1. Clean-room package is not available for High-flow type.
*2. Release-ring color is white for all the above specifications of inch size.
*3. There is no option "W-C" for inch-size product since it is the same product as "-C".

Code: **No code** (Inch) Code: **-C, W** (Inch)

(9) Wrench size specification

Code	No code	U
Wrench size specification	mm spec.	inch spec.

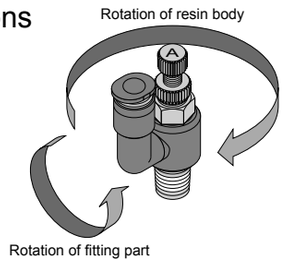
Speed Controller

Characteristics

Standard type, Free

The tubing lead-out directions are flexible.

Resin body and fitting are rotatable.



Thread size (Code)	Tube dia. (mm)	Controlled flow (ℓ/min[ANR])	Needle rotation	Primary Pressure (MPa)
M3×0.5(M3)	ø3, ø4	63	7	0.5
M5×0.8(M5)	ø3, ø4, ø6	72	7	
10-32UNF(U10) R1/8(01) NPT1/8(N1)	ø4, ø6, ø8	167	12	
R1/4(02) NPT1/4(N2)	ø6	278	12	
	ø8, ø10	272	13	
R3/8(03) NPT3/8(N3)	ø6	571	13	
	ø8	911		
	ø10	960		
	ø12	867		
R1/2(04) NPT1/2(N4)	ø8	1,200	13	
	ø10	1,543		
	ø12	1,686		

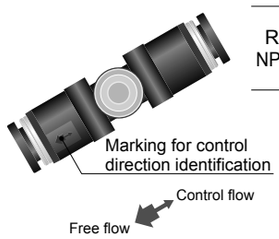
Standard type, Small Union Straight

The check valve operates at a low pressure of 0.005MPa.

*Not including Low-flow type.

Easier to identify the control direction.

A marking on the top of resin body (needle side) indicates the control direction.
*Not including Low-flow type.



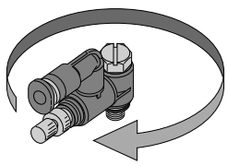
Universal type

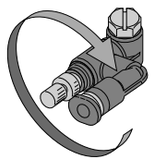
Best suitable for speed control of pen-type cylinders.

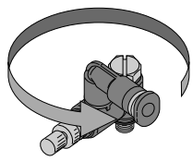
Universal type is suitable for space-saving piping.

The tube lead-out directions are free.

Resin body A, B and the fitting part are rotatable.


Rotation of resin body A


Rotation of resin body B


Rotation of fitting part

High-flow type

Suitable for High Speed Cylinder.

High flow type with same size as standard type.

Thread size (Code)	Tube dia. (mm)	Controlled flow (ℓ/min[ANR])	Needle rotation	Primary Pressure (MPa)
R1/8(01) NPT1/8(N1)	ø6, ø8	300	10	0.5
R1/4(02) NPT1/4(N2)	ø6	511	12	
	ø8, ø10	787		
R3/8(03) NPT3/8(N3)	ø8	1,164	11	
	ø10, ø12	1,422		
R1/2(04) NPT1/2(N4)	ø12	2,000	12	

Low-flow type

Suitable for Low Speed Cylinder.

Since free flow rates are equivalent to those of standard type, return strokes can be driven at high speed.

A wide variety of shapes for low-flow type.

Thread size (Code)	Tube dia. (mm)	Controlled flow (ℓ/min[ANR])	Needle rotation	Primary Pressure (MPa)
M3×0.5(M3)	ø1.8, ø2, ø3	20	10	0.5
	ø4	35		
M5×0.8(M5)	ø1.8, ø2	20		
	ø3	35		
	ø4, ø6	6.5		
R1/8(01)	ø4, ø6, ø8, ø10	13		
R1/4(02)	ø6, ø8, ø10	41	12	

Clean-room package (Optional)

Best suitable for piping in clean environment.

Fluorine-based grease is used on O-ring for clean-room package.
Products are packed in a clean room equivalent to ISO class 6 after washed by clean air.

Specifications

■Standard type

Type	Elbow, Free, Universal	Small Union Straight
Fluid medium	Air	
Operating pressure range	0.1 to 0.9 MPa (Low cracking pressure type: 0.05 to 0.5MPa)	0.05 to 1.0 MPa
Check valve opening pressure	0.05 MPa (Low cracking pressure type: 0.02MPa)	0.005 MPa
Operating temp. range	0 to 60°C (No freezing)	

■High-flow type

Fluid medium	Air
Operating pressure range	0.1 to 0.7 MPa
Check valve opening pressure	0.05 MPa
Operating temp. range	0 to 60°C (No freezing)

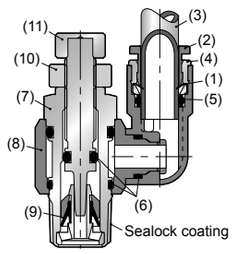
■Low-flow type

Fluid medium	Air
Operating pressure range	0.1 to 0.9 MPa
Check valve opening pressure	0.05 MPa
Operating temp. range	0 to 60°C (No freezing)

Sectional drawing

Standard type Free: JSS

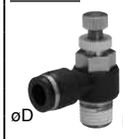
*1. Metallic body with M3 thread is made of special stainless steel (Austenite or ferritic stainless steel).
*2. Gasket for metric or UNF thread of standard and low-flow type is made of SUS304+NBR or SPCC+NBR. For metric thread of clean-room packaging, gasket is made of POM.



No,	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Polyurethane, Nylon, etc
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	O-ring	NBR
(7)	Metallic body(*1)	Nickel-plated brass
(8)	Resin body	PBT
(9)	Diaphragm	HNBR
(10)	Lock nut	Aluminum
(11)	Needle	Nickel-plated brass

RoHS2 (2011/65/EU+EU2015/863) compliant

Standard type

Type	Model code JSCøD-R5(K)8	Applicable cylinder tube I.D. (mm)	Model code JSCøD-R5(K)U	Applicable cylinder tube I.D. (mm)
Elbow JSC  øD R	JSC3-M3[5][8]	ø16	JSC1/8-U10[5]U	max. ø20
	JSC3-M3[5]K[8]		JSC1/8-U10[5]KU	max. ø16
	JSC3-M5[5][8]	ø16	JSC1/8-N1[5]U	max. ø32
	JSC3-M5[5]K[8]		JSC1/8-N1[5]KU	max. ø32
	JSC4-M3[5][8]	ø16	JSC5/32-U10[5]U	max. ø20
	JSC4-M3[5]K[8]		JSC5/32-U10[5]KU	max. ø16
	JSC4-M5[5][8]	ø20	JSC5/32-N1[5]U	max. ø32
	JSC4-M5[5]K[8]	ø16	JSC5/32-N1[5]KU	max. ø32
	JSC4-01[5][8]	ø32	JSC3/16-U10[5]U	max. ø20
	JSC4-01[5]K[8]		JSC3/16-U10[5]KU	max. ø16
	JSC6-M5[5][8]	ø20	JSC3/16-N1[5]U	max. ø32
	JSC6-M5[5]K[8]	ø16	JSC3/16-N1[5]KU	max. ø32
	JSC6-01[5][8]	ø32	JSC3/16-N2[5]U	max. ø40
	JSC6-01[5]K[8]		JSC3/16-N2[5]KU	max. ø40
	JSC6-02[5][8]	ø40	JSC3/16-N3[5]U	max. ø63
	JSC6-02[5]K[8]		JSC1/4-U10[5]U	max. ø20
	JSC6-03[5][8]	ø63	JSC1/4-U10[5]KU	max. ø20
	JSC8-01[5][8]	ø32	JSC1/4-N1[5]KU	max. ø32
	JSC8-01[5]K[8]		JSC1/4-N2[5]KU	max. ø40
	JSC8-02[5][8]	ø40	JSC1/4-N3[5]U	max. ø63
	JSC8-02[5]K[8]		JSC1/4-N4[5]U	max. ø80
	JSC8-03[5][8]	ø63	JSC5/16-N1[5]U	max. ø32
	JSC8-04[5][8]	ø80	JSC5/16-N1[5]KU	max. ø32
	JSC10-02[5][8]	ø40	JSC5/16-N2[5]U	max. ø40
	JSC10-02[5]K[8]		JSC5/16-N2[5]KU	max. ø40
	JSC10-03[5][8]	ø63	JSC5/16-N3[5]U	max. ø63
	JSC10-04[5][8]	ø100	JSC5/16-N4[5]U	max. ø80
	JSC12-03[5][8]	ø63	JSC3/8-N2[5]KU	max. ø40
	JSC12-04[5][8]	ø100	JSC3/8-N4[5]U	max. ø100
	JSC1/8-M3[5][8]	ø16	JSC1/2-N3[5]U	max. ø63
	JSC1/8-M3[5]K[8]		JSC1/2-N4[5]U	max. ø100
	JSC1/8-M5[5][8]	ø20		
	JSC1/8-M5[5]K[8]	ø16		
	JSC1/4-M5[5][8]	ø20		
	JSC1/4-M5[5]K[8]			
	JSC1/4-01[5][8]	ø32		
	JSC1/4-01[5]K[8]			
	JSC1/4-02[5][8]	ø40		
	JSC1/4-02[5]K[8]			
	JSC5/16-01[5][8]	ø32		
	JSC5/16-01[5]K[8]			
	JSC5/16-02[5][8]	ø40		
	JSC5/16-02[5]K[8]			
	JSC5/16-03[5][8]	ø63		
	JSC3/8-02[5][8]	ø40		
	JSC3/8-02[5]K[8]			
	JSC3/8-03[5][8]	ø63		

Type	Model code JSSøD-R5(K)8	Applicable cylinder tube I.D. (mm)	Model code JSSøD-R5(K)U	Applicable cylinder tube I.D. (mm)
Free JSS øD R	JSS3-M3[5][8]	ø16	JSS1/8-U10[5]U	max. ø20
	JSS3-M3[5]K[8]		JSS1/8-U10[5]KU	max. ø16
	JSS3-M5[5][8]	ø20	JSS5/32-U10[5]U	max. ø20
	JSS3-M5[5]K[8]	ø16	JSS5/32-U10[5]KU	max. ø16
	JSS4-M3[5][8]	ø16	JSS5/32-N1[5]U	max. ø32
	JSS4-M3[5]K[8]		JSS5/32-N1[5]KU	max. ø32
	JSS4-M5[5][8]	ø20	JSS3/16-U10[5]U	max. ø20
	JSS4-M5[5]K[8]	ø16	JSS3/16-U10[5]KU	max. ø16
	JSS4-01[5][8]	ø32	JSS3/16-N1[5]U	max. ø32
	JSS4-01[5]K[8]		JSS3/16-N1[5]KU	max. ø32
	JSS6-M5[5][8]	ø20	JSS3/16-N2[5]U	max. ø40
	JSS6-M5[5]K[8]	ø16	JSS3/16-N2[5]KU	max. ø40
	JSS6-01[5][8]	ø32	JSS1/4-U10[5]U	max. ø20
	JSS6-01[5]K[8]		JSS1/4-U10[5]KU	max. ø20
	JSS6-02[5][8]	ø40	JSS1/4-N1[5]U	max. ø32
	JSS6-02[5]K[8]		JSS1/4-N1[5]KU	max. ø32
	JSS8-01[5][8]	ø32	JSS1/4-N2[5]U	max. ø40
	JSS8-01[5]K[8]		JSS1/4-N2[5]KU	max. ø40
	JSS8-02[5][8]	ø40	JSS5/16-N1[5]U	max. ø32
	JSS8-02[5]K[8]		JSS5/16-N1[5]KU	max. ø32
	JSS8-03[5][8]	ø63	JSS5/16-N2[5]U	max. ø40
	JSS10-02[5][8]	ø40	JSS5/16-N2[5]KU	max. ø40
	JSS10-02[5]K[8]		JSS5/16-N3[5]U	max. ø63
	JSS10-03[5][8]	ø63	JSS3/8-N2[5]U	max. ø40
	JSS12-03[5][8]	ø63	JSS3/8-N2[5]KU	max. ø40
	JSS12-04[5][8]	ø100	JSS3/8-N3[5]U	max. ø63
	JSS1/8-M3[5][8]	ø16	JSS1/2-N3[5]U	max. ø63
	JSS1/8-M3[5]K[8]		JSS1/2-N4[5]U	max. ø100
	JSS1/8-M5[5][8]	ø20		
	JSS1/8-M5[5]K[8]	ø16		
	JSS1/4-M5[5][8]	ø20		
	JSS1/4-M5[5]K[8]			
	JSS1/4-01[5][8]	ø32		
	JSS1/4-01[5]K[8]			
	JSS1/4-02[5][8]	ø40		
	JSS1/4-02[5]K[8]			
	JSS5/16-01[5][8]	ø32		
	JSS5/16-01[5]K[8]			
	JSS5/16-02[5][8]	ø40		
	JSS5/16-02[5]K[8]			
	JSS5/16-03[5][8]	ø63		
	JSS3/8-02[5][8]	ø40		
	JSS3/8-02[5]K[8]			
	JSS3/8-03[5][8]	ø63		

Notes
*1. For [5] in model code, please select a control direction code, "A" for Meter-out and "B" for Meter-in control.
*2. Applicable cylinder tube I.D. is based on the supply air pressure at 0.5MPa and cylinder speed at 500mm/sec.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Non-standard options
(Details►P.893)
· Seal rubber options (FKM, EPDM, HNBR)
· Copper free spec.
· Release-ring color change (Red)
►Contact us for the price.

Options

Code	8 : -C	8 : W	8 : W-C
Specifications	Clean-room package	Light-gray	Light-gray + Clean-room package

Speed Controller

RoHS2 (2011/65/EU+EU2015/863) compliant

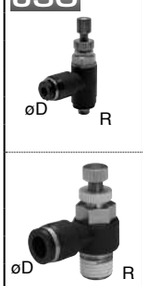
Standard type

Type	Model code JSMUøD[8]	Applicable cylinder tube I.D. (mm)
Small Union Straight JSMU	JSMU4[8]	ø20
	JSMU6[8]	ø32
	JSMU8[8]	ø50
	JSMU10[8]	ø63
	JSMU12[8]	ø80
	JSMU5/32[8]	ø20
	JSMU1/4[8]	ø32
	JSMU5/16[8]	ø50
	JSMU3/8[8]	ø63
	JSMU1/2[8]	ø80

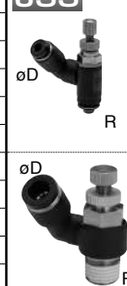
Type	Model code JSMøD-R[5](K)	Applicable cylinder tube I.D. (mm)
Universal JSM	JSM4-M5[5][8]	ø20
	JSM4-M5[5]K[8]	ø16

Low-flow type

Type	Model code JSCøD-R[5]L[8](U)	Applicable cylinder tube I.D. (mm)
Elbow JSC	JSC180-M3[5]L[8]	ø10
	JSC180-M5[5]L[8]	ø10
	JSC2-M3[5]L[8]	ø10
	JSC2-M5[5]L[8]	ø10
	JSC3-M3[5]L[8]	ø10
	JSC3-M5[5]L[8]	ø12
	JSC4-M3[5]L[8]	ø12
	JSC4-M5[5]L[8]	ø6
	JSC4-01[5]L[8]	ø8
	JSC6-M5[5]L[8]	ø6
	JSC6-01[5]L[8]	ø8
	JSC6-02[5]L[8]	ø16
	JSC8-01[5]L[8]	ø8
	JSC8-02[5]L[8]	ø16
	JSC10-02[5]L[8]	ø16
	JSC1/4-N1[5]LU	ø8
	JSC1/4-N2[5]LU	ø16



Type	Model code JSSøD-R[5]L[8]	Applicable cylinder tube I.D. (mm)
Free JSS	JSS180-M3[5]L[8]	ø10
	JSS180-M5[5]L[8]	ø10
	JSS2-M3[5]L[8]	ø10
	JSS2-M5[5]L[8]	ø10
	JSS3-M3[5]L[8]	ø10
	JSS3-M5[5]L[8]	ø12
	JSS4-M3[5]L[8]	ø12
	JSS4-M5[5]L[8]	ø6
	JSS4-01[5]L[8]	ø8
	JSS6-M5[5]L[8]	ø6
	JSS6-01[5]L[8]	ø8
	JSS6-02[5]L[8]	ø16
	JSS8-01[5]L[8]	ø8
	JSS8-02[5]L[8]	ø16
	JSS10-02[5]L[8]	ø16



Type	Model code JSMUøDL[8]	Applicable cylinder tube I.D. (mm)
Small Union Straight JSMU	JSMU180L[8]	ø10
	JSMU2L[8]	ø10
	JSMU3L[8]	ø12

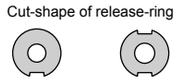
High-flow type

Type	Model code JSCøD-RAH[8](U)	Applicable cylinder tube I.D. (mm)
Elbow JSC	JSC6-01AH[8]	ø40
	JSC6-02AH[8]	ø50
	JSC8-01AH[8]	ø40
	JSC8-02AH[8]	ø63
	JSC8-03AH[8]	ø80
	JSC10-02AH[8]	ø63
	JSC10-03AH[8]	ø100
	JSC12-03AH[8]	ø100
	JSC12-04AH[8]	ø100
	JSC1/4-02AH[8]	ø50
	JSC1/4-03AH[8]	ø80
	JSC1/4-N1AHU	ø40
	JSC1/4-N2AHU	ø50
	JSC3/8-N2AHU	ø63
	JSC3/8-N3AHU	ø100

Notes

*1. For [5] in model code, please select a control direction code, "A" for Meter-out and "B" for Meter-in control.
*2. Applicable cylinder tube I.D. is based on the supply air pressure at 0.5MPa and cylinder speed at 500mm/sec.
*3. Tube dia. ø1.8 and ø2mm do not have tube size indication on release-ring. Tube size can be identified by cut-shape of release-ring.

Cut-shape of release-ring



CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options

Code	[8] : -C	[8] : W	[8] : W-C
Specifications	Clean-room package	Light-gray	Light-gray + Clean-room package

*Universal (JSM) type and High-flow type are selectable only for resin body color: Light-gray specification

Non-standard options (Details►P.893)
・Seal rubber options(FKM, EPDM, HNBR)
・Copper free spec.
・Release ring color change (Red)
►Contact us for the price.

Speed Controller Push-lock type with Indicator

one-way flow control valve with indicator and push-lock knob

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

JSG	C	6	-	01	A	(6)	(7)	W
(1)	(2)	(3)		(4)	(5)			(8)

(1) Speed Controller Push-lock type with Indicator

(2) Type

Code	C	S	U
Type	Elbow	Free	Union straight

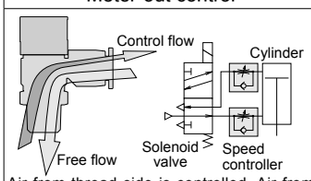
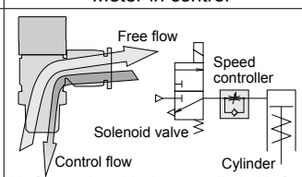
(3) Tube dia. (øD)

	mm size (mm)						inch size (inch)					
Code	3	4	6	8	10	12	1/8	5/32	1/4	5/16	3/8	1/2
Tube O.D.	ø3	ø4	ø6	ø8	ø10	ø12	ø1/8	ø5/32	ø1/4	ø5/16	ø3/8	ø1/2

(4) Thread size (R) (No entry for JSGU: Union straight type)

	Metric thread		Taper pipe thread				Unified fine thread	National pipe therad tapered			
Code	M3	M5	01	02	03	04	U10	N1	N2	N3	N4
Thread size	M3×0.5	M5×0.8	R1/8	R1/4	R3/8	R1/2	10-32UNF	NPT1/8	NPT1/4	NPT3/8	NPT1/2

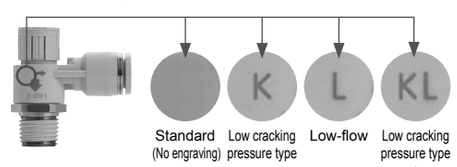
(5) Control direction (No entry for Union straight type)

Code	A	B
	Meter-out control	Meter-in control
Control direction	 Air from thread side is controlled. Air from tube side is not controlled and flows out from thread side.	 Air from tube side is controlled. Air from thread side is not controlled and flows out from tube side.
Identification	Color of push-lock knob : Light-gray	Color of ush-lock knob : Light-blue

(6) Low cracking pressure type

Code	No code	K
Specifications	Standard spec.	Low cracking pressure type (Check valve opening Prs.: 0.02MPa, Operating Prs. range: 0.05 to 0.5MPa)
Identification	No engraving	Letter "K" engraved

Engraving and Identification



(7) Flow rate type

Code	No code	L (※)
Type	Standard	Low-flow
Identification	No engraving	Letter "L" engraved

*Flow characteristics that the low flow range of the standard type can be adjusted linearly.

(8) Body color + Packaging option (Optional)

Code	W	-C	W-C
Packaging spec.	Standard package	Clean-room package	Clean-room package
Body color	Light-gray		
Release-ring color*1, 2	Light-gray	Light-blue	Light-gray
Appearance spec.			

*1. Release-ring color is white for all the above specifications of inch size.
*2. There is no option "W-C" for inch-size product since it is the same product as "-C".
*3. There is no black color for body color.

Release-ring shape

■Tube O.D. : ø3, ø4, ø6mm
ø1/8, ø5/32, ø1/4in.
◀ Oval shape

■Tube O.D. : ø8, ø10, ø12mm
ø5/16, ø3/8, ø1/2in.
◀ Round shape

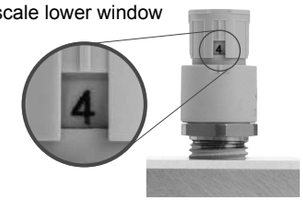
Speed Controller Push-lock type with Indicator

Characteristics

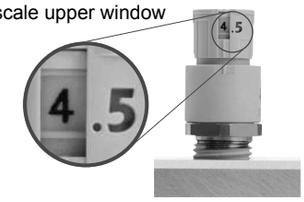
Speed can be adjusted by dial display.

Scales are on the side (upper/lower windows) and on the top. (*)

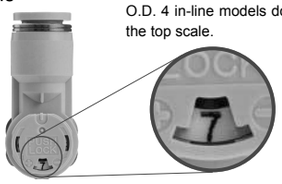
Side scale lower window



Side scale upper window



Top scale



*Models with metric thread and O.D. 4 in-line models do not have the top scale.

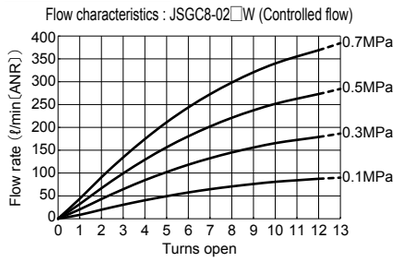
Push-Lock type knob -Easy to handle.

Flow rate can be set by 30 steps in one turn. (However, the number of rotation is visible every 1/2 turn.)

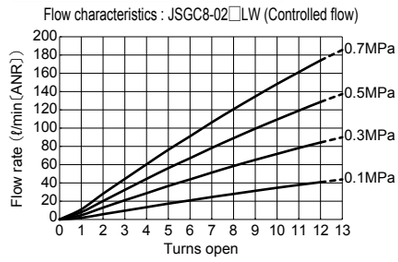
Linear flow characteristic: Flow rate changes linearly in proportion to the turns of knob. The low flow type which enables fine adjustments is provided.(*)

*The flow rate range is different from our Speed Controller Low-flow type.

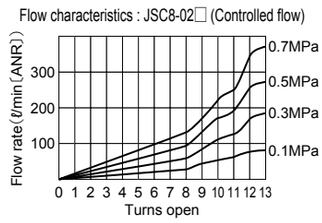
With push-lock knob



Low-flow type with push-lock knob



Conventional product



Compact and low profile.

The direction of air flow is identified by the knob color.

Free type with flexible tubing direction is also available.

Rotatable resin body and Fitting.

NEW Low cracking pressure type is added.

Best suitable for use with spring return single acting cylinders.

● Clean-room package spec. (Optional)

NEW Best suitable for flow control in clean environment.

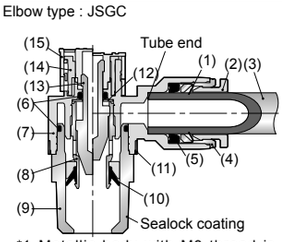
Fluorine-based grease is applied. Washed by clean air and packed in ISO class 6 equivalent clean-room.

Specifications

Fluid medium	Air
Operating pressure range	0.1 to 1.0MPa (Low cracking pressure type: 0.05 to 0.5MPa)
Check valve opening pressure	0.05MPa (Low cracking pressure type: 0.02MPa)
Operating temp. range	0 to 60°C (No freezing)

Sectional drawing

Elbow type : JSGC



*1. Metallic body with M3 thread is made of special stainless steel (Austenite or ferritic stainless steel).
*2. For thread size : 04 (R1/2) and N4 (NPT1/2) only.
*3. The material of gasket for metric thread or UNF thread is SUS304+NBR.

No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Polyurethane, Nylon, etc
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	O-ring	NBR
(7)	Resin body	PBT
(8)	Metallic body	Nickel-plated brass
(9)	Thread body (*1)	Nickel-plated brass
(10)	Diaphragm	HNBR
(11)	Retainer (*2)	Nickel-plated brass
(12)	Collar (*2)	POM
(13)	Needle	Brass
(14)	Indicator	PBT
(15)	Knob	POM

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code JSGCøD-R5678	Applicable cylinder tube I.D. (mm)		Model code JSGCøD-R5678	Applicable cylinder tube I.D. (mm)	
		Standard 7:No code	Low-flow 7:L		Standard 7:No code	Low-flow 7:L
Elbow JSGC Add	JSGC3-M35678	ø20	ø12	JSGC1/8-U105678	ø20	ø12
	JSGC3-M55678	ø20	ø12	JSGC5/32-U105678	ø20	ø12
	JSGC4-M35678	ø20	ø12	JSGC5/32-N15678	ø25	ø25
	JSGC4-M55678	ø20	ø12	JSGC3/16-U105678	ø20	ø12
	JSGC4-015678	ø25	ø25	JSGC3/16-N15678	ø32	ø25
	JSGC6-M55678	ø20	ø12	JSGC3/16-N25678	ø40	ø25
	JSGC6-015678	ø32	ø25	JSGC3/16-N3578	ø160	ø50
	JSGC6-025678	ø40	ø25	JSGC1/4-U105678	ø20	ø12
	JSGC6-03578	ø63	ø50	JSGC1/4-N15678	ø32	ø25
	JSGC8-015678	ø32	ø25	JSGC1/4-N25678	ø40	ø25
	JSGC8-025678	ø40	ø25	JSGC1/4-N3578	ø160	ø50
	JSGC8-03578	ø63	ø50	JSGC5/16-N15678	ø32	ø25
	JSGC8-04578	ø80	ø63	JSGC5/16-N25678	ø40	ø25
	JSGC10-025678	ø40	ø25	JSGC5/16-N3578	ø180	ø50
	JSGC10-03578	ø63	ø50	JSGC5/16-N4578	ø200	ø160
	JSGC10-04578	ø100	ø63	JSGC3/8-N25678	ø40	ø25
	JSGC12-03578	ø63	ø50	JSGC3/8-N3578	ø180	ø50
	JSGC12-04578	ø100	ø63	JSGC3/8-N4578	ø200	ø160
	JSGC1/8-M35678	ø20	ø12	JSGC1/2-N3578	ø180	ø50
	JSGC1/8-M55678	ø20	ø12	JSGC1/2-N4578	ø250	ø160
	JSGC5/32-M35678	ø20	ø12			
	JSGC5/32-M55678	ø20	ø12			
	JSGC5/32-015678	ø25	ø25			
	JSGC1/4-M55678	ø20	ø12			
	JSGC1/4-015678	ø32	ø25			
	JSGC1/4-025678	ø40	ø25			
	JSGC1/4-03578	ø63	ø50			
	JSGC5/16-015678	ø32	ø25			
	JSGC5/16-025678	ø40	ø25			
	JSGC5/16-03578	ø63	ø50			
	JSGC5/16-04578	ø80	ø63			
	JSGC3/8-025678	ø40	ø25			
	JSGC3/8-03578	ø63	ø50			
	JSGC3/8-04578	ø100	ø63			
	JSGC1/2-03578	ø63	ø50			
	JSGC1/2-04578	ø100	ø63			

Type	Model code JSGUøD678	Applicable cylinder tube I.D. (mm)	
		Standard 7:No code	Low-flow 7:L
Union straight JSGU Add	JSGU4678	ø25	ø12
	JSGU6678	ø32	ø25
	JSGU8678	ø40	ø25
	JSGU10678	ø63	ø50
	JSGU12678	ø100	ø63
	JSGU5/32678	ø25	ø12
	JSGU1/4678	ø32	ø25
	JSGU5/16678	ø40	ø25
	JSGU3/8678	ø63	ø50
	JSGU1/2678	ø100	ø63

Notes

*1. For 5 in model code, please select a control direction code, "A" for Meter-out and "B" for Meter-in control.

*2. Applicable cylinder tube I.D. is based on the supply air pressure at 0.5MPa and cylinder speed at 500mm/sec.

*3. Release ring color : White for inch type.

CAD data is available at PISCO website.

Packaging specifications

1 pc. /bag

Options

Code	8 : -C	8 : W-C
Specifications	Clean-room package	Light-gray release ring + Clean-room package

Speed Controller Push-lock type with Indicator

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code JSGSøD-R5678	Applicable cylinder tube I.D. (mm)	
		Standard 7:No code	Low-flow 7:L
Free JSGS Add øD R	JSGS3-M35678	ø20	ø12
	JSGS3-M55678	ø20	ø12
	JSGS4-M35678	ø20	ø12
	JSGS4-M55678	ø20	ø12
	JSGS4-015678	ø25	ø25
	JSGS6-M55678	ø20	ø12
	JSGS6-015678	ø32	ø25
	JSGS6-025678	ø40	ø25
	JSGS8-015678	ø32	ø25
	JSGS8-025678	ø40	ø25
	JSGS8-03578	ø63	ø50
	JSGS10-025678	ø40	ø25
	JSGS10-03578	ø63	ø50
	JSGS12-03578	ø63	ø50
	JSGS12-04578	ø100	ø63
	JSGS1/8-M35678	ø20	ø12
	JSGS1/8-M55678	ø20	ø12
	JSGS1/4-M55678	ø20	ø12
	JSGS1/4-015678	ø32	ø25
	JSGS1/4-025678	ø40	ø25
	JSGS5/16-015678	ø32	ø25
	JSGS5/16-025678	ø40	ø25
	JSGS5/16-03578	ø63	ø50
	JSGS3/8-025678	ø40	ø25
	JSGS3/8-03578	ø63	ø50
	JSGS3/8-04578	ø100	ø63
	JSGS1/2-03578	ø63	ø50
	JSGS1/2-04578	ø100	ø63
	JSGS1/8-U105678	ø20	ø12
	JSGS5/32-U105678	ø20	ø12
	JSGS5/32-N15678	ø25	ø25
	JSGS1/4-U105678	ø20	ø12
	JSGS1/4-N15678	ø32	ø25
	JSGS1/4-N25678	ø40	ø25
	JSGS5/16-N15678	ø32	ø25
	JSGS5/16-N25678	ø40	ø25
	JSGS5/16-N3578	ø180	ø50
	JSGS3/8-N25678	ø40	ø25
	JSGS3/8-N3578	ø180	ø50
	JSGS3/8-N4578	ø200	ø160
	JSGS1/2-N3578	ø180	ø50
	JSGS1/2-N4578	ø250	ø160

Notes

*1. For 5 in model code, please select a control direction code, "A" for Meter-out and "B" for Meter-in control.
*2. Applicable cylinder tube I.D. is based on the supply air pressure at 0.5MPa and cylinder speed at 500mm/sec.
*3. Release ring color : White for inch type.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options

Code	8 : -C	8 : W-C
Specifications	Clean-room package	Light-gray release ring + Clean-room package

Slot-head Speed Controller

PISCO

>>> https://www.pisco.co.jp/en/

Flow control valve with recessed adjustment screw for tamper-proof.

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

JSD	C	6	-	01	A	(6)	(7)
(1)	(2)	(3)		(4)	(5)		

(1) Slot-head Speed Controller

(2) Type

Code	C	S
Type	Elbow	Free

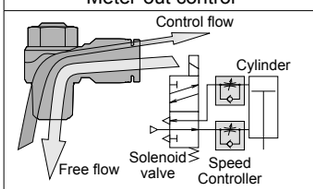
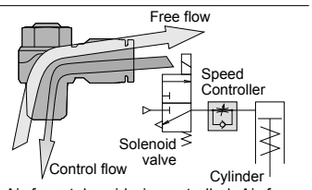
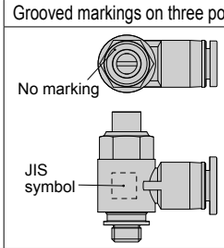
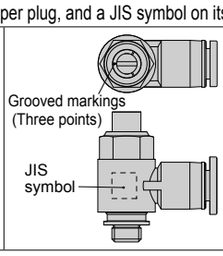
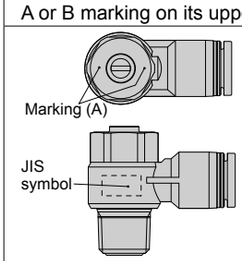
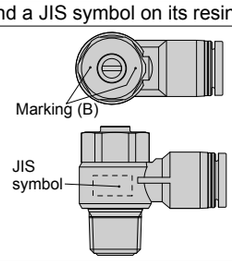
(3) Tube dia. (øD)

	mm size (mm)						inch size (inch)			
Code	3	4	6	8	10	12	1/8	1/4	5/16	3/8
Tube O.D.	ø3	ø4	ø6	ø8	ø10	ø12	ø1/8	ø1/4	ø5/16	ø3/8

(4) Thread size (R)

	Metric thread		Taper pipe thread				Unified fine thread	Inch NPT			
Code	M3	M5	01	02	03	04	U10	N1	N2	N3	N4
Thread size	M3×0.5	M5×0.8	R1/8	R1/4	R3/8	R1/2	10-32UNF	NPT1/8	NPT1/4	NPT3/8	NPT1/2

(5) Control direction

Code	A	B
	Meter-out control	Meter-in control
Control direction	 Air from thread side is controlled. Air from tube side is not controlled and flows out from thread side	 Air from tube side is controlled. Air from thread side is not controlled and flows out from tube side.
Identification – Metric or UNF thread	Grooved markings on three points on its upper plug, and a JIS symbol on its resin body.	
		
Identification – Taper pipe male thread	A or B marking on its upper plug and a JIS symbol on its resin body.	
		

(6) Body color + Clean-room packaging specifications (Optional)

Code	No code	-C	W	W-C
Specifications	Standard	Clean-room package	Light-gray	Light-gray + Clean-room package
Appearance spec.				
Release-ring color*	Black	Light-blue	Light-gray	Light-gray
Resin body color	Black	Light-gray		

*1. Release-ring color for inch type : White for all the specifications
*2. There is no option "W-C" for inch-size product since it is the same product as "-C".

Code: **No code** (Inch)

Code: **-C, W** (Inch)

(7) Wrench size specification

Code	No code	U
Wrench size spe.	mm spec.	inch spec.

Slot-head Speed Controller

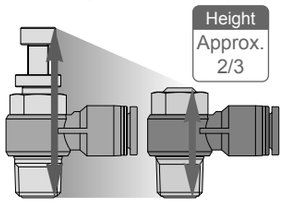
Characteristics

It prevents unnecessary manual adjustments during the operations.

Design without an external needle for flow adjustment.
Use a slot screwdriver to adjust the needle. (Flow adjustment)

Miniaturized.

Approx. 2/3 height of the Needle type.

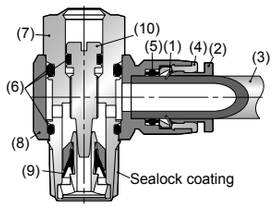


Specifications

Fluid medium	Air
Operating pressure range	0.1 to 0.9 MPa
Check valve opening pressure	0.05 MPa
Operating temp. range	0 to 60°C (No freezing)

Sectional drawing

Elbow type: JSDC



No,	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Polyurethane, Nylon, etc
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	O-ring	NBR
(7)	Metallic body (*1)	Nickel-plated brass
(8)	Resin body	PBT
(9)	Diaphragm	HNBR
(10)	Needle	Nickel-plated brass

*1. Metallic body with M3 thread is made of special stainless steel (Austenite or ferritic stainless steel).
*2. Gasket for metric or UNF thread : SUS304+NBR or SPCC+NBR for standard spec. POM for clean-room packaging.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code JSDCøD-R[5][6]	Applicable cylinder tube I.D. (mm)	Model code JSDCøD-R[5]U	Applicable cylinder tube I.D. (mm)	Type	Model code JSDSøD-R[5][6]	Applicable cylinder tube I.D. (mm)	Model code JSDSøD-R[5]U	Applicable cylinder tube I.D. (mm)
Elbow JSDC	JSDC3-M3[5][6]	ø16	JSDC1/8-U10[5]U	max. ø20	Free JSDS	JSDS3-M3[5][6]	ø16	JSDS1/8-U10[5]U	max. ø20
	JSDC3-M5[5][6]	ø20	JSDC5/32-U10[5]U	max. ø20		JSDS3-M5[5][6]	ø20	JSDS5/32-U10[5]U	max. ø20
	JSDC4-M3[5][6]	ø16	JSDC5/32-N1[5]U	max. ø32		JSDS4-M3[5][6]	ø16	JSDS5/32-N1[5]U	max. ø25
	JSDC4-M5[5][6]	ø20	JSDC1/4-U10[5]U	max. ø20		JSDS4-M5[5][6]	ø20	JSDS1/4-U10[5]U	max. ø20
	JSDC4-01[5][6]	ø32	JSDC1/4-N1[5]U	max. ø32		JSDS4-01[5][6]	ø25	JSDS1/4-N1[5]U	max. ø32
	JSDC6-M5[5][6]	ø20	JSDC1/4-N2[5]U	max. ø40		JSDS6-M5[5][6]	ø20	JSDS1/4-N2[5]U	max. ø40
	JSDC6-01[5][6]	ø32	JSDC1/4-N3[5]U	max. ø63		JSDS6-01[5][6]	ø32	JSDS1/4-N3[5]U	max. ø63
	JSDC6-02[5][6]	ø40	JSDC5/16-N1[5]U	max. ø32		JSDS6-02[5][6]	ø40	JSDS5/16-N1[5]U	max. ø32
	JSDC6-03[5][6]	ø63	JSDC5/16-N2[5]U	max. ø40		JSDS8-01[5][6]	ø32	JSDS5/16-N2[5]U	max. ø40
	JSDC8-01[5][6]	ø32	JSDC5/16-N3[5]U	max. ø63		JSDS8-02[5][6]	ø40	JSDS5/16-N3[5]U	max. ø63
	JSDC8-02[5][6]	ø40	JSDC5/16-N4[5]U	max. ø80		JSDS8-03[5][6]	ø63	JSDS5/16-N4[5]U	max. ø80
	JSDC8-03[5][6]	ø63	JSDC3/8-N2[5]U	max. ø40		JSDS10-02[5][6]	ø40	JSDS3/8-N2[5]U	max. ø42
	JSDC8-04[5][6]	ø80	JSDC3/8-N3[5]U	max. ø63		JSDS10-03[5][6]	ø63	JSDS3/8-N3[5]U	max. ø63
	JSDC10-02[5][6]	ø40	JSDC3/8-N4[5]U	max. ø100		JSDS12-03[5][6]	ø63	JSDS3/8-N4[5]U	max. ø100
	JSDC10-03[5][6]	ø63	JSDC1/2-N3[5]U	max. ø63		JSDS12-04[5][6]	ø100	JSDS1/2-N3[5]U	max. ø63
	JSDC10-04[5][6]	ø100	JSDC1/2-N4[5]U	max. ø100		JSDS1/8-M3[5][6]	ø16	JSDS1/2-N4[5]U	max. ø100
	JSDC12-03[5][6]	ø63				JSDS1/8-M5[5][6]	ø20		
	JSDC12-04[5][6]	ø100				JSDS1/4-M5[5]	ø20		
	JSDC1/8-M3[5][6]	ø16				JSDS1/4-01[5][6]	ø32		
	JSDC1/8-M5[5][6]	ø20				JSDS1/4-02[5][6]	ø40		
	JSDC1/4-M5[5][6]	ø20				JSDS5/16-01[5][6]	ø32		
	JSDC1/4-01[5][6]	ø32				JSDS5/16-02[5][6]	ø40		
	JSDC1/4-02[5][6]	ø40				JSDS5/16-03[5][6]	ø63		
	JSDC5/16-01[5][6]	ø32				JSDS3/8-02[5][6]	ø40		
	JSDC5/16-02[5][6]	ø40				JSDS3/8-03[5][6]	ø63		
	JSDC5/16-03[5][6]	ø63							
	JSDC3/8-02[5][6]	ø40							
	JSDC3/8-03[5][6]	ø63							

Notes
*1. For [5] in model code, please select a control direction code, "A" for Meter-out and "B" for Meter-in control.
*2. Applicable cylinder tube I.D. is based on the supply air pressure at 0.5MPa and cylinder speed at 500mm/sec.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options

Code	[6] : -C	[6] : W	[6] : W-C
Specifications	Clean-room package	Light-gray	Light-gray + Clean-room package

2-stage Speed Controller

2in1 Product

2-stage exhaust flow control valve with shock absorbing function (Patent no. 5578502)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

BJS (1) U (2) 6 (3)

(1) 2-stage Speed Controller

(2) Type
U : Union Straight

(3) Tube dia. (øD)

■Standard type

	mm size (mm)				inch size (inch)			
Code	4	6	8	10	5/32	1/4	5/16	3/8
Tube O.D.	ø4	ø6	ø8	ø10	ø5/32	ø1/4	ø5/16	ø3/8

■High-flow type

	mm size (mm)		
Code	4H	6H	8H
Tube O.D.	ø4	ø6	ø8

Model Designation of Accessory (Example)

BJSB (1) 6 (2)

(1) Bracket for 2-stage Speed Controller

(2) Applicable model size

Code	4	6	8	10
Applicable model code	BJSU4	BJSU6	BJSU8	BJSU10
	BJSU5/32	BJSU1/4	BJSU5/16	BJSU3/8
		BJSU4H	BJSU6H	BJSU8H

Characteristics

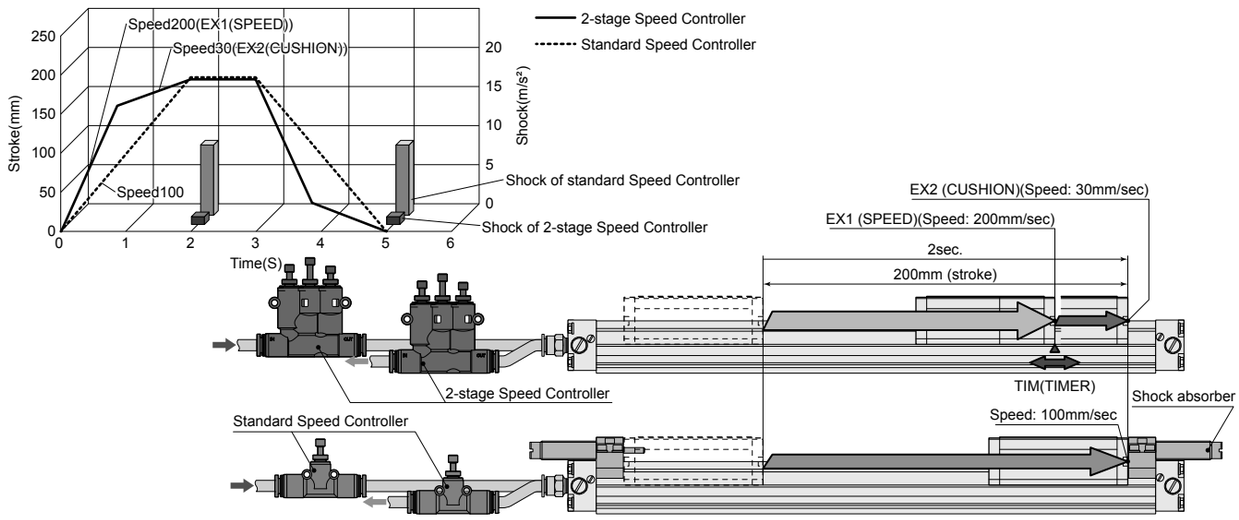
The function of a shock absorber is built in the Speed Controller for double-acting actuators.

Shock absorber is not required. With realized 2-stage exhaust flow adjustment, a similar control as a shock absorber becomes possible.

Adjustment of shock absorbing function is possible.

2-stage speeds and speed shift timing can be controlled by individual needles.
Example) In case of making impact 1/9 (Speed 1/3) with existing cycle time.

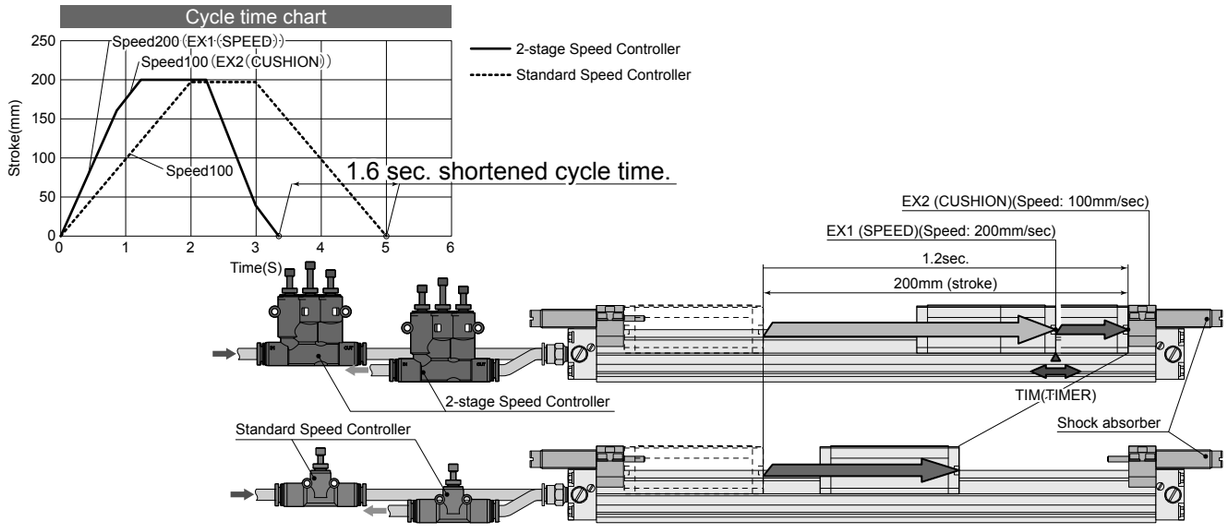
Shock absorbing effect chart



It is possible to shorten traveling (cycle) time as long as conventional shock absorbing (cushion) property is same.*

*Conventional shock absorbing property means shock absorbing by reducing the cylinder speed by a cylinder mounting type shock-absorber installed close to the stroke end.
e.g. Actuate 80% of cylinder stroke at the speed of twice as fast as the regular speed of a conventional standard speed controller, then actuate the last 20% of the stroke at the regular speed.

Cycle time chart



2-stage Speed Controller

High-flow type is available for tube size: ø4, ø6, ø8mm.

Large flow type can be used for applicable cylinder tube bore of one size up.

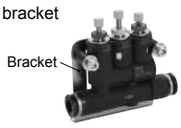
Adjustable the stroke of shock absorbing (cushion) property.

It is possible to apply the cushion property at the middle position of the cylinder that a shock absorber cannot reach.

Two fixing methods are selectable.

·Direct mounting

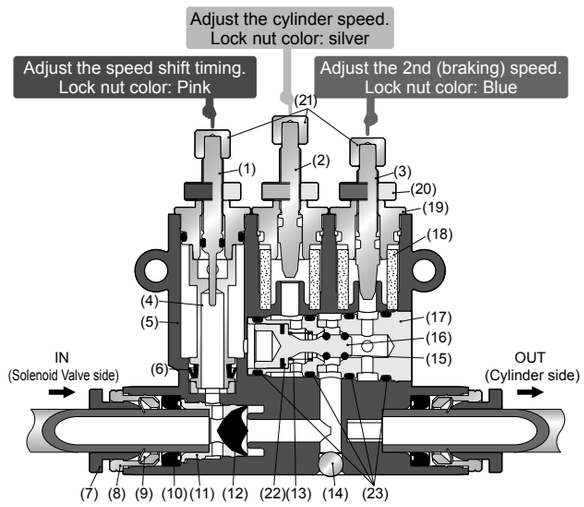
·Fixing with a bracket



Specifications

Fluid medium	Air
Operating pressure range	0.2 to 1.0 MPa
Operating temp. range	0 to 60°C(No freezing)

Sectional drawing



No.	Parts	Material
(1)	Timer (TIM) needle	Special stainless steel
(2)	Speed (EX1) needle	Nickel-plated brass
(3)	Cushion(EX2) needle	Nickel-plated brass
(4)	Inner ring	Nickel-plated brass
(5)	Resin body	PBT
(6)	Diaphragm	HNBR
(7)	Release-ring	POM
(8)	Guide ring	Nickel-plated brass
(9)	Lock claws	Stainless steel
(10)	Elastic sleeve	NBR
(11)	Valve retainer	Aluminum
(12)	Valve element	HNBR
(13)	Spring	Stainless steel
(14)	Stopper ball	Stainless steel
(15)	Main spool O-ring	HNBR
(16)	Main valve spool	Aluminum
(17)	Main spool guide	Aluminum
(18)	Silencer	PVF
(19)	Needle guide	Nickel-plated brass
(20)	Lock nut	Aluminum
(21)	Knob	Nickel-plated brass
(22)	Spool seal packing	HNBR(*)
(23)	Fixed O-ring	NBR

*NBR for BJSU6 and BJSU8.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code BJSUøD	Applicable cylinder tube I.D. (mm)
Union Straight BJSU	BJSU4	ø20
	BJSU6	ø25
	BJSU8	ø32
	BJSU10	ø50
	BJSU5/32	ø20
	BJSU1/4	ø25
	BJSU5/16	ø32
	BJSU3/8	ø50

Type	Model code BJSUøDH	Applicable cylinder tube I.D. (mm)
Union Straight High-flow type BJSU	BJSU4H	ø25
	BJSU6H	ø32
	BJSU8H	ø50

Accessory

Type	Model code
Bracket BJSB	BJSB4
	BJSB6
	BJSB8
	BJSB10

Notes

*1. Applicable max. cylinder tube bore is the max. bore when using with pressure supply: 0.5MPa and cylinder speed: 500mm/sec.

*2. Release-ring color: White for inch type

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Speed Controller SUS316

PISCO
>>> https://www.pisco.co.jp/en/

SUS316 Push-In fitting type flow control valve with corrosion resistance

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

SSJS	C	6	-	01	A	(6)	(7)	(8)
(1)	(2)	(3)		(4)	(5)			

■Identification

Speed Controller SUS316	Throttle (Needle) Valve SUS316
Marking on back	No marking on back

(1) Speed Controller SUS316

(2) Type
C : Elbow

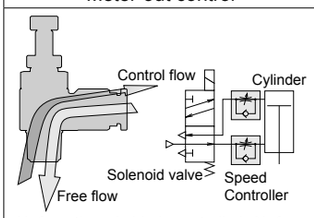
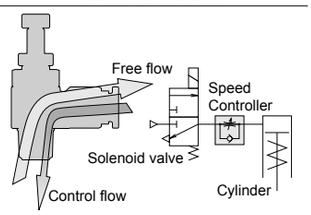
(3) Tube dia.(øD)

Code	4	6	8	10	12	16
Tube O.D. (mm)	ø4	ø6	ø8	ø10	ø12	ø16

(4) Thread size (R)

	Metric thread	Taper pipe thread			
Code	M5	01	02	03	04
Thread size	M5×0.8	R1/8	R1/4	R3/8	R1/2

(5) Control direction

Code	A	B
	Meter-out control	Meter-in control
Control direction	 Air from thread side is controlled. Air from tube side is not controlled and flows out from thread side	 Air from tube side is controlled. Air from thread side is not controlled and flows out from tube side.
Identification	Marking on back	
	A	B

(6) Grease specifications (Optional)

Code	No code	-X
Specifications	Oil-free (*1)	Fluorine-based grease (*2)

*1. Fluorine coating on rubber seals (FKM)
*2. Fluorochemical grease is applied on rubber seals (FKM)

(7) Sealing tape on thread (Optional) tapered thread only

Code	No code	-TP
Specifications	Without sealock or seal tape	Seal tape (Applying seal tape on the thread)

(8) Packaging specifications (Optional)

Code	No code	-C
Specifications	Standard package	Clean-room package

Characteristics

External parts are made of SUS316 stainless steel.
Best suitable for industries such as Food, Chemical, Medical and Semi-conductor manufacturing etc.

All parts used are free from oil.

The material of sealing rubber is FKM. *HNBR for diaphragm

External parts are Food Sanitation Act. compliant.
*Refer to page 6 for details

The same lock-claws system as tube fitting is adopted.

● Clean-room package specifications (Optional)

Best suitable for piping in clean environment.
Products are packed in a clean room equivalent to ISO class 6 after washed by clean air.

Speed Controller SUS316

Specifications

Fluid medium	Air
Operating pressure range	0.1 to 0.9 MPa
Check valve opening pressure	0.05MPa
Operating temp. range	-5 to 60°C(No freezing)

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code SSJSCøD-R5 6 7	Applicable cylinder tube I.D. (mm)
Elbow SSJSC øD R	SSJSC4-M5 5 6 8	ø20
	SSJSC4-01 5 6 7 8	ø32
	SSJSC6-M5 5 6 8	ø20
	SSJSC6-01 5 6 7 8	ø32
	SSJSC8-01 5 6 7 8	ø32
	SSJSC8-02 5 6 7 8	ø40
	SSJSC10-02 5 6 7 8	ø40
	SSJSC10-03 5 6 7 8	ø80
	SSJSC12-03 5 6 7 8	ø80
	SSJSC12-04 5 6 7 8	ø100
	SSJSC16-04 5 6 7 8	ø100

Notes
*1. For 5 in model code, please select a control direction code, "A" for Meter-out and "B" for Meter-in control.
*2. Applicable cylinder tube I.D. is based on the supply air pressure at 0.5MPa and cylinder speed at 500mm/sec.

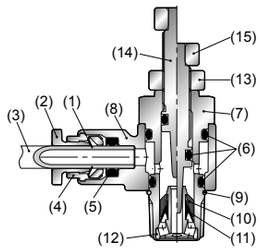
CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options

Code	6 : -X	7 : -TP	8 : -C
Specifications	Fluorine-based grease	Sealing tape	Clean-room package

Sectional drawing



No.	Parts	Material
(1)	Lock claws	SUS316
(2)	Release-ring	SUS316 (*1)
(3)	Tube	Any applicable PISCO tubing
(4)	Guide ring	SUS316
(5)	Elastic sleeve	FKM (*1)
(6)	O-ring	FKM (*1)
(7)	Metallic body	SUS316 (*2)
(8)	Fitting body	SUS316
(9)	C-ring	SUS316
(10)	Retainer	PBT
(11)	Diaphragm	HNBR
(12)	Core cylinder	Special stainless steel (Austenitic or Ferritic) (*3)
(13)	Lock nut	SUS316
(14)	Needle	SUS316
(15)	Knob	SUS316

*1. Fluorine coating
*2. Metric thread type comes with a gasket (SUS316+FKM) but there is no sealing tape nor sealock on the tapered pipe thread.
*3. Anti-corrosivity is equivalent to SUS303

Speed Controller SUS303 Equivalent Corrosivity

PISCO
>>> https://www.pisco.co.jp/en/

Push-in fitting type flow control valve SUS303 Equivalent Corrosivity

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

SJS (1) C (2) 6 (3) – 01 (4) A (5)

(1) Speed Controller SUS303 Equivalent Corrosivity

(2) Type
C : Elbow

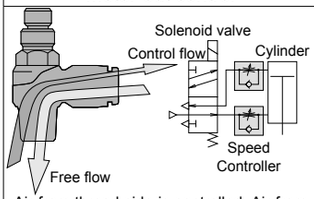
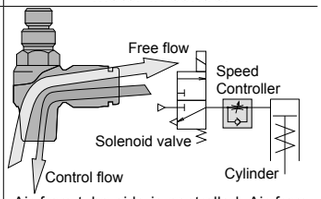
(3) Tube dia. (øD)

Code	4	6	8	10	12
Tube O.D. (mm)	ø4	ø6	ø8	ø10	ø12

(4) Thread size (R)

	Metric thread	Taper pipe thread			
Code	M5	01	02	03	04
Size	M5×0.8	R1/8	R1/4	R3/8	R1/2

(5) Control direction

Code	A	B
	Meter-out control	Meter-in control
Control direction	 Air from thread side is controlled. Air from tube side is not controlled and flows out from thread side	 Air from tube side is controlled. Air from thread side is not controlled and flows out from tube side.
Identification	Color of lock nut : Silver	Color of lock nut : Black

Characteristics

Stainless steel whose corrosion resistance is equivalent to SUS303 is adopted.

It is suitable where strength is required or corrosive environment by using special stainless steel.

No copper-based material is used for metal parts.

HNBR for seal rubber against low ozone concentration.

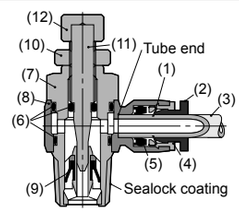
Specifications

Fluid medium	Air
Operating pressure range	0.1 to 0.9 MPa
Check valve opening pressure	0.05 MPa
Operating temp. range	0 to 60°C (No freezing)

Type	Model code SJSCøD-R□	Applicable cylinder tube I.D. (mm)
Elbow SJSC øD R	SJSC4-M5□	ø20
	SJSC4-01□	ø32
	SJSC6-M5□	ø20
	SJSC6-01□	ø32
	SJSC6-02□	ø40
	SJSC6-03□	ø63
	SJSC8-01□	ø32
	SJSC8-02□	ø40
	SJSC8-03□	ø63
	SJSC8-04□	ø100
	SJSC10-02□	ø40
	SJSC10-03□	ø63
	SJSC10-04□	ø100
	SJSC12-03□	ø63
	SJSC12-04□	ø100

RoHS2 (2011/65/EU+EU2015/863) compliant

Sectional drawing



No,	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Fluororesin (PFA), (FEP) or Polyamide, etc.
(4)	Guide ring	Special stainless steel (Austenite or ferritic) (*2)
(5)	Elastic sleeve	HNBR
(6)	O-ring	HNBR
(7)	Metallic body	Special stainless steel (Austenite or ferritic) (*1, 2)
(8)	Resin body	PBT
(9)	Diaphragm	HNBR
(10)	Lock nut	Special stainless steel (Austenite or ferritic) (*2)
(11)	Needle	Special stainless steel (Austenite or ferritic) (*2)
(12)	Knob	Special stainless steel (Austenite or ferritic) (*2)

*1. The gasket material of M5 thread is PPS.
*2. The corrosion resistance is equivalent to SUS303.

Notes
*1. For □ in model code, please select a control direction code, "A" for Meter-out and "B" for Meter-in control.
*2. Applicable cylinder tube I.D. is based on the supply air pressure at 0.5MPa and cylinder speed at 500mm/sec.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Non-standard options (page 893 for details)
· Resin body color change (Light-gray)
· Seal rubber options (FKM, EPDM)
· Copper free spec.
· Release-ring color change (Red)
►Contact us for the price.

Speed Controller PP

Polypropylene push-in fitting type flow control valve for clean environment

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

PJS	C	6	–	01	A	(6)	(7)	(8)	(9)
(1)	(2)	(3)		(4)	(5)				

(1) Speed Controller PP

(2) Type

Code	C	MU
Type	Elbow	Small Union Straight

(3) Tube dia.(øD)

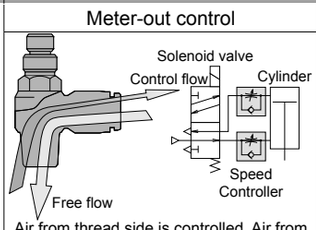
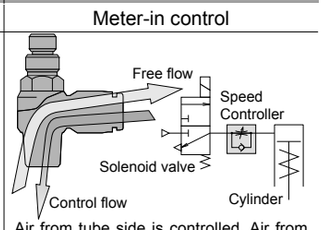
Code		mm size					inch size		
		4*1	6	8*1	10	12	1/4	3/8	1/2
Tube O.D.	mm	ø4	ø6	ø8	ø10	ø12	ø6.35	ø9.53	ø12.7
	inch	ø5/32	–	ø5/16	–	–	ø1/4	ø3/8	ø1/2

*1. Apply the code "4" for ø5/32in., and "8" for ø5/16in.
*2. Inch size is not selectable for elbow type.

(4) Thread size (R) (No code entry for Small Union Straight type)

Code	Metric thread		Taper pipe thread			
	M3	M5	01	02	03	04
Thread size	M3×0.5	M5×0.8	R1/8	R1/4	R3/8	R1/2

(5) Control direction (No code entry for Small Union Straight type)

Code	A	B
	Meter-out control	Meter-in control
Control direction	 Air from thread side is controlled. Air from tube side is not controlled and flows out from thread side	 Air from tube side is controlled. Air from thread side is not controlled and flows out from tube side.
Color of lock nut	Silver	Silver
Identification	Marking on needle : A (Low opening pressure type : AK)	Marking on needle : B (Low opening pressure type : BK)

(6) Low cracking pressure type

Code	No code	K
Specifications	Standard specification	Low cracking pressure type (Check valve opening pressure: 0.02MPa, Operating pressure range: 0.05 to 0.5MPa)

*1. K is not selectable for rubber seal of FKM and HNBR.
*2. Standard Small Union Straight tpe works with low cracking pressure.

(7) Seal rubber material (Optional)

Code	No code	–F	–HN
Material	EPDM	FKM	HNBR

*Check valve packings of Small Union Straight type are all made of FKM.

(8) Sealing spec. (Optional) (Taper thread only) (No code entry for Small Union Straight type)

Code	No code	–S	–TP
Specifications	Without sealock or seal tape	Sealock coating	Seal tape applied (Applying seal tape on thread)

(9) Packaging option

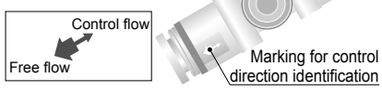
Code	No code	–C
Specifications	Standard package	Clean-room package

Characteristics

- PP (Polypropylene) is applied for the body material to adapt to clean environment.
- Visible fluid by Clear (semitransparent) body color.
- It is compatible with special specifications of sealing rubber material.
  Sealing rubber material can be changed from standard EPDM to FKM or HNBR depending on applications.
- Seal tape or Sealock coating can be selectable as optional.
  *Available only for Elbow type.
- Food Sanitation Act. compliant (Not compatible with Sealock specifications)
  *Refer to page 6 for details.

● Small Union straight

- The check valve operates at a low pressure of 0.005MPa.
- Easier to identify the control direction.
  A marking on the top of resin body (needle side) indicates the control direction.



● Clean-room package (Optional)

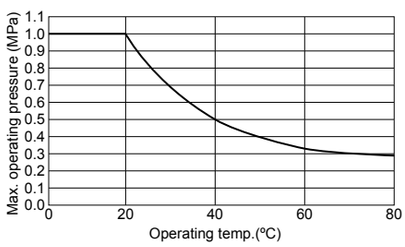
- Best suitable for piping in clean environment.
  Products are packed in a clean room equivalent to ISO class 6 after washed by clean air.

Specifications

Type	Elbow	Small Union Straight
Fluid medium	Air, other *1	
Operating pressure range	0.1 to 1.0 MPa (at 0 to 20˚C)*2 (Low cracking press. type: 0.05 to 0.5 MPa)	0.05 to 1.0 MPa (at 0 to 20˚C)*2
Check valve opening pressure	0.05 MPa (Low cracking press. type: 0.02 MPa)	0.005 MPa
Operating temp. range	0 to 80°C (No freezing)	

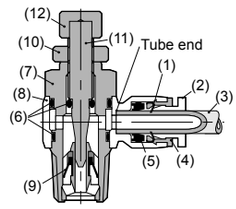
⚠Warning *1. The specification above may not be applied, depending on the kind of mixed gasses and others used as fluid medium. Contact us and make sure to use PISCO products after verifying their suitability on the user side.
*2. If operating temp. exceeds 20°C, refer to the following chart "Relation of Operating Temp. & Max. Operating Pressure".

Relation of Operating Temp. & Max. Operating Pressure



Sectional drawing

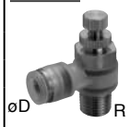
Elbow type: PJSC



No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	PP
(3)	Tube	Clean-room packaging spec, etc.
(4)	Guide ring	SUS304
(5)	Elastic sleeve	EPDM
(6)	O-ring	EPDM
(7)	Metallic body	SUS304
(8)	Resin body	PP
(9)	Diaphragm	EPDM
(10)	Lock nut	SUS304
(11)	Needle	SUS304
(12)	Knob	SUS304

*The gasket material of M3 or M5 thread is SUS316 + FKM. Refer to following for gasket materials.
Seal rubber material EPDM (standard specification): SUS316 + FKM
Seal rubber material FKM: SUS316 + FKM
Seal rubber material HNBR: SUS304 + HNBR

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code PJSCøD-R5789	Applicable cylinder tube I.D. (mm)
Elbow PJSC 	PJSC4-M3579	ø16
	PJSC4-M35K79	
	PJSC4-M5579	ø20
	PJSC4-M55K79	
	PJSC4-015789	ø32
	PJSC4-015K789	
	PJSC6-M5579	ø20
	PJSC6-M55K78	
	PJSC6-015789	ø32
	PJSC6-015K789	
	PJSC6-025789	ø40
	PJSC6-025K789	
	PJSC6-035789	ø63
	PJSC8-015789	ø32
	PJSC8-015K789	
	PJSC8-025789	ø40
	PJSC8-025K789	
	PJSC8-035789	ø63
	PJSC8-045789	ø100
	PJSC10-025789	ø40
	PJSC10-025K789	
	PJSC10-035789	ø63
	PJSC10-045789	ø100
	PJSC12-035789	ø63
	PJSC12-045789	ø100

Type	Model code PJSMUøD79	Applicable cylinder tube I.D. (mm)
Small Union Straight PJSMU	PJSMU479	ø20
	PJSMU679	ø32
	PJSMU879	ø50
	PJSMU1079	ø63
	PJSMU1279	ø80
	PJSMU1/479	ø32
	PJSMU3/879	ø63
	PJSMU1/279	ø80

Notes
*1. For 5 in model code, please select a control direction code, "A" for Meter-out and "B" for Meter-in control.
*2. Low cracking pressure type is not selectable for rubber seal of HNBR and FKM.
*3. Apply øD code "4" for 5/32in., and "8" for 5/16in.
*4. Applicable cylinder tube I.D. is based on the supply air pressure at 0.5MPa and cylinder speed at 500mm/sec.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options

Code	7 : -F	7 : -HN	8 : -S	8 : -TP	9 : -C
Specifications	Seal rubber FKM	Seal rubber HNBR	Sealock (*)	Seal tape (*)	Cleam-room package

*Sealock coating and sealing tape spec. are not available for metric thread.

Speed Controller Anti-spatter

Spatter-proof push-in fitting type flow control valve

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

JS	C	6	–	01	A	(6)	V–0
(1)	(2)	(3)		(4)	(5)		(7)

(1) Speed Controller

(2) Type
C : Elbow

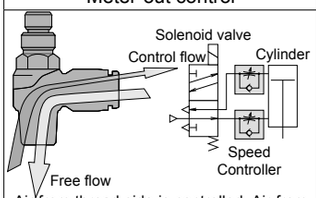
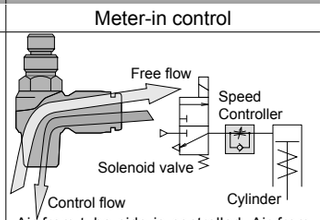
(3) Tube dia. (øD)

Code	4	6	8	10	12
Tube O.D. (mm)	ø4	ø6	ø8	ø10	ø12

(4) Thread size (R)

	Metric thread	Taper pipe thread			
Code	M5	01	02	03	04
Thread size	M5×0.8	R1/8	R1/4	R3/8	R1/2

(5) Control direction

Code	A	B
	Meter-out control	Meter-in control
Control direction	 Air from thread side is controlled. Air from tube side is not controlled and flows out from thread side	 Air from tube side is controlled. Air from thread side is not controlled and flows out from tube side.
Identification	Color of lock nut : Silver	Color of lock nut : Black

(6) Low cracking pressure type

Code	No code	K
Specifications	Standard specification	Low cracking pressure type (Check valve opening pressure: 0.02MPa, Operating pressure range: 0.05 to 0.5MPa)

(7) Resin material
V–0 : Flame-retardant resin

►UL94 V-0…
UL94 is specified by Underwriters Laboratories Inc. and classified into V-0, V-1, V-2 and HB depending on self-extinguishing materials. V-0 is the highest requirement class.

Related products

Anti-spatter Tube (Flame resistant) ► P.108

Tube Stripper for Anti-spatter tube ► P.114

Characteristics

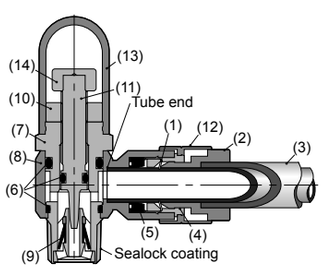
Flame-retardant resin (Equivalent to UL94 V-0) is applied for the body material to adapt to spatter environment.

Protective Cover at both needle and joint parts to protect from sparks.

Specifications

Fluid medium	Air
Max. operating pressure	0.1 to 0.9 MPa (Low cracking pressure type: 0.05 to 0.5MPa)
Check valve opening pressure	0.05 MPa (Low cracking pressure type: 0.02MPa)
Operating temp. range	0 to 60°C (No freezing)

Sectional drawing



No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	Flame-retardant resin
(3)	Tube	Anti-spatter tube
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	O-ring	NBR
(7)	Metallic body	Nickel-plated brass
(8)	Resin body	Flame-retardant resin
(9)	Diaphragm	HNBR
(10)	Lock nut	Aluminum
(11)	Needle	Nickel-plated brass
(12)	Cover	Flame-retardant resin
(13)	Cover	Flame-retardant resin
(14)	Knob	Nickel-plated brass

*The gasket material of M5 thread is SPCC + NBR.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code JSCøD-R5(K)V-0	Applicable cylinder tube I.D. (mm)
Elbow	JSC4-M55V-0	ø20
	JSC4-M55KV-0	ø16
	JSC4-0155V-0	ø32
	JSC4-0155KV-0	
	JSC6-M55V-0	ø20
	JSC6-M55KV-0	ø16
	JSC6-0155V-0	ø32
	JSC6-0155KV-0	
	JSC6-0255V-0	ø40
	JSC6-0255KV-0	
	JSC6-0355V-0	ø63
	JSC8-0155V-0	ø32
	JSC8-0155KV-0	
	JSC8-0255V-0	ø40
	JSC8-0255KV-0	
	JSC8-0355V-0	ø63
	JSC8-0455V-0	ø100
	JSC10-0255V-0	ø40
	JSC10-0255KV-0	
	JSC10-0355V-0	ø63
	JSC10-0455V-0	ø100
	JSC12-0355V-0	ø63
	JSC12-0455V-0	ø100

Notes
*1. For 5 in model code, please select a control direction code, "A" for Meter-out and "B" for Meter-in control.
*2. Applicable cylinder tube I.D. is based on the supply air pressure at 0.5MPa and cylinder speed at 500mm/sec.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Speed Controller Brass

PISCO

>>> https://www.pisco.co.jp/en/

Push-in fitting type brass flow control valve for use in environments of high heat and weld spatters

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

KJS C 6 - 01 A (6) (7)
(1) (2) (3) (4) (5)

(1) Speed Controller Brass

(2) Type
C : Elbow

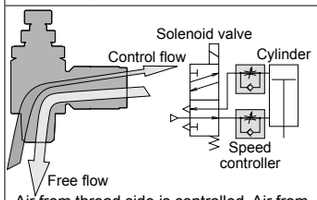
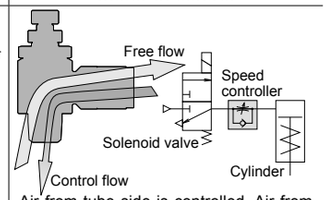
(3) Tube dia. (øD)

Code	4	6	8	10	12
Tube O.D. (mm)	ø4	ø6	ø8	ø10	ø12

(4) Thread size (R)

	Metric thread	Taper pipe thread			
Code	M5	01	02	03	04
Thread size	M5×0.8	R1/8	R1/4	R3/8	R1/2

(5) Control direction

Code	A	B
	Meter-out control	Meter-in control
Control direction	 Air from thread side is controlled. Air from tube side is not controlled and flows out from thread side	 Air from tube side is controlled. Air from thread side is not controlled and flows out from tube side.
Identification	Marking on needle : A	Marking on needle : B

(6) Cover option

Code	No code	-1
Cover	With cover	Without cover

(7) Seal rubber material (Optional)

Code	No code	-F
Material	HNBR	FKM

Characteristics

Best suitable for high heat and spatter environments.

HNBR is used for seal material.

FKM specifications are also available as an option.

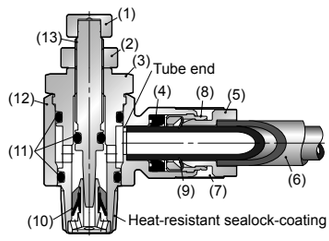
Invasion of tiny weld spatter can be shut out by using Release-ring cover.

Avoiding invasion of tiny spatter from between release-ring and tube by using Release-ring cover (CS: refer to Tube Fitting Brass Series) which is separately sold.

Specifications

Fluid medium	Air	
Operating pressure range	0.1 to 1.0 MPa (at 20°C in the operating environment and fluid temperature)	
Check valve opening pressure	0.05 MPa	
Operating temp. range	HNBR specification: 0 to 100°C (No freezing)	FKM specification: 0 to 120°C (No freezing)

Sectional drawing



No.	Parts	Material
(1)	Knob	Nickel-plated brass
(2)	Lock nut	Nickel-plated brass
(3)	Thread body	Nickel-plated brass
(4)	Elastic sleeve	HNBR(Standard specification)
(5)	Release-ring	Nickel-plated brass
(6)	Tube	Anti-spatter tube, etc
(7)	Cover	Nickel-plated brass
(8)	Guide ring	Nickel-plated brass
(9)	Lock claws	Stainless steel
(10)	Diaphragm	HNBR(Standard specification)
(11)	O-ring	HNBR(Standard specification)
(12)	Metallic body	Nickel-plated brass
(13)	Needle	Nickel-plated brass

*The gasket material of M5 thread is SUS316 + FKM.

Speed Controller Brass

RoHS2 (2011/65/EU+EU2015/863) compliant

With cover			Without cover		
Type	Model code KJSCøD-R[5][7]	Applicable cylinder tube I.D. (mm)	Type	Model code KJSCøD-R[5]-1[7]	Applicable cylinder tube I.D. (mm)
Elbow KJSC øD R	KJSC4-M5[5][7]	ø20	Elbow KJSC øD R	KJSC4-M5[5]-1[7]	ø20
	KJSC4-01[5][7]	ø32		KJSC4-01[5]-1[7]	ø32
	KJSC6-M5[5][7]	ø20		KJSC6-M5[5]-1[7]	ø20
	KJSC6-01[5][7]	ø32		KJSC6-01[5]-1[7]	ø32
	KJSC6-02[5][7]	ø40		KJSC6-02[5]-1[7]	ø40
	KJSC6-03[5][7]	ø63		KJSC6-03[5]-1[7]	ø63
	KJSC8-01[5][7]	ø32		KJSC8-01[5]-1[7]	ø32
	KJSC8-02[5][7]	ø40		KJSC8-02[5]-1[7]	ø40
	KJSC8-03[5][7]	ø63		KJSC8-03[5]-1[7]	ø63
	KJSC10-02[5][7]	ø40		KJSC10-02[5]-1[7]	ø40
	KJSC10-03[5][7]	ø63		KJSC10-03[5]-1[7]	ø63
	KJSC10-04[5][7]	ø100		KJSC10-04[5]-1[7]	ø100
	KJSC12-03[5][7]	ø63		KJSC12-03[5]-1[7]	ø63
	KJSC12-04[5][7]	ø100		KJSC12-04[5]-1[7]	ø100

Type	Model code CSøD	Image of installing release ring cover
Release-ring cover CS øD	CS6	
	CS8	
	CS10	
	CS12	

Notes
*1. For [5] in model code, please select a control direction code, "A" for Meter-out and "B" for Meter-in control.
*2. Applicable cylinder tube I.D. is based on the supply air pressure at 0.5MPa and cylinder speed at 500mm/sec.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag
10 pcs. /bag: Release-ring cover

Options
[7]: -F ⇒ Seal rubber material FKM specification

Orifice Flow Speed Controller

PISCO

>>> https://www.pisco.co.jp/en/

Push-in fitting type fixed-orifice flow control valve

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

JK (1) C (2) 6 (3) – 01 (4) A (5) 0.7 (6)

(1) Orifice Flow Speed Controller **(2) Type**

Code	C	L
Type	Straight	Elbow

(3) Tube dia. (øD)

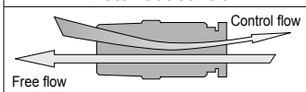
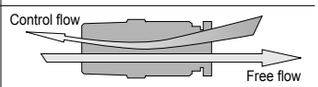
	mm size (mm)			inch size (inch)	
Code	4	6	8	5/32	1/4
Tube O.D.	ø4	ø6	ø8	ø5/32	ø1/4

(4) Thread size (R)

	Taper pipe thread		UNF Thread	NPT Thread	
Code	01	02	U10U	N1U	N2U
Thread size	R1/8	R1/4	10-32UNF	NPT1/8	NPT1/4

*Only R1/8 is available for tube dia. ø4mm.

(5) Control direction

Code	A	B
	Meter-out control	Meter-in control
Control direction	 Air from thread side is controlled. Air from tube side is not controlled and flows out from thread side	 Air from tube side is controlled. Air from thread side is not controlled and flows out from tube side.
Identification	Marking on metallic body : A	Marking on metallic body : B

(6) Orifice bore (○: Available)

Code (Orifice bore (mm))	0.1*	0.2*	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0
U10	○	○	○	○	○	○	○	○	○	○	–	–	–	–	–	–	–	–	–	–
01(N1)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	–	–	–	–	–
02(N2)	–	–	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

*Orifice bore 0.1 and 0.2mm are selectable only for tube dia. ø4mm and 5/32".

Characteristics

No variable mechanism of control flow rate.

For the first purchase, please contact us. Orifice samples are available and suitable orifice bore is selectable. Please note that it is not possible to change the flow rate after purchasing.

Various line-up

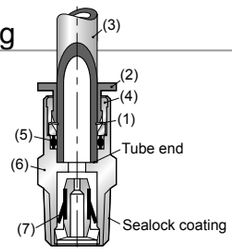
Orifice bore 0.1 and 0.2mm are prepared only for tube dia. ø4mm and 5/32".

Specifications

Fluid medium	Air
Operating pressure range	0.1 to 0.9 MPa
Check valve opening pressure	0.05 MPa
Operating temp. range	0 to 60°C (No freezing)

Sectional drawing

Straight type: JKC ø4,ø6mm



No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Polyurethane, Nylon, etc
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	Metallic body	Nickel-plated brass
(7)	Diaphragm	HNBR

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code JKCøD-R5 6	Model code JKCøD-R5U6	Type	Model code JKLøD-R5 6	Model code JKLøD-R5U6
Straight JKC	JKC4-01 5 0.1	JKC5/32-U10 5 U6	Elbow JKL	JKL4-01 5 0.1	JKL5/32-U10 5 U6
	JKC4-01 5 0.2	JKC5/32-N1 5 U0.1		JKL4-01 5 0.2	JKL5/32-N1 5 U0.1
	JKC4-01 5 6	JKC5/32-N1 5 U0.2		JKL4-01 5 6	JKL5/32-N1 5 U0.2
	JKC6-01 5 6	JKC5/32-N1 5 U6		JKL6-01 5 6	JKL5/32-N1 5 U6
	JKC6-02 5 6	JKC1/4-N1 5 U6		JKL6-02 5 6	JKL1/4-N1 5 U6
	JKC8-01 5 6	JKC1/4-N2 5 U6		JKL8-01 5 6	JKL1/4-N2 5 U6
	JKC8-02 5 6			JKL8-02 5 6	

Notes
*For 5 in model code, please select a control direction code, for 6, at the end of model code, please select a orifice bore code.

CAD 2D 3D CAD data is available at PISCO website.

Package Packaging specifications
1 pc. /bag

Throttle (Needle) Valve

Push-in fitting type needle valve

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

JN (1) C (2) 6 (3) – 01 (4) (5) (6)

(1) Throttle (Needle) Valve

(2) Type

Code	C	S	MU
Type	Elbow	Free	Small Union Straight

(3) Tube dia. (øD)

	mm size (mm)					inch size (inch)					
Code	4	6	8	10	12	5/32	3/16	1/4	5/16	3/8	1/2
Tube O.D.	ø4	ø6	ø8	ø10	ø12	ø5/32	ø3/16	ø1/4	ø5/16	ø3/8	ø1/2

(4) Thread size (R) (No entry for Small Union Straight type)

	Metric thread	Taper pipe thread				Unified fine thread	National pipe therad tapered			
Code	M5	01	02	03	04	U10	N1	N2	N3	N4
Thread size	M5×0.8	R1/8	R1/4	R3/8	R1/2	10-32UNF	NPT1/8	NPT1/4	NPT3/8	NPT1/2

(5) Body color + Packaging option (Optional)

Code	No code	-C	W	W-C
Specifications	Standard	Clean-room package	Light-gray	Light-gray & Clean-room
Appearance spec.				
Release-ring color*2	Black	Light-blue	Light-gray	Light-gray
Resin body color	Black	Light-gray		

*1. Release-ring color is white for all spec. of inch-size products.
*2. There is no option "W-C" for inch-size product since it is the same product as "-C".

Code : **No code** (inch)

Code : **-C, W** (inch)

(6) Wrench size specification

Code	No code	U
Wrench size spec.	mm spec.	inch spec.

Characteristics

Controls the operation speed of a pneumatic device and the transmission of air pressure signals.

The flow rate can be adjusted while the air is flowing.

● Clean-room package (optional)

Best suitable for piping in clean environment.

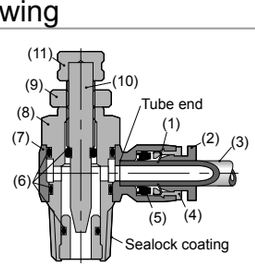
Fluorine-based grease is applied. Washed by clean air and packed in ISO class 6 equivalent clean-room.

Specifications

Type	Elbow, Free	Small Union Straight
Fluid medium	Air	
Max. operating pressure	0.9 MPa	1.0 MPa
Max. vacuum	-100 kPa	
Operating temp. range	0 to 60°C (No freezing)	

Sectional drawing

Elbow type : JNC



No,	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Polyurethane, Nylon, etc
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	O-ring	NBR
(7)	Resin body	PBT
(8)	Metallic body	Nickel-plated brass
(9)	Lock nut	Aluminum
(10)	Needle	Nickel-plated brass
(11)	Knob	Nickel-plated brass

*The gasket of M or UNF thread is made of SUS304 + NBR or SPCC + NBR, but it is made of POM if the needle valve is clean-room package specification.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code JNCøD-R5(U)
Elbow JNC 	JNC4-M55
	JNC4-015
	JNC6-M55
	JNC6-015
	JNC6-025
	JNC8-015
	JNC8-025
	JNC8-035
	JNC10-025
	JNC10-035
	JNC12-035
	JNC12-045
	JNC1/4-M55
	JNC1/4-015
	JNC1/4-025
	JNC5/16-015
	JNC5/16-025
	JNC5/16-035
	JNC3/8-025
	JNC3/8-035
	JNC1/8-U10U
	JNC5/32-U10U
	JNC5/32-N1U
	JNC3/16-U10U
	JNC3/16-N1U
	JNC3/16-N2U
	JNC1/4-U10U
	JNC1/4-N1U
	JNC1/4-N2U
	JNC1/4-N3U
	JNC5/16-N1U
	JNC5/16-N2U
	JNC5/16-N3U
	JNC3/8-N2U
	JNC3/8-N3U
	JNC1/2-N3U
	JNC1/2-N4U

Type	Model code JNSøD-R5(U)
Free JNS øD 	JNS4-M55
	JNS4-015
	JNS6-M55
	JNS6-015
	JNS6-025
	JNS8-015
	JNS8-025
	JNS8-035
	JNS10-025
	JNS10-035
	JNS12-035
	JNS12-045
	JNS1/4-M55
	JNS1/4-015
	JNS1/4-025
	JNS5/16-015
	JNS5/16-025
	JNS5/16-035
	JNS3/8-025
	JNS3/8-035
	JNS5/32-U10U
	JNS5/32-N1U
	JNS3/16-U10U
	JNS3/16-N1U
	JNS3/16-N2U
	JNS1/4-U10U
	JNS1/4-N1U
	JNS1/4-N2U
	JNS5/16-N1U
	JNS5/16-N2U
	JNS5/16-N3U
	JNS3/8-N2U
	JNS3/8-N3U
	JNS1/2-N3U
	JNS1/2-N4U

Type	Model code JNMUøD5
Small Union Straight JNMU 	JNMU45
	JNMU65
	JNMU85
	JNMU105
	JNMU125
	JNMU5/325
	JNMU1/45
	JNMU5/165
	JNMU3/85
	JNMU1/25

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options

Code	5 : -C	5 : W	5 : W-C
Specifications	Cleam-room package	Light-gray	Light-gray & Clean-room package

Non-standard options (Refer to page 893 for details)
· Seal rubber options (FKM, EPDM, HNBR)
· Copper free spec.
· Release ring color change (Red)
►Contact us for the price.

Throttle (Needle) Valve SUS316

SUS316 Push-In fitting type needle valve with corrosion resistance

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

SSJN (1) C (2) 6 (3) – 01 (4) (5) (6) (7)

(1) Throttle (Needle) Valve SUS316

(2) Type
C : Elbow

(3) Tube dia. (øD)

Code	4	6	8	10	12	16
Tube O.D. (mm)	ø4	ø6	ø8	ø10	ø12	ø16

(4) Thread size (øR)

Code	01	02	03	04
Size	R1/8	R1/4	R3/8	R1/2

(5) Grease specifications (Optional)

Code	No code	-X
Specifications	Oil-free (*1)	Fluorine-based grease (*2)

*1. Fluorine coating on rubber seals (FKM)
*2. Fluorochemical grease is applied on rubber seals (FKM)

(6) Thread sealing specification (Optional)

Code	No code	-TP
Specifications	Without sealock or seal tape	Seal tape applied (Applying seal tape on the thread)

(7) Packaging specification (Optional)

Code	No code	-C
Specifications	Standard package	Clean-room package

■ Identification

Speed Controller SUS316	Throttle (Needle) Valve SUS316
Marking on back	No marking

Characteristics

- **All metal parts are made of SUS316 stainless steel.**
  Best suitable for industries such as Food, Chemical, Medical and Semi-conductor manufacturing etc.
- **All parts are oil-free specification.**
- **The material of sealing rubber is FKM.**
- **The same lock-claws system as tube fitting is adopted.**
  Easier to disconnect tube compared with conventional product.
- **Achieved downsizing compared with conventional product.**
- **Food Sanitation Act. compliant.** *Refer to page 6 for details.

● Clean-room package (optional)

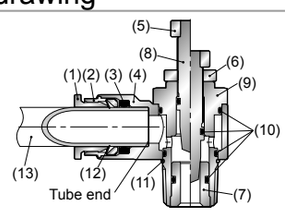
- **Best suitable for piping in clean environment.**
  Products are packed in a clean room equivalent to ISO class 6 after washed by clean air.

Specifications

Fluid medium	Air, Water, Other chemicals (Conditional*)
Max. operating pressure	1.0 MPa
Max. vacuum	-100 kPa
Operating temp. range	-5 to 150°C (No freezing)

⚠Warning *When the fluid medium is water or other chemicals, be sure to read and follow the conditions below.
1. Surge pressure must be controlled lower than max. operating pressure when using water or liquid as a fluid medium.
2. Tap water in Japan, which is soft water (low mineral content) can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
3. Be sure to place Insert Ring (WR) into the tube edge when using water or liquid as a fluid medium.
4. The specification above may not be applied, depending on the kind of chemicals or mixed gases used as a fluid medium. Make sure to use PISCO products after verifying their suitability on the user side.

Sectional drawing



No,	Parts	Material
(1)	Release-ring	SUS316 (*1)
(2)	Guide ring	SUS316
(3)	Elastic sleeve	FKM (*1)
(4)	Fitting body	SUS316
(5)	Knob	SUS316
(6)	Lock nut	SUS316
(7)	Core cylinder	SUS316
(8)	Needle	SUS316
(9)	Metallic body	SUS316 (*2)
(10)	O-ring	FKM (*1)
(11)	C-ring	SUS316
(12)	Lock claws	SUS316
(13)	Tube	Any applicable PISCO tubing

*1. Fluorine coating
*2. There is no sealock on the thread.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code SSNCøD-R[5][6][7]
Elbow SSJNC øD R	SSJNC4-01[5][6][7]
	SSJNC6-01[5][6][7]
	SSJNC8-01[5][6][7]
	SSJNC8-02[5][6][7]
	SSJNC10-02[5][6][7]
	SSJNC10-03[5][6][7]
	SSJNC12-03[5][6][7]
	SSJNC12-04[5][6][7]
	SSJNC16-04[5][6][7]

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options

Code	[5] : -X	[6] : -TP	[7] : -C
Specifications	Fluorine-based grease	Seal tape	Clean-room package

PP resin push-in fitting type needle valve for clean environment
(SUS304 for metal part)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

PJN (1) C (2) 6 (3) – 01 (4) (5) (6) (7)

(1) Throttle (Needle) Valve PP

(2) Type

Code	C	MU
Type	Elbow	Small Union Straight

(3) Tube dia. (øD)

Code		mm size					inch size		
		4*1	6	8*1	10	12	1/4	3/8	1/2
Tube O.D.	mm	ø4	ø6	ø8	ø10	ø12	ø6.35	ø9.53	ø12.7
	inch	ø5/32	–	ø5/16	–	–	ø1/4	ø3/8	ø1/2

*1. Apply the code "4" for ø5/32in., and "8" for ø5/16in.
*2. Inch size is not selectable for elbow type.

(4) Thread size (R) (No code entry for Small Union Straight type)

Code	Metric thread	Taper pipe male thread			
	M5	01	02	03	04
Thread size	M5×0.8	R1/8	R1/4	R3/8	R1/2

(5) Seal rubber material (Optional)

Code	No code	-F	-HN
Material	EPDM	FKM	HNBR

(6) Sealing spec. (Optional) (Taper thread only) (No code entry for Small Union Straight type)

Code	No code	-S	-TP
Specifications	Without sealock or seal tape	Sealock coating	Seal tape applied (Applying seal tape on the thread)

(7) Packaging option (Optional)

Code	No code	-C
Specifications	Standard package	Clean-room package

Characteristics

PP (Polypropylene) is applied for the body material to adapt to clean environment.

All parts are oil-free specification, which responds to a wide variety of request in various industries.
Metal parts are made of SUS304 and EPDM is used for seal material.

Food Sanitation Act. compliant
*Refer to page 6 for details.

Visible fluid by Clear (semitransparent) body color.
Easy to check the sanitary condition.

Special specification of seal rubber material is available.
Sealing rubber material can be changed from standard EPDM to FKM or HNBR depending on applications.

Seal tape or Sealock coating can be selectable as optional.

● Clean-room package (optional)

Best suitable for piping in clean environment.
Products are packed in a clean room equivalent to ISO class 6 after washed by clean air.

Throttle (Needle) Valve PP

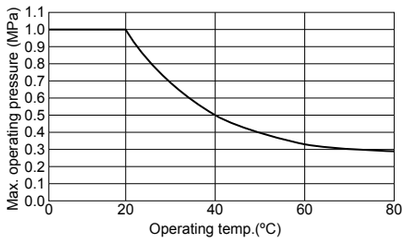
Specification

Fluid medium	Air, Water, Other chemicals (Conditional*1)
Max. operating pressure	1.0 MPa (at 0 to 20°C) *2
Max. vacuum	-100 kPa
Operating temp. range	0 to 80°C (No freezing)

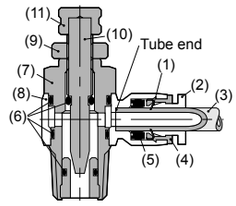
⚠Warning *1. When the fluid medium is water or other chemicals, be sure to read and follow the conditions below.
1. Surge pressure must be controlled lower than max. operating pressure when using water or liquid as a fluid medium.
2. Tap water in Japan, which is soft water (low mineral content) can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
3. Be sure to place Insert Ring (WR) into the tube edge when using water or liquid as a fluid medium.
4. The specification above may not be applied, depending on the kind of chemicals or mixed gases used as a fluid medium. Make sure to use PISCO products after verifying their suitability on the user side.

*2. If operating temp. exceeds 20°C, refer to the following chart "Relation of Operating Temp. & Max. Operating Pressure".

Relation of Operating Temp. & Max. Operating Pressure



Sectional drawing



No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	PP
(3)	Tube	Clean-room packaging spec, etc.
(4)	Guide ring	SUS304
(5)	Elastic sleeve	EPDM
(6)	O-ring	EPDM
(7)	Metallic body	SUS304
(8)	Resin body	PP
(9)	Lock nut	SUS304
(10)	Needle	SUS304
(11)	Knob	SUS304

*The gasket material of M5 thread is SUS316 + FKM.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code PJNCøD-R5 6 7	Type	Model code PJNMUøD5 7
Elbow PJNC	PJNC4-M5 5 7	Small Union Straight PJNMU	PJNMU4 5 7
	PJNC4-01 5 6 7		PJNMU6 5 7
	PJNC6-M5 5 7		PJNMU8 5 7
	PJNC6-01 5 6 7		PJNMU10 5 7
	PJNC6-02 5 6 7		PJNMU12 5 7
	PJNC6-03 5 6 7		PJNMU1/4 5 7
	PJNC8-01 5 6 7		PJNMU3/8 5 7
	PJNC8-02 5 6 7		PJNMU1/2 5 7
	PJNC8-03 5 6 7		
	PJNC8-04 5 6 7		
	PJNC10-02 5 6 7		
	PJNC10-03 5 6 7		
	PJNC10-04 5 6 7		
	PJNC12-03 5 6 7		
	PJNC12-04 5 6 7		

Notes
*Apply øD code “4” for 5/32in., and “8” for 5/16in.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options

Code	5 : -F	5 : -HN	6 : -S	6 : -TP	7 : -C
Specifications	Seal rubber FKM	Seal rubber HNBR	Sealock coating	Sealing tape applied	Clean-room package

*Sealock coating and sealing tape spec. are not available for metric thread.

Throttle (Needle) Valve Brass

Push-in fitting type brass needle valve for use in environments of high heat and weld spatters

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

KJN (1) C (2) 6 (3) – 01 (4) (5) (6)

(1) Throttle (Needle) Valve Brass

(2) Type
C : Elbow

(3) Tube dia. (øD)

Code	4	6	8	10	12
Tube O.D. (mm)	ø4	ø6	ø8	ø10	ø12

(4) Thread size (R)

	Metric thread	Taper pipe male thread			
Code	M5	01	02	03	04
Thread size	M5×0.8	R1/8	R1/4	R3/8	R1/2

(5) Cover

Code	No code	–1
Cover	With cover	Without cover

(6) Seal rubber material (Optional)

Code	No code	–F
Materials	HNBR	FKM

Characteristics

Best suitable for high heat and spatter environments.

HNBR is used for seal material.
FKM specifications are also available as an option.

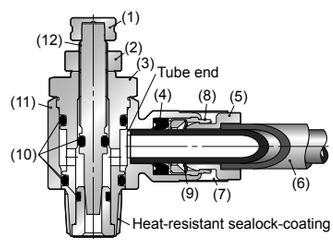
Invasion of tiny weld spatter can be shut out by using Release-ring cover
Avoiding invasion of tiny spatter from between release-ring and tube by using Release-ring cover (CS: refer to Tube Fitting Brass Series) which is separately sold.

Specifications

Fluid medium	Air, Water (Conditional*)	
Max. operating pressure	1.0 MPa	
Max. vacuum	-100 kPa	
Operating temp. range	HNBR spec. : 0 to 100°C (No freezing)	FKM spec. : 0 to 120°C (No freezing)

⚠Warning * When the fluid medium is water, be sure to read and follow the conditions below.
1. Surge pressure must be controlled lower than max. operating pressure when using water as a fluid medium.
2. Tap water in Japan, which is soft water (low mineral content) can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
3. Be sure to place Insert Ring (WR) into the tube edge when using water as a fluid medium.

Sectional drawing



No,	Parts	Material
(1)	Knob	Nickel-plated brass
(2)	Lock nut	Nickel-plated brass
(3)	Thread body	Nickel-plated brass
(4)	Elastic sleeve	HNBR (Standard specification)
(5)	Release-ring	Nickel-plated brass
(6)	Tube	Anti-spatter tube, etc.
(7)	Cover	Nickel-plated brass
(8)	Guide ring	Nickel-plated brass
(9)	Lock claws	Stainless steel
(10)	O-ring	HNBR (Standard specification)
(11)	Metallic body	Nickel-plated brass
(12)	Needle	Nickel-plated brass

*The gasket material of M5 thread is SUS316 + FKM.

RoHS2 (2011/65/EU+EU2015/863) compliant

With cover		Without cover	
Type	Model code KJNCøD-R⬚6	Type	Model code KJNCøD-R-1⬚6
Elbow KJNC	KJNC4-M5⬚6	Elbow KJNC	KJNC4-M5-1⬚6
	KJNC4-01⬚6		KJNC4-01-1⬚6
	KJNC6-M5⬚6		KJNC6-M5-1⬚6
	KJNC6-01⬚6		KJNC6-01-1⬚6
	KJNC6-02⬚6		KJNC6-02-1⬚6
	KJNC6-03⬚6		KJNC6-03-1⬚6
	KJNC8-01⬚6		KJNC8-01-1⬚6
	KJNC8-02⬚6		KJNC8-02-1⬚6
	KJNC8-03⬚6		KJNC8-03-1⬚6
	KJNC10-02⬚6		KJNC10-02-1⬚6
	KJNC10-03⬚6		KJNC10-03-1⬚6
	KJNC10-04⬚6		KJNC10-04-1⬚6
	KJNC12-03⬚6		KJNC12-03-1⬚6
	KJNC12-04⬚6		KJNC12-04-1⬚6

Type	Model code CSøD	Image of installing release ring cover
Release-ring cover CS	CS6	
	CS8	
	CS10	
	CS12	

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag
10 pcs. /bag: Release-ring cover

Options
⬚6: –F ⇒ Seal rubber material FKM specification

Quick Exhaust Valve

Push-in fitting type quick exhaust valve

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Standard Type Model Designation (Example)

EQ (1) 01 (2) – C04 (3) P01 (4) C08 (5)

(1) Quick exhaust valve

(2) Effective sectional area

Code	01	02	03
Effective sectional area (㎟)	8	16	30

(3) Intake-side type · connection size

■Tube size for Push-in fitting joint type (øD)

	mm size (mm)					inch size (inch)	
Code	C04	C06	C08	C10	C12	C1/4	C3/8
Tube O.D.	ø4	ø6	ø8	ø10	ø12	ø1/4	ø3/8

■Thread size for Taper pipe thread type (R)

Code	P01	P02	P03	P04
Size	R1/8	R1/4	R3/8	R1/2

(4) Output-side type · connection size

■Tube size for Push-in fitting joint type (øD)

Code	C06	C08	C10	C12
Tube O.D.	ø6	ø8	ø10	ø12

■Thread size for Taper pipe thread type (R)

	Taper pipe thread				National pipe thread tapered		
Code	P01	P02	P03	P04	N1	N2	N3
Size	R1/8	R1/4	R3/8	R1/2	NPT1/8	NPT1/4	NPT3/8

(5) Exhaust-side type · connection size

■Tube size for Push-in fitting joint type (øD)

	mm size (mm)			inch size (inch)	
Code	C08	C10	C12	C3/8	C1/2
Tube O.D.	ø8	ø10	ø12	ø3/8	ø1/2

■Exhaust throttle type

Code	E
Type	Exhaust throttle (Open to air)

*As for the available combination type of intake-side (3), output-side (4) and exhaust-side (5), please note that only the combination table below can be manufactured.

■Producible combination table

	Intake-side	Output-side	Exhaust-side
Type	Push-in fitting joint type	Taper pipe male thread type	Push-in fitting joint type or Exhaust throttle type
	Taper pipe male thread type	Push-in fitting joint type	Push-in fitting joint type

Mini Type Model Designation (Example)

EQ (1) H (2) – 4 (3) M5 (4) E (5)

(1) Quick exhaust valve

(2) Type

Code	U	Y	E	H	J
Type	Union Straight, Open to Air Exhaust, Mini type	Union Straight, Tube Exhaust, Mini type	Union Straight, Exhaust Throttle to Air, Mini type	Cylinder Direct Attachment, Mini type	Plug-in, Open to Air Exhaust, Mini type

(3) Tube dia. (øD)

Code	3	4	6	5/32	1/4
Tube O.D.	ø3mm	ø4mm	ø6mm	ø5/32"	ø1/4"

(4) Thread size (R1) (Selectable only for EQH)

Code	M3	M5	U10
Size	M3×0.5	M5×0.8	10-32UNF

(5) Exhaust type (R2) (Selectable only for EQH)

Code	E	M6	U10
Type	Exhaust throttle (Open to air)	Exhaust female thread (M6×1)	Exhaust female thread (10-32UNF)

Characteristics

In response to high-speed drive cylinder.

Possible to control high-speed cylinder.

Exhaust throttle type, that having a throttling function on the exhaust port, is prepared.

Incorporated silencer reduces the exhaust noise.

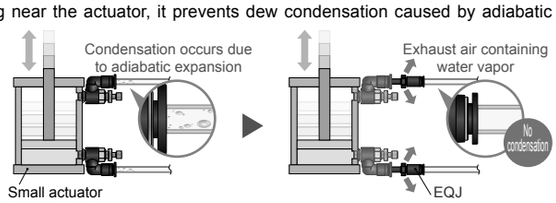
The silencer element can be replaced without touching the needle valve, so that it is not necessary to readjust the exhaust flow. (Standard type: Exhaust throttle type)

Tube O.D. 3mm is available for mini type.

Annual 90,000ℓ of air consumption can be reduced by downsizing the tube size ø4mm to ø3mm.
(36% reduction (piping parts only), about 10% reduction (including cylinder))
*Cylinder condition/ Cylinder bore: dia. 20mm, Stroke: 100mm, One-side rod, Cylinder annual operation: 2,160,000 times, Pressure: 0.5MPa (Piping length: 2m).

Tube O.D. 3mm is available for plug-in type.

By installing near the actuator, it prevents dew condensation caused by adiabatic expansion.

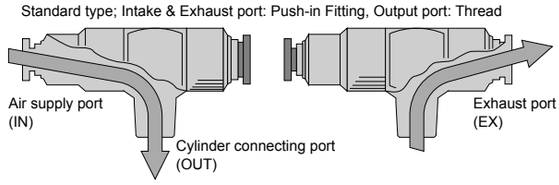


Specifications

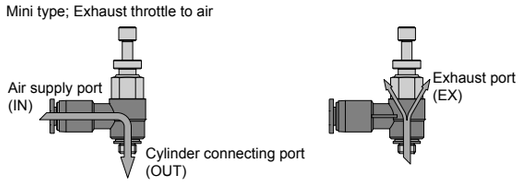
Fluid medium	Air
Max. operating pressure	0.1 to 0.7 MPa
Operating temp. range	5 to 60°C (No freezing)
Min. opening pressure	0.05 MPa

Control direction

Standard type; Intake & Exhaust port: Push-in Fitting, Output port: Thread

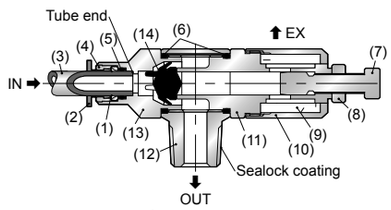


Mini type; Exhaust throttle to air



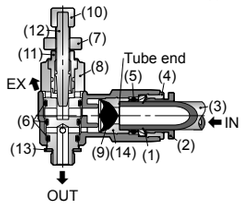
Sectional drawing

Standard type, Intake port: Push-in Fitting, Output port: Thread, Exhaust throttle type: EQ-CPE



No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Polyurethane, Nylon, etc
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	O-ring	NBR
(7)	Slide valve	Nickel-plated brass
(8)	Lock nut	Aluminum
(9)	Element	PVF
(10)	Silencer cover	Aluminum
(11)	Metallic body	Aluminum
(12)	Thread body	Aluminum
(13)	Fitting body	Aluminum
(14)	Valve element	HNBR

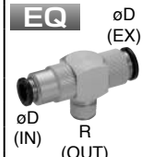
Mini type, Cylinder direct attachment, Exhaust throttle to air type: EQH-E



No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Polyurethane, Nylon, etc
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	O-ring	NBR
(7)	Lock nut	Aluminum
(8)	Metallic body	M3 thread: Stainless steel M5 thread: Nickel-plated brass
(9)	Valve element	HNBR
(10)	Knob	Nickel-plated brass
(11)	Needle guide	Stainless steel
(12)	Needle	Nickel-plated brass
(13)	Gasket	SPCC + NBR
(14)	Valve retainer	Aluminum

RoHS2 (2011/65/EU+EU2015/863) compliant

Standard type

Type	Model code EQ□-CøD P(N) sR CøD
IN & EX: Push-in fitting OUT: Thread EQ  	EQ01-C04P01C08
	EQ01-C06P01C08
	EQ02-C06P01C10
	EQ02-C06P02C10
	EQ02-C08P01C10
	EQ02-C08P02C10
	EQ03-C10P02C12
	EQ03-C10P03C12
	EQ03-C10P04C12
	EQ03-C12P02C12
	EQ03-C12P03C12
	EQ03-C12P04C12
	EQ02-C1/4N1C3/8
	EQ02-C1/4N2C3/8
	EQ03-C3/8N2C1/2
	EQ03-C3/8N3C1/2

Type	Model code EQ□-CøD P(N) sR CøD
OUT & EX: Push-in fitting IN: Thread EQ 	EQ01-P01C06C08
	EQ02-P01C06C10
	EQ02-P01C08C10
	EQ02-P02C06C10
	EQ02-P02C08C10
	EQ03-P03C10C12
	EQ03-P03C12C12
	EQ03-P04C10C12
	EQ03-P04C12C12

Mini type

Type	Model code EQU-øD
Union Straight Exhaust to Air EQU 	EQU-3
	EQU-4
	EQU-6
	EQU-5/32
	EQU-1/4

Type	Model code EQJ-øD
Plug-in Open to Air Exhaust EQJ 	EQJ-3
	EQJ-4
	EQJ-6
	EQJ-5/32
	EQJ-1/4

Type	Model code EQY-øD
Union Straight Tube Exhaust EQY 	EQY-3
	EQY-4
	EQY-6
	EQY-5/32
	EQY-1/4

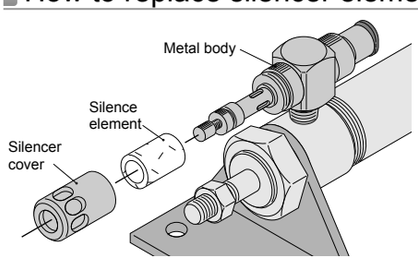
Type	Model code EQE-øD
Union Straight Exhaust Throttle to Air EQE 	EQE-3
	EQE-4
	EQE-6
	EQE-5/32
	EQE-1/4

Type	Model code EQ□-CøD P(N) R E	Silencer element Model code	Valve element Model code
IN: Push-in fitting OUT: Thread EX: Exhaust throttle EQ * Please refer to below "How to replace silencer element" for replacement of silencer element.	EQ01-C04P01E	EQSE-01E	EQM008R07
	EQ01-C06P01E		
	EQ02-C06P01E	EQSE-02E	EQM015R07
	EQ02-C06P02E		
	EQ02-C08P01E		
	EQ02-C08P02E		
	EQ03-C10P02E	EQSE-03E	EQM035R07
	EQ03-C10P03E		
	EQ03-C10P04E		
	EQ03-C12P02E		
	EQ03-C12P03E		
	EQ03-C12P04E		
	EQ02-C1/4N1E		
	EQ02-C1/4N2E		
	EQ03-C3/8N2E		
	EQ03-C3/8N3E		

Type	Model code EQH-øD R1 R2
Cylinder Direct Attachment with Exhaust Female Thread EQH R2(EX) 	EQH-3M3M6
	EQH-3M5M6
	EQH-4M3M6
	EQH-4M5M6
	EQH-6M3M6
	EQH-6M5M6
	EQH-5/32U10U10
	EQH-1/4U10U10

Type	Model code EQH-øD R1 E
Cylinder Direct Attachment with Exhaust Throttle EQH 	EQH-3M3E
	EQH-3M5E
	EQH-4M3E
	EQH-4M5E
	EQH-6M3E
	EQH-6M5E
	EQH-5/32U10E
	EQH-1/4U10E

How to replace silencer element



1. Remove the silencer cover by loosening it in the counterclockwise direction.
2. Remove the silencer element.
3. Attach a new silencer element to the metallic body up to the end.
4. Place the silencer cover over the element and tighten the cover in the clockwise direction.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Exhaust Port Needle Valve (Speed Control Muffler)

Controlls air flow on exhaust ports of pneumatic valves

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

ET (1) **01** (2) (3)

(1) Exhaust Port Needle Valve (Speed Control Muffler)

(2) Thread size (R)

	Metric thread	Taper pipe thread				Unified fine thread	National pipe thread tapered			
Code	**M5**	**01**	**02**	**03**	**04**	**U10**	**N1**	**N2**	**N3**	**N4**
Thread size	M5×0.8	R1/8	R1/4	R3/8	R1/2	10-30UNF	NPT1/8	NPT1/4	NPT3/8	NPT1/2

(3) Wrench size specification

Code	**No code**	**U**
Wrench size spec.	mm spec.	inch spec.

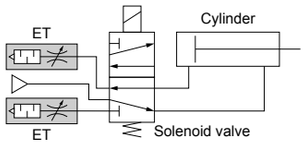
Characteristics

Flow control valve of low cost type.

Metering valve with silencer is cost effective.

The valve can be attached directly to a solenoid valve.

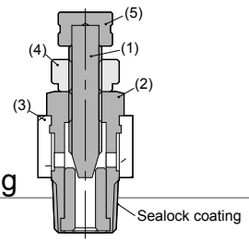
Best suitable in case a cylinder, etc. has no sufficient space around for installation of a speed controller or adjustment of the needle. (Note: Please install it not too far from a cylinder.)



Specifications

Fluid medium	Air
Operating pressure range	0 to 0.9 MPa
Operating temp. range	0 to 60°C (No freezing)

Sectional drawing



No.	Parts	Material
(1)	Needle	Nickel-plated brass
(2)	Metallic body	Nickel-plated brass
(3)	Element	Polyethylene
(4)	Lock nut	Aluminum
(5)	Knob	Nickel-plated brass

* The gasket material of M5 or UNF thread is SPCC + NBR.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code ET R	Model code ET RU
Exhaust Port Needle Valve **ET** R	ETM5	ETU10U
	ET01	ETN1U
	ET02	ETN2U
	ET03	ETN3U
	ET04	ETN4U

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Related product

Solenoid valve series
▶ From P.214

Silencer

Silencer

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

S (1) R (2) 01 (3)

(1) Silencer

(2) Type

Code	R	M (U)	T
Type	Taper thread type	Metric (UNF) thread type	Push-in fitting type

(3) Connection type and size

■ Taper pipe male thread(R)

Code	01	02	03	04	N1	N2	N3	N4
Size	G1/8B	G1/4B	G3/8B	G1/2B	NPT1/8	NPT1/4	NPT3/8	NPT1/2
Installation thread size	Rc1/8	Rc1/4	Rc3/8	Rc1/2	NPT1/8	NPT1/4	NPT3/8	NPT1/2

■ Metric male thread (M)

Code	5	6	10
Size	M5×0.8	M6×1	M10×1

■ Unified thread (U)

Code	10
Size	10-32UNF

■ Tube dia. (øD)

	mm size (mm)			inch size (inch)		
Code	4	6	8	5/32	1/4	5/16
Tube O.D.	ø4	ø6	ø8	ø5/32	ø1/4	ø5/16

Characteristics

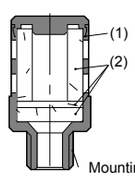
- Reduce exhaust noise from exhaust port.
- Excellent silencing effect and long life.
- Selection from 4 types.

Specifications

Fluid medium	Air
Operating pressure range	0 to 0.9 MPa
Operating temp. range	0 to 60°C (No freezing)

Sectional drawing

Taper pipe male thread: SR



No.	Parts	Material
(1)	Resin body	PBT
(2)	Element	PVF

* The gasket of metric or unified thread is made of SUS304 + NBR.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code SR R	Silencing effect (dB)	Type	Model code SM (U) M	Silencing effect (dB)	Type	Model code ST øD	Silencing effect (dB)
Taper thread type SR R	SR01	25	Metric (UNF) thread type SM (U) M (U)	SM5	20	Push-in fitting type ST øD	ST4	20
	SR02	30		SM6	20		ST6	20
	SR03	20		SM10	25		ST8	20
	SR04	25		SU10	20		ST5/32	20
	SRN1	25					ST1/4	20
	SRN2	30					ST5/16	20
	SRN3	20						
	SRN4	25						

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Orifice Fitting

Push-in fitting with fixed flow rate orifice

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

P C 6 - 01 - 1.0
(1) (2) (3) (4) (5) (6)

(1) Tube Fitting

(2) Type

Code	C	L
Type	Straight	Elbow

(3) Tube dia. (øD)

	mm size (mm)			inch size (inch)	
Code	4	6	8	5/32	1/4
Tube O.D.	ø4	ø6	ø8	ø5/32	ø1/4

(4) Thread size (R)

	Metric thread	Taper pipe thread	Unified fine thread	NPT
Code	M5M	01	U10M	N1
Thread size	M5×0.8	R1/8	10-32UNF	NPT1/8

* M5M and U10M are only for mini type (Tube O.D.: 4, 6mm, 5/32" or 1/4"), and 01 and N1 are only for standard type.

(5) Wrench size specification

Code	No code	U
Wrench size spec.	mm spec.	inch spec.

(6) Orifice bore

Code (Orifice bore (mm))	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0
Effective sectional area (mm^2)	0.006	0.02	0.05	0.1	0.15	0.2	0.25	0.35	0.4	0.5	0.7	0.85	1.0	1.15	1.45	1.65	1.85	2.1	2.3	2.5

* Orifice bore of mini type is available only up to dia. 1.0 mm. Dia. 8 mm O.D. tube fitting cannot select dia. 0.1 or dia.0.2mm orifice bores.

Characteristics

Lower price than needle valve.

Compact design makes it possible to be installed in a small space.

Orifice bore: ø 0.1 and ø 0.2 mm are also available.

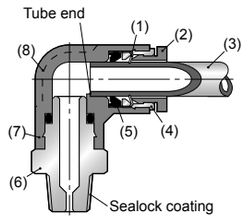
20 types of Orifice bore is selectable. (Min. ø0.1 to Max. ø2.0 mm in increment of 0.1 mm.)

Installable in tight space.

M5 thread and UNF thread in mini type fitting is best suitable for compact piping.

Sectional drawing

Elbow: PL



No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Polyurethane, Nylon, etc.
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	Metallic body	Nickel-plated brass
(7)	O-ring	NBR
(8)	Resin body	PBT

* The gasket material of M5 or UNF thread is SUS304 + NBR.

Specifications

Fluid medium	Air
Max. operating pressure	1.0 MPa
Max. vacuum	-100 kPa
Operating temp. range	0 to 60°C (No freezing)

RoHS2 (2011/65/EU+EU2015/863) compliant

Metric thread type (Mini type)

Type	Model code PCøD-RM-6
Straight PC	PC4-M5M-6
	PC6-M5M-6

Type	Model code PLøD-RM-6
Elbow PL	PL4-M5M-6
	PL6-M5M-6

Unified thread type (Mini type)

Type	Model code PCøD-RM-6
Straight PC	PC5/32-U10M-6
	PC1/4-U10M-6

Type	Model code PLøD-RM-6
Elbow PL	PL5/32-U10M-6
	PL1/4-U10M-6

Taper pipe thread type

Type	Model code PCøD-R-6	Model code PCøD-RU-6
Straight PC	PC4-01-6	PC5/32-N1U-6
	PC6-01-6	PC1/4-N1U-6
	PC8-01-6	

Type	Model code PLøD-R-6	Model code PCøD-RU-6
Elbow PL	PL4-01-6	PL5/32-N1U-6
	PL6-01-6	PL1/4-N1U-6
	PL8-01-6	

Notes
* For 6 in model code, please select a orifice bore code.

CAD data is available at PISCO website.

Packaging specifications
10 pcs. /bag

Non-standard options (Refer to page 893 for details)
- Body color option (Light gray)
- Seal rubber options (FKM, EPDM, HNBR)
- Oil-free specification
- Copper free spec.
- Release ring color change (Red)

►Contact us for the price.

Pressure Regulator Push-lock type

PISCO

>>> https://www.pisco.co.jp/en/

Push-in fitting type pressure control valve with relief mechanism and push-lock knob.

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

RV (1) C (2) P (3) 6 (4) – 01 (5) (6)

(1) Pressure Regulator Push-lock type

(2) Type

Code	C	U	CM	UM
Type	Elbow	Union	Gauge Mounted Elbow	Gauge Mounted Union

(3) P: Push-lock type

(4) Tube dia. (øD, øD1, øD2)

	mm size (mm)			inch size (inch)			
Code	4	6	8	5/32	3/16	1/4	5/16
Tube O.D.	ø4	ø6	ø8	ø5/32	ø3/16	ø1/4	ø5/16
Pressure indication unit	MPa			psi			

* Inch size (gauge indicating in psi) is a model for overseas markets.

(5) Thread size (R)

	Metric thread	Taper pipe thread		Unified fine thread	NPT	
Code	M5	01	02	U10	N1	N2
Size	M5×0.8	R1/8	R1/4	10-32UNF	NPT1/8	NPT1/4

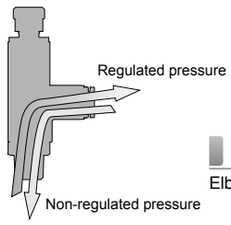
* Please select tube dia. from (4) for RVUP and RVUMP.

(6) Wrench size specification

Code	No code	U
Wrench size spec.	mm spec.	inch spec.

Characteristics

- The push-lock type knob makes fixing and adjusting pressure easy.
  Once it is set, the set pressure will not change due to vibrations.
- New design enables about 1.3 times higher flow than the previous models. The set pressure fluctuation range reduced.
- Compact design and easy layout.
- A relief mechanism is incorporated.
- Equipped with check function.
  It can be used as check type regulator by installing between a solenoid valve and an actuator.
- Gauge mount type is available.

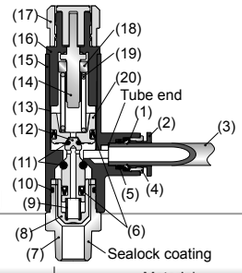


Specifications

	mm size	inch size
Fluid medium	Air	
Operating pressure range	0 to 1.0MPa	0 to 145 psi
Pressure setting range	0.1 to 0.8MPa	14.5 to 116 psi
Indicated pressure range	0 to 0.8MPa	0 to 116 psi
Accuracy (gauge)	±5%F.S.	
Operating temp. range	0 to 60°C (No freezing)	

Sectional drawing

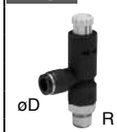
Elbow: RVCP



No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Polyurethane, Nylon, etc
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	V-packing	NBR
(7)	Metallic body	Nickel-plated brass
(8)	Valve guide	POM
(9)	Poppet spring	Stainless steel
(10)	O-ring	NBR
(11)	O-ring	HNBR
(12)	Poppet	POM
(13)	Liner	Nickel-plated brass
(14)	Adjusting screw	Nickel-plated brass
(15)	Resin body	Glass-reinforced PBT
(16)	Bonnet	Glass-reinforced POM
(17)	Adjusting knob	POM
(18)	Adjusting nut	SPCC (Electroless zinc plated)
(19)	Adjusting spring	Piano wire
(20)	Piston	POM or Glass-reinforced POM

* The gasket material of M5 or UNF thread is SPCC + NBR.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code RVCPøD-R	Model code RVCPøD-RU	Type	Model code RVCMPøD-R	Model code RVCMøD-RU
Elbow RVCP 	RVCP4-M5	RVCP5/32-U10U	Elbow with gauge RVCMP	RVCMP4-M5	RVCMP5/32-U10U
	RVCP4-01	RVCP3/16-U10U		RVCMP4-01	RVCMP5/32-N1U
	RVCP6-M5	RVCP1/4-U10U		RVCMP6-M5	RVCMP1/4-N1U
	RVCP6-01	RVCP5/32-N1U		RVCMP6-01	RVCMP5/16-N1U
	RVCP6-02	RVCP3/16-N1U		RVCMP6-02	RVCMP1/4-N2U
	RVCP8-01	RVCP1/4-N1U		RVCMP8-01	RVCMP5/16-N2U
	RVCP8-02	RVCP5/16-N1U		RVCMP8-02	
		RVCP3/16-N2U			
		RVCP1/4-N2U			
		RVCP5/16-N2U			

Type	Model code RVUPøD1-øD2	Type	Model code RVUMPøD1-øD2
Union RVUP	RVUP4-4	Union with gauge RVUMP	RVUMP4-4
	RVUP6-4		RVUMP6-4
	RVUP6-6		RVUMP6-6
	RVUP8-6		RVUMP8-6
	RVUP8-8		RVUMP8-8
	RVUP5/32-5/32		RVUMP5/32-5/32
	RVUP1/4-5/32		RVUMP1/4-5/32
	RVUP1/4-1/4		RVUMP1/4-1/4
	RVUP5/16-1/4		RVUMP5/16-1/4
	RVUP5/16-5/16		RVUMP5/16-5/16

Notes

*1. Inch size (gauge indicating in psi) is a model for overseas markets.

*2. Release-ring color is white for inch-size products.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Compact preset In-Line Pressure Regulator

Push-in fitting type preset pressure regulating valve

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

RVFUP (1) 4-4 (2) – 0.2 (3)

(1) Compact pre-set In-Line Pressure Regulator

(2) Tube dia. (øD)

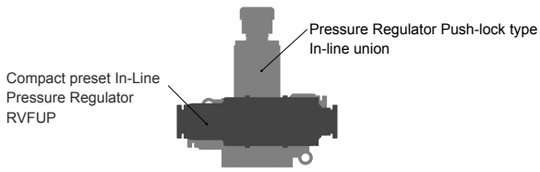
	mm size (mm)				inch size (inch)			
Code	4-4	6-6	8-8	10-10	5/32-5/32	1/4-1/4	5/16-5/16	3/8-3/8
Tube O.D.	ø4	ø6	ø8	ø10	ø5/32	ø1/4	ø5/16	ø3/8

(3) Outlet pressure presetting

Code		0.2	0.25	0.3	0.35	0.4	0.45	0.5	0.55	0.6
Outlet pressure	MPa	0.2	0.25	0.3	0.35	0.4	0.45	0.5	0.55	0.6
	psi	29	36	44	51	58	65	73	80	87

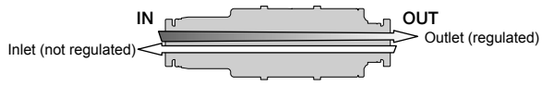
Characteristics

- No need to adjust the secondary pressure due to pressure pre-set.
- Tamper-proof - Prevents unwanted adjustments.
- In-line type - Standard bracket is provided as option.
- Compact body - 67% volume reduced.
  (compared with RVUP type)



- Fluctuation of the outlet pressure is minimized even the inlet pressure changes.
- Free reverse flow function.

Can be used as a check regulator by installing it between solenoid valve and actuator.
* In case the pressure of inlet side is lower than outlet side, air flows to inlet side. (No relief function though)



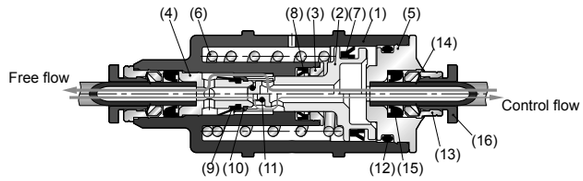
- Implementing the regulator on each actuator to save air consumption by appropriate compressed air being supplied.
- Best suitable for vacuum generator.

Specifications

Fluid medium	Air
Operating pressure range	Preset pressure to 1.0 MPa
Operating temp. range	0 to 60°C
Pressure tolerance	±25 kPa (*)

* When preset pressure +0.3MPa is supplied

Sectional drawing



No.	Parts	Material
(1)	Resin body	PBT
(2)	Piston	POM
(3)	Seal retainer	Nickel-plated brass
(4)	Valve retainer	Aluminum
(5)	Fitting body	Aluminum
(6)	Adjusting spring	Stainless steel
(7)	Y shape seal	NBR
(8)	Rod seal	NBR
(9)	Y shape seal	HNBR
(10)	Check valve retainer	PBT
(11)	O-ring	HNBR
(12)	O-ring	NBR
(13)	Guide ring	Nickel-plated brass
(14)	Lock claws	Stainless steel
(15)	Elastic sleeve	NBR
(16)	Release-ring	POM

RoHS2 (2011/65/EU+EU2015/863) compliant

Product	Model code RVFUPøD-øD-□	Product	Model code VFUH
Union RVFUP	RVFUP4-4-□	Bracket VFUH	VFUH3
	RVFUP6-6-□		
	RVFUP8-8-□		
	RVFUP10-10-□		
	RVFUP5/32-5/32-□		
	RVFUP1/4-1/4-□		
	RVFUP5/16-5/16-□		
	RVFUP3/8-3/8-□		

Notes
* Release-ring color is white for inch-size products.

Packaging specifications
1 pc. /bag

Pressure Controller

PISCO

>>> https://www.pisco.co.jp/en/

Push-In Fitting Type Pressure Control Valve

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

JP	C	6	–	01	
(1)	(2)	(3)		(4)	(5)

(1) Pressure Controller **(2) Type**

Code	C	S
Type	Elbow	Straight

(3) Tube dia. (øD)

	mm size (mm)					inch size (inch)				
Code	4	6	8	10	12	5/32	1/4	5/16	3/8	1/2
Tube O.D.	ø4	ø6	ø8	ø10	ø12	ø5/32	ø1/4	ø5/16	ø3/8	ø1/2

(4) Thread size (R)

	Metric thread	Taper pipe thread				Unified fine thread	National pipe thread tapered			
Code	M5	01	02	03	04	U10	N1	N2	N3	N4
Thread size	M5×0.8	R1/8	R1/4	R3/8	R1/2	10-32UNF	NPT1/8	NPT1/4	NPT3/8	NPT1/2

(5) Wrench size specification

Code	No code	U
Wrench size spec.	mm spec.	inch spec.

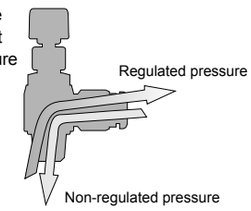
Characteristics

Pressure control valve saves compressed air consumption.

In driving an actuator under high pressure, compressed air can be saved by use of the pressure controller to reduce the pressure only during home return.

Controls the pressure for advance and return of an actuator.

When a primary pressure is supplied from the thread side, a reduced pressure will come out from the fitting side. When the primary pressure is supplied from the fitting side, the same pressure will come out from the thread side because of the operation of the check valve.

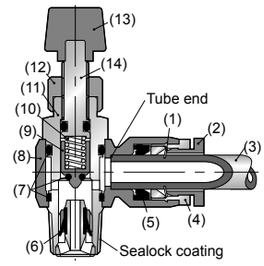


Specifications

Fluid medium	Air
Operating pressure range	0 to 0.9 MPa
Pressure setting range	0.2 to 0.6 MPa
Operating temp. range	0 to 60°C (No freezing)

Sectional drawing

Elbow: JPC



No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Polyurethane, Nylon, etc.
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	Diaphragm	HNBR
(7)	O-ring	NBR
(8)	Resin body	PBT
(9)	Poppet	Nickel-plated brass
(10)	Pressure adjusting spring	Stainless steel
(11)	Metallic body	Nickel-plated brass
(12)	Lock nut	Aluminum
(13)	Cap	PBT
(14)	Needle	Nickel-plated brass

* The gasket material of M5 or UNF thread is SPCC + NBR.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code JPCøD-R	Model code JPCøD-RU	Type	Model code JPSøD-R	Model code JPSøD-RU
Elbow	JPC4-M5	JPC5/32-U10U	Straight	JPS4-M5	JPS5/32-U10U
JPC	JPC4-01	JPC5/32-N1U	JPS	JPS4-01	JPS5/32-N1U
	JPC6-M5	JPC1/4-N1U		JPS6-M5	JPS1/4-N1U
	JPC6-01	JPC1/4-N2U		JPS6-01	JPS1/4-N2U
	JPC6-02	JPC5/16-N1U		JPS6-02	JPS5/16-N1U
	JPC8-01	JPC5/16-N2U		JPS8-01	JPS5/16-N2U
	JPC8-02	JPC5/16-N3U		JPS8-02	JPS5/16-N3U
	JPC8-03	JPC3/8-N2U		JPS8-03	JPS3/8-N2U
	JPC10-02	JPC3/8-N3U		JPS10-02	JPS3/8-N3U
	JPC10-03	JPC1/2-N3U		JPS10-03	JPS1/2-N3U
	JPC12-03	JPC1/2-N4U		JPS12-03	JPS1/2-N4U
	JPC12-04			JPS12-04	

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Check Valve

Push-in fitting type Non-return Valve

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

CV (1) (2) C (3) 6 (4) – 01 (5) A (6) (7)

(1) Check Valve

(2) Appearance spec. (Material of valve element)

Code	No code	P
Specifications	Metal type	Resin type

* Resin type (Only available for CVC, CVU type with tube size 4, 6, 8 mm, 1/4, 5/16, 5/32 inch size and CVF with thread size R1/8, R1/4, NPT1/8.)

(3) Type

Code	C	U	G	F
Type	Straight	Union Straight	Unequal Union Straight	Bush

(4) Tube dia. (øD)

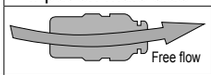
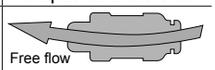
	mm size (mm)					inch size (inch)				
Code	4	6	8	10	12	5/32	1/4	5/16	3/8	1/2
Tube O.D.	ø4	ø6	ø8	ø10	ø12	ø5/32	ø1/4	ø5/16	ø3/8	ø1/2

(5) Thread size(R)

	Metric thread		Taper pipe thread				Unified fine thread	National pipe thread tapered			
Code	M5	M6	01	02	03	04	U10	N1	N2	N3	N4
Thread size	M5×0.8	M6×1	R1/8	R1/4	R3/8	R1/2	10-32UNF	NPT1/8	NPT1/4	NPT3/8	NPT1/2

* For Union type, please choose tube dia. from (4).

(6) Control direction (No code entry for Union Straight type)

Code	A	B
Control direction	Input on male side	Output on male side
	 Free flow	 Free flow

(7) Wrench size specification

Code	No code	U
Wrench size specification	mm spec.	inch spec. (Only available for CVC and CVF type)

Characteristics

Keep the output pressure at a constant level.

The Check Valve permits the air flow in one direction but checks the flow in the opposite direction.

The Check Valve can be used for vacuum retention and piping under low pressure.

2 selections of valve element are available, Metal type (aluminum) and Resin type (POM).

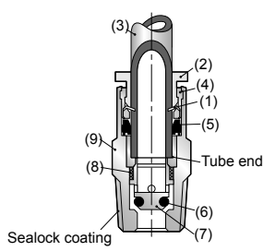
Specifications

Type	Metal type	Resin type
Fluid medium	Air	
Max. operating pressure	0.9 MPa	
Max. vacuum	-100 kPa	
Min. opening differential pressure (*)	10 kPa	
Operating temp. range	0 to 60°C (No freezing)	
Min. checking differential pressure	0.02 MPa	0.04 MPa

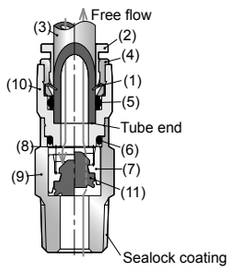
* Min. opening differential pressure is the pressure when the valve begins to open, but not the pressure when the velve is fully open.

Sectional drawing

Straight Metallic type: CVC



Straight Resin type: CVPC



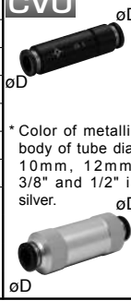
No.	Parts	Material	
		Metal type	Resin type
(1)	Lock claws	Stainless steel	
(2)	Release-ring	POM	
(3)	Tube	Polyurethane, Nylon, etc.	
(4)	Guide ring	Nickel-plated brass	
(5)	Elastic sleeve	NBR	
(6)	O-ring	NBR	
(7)	Valve element	Aluminum	POM
(8)	Spring	Stainless steel	
(9)	Metallic body	Nickel-plated brass	
(10)	Resin body	-	PBT
(11)	Valve packing	-	FKM (*2)

*1 Gasket (SUS304+NBR or SPCC+NBR) for metric thread and UNF thread.
*2 NBR for Tube dia. ø8mm, except CVPC8-01 □ .

RoHS2 (2011/65/EU+EU2015/863) compliant

Metal type

Type	Model code CVCøD-R6	Model code CVCøD-R6U
Straight CVC	CVC4-M56	CVC5/32-U106U
	CVC4-M66	CVC5/32-N16U
	CVC4-016	CVC1/4-N16U
	CVC6-016	CVC1/4-N26U
	CVC6-026	CVC5/16-N16U
	CVC8-016	CVC5/16-N26U
	CVC8-026	CVC3/8-N36U
	CVC10-036 *1	CVC3/8-N46U
	CVC10-046 *1	
	CVC12-036 *1	
	CVC12-046 *1	
	CVC3/8-036	

Type	Model code CVUøD-øD
Union Straight CVU  * Color of metallic body of tube dia. 10mm, 12mm, 3/8" and 1/2" is silver.	CVU4-4 *1
	CVU6-6 *1
	CVU8-8 *1
	CVU10-10 *1
	CVU12-12 *1
	CVU5/32-5/32 *1
	CVU1/4-1/4 *1
	CVU5/16-5/16 *1
	CVU3/8-3/8 *1
	CVU1/2-1/2 *1

Type	Model code CVGøD1-øD26
Unequal Union Straight CVG	CVG12-106 *1

Type	Model code CVF R-Rc6	Model code CVF R-Rc6U
Bush CVF	CVF01-016	CVFN1-N16U
	CVF02-026	CVFN2-N26U
	CVF03-036 *1	CVFN3-N36U *1
	CVF04-046 *1	CVFN4-N46U *1

Resin type

Type	Model code CVPCøD-R6	
Straight Resin type CVPC	CVPC4-M56	CVPC5/32-U106
	CVPC4-M66	CVPC5/32-N16
	CVPC4-016	CVPC1/4-N16
	CVPC6-016	CVPC1/4-N26
	CVPC6-026	CVPC5/16-N16
	CVPC8-016	
	CVPC8-026	

Type	Model code CVPUøD-øD
Union Straight Resin type CVPU	CVPU4-4
	CVPU6-6
	CVPU8-8

Type	Model code CVPF R-Rc6	
Bush (poppet: resin) CVPF	CVPF01-016	CVPFN1-N16
	CVPF02-026	

Notes

*1. Material for metallic body is aluminum.

*2. For 6 in model code of Straight and Bush type, please select "A" for Inlet on male thread, "B" for Outlet on male thread.

*3. For Unequal Union Straight type, please select flow direction referring to below.

CVG12-10A: Air flow direction: dia.12 → dia.10

CVG12-10B: Air flow direction: dia.10 → dia.12

*4. Release-ring color is white for inch-size products.

CAD data is available at PISCO website

Packaging specifications

1 pc. /bag

Non-standard options (Refer to page 893 for details)

· Seal rubber options (FKM, EPDM)

· Copper free spec.

· Release ring color change (Red)

►The above options are not available for CVU4-4, 6-6, 8-8, 5/32-5/32, 1/4-1/4 and 5/16-5/16.

►Contact us for the price.

Check Valve with Low Cracking Pressure

Push-in fitting type Non-return Valve with Low Cracking Pressure

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

CV (1) L (2) U (3) 4-4 (4)

(1) Check Valve

(2) Low crackig pressure type

(3) Type
U : Union Straight

(4) Tube dia. (øD)

	mm size (mm)					inch size (inch)				
Code	4-4	6-6	8-8	10-10	12-12	5/32-5-32	1/4-1/4	5/16-5/16	3/8-3/8	1/2-1/2
Tube O.D.	ø4	ø6	ø8	ø10	ø12	ø5/32	ø1/4	ø5/16	ø3/8	ø1/2

Characteristics

Min. opening differential pressure is 5 kPa.

Low level ozone resistant product.

HNBR and FKM is applied for the rubber material.

Less noise generation compared to the conventional type.

No spring incorporated.

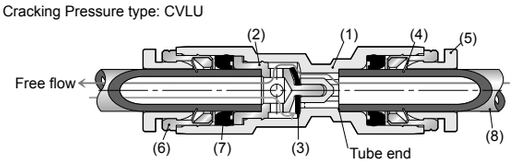
Specifications

Fluid medium	Air
Max. operating pressure	1.0 MPa
Max. vacuum	-100 kPa
Min. opening differential pressure (*)	5 kPa (at 25ºC)
Operating temp. range	0 to 60°C (No freezing)
Min. checking differential pressure	0.01 MPa

* Min. opening differential pressure is the pressure when the valve begins to open, but not the pressure when the velve is fully open.

Sectional drawing

Low Cracking Pressure type: CVLU



No.	Parts	Material
(1)	Resin body	PBT
(2)	Valve retainer	Nickel-plated brass
(3)	Valve packing	FKM
(4)	Lock claws	Stainless steel
(5)	Release-ring	POM
(6)	Guide ring	Nickel-plated brass
(7)	Elastic sleeve	HNBR
(8)	Tube	Polyurethane, Nylon, etc.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code CVLUøD-øD	
Union Straight CVLU	CVLU4-4	CVLU5/32-5/32
	CVLU6-6	CVLU1/4-1/4
	CVLU8-8	CVLU5/16-5/16
	CVLU10-10	CVLU-3/8-3/8
	CVLU12-12	CVLU1/2-1/2

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Non-standard options (Refer to page 893 for details)
· Material change of elastic sleeve (FKM, EPDM)
· Oil-free
· Release ring color change (Red)
►Contact us for the price.

Check Valve PP with Low Cracking Pressure

PISCO
https://www.pisco.co.jp/en/

Push-in fitting type resin Non-return valve for clean environment (Metal part SUS304)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

PCV	L	U	4–4	(5)	(6)
(1)	(2)	(3)	(4)		

(1) Check Valve PP with Low Cracking Pressure

(2) Appearance spec.
L : Low crackig pressure type

(3)Type
U : Union Straight

(4) Tube dia. (øD)

	mm size (mm)					inch size (inch)				
Code	4–4	6–6	8–8	10–10	12–12	5/32-5/32	1/4-1/4	5/16-5/16	3/8-3/8	1/2-1/2
Tube O.D.	ø4	ø6	ø8	ø10	ø12	ø5/32	ø1/4	ø5/16	ø9/8	ø1/2

(5) Seal rubber material (optional)

Code	No code	–F	–N
Material	EPDM	FKM	NBR

(6) Packaging spec. (optional)

Code	No code	–C
Specifications	Standard package	Clean-room package

Characteristics

PP (Polypropylene) is applied for the body material to adapt to clean environment.

Light weight resin type.

Water (liquid) can be used.

Clear (semitransparent) color used for the resin body makes it possible to check visually the fluid (liquid) inside.

Easy to check the sanitary condition.

Best suitable for the applications in which "No copper-based material is used", "low level ozone resistance" and "non-grease" specifications are required.

SUS304 is used for the metal parts. FKM is used for valve packing.
EPDM is used for elastic sleeve (FKM and NBR are optional).

Min. opening differential pressure is 5 kPa.

Less noise generation compared to the conventional type.

No spring incorporated.

• Clean-room package (Optional)

Best suitable for piping in clean environment.

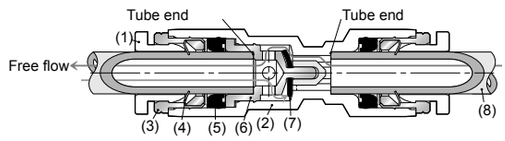
Products are packed in a clean room equivalent to ISO class 6 after washed by clean air

Specifications

Fluid medium	Air, Water, Other chemicals (Conditiona l*1)
Max. operating pressure	1.0 MPa (at 0 to 20°C) *2
Max. vacuum	-100 kPa
Min. opening differential pressure *3	5 kPa (at 25ºC)
Operating temp. range	0 to 80°C (For seal rubber material NBR: 0 to 60°C) (No freezing)
Min. checking differential pressure	0.01 MPa

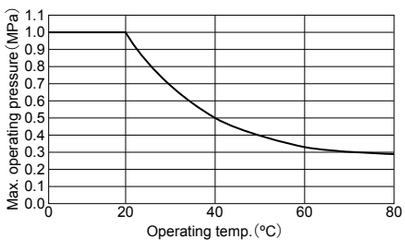
⚠ Warning
*1. When the fluid medium is water or other chemicals, be sure to read and follow the conditions below.
(1) Surge pressure must be controlled lower than max. operating pressure when using water or liquid as a fluid medium.
(2) Tap water in Japan, which is soft water (low mineral content) can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
(3) Be sure to place Insert Ring (page 108) into the tube edge when using water or liquid as a fluid medium.
(4) The specification above may not be applied, depending on the kind of chemicals or mixed gases used as a fluid medium. Make sure to use PISCO products after verifying their suitability on the user side.
*2. If operating temp. exceeds 20°C, refer to the following chart "Relation of Operating Temp. & Max. Operating Pressure".
⊕ Notes
*3. Min. opening differential pressure is the pressure when the valve begins to open, but not the pressure when the velve is fully open.

Sectional drawing



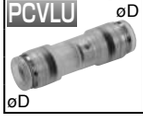
No,	Parts	Material
(1)	Release-ring	PP
(2)	Resin body	PP
(3)	Guide ring	SUS304
(4)	Lock claws	Stainless steel
(5)	Elastic sleeve	EPDM
(6)	Valve retainer	SUS304
(7)	Valve packing	FKM
(8)	Tube	Fluororesin, Polyamide, Clean-room packaging tube, etc.

Relation of Operating Temp. & Max. Operating Pressure



RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code PCVLUøD-øD5 6	
Union Straight PCVLU	PCVLU4-4 5 6	PCVLU5/32-5/32 5 6
	PCVLU6-6 5 6	PCVLU1/4-1/4 5 6
	PCVLU8-8 5 6	PCVLU5/16-5/16 5 6
	PCVLU10-10 5 6	PCVLU3/8-3/8 5 6
	PCVLU12-12 5 6	PCVLU1/2-1/2 5 6



CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options

Code	5 : -F	5 : -N	6 : -C
Specifications	Seal rubber FKM	Seal rubber NBR	Clean-room package

In-line Air Filter

Easily maintained Filters for both positive and negative in-line pressure

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

SFU (1) 1 (2) – 44 (3) (4) (5)

(1) In-line Air Filter

(2) Filter size

Code	1	2	3
Filter area (cm^2)	4.7	7.5	12.7

(3) IN & Out Tube dia. (øD)

	mm size (mm)				inch size (inch)			
Code	44	66	88	1010	5/32-5/32	1/4-1/4	5/16-5/16	3/8
Tube O.D.	ø4	ø6	ø8	ø10	ø5/32	ø1/4	ø5/16	ø3/8

*1 Code: 44 and 5/32-5/32 can be selected for Filter size code 1 and 2.
*2. Code: 88, 1010, 5/16-5/16 and 3/8-3/8 can be selected for Filter size 3.

(4) Holder option

Code	No code	-NH
Holder option	With holder	Without holder

(5) Material option (-S3 spec.)

Code	No code	-S3
Metal material	Standard	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard	HNBR or FKM
Release-ring color	Light-gray	Dark blue

* Contact us for -S3 spec. of inch tube size.

Characteristics

Usable with both positive and negative pressure

Best suitable for the applications in positive pressure where filtration accuracy is not required.

Use as pre-filtering application for positive pressure.

Easy maintenance.

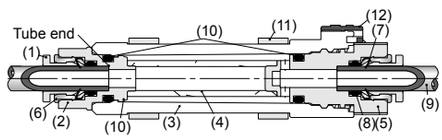
The element is replaced easily without using tools.

● -S3 Material option

No copper-based metallic materials used in flow paths.

The sealing rubber material of the fitting is HNBR or FKM, with good ozone resisntace.

Sectional drawing



No,	Parts	Material	
		Standard specification	-S3Material option
(1)	Release-ring	POM (Color: Light-gray)	POM (Color: Dark blue)
(2)	Resin body A	PBT	
(3)	Cover	PCTG	
(4)	Element	PVF	
(5)	Resin body B	PBT	
(6)	Guide ring	Nickel-plated brass	Special stainless steel (Austenite or ferritic) *
(7)	Lock claws	Stainless steel	
(8)	Elastic sleeve	NBR	HNBR or FKM
(9)	Tube	Polyurethane, Nylon, etc	Fluororesin (PFA. FEP), etc
(10)	O-ring	NBR	HNBR or FKM
(11)	Holder	POM	
(12)	Slide Lock	POM	

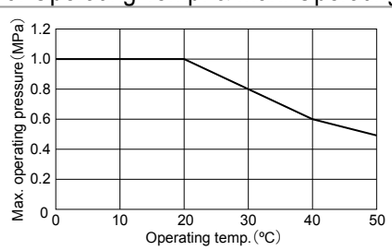
* Special stainless steel of corrosion resistance equivalent to SUS303.

Specifications

Type	SFU1	SFU2	SFU3
Fluid medium	Air		
Max. operating pressure	1.0 MPa (at 20°C) *1		
Max. vacuum	-100 kPa		
Pressure resistance	1.5 MPa		
Filtering accuracy *2	5 µm (Trapping efficiency: 95%)		
Operating temp. range	0 to 50°C (No freezing)		
Filter area	4.7 cm²	7.5 cm²	12.7 cm²

⚠ Warning
*1. The Max. pressure is the value at 20°C. Please refer to the Relation of operating temperature and max. operating pressure chart for the use in other temperature range.
⊕ Notes *2. Based on PISCO measuring condition.

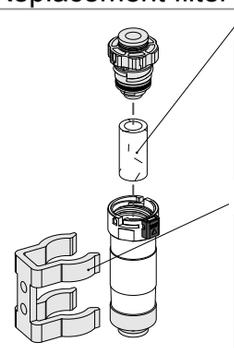
Relation of Operating Temp. & Max. Operating Pressure



RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code SFU2-øD·øD45	Model code SFU2-øD-øD4
In-line Air Filter SFU	SFU1-44 45	SFU1-5/32-5/32 4
	SFU1-66 45	SFU1-1/4-1/4 4
	SFU2-44 45	SFU2-5/32-5/32 4
	SFU2-66 45	SFU2-1/4-1/4 4
	SFU3-66 45	SFU3-1/4-1/4 4
	SFU3-88 45	SFU3-5/16-5/16 4
	SFU3-1010 45	SFU3-3/8-3/8 4

Replacement filter element



Applicable Filter Model code	Filter Element Model code
SFU1-□□□	VFE025B01
SFU2-□□□	SFE2
SFU3-□□□	SFE3

Applicable Filter Model code	Holder Model code
SFU1-□□NH	SFUH010P01
SFU2-□□NH	VFUH2
SFU3-□□NH	VFUH3

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag
10 pcs. /bag: Filter element

Standard options
4 : -HN ⇒ Without holder
5 : -S3 ⇒ -S3 spec.

Hollow Fiber Membrane Filter

PISCO

>>> https://www.pisco.co.jp/en/

Best suitable for semiconductor, measuring instruments, printing and medical industries

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

MFU (1) 50 (2) – 44 (3) (4)

(1) Hollow Fiber Membrane Filter

(2) Max. operating flow

Code	50	100
Max. operating flow (l/min[ANR])	50	100

(3) IN & Out Tube dia. (øD)

Code	44	66	88	1010
Tube O.D. (mm)	ø4	ø6	ø8	ø10

*1. Code: 44 can be selected only for Max. operating flow of 50l/min [ANR].
*2. Code: 1010 can be selected only for Max. operating flow of 100l/min [ANR].

(4) Holder option

Code	No code	-NH
Holder option	With Holder	Without Holder

Characteristics

The filtration accuracy of 0.01μm and trapping efficiency of 99.99% has been realized.

Adopting the hollow fiber to the filter.

The small size and light weight filter handling the large flow.

Equipped with Blast shelter function.

The main plastic body covering the filter case.

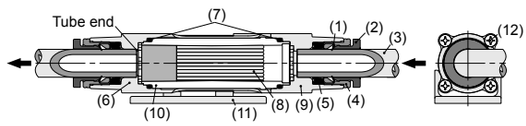
Oil-free specification with stainless steel body.

• Clean-room pkg. (Standard spec.)

Best suitable for piping in clean environment.

The products are washed by clean air, then packed in ISO class 6 equivalent clean-room

Sectional drawing



No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	PBT
(3)	Tube	Polyurethane, Nylon, etc
(4)	Guide ring	SUS304
(5)	Elastic sleeve	FKM
(6)	Casing1	PBT
(7)	O-ring	FKM
(8)	Hollow fiber membrane	PP
(9)	Casing2	PBT
(10)	Filter case	PA
(11)	Holder	POM
(12)	Screws	SUS304

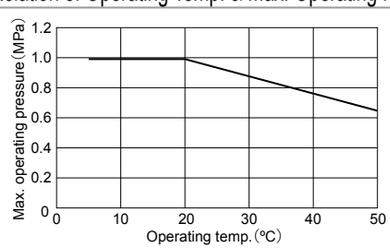
Specifications

Type	MFU50-44	MFU50-66	MFU50-88	MFU100-66	MFU100-88	MFU100-1010
Max. operating flow *2	50 ℓ/min [ANR]			100 ℓ/min [ANR]		
Membrane area	107 cm^2			215 cm^2		
Fluid medium *3	Air, Nitrogen					
Max. operating pressure *1	1.0 MPa (at 20°C)					
Operating temp. range	5 to 50°C					
Filtering accuracy *4	0.01 μm (Trapping efficiency: 99.99%)					
Pressure Resistance	1.5 MPa (at 20°C)					
Differential Pressure resistance	0.25 MPa (at 20°C)					
Filter area	4.7 cm^2		7.5 cm^2		12.7 cm^2	
Remark	with Explosion-Proof Cover, Oil-Free spec.					

⚠ Warning
*1. When the product is used beyond the operating temperature range, refer to "Relation of Operating Temp. & Max. Operating Pressure" before using. When the fluid medium is nitrogen, the max. operating pressure is 0.99MPa at 20°C.

⊕ Notes
*2. The primary pressure: Pressure loss at 0.7MPa; the air flow would become that of 0.03MPa. The maximum operating flow differs depending on the tube fitting's size.
*3. When the fluid medium is other than the above, contact us for details before using.
*4. Based on PISCO measuring condition.

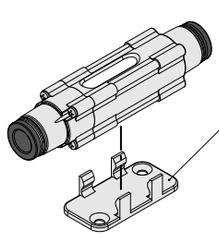
Relation of Operating Temp. & Max. Operating Pressure



RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code MFU□-øDøD-□
Hollow Fiber Membrane Filter MFU øD øD	MFU50-44-□
	MFU50-66-□
	MFU50-88-□
	MFU100-66-□
	MFU100-88-□
	MFU100-1010-□

Replacement parts



Holder

Hollow Fiber Membrane Filter type	Holder Model code
MFU50-□	MFUH050P01
MFU100-□	MFUH100P01

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Standard options
□ : -HN ⇒ Without holder

Filter and Regulator

Modular type filter and regulator unit

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

FTA (1) 300 (2) – 03 (3) – MD (4) – B (5) – (6) (7) (8)

(1) Type

Code	FTA	FTD	FTM	RVF	FRF
Type	Air Filter	Mist Filter	Micromist Filter	Regulator	Filter Regulator

(2) Flow rate

300 : 300 ℓ/min (ANR)

(3) Port size

Code	02	03
Port size	Rc1/4	Rc3/8

(4) Drain cock (No code entry for RVF)

Code	MD	AD
Drain cock spec.	Manual drain	Auto drain

(5) Fixing bracket (Only FTA, FTD and FTM*) * Standard equipment for RVF and FRF type

Code	No code	B
Bracket	Not equipped	With bracket

(6) Flow direction

Code	No code	R
Flow direction	Left to Right	Right to Left

(7) Handle position (RVF type only)

Code	No code	S
Handle position	Top	Bottom

(8) Pressure indication (*RVF and FRF type only.)

Code	Pressure indication	
No code	Pressure Gauge	
G	Digital Pressure Gauge	
T2	Pressure Sensor with LCD Dual-display	1 switch output & 1 analog output (with 2 m cable)
T2C		1 switch output & 1 analog output (M 8, 4 pin connector)
T3		2 switch outputs (with 2 m cable)
T3C		2 switch outputs (M 8, 4 pin connector)
T4		2 switch outputs (NPN output) & 1 analog output
T4P		2 switch outputs (PNP output) & 1 analog output
T5		2 switch outputs (NPN output) & copy function
T5P		2 switch outputs (PNP output) & copy function
L	Without Gauge	

Characteristics

• Air Filter

Filter for drain and dust (Filtering accuracy: 5 μm).

Two drainage methods: Manual or Auto draining.

• Micromist Filter

Filter for tiny dust and oil mist (Filtering accuracy: 0.01 μm).

Two drainage methods: Manual or Auto draining.

• Mist Filter

Filter for dust and oil mist (Filtering accuracy: 0.3 μm).

Two drainage methods: Manual or Auto draining.

• Regulator

Easy locking by push lock type handle.

Handle position is selectable.

A wide variety of pressure indication is available.
Type without Gauge is also available.

- Pressure Gauge: Display is readable from the side by a special scale.
- Digital pressure Gauge: Easy check is possible by reading indication.
- Pressure Sensor with LCD Dual-display: Clear LCD dual-display, 3 -colored indication.

Pressure Gauge

Digital Pressure Gauge

Pressure Sensor with LCD Dual-display

• Filter Regulator

Combined regulator with a filter for removal of drainage and foreign substance.

A wide variety of pressure indication is available. Type without Gauge is also available.

- Pressure Gauge: Display is readable from the side by a special scale.
- Digital pressure Gauge: Easy check is possible by reading indication.
- Pressure Sensor with LCD Dual-display: Clear LCD dual-display, 3 -colored indication.

Pressure Gauge

Digital Pressure Gauge

Pressure Sensor with LCD Dual-display

Specifications

■ Air Filter

Model code	FTA300-02-MD	FTA300-03-MD	FTA300-02-AD	FTA300-03-AD
Port size	Rc 1/4	Rc 3/8	Rc 1/4	Rc 3/8
Fluid medium	Air			
Max. operating pressure	1.0 MPa			
Min. operating pressure	0.05 MPa		0.15 MPa	
Pressure resistance	1.5 MPa			
Operating temp. range	5 to 50°C			
Filtering accuracy (*)	5 μm (Trapping efficiency: 99.99%)			
Bowl capacity	30 cc		–	

* Based on PISCO measuring condition.

■ Mist Filter

Model code	FTD300-02-MD	FTD300-03-MD	FTD300-02-AD	FTD300-03-AD
Port size	Rc 1/4	Rc 3/8	Rc 1/4	Rc 3/8
Fluid medium	Air			
Max. operating pressure	1.0 MPa			
Min. operating pressure	0.05 MPa		0.15 MPa	
Pressure resistance	1.5 MPa			
Operating temp. range	5 to 50°C			
Filtering accuracy (*)	0.3 μm (Trapping efficiency: 99.99%)			
Bowl capacity	30 cc		–	

* Based on PISCO measuring condition.

■ Micromist Filter

Model code	FTM300-02-MD	FTM300-03-MD	FTM300-02-AD	FTM300-03-AD
Port size	Rc 1/4	Rc 3/8	Rc 1/4	Rc 3/8
Fluid medium	Air			
Max. operating pressure	1.0 MPa			
Min. operating pressure	0.05 MPa		0.15 MPa	
Pressure resistance	1.5 MPa			
Operating temp. range	5 to 50°C			
Filtering accuracy (*)	0.01 μm (Trapping efficiency: 99.99%)			
Bowl capacity	30 cc		–	

* Based on PISCO measuring condition.

■ Regulator

Model code	RVF300-02	RVF300-03
Port size	Rc 1/4	Rc 3/8
Fluid medium	Air	
Max. operating pressure	1.0 MPa	
Pressure setting range	0.05 to 0.85 MPa	
Pressure resistance	1.5 MPa	
Operating temp. range	5 to 50°C	

■ Filter Regulator

Model code	FRF300-02-MD	FRF300-03-MD	FRF300-02-AD	FRF300-03-AD
Port size	Rc 1/4	Rc 3/8	Rc 1/4	Rc 3/8
Fluid medium	Air			
Max. operating pressure	1.0 MPa			
Min. operating pressure	0.05 MPa		0.15 MPa	
Pressure setting range	0.05 to 0.85 MPa		0.15 to 0.85 MPa	
Pressure resistance	1.5 MPa			
Operating temp. range	5 to 50°C			
Filtering accuracy (*)	5 μm (Trapping efficiency: 99.99%)			
Bowl capacity	30 cc		–	

* Based on PISCO measuring condition.

■ Pressure Gauge

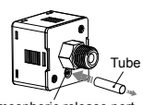
Model code	GK46-B20
Fluid medium	Air
Indicated pressure range	0 to 1.0 MPa
Accuracy (full scale)	±5%F.S.

■ Digital Pressure Gauge

Model code	GPD-01
Rated pressure range	0.000 to 1.000MPa
Indicated pressure range	-0.100 to 1.000MPa (*1,2)
Proof pressure	1.5MPa
Fluid medium	Air, non-corrosive / non-flammable gas
Pressure resolution	0.001 MPa
Battery	CR 2032 Lithium battery
Battery life	About 3 years (at 5 times indication/ day)
Low-power indicator	Equipped
Battery replaceability	Possible
Turn-on interval	Display turns off after 60 sec.
Sampling rate	2 Hz (2 times/sec.)
Repeatability	≦ ±0.2% F.S. ±1 digit
LCD display	7 segment, 3.5 digit
Indication accuracy	± 2% F.S. ± 1 digit max (ambient temperature: 25 ± 3°C)
Protective structure	IP65 (*3)
Ambient temp. range	Operation: 0 to 50ºC, Storage: -10 to 60ºC (No dew condensation or freezing)
Ambient humidity range	Operation/Storage: 35 to 85%RH (No dew condensation)
Vibration resistance	Total amplitude 1.5 mm or 100m/s² 10 Hz- 55 Hz-10Hz scan for 1 min., two hours each direction of X, Y and Z.
Shock resistance	100 m/s², 3 times each in direction of X, Y and Z
Temperature characteristics	±2%F.S. of detected pressure (25°C)
Weight	Approx. 40 grams (include lithium battery)

*1. The indication at the time of applying negative pressure is as Fig.1 and Fig. 2.
*2. Indicator accuracy is not guaranteed for the pressure range -0.1 to 0 MPa.
*3. A tube must be inserted into the air release port (Fig.3) to secure IP65.

Fig1 Fig2



Atmospheric release port
Fig3

■ Pressure Sensor with LCD Dual-display

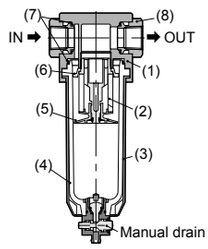
Model code		SEU-31, SEU-32
Rated pressure range		0.000 to 1.000 MPa
Proof pressure		1.5 MPa
Fluid medium		Air, non-corrosive / non-flammable gas
Power supply		12 to 24 VDC (Ripple max. ±10%)
Current consumption		40 mA or less (at No-loaded)
Switch output (*2)		NPN Open collector switch output / PNP Open collector switch output
		Max. load current: 125mA
		Max. supply voltage: 30 VDC / Max. load current: 24 VDC
		Residual voltage Max. 1.5V
Repeat accuracy		±0.2% F.S. ±1 digit max.
Hysteresis	One point setting mode / Hysteresis mode / Wind comparator mode	Adjustable (*1)
Response time		2.5 msmax. (Malfunction protection function: Selection from 25ms, 100 ms, 250 ms, 500 ms, 1000 ms, 1500 ms)
Overload protection		Equipped
Digital display		3 colors (Red, Green, Orange) indication (Sampling rate: 5 times / 1sec.)
Indication accuracy		±2% F.S. ±1 digit max. (at Ta=25±3°C)
Operation indicator		Orange 1&2 indicator
Analog output (Voltage output)		Output voltage: 1 to 5V ±2.5%F.S. or less (within rated pressure range), Linearity: ±1%F.S. or less, Output impedance: 1kΩ
Environmental resistance	Protective structure	IP40
	Ambient temp. range	Operation: 0 to 50°C, Storage: -10 to 60°C (No dew condensation or freezing)
	Ambient humidity. range	Operation/Storage: 35 to 85%RH (No dew condensation)
	Voltage proof	100 VAC 1 minute (Between the lead wire and the case)
	Insulation proof	Over 50MΩ (DC500V) (Between the lead wire and the case)
	Vibration resistance	Total amplitude 1.5 mm or 100 m/s² 10 Hz- 55 Hz-10 Hz scan for 1 min., two hours each direction of X, Y and Z.
	shock resistance	100m/s², 3 times each in direction of X, Y and Z
Temperature characteristics		±2%F.S. max (Basic Temperature is 25°C & range 0 to +50°C)
Cable spec.		Oil-resistance cable (0.15 mm²)

*1. Hysteresis value is adjustable within 1 to 8 digits for one point set mode and window comparator mode.
*2. Switch output: PNP open collector output is only for 32 series.

Filter and Regulator

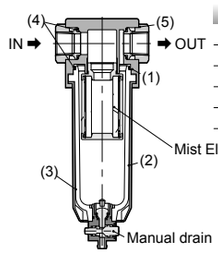
Sectional drawing

■ Air Filter



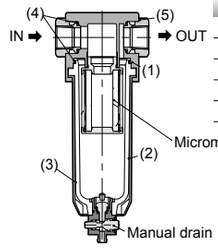
No.	Parts	Material
(1)	Body	ADC
(2)	Filter Element	PP
(3)	Bowl Guard	PA
(4)	Bowl	PC
(5)	Baffle	POM
(6)	Deflector	POM
(7)	O-ring	NBR
(8)	Adapter	Nickel-plated brass

■ Mist Filter



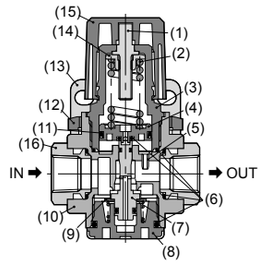
No.	Parts	Material
(1)	Body	ADC
(2)	Bowl Guard	PA
(3)	Bowl	PC
(4)	O-ring	NBR
(5)	Adapter	Nickel-plated brass

■ Micromist Filter



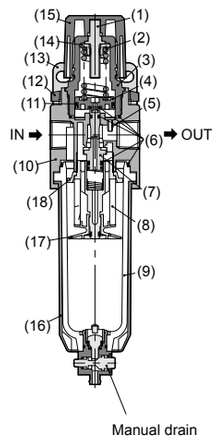
No.	Parts	Material
(1)	Body	ADC
(2)	Bowl Guard	PA
(3)	Bowl	PC
(4)	O-ring	NBR
(5)	Adapter	Nickel-plated brass

■ Regulator



No.	Parts	Material
(1)	Pressure adjustment screw	Rolled steel for general structure
(2)	Pressure adjustment spring	SWP
(3)	Bonnet	POM
(4)	Piston	POM
(5)	Pipe	Phosphorus deoxidized steel
(6)	O-ring	NBR
(7)	Valve	Brass
(8)	Plug	POM
(9)	Ring	Stainless steel
(10)	Body	ADC
(11)	Y-packing	NBR
(12)	Lock nut	POM
(13)	Bracket	SPC
(14)	Pressure adjustment nut	Brass
(15)	Handle	POM
(16)	Adapter	Nickel-plated brass

■ Filter Regulator



No.	Parts	Material
(1)	Pressure adjustment screw	Rolled steel for general structure
(2)	Pressure adjustment spring	SWP
(3)	Bonnet	POM
(4)	Piston	POM
(5)	Pipe	Phosphorus deoxidized steel
(6)	O-ring	NBR
(7)	Valve	Brass
(8)	Filter Element	PP
(9)	Bowl	PC
(10)	Body	ADC
(11)	Y-packing	NBR
(12)	Lock nut	POM
(13)	Bracket	SPC
(14)	Pressure adjustment nut	Brass
(15)	Handle	POM
(16)	Bowl Guard	PA
(17)	Baffle	POM
(18)	Deflector	POM

RoHS2 (2011/65/EU+EU2015/863) compliant

Filter					
Type	Model code FTA300-Rc-④-⑤-⑥	Type	Model code FTD300-Rc-④-⑤-⑥	Type	Model code FTM300-Rc-④-⑤-⑥
Air Filter FTA	FTA300-02-MD-⑥	Mist Filter FTD	FTD300-02-MD-⑥	Micromist Filter FTM	FTM300-02-MD-⑥
	FTA300-03-MD-⑥		FTD300-03-MD-⑥		FTM300-03-MD-⑥
	FTA300-02-AD-⑥		FTD300-02-AD-⑥		FTM300-02-AD-⑥
	FTA300-03-AD-⑥		FTD300-03-AD-⑥		FTM300-03-AD-⑥
	FTA300-02-MD-B-⑥		FTD300-02-MD-B-⑥		FTM300-02-MD-B-⑥
	FTA300-03-MD-B-⑥		FTD300-03-MD-B-⑥		FTM300-03-MD-B-⑥
	FTA300-02-AD-B-⑥		FTD300-02-AD-B-⑥		FTM300-02-AD-B-⑥
	FTA300-03-AD-B-⑥		FTD300-03-AD-B-⑥		FTM300-03-AD-B-⑥

Notes
*1. For ⑥ in model code, please select the code "R" for the flow direction from right to left.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

RoHS2 (2011/65/EU+EU2015/863) compliant

Regulator and Filter regulator

Without Gauge

Type	Model code RVF300-Rc-6L
Regulator RVF * Handle position Top type	RVF300-02-6L
	RVF300-02-6SL
	RVF300-03-6L
	RVF300-03-6SL

Type	Model code FRF300-Rc-4-6L
Filter Regulator FRF	FRF300-02-MD-6L
	FRF300-03-MD-6L
	FRF300-02-AD-6L
	FRF300-03-AD-6L

With Pressure Gauge

Type	Model code RVF300-Rc-6
Regulator RVF * Handle position Top type	RVF300-02-6
	RVF300-02-6S
	RVF300-03-6
	RVF300-03-6S

Type	Model code FRF300-Rc-4-6
Filter Regulator FRF	FRF300-02-MD-6
	FRF300-03-MD-6
	FRF300-02-AD-6
	FRF300-03-AD-6

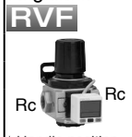
With Digital Pressure Gauge

Type	Model code RVF300-Rc-67G
Regulator RVF * Handle position Top type	RVF300-02-6G
	RVF300-02-6SG
	RVF300-03-6G
	RVF300-03-6SG

Type	Model code FRF300-Rc-4-6G
Filter Regulator FRF	FRF300-02-MD-6G
	FRF300-03-MD-6G
	FRF300-02-AD-6G
	FRF300-03-AD-6G

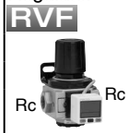
Digital pressure sensor with LCD Dual-display

1 switch output & 1 analog output or 2 switch outputs (with 2 m cable)

Type	Model code RVF300-Rc-6T8
Regulator RVF  * Handle position Top type	RVF300-02-6T8
	RVF300-02-6ST8
	RVF300-03-6T8
	RVF300-03-6ST8

Type	Model code FRF300-Rc-4-6T8
Filter Regulator FRF	FRF300-02-MD-6T8
	FRF300-03-MD-6T8
	FRF300-02-AD-6T8
	FRF300-03-AD-6T8

1 switch output & 1 analog output or 2 switch outputs (M 8, 4 pin connector)

Type	Model code RVF300-Rc-6T8C
Regulator RVF  * Handle position Top type	RVF300-02-6T8C
	RVF300-02-6ST8C
	RVF300-03-6T8C
	RVF300-03-6ST8C

Type	Model code FRF300-Rc-4-6T8C
Filter Regulator FRF	FRF300-02-MD-6T8C
	FRF300-03-MD-6T8C
	FRF300-02-AD-6T8C
	FRF300-03-AD-6T8C

2 switch outputs & analog output or 2 switch outputs with copy function

Type	Model code RVF300-Rc-6T8
Regulator RVF * Handle position Top type	RVF300-02-6T4
	RVF300-02-6T5
	RVF300-02-6T4P
	RVF300-02-6T5P
	RVF300-02-6ST4
	RVF300-02-6ST5
	RVF300-02-6ST4P
	RVF300-02-6ST5P
	RVF300-03-6T4
	RVF300-03-6T5
	RVF300-03-6T4P
	RVF300-03-6T5P
	RVF300-03-6ST4
	RVF300-03-6ST5
	RVF300-03-6ST4P
	RVF300-03-6ST5P

Type	Model code FRF300-Rc-4-6T8
Filter Regulator FRF	FRF300-02-MD-6T4
	FRF300-02-MD-6T5
	FRF300-02-MD-6T4P
	FRF300-02-MD-6T5P
	FRF300-03-MD-6T4
	FRF300-03-MD-6T5
	FRF300-03-MD-6T4P
	FRF300-03-MD-6T5P
	FRF300-02-AD-6T4
	FRF300-02-AD-6T5
	FRF300-02-AD-6T4P
	FRF300-02-AD-6T5P
	FRF300-03-AD-6T4
	FRF300-03-AD-6T5
	FRF300-03-AD-6T4P
	FRF300-03-AD-6T5P

Notes
*1. For 6 in model code, please select the code "R" for the flow direction from right to left.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Filter and Regulator Combination Unit

Combination Unit of Air Filter and Regulator

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

U (1) ADR (2) 300 (3) – 03 (4) – AD (5) – (6) (7)

(1) Filter and Regulator Combination Unit

(2) Unit combination (○: Equipped)

Code	AR	AD	ADR	AM	AMR
Air Filter	○	○	○	○	○
Mist Filter		○	○		
Micromist Filter				○	○
Regulator	○		○		○

(3) Operating flow rate
300 : 300 ℓ/min (ANR)

(4) Port size

Code	02	03
Port size	Rc1/4	Rc3/8

(5) Drain cock

Code	MD	AD
Drain cock spec.	Manual drain	Auto drain

(6) Flow direction

Code	No code	R
Flow direction	Left to Right	Right to Left

(7) Pressure indication (UADR, UAMR and UAR type only.)

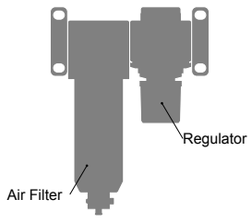
Code	Pressure indication	
No code	Pressure Gauge	
G	Digital Pressure Gauge	
T2	Pressure Sensor with LCD Dual-display	1 switch output & 1 analog output (with 2 m cable)
T2C		1 switch output & 1 analog output (M8, 4 pin connector)
T3		2 switch outputs (with 2 m cable)
T3C		2 switch outputs (M8, 4 pin connector)
T4		2 switch outputs (NPN output) & 1 analog output
T4P		2 switch outputs (PNP output) & 1 analog output
T5		2 switch outputs (NPN output) & copy function
T5P		2 switch outputs (PNP output) & copy function
L	Without Gauge	

Characteristics

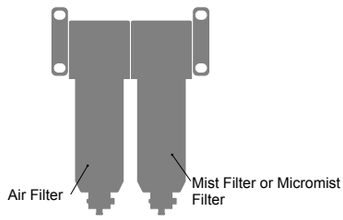
Variety of combinations and easy maintenance.

Module type of Air Filter, Mist Filter or Micromist Filter and Regulator.

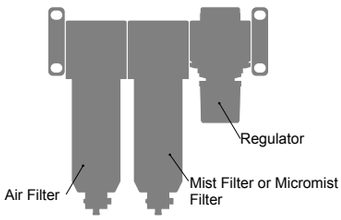
UAR



UAD UAM



UADR UAMR



A wide variety of pressure indication is available.

· Pressure Gauge: Display is readable from the side by a special scale.
· Digital pressure Gauge: Easy check is possible by reading indication.
· Pressure Sensor with LCD Dual-display: Clear LCD dual-display, 3 -colored indication.

Pressure Gauge

Digital Pressure Gauge

Pressure Sensor with LCD Dual-display

RoHS2 (2011/65/EU+EU2015/863) compliant

Without Gauge

Type	Model code UAR300-Rc-5-6L
Air Filter, Regulator **UAR**	UAR300-02-MD-6L
	UAR300-03-MD-6L
	UAR300-02-AD-6L
	UAR300-03-AD-6L

Type	Model code UAD300-Rc-5-6
Air Filter, Mist Filter **UAD**	UAD300-02-MD-6
	UAD300-03-MD-6
	UAD300-02-AD-6
	UAD300-03-AD-6

Type	Model code UADR300-Rc-5-6L
Air Filter, Mist Filter, Regulator **UADR**	UADR300-02-MD-6L
	UADR300-03-MD-6L
	UADR300-02-AD-6L
	UADR300-03-AD-6L

Type	Model code UAM300-Rc-5-6
Air Filter, Micromist Filter **UAM**	UAM300-02-MD-6
	UAM300-03-MD-6
	UAM300-02-AD-6
	UAM300-03-AD-6

Type	Model code UAMR300-Rc-5-6L
Air Filter, Micromist Filter, Regulator **UAMR**	UAMR300-02-MD-6L
	UAMR300-03-MD-6L
	UAMR300-02-AD-6L
	UAMR300-03-AD-6L

With Pressure Gauge

Type	Model code UAR300-Rc-5-6
Air Filter, Regulator **UAR**	UAR300-02-MD-6
	UAR300-03-MD-6
	UAR300-02-AD-6
	UAR300-03-AD-6

Type	Model code UADR300-Rc-5-6
Air Filter, Mist Filter, Regulator **UADR**	UADR300-02-MD-6
	UADR300-03-MD-6
	UADR300-02-AD-6
	UADR300-03-AD-6

Type	Model code UAMR300-Rc-5-6
Air Filter, Micromist Filter, Regulator **UAMR**	UAMR300-02-MD-6
	UAMR300-03-MD-6
	UAMR300-02-AD-6
	UAMR300-03-AD-6

With Digital Pressure Gauge

Type	Model code UAR300-Rc-5-6G
Air Filter, Regulator **UAR**	UAR300-02-MD-6G
	UAR300-03-MD-6G
	UAR300-02-AD-6G
	UAR300-03-AD-6G

Type	Model code UADR300-Rc-5-6G
Air Filter, Mist Filter, Regulator **UADR**	UADR300-02-MD-6G
	UADR300-03-MD-6G
	UADR300-02-AD-6G
	UADR300-03-AD-6G

Type	Model code UAMR300-Rc-5-6G
Air Filter, Micromist Filter, Regulator **UAMR**	UAMR300-02-MD-6G
	UAMR300-03-MD-6G
	UAMR300-02-AD-6G
	UAMR300-03-AD-6G

Notes
*1. For 6 in model code, please select the code "R" only in case of requiring flow direction from right to left.

CAD data is available at PISCO website

Packaging specifications
1 pc. /bag

Filter and Regulator Combination Unit

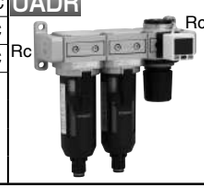
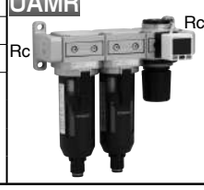
RoHS2 (2011/65/EU+EU2015/863) compliant

With Pressure Sensor with LCD Dual-display

1 switch output & 1 analog output or 2 switch outputs (with 2 m cable)

Type	Model code UAR300-Rc-5-6T7	Type	Model code UADR300-Rc-5-6T7	Type	Model code UAMR300-Rc-5-6T7
Air Filter, Regulator UAR 	UAR300-02-MD-6T7 UAR300-03-MD-6T7 UAR300-02-AD-6T7 UAR300-03-AD-6T7	Air Filter, Mist Filter, Regulator UADR 	UADR300-02-MD-6T7 UADR300-03-MD-6T7 UADR300-02-AD-6T7 UADR300-03-AD-6T7	Air Filter, Micromist Filter, Regulator UAMR 	UAMR300-02-MD-6T7 UAMR300-03-MD-6T7 UAMR300-02-AD-6T7 UAMR300-03-AD-6T7

1 switch output & 1 analog output or 2 switch outputs(M 8, 4 pin connector)

Type	Model code UAR300-Rc-5-6T7C	Type	Model code UADR300-Rc-5-6T7C	Type	Model code UAMR300-Rc-5-6T7C
Air Filter, Regulator UAR 	UAR300-02-MD-6T7C UAR300-03-MD-6T7C UAR300-02-AD-6T7C UAR300-03-AD-6T7C	Air Filter, Mist Filter, Regulator UADR 	UADR300-02-MD-6T7C UADR300-03-MD-6T7C UADR300-02-AD-6T7C UADR300-03-AD-6T7C	Air Filter, Micromist Filter, Regulator UAMR 	UAMR300-02-MD-6T7C UAMR300-03-MD-6T7C UAMR300-02-AD-6T7C UAMR300-03-AD-6T7C

2 switch outputs & analog output or 2 switch outputs with copy function

Type	Model code UAR300-Rc-5-6T7	Type	Model code UADR300-Rc-5-6T7	Type	Model code UAMR300-Rc-5-6T7
Air Filter, Regulator UAR 	UAR300-02-MD-6T4 UAR300-02-MD-6T5 UAR300-02-MD-6T4P UAR300-02-MD-6T5P UAR300-03-MD-6T4 UAR300-03-MD-6T5 UAR300-03-MD-6T4P UAR300-03-MD-6T5P UAR300-02-AD-6T4 UAR300-02-AD-6T5 UAR300-02-AD-6T4P UAR300-02-AD-6T5P UAR300-03-AD-6T4 UAR300-03-AD-6T5 UAR300-03-AD-6T4P UAR300-03-AD-6T5P	Air Filter, Mist Filter, Regulator UADR 	UADR300-02-MD-6T4 UADR300-02-MD-6T5 UADR300-02-MD-6T4P UADR300-02-MD-6T5P UADR300-03-MD-6T4 UADR300-03-MD-6T5 UADR300-03-MD-6T4P UADR300-03-MD-6T5P UADR300-02-AD-6T4 UADR300-02-AD-6T5 UADR300-02-AD-6T4P UADR300-02-AD-6T5P UADR300-03-AD-6T4 UADR300-03-AD-6T5 UADR300-03-AD-6T4P UADR300-03-AD-6T5P	Air Filter, Micromist Filter, Regulator UAMR 	UAMR300-02-MD-6T4 UAMR300-02-MD-6T5 UAMR300-02-MD-6T4P UAMR300-02-MD-6T5P UAMR300-03-MD-6T4 UAMR300-03-MD-6T5 UAMR300-03-MD-6T4P UAMR300-03-MD-6T5P UAMR300-02-AD-6T4 UAMR300-02-AD-6T5 UAMR300-02-AD-6T4P UAMR300-02-AD-6T5P UAMR300-03-AD-6T4 UAMR300-03-AD-6T5 UAMR300-03-AD-6T4P UAMR300-03-AD-6T5P

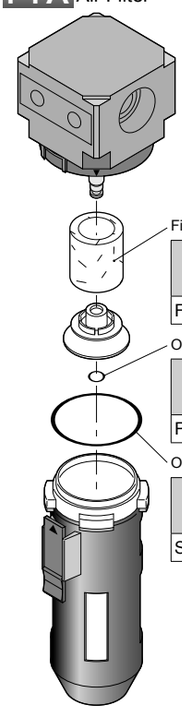
Notes
*1. For 6 in model code, please select the code "R" only in case of requiring flow direction from right to left.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Replacement parts

FTA Air Filter

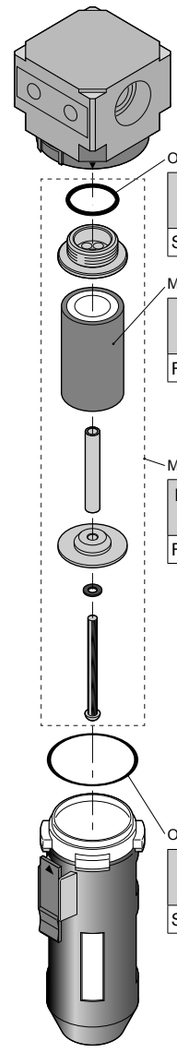


Filter element Model code
FE300A

O-ring Model code
P4

O-ring Model code
S38

FTD Mist Filter



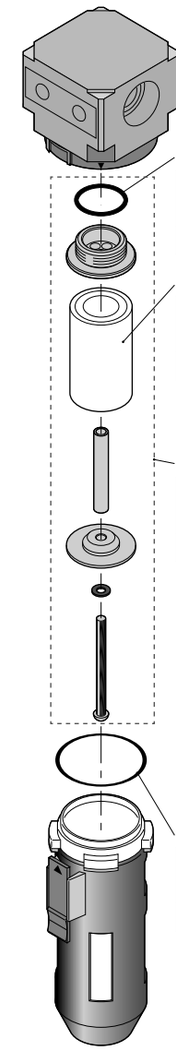
O-ring Model code
S20

Mist element Model code
FE300DN

Mist element set Model code
FE300DK

O-ring Model code
S38

FTM Micromist Filter



O-ring Model code
S20

Micromist element Model code
FE300MN

Micromist element set Model code
FE300MK

O-ring Model code
S38

RVF Regulator

Box type Pressure Gauge Model code
GK46-B20

Fiber Dry

Hollow fiber membrane filter type air dryer

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

FDT (1) 100 (2) – 6 (3) – A (4) (5)

(1) Type

Code	FDT	DMP	DMM	DMB	DMF	FFT
Type	Filter and Dryer	Dryer (Resin body)	Dryer (Resin case U type)	Dryer (Union straight)	Dryer (Flexible type)	Filter only

(2) Flow rate

Code	040	100	301	500
Flow rate (l/min (ANR))	40	100	300	500

(3) Tube dia. (øD)

	mm size (mm)							inch size (inch)*	
Code	4	6	8	10	12	16	00	1/4	3/8
Tube O.D.	ø4	ø6	ø8	ø10	ø12	ø16	No tube fitting	ø1/4	ø3/8

* Inch size is avalable only for FFT100.

(4) Drainage method (FDT and FFT only.)

Code	No code	A
Drainage method	Manual Drain (Push type)	Auto Drain (Automatic drain type *)

* When internal pressure in the case is less than 0.05MPa, the auto drain function starts the operation.

(5) Operating flow rate (Outlet Port) (DMM040 only.)

Code	1	2	3
Operating flow rate	16ℓ/min [ANR]	30ℓ/min [ANR]	40ℓ/min [ANR]

Characteristics

Connect in your pneumatic system as simple as a filter.

Higher performance than a refrigeration air dryer.

Fiber Dry Series produce no drainage.

Removed water is evacuated as a water vapor.

No power supply required.

Purging flow is adjustable.

When the Purging air flow is too large, it can be adjusted by 3 levels.
* For DMM040, the purging flow needs to be specified in the model code.

Specifications

Fluid medium	Air
Operating pressure range	Inside of hollow fiber membrane : 0.3 to 0.85 MPa Outside of hollow fiber membrane : 0 to 0.05 MPa
Fluid medium temp.	0 to 55°C (No freezing)
Operating temp. range	0 to 55°C (No freezing)

* When fluid medium other than air is used, contact us for details before using.

Basic Performance

Example: DMP100

■ Inlet port Air

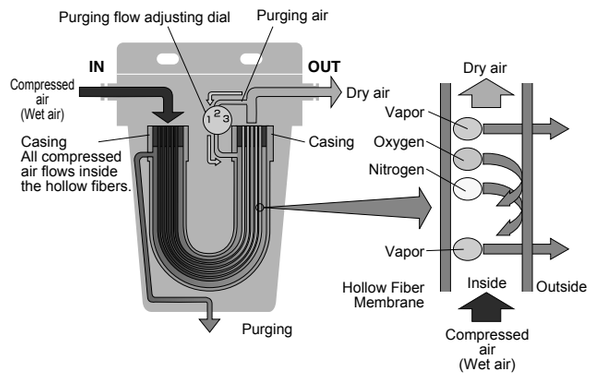
Pressure	0.7 MPa
Air flow rate	125 ℓ/min (ANR)
Air temp.	20°C
Water vapor amount	Saturation
Purge rate	20% (Purging circuit: 3)

■ Outlet port Air

Air flow rate	100 ℓ/min (ANR)
Achieved dew point	-17°C or less (Atmospheric pressure)

Mechanism of Dehumidification

■ Only vapor in compressed air flows inside the hollow fiber films is discharged and purged to outside the system by the purging air (A part of dried air).



RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code FDT100-øD-4
Filter and Dryer FDT	FDT100-4
	FDT100-4-A
	FDT100-6
	FDT100-6-A
	FDT100-8
	FDT100-8-A
	FDT100-10
	FDT100-10-A

Type	Model code DMP100-øD
Dryer (Resin body) DMP	DMP100-4
	DMP100-6
	DMP100-8
	DMP100-10

Type	Model code FFT100-øD-4
Filter only FFT	FFT100-4
	FFT100-4-A
	FFT100-6
	FFT100-6-A
	FFT100-8
	FFT100-8-A
	FFT100-10
	FFT100-10-A
	FFT100-1/4
	FFT100-1/4-A
	FFT100-3/8
	FFT100-3/8-A

Type	Model code DMM040-øD-5
Dryer (Resin case U type) DMM	DMM040-4-5
	DMM040-6-5

Type	Model code DMM100-øD
Dryer (Resin case U type) DMM	DMM100-4
	DMM100-6
	DMM100-8
	DMM100-10
	DMM100-00

Type	Model code DMM301-øD
Dryer (Resin case U type) DMM	DMM301-6
	DMM301-8
	DMM301-10
	DMM301-12
	DMM301-16
	DMM301-00

Type	Model code DMB100-øD
Dryer (Union straight) DMB	DMB100-4
	DMB100-6
	DMB100-8
	DMB100-10

Type	Model code DMB500-øD
Dryer (Union straight) DMB	DMB500-12

Type	Model code DMF040-øD
Dryer (Flexible type) DMF	DMF040-4
	DMF040-6
	DMF040-8

Notes
* For 5 in the end of model code for DMM040, please select a code for an operating flow rate (outlet port).

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Dry Unit

Combination Unit of Hollow Fiber Membrane Filter type Air Dryer and Regulator

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

FMDR	301	–	03	–	W8	–	AD	–	(6)	(7)
(1)	(2)		(3)		(4)		(5)			

(1) Unit combination (○ : Equipped)

Code	FD	FDR	FBD	FMD	FBDR	FMDR
Air Filter	○	○	○	○	○	○
Mist Filter			○		○	
Micromist Filter				○		○
Fiber Dry	○	○	○	○	○	○
Regulator		○			○	○

(2) Dry air flow rate

Code	100	301
Flow rate (ℓ/min [ANR])	100	300

(3) Inlet port * For Rc thread, size of Inlet and Outlet ports are same.

Code	02	03	C6 (e.g.)
Port size	Rc1/4 (Refer to Table 1)	Rc3/8 (Refer to Table 1)	Push-in fitting size (Refer to Table 2)

(4) Outlet port

Code	No code	02	03	C6 (e.g.)
Port size	Same size as Inlet port	Rc1/4 (Refer to Table 1)	Rc3/8 (Refer to Table 1)	Push-in fitting size (Refer to Table 2)

(5) Drain cock

Code	MD	AD
Drain cock spec.	Manual drain	Auto drain

(6) Flow direction

Code	No code	R
Flow direction	Left to Right	Right to Left

(7) Pressure indication (FDR, FBDR and FMDR type only.)

Code	Pressure indication	
No code	Pressure Gauge	
G	Digital Pressure Gauge	
T2	Pressure Sensor with LCD Dual-display	1 switch output & 1 analog output (with 2 m cable)
T2C		1 switch output & 1 analog output (M8, 4 pin connector)
T3		2 switch outputs (with 2 m cable)
T3C		2 switch outputs (M8, 4 pin connector)
T4		2 switch outputs (NPN output) & 1 analog output
T4P		2 switch outputs (PNP output) & 1 analog output
T5		2 switch outputs (NPN output) & copy function
T5P		2 switch outputs (PNP output) & copy function
L	Without Gauge	

● Table 1. Port size (○:Available)

Code	100 series		301 series	
	02	03	02	03
FD	○	–	–	○
FDR	○	○	○	○
FBD	○	–	–	○
FMD	○	–	–	○
FBDR	○	○	○	○
FMDR	○	○	○	○

● Table 2. Push-in fitting size

Code	Size (mm)	Type
C4 *1 *2	ø4	Straight type
C6 *1	ø6	
C8	ø8	
C10	ø10	
C12	ø12	
C16 *3	ø16	
L4 *1 *2	ø4	Elbow type
L6 *1	ø6	
L8	ø8	
L10	ø10	
L12	ø12	
L16 *3	ø16	
W4	ø4	Double Banjo Type
W6	ø6	
W8	ø8	
W10	ø10	
W12	ø12	* Outlet port only

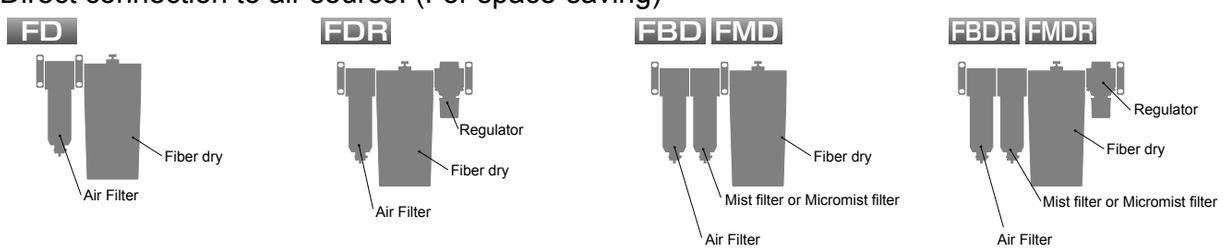
*1. Push-in fitting size ø4 mm or ø6 mm are available only when Manual Drain is selected.
*2. Available for Dry air flow rate 100 series only
*3. Available for Dry air flow rate 301 series only

Characteristics

Filter and Regulator are integrated into Hollow Fiber Membrane Filter type Air Dryer.

Air filter, Mist filter, Micromist filter and Regulator are integrated into Fiber Dry.

Direct connection to air source. (For space-saving)



A wide variety of pressure indication is available.

· Pressure Gauge: Display is readable from the side by a special scale.
· Digital pressure Gauge: Easy check is possible by reading indication.
· Pressure Sensor with LCD Dual-display: Clear LCD dual-display, 3 -colored indication.

Pressure Gauge | Digital Pressure Gauge | Pressure Sensor with LCD Dual-display

RoHS2 (2011/65/EU+EU2015/863) compliant

100 series

Without Gauge

Type	Model code
FD Air Filter, Fiber Dry	FD100-[3]-[4]-MD-[6]
	FD100-[3]-[4]-AD-[6]

Type	Model code
FBD Air Filter, Mist Filter, Fiber Dry FMD Air Filter, Micromist Filter, Fiber Dry	FBD100-[3]-[4]-MD-[6]
	FBD100-[3]-[4]-AD-[6]
	FMD100-[3]-[4]-MD-[6]
	FMD100-[3]-[4]-AD-[6]

Type	Model code
FDR Air Filter, Fiber Dry, Regulator	FDR100-[3]-[4]-MD-[6]L
	FDR100-[3]-[4]-AD-[6]L

Type	Model code
FBDR Air Filter, Mist Filter, Fiber Dry, Regulator FMDR Air Filter, Micromist Filter, Fiber Dry, Regulator	FBDR100-[3]-[4]-MD-[6]L
	FBDR100-[3]-[4]-AD-[6]L
	FMDR100-[3]-[4]-MD-[6]L
	FMDR100-[3]-[4]-AD-[6]L

With Pressure Gauge

Type	Model code
FDR Air Filter, Fiber Dry, Regulator	FDR100-[3]-[4]-MD-[6]
	FDR100-[3]-[4]-AD-[6]

Type	Model code
FBDR Air Filter, Mist Filter, Fiber Dry, Regulator FMDR Air Filter, Micromist Filter, Fiber Dry, Regulator	FBDR100-[3]-[4]-MD-[6]
	FBDR100-[3]-[4]-AD-[6]
	FMDR100-[3]-[4]-MD-[6]
	FMDR100-[3]-[4]-AD-[6]

With Digital Pressure Gauge

Type	Model code
FDR Air Filter, Fiber Dry, Regulator	FDR100-[3]-[4]-MD-[6]G
	FDR100-[3]-[4]-AD-[6]G

Type	Model code
FBDR Air Filter, Mist Filter, Fiber Dry, Regulator FMDR Air Filter, Micromist Filter, Fiber Dry, Regulator	FBDR100-[3]-[4]-MD-[6]G
	FBDR100-[3]-[4]-AD-[6]G
	FMDR100-[3]-[4]-MD-[6]G
	FMDR100-[3]-[4]-AD-[6]G

With Pressure Sensor with LCD Dual-display

1 switch output & 1 analog output or 2 switch outputs (with 2 m cable)

Type	Model code
FDR Air Filter, Fiber Dry, Regulator	FDR100-[3]-[4]-MD-[6]T[7]
	FDR100-[3]-[4]-AD-[6]T[7]

Type	Model code
FBDR Air Filter, Mist Filter, Fiber Dry, Regulator FMDR Air Filter, Micromist Filter, Fiber Dry, Regulator	FBDR100-[3]-[4]-MD-[6]T[7]
	FBDR100-[3]-[4]-AD-[6]T[7]
	FMDR100-[3]-[4]-MD-[6]T[7]
	FMDR100-[3]-[4]-AD-[6]T[7]

2 switch outputs & analog output or 2 switch outputs with copy function

Type	Model code
FDR Air Filter, Fiber Dry, Regulator	FDR100-[3]-[4]-MD-[6]T4
	FDR100-[3]-[4]-MD-[6]T5
	FDR100-[3]-[4]-MD-[6]T4P
	FDR100-[3]-[4]-MD-[6]T5P
	FDR100-[3]-[4]-AD-[6]T4
	FDR100-[3]-[4]-AD-[6]T5
	FDR100-[3]-[4]-AD-[6]T4P
	FDR100-[3]-[4]-AD-[6]T5P

1 switch output & 1 analog output or 2 switch outputs (M 8, 4 pin connector)

Type	Model Code
FDR Air Filter, Fiber Dry, Regulator	FDR100-[3]-[4]-MD-[6]T[7]C
	FDR100-[3]-[4]-AD-[6]T[7]C

Type	Model Code
FBDR Air Filter, Mist Filter, Fiber Dry, Regulator FMDR Air Filter, Micromist Filter, Fiber Dry, Regulator	FBDR100-[3]-[4]-MD-[6]T[7]C
	FBDR100-[3]-[4]-AD-[6]T[7]C
	FMDR100-[3]-[4]-MD-[6]T[7]C
	FMDR100-[3]-[4]-AD-[6]T[7]C

Type	Model Code
FBDR Air Filter, Mist Filter, Fiber Dry, Regulator FMDR Air Filter, Micromist Filter, Fiber Dry, Regulator	FBDR100-[3]-[4]-MD-[6]T4
	FBDR100-[3]-[4]-MD-[6]T5
	FBDR100-[3]-[4]-MD-[6]T4P
	FBDR100-[3]-[4]-MD-[6]T5P
	FBDR100-[3]-[4]-AD-[6]T4
	FBDR100-[3]-[4]-AD-[6]T5
	FBDR100-[3]-[4]-AD-[6]T4P
	FBDR100-[3]-[4]-AD-[6]T5P
	FMDR100-[3]-[4]-MD-[6]T4
	FMDR100-[3]-[4]-MD-[6]T5
	FMDR100-[3]-[4]-MD-[6]T4P
	FMDR100-[3]-[4]-MD-[6]T5P
	FMDR100-[3]-[4]-AD-[6]T4
	FMDR100-[3]-[4]-AD-[6]T5
	FMDR100-[3]-[4]-AD-[6]T4P
	FMDR100-[3]-[4]-AD-[6]T5P

Notes
* For [3] and [4] in model code, please select inlet / outlet port and for [6] in model code, please select flow direction from Model Designation (Example).

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Dry Unit

RoHS2 (2011/65/EU+EU2015/863) compliant

301 series

Without Gauge

Type	Model Code
FD Air Filter, Fiber Dry	FD301-3-4-MD-6
	FD301-3-4-AD-6

Type	Model Code
FBD Air Filter, Mist Filter, Fiber Dry	FBD301-3-4-MD-6
	FBD301-3-4-AD-6
FMD Air Filter, Micromist Filter, Fiber Dry	FMD301-3-4-MD-6
	FMD301-3-4-AD-6

Type	Model Code
FDR Air Filter, Fiber Dry, Regulator	FDR301-3-4-MD-6L
	FDR301-3-4-AD-6L

Type	Model Code
FBDR Air Filter, Mist Filter, Fiber Dry, Regulator	FBDR301-3-4-MD-6L
	FBDR301-3-4-AD-6L
FMDR Air Filter, Micromist Filter, Fiber Dry, Regulator	FMDR301-3-4-MD-6L
	FMDR301-3-4-AD-6L

With Pressure Gauge

Type	Model Code
FDR Air Filter, Fiber Dry, Regulator	FDR301-3-4-MD-6
	FDR301-3-4-AD-6

Type	Model Code
FBDR Air Filter, Mist Filter, Fiber Dry, Regulator	FBDR301-3-4-MD-6
	FBDR301-3-4-AD-6
FMDR Air Filter, Micromist Filter, Fiber Dry, Regulator	FMDR301-3-4-MD-6
	FMDR301-3-4-AD-6

With Digital Pressure Gauge

Type	Model Code
FDR Air Filter, Fiber Dry, Regulator	FDR301-3-4-MD-6G
	FDR301-3-4-AD-6G

Type	Model Code
FBDR Air Filter, Mist Filter, Fiber Dry, Regulator	FBDR301-3-4-MD-6G
	FBDR301-3-4-AD-6G
FMDR Air Filter, Micromist Filter, Fiber Dry, Regulator	FMDR301-3-4-MD-6G
	FMDR301-3-4-AD-6G

With Pressure Sensor with LCD Dual-display

1 switch output & 1 analog output or 2 switch outputs (with 2 m cable)

Type	Model Code
FDR Air Filter, Fiber Dry, Regulator	FDR301-3-4-MD-6T7
	FDR301-3-4-AD-6T7

Type	Model Code
FBDR Air Filter, Mist Filter, Fiber Dry, Regulator	FBDR301-3-4-MD-6T7
	FBDR301-3-4-AD-6T7
FMDR Air Filter, Micromist Filter, Fiber Dry, Regulator	FMDR301-3-4-MD-6T7
	FMDR301-3-4-AD-6T7

2 switch outputs & analog output or 2 switch outputs with copy function

Type	Model Code
FDR Air Filter, Fiber Dry, Regulator	FDR301-3-4-MD-6T4
	FDR301-3-4-MD-6T5
	FDR301-3-4-MD-6T4P
	FDR301-3-4-MD-6T5P
	FDR301-3-4-AD-6T4
	FDR301-3-4-AD-6T5
	FDR301-3-4-AD-6T4P
	FDR301-3-4-AD-6T5P

1 switch output & 1 analog output or 2 switch outputs (M 8, 4 pin connector)

Type	Model Code
FDR Air Filter, Fiber Dry, Regulator	FDR301-3-4-MD-6T7C
	FDR301-3-4-AD-6T7C

Type	Model Code
FBDR Air Filter, Mist Filter, Fiber Dry, Regulator	FBDR301-3-4-MD-6T7C
	FBDR301-3-4-AD-6T7C
FMDR Air Filter, Micromist Filter, Fiber Dry, Regulator	FMDR301-3-4-MD-6T7C
	FMDR301-3-4-AD-6T7C

Type	Model Code
FBDR Air Filter, Mist Filter, Fiber Dry, Regulator	FBDR301-3-4-MD-6T4
	FBDR301-3-4-MD-6T5
	FBDR301-3-4-MD-6T4P
	FBDR301-3-4-MD-6T5P
	FBDR301-3-4-AD-6T4
	FBDR301-3-4-AD-6T5
	FBDR301-3-4-AD-6T4P
	FBDR301-3-4-AD-6T5P
FMDR Air Filter, Micromist Filter, Fiber Dry, Regulator	FMDR301-3-4-MD-6T4
	FMDR301-3-4-MD-6T5
	FMDR301-3-4-MD-6T4P
	FMDR301-3-4-MD-6T5P
	FMDR301-3-4-AD-6T4
	FMDR301-3-4-AD-6T5
	FMDR301-3-4-AD-6T4P
	FMDR301-3-4-AD-6T5P

Notes
* For 3 and 4 in model code, please select inlet / outlet port and for 6 in model code, please select flow direction from Model Designation (Example).

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Air Tank

PISCO

>>> https://www.pisco.co.jp/en/

For pressure fluctuations and pulsation countermeasures of compressed air and vacuum air

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

ATS (1) – 10 (2)

(1) Air Tank

(2) Tank Capacity

Code	0.4	0.75	2	5	10	20
Capacity (ℓ)	0.4	0.75	2	5	10	20

Characteristics

- Reducing the air and vacuum pressure fluctuations and pulsations.
- Tank capacity is selectable from 6 variations.
- Tank is made of stainless steel.
  Tank capacity 0.4 to 10ℓ ► SUS 304 Equivalent.
  Tank capacity 20ℓ ► SUS321 Equivalent.

Specifications

Model code		ATS-0.4	ATS-0.75	ATS-2	ATS-5	ATS-10	ATS-20
Material		SUS304 equivalent					SUS321 equivalent
Port size	Connection port	G 1/4		G 1/2	G 1		
	Drain port	-			G 3/8		
Tank Capacity(ℓ)		0.4	0.75	2	5	10	20
Fluid medium		Fluid group 2 (PED: 2014/68/EU): Compressed air (Vacuum) or Nitrogen					
Operating pressure range (MPa)		-0.101 to 0.99					
Operating temp. range (*1)	Ambient temp. (℃)	-10 to 100					
	Fluid temp. (℃)	-10 to 100					
Mounting orientation		-			Drain port faces downward		
Mounting method		Fixing clamps		Through-holes			
CE marking	Directive	PED: 2014 / 68 /EU					
	Certification	(*2)				Conforming to applicable directive	
	Category	(*2)				I	I
Weight (kg)(*3)		0.54	0.74	1.68	3.58	6.46	10.21
Special note		Exempt from Japanese class- 2 pressure vessel					

*1. The temperature range is for tank itself without fitting. No freezing.
*2. No CE marking of a tank. CE Declaration of Conformity is not required for tank capacity 0.4ℓ to 5ℓ.
*3. The weight is for tank itself without plug and fitting.
*4. Some countries regulate the import of air tank.Confirm whether the import of air tank is permitted or not in your country in advance.

RoHS2 (2011/65/EU+EU2015/863) compliant CE (* refer to specifications)

Type	Model code ATS-2	Type	Model code ATS-2	Type	Model code ATS-2
Air Tank ATS	ATS-0.4	Air Tank ATS	ATS-2	Air Tank ATS	ATS-5
	ATS-0.75				ATS-10 ATS-20

Optional parts

Type	Model code PCøD-G	Type	Model code PLøD-G	Type	Model code NBCøD-G
Push-in fitting straight PC	PC6-G2	Push-in fitting elbow PL	PL6-G2	Compression fitting straight NBC	NBC1065-G2
	PC8-G2		PL8-G2		NBC1065-G3
	PC8-G3		PL8-G3		NBC1065-G4
	PC10-G2		PL10-G2		NBC1075-G2
	PC10-G3		PL10-G3		NBC1075-G3
	PC10-G4		PL10-G4		NBC1075-G4
	PC12-G2		PL12-G2		NBC1280-G2
	PC12-G3		PL12-G3		NBC1280-G3
	PC12-G4		PL12-G4		NBC1280-G4
	PC16-G3		PL16-G3		NBC1290-G2
	PC16-G4		PL16-G4		NBC1290-G3
	PC3/8-G2		PL3/8-G2		NBC1290-G4
	PC3/8-G3		PL3/8-G3		NBC1611-G3
	PC3/8-G4		PL3/8-G4		NBC1611-G4
	PC1/2-G2		PL1/2-G2		NBC1613-G3
	PC1/2-G3		PL1/2-G3		NBC1613-G4
	PC1/2-G4		PL1/2-G4		
	PC5/8-G3		PL5/8-G3		
	PC5/8-G4		PL5/8-G4		

Type	Model code PP-G
Plug PP	PP-G2
	PP-G3
	PP-G4

Type	Model code PF G1-G2
Conversion Adaptor PF	PFG8-G4

Notes

*1. See the table below for thread size. (The gasket is made of Aluminum + PBT.)

Code	G2	G3	G4	G8
Size	G1/4	G3/8	G1/2	G1

*2. See the table below for compression fitting size (O.D. x I.D.).

Code	1065	1075	1280	1290	1611	1613
O.D. (mm)	ø10		ø12		ø16	
I.D. (mm)	ø6.5	ø7.5	ø8	ø9	ø11	ø13

CAD data is available at PISCO website.

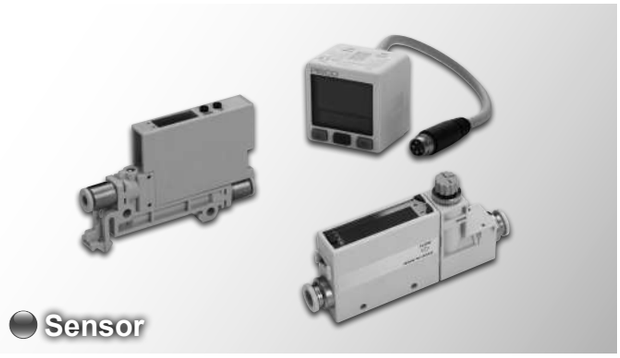
Packaging specifications
1pc. /bag: ATS- 0.4, 0.75, Conversion Adaptor
1 pc. /box: ATS- 2, 5, 10, 20
10 pcs. /bag: Fittings & Plug

Pressure Gauge/Sensor

Pressure Gauge · Sensor

Index

Pressure Gauge



Sensor

Pressure display

Pressure Gauge ····· P.176
Digital Pressure Gauge ····· P.177
Handy Manometer ····· P.178

Pressure sensor

LED Digital Pressure Sensor ····· P.179
8 mm width LED Digital Pressure Sensor ····· P.180
Compact Pressure Sensor 11 series ····· P.184
Compact Pressure Sensor 12 series ····· P.186
Display for Compact Pressure Sensor 11 & 12 Series Analog Output Type ··· P.188
Digital Pressure Sensor 31 & 32 with 3-color Dual Display ·· P.190

Flow sensor

Flow Sensor 21 with 2-color Dual Digital Display ····· P.192
8 mm width Flow Sensor ····· P.197

Pressure Gauge

Compact pressure gauge

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

GP (1) C (2) 15 (3) – M5 (4) (5)

(1) Pressure Gauge

(2) Type

Code	C	U	M	J
Type	Pipe male thread	Union straight	Bulkhead	Plug-in

(3) Series

15 : 15 series (For threaded type only)

(4) Tube O.D. (øD) **or Thread size** (R)

	Tube O.D						Metric thread	Taper pipe thread		Unified thread	National pipe thread tapered	
	mm size. (mm)			inch size. (inch)								
Code	4	6	8	5/32	1/4	5/16	M5	01	02	U10	N1	N2
Size	ø4	ø6	ø8	ø5/32	ø1/4	ø5/16	M5×0.8	R1/8	R1/4	10-32UNF	NPT1/8	NPT1/4
Readout	MPa			psi			MPa			psi		

*inch size (pressure readout: psi) is not for use in Japan.

(5) Wrench size specification

Code	No code	U
Wrench specification	mm size	inch size

Characteristics

The compact-size pressure gauge can be installed in small spaces.

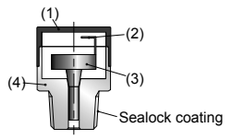
Just simply connect a tube into a built-in tube type and it is ready to use.

Specifications

Connection size		mm	inch
Fluid medium		Air	
Indicated press. range		0 to 0.8 MPa	0 to 116 psi
Accuracy		±5% (Full scale)	
Operating temp. range		0 to 60°C (No freezing)	
Scale angle		150°	
Material	Cap	Acryl	
	Metal body	Nickel-plated brass	
	Resin body	PBT (Union type: GPU, Bulkhead type: GPM)	

Sectional drawing

In the case of GPC



No,	Parts	Material (treatment)
(1)	Cap	PMMA
(2)	Pointer	Copper alloy
(3)	Bourdon tube	Beryllium copper
(4)	Metallic body	Nickel-plated brass

* The material of the gasket for Metric and Unified threads is SUS304 + NBR.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code GPC15-R
Pipe male thread GPC	GPC15-M5
	GPC15-01
	GPC15-02
Model code GPC15-RU	
	GPC15-U10U
	GPC15-N1U
	GPC15-N2U

Type	Model code GPUøD-øD
Union straight GPU	GPU4-4
	GPU6-6
	GPU8-8
	GPU5/32-5/32
	GPU1/4-1/4
	GPU5/16-5/16

Type	Model code GPMøD
Bulkhead GPM	GPM4
	GPM6
	GPM8
	GPM5/32
	GPM1/4
	GPM5/16

Type	Model code GPJøD
Plug-in GPJ	GPJ4
	GPJ6
	GPJ8
	GPJ5/32
	GPJ1/4
	GPJ5/16

Notes
* inch size (pressure readout: psi) is not for use in Japan.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Digital Pressure Gauge

PISCO

>>> https://www.pisco.co.jp/en/

Battery-operated Digital Pressure Gauge

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

GP (1) D (2) −V (3) − 01 (4)

(1) Pressure Gauge

(2) Type
D：Digital display

(3) Rated pressure range

Code	−V	No code
Type	Negative (-101 to 0kPa)	Positive (0.000 to 1.000MPa)

(4) Connection type and size

Code	01		N1	
Type	O.D.: Taper pipe thread	I.D.: Metric thread	O.D.: National pipe thread tapered	Unified thread
Size	R1/8	M5×0.8	NPT1/8	10-32UNF

Characteristics

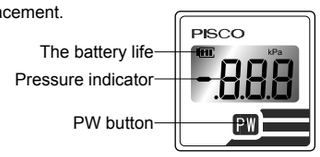
Digital display allows ease of reading.

Power saving mode achieves a battery life of about 3 years.

Just push the button to display the pressure value. The battery is expected to last about 3 years when pressure value diplayed at 5 times a day basis.

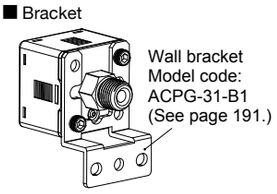
Visible indication of battery replacement time.

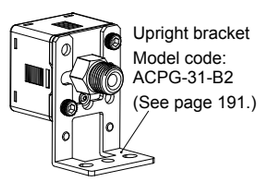
Battery level indicator blinks to notify when battery level becomes low.
Only a flat-blade screwdriver (1.4 mm width) is necessary for the battery replacement.



Various accessories

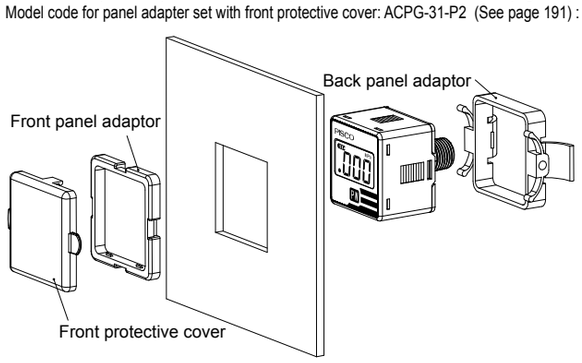
■ Bracket


Wall bracket
Model code:
ACPG-31-B1
(See page 191.)


Upright bracket
Model code:
ACPG-31-B2
(See page 191.)

■Panel adaptor

Model code for panel adapter set without front protective cover: ACPG-31-P1 (See page 191) :
Model code for panel adapter set with front protective cover: ACPG-31-P2 (See page 191) :



RoHS2 (2011/65/EU+EU2015/863) compliant

CE

Type	Model code
Battery-operated Pressure Gauge GPD	GPD-3-01
	GPD-3-N1

Specifications

Model code		GPD-V-01(Negative)	GPD-01(Positive)
Rated pressure range		-101 to 0kPa	0.000 to 1.000MPa
Indicated press. range		-101 to 10kPa(*3)	-0.100 to 1.000MPa(*1,2)
Proof pressure		300kPa	1.5MPa
Fluid medium		Air, non-corrosive / non-flammable gas	
Pressure resolution	kPa	1	—
	MPa	—	0.001
Battery		CR 2032 lithium battery	
Battery life		About 3 years (at 5 times indication/day)	
Low-power indicator		Equipped	
Battery replaceability		Possible	
Turn-on interval		Display turns off after 60 sec.	
Sampling rate		2Hz(2 times/sec.)	
Repeatability		≦ ±1% F.S. ±1 digit	≦ ±0.2% F.S. ±1 digit
LCD display		7 segments, 3.5 digits	
Indication accuracy		±2% F.S. ±1 digit max (ambient temerature: 25 ±3 °C)	
Protective structure		Equivalent to IP65 (*4)	
Ambient temp. range		Operation: 0 to 50 °C, Storage: -10 to 60 °C (no dew condensation or freezing)	
Ambient hum. range		Operation/Storage: 35 to 85% RH (no dew condensation)	
Vibration resistance		Total amplitude 1.5 mm or 100 m/s² 10Hz−55Hz−10Hz scan for 1 min., two hours each direction of X, Y and Z.	
Shock resistance		100 m/s², 3 times each in direction of X, Y and Z	
Temperature characteristics		± 2% F.S. of detected pressure (25°C)	
Weight		About 40 g (including battery)	

*1 The indication at the time of applying negative pressure is as Fig.1 and Fig. 2.

Fig.1 Fig.2

*2 Indicator accuracy is not guaranteed for the pressure range -0.1 to 0 MPa.
*3 Indicator accuracy is not guaranteed for the pressure range 0 to 10 kPa.
*4 A tube must be inserted into the air release port (Fig.3) to secure IP65.

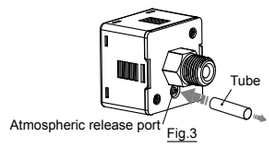


Fig.3

Notes
*1 For 3 in model code, please select a code for the rated pressure range, referring to the Model Designation (Example).

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Handy Manometer

Portable Pressure gauge

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

GPH (1) – V (2) –4 (3)

(1) Handy Manometer

(2) Pressure range

Code	V	S	B
Pressure range	-100 to 100kPa (Compound gauge pressure (Low range))	-100 to 1,000kPa (Compound gauge pressure)	0 to 100kPa abs (Absolute pressure)

(3) Port type and size

Code	-4	-6	No code
Tube O.D.(㎜)	ø4 straight push-in fitting	ø6 straight push-in fitting	M5 x 0.8 female thread without push-in fitting

* When a different-sized fitting other than dia.4 or dia. 6 (Model code: PC4-M5 or PC6-M5) size is necessary, please select a fitting from our fitting series with M5 male thread.

Characteristics

Usability and convenience are pursued by palm top design.

Large display

3 & 1/2 digits LCD

Three types of pressure range are available.

Compound gauge pressure (GPH-S), compound gauge pressure low range (GPH-V) and absolute pressure (GPH-B) indication models are selectable depending on the application.

User-friendly with helpful functions.

Zero point adjustment, indication retention and auto-power-off functions.
* Absolute pressure type does not have zero point adjustment function.

Analog output function is also equipped.

Low power consumption design.

With commercially available dry-cell batteries (AAA battery x 2 pcs.), 1000 hours continuous use is possible.
* Batteries are not included.

Specifications

Type		GPH-V	GPH-S	GPH-B
Pressure range		Compound gauge pressure (Low range)	Compound gauge pressure	Absolute pressure
Rated pressure		-100 to 100kPa	-100 to 1,000kPa	0 to 100kPa abs
Max. pressure		200kPa	1,500kPa	200kPa abs
Indication		3 & 1/2 digits LCD		
Resolution		1digit		
Function		Zero point adjustment (*1), Indication retention, Offset (*1), Auto-power-off		
Indication accuracy (25°C)		±0.5%F.S. ±2digit		
Indication accuracy (25±25°C)		±1.0%F.S. ±2digit		±2.0%F.S. ±2digit
Admitted medium		Air, non-corrosive gas		Air, non-corrosive gas, and liquid(*4) (SUS316 should not be corroded)
Operating temperature		0 to 50°C (No freezing)		
Operating humidity		15 to 85%RH or less (No dew condensation)		
Driving power		3 VDC, 2 pcs of AAA dry cell (*2)		
Pressure port		M5×0.8 female thread		
Protective structure		IP40 (IEC standard) (*3)		
Size		55mm (W) × 16.9mm (D) × 110mm (H)		
Weight		Approx. 100 g		
Battery life		Approx.1000 hours		
Analog output	Power supply	5 ± 0.5 VDC, max. 5 mA, External supply only (AAA batteries must be taken out.)		
	Output voltage	-1.000 to 1.000V	-0.100 to 1.000V	0.000 to 1.000V
	Output accuracy	±10mV (Within indication standard)		
Standard attachment		Instruction manual, Inspection report		Instruction manual, Inspection report, Protective cover

*1. GPH-B does not have zero point adjustment and offset functions.
*2. Batteries are not included. Please separately buy dry cell batteries (manganese or alkaline).
*3. When analog output function is used, protective structure is out of specification.
*4. Liquid cannot be used when dia.4 or dia.6 straight push-in fitting (code: 4 or 6) is selected in port type and size. Please select a fitting with M5 male thread from our fitting series which can be used with your fluid.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code
Gauge pressure type GPH	GPH-V-4
	GPH-S-4
	GPH-V-6
	GPH-S-6
	GPH-V
	GPH-S

Type	Model code
Absolute pressure type GPH	GPH-B-4
	GPH-B-6
	GPH-B

Packaging specifications
1 pc. /bag

LED Digital Pressure Sensor

PISCO

>>> https://www.pisco.co.jp/en/

20 mm width LED Digital Pressure Sensor

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VUS (1) 21 (2) (3) W (4) – M5 (5)

(1) Series
VUS : Negative pressure sensor

(2) Display type
21 : LED display

(3) Switch output

Code	No code	P
Specifications	NPN open collector output	PNP open collector output

(4) Pressure sensor spec.

Code	W	A
Specifications	With 2-point switch outputs	With an analog and a switch output

(5) Connecting port type and size

	Tube O.D.(mm)			Metric thread	Direct mount type
Code	4	6	8	M5	F
Port size	ø4	ø6	ø8	M5×0.8	—

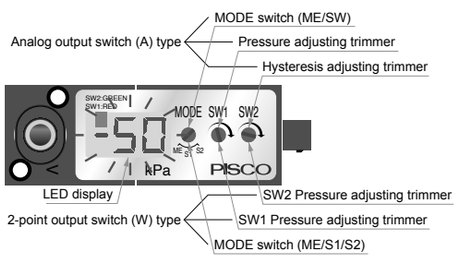
Characteristics

Set-up pressure and working pressure are indicated on LED display.
To enhance visibility, an LED display is used for the vacuum switch.

2-point switch output type and 1-point switch output with 1 analog output type are available.
Selectable depending on the application. Connector cable allows ease of layout.

Output detection accuracy is enhanced by the use of semi conduction switch.

Digital display and part names



Specifications

Specifications	With 2-point switch outputs (W)	With an analog and a switch output (A)
Fluid medium	Air, Inert gas	
Current consumption	Max. 40 mA	
Pressure detection	Diffused metaloxide semiconductive pressure transducer	
Operating pressure range	-100 to 0 kPa	
Pressure setting range	-99 to 0 kPa	
Proof pressure	0.2 MPa	
Operating temp. range	0 to 50°C(No freezing)	
Operating humidity range	35 to 85%RH (No dew condensation)	
Power requirements	12 to 24VDC ±10%Ripple (P-P) 10% max.	
Protective structure	IP40 equiv.	
No. of pressure setting	2	1
Operating accuracy	± 3% F.S. max. (standard ref. temp. at 25 °C)	
Hysteresis	Fixed (2% F.S. max.)	Variable (about 0 to15% F.S. max.)
Switch output	NPN open collector output: 30 V 80 mA max. Residual voltage 0.8 V max.	
Analog output: Output voltage		1 to 5V
Analog output: Zero-point voltage		1±0.1V
Analog output: Span voltage		4±0.1V
Analog output: Output current		1 mA max. (load resistance min.5 kΩ)
Analog output: LIN ／ HYS		± 0.5% F.S. max. (standard ref. temp. at 25°C)
Response	Max. 1 msec.	
Indication	-99 to 0 kPa (2-digit red LED display)	
Sampling rate	About 4 times / sec.	
Indication accuracy	± 3% F.S. ± 2 digits max.	
Resolution	1 digit	
Operation indicator	SW1: Red LED turns on when pressure is above setting SW2: Green LED turns on when pressure is above setting	Red LED turns on when pressure is above setting
Function	1. MODE selector switch (ME or S1 or S2) 2. S1 Setting trimmer (2/3-turn trimmer) 3. S2 Setting trimmer (2/3-turn trimmer)	1. MODE selector switch (ME or SW) 2. Setting trimmer (2/3-turn trimmer) 3. HYS setting trimmer (about 0 to 15% of set value)

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code
Push-in fitting type	VUS21[3][4]-4
VUS21	VUS21[3][4]-6
	VUS21[3][4]-8

Type	Model code
Metric female thread type	VUS21[3][4]-M5
VUS21	

Type	Model code
Direct mount type	VUS21[3][4]-F
VUS21	

Notes
* Select a switch output code for [3] in model code and select a pressure sensor spec. code for [4].

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

8 mm width LED Digital Pressure Sensor

8 mm width LED Digital Negative Pressure Sensor

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VUS8A (1) – 33 (2) – E (3) N (4) –C50 (5) –B (6)

(1) 8 mm width LED Digital Pressure Sensor

(2) Connecting port type and size

Port type	Push-in fitting (mm)			Plug-in (mm)		Metric thread
Inline type code	180180	33	44	N4N4	N6N6	M5M5
Single port code	180	3	4	N4	N6	M5
Size	ø1.8	ø3	ø4	ø4	ø6	M5×0.8

(3) Pressure range

Code	E		ER		S		SR	
Pressure range	Energy-saving type				2-point switch output type			
	Negative pressure type (-100 to 100kPa)		Compound pressure type (-100 to 300kPa)		Negative pressure type (-100 to 100kPa)		Compound pressure type (-100 to 300kPa)	

(4) Switch output type

Code	N	P
Switch output type	NPN open collector output	PNP open collector output

(5) Connector cable length

Code	No code	–C50	–C100*	–C200*	–C300*
Cable length (mm)	Without cable	500	1,000	2,000	3,000

* Connector cable length code: C100, C200 and C300 are make-to-order production.

(6) Bracket

Code	No code	–B
Bracket	Without bracket	With bracket

Model Designation of Bracket

VUS8B (1) → **(1) Bracket for VUS8A**
* 2 inner hexagonal bolts (M3×12) and 2 hexagonal nuts are included.

Model designation of Connector Cable (Example)

FVUS008A10 (1) – C50 (2)

(2) Connector cable length

Code	No code	C50	C100*	C200*	C300*
Cable length (mm)	Without cable	500	1,000	2,000	3,000

* Connector cable length code: C100, C200 and C300 are make-to-order production.

(1) Connector cable for 8mm width LED Digital Pressure Sensor

Characteristics

Setting value (switch setting, display setting) of sensors can be copied to Max.10 sensors.

4 options for connector cable length

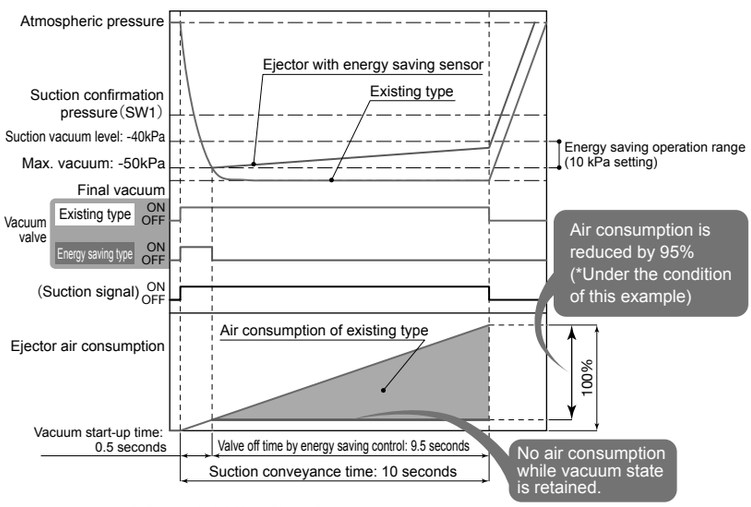
Connector cable length: 500, 1000, 2000, 3000 mm

Energy saving type, capable of reducing air consumption of vacuum generator, is selectable.

Use with the Energy saving type vacuum generators VK series, which have vacuum retention function (Unit code: H, K, M, S, T, W. See page ***), can reduce air consumption greatly.

●Advantage of Energy saving type【In case of using with a vacuum generator at suction conveyance】
Operating conditions
Suction conveyance time→10 seconds
Vacuum level →on or above -40 kPa, max. -50 kPa
(Sensor setting: Max. vacuum -50kPa,
Energy saving operation range 10kPa)

●By using the energy saving, for example, if the vacuum level reaches -50 kPa (max. vacuum set) in 0.5 seconds, the sensor turns off the vacuum valve and switches to vacuum retention state simultaneously during transportation of workpiece (9.5 seconds), and enables to reduce 95% of air consumption. (In case of no pressure-drop to -40 kPa, the setting value)

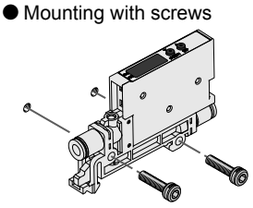


Super slim and light weight pressure sensor with a LED display.

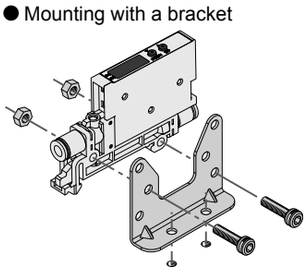
All settings are done by two push buttons.

3 mounting options.

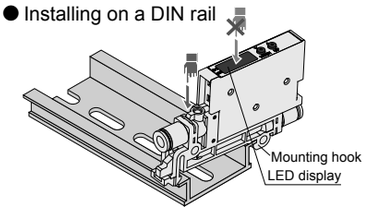
● Mounting with screws



● Mounting with a bracket



● Installing on a DIN rail



2 types for port lead-out selection.

● Single side Port

● In-line Port

Three port types are available.

● Push-in fitting

● Plug-in

● Female thread

8 mm width LED Digital Pressure Sensor

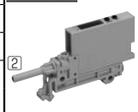
Specifications

Specifications			Energy-saving type/ Negative pressure type	2-point switch output type/ Negative pressure type	Energy-saving type/ Compound pressure type	2-point switch output type/ Compound pressure type
Model code			VUS8A-□-EN VUS8A-□-EP	VUS8A-□-SN VUS8A-□-SP	VUS8A-□-ERN VUS8A-□-ERP	VUS8A-□-SRN VUS8A-□-SRP
General specification	Fluid medium		Air, non-corrosive gas, non-flannable gas			
	Pressure detection		Diffused metaloxide semiconductive pressure transducer			
	Operating temp. range		0 to 50°C (No freezing)			
	Storage temp. range		-20 to 70°C (Atmospheric pressure, Humidity 65% or less) (No freezing)			
	Operating humidity range		35 to 85%RH (No dew condensation)			
	Vibration resistance		100m／s²			
	shock resistance		150m／s²			
	Protective structure		IP40 equiv.			
Pressure range	Operating pressure range		-100kPa to 100kPa		-100kPa to 300kPa	
	Proof pressure		400kPa		600kPa	
Power supply	Power supply		12 to 24VDC ±10% (including Ripple P to P)			
	Current consumption		30 mA max. (at all LED on, no load with 2 points outputs)			
Indication	Display element		Sign & 2 digits, 7 segments Red LED (with character height of 4.5 mm)			
	Pressure unit		kPa, cmHg, bar, psi			
	Sampling rate		4 times/sec.			
	Monitor system		Overpressure indication, blinking display			
	Panel lock function		On/Off by push-button			
	Display/ Non-display		On/Off by push-button			
	Indication accuracy		±1%F.S. ±1count			
	Temperature characteristics		±3%F.S. (0 to 50°C Standard ref. temp.25°C)			
	Zero point adjustment		Adjustable by zero adjusting mode			
Switch output	No. of pressure setting		1 point switch output + Sol. vlv cntrl output	2-point switch outputs	1 point switch output + Sol. vlv cntrl output	2-point switch outputs
	Switch output type		NPN open collector output & PNP open collector output			
	Switch capacity		30VDC 80mA or less			
	Residual voltage		Max. 1.2V (at NPN load current 80 mA)/Max. 2.2V (at PNP load current 80 mA)			
	Output mode	SW1	Separate mode LO operation only	Separate mode	Separate mode LO operation only	Separate mode
		SW2	Sol. vlv cntrl output	Window comparator mode (selectable)	Sol. vlv cntrl output	Window comparator mode (selectable)
	Pressure setting range		-99 to 0 (kPa) .00 to 0.12 (MPa)		-99 to 0 (kPa) .00 to 0.36 (MPa)	
	Operation indicator		Output ON: LED ON (SW1: RED/SW2: GREEN)			
	Temperature characteristics		±5%F.S. (0 to 50°C Standard ref. temp.25°C)			
	Repeat accuracy		±0.3%F.S.			
	Response		About 1ms	About 1, 25, 250ms (Selectable)	About 1ms	About 1, 25, 250ms (Selectable)
	Hysteresis adjustment		Variable by hysteresis setting, approx. 0 to 99 kPa			
	Overload protection		Equipped			

RoHS2 (2011/65/EU+EU2015/863) compliant

Single port type

Type	Model code VUS8A-[2]-[3][4]-[5]
Without bracket Push-in fitting VUS8	VUS8A-[2]-[3][4]
	VUS8A-[2]-[3][4]-C50
	VUS8A-[2]-[3][4]-C100
	VUS8A-[2]-[3][4]-C200
	VUS8A-[2]-[3][4]-C300

Type	Model code VUS8A-[2]-[3][4]-[5]
Without bracket Plug-in type VUS8 	VUS8A-[2]-[3][4]
	VUS8A-[2]-[3][4]-C50
	VUS8A-[2]-[3][4]-C100
	VUS8A-[2]-[3][4]-C200
	VUS8A-[2]-[3][4]-C300

Type	Model code US8A-M-[3][4]-[5]
Without bracket Metric thread type VUS8	VUS8A-M5-[3][4]
	VUS8A-M5-[3][4]-C50
	VUS8A-M5-[3][4]-C100
	VUS8A-M5-[3][4]-C200
	VUS8A-M5-[3][4]-C300

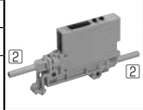
Type	Model code VUS8A-[2]-[3][4]-[5]-B
With bracket Push-in fitting type VUS8	VUS8A-[2]-[3][4]-B
	VUS8A-[2]-[3][4]-C50-B
	VUS8A-[2]-[3][4]-C100-B
	VUS8A-[2]-[3][4]-C200-B
	VUS8A-[2]-[3][4]-C300-B

Type	Model code VUS8A-[2]-[3][4]-[5]-B
With bracket Plug-in type VUS8	VUS8A-[2]-[3][4]-B
	VUS8A-[2]-[3][4]-C50-B
	VUS8A-[2]-[3][4]-C100-B
	VUS8A-[2]-[3][4]-C200-B
	VUS8A-[2]-[3][4]-C300-B

Type	Model code US8A-M-[3][4]-[5]-B
With bracket Metric thread type VUS8	VUS8A-M5-[3][4]-B
	VUS8A-M5-[3][4]-C50-B
	VUS8A-M5-[3][4]-C100-B
	VUS8A-M5-[3][4]-C200-B
	VUS8A-M5-[3][4]-C300-B

In-line type

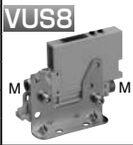
Type	Model code VUS8A-[2]-[3][4]-[5]
Without bracket Push-in fitting VUS8	VUS8A-[2]-[3][4]
	VUS8A-[2]-[3][4]-C50
	VUS8A-[2]-[3][4]-C100
	VUS8A-[2]-[3][4]-C200
	VUS8A-[2]-[3][4]-C300

Type	Model code VUS8A-[2]-[3][4]-[5]
Without bracket Plug-in type VUS8 	VUS8A-[2]-[3][4]
	VUS8A-[2]-[3][4]-C50
	VUS8A-[2]-[3][4]-C100
	VUS8A-[2]-[3][4]-C200
	VUS8A-[2]-[3][4]-C300

Type	Model code US8A-MM-[3][4]-[5]
Without bracket Metric thread type VUS8	VUS8A-M5M5-[3][4]
	VUS8A-M5M5-[3][4]-C50
	VUS8A-M5M5-[3][4]-C100
	VUS8A-M5M5-[3][4]-C200
	VUS8A-M5M5-[3][4]-C300

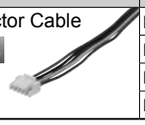
Type	Model code VUS8A-[2]-[3][4]-[5]-B
With bracket Push-in fitting type VUS8	VUS8A-[2]-[3][4]-B
	VUS8A-[2]-[3][4]-C50-B
	VUS8A-[2]-[3][4]-C100-B
	VUS8A-[2]-[3][4]-C200-B
	VUS8A-[2]-[3][4]-C300-B

Type	Model code VUS8A-[2]-[3][4]-[5]-B
With bracket Plug-in type VUS8	VUS8A-[2]-[3][4]-B
	VUS8A-[2]-[3][4]-C50-B
	VUS8A-[2]-[3][4]-C100-B
	VUS8A-[2]-[3][4]-C200-B
	VUS8A-[2]-[3][4]-C300-B

Type	Model code US8A-MM-[3][4]-[5]-B
With bracket Metric thread type VUS8 	VUS8A-M5M5-[3][4]-B
	VUS8A-M5M5-[3][4]-C50-B
	VUS8A-M5M5-[3][4]-C100-B
	VUS8A-M5M5-[3][4]-C200-B
	VUS8A-M5M5-[3][4]-C300-B

Options

Type	Model code
Bracket VUS8B	VUS8B

Type	Model code
Connector Cable FVUS 	FVUS008A10-C50
	FVUS008A10-C100
	FVUS008A10-C200
	FVUS008A10-C300

Notes
* Please select a code of connecting port type and size for [2] in model code, select a pressure range code for [3], and select a code for switch output type for [4], refferring to the Model Designation (Example) on plage 180.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Compact Pressure Sensor 11 Series

Compact Sensor heads for Positive/Negative pressure (Switch output and analog output types)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VUS (1) 11 (2) – 6 (3) AR (4) (5)

(1) Type

Code	SEU	VUS
Type	Positive pressure sensor	Negative pressure sensor

(2) Display type

11: Without display

(3) Connecting port type and size

	Union		Plug-in		Male thread	
	Tube O.D. (mm)		Push-in fitting size (mm)		Metric thread	Taper pipe thread
Code	4U(*1)	6U(*1)	4	6	M5(*2)	01
Size	ø4	ø6	ø4	ø6	M5×0.8	R1/8

*1 Union type comes with a mounting bracket.
*2 The gasket of Metric thread is SUS304 + NBR.

(4) Output type

Code	A	AR	S	SR
Output type	Analog output	Compound press. type/ Analog output	NPN open collector	Compound press.type/ NPN open collector

* Compound press. type: “AR” and “SR” are available with VUS11 type only.

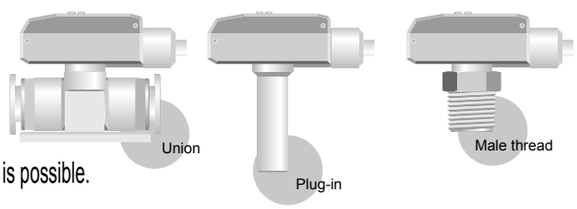
(5) -S3 spec. (Metal option)

Code	No code	–S3(*)
Metal material	Standard spec.	No copper-based metallic material used in flow paths.
Seal rubber material	Standard spec.	HNBR or FKM

* -3S specification is applied only to air path part and not corresponding to electronic parts or electrical wires.

Characteristics

- Compact pressure sensor (Width: 10mm, Length: 24.5mm)
- Three types of pressure port configuration



- With use of an separate type indicator, separation of sensor head and the indicator is possible.
  *Use an analog output type display.
- 3 types of pressure range and 2 types of output spec. result in 6 types.
  Positive, Negative and Compound pressure type for pressure range. Switch output and analog output type for output spec.
- 3 m is standard length for a cable.

Related product

Indicator for Analog output sensor
►P.188

● –S3 spec. (Optional) * For air path parts only.

- No copper-based metallic material used in flow paths.
- HNBR or FKM, which are good in ozone resistance, is used for seal rubber.

Specifications

■ Switch output type

Specifications		SEU11	VUS11	VUS11-R
Fluid medium		Air, Inert gas		
Pressure detection		Diffused metaloxide semiconductive pressure switch		
Power supply		VDC 10.8 to 30 ripple included.		
Power consumption		20 mA or less (no-load at 24VDC)		
Operating pressure range		0 to 1 MPa	-100 to 0 kPa	-100 to 300 kPa
Proof pressure		1.5 MPa	200 kPa	600 kPa
Storage temperature range		-20 to 70°C (Atmospheric pressure, Humidity 60% or less)		
Operating temperature range		0 to 60°C(No freezing)		
Operating humidity pressure		35 to 85%RH (No dew condensation)		
Protective structure		IP40 equiv.		
Switch output	No. of press. setting	1		
	Switch output	NPN open collector output: 30 V 80 mA max., Residual voltage 0.8 V max.		
	Operation indicator	N.O. (Red LED turns on when pressure is above setting.)		
	Hysteresis	Fixed (2% F.S. max.)		
	Operating accuracy	±3%F.S. max. (standard ref. temp. at 25 °C)		
	Response	About 1msec.		
	Press. setting range	0 to 1 MPa	-100 to 0 kPa	-100 to 300 kPa

■ Analog output type

Specifications		SEU11	VUS11	VUS11-R
Fluid medium		Air, Inert gas		
Pressure detection		Diffused metaloxide semiconductive pressure switch		
Power supply		VDC 10.8 to 30 ripple included.		
Power consumption		20 mA or less (no-load at 24VDC)		
Operating pressure range		0 to 1 MPa	-100 to 0 kPa	-100 to 300 kPa
Proof pressure		1.5 MPa	200 kPa	600 kPa
Storage temperature range		-20 to 70°C (Atmospheric pressure, Humidity 60% or less)		
Operating temperature range		0 to 60°C(No freezing)		
Operating humidity pressure		35 to 85%RH (No dew condensation)		
Protective structure		IP40 equiv.		
Analog output	Output voltage	1 to 5V		
	Zero-point voltage	1±0.1V		
	Voltage at max. press.	5±0.1V		
	Output current	1mA max. (Load resistance: 5kΩ)		
	Temp. characteristics	±2%F.S. max. (standard ref. temp. at 25 °C)		
	Linearity	±0.5%F.S. max. (standard ref. temp. at 25 °C)		

RoHS2 (2011/65/EU+EU2015/863) compliant

Switch output type

Type	Model code
Union	SEU11-4US[5]
SEU Positive	SEU11-6US[5]
VUS Negative	VUS11-4US[5]
	VUS11-6US[5]
	VUS11-4USR[5]
	VUS11-6USR[5]

Type	Model code
Plug-in	SEU11-4S[5]
SEU Positive	SEU11-6S[5]
VUS Negative	VUS11-4S[5]
	VUS11-6S[5]
	VUS11-4SR[5]
	VUS11-6SR[5]

Type	Model code
Male thread	SEU11-M5S[5]
SEU Positive	SEU11-01S[5]
VUS Negative	VUS11-M5S[5]
	VUS11-01S[5]
	VUS11-M5SR[5]
	VUS11-01SR[5]

Analog output type

Type	Model code
Union	SEU11-4UA[5]
SEU Positive	SEU11-6UA[5]
VUS Negative	VUS11-4UA[5]
	VUS11-6UA[5]
	VUS11-4UAR[5]
	VUS11-6UAR[5]

Type	Model code
Plug-in	SEU11-4A[5]
SEU Positive	SEU11-6A[5]
VUS Negative	VUS11-4A[5]
	VUS11-6A[5]
	VUS11-4AR[5]
	VUS11-6AR[5]

Type	Model code
Male thread	SEU11-M5A[5]
SEU Positive	SEU11-01A[5]
VUS Negative	VUS11-M5A[5]
	VUS11-01A[5]
	VUS11-M5AR[5]
	VUS11-01AR[5]

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
[5] : -S3 ⇒ S3 spec.
* Material of gasket for S3 spec. is POM.

Compact Pressure Sensor 12 Series

Compact Sensor heads for positive/negative pressure (switch output and analog output types)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VUS (1) 12 (2) – 6 (3) A (4) –C300 (5) (6)

(1) Type
VUS: Negative pressure sensor

(2) Display, Lead wire type
12: No display, Connector cable type

(3) Connecting port type and size

	Male thread type				Plug-in type			Union type			
	Metric thread	Taper pipe thread	Unified fine thread	inch NPT	Push-in fitting size			Tube O.D.			
Code	M5 *1	01	U10U *1 *3	N1U *3	4	6	1/4	4U *2	6U *2	5/32U *2 *3	1/4U *2 *3
Size	M5x0.8	R1/8	10-32UNF	NPT1/8	ø4mm	ø6mm	ø1/4"	ø4mm	ø6mm	ø5/32"	ø1/4"

*1 The gasket for metric and unified fine thread is SUS304+NBR.
*2 Union type comes with a mounting bracket.
*3 -S3 spec. is not available.

(4) Output type

Code	A	S
Specifications	Analog output	Switch output

(5) Connector cable length

Code	No code	–C50	–C100	–C200	–C300	–C500
Cable length (mm)	Without cable	500	1,000	2,000	3,000	5,000

(6) -S3 spec. (Metal option)

Code	No code	–S3 (*)
Metal material	Standard spec.	No copper-based metallic material used in flow paths.
Seal rubber material	Standard spec.	HNBR or FKM

* -3S specification is applied only to air path part and not corresponding to electronic parts or electrical wires.

Model designation of Connector cable (Example)

FSED012B07 (1) – C300 (2)

(1) Connector cable

(2) Connector cable length

Code	C50	C100	C200	C300	C500
Cable length (mm)	500	1,000	2,000	3,000	5,000

Characteristics

- Small pressure sensor (Width: 8.5mm, Length: 25.4mm)
- Easier wiring and maintenance with connector type lead wire.
- Three types of pressure port configuration
- With use of an separate type indicator, separation of sensor head and the indicator is possible.
  * Use an analog output type display.
- Switch output and analog output type for output spec.
- 5 types of connector cable length are available.
  Select best suitable length from 500 mm, 1000 mm, 2000 mm, 3000 mm and 5000 mm according to your applications.

● -S3 spec. (Metal option) *For air path parts only.

- No copper-based metallic material used in flow paths.
- HNBR or FKM, which are good in ozone resistance, is used for seal rubber.
  * Plug-in type corresponds to -S3 spec. as standard.

Related product

Display for Analog output sensor
►P.188

Specifications

■ Switch output type

Fluid medium		Air, Inert gas
Pressure detection		Diffused metaloxide semiconductive pressure switch
Power supply		10.8 to 30VDC including Ripple
Current consumption		20 mA or less (no-load at 24 VDC)
Operating pressure range		-100 to 0 kPa
Proof pressure		1 MPa
Storage temp. range		-20 to 70°C (Atmospheric pressure, Humidity 60% or less)
perating temperature range		0 to 60°C(No freezing)
Operating humidity pressure		35 to 85%RH (No dew condensation)
Protective structure		IP40 equiv.
Switch output	No. of press. setting	1
	Switch output	NPN open collector output: 30 V 80 mA max. Residual voltage 0.8 V max.
	Operation indicator	N.O. (Red LED turns on when pressure is above setting)
	Hysteresis	Fixed (2% F.S. max.)
	Operating accuracy	±3%F.S. max. (standard ref. temp. at 25 °C)
	Response	About 2msec.
	Pressure setting range	-100 to 0 kPa

■ Analog output type

Fluid medium		Air, Inert gas
Pressure detection		Diffused metaloxide semiconductive pressure switch
Power supply		10.8 to 30VDC including Ripple
Current consumption		20 mA or less (no-load at 24 VDC)
Operating pressure range		-100 to 0 kPa
Proof pressure		1 MPa
Storage temp. range		-20 to 70°C (Atmospheric pressure, Humidity 60% or less)
perating temperature range		0 to 60°C(No freezing)
Operating humidity pressure		35 to 85%RH (No dew condensation)
Protective structure		IP40 equiv.
Analog output	Output voltage	1 to 5V
	Zero-point voltage	1±0.04V
	Voltage at max. press.	5±0.04V
	Output current	1mA max.(Load resistance: 5kΩ)
	Temp. characteristics	±2%F.S. max.(standard ref. temp. at 25 °C)
	Linearity	±0.5%F.S. max. (standard ref. temp. at 25 °C)

RoHS2 (2011/65/EU+EU2015/863) compliant

Switch output type

Type	Model code		Type	Model code		Type	Model code	
Union type VUS	VUS12-4US□6	VUS12-5/32US	Plug-in type VUS	VUS12-4S	VUS12-1/4S	Male thread type VUS	VUS12-M5S□6	VUS12-U10US
	VUS12-6US□6	VUS12-1/4US		VUS12-6S	VUS12-1/4S-C50		VUS12-01S□6	VUS12-N1US
	VUS12-4US-C50□6	VUS12-5/32US-C50		VUS12-4S-C50	VUS12-1/4S-C100		VUS12-M5S-C50□6	VUS12-U10US-C50
	VUS12-6US-C50□6	VUS12-1/4US-C50		VUS12-6S-C50	VUS12-1/4S-C200		VUS12-01S-C50□6	VUS12-N1US-C50
	VUS12-4US-C100□6	VUS12-5/32US-C100		VUS12-4S-C100	VUS12-1/4S-C300		VUS12-M5S-C100□6	VUS12-U10US-C100
	VUS12-6US-C100□6	VUS12-1/4US-C100		VUS12-6S-C100	VUS12-1/4S-C500		VUS12-01S-C100□6	VUS12-N1US-C100
	VUS12-4US-C200□6	VUS12-5/32US-C200		VUS12-4S-C200			VUS12-M5S-C200□6	VUS12-U10US-C200
	VUS12-6US-C200□6	VUS12-1/4US-C200		VUS12-6S-C200			VUS12-01S-C200□6	VUS12-N1US-C200
	VUS12-4US-C300□6	VUS12-5/32US-C300		VUS12-4S-C300			VUS12-M5S-C300□6	VUS12-U10US-C300
	VUS12-6US-C300□6	VUS12-1/4US-C300		VUS12-6S-C300			VUS12-01S-C300□6	VUS12-N1US-C300
	VUS12-4US-C500□6	VUS12-5/32US-C500		VUS12-4S-C500			VUS12-M5S-C500□6	VUS12-U10US-C500
	VUS12-6US-C500□6	VUS12-1/4US-C500		VUS12-6S-C500			VUS12-01S-C500□6	VUS12-N1US-C500

Analog output type

Type	Model code		Type	Model code		Type	Model code	
Union type VUS	VUS12-4UA□6	VUS12-5/32UA	Plug-in type VUS	VUS12-4A	VUS12-1/4A	Male thread type VUS	VUS12-M5A□6	VUS12-U10UA
	VUS12-6UA□6	VUS12-1/4UA		VUS12-6A	VUS12-1/4A-C50		VUS12-01A□6	VUS12-N1UA
	VUS12-4UA-C50□6	VUS12-5/32UA-C50		VUS12-4A-C50	VUS12-1/4A-C100		VUS12-M5A-C50□6	VUS12-U10UA-C50
	VUS12-6UA-C50□6	VUS12-1/4UA-C50		VUS12-6A-C50	VUS12-1/4A-C200		VUS12-01A-C50□6	VUS12-N1UA-C50
	VUS12-4UA-C100□6	VUS12-5/32UA-C100		VUS12-4A-C100	VUS12-1/4A-C300		VUS12-M5A-C100□6	VUS12-U10UA-C100
	VUS12-6UA-C100□6	VUS12-1/4UA-C100		VUS12-6A-C100	VUS12-1/4A-C500		VUS12-01A-C100□6	VUS12-N1UA-C100
	VUS12-4UA-C200□6	VUS12-5/32UA-C200		VUS12-4A-C200			VUS12-M5A-C200□6	VUS12-U10UA-C200
	VUS12-6UA-C200□6	VUS12-1/4UA-C200		VUS12-6A-C200			VUS12-01A-C200□6	VUS12-N1UA-C200
	VUS12-4UA-C300□6	VUS12-5/32UA-C300		VUS12-4A-C300			VUS12-M5A-C300□6	VUS12-U10UA-C300
	VUS12-6UA-C300□6	VUS12-1/4UA-C300		VUS12-6A-C300			VUS12-01A-C300□6	VUS12-N1UA-C300
	VUS12-4UA-C500□6	VUS12-5/32UA-C500		VUS12-4A-C500			VUS12-M5A-C500□6	VUS12-U10UA-C500
	VUS12-6UA-C500□6	VUS12-1/4UA-C500		VUS12-6A-C500			VUS12-01A-C500□6	VUS12-N1UA-C500

Maintenance parts

Type	Model code
Connector cable FSED	FSED012B07-C50
	FSED012B07-C100
	FSED012B07-C200
	FSED012B07-C300
	FSED012B07-C500

Notes

*1 Plug-in type corresponds to -S3 spec. as standard.

*2 Output impedance of analog output type is 1kΩ. In the case impedance of connected load is low, margin of output becomes large. Check the margin of connected load before use the product

<Calculation example (connected load impedance = 1 MΩ)>

· Output impedance VUS12: Ro = 1 kΩ

· Connected load impedance: Rx = 1 MΩ

· Output = (1- Ro/(Ro + Rx)) x 100% = (1-1kΩ/(1kΩ + 1MΩ)) x 100% = 99.9%…0.1% margin.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
□6 : -S3 ⇒ –S3 spec.
* The gasket material is POM for -S3 spec.

Display for Compact Pressure Sensor 11 & 12 Series Analog Output Type

3-color dual display for Compact Pressure Sensor

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

SED-31 (1) **N** (2)

(1) Display for Compact Pressure Sensor 11 & 12 Series Analog Output Type

(2) Output type

Code	N	P
Specifications	NPN 2 point switch outputs + Analog output	PNP 2 point switch outputs + Analog output

Model Designation of Display accessories (Example)

ACPG-31 - B8 (1) (2)

(1) Display (SED-31) Accessories

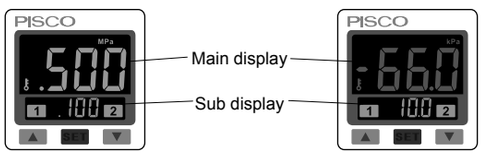
(2) Accessory type

Code	Type	
B8	Bracket	Wall bracket (including M3×0.5 male screw (2pcs))
B9		Upright bracket (including M3×0.5 male screw (2pcs))
P1	Panel-mounting bracket	Panel-mounting bracket set
P2		Panel-mounting bracket set and Front protection cover
CN1	Connector for sensor head	

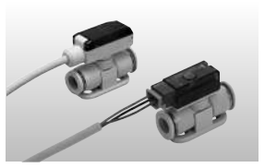
Characteristics

3-color LCD dual display is easy to read

The main display uses 2-colors, according to the output status.
Main display: Pressure indication (Red/Green), Sub display: Pressure setting value (Orange).

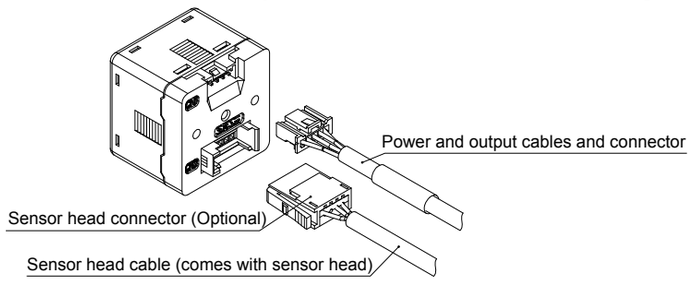


Related product



Compact Pressure Sensor 11 ►P.184
Compact Pressure Sensor 12 ►P.186

Connecterized cable allows for easy connection/disconnection of wiring to the display

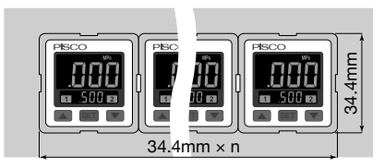


Compact installation

■ Panel cut-out dimensions for when multiple units are installed

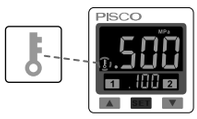
* Calculation: (A) = (34.4×n) - 3.4 n: No. of pressure display

■ Dimensions after installation



Lock function is equipped.

Key icon is displayed when the lock function is active.



Specifications

Model code		SED-31N/SED-31P		
		Compound pressure	Negative pressure	Positive pressure
Sensor type selecting code (*1)		C-1	C-2	C-3
Rated pressure range (Sensor head)		-100 to 300kPa	-100.0 to 0.0kPa	0.000 to 1.000MPa
Power supply		12 to 24VDC Ripple max. ±10%		
Current consumption		40 mA or less (at no-loaded)		
Input voltage from sensor		1 to 5V		
Switch output	NPN open collector	NPN 2 points output: Max. load current: 125 mA, Max. supply voltage: 30 VDC, Internal voltage drop: 1.5V or less		
	PNP open collector	PNP 2 points output: Max. load current: 125 mA, Max. supply voltage: 24 VDC, Internal voltage drop: 1.5V or less		
Repeatability		±0.1%F.S. ±1digit or less		
Hysteresis	One point setting mode	Adjustable (*2)		
	Hysteresis mode			
	Window comparator mode			
Response time		2.5 ms max. (Malfunction protection function: Selection from 25 ms, 100 ms, 250 ms, 500 ms, 1000 ms, 1500 ms)		
Overload protection		Equipped		
Digital display		Main display: 2 colors (Red and Green)		
Pressure unit		-kPa/+MPa, +kgf/cm²,+bar,+psi,-inHg, -mmHg		
Indication accuracy		±1%F.S. ±1digit or less (at Ta = 25 ± 3°C)		
Operation indicator		Orange 1 & 2 indicator		
Analog output		Output voltage: 1 to 5 V ± 2% F.S. or less (within rated pressure range),Linearity: ± 1% F.S. or less, Output impedance: 1 kΩ		
Environment proof	Protective structure	IP40 equiv.		
	Ambient temp. range	Operation: 0 to 50°C, Storage: -10 to 60°C (no dew condensation or freezing)		
	Ambient humidity range	Operation/Storage: 35 to 85% RH (no dew condensation)		
	Voltage proof	1000 VAC 1 min. (Between the lead wire and the case)		
	Insulation proof	More than 50 MΩ (500 VDC) (between the lead wire and the case)		
	Vibration resistance	Total amplitude 1.5 mm or 100 m/s², 10 Hz-55 Hz-10 Hz scan for 1 min., 2 hours each direction of X, Y and Z.		
	Shock resistance	100m/s², 3 times each in direction of X, Y and Z		
Temperature characteristics		± 0.5% F. S. max. (at 25°C, In temp. range of 0 to 50°C)		
Applicable sensor head	11 Series model code	VUS11- □AR	VUS11- □A	SEU11- □A
	12 Series model code		VUS12- □A	

*1 Select C-1, C-2 or C-3 for selection of a sensor code.
*2 Hysteresis is adjustable (1 to 8 digits) in One point setting mode and Window comparator mode.

RoHS2 (2011/65/EU+EU2015/863) compliant

CE

Pressure Display

Type	Model code
Pressure Display SED	SED-31N
	SED-31P

Pressure Display Accessories

Type	Model code
Wall bracket ACPG	ACPG-31-B8

* Including fixing screw (2 pcs.)

Type	Model code
Upright bracket ACPG	ACPG-31-B9

* Including fixing screw (2 pcs.)

Type	Model code
Panel-mounting bracket set ACPG	ACPG-31-P1

Type	Model code
Panel-mounting bracket set and Front protection cover ACPG	ACPG-31-P2

Type	Model code
Connector for sensor head cable ACPG	ACPG-31-CN1

*3M : 37104-3101-000FL (e-CON conforming)

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Digital Pressure Sensor 31& 32 with 3-color dual display

30 x 30 mm square 3-Color Dual Display Sensor for Positive/Negative Pressure

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VUS-31 (1) - N (2) V (3) - 01 (4) -CON (5)

(1) Digital Pressure Sensor 31& 32 with 3-color dual display

Code	VUS-31R	VUS-32R	VUS-31	VUS-32	SEU-31	SEU-32
Rated pressure range	-100.0 to 100.0kPa (Compound press.)		-101.3 to 0.0kPa (Negative press.)		0.000 to 1.000MPa (Positive press.)	

(2) Switch output

Code	N	P (* 32 series only)
Type	NPN open collector output	PNP open collector output

(3) Switch specification

Code	V	2
Specifications	31 series: 1 point SW output + Analog output (1 to 5V) 32 series: 2 points SW output + Analog output (1 to 5V)	31 series: 2 points SW output 32 series: 2 points SW output + copy function

(4) Connection type and sizes

Code	01	N1U (* 32 series only)	G1 (* 32 series only)
Type/size	O.D.: Taper pipe male thread R1/8 I.D.: Metric female thread M5x0.8	O.D.: National pipe taper male thread NPT1/8 I. D.: Unified female thread No.10-32UNF	O.D. : Parallel pipe male thread G1/8 I.D. : Metric female thread M5x0.8

(5) Cable length / Connector spec.

Code	No code	-CON (* 31 series only)
Specifications	2m cable	M8, 4pins, with male connector

Model Designation of Accessory (Example)

ACPG-31 (1) - C42 (2)

* Accessories of Pressure Sensor 31 series (except Female connector : C42) can be also used for Digital Pressure Gauge (page 177)

(1) Sensor type or Accessory type

Code	ACPG-31	ACPG-32
Used for	Accessory for 3-color Dual Display Digital Pressure Sensor 31 & 32	Bracket for 3-color Dual Display Digital Pressure Sensor 32

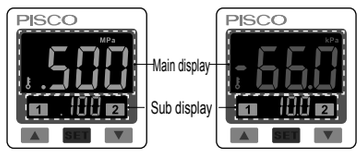
(2) Accessory type

Code	Type		
B1	For 31 series	Bracket	Wall bracket including M3×0.5 male screws 2 pcs.
B2			Upright bracket including M3×0.5 male screws 2 pcs.
C42		Female connector (M8, 4 pins)	
B12	For 32 series	Bracket	Wall bracket including M3×0.5 male screws 2 pcs.
B13			Upright bracket including M3×0.5 male screws 2 pcs.
P1	For 31& 32 series	Panel-mounting bracket set	Without protection cover
P2			With protection cover

Characteristics

Clear 3-color LCD dual displays

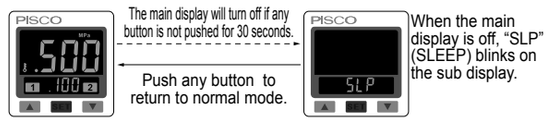
The main display uses 2-colors, according to the output.
Main display: Pressure indication (Red/Green) , Sub display: Pressure setting value (Orange)



Power-saving mode can reduce power consumption by 30%

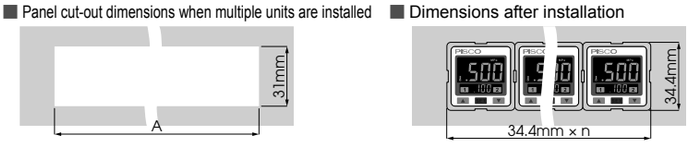
The main display will turn off if any button is not pushed for 30 seconds at power-saving mode.

■ Normal mode ■ Power-saving mode



Compact body size

■ Panel cut-out dimensions when multiple units are installed ■ Dimensions after installation

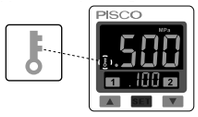


Calculation: (A) = (34.4 × n) - 3.4 n: No. of pressure sensor

Rich optional parts.

Lock function is equipped.

For prevention of operation errors such as mis-typing keys.
Key icon appears at operating mode.



● 32 series

Connectorized wire for easier wiring and maintenance.

Settings details can be copied to slave sensors by copy function.

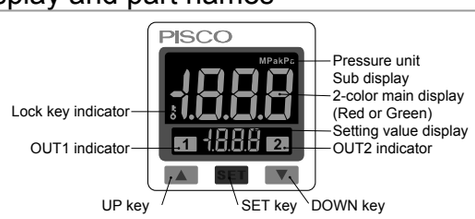
RoHS2 (2011/65/EU+EU2015/863) compliant

Specifications

Type		VUS-31R, VUS-32R (Compound press.)	VUS-31, VUS-32 (Negative press.)	SEU-31, SEU-32 (Positive press.)
Rated pressure range		-100.0 to 100.0kPa	-101.3 to 0.0kPa	0.000 to 1.000MPa
Proof pressure		300kPa		1.5MPa
Fluid medium		Air, non-corrosive / non-flammable gas		
Power supply		12 to 24 VDC Ripple ± 10% or less		
Current consumption		40mA or less (at No-loaded)		
Switch output (*2)		NPN open collector output, PNP open collector output (32 series only)		
		Max. load current: 125mA		
		Max. supply voltage: 30 VDC	Max. supply voltage: 24 VDC	
		Internal voltage drop: Max 1.5 V		
Repeatability		± 0.2% F.S. ± 1 digit or less		
Hysteresis	One point setting mode	Adjustable (*1)		
	Hysteresis mode			
	Window comparator mode			
Response time		2.5ms or less (Malfunction protection function: Selection from 25 ms, 100 ms, 250 ms, 500 ms, 1000 ms, 1500 ms)		
Overload protection		Equipped		
Digital display		3 colors (Red, Green, Orange) indication (Sampling rate: 5 times / 1sec.)		
Pressure unit		-kPa/+MPa, +kgf/cm²,+bar,+psi,-inHg, -mmHg		
Indication accuracy		± 0.2% F.S. ± 1 digit or less (at Ta = 25 ± 3°C)		
Operation indicator		Orange 1&2 indicator		
Analog output (Voltage output)		Output voltage: 1 to 5 V ± 2.5 % F.S. or less (within rated pressure range), Linearity: ± 1% F.S. or less, Output impedance: 1 kΩ		
Environment proof	Protective structure	IP40 equiv.		
	Ambient temp. range	Operation: 0 to 50°C, Storage: -10 to 60°C (no dew condensation or freezing)		
	Ambient humidity range	Operation/Storage: 35 to 85% RH (no dew condensation)		
	Voltage proof	1000 VAC 1 min. (between the lead wire and the case)		
	Insulation proof	50 MΩ or more (500VDC) (between the lead wire and the case)		
	Vibration resistance	Total amplitude 1.5 mm or 100 m/s² 10Hz-150Hz-10Hz scan for 1 min., 2 hours each direction of X, Y and Z.		
	shock resistance	100m/s², 3 times each in direction of X, Y and Z		
Temperature characteristics		± 2% F.S. max. (at Ta = 25°C, temp. range 0 to +50°C)		
Cable spec.		Oil-resistance cable (0.15mm²)		

*1 Hysteresis value is adjustable within 1 to 8 digits for one point set mode and window comparator mode.
*2 Switch output: PNP open collector output is available only for 32 series.

Display and part names



31 Series

With 2 m cable		With M8, 4-pins male connector	
Type	Model code	Type	Model code
VUS Compound	VUS-31R-NV-01	VUS Compound	VUS-31R-NV-01-CON
	VUS-31R-N2-01		VUS-31R-N2-01-CON
Type	Model code	Type	Model code
VUS Negative	VUS-31-NV-01	VUS Negative	VUS-31-NV-01-CON
	VUS-31-N2-01		VUS-31-N2-01-CON
Type	Model code	Type	Model code
SEU Positive	SEU-31-NV-01	SEU Positive	SEU-31-NV-01-CON
	SEU-31-N2-01		SEU-31-N2-01-CON

32 Series

Type	Model code	Type	Model code
VUS Compound	VUS-32R-NV-[4]	VUS Negative	VUS-32-NV-[4]
	VUS-32R-N2-[4]		VUS-32-N2-[4]
	VUS-32R-PV-[4]		VUS-32-PV-[4]
	VUS-32R-P2-[4]		VUS-32-P2-[4]
Type	Model code		
SEU Positive	SEU-32-NV-[4]		
	SEU-32-N2-[4]		
	SEU-32-PV-[4]		
	SEU-32-P2-[4]		

Accessories

For 31 series

Type	Model code
Wall bracket	ACPG-31-B1

ACPG

Type	Model code
Upright bracket	ACPG-31-B2

ACPG

Type	Model code
Female connector (M8, 4 pins)	ACPG-31-C42

ACPG

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

For 32 series

Type	Model code
Wall bracket	ACPG-32-B12

ACPG

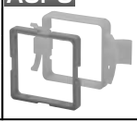
Type	Model code
Upright bracket	ACPG-32-B13

ACPG

For 31& 32 series

Type	Model code
Panel mount bracket set	ACPG-31-P1

ACPG



Type	Model code
Panel-mount bracket set with front protection cover	ACPG-31-P2

ACPG

Flow Sensor 21 with 2-color Dual Display

2-color Dual Digital Display in 17 mm width Flow Sensor

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

FUS21 (1) – NVC (2) – F (3) 005 (4) – 4 (5) 1 (6) B (7) N (8)

(1) Flow Sensor 21 with 2-color dual digital display

(2) Output type

Code	Switch output		Analog output	Setting copy function
NVC	NPN	1 point	1 point (Voltage output)	Equipped
NV		2 points	1 to 5V	Not equipped
NAC		1 point	1 point (Current output)	Equipped
NA		2 points	4 to 20mA	Not equipped
PVC	PNP	1 point	1 point (Voltage output)	Equipped
PV		2 points	1 to 5V	Not equipped
PAC		1 point	1 point (Current output)	Equipped
PA		2 points	4 to 20mA	Not equipped

(3) Flow direction

Code	F	R (*)
Flow direction	Uni-direction	Bi-direction

* Selectable only for no needle valve equipped type.

(4) Flow rate range (Full scale flow rate)

Code	Flow rate (ℓ/min)
005	0.5
010	1
020	2
050	5
100	10
200	20
500	50
101	100
201	200

* Please check the right table for the combination of flow range and applicable tube size.

Table: Flow range and applicable tube size (●: Available)

(4) Flow rate code \ (5) Applicable tube size code	4	6	8	10	1/4	3/8
005	●	●			●	
010	●	●			●	
020	●	●			●	
050	●	●			●	
100	●	●			●	
200	●	●			●	
500		●	●		●	
101			●	●		●
201			●	●		●

(5) Applicable tube size (øD)

	mm size (mm)				inch size (inch)	
Code	4	6	8	10	1/4	3/8
Tube O.D.	ø4	ø6	ø8	ø10	ø1/4	ø3/8

* Please check the above table for the combination of flow range and applicable tube size.

(6) Connector cable

Code	No code	1	3
Cable length (m)	Without cable	1	3

(7) Mounting bracket option

Code	Option
No code	Not equipped
B	Bracket
P	Panel-mount bracket kit
D	DIN rail-mount bracket

(8) Needle valve

Code	No code	N
Needle valve	Not equipped	Built-in

Model Designation of Accessories (Example)

FUS21 (1) – B1 (2)

(1) Flow Sensor 21 with 2-color dual digital display

(2) Option

Code	Option
B1	Bracket
P	Panel-mount bracket kit
PN	Panel-mount bracket kit for Needle Valve type
C51	5-core cable 1m
C53	5-core cable 3m
D	DIN rail-mount bracket

Characteristics

High accuracy: Max. ± 3% F.S.

Precise flow measurement is possible.

Quick response time: Max. 50 msec.

High-speed response is realized by incorporating a platinum sensor chip processed with silicon micromachining and contributes to shorten cycle time.

Setting copy function is equipped.

Settings on master sensor can be copied to slave sensors by copy function, which can save setting time.

Built-in needle valve model.

Flow adjustable needle valve and sensor are integrated into one unit. Easy piping and space saving.

inch size is available.

Bi-directional flow measurement is possible.

Bi-directional flow model can measure the flow of preset direction as desired and gives flexibility of plumbing installation. It can be used as a reverse flow detector.

Forward direction　Bi-direction　Reverse direction

Pressure loss can be reduced up to 50% by redesigning the flow path.

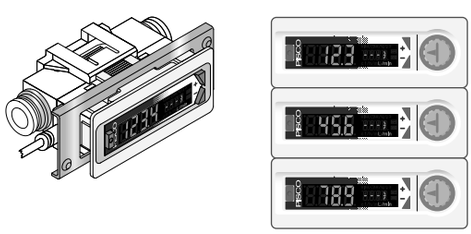
Several gases can be used as fluid medium.

Besides air, nitrogen gas, carbon dioxide gas, argon gas and mixed gas (Argon 80% + carbon dioxide gas 20%)

Flexible mounting options

by a mounting bracket, a panel mount bracket or a DIN rail mount bracket

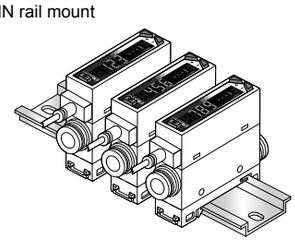
● Panel mount



Space saving

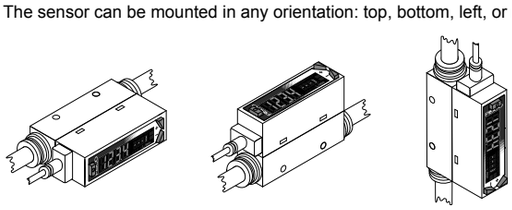
Side-by-side installation is possible.

● DIN rail mount



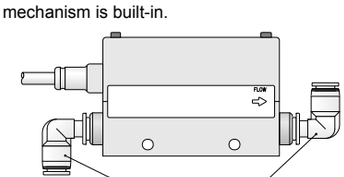
Unrestricted in mounting orientations

The sensor can be mounted in any orientation: top, bottom, left, or right.



No straight piping section required.

No straight piping section is required at either upstream or downstream side as a rectifier mechanism is built-in.

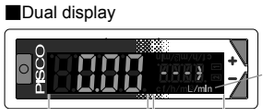


Connecting elbow type fittings is possible.

Dual display/2-color indication

Indication of instantaneous flow rate or setting on main or sub display. Display color can change to Green or Red for output status for normal display and switch output.

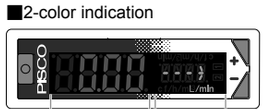
■Dual display



Flow rate unit

Main display (instantaneous flow rate)　Sub-display (Flow direction, etc.)

■2-color indication



Green/Red (Switchable)

With rotatable display, upside down installation is OK

Indication can rotate.

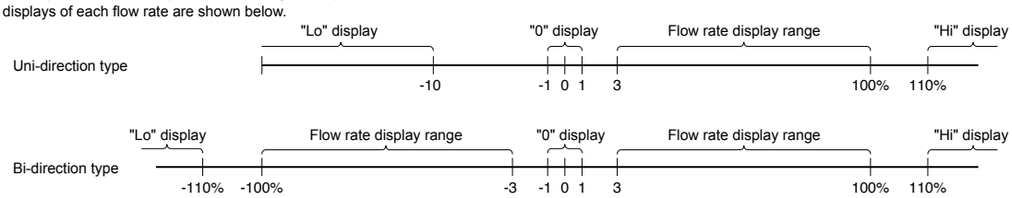
Flow Sensor 21 with 2-color Dual Display

Specifications

Flow rate range codes		005	010	020	050	100	200	500	101	201
Flow direction	F	Uni-direction								
	R	Bi-direction								
Flow rate measurement range (*1)	F	15 to 500 mℓ/min	30 to 1000 mℓ/min	0.06 to 2.00 ℓ/min	0.15 to 5.00 ℓ/min	0.30 to 10.00 ℓ/min	0.6 to 20.0 ℓ/min	1.5 to 50.0 ℓ/min	3.0 to 100.0 ℓ/min	6 to 200 ℓ/min
	R	-500 to -15, 15 to 500 mℓ/min	-1000 to -30, 30 to 1000 mℓ/min	-2.00 to -0.06, 0.06 to 2.00 ℓ/min	-5.00 to -0.15, 0.15 to 5.00 ℓ/min	-10.00 to -0.30, 0.30 to 10.00 ℓ/min	-20.0 to -0.6, 0.6 to 20.0 ℓ/min	-50.0 to -1.5, 1.5 to 50.0 ℓ/min	-100.0 to -3.0, 3.0 to 100.0 ℓ/min	-200 to -6, 6 to 200 ℓ/min
Display		4 digits + 4 digits 2-color LCD								
Flow rate display range (*2)	F	-49 to 549 mℓ/min	-99 to 1099 mℓ/min	-0.19 to 2.19 ℓ/min	-0.49 to 5.49 ℓ/min	-0.99 to 10.99 ℓ/min	-1.9 to 21.9 ℓ/min	-4.9 to 54.9 ℓ/min	-9.9 to 109.9 ℓ/min	-19 to 219 ℓ/min
	R	-549 to 549 mℓ/min	-1099 to 1099 mℓ/min	-2.19 to 2.19 ℓ/min	-5.49 to 5.49 ℓ/min	-10.99 to 10.99 ℓ/min	-21.9 to 21.9 ℓ/min	-54.9 to 54.9 ℓ/min	-109.9 to 109.9 ℓ/min	-219 to 219 ℓ/min
Integration display (*3)	Display range	0 to ±9999999mℓ		0.00 to ±99999.99ℓ			0.0 to ±999999.9ℓ			0 to ±9999999ℓ
	Pulse output rate	5mℓ	10mℓ	0.02ℓ	0.05ℓ	0.1ℓ	0.2ℓ	0.5ℓ	1ℓ	2ℓ
Operating conditions	Fluid medium (*4)	Clean air (JIS B 8392-1:2012 1.1.1 to 5.6.2), Compressed air (JIS B 8392-1:2012 1.1.1 to 1.6.2), Nitrogen gas								
		Argon gas, carbon dioxide gas and mixed gas (Argon + carbon dioxide gas)								
	Temp. range	0 to 50°C (no dew condensation)								
	Pressure range	-0.09 to 0.75MPa								
	Pressure proof	1MPa								
Operating ambient temp. and hum.		0 to 50ºC, 90%RH or less								
Storage temperature		-10 to 60ºC								
Accuracy(*5) (Fluid: Dry air)	Accuracy (*6)	± 3% F.S. or less (open to air at secondary side) (The scope of gurantee depens on the "Flow rate measurement range")								
	Repeatability (*7)	± 1% F.S. or less (open to air at secondary side)								
	Temperature characteristics	MAX ± 0.2% F.S. /°C (15 to 35°C, 25°C criteria)								
	Pressure characteristics	± 5% F.S. or less (Criteria: Open to air at secondary side)								± 5% F.S. or less (Criteria: 0.35 MPa)
Response time (*8)		50 msec or less (response time setting: OFF)								
Switch output	NV/NVC/NA/NAC	NPN open collector output (50 mA or less, voltage drop 2.4V or less)								
	PV/PVC/PA/PAC	PNP open collector output (50 mA or less, voltage drop 2.4V or less)								
Analog output (*9)	NV/NVC/PV/PVC	1 to 5 V voltage output (connected load impedance 50 kΩ and over)								
	NA/NAC/PA/PAC	4 to 20 mA current output (connected load impedance 0 to 300 Ω)								
Power supply voltage (*10)	NV/NVC/PV/PVC	12 to 24 VDC (10.8 to 26.4V) ripple rate 1% or less								
	NA/NAC/PA/PAC	24 VDC (21.6 to 26.4V) ripple rate 1% or less								
Current consumption (*11)		45 mA or less								
Lead wire		ø3.7 AWG26 equivalent × 5 cores (connector), Outside diameter of insulator is 1.0								
Functions (*12)		(1) Gas type switching, (2) Setting copy function, (3) Flow rate integration, (4) Peak hold, etc.								
Protective structure		IP40 equiv.								
Protective circuit (*13)		Power supply and switch output reverse connection protections, and switch output load short-circuit protection								
Vibration resistance		10 to 150 Hz, max. 100 m/s², 2 hours each in X, Y, Z direction								
EMC directive		EN55011, EN61000-6-2, EN61000-4-2/3/4/6/8								
Mounting	Mounting orientation (*14)	Unrestricted in vertical/horizontal direction								
	Straight piping section (*15)	Not required								

*1 The value converted from mass flow rate to volumetric flow rate at standard condition (20°C, 1 barometric pressure (101 kPa), relative humidity 65%). (For gas other than air, 20°C, 1 barometric pressure (101 kPa), relative humidity 0%RH).

*2 The displays of each flow rate are shown below.



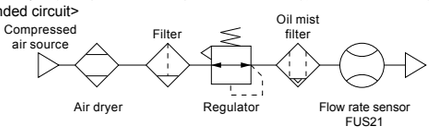
*3 The integrating flow is a calculated (reference) value. When using the integrated value save function, the number of saves should not exceed the access count limit of the storage cell (1 millions times). (Changes to the settings are counted in number of accesses.)

$$\text{Number of saves} = \frac{\text{Usage time}}{5 \text{ min.}} < 1 \text{ million times}$$

When instantaneous flow rate is 1 % or below, it is not counted as integrated flow rate.

*4 Use dry clean gas which does not contain corrosive elements such as chlorine, sulfur or acids, and does not contain dust or oil mist. When using compressed air, use clean air that complies with JIS B 8392-1:2012 Class 1.1.1 to 1.6.2. Compressed air from the compressor contains drain (water, oil oxide, foreign substances, etc.). To maintain the function of the product, install a filter, air dryer (min. pressure dew point 10°C or less), and oil mist filter (max. oil content concentration 0.1 mg/m³) on the primary side (upstream side) of the product.

<Recommended circuit>



*5 Compressed air is used for adjustment and inspection of this product. Accuracy for gas types other than air is only a guide.

*6 The accuracy is based on the manufacturer's basic flow rate mater. It does not represent absolute accuracy.
Repeatability, temperature characteristics, and pressure characteristics are not included in accuracy ± 3% F.S.
Consider this condition according to the operating environment and operating conditions.
*7 Repeatability over a short period of time. Changes over time are not included.
*8 Actual response time may differ depending on piping conditions. Response time can be set within the range of 50 msec. to 1.5 sec.
*9 Output impedance of analog voltage output type is about 1kΩ. In the case impedance of connected load is low, the margin of output value increases. Check the margin of connected load before using the product.
*10 The power supply voltage specifications differ for the voltage output type and the current output type.
*11 Current when 24 VDC is connected and no load is applied. The current consumption will vary depending on how the load is connected.
*12 Gas can be switched to argon, carbon dioxide, argon 80% + carbon dioxide 20% with the gas switching function.
The full-scale flow rate becomes half of the flow rate range when switching to carbon dioxide gas. Also, an output type can be selected for analog output.

Gas type	Flow direction	Flow rate measurement range								
		005	010	020	050	100	200	500	101	201
· Air · Nitrogen · Argon ·Argon 80% + Carbon dioxide 20%	Uni-direction	15 to 500 mℓ/min	30 to 1000 mℓ/min	0.06 to 2.00 ℓ/min	0.15 to 5.00 ℓ/min	0.30 to 10.00 ℓ/min	0.6 to 20.0 ℓ/min	1.5 to 50.0 ℓ/min	3.0 to 100.0 ℓ/min	6 to 200 ℓ/min
	Bi-direction	-500 to -15 mℓ/min	-1000 to -30 mℓ/min	-2.00 to -0.06 ℓ/min	-5.00 to -0.15 ℓ/min	-10.00 to -0.30 ℓ/min	-20.0 to -0.6 ℓ/min	-50.0 to -1.5 ℓ/min	-100.0 to -3.0 ℓ/min	-200 to -6 ℓ/min
		15 to 500 mℓ/min	30 to 1000 mℓ/min	0.06 to 2.00 ℓ/min	0.15 to 5.00 ℓ/min	0.30 to 10.00 ℓ/min	0.6 to 20.0 ℓ/min	1.5 to 50.0 ℓ/min	3.0 to 100.0 ℓ/min	6 to 200 ℓ/min
· Carbon dioxide	Uni-direction	15 to 250 mℓ/min	30 to 500 mℓ/min	0.06 to 1.00 ℓ/min	0.15 to 2.50 ℓ/min	0.30 to 5.00 ℓ/min	0.6 to 10.0 ℓ/min	1.5 to 25.0 ℓ/min	3.0 to 50.0 ℓ/min	6 to 100 ℓ/min
	Bi-direction	-250 to -15 mℓ/min	-500 to -30 mℓ/min	-1.00 to -0.06ℓ/min	-2.50 to -0.15 ℓ/min	-5.00 to -0.30 ℓ/min	-10.0 to -0.6 ℓ/min	-25.0 to -1.5 ℓ/min	-50.0 to -3.0 ℓ/min	-100 to -6 ℓ/min
		15 to 250 mℓ/min	30 to 500 mℓ/min	0.06 to 1.00 ℓ/min	0.15 to 2.50 ℓ/min	0.30 to 5.00 ℓ/min	0.6 to 10.0 ℓ/min	1.5 to 25.0 ℓ/min	3.0 to 50.0 ℓ/min	6 to 100 ℓ/min

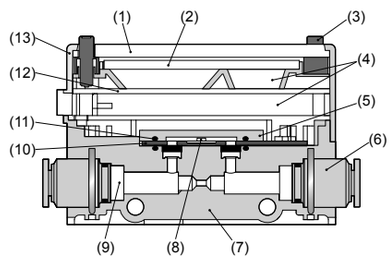
Gas type	Flow direction	Analog output			
		Output type A		Output type B	
		Voltage	Current	Voltage	Current
· Carbon dioxide	Uni-direction	1 to 3V	4 to 12mA	1 to 5V	4 to 20mA
	Bi-direction	2 to 4V	8 to 16mA		

The "Copy function" option can be selected at "Output specifications" in the model designation. Note that the "External input" function is not available on models with "Setting copy function".

*13 The protection circuit of this product is effective only for specific error connections and load short-circuit. It is not designed to protect from any error connections.
*14 This product measures the change in heat distribution caused by the fluid flow. When this product is mounted in vertical orientation, convection flow can influence heat distribution and cause the zero point to deviate.
*15 Accuracy may be affected by the piping conditions. For more accurate measurement, provide a straight pipe section 10 times as long as the pipe inner diameter.

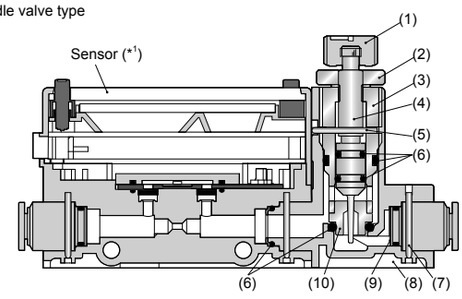
Sectional drawing

No needle valve type



No,	Parts	Material
(1)	LCD cover	Acryl resin
(2)	LCD	−
(3)	Switch	EPDM
(4)	Circuit board spacer	PC
(5)	Sensor cover	Stainless steel
(6)	Cartridge fitting	−
(7)	Resin body	PA
(8)	Sensor chip	Semiconductive silicon
(9)	Port filter	Stainless steel
(10)	Sensor circuit board	Glass epoxy resin
(11)	Sensor gasket	FKM
(12)	Electronic substrate	Glass epoxy resin
(13)	Case	PA

Built-in needle valve type



No,	Parts	Material (treatment)
(1)	Knob	PBT
(2)	Lock nut	Nickel plated brass
(3)	Needle guide	Nickel plated brass
(4)	Needle	Nickel plated brass (*2)
(5)	Fixing pin	Stainless steel
(6)	O-ring	FKM
(7)	Fixing pin for fitting	Stainless steel
(8)	Needle valve body	PA
(9)	Port filter	Stainless steel
(10)	Orifice	Nickel plated brass (*3)

*1 Please refer to no needle valve type for the main parts of the sensor.
*2 Needle of FUS21: 005/010/020 is stainless steel.
*3 Orifice of FUS21: 005/010/020 is PTFE.

Flow Sensor 21 with 2-color Dual Display

RoHS2 (2011/65/EU+EU2015/863) compliant CE

Type	Model code FUS21-2-F4-567
No needle valve Uni-direction FUS21 	FUS21-2-F005-567 FUS21-2-F010-567 FUS21-2-F020-567 FUS21-2-F050-567 FUS21-2-F100-567 FUS21-2-F200-567 FUS21-2-F500-567 FUS21-2-F101-567 FUS21-2-F201-567

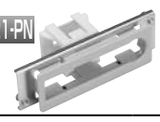
Type	Model code FUS21-2-R4-567
No needle valve Bi-direction FUS21 	FUS21-2-R005-567 FUS21-2-R010-567 FUS21-2-R020-567 FUS21-2-R050-567 FUS21-2-R100-567 FUS21-2-R200-567 FUS21-2-R500-567 FUS21-2-R101-567 FUS21-2-R201-567

Type	Model code FUS21-2-F4-567N
Built-in needle valve Uni-direction FUS21 	FUS21-2-F005-567N FUS21-2-F010-567N FUS21-2-F020-567N FUS21-2-F050-567N FUS21-2-F100-567N FUS21-2-F200-567N FUS21-2-F500-567N FUS21-2-F101-567N FUS21-2-F201-567N

Options

Type	Model code
Connector cable FUS21-C5□ 	FUS21-C51 FUS21-C53

Type	Model code
Panel-mount bracket kit FUS21-P 	FUS21-P

Type	Model code
Panel-mount bracket kit for Needle Valve type FUS21-PN 	FUS21-PN

Type	Model code
Bracket FUS21-B1 	FUS21-B1

Type	Model code
DIN rail-mount bracket FUS21-D 	FUS21-D

Notes

*1 Please select a code for output type forr 2 , a tube size code for 5, a code for cable for 6, and a code for bracket for 7 in model code, refferring to the Model Designation (Example) on plage 192.

*2 The price of accessories (cable, panel mount kit, bracket and DIN rail) are not included into the price of the sensors.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

8 mm width Flow Sensor

PISCO

>>> https://www.pisco.co.jp/en/

8 mm width Flow Sensor (Non-linear analog output)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

FUS8 (1) – A (2) – F (3) 005 (4) – 4 (5) 4 (6) -3 (7) -NH (8)

(1) 8 mm width Flow Sensor

(2) Output type

A: Analog output (1V—5V)

(3) Flow direction

Code	F	R
Flow direction	Uni-direction	Bi-direction

(4) Flow rate range (Full scale flow rate)

Code	005	010	050	100
Flow rate range(l/min)	0.5	1	5	10

(5) Inlet port size (6) Outlet port size

Code	180(*1)	2(*2)	3	4	6
Size	ø1.8mm	ø2mm	ø3mm	ø4mm	ø6×ø4mm
Connection type	Push-in fitting				Barb fitting

Code	N4	N6	M5	No code
Size	ø4mm	ø6mm	M5×0.8	–
Connection type	Plug-in		Female thread	Sensor head alone

*1. Max. flow rate is 4 ℓ/min.
*2. Max. flow rate is 5 ℓ/min.
*3. Any inlet port and outlet port listed above can be combined .

(7) Connector cable

Code	No code	-3
Cable	Without cable	With cable (3 cores, 3 m)

(8) Mounting bracket

Code	No code	-NH
Mounting bracket	With mounting bracket	Without mounting bracket

* With bracket is not selectable when selecting Sensor head alone for inlet/outlet port in (5) and (6).

Model Designation of Connector cable

FUS8 (1) – C33 (2)

(1) 8 mm width Flow Sensor

(2) Cable

C33: 3 m of 3-core cable

Model Code for Mounting bracket

FUSH008P01 (1)

(1) Mounting bracket for 8mm width Flow sensor

8 mm width Flow Sensor

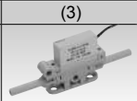
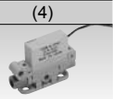
Characteristics

Ultra-small and light weight

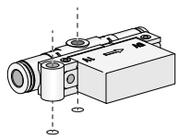
Width: 8.5mm, Height: 24mm, Length: 41mm, Weight: 10.7g (In the case of dia. 4mm push-in fitting equipped type)

A wide variety of connection methods

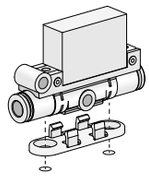
Various fitting combination for connection configuration is possible.

No.	(1)	(2)	(3)	(4)
Connection type				
	Push-in fitting	Barb fitting	Plug-in	Female thread
Size	ø1.8, ø2, ø3, ø4mm	ø6×ø4mm	ø4, ø6mm	M5×0.8

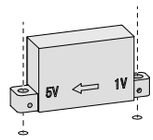
Three types of installation method are available.



(1) Direct screw mounting



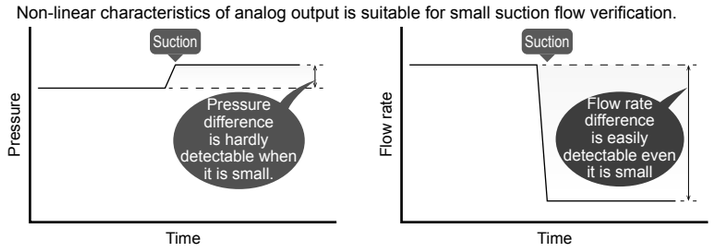
(2) Bracket mount
- ▶Easy mounting and removal of the product



(3) Sensor head direct mount
- ▶Installation in narrow space is possible.

Best suitable for suction verification

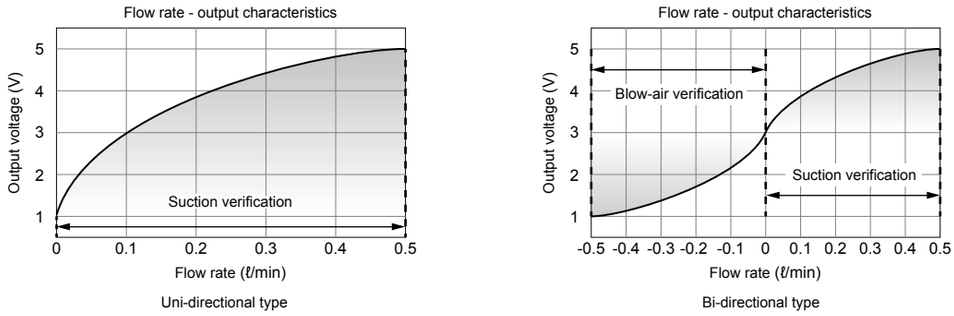
Non-linear characteristics of analog output is suitable for small suction flow verification.



Example applications
- ▶Suction verification of small work pieces, which is hard to detect by a pressure sensor.
- ▶Verification for which the piping is long and hard to detect by pressure sensor.
- ▶When vacuum flow is narrowed in order to secure pressure difference and the tact time to suction lift verification becomes longer.

Bidirectional flow measurement type, best suitable for suction transportation, is available.

Bi-directional type can be used to confirm suction lift and release. Thus, best suitable for suction transport application.

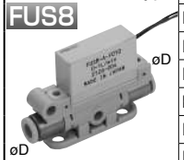


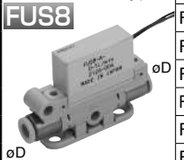
Specifications

Item \ Type	FUS8-A-R005	FUS8-A-R010	FUS8-A-R050	FUS8-A-R100	FUS8-A-F005	FUS8-A-F010	FUS8-A-F050	FUS8-A-F100
Flow rate range	-0.5 to 0.5ℓ/min	-1 to 1ℓ/min	-5 to 5ℓ/min	-10 to 10ℓ/min	0 to 0.5ℓ/min	0 to 1ℓ/min	0 to 5ℓ/min	0 to 10ℓ/min
Operating conditions: Fluid medium	Clean air (JIS B 8392-1.1.1 to 1.6.2.), Nitrogen gas							
Operating conditions: Operating pressure range	-0.09 to 0.2MPa							
Operating conditions: Proof pressure	0.3MPa							
Operating conditions: Operating ambient temp. and hum.	0 to 50°C, max. 80% RH							
Operating conditions: Operating fluid medium temp.	0 to 50°C (No dew condensation)							
Storage temp. range	-20 to 60°C (No dew condensation)							
Analog output accuracy(*): Linearity	Non linear analog output 1 to 5 V							
Analog output accuracy(*): Pressure characteristics	±5%.F.S.or less (-0.09 to 0.2MPa, Criteria: 25°C, 0.1 MPa)				±10%.F.S.or less (-0.09 to 0.2MPa, Criteria: 25°C, 0.1 MPa)			
Analog output accuracy(*): Temperature characteristics	±0.3%.F.S./°C or less (0 to 50°C, Criteria: 25°C)				±0.6%.F.S./°C or less (0 to 50°C, Criteria: 25°C)			
Analog output accuracy(*): Repeatability	±2%.F.S.or less							
Analog output accuracy(*): Power supply voltage fluctuation	±2%.F.S.or less (24VDC±10%)							
Response time	5ms or less			8ms or less	5ms or less			8ms or less
Current consumption	30mA or less							
Power supply voltage	24VDC±10%, ripple 1% or less							

* The analog output indicates 3 V for Bi-directional type and 1 V for Uni-directional type respectively when the flow rate is 0, and changes to 5 V when the fluid flows to the right (when the connector cable is to the right of the body).

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code FUS8-A-F4-56-7-8
Uni-directional type	FUS8-A-F005
FUS8	FUS8-A-F005-3
	FUS8-A-F005-56
	FUS8-A-F005-56-3
	FUS8-A-F005-56-3-NH
	FUS8-A-F010
	FUS8-A-F010-3
	FUS8-A-F010-56
	FUS8-A-F010-56-3
	FUS8-A-F010-56-3-NH
	FUS8-A-F050
	FUS8-A-F050-3
	FUS8-A-F050-56
	FUS8-A-F050-56-3
	FUS8-A-F050-56-3-NH
	FUS8-A-F100
* The above picture is image of the one with push-in fittings, a connector cable and a mounting bracket.	FUS8-A-F100-3
	FUS8-A-F100-56
	FUS8-A-F100-56-3
	FUS8-A-F100-56-3-NH

Type	Model code FUS8-A-R4-56-7-8
Bi-directional type	FUS8-A-R005
FUS8	FUS8-A-R005-3
	FUS8-A-R005-56
	FUS8-A-R005-56-3
	FUS8-A-R005-56-3-NH
	FUS8-A-R010
	FUS8-A-R010-3
	FUS8-A-R010-56
	FUS8-A-R010-56-3
	FUS8-A-R010-56-3-NH
	FUS8-A-R050
	FUS8-A-R050-3
	FUS8-A-R050-56
	FUS8-A-R050-56-3
	FUS8-A-R050-56-3-NH
	FUS8-A-R100
* The above picture is image of the one with push-in fittings, a connector cable and a mounting bracket.	FUS8-A-R100-3
	FUS8-A-R100-56
	FUS8-A-R100-56-3
	FUS8-A-R100-56-3-NH

Options

Type	Model code
Connector cable	FUS8-C33
FUS8-C33	

Type	Model code
Mounting bracket	FUSH008P01
FUSH	

Notes

* Please select a code for port size and connection type for 5 and 6 in model code., refferring to the Model Designation (Example) on plage 197.

Packaging specifications

1 pc. /bag

Valve

Valve

Index

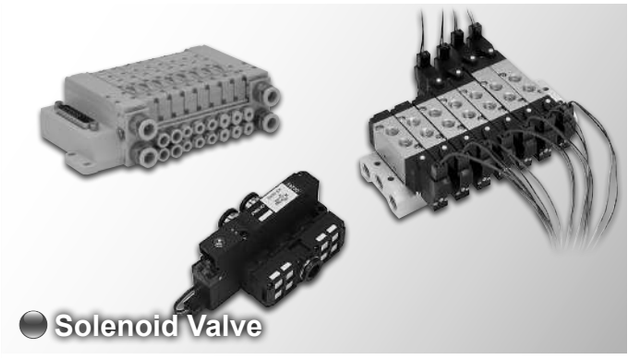
Renewal ▶ Renewal product　Add ▶ Additional model or design change

Manual Valve

Three way changeover valve
- Change Valve ····· P.202

Shut-off Valve
- Hand Valve ····· Renewal Add P.203
- Ball Valve ····· P.205
- Ball Valve SUS304 ····· P.208
- Ball Valve SUS316 Equivalent ····· P.210

Push type changeover valve
- Mechanical Valve ····· P.212



Solenoid Valve

Metal type
- Solenoid valve SVB ····· P.214

Resin type
- Solenoid valve SVA ····· P.228
- Solenoid valve SVR ····· P.238

Solenoid valve accessory
- Sub-D Connector ····· P.246

Change Valve

Push-In Fitting Type Three-way Changeover Valve

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

HBV (1) 6 (2) – 6 (3)

(1) Change Valve

(2) Tube dia. (øD1)

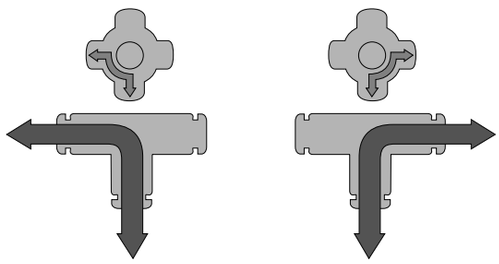
	mm size (mm)				inch size (inch)			
Code	6	8	10	12	1/4	5/16	3/8	1/2
Tube O.D.	ø6	ø8	ø10	ø12	ø1/4	ø5/16	ø3/8	ø1/2

(3) Tube dia. (øD2)

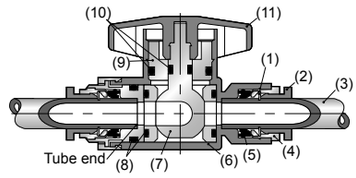
	mm size (mm)				inch size (inch)			
Code	6	8	10	12	1/4	5/16	3/8	1/2
Tube O.D.	ø6	ø8	ø10	ø12	ø1/4	ø5/16	ø3/8	ø1/2

Characteristics

Changeover Air Direction by 90° turning of the cock.



Sectional drawing



No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release ring	POM
(3)	Tube	Polyurethane or nylon, etc.
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	Resin body	Glass Fiber Reinforced PBT
(7)	Ball	Nickel-plated brass
(8)	O-ring	NBR
(9)	Guide	Nickel-plated brass
(10)	O-ring	NBR
(11)	Cock	POM

Specifications

Fluid medium	Air
Max. operating pressure	0.7 MPa
Max. vacuum	-100 kPa
Operating temp. range	0 to 60°C (No freezing)

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code HBVøD1-øD2
Union HBV	HBV6-6
	HBV8-6
	HBV8-8
	HBV10-10
	HBV12-10
	HBV12-12
	HBV1/4-1/4
	HBV5/16-1/4
	HBV5/16-5/16
	HBV3/8-3/8
	HBV1/2-3/8
	HBV1/2-1/2

Notes
* Release-ring color is white for inch-size products.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Hand Valve

Push-In Fitting Type Handle type shutoff valve (3-way valve for exhausting residual pressure and 2-way valve)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

HV (1) 6 (2) – 01 (3) -2 (4) (5) (6)

(1) Hand Valve

(2) Inlet type / size (IN)

■ Tube dia.

	mm size (mm)					inch size (inch)					
Code	4	6	8	10	12	5/32	3/16	1/4	5/16	3/8	1/2
Tube O.D.	ø4	ø6	ø8	ø10	ø12	ø5/32	ø3/16	ø1/4	ø5/16	ø3/8	ø1/2

■ Thread size

	Taper pipe thread				National pipe thread tapered			
Code	01	02	03	04	N1	N2	N3	N4
Thread size	R1/8	R1/4	R3/8	R1/2	NPT1/8	NPT1/4	NPT3/8	NPT1/2

(3) Outlet port / size (OUT)

■ See (2) for the size list of tube dia. and thread size.

(4) Number of valve port

Code	No code	-2
Specifications	Three-directional control valve (with residual pressure exhaust function)	Two-directional control valve

(5) Body color (Optional)

Code	No code	W
Specifications	Standard color	Light gray

(6) Wrench size specification

Code	No code	U
Wrench size spec.	mm size	inch size

Model Designation of union straight type mounting bracket (Example)

HV (1) H (2) 5 (3)

(1) Hand Valve

(2) Union straight type mounting bracket

(3) Body size

Code	5		7	
	mm size	inch size	mm size	inch size
Used for	HV4-4	HV5/32-5/32	HV10-10	HV3/8-3/8
	HV6-4	HV3/16-3/16	HV12-10	HV1/2-3/8
	HV6-6	HV1/4-5/32	HV12-12	HV1/2-1/2
	HV8-6	HV1/4-3/16		
	HV8-8	HV1/4-1/4		
		HV5/16-1/4		
		HV5/16-5/16		

Characteristics

Release Residual Pressure by Three-Directional Control Valve and Two-Directional Control Valve without releasing pressure are available.

NEW Added size variations.

NEW Large engraving on the cap lever makes it easy to distinguish between two directional control valve and three-directional control valve.

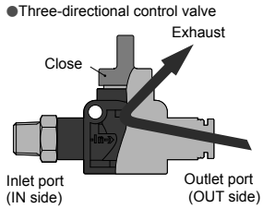
NEW Up to 28% lighter than existing models.

NEW Improved operability by rounding the corners of the cap lever.

NEW A union straight type can be fixed by using a dedicated bracket.

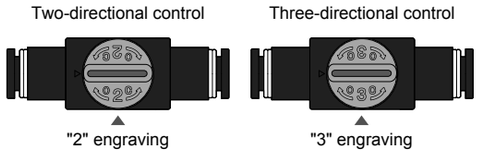
Three-directional control valve and Two-directional control valve

●Three-directional control valve



■Three-directional control valve has a function to release the residual pressure in outlet side when it is turned off. Adjustment or maintenance can be carried out safely.
Two-directional control valve does not have a function to release the residual pressure in outlet side. This valve is suitable for applications such as tanks which are required to keep the residual pressure. Two-directional valve is also suitable for vacuum piping.

■Two-directional control valve and three-directional control valve can be identified by the number engraved on the cap lever.



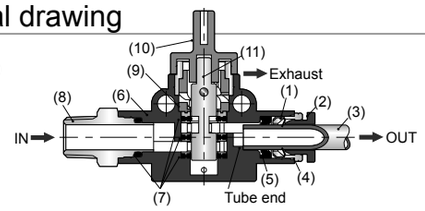
Hand Valve

Specifications

Fluid medium	Air
Max. operating pressure	1.0 MPa
Max. vacuum	-100 kPa
Operating temp. range	0 to 60°C (No freezing)

Sectional drawing

Straight B
(Cap lever : Closed)



No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release ring	POM
(3)	Tube	Polyurethane or nylon, etc.
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	Resin body	PBT
(7)	O-ring	NBR
(8)	Metallic body	Nickel-plated brass
(9)	Spacer	PPS
(10)	Cap lever	POM
(11)	Spool	Nickel-plated brass

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code HV IN-OUT[4][5]	Model code HV IN-OUT[4][5]U
Straight A HV Add 	HV4-01[4][5]	HV3/16-N1[4][5]U
	HV6-01[4][5]	HV3/16-N2[4][5]U
	HV6-02[4][5]	HV3/16-N3[4][5]U
	HV6-03[4][5]	HV1/4-N1[4][5]U
	HV8-01[4][5]	HV1/4-N2[4][5]U
	HV8-02[4][5]	HV1/4-N3[4][5]U
	HV8-03[4][5]	HV5/16-N1[4][5]U
	HV10-02[4][5]	HV5/16-N2[4][5]U
	HV10-03[4][5]	HV5/16-N3[4][5]U
	HV10-04[4][5]	HV3/8-N2[4][5]U
	HV12-02[4][5]	HV3/8-N3[4][5]U
	HV12-03[4][5]	HV3/8-N4[4][5]U
	HV12-04[4][5]	HV1/2-N2[4][5]U
	HV5/32-01[4][5]	HV1/2-N3[4][5]U
	HV3/16-01[4][5]	HV1/2-N4[4][5]U
	HV3/16-02[4][5]	
	HV3/16-03[4][5]	
	HV1/4-01[4][5]	
	HV1/4-02[4][5]	
	HV1/4-03[4][5]	
	HV5/16-01[4][5]	
	HV5/16-02[4][5]	
	HV5/16-03[4][5]	
	HV3/8-02[4][5]	
	HV3/8-03[4][5]	
	HV3/8-04[4][5]	
	HV1/2-02[4][5]	
	HV1/2-03[4][5]	
	HV1/2-04[4][5]	

Type	Model code HV IN-OUT[4][5]	Model code HV IN-OUT[4][5]U
Straight B HV Add 	HV01-4[4][5]	HVN1-3/16[4][5]U
	HV01-6[4][5]	HVN2-3/16[4][5]U
	HV02-6[4][5]	HVN3-3/16[4][5]U
	HV03-6[4][5]	HVN1-1/4[4][5]U
	HV01-8[4][5]	HVN2-1/4[4][5]U
	HV02-8[4][5]	HVN3-1/4[4][5]U
	HV03-8[4][5]	HVN1-5/16[4][5]U
	HV02-10[4][5]	HVN2-5/16[4][5]U
	HV03-10[4][5]	HVN3-5/16[4][5]U
	HV04-10[4][5]	HVN2-3/8[4][5]U
	HV02-12[4][5]	HVN3-3/8[4][5]U
	HV03-12[4][5]	HVN4-3/8[4][5]U
	HV04-12[4][5]	HVN2-1/2[4][5]U
	HV01-5/32[4][5]	HVN3-1/2[4][5]U
	HV01-3/16[4][5]	HVN4-1/2[4][5]U
	HV02-3/16[4][5]	
	HV03-3/16[4][5]	
	HV01-1/4[4][5]	
	HV02-1/4[4][5]	
	HV03-1/4[4][5]	
	HV01-5/16[4][5]	
	HV02-5/16[4][5]	
	HV03-5/16[4][5]	
	HV02-3/8[4][5]	
	HV03-3/8[4][5]	
	HV04-3/8[4][5]	
	HV02-1/2[4][5]	
	HV03-1/2[4][5]	
	HV04-1/2[4][5]	

Type	Model code HV IN-OUT[4][5]
Union Straight HV Add 	HV4-4[4][5]
	HV6-4[4][5]
	HV6-6[4][5]
	HV8-6[4][5]
	HV8-8[4][5]
	HV10-10[4][5]
	HV12-10[4][5]
	HV12-12[4][5]
	HV5/32-5/32[4][5]
	HV3/16-3/16[4][5]
	HV1/4-5/32[4][5]
	HV1/4-3/16[4][5]
	HV1/4-1/4[4][5]
	HV5/16-1/4[4][5]
	HV5/16-5/16[4][5]
	HV3/8-3/8[4][5]
	HV1/2-3/8[4][5]
	HV1/2-1/2[4][5]

Type	Model code HV IN-OUT[4][5]	Model code HV IN-OUT[4][5]U
Threaded Union HV 	HV01-01[4][5]	HVN1-N1[4][5]U
	HV02-01[4][5]	HVN2-N1[4][5]U
	HV02-02[4][5]	HVN2-N2[4][5]U
	HV03-02[4][5]	HVN3-N2[4][5]U
	HV03-03[4][5]	HVN3-N3[4][5]U

Type	Model code HVH
Bracket for Union Straight type HVH New 	HVH5
	HVH7

Notes
*1. " " in the list is newly added products.
*.2 For [4] in model code, please select a code for number of valve port, for [5], please select a body color code.
*3. Release-ring color is white for inch-size products.
*4. Material of union type mounting bracket is POM.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options

Code	[5] : -W
Specifications	Light gray

Ball Valve

PISCO

>>> https://www.pisco.co.jp/en/

Push-In Fitting Type Shut-off Valve (2 port valve)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

BV (1) C (2) 20 (3) – 06 (4) 01 (5) (6)

(1) Ball Valve

(2) Type

Code	C	LC	U	LU	G	LG	M	LM
Type	Straight	Elbow	Union Straight	Union Elbow	Unequal dia. Union Straight	Unequal dia. Union Elbow	Bulkhead Union Straight	Bulkhead Union Elbow

(3) Effective sectional area (Series)

Code	No code	20	60
Effective sectional area (mm^2)	10	20	60

(4) Port 1 size (øD, $øD_1$, R)

■ Tube dia.

		mm size (mm)						inch size (inch)					
Code	10 Series	3	4	6				1/8	5/32				
	20 and 60 series			06	08	10	12			1/4	5/16	3/8	1/2
Tube O.D.		ø3	ø4	ø6	ø8	ø10	ø12	ø1/8	ø5/32	ø1/4	ø5/16	ø3/8	ø1/2

■ Thread size

	Taper pipe thread				National pipe thread tapered			
Code	01	02	03	04	N1	N2	N3	N4
Thread size	R1/8	R1/4	R3/8	R1/2	NPT1/8	NPT1/4	NPT3/8	NPT1/2

(5) Port 2 size ($øD_2$, R)

■ See (4) for the Tube dia. and thread size.

* For 10 series and inch size, please enter a hyphen "-" before Port 2 size.

(6) Wrench size specification

Code	No code	U
Wrench size spec.	mm size	inch size

Model Designation of accessories for 20 and 60 Series

BV (1) LCP (2) 20 (3)

(1) Ball Valve

(2) Type

Code	UH	LCP	LO
Type	mounting bracket for Union type	Co-rotating stopper for Elbow type	Lockout

(3) Applicable series (No entry for Lockout.)

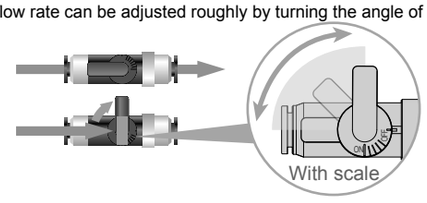
Code	20	60
Series	20 Series	60 Series

Characteristics

● Mini (10) series

Lever with scale allows for rough flow rate adjustment.

The flow rate can be adjusted roughly by turning the angle of the lever.



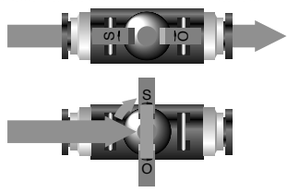
There is only little flow loss thanks to the large orifice diameter.

● 20 and 60 series

Possible to use with water.

PPS used for the body resin.

It provides a large effective sectional area commensurate with the connecting tube size.



● Optional for 20 and 60 Series

Adding optional items will make it even more convenient.

Environmentally friendly recycled materials are used.

● Mounting bracket for Union type

The valve is fixed to improve the stability of handle operation.
Piping is stable and work efficiency is improved.

● Co-rotating stopper for Elbow type

Prevents co-rotation when the body rotates in conjunction with the handle.
Piping position can be adjusted every 15°

● Lockout

Prevents erroneous operations by workers
It can be installed on the valve handle regardless of the handle position.
The handle position can be visually recognized through semi-transparent lockout cover.

Lock with a padlock or cable ties (*).
* Please prepare by yourself.
Padlock shackle diameter: 4.5 mm or less.

Ball Valve

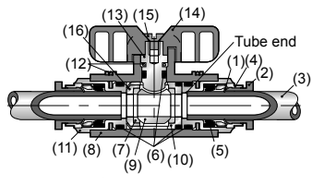
Specifications

Series	10	20	60
Fluid medium	Air	Air, water (conditional*)	
Max. operating pressure	0.7 MPa	0.9 MPa	
Max. vacuum	-100 kPa		
Operating temp. range	0 to 60°C (No freezing)		
Effective sectional area	10 mm²	20 mm²	60 mm²

⚠ Warning:
* Make sure to follow the instructions below when the fluid medium is water.
1. Surge pressure must be controlled lower than max. operating pressure when using water as a fluid medium.
2. Tap water in Japan, which is soft water (low mineral content) can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
3. Be sure to place Insert ring (WR) into the tube edge when using water as a fluid medium.

Sectional drawing

20 and 60 series
Union straight:
BVU (Handle: Opened)



No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release ring	POM
(3)	Tube	Polyurethane or nylon, etc.
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	O-ring	NBR
(7)	Ball seal	PTFE
(8)	Resin body	10 Series: PBT
		20 and 60 series: Glass fiber reinforced PPS
(9)	Ball	Nickel-plated brass
(10)	Ball support	Nickel-plated brass
(11)	Metallic body	Nickel-plated brass
(12)	Lock pin	Stainless steel
(13)	Stem	Nickel-plated brass
(14)	Cock	POM
(15)	Machine screw	Steel
(16)	Ball holder	Nickel-plated brass

RoHS2 (2011/65/EU+EU2015/863) compliant

Mini (10) series

Type	Model code BVUøD₁-øD₂
Union BVU	BVU3-3
	BVU4-4
	BVU6-6
	BVU1/8-1/8
	BVU5/32-5/32

Type	Model code BVGøD₁-øD₂
Unequal Dia. Union Straight BVG	BVG4-3
	BVG6-6

Type	Model code BVMøD₁-øD₂
Bulkhead Union Straight BVM	BVM6-4
	BVM6-6

Type	Model code BVC R-øD	Model code BVC R-øDU
Straight BVC	BVC01-3	BVCN1-1/8U
	BVC01-4	BVCN1-5/32U
	BVC01-6	

Type	Model code BVLC R-øD	Model code BVLC R-øDU
Elbow A BVLC	BVLC01-3	BVLCN1-1/8U
	BVLC01-4	BVLCN1-5/32U
	BVLC01-6	

Type	Model code BVLCøD-R	Model code BVLCøD-RU
Elbow B BVLC	BVLC3-01	BVLC1/8-N1U
	BVLC4-01	BVLC5/32-N1U
	BVLC6-01	

Type	Model code BVLUøD₁-øD₂
Union Elbow BVLU	BVLU3-3
	BVLU4-4
	BVLU6-6
	BVLU1/8-1/8
	BVLU5/32-5/32

Type	Model code BVLGøD₁-øD₂
Unequal dia. Union Elbow BVLG	BVLG3-4
	BVLG4-3
	BVLG6-4
	BVLG6-4

Type	Model code BVLMøD₁-øD₂
Bulkhead Union Elbow BVLM	BVLM6-4
	BVLM6-6

Notes
*1. Release ring color : White for inch type

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

RoHS2 (2011/65/EU+EU2015/863) compliant

20 and 60 series

Type	Model code BVU[3]-øD1øD2
Union **BVU**	BVU20-0606
	BVU20-0808
	BVU60-1010
	BVU60-1212
	BVU20-1/4-1/4
	BVU20-5/16-5/16
	BVU60-3/8-3/8
	BVU60-1/2-1/2

Type	Model code BVG[3]-øD1øD2
Unequal Dia. Union Straight **BVG**	BVG20-0806
	BVG60-1210
	BVG20-5/16-1/4
	BVG60-1/2-3/8

Type	Model code BVM[3]-øD1øD2	Model code BVM[3]-øD1øD2U
Bulkhead Union Straight **BVM**	BVM20-0806	BVM20-5/16-1/4U
	BVM20-0808	BVM20-5/16-5/16U
	BVM60-1210	BVM60-1/2-3/8U
	BVM60-1212	BVM60-1/2-1/2U
		BVM20-1/4-1/4U

Type	Model code BVC[3]-øD R	Model code BVC[3]-øD-RU
Straight **BVC**	BVC20-0601	BVC20-1/4-N1U
	BVC20-0602	BVC20-1/4-N2U
	BVC20-0603	BVC20-1/4-N3U
	BVC20-0801	BVC20-5/16-N1U
	BVC20-0802	BVC20-5/16-N2U
	BVC20-0803	BVC20-5/16-N3U
	BVC60-1002	BVC60-3/8-N2U
	BVC60-1003	BVC60-3/8-N3U
	BVC60-1004	BVC60-3/8-N4U
	BVC60-1202	BVC60-1/2-N2U
	BVC60-1203	BVC60-1/2-N3U
	BVC60-1204	BVC60-1/2-N4U

Type	Model code BVLC[3]-øD R	Model code BVLC[3]-øD-RU
Elbow **BVLC**	BVLC20-0601	BVLC20-1/4-N1U
	BVLC20-0602	BVLC20-1/4-N2U
	BVLC20-0603	BVLC20-1/4-N3U
	BVLC20-0801	BVLC20-5/16-N1U
	BVLC20-0802	BVLC20-5/16-N2U
	BVLC20-0803	BVLC20-5/16-N3U
	BVLC60-1002	BVLC60-3/8-N2U
	BVLC60-1003	BVLC60-3/8-N3U
	BVLC60-1004	BVLC60-3/8-N4U
	BVLC60-1202	BVLC60-1/2-N2U
	BVLC60-1203	BVLC60-1/2-N3U
	BVLC60-1204	BVLC60-1/2-N4U

Type	Model code BVLU[3]-øD1øD2
Union Elbow **BVLU**	BVLU20-0606
	BVLU20-0808
	BVLU60-1010
	BVLU60-1212
	BVLU20-1/4-1/4
	BVLU20-5/16-5/16
	BVLU60-3/8-3/8
	BVLU60-1/2-1/2

Type	Model code BVLG[3]-øD1øD2
Unequal dia. Union Elbow **BVLG**	BVLG20-0608
	BVLG20-0806
	BVLG60-1012
	BVLG60-1210
	BVLG20-1/4-5/16
	BVLG20-5/16-1/4
	BVLG60-3/8-1/2
	BVLG60-1/2-3/8

Type	Model code BVLM[3]-øD1øD2	Model code BVLM[3]-øD1øD2U
Bulkhead Union Elbow **BVLM**	BVLM20-0806	BVLM20-1/4-1/4U
	BVLM20-0808	BVLM20-5/16-1/4U
	BVLM60-1210	BVLM20-5/16-5/16U
	BVLM60-1212	BVLM60-1/2-3/8U
		BVLM60-1/2-1/2U

Accessories

Type	Model code
Mounting bracket for Union type **BVUH**	BVUH20
	BVUH60

Type	Model code
Elbow type co-rotating stopper **BVLCP**	BVLCP20
	BVLCP60

Type	Model code
Lockout **BVLO**	BVLO

Notes

*1. Release ring color : White for inch type

*2. The material of the union type mounting bracket and the elbow type co-rotating stopper is PBT, and the material of the lockout is PP.

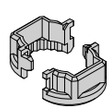
CAD data is available at PISCO website.

Packaging specifications

1 pc. /bag

1 set (2 pieces)/ bag: Elbow type stopper

►The elbow type co-rotating stopper is a set of 2 parts.



Ball Valve SUS304

Push-In Fitting Type of Corrosion Resistant SUS304 Shut-off Valve (2 port valve)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

BV (1) C (2) 20 (3) – 06 (4) 01 (5) SUS (6)

(1) Ball Valve **(2) Type**

Code	C	LC	U	LU	G	LG
Type	Straight	Elbow	Union Straight	Union Elbow	Unequal dia. Union Straight	Unequal dia. Union Elbow

(3) Effective sectional area

Code	20	60
Effective sectional area (mm^2)	20	60

(4) Port 1 size (øD, øD_1, R)

■ Tube dia.

	mm size (mm)				inch size (inch)			
Code	06	08	10	12	1/4	5/16	3/8	1/2
Tube O.D.	ø6	ø8	ø10	ø12	ø1/4	ø5/16	ø3/8	ø1/2

■ Thread size

	Taper pipe thread				National pipe thread tapered			
Code	01	02	03	04	N1	N2	N3	N4
Thread size	R1/8	R1/4	R3/8	R1/2	NPT1/8	NPT1/4	NPT3/8	NPT1/2

(5) Port 2 size (øD_2, R)

■ See (4) for the Tube dia. and thread size.

* For inch size, please enter a hyphen "-" before Port 2 size.

(6) Metal material

SUS: SUS304

Model Designation of accessories

BV (1) LCP (2) 20 (3)

(1) Ball Valve

(2) Type

Code	UH	LCP	LO
Type	Mounting bracket for Union type	Co-rotating stopper for Elbow type	Lockout

(3) Applicable series (No entry for Lock-out.)

Code	20	60
Series	20 Series	60 Series

Characteristics

Best suitable for use in chemical atmospheres.

SUS304 is used for the metal material, and FKM is used for the seal rubber material.

Accessories for Ball valve are also available.

Mounting bracket for Union type, Co-rotating stopper for elbow type and Lockout are available.

Specifications

Fluid medium	Air, Water (conditional*), Other chemicals (conditional*)
Max. operating pressure	0.9 MPa
Max. vacuum	-100 kPa
Operating temp. range	Thread type: 0 to 60°C (No freezing) Union type: 0 to 80°C (No freezing)

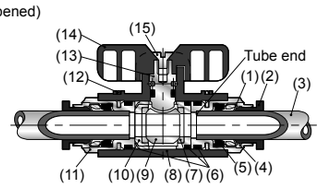
⚠ Warning:

* Make sure to follow the instructions below when the fluid medium is water or liquid.

1. Surge pressure must be controlled lower than max. operating pressure when using water as a fluid medium.
2. Tap water in Japan, which is soft water (low mineral content) can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
3. Be sure to place Insert ring into the tube edge when using water as a fluid medium.
4. The specification may not be applied, depending on the kind of chemicals or mixed gassed used as fluid medium. Make sure to use PISCO products after verifying their suitability on the user side.

Sectional drawing

Union straight:
BVU-SUS (Handle: Opened)



No,	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release ring	Glass Fiber Reinforced PBT
(3)	Tube	Polyurethane or nylon, etc
(4)	Guide ring	SUS304
(5)	Elastic sleeve	FKM
(6)	O-ring	FKM
(7)	Ball seal	PTFE
(8)	Resin body	Glass fiber reinforced PPS
(9)	Ball	SUS304
(10)	Ball support	SUS304
(11)	Metallic body	SUS304
(12)	Lock pin	Stainless steel
(13)	Stem	SUS304
(14)	Cock	POM
(15)	Machine screw	SUS304
(16)	Ball holder	SUS304

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code BVU3-øD1øD2SUS	
Union BVU 	BVU20-0606SUS	BVU20-1/4-1/4SUS
	BVU20-0808SUS	BVU20-5/16-5/16SUS
	BVU60-1010SUS	BVU60-3/8-3/8SUS
	BVU60-1212SUS	BVU60-1/2-1/2SUS

Type	Model code BVG3-øD1øD2SUS	
Unequal Dia. Union Straight BVG 	BVG20-0806SUS	BVG20-5/16-1/4SUS
	BVG60-1210SUS	BVG60-1/2-3/8SUS
	BVG20-5/16-1/4SUS	
	BVG60-1/2-3/8SUS	

Type	Model code BVLU3-øD1øD2SUS	
Union Elbow BVLU 	BVLU20-0606SUS	BVLU20-1/4-1/4SUS
	BVLU20-0808SUS	BVLU20-5/16-5/16SUS
	BVLU60-1010SUS	BVLU60-3/8-3/8SUS
	BVLU60-1212SUS	BVLU60-1/2-1/2SUS

Type	Model code BVC3-øD RSUS	
Straight BVC 	BVC20-0601SUS	BVC20-1/4-N1SUS
	BVC20-0602SUS	BVC20-1/4-N2SUS
	BVC20-0603SUS	BVC20-1/4-N3SUS
	BVC20-0801SUS	BVC20-5/16-N1SUS
	BVC20-0802SUS	BVC20-5/16-N2SUS
	BVC20-0803SUS	BVC20-5/16-N3SUS
	BVC60-1002SUS	BVC60-1/2N2SUS
	BVC60-1003SUS	BVC60-1/2N3SUS
	BVC60-1004SUS	BVC60-1/2N4SUS
	BVC60-1202SUS	BVC60-3/8-N2SUS
	BVC60-1203SUS	BVC60-3/8-N3SUS
	BVC60-1204SUS	BVC60-3/8-N4SUS

Type	Model code BVLC3-øD RSUS	
Elbow BVLC 	BVLC20-0601SUS	BVLC20-1/4-N1SUS
	BVLC20-0602SUS	BVLC20-1/4-N2SUS
	BVLC20-0603SUS	BVLC20-1/4-N3SUS
	BVLC20-0801SUS	BVLC20-5/16-N1SUS
	BVLC20-0802SUS	BVLC20-5/16-N2SUS
	BVLC20-0803SUS	BVLC20-5/16-N3SUS
	BVLC60-1002SUS	BVLC60-1/2-N2SUS
	BVLC60-1003SUS	BVLC60-1/2-N3SUS
	BVLC60-1004SUS	BVLC60-1/2-N4SUS
	BVLC60-1202SUS	BVLC60-3/8-N2SUS
	BVLC60-1203SUS	BVLC60-3/8-N3SUS
	BVLC60-1204SUS	BVLC60-3/8-N4SUS

Type	Model code BVLG3-øD1øD2SUS	
Unequal dia. Union Elbow BVLG 	BVLG20-0608SUS	BVLG20-1/4-5/16SUS
	BVLG20-0806SUS	BVLG20-5/16-1/4SUS
	BVLG60-1012SUS	BVLG60-3/8-1/2SUS
	BVLG60-1210SUS	BVLG60-1/2-3/8SUS

Option

Type	Model code
Mounting bracket for Union type BVUH 	BVUH20
	BVUH60

Type	Model code
Co-rotating stopper for Elbow type BVLCP 	BVLCP20
	BVLCP60

Type	Model code
Lockout BVLO 	BVLO

Notes

*1. Release ring color : White for inch type

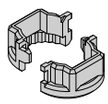
*2. The material of the union type mounting bracket and the elbow type co-rotating stopper is PBT, and the material of the lockout is PP.

Packaging specifications

1 pc. /bag

1 set (2 pieces) /bag: Elbow type stopper

►The elbow type co-rotating stopper is a set of 2 parts.



Ball Valve SUS316 Equivalent

SUS316 Equivalent Handle type Shut-off valve with corrosion resistance (2 port valve)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

NSBVF (1) 10 (2) – 03 (3)

(1) Ball Valve SUS316 Equivalent

(2) Construction (Series)

Code	10	30
Construction	10 Series (1 piece, reduced bore)	30 Series (3 pieces, full bore)

(3) Female thread size

Code	02	03	04
Size	Rc1/4	Rc3/8	Rc1/2

Model Designation of options for 10 series (Example)

■ Ball Valve SUS316 Equivalent with SUS316 push-in Fittings

* Fittings and a valve are packaged separately in a box. Fittings should be installed by yourself.

NSBV (1) 10 (2) – 44 (3)

(1) Ball valve SUS316 Equivalent with SUS316 push-in fittings

(2) Construction

Code	10
Construction	1 piece, reduced bore

(3) Fitting size

Code	44	66	88	1010	1212	1616
Tube O.D.(㎜)	ø4	ø6	ø8	ø10	ø12	ø16

■ SUS316 Push-in Fitting for the exclusive use of Ball Valve SUS316 Equivalent

SSPC (1) 8 (2) – 03 (3) M (4)

(1) SUS316 Push-in Fitting straight type

(2) Fitting size

Code	4	6	8	10	12	16
Tube O.D.(㎜)	ø4	ø6	ø8	ø10	ø12	ø16

(3) Female thread size

Code	02	03	04
Size	Rc1/4	Rc3/8	Rc1/2

(4) Exclusive use of SUS316 Ball Valve SUS316 Equivalent 10 Series O-ring seal type

■ Butterfly lever

NSBL10 (1) – 02 (2)

(1) Butterfly lever for Ball Valve SUS316 Equivalent 10 Series

(2) Ball valve thread size

Code	02	03	04
Female thread size	Rc1/4	Rc3/8	Rc1/2

Characteristics

Added 30 series of 3-piece full bore. Best suitable for applications that require a further increase in flow rate by expanding the flow path.

The 3-piece structure improves maintainability by retightening. The maximum working pressure is 6.9MPa. can be used even under severe conditions.

Added options for 10 series.

Pairing with SUS316 dedicated push-in fitting allows for easy piping.
By changing to a butterfly lever, the handle part is made smaller.

SUS316 equivalent material is used for the liquid contact parts.

* SUS316 equivalent ►SUS316 or CF8M

Stem for fixing the handle will not come off the Ball valve body.

Prevent stem come-off Ball valve body.

No installation restrictions.

IN/OUT flow can be connected to both sides of valve.

Oil-free for all parts. No copper-based material is used.

Specifications

Fluid medium	Air, Inert gas such as Nitrogen/ Helium (no toxic), Water/ Liquid (Conditional*1), Other chemicals (Conditional*1)
Max. operating pressure (*2)	NSBVF10 Series: 5.5MPa (-29 to 77°C) NSBVF30 Series: 6.9MPa (-29 to 38°C)
Max. vacuum	-101 kPa
Operating temp. range (*2)	-29 to 232ºC (No Freezing of liquid)

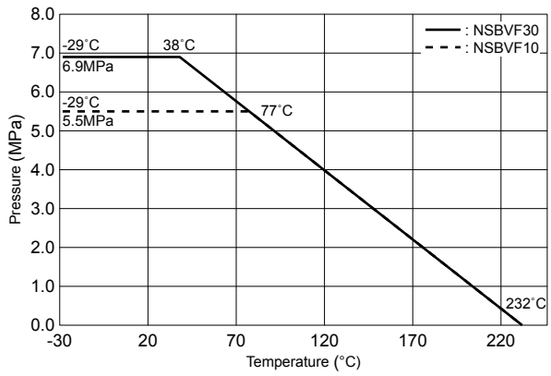
⚠ Warning

*1. Conditions when fluid medium is liquid or chemical are as below.
1. Surge pressure must be controlled lower than maximum operating pressure.
2. Tap water in Japan, which is soft water (low mineral content) can be used. Carry out the evaluation under an actual operating condition for using other kind of water.
3. The specification above may not be applied, depending on chemicals or mixed gases used as fluid medium. Make sure to use PISCO products after verifying their suitability on the user side.
4. Liquids and chemicals are limited to those that do not negatively affect the valve material.

*2. Valve maximum operable pressure varies upon operating temperature. Please refer to the "Relation of Operating Temp. & Max. Operating Pressure" graph when use and operate in the condition.

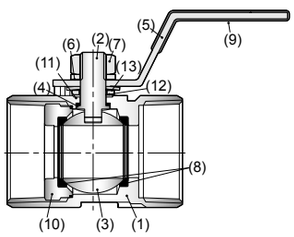
*3. The specifications on the fitting of "Ball valve SUS316 Equivalent with SUS316 push-in fittings" are the same as those of "Tube Fitting SUS316". For details, please refer to the specifications of the tube fitting SUS316 series.

Relation of Operating Temp. & Max. Operating Pressure



Sectional drawing

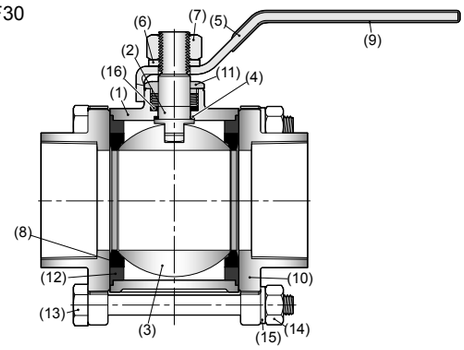
■For NSBVF10



No.	Parts	Material
(1)	Body	SUS316 equivalent
(2)	Stem	SUS316 equivalent
(3)	Ball	SUS316 equivalent
(4)	Thrust washer	PTFE
(5)	Handle	SUS304 equivalent
(6)	Handle washer	Stainless steel
(7)	Handle nut	Stainless steel
(8)	Ball seat	PTFE
(9)	Handle cover	PVC
(10)	Seat retainer	SUS316 equivalent
(11)	Packing	PTFE
(12)	Washer	SUS304 equivalent
(13)	Dish spring washer	SUS304 equivalent

* Parts other than wetted parts are made of stainless steel other than SUS316 equivalent.

■For NSBVF30



No.	Parts	Material
(1)	Body	SUS316 equivalent
(2)	Stem	SUS316 equivalent
(3)	Ball	SUS316 equivalent
(4)	Thrust washer	PTFE
(5)	Handle	SUS304 equivalent
(6)	Handle washer	Stainless steel
(7)	Handle nut	Stainless steel
(8)	Ball seat	PTFE
(9)	Handle cover	PVC
(10)	End cap	SUS316 equivalent
(11)	Grand Nut	Stainless steel
(12)	Retainer seal	PTFE
(13)	Flange bolt	Stainless steel
(14)	Nut	Stainless steel
(15)	Spring washer	Stainless steel
(16)	Grand washer	PTFE

RoHS2 (2011/65/EU+EU2015/863) compliant

10 Series		30 Series	
Type	Model code NSBVF10-Rc	Type	Model code NSBVF30-Rc
Reduced bore NSBVF	NSBVF10-02 NSBVF10-03 NSBVF10-04	Full bore NSBVF	NSBVF30-02 NSBVF30-03 NSBVF30-04

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Accessories for 10 Series

Type	Model code NSBV10-øDøD	Type	Model code SSPCøD-RM	Type	Model code NSBL10-Rc
With push-in fitting type NSBV	NSBV10-44 NSBV10-66 NSBV10-88 NSBV10-1010 NSBV10-1212 NSBV10-1616	Dedicated push-in fitting SSPC	SSPC4-02M SSPC6-02M SSPC8-03M SSPC10-03M SSPC12-04M SSPC16-04M	Butterfly lever NSBL	NSBL10-02 NSBL10-03 NSBL10-04

Mechanical Valve

Built-in push-in fitting push type, roller type mechanical valve (3-port valve for residual pressure exhaust, 2-port valve)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

MV	M	6	3	A	-	R	J	
(1)	(2)	(3)	(4)	(5)		(6)	(7)	(8)

(1) Mechanical Valve

(2) Type

Code	P	U	M	F
Model	Panel mount type	Air switch type	Microswitch type	Foot switch type

(3) Tube dia. (øD)

	mm size (mm)		inch size (inch)	
Code	4	6	1/8	5/32
Tube O.D.	ø4	ø6	ø1/8	ø5/32

(4) Number of ports

Code	2	3
Number of ports	2 ports	3 ports

(5) Valve type

Code	No code	A
Valve type	Normally closed	Normally open
Identification	(Release ring color: Black)	(Release ring color: Light gray)

*1. MVP and MVU come in "normally closed" only.
*2. Release-ring color is white for inch-size products.

(6) Operating method

Code	No code	R
Operating method	Pin	Roller lever

* MVU is pin type only.

(7) Exhaust system (3 port type only)

Code	No code	J
Exhaust system	Silencer exhaust	Tube exhaust

(8) Wrench size specification

Code	No code	U
Wrench size spec.	mm size	inch size

Characteristics

The three directional valve which exhausts residual pressure when closed.

Two directional valve without a function to release the residual pressure is also available.

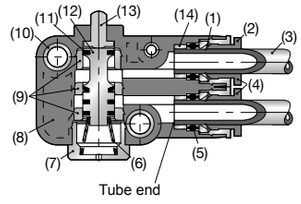
The operating force is not affected by the strength of air pressure owing to the spool valve mechanism.

Specifications

Fluid medium	Air
Operating pressure range	0 to 0.7 MPa
Operating temp. range	0 to 60°C (No freezing)
Lubrication	Require ISO VG32 (Turbine oil class 1)

Sectional drawing

Microswitch type
2port pin type: MVM



No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release ring(*)	POM
(3)	Tube	Polyurethane or nylon, etc.
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	Spring	Piano wire
(7)	Spring holder	Nickel-plated brass
(8)	Resin body	PBT
(9)	Seal ring	Nickel-plated brass
(10)	Insert ring	Nickel-plated brass
(11)	Flat O-ring	NBR
(12)	Spool	Nickel-plated brass
(13)	Push pin	POM
(14)	Tube guide	Nickel-plated brass

* Color of Release ring
mm: Normally closed: Black, Normally open: Light gray
Inch: Normally closed: White, Normally open: White

RoHS2 (2011/65/EU+EU2015/863) compliant

Panel mount type

Type	Model code MVPøD4	Model code MVPøD4U
Silencer exhaust Pin type MVP	MVP42	MVP1/8 2U
	MVP62	MVP5/32 2U
	MVP43	MVP1/8 3U
	MVP63	MVP5/32 3U

Type	Model code MVPøD4-R	Model code MVPøD4-RU
Silencer exhaust Roller type MVP	MVP42-R	MVP1/8 2-RU
	MVP62-R	MVP5/32 2-RU
	MVP43-R	MVP1/8 3-RU
	MVP63-R	MVP5/32 3-RU

Air switch type

Type	Model code MVUøD4	
Air switch MVU	MVU42	MVU1/8 2
	MVU62	MVU5/32 2
	MVU43	MVU1/8 3
	MVU63	MVU5/32 3

Type	Model code MVPøD3-J	Model code MVPøD3-JU
Tube exhaust Pin type MVP	MVP43-J	MVP1/8 3-JU
	MVP63-J	MVP5/32 3-JU

Type	Model code MVPøD3-RJ	Model code MVPøD3-RJU
Tube exhaust Roller type MVP	MVP43-RJ	MVP1/8 3-RJU
	MVP63-RJ	MVP5/32 3-RJU

Microswitch type

Type	Model code MVMøD45	Type	Model code MVMøD45-R
Silencer exhaust Pin type MVM	MVM42	Silencer exhaust Roller type MVM	MVM42-R
	MVM62		MVM62-R
	MVM42A		MVM42A-R
	MVM62A		MVM62A-R
	MVM43		MVM43-R
	MVM63		MVM63-R
	MVM43A		MVM43A-R
	MVM63A		MVM63A-R
	MVM1/8 2		MVM1/8 2-R
	MVM5/32 2		MVM5/32 2-R
	MVM1/8 2A		MVM1/8 2A-R
	MVM5/32 2A		MVM5/32 2A-R
	MVM1/8 3		MVM1/8 3-R
	MVM5/32 3		MVM5/32 3-R
	MVM1/8 3A		MVM1/8 3A-R
	MVM5/32 3A		MVM5/32 3A-R

Foot switch type

Type	Model code MVFøD45
Foot switch MVF	MVF42
	MVF62
	MVF42A
	MVF62A
	MVF43
	MVF63
	MVF43A
	MVF63A
	MVF1/8 2
	MVF5/32 2
	MVF1/8 2A
	MVF5/32 2A
	MVF1/8 3
	MVF5/32 3
	MVF1/8 3A
	MVF5/32 3A

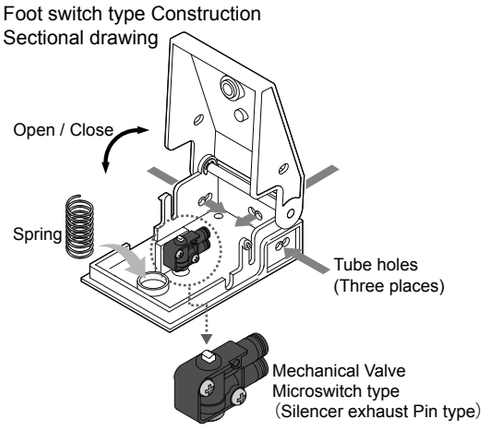
Type	Model code MVMøD35-J	Type	Model code MVMøD35-RJ
Tube exhaust Pin type MVM	MVM43-J	Tube exhaust Roller type MVM	MVM43-RJ
	MVM63-J		MVM63-RJ
	MVM43A-J		MVM43A-RJ
	MVM63A-J		MVM63A-RJ
	MVM1/8 3-J		MVM1/8 3-RJ
	MVM5/32 3-J		MVM5/32 3-RJ
	MVM1/8 3A-J		MVM1/8 3A-RJ
	MVM5/32 3A-J		MVM5/32 3A-RJ

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Notes
* MVM (Microswitch Pin type) is incorporated into MVF (Foot switch type).

Foot switch type Construction
Sectional drawing



Solenoid Valve SVB

Pilot solenoid valve with 3/5 ports (Stand-alone and Manifold type)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation of Stand-alone unit (Example)

SVB (1) 10 (2) D (3) – S (4) W (5) (6) – D24 (7)

(1) Solenoid Valve SVB

(2) Valve series

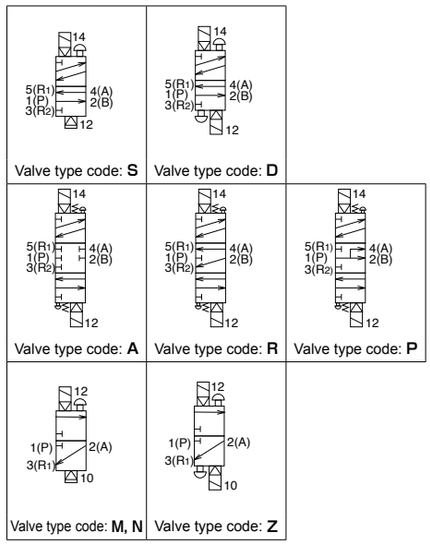
Code	10	15	18	22
Series	10 Series (Valve width: 10mm (0.39in.))	15 Series (Valve width: 15mm (0.59in.))	18 Series (Valve width: 18mm (0.71in.))	22 Series (Valve width: 22mm (0.87in.))

(3) Valve type

Code	No. of ports	No. of positions	Valve type
S	5	2	Single solenoid
D			Double solenoid
A		3	Closed center
R			Exhaust center
P			Pressure center
M (*)	3	2	Single solenoid, Normally closed
N (*)			Single solenoid, Normally open
Z (*)			Double solenoid

* For 15 and 18 series only.

■ Valve type JIS symbol



(4) Connector lead-out direction

Code	S	L
Lead-out direction	Top	Side

S: Top **L**: Side

(5) Body color

Code	B	W
spec.	Black	Light gray

* Light gray only for 10 series.

(6) Manual override

Code	No code	H
spec.	Push-turn locking	Push (no-locking)

* No need to specify for 10 series (Push-turn locking only).

(7) Rated voltage

Code	D24	A100	A110	A200	A220
Rated voltage	24VDC	100VAC	110VAC	200VAC	220VAC

* 10 Series has 24VDC or 100VAC selection only.

Model Designation of Manifold Top-mounting unit alone (Example)

SVB	18	D	–	S	W		–	D24	–	
(1)	(2)	(3)		(4)	(5)	(6)		(7)		(8)

(1) Solenoid Valve SVB

(2) Valve series

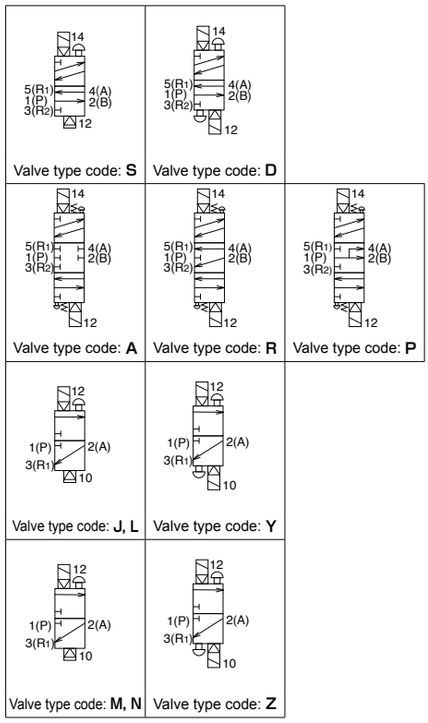
Code	10	15	18	22
Series	10 Series (Valve width: 10mm (0.39in.))	15 Series (Valve width: 15mm (0.59in.))	18 Series (Valve width: 18mm (0.71in.))	22 Series (Valve width: 22mm (0.87in.))

(3) Valve type

Code	No. of ports	No. of positions	Valve type	
S (*1)	5	2	Single solenoid	
D (*1)			Double solenoid	
A (*1)		3	Closed center	
R (*1)			Exhaust center	
P (*1)			Pressure center	
J (*2)	3	2	Single solenoid, Normally closed (For mixed-mounting with 5 ports valve)	For 15 and 18 series only.
L (*2)			Single solenoid, Normally open (For mixed-mounting with 5 ports valve)	
Y (*2)			Double solenoid (For mixed-mounting with 5 ports valve)	
M	3	2	Single solenoid, Normally closed	
N			Single solenoid, Normally open	
Z			Double solenoid	

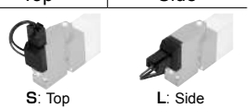
*1 For 10 series, only S, D, A, R and P are selectable.
*2 J, L, Y are only for mounting on a manifold.

■ Valve type JIS symbol



(4) Connector lead-out direction

Code	S	L
Lead-out direction	Top	Side



S: Top **L**: Side

(5) Body color

Code	B	W
spec.	Black	Light gray

* Light gray only for 10 series.

(6) Manual override

Code	No code	H
spec.	Push-turn locking	Push (no-locking)

* No need to specify for 10 series (Push-turn locking only).

(7) Rated voltage

Code	D24	A100	A110	A200	A220
Rated voltage	24VDC	100ACV	110VAC	200VAC	220VAC

* 10 Series has 24VDC or 100VAC selection only.

(8) Piping specification (Entry needed only for 10 series)

Code	MD	MB
spec.	Direct piping port	Manifold base piping port

*1 Be sure to select either code when selecting 10 series.
*2 Only direct piping port type is available for other series.

MD: Direct piping port **MB**: Manifold base piping port

Solenoid Valve SVB

Model Designation of Manifold type (Example)

SVB (1) 15 (2) 08 (3) (4) – L (5) B (6) (7) – K (8) – D24 (9) – (10) (11)

(1) Solenoid Valve SVB

(2) Valve series

Code	10	15	18	22
Series	10 Series (Valve width: 10mm (0.39in.))	15 Series (Valve width: 15mm (0.59in.))	18 Series (Valve width: 18mm (0.71in.))	22 Series (Valve width: 22mm (0.87in.))

(3) No. of stations

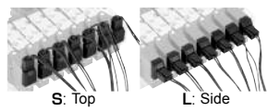
Code	02	03	04	05	06	07	08	09	10
No. of stations	2	3	4	5	6	7	8	9	10

(4) Manifold (Make entry only for 15, 18 and 22 series)

Code	No code	Y
spec.	3- & 5-port mixed mount	3-port valve-dedicated (15, 18 Series only)

(5) Connector lead-out direction

Code	S	L
Lead-out direction	Top	Side



S: Top **L**: Side

(6) Body color

Code	B	W
spec.	Black	Light gray

* Light gray only for 10 series.

(7) Manual override

Code	No code	H
spec.	Push-turn locking	Push (no-locking)

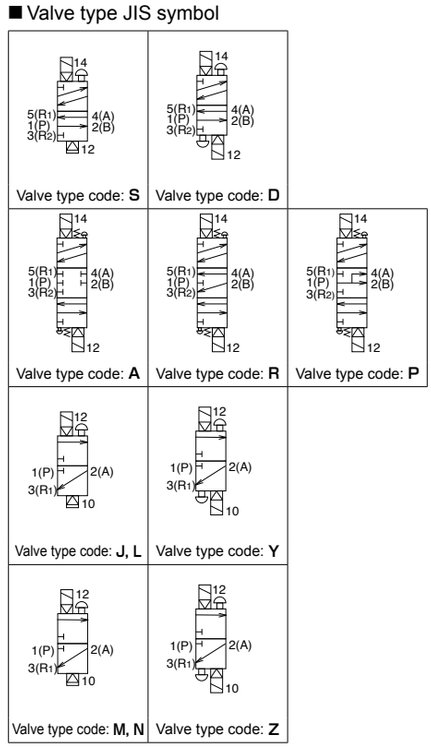
* No need to specify for 10 series (Push-turn locking only).

(8) Valve type

Code	No. of ports	No. of positions	Valve type		(4) Manifold specification: 3- & 5-port mixed mount	(4) Manifold specification: 3-port valve-dedicated manifold
S(*1)	5	2	Single solenoid		○	–
D(*1)	5	2	Double solenoid		○	–
A(*1)	5	3	Closed center		○	–
R(*1)	5	3	Exhaust center		○	–
P(*1)	5	3	Pressure center		○	–
J(*2)	3	2	Single solenoid, Normally closed (For mixed-mounting with 5 ports valve)	For 15 and 18 series only.	○	–
L(*2)	3	2	Single solenoid, Normally open (For mixed-mounting with 5 ports valve)	For 15 and 18 series only.	○	–
Y(*2)	3	2	Double solenoid (For mixed-mounting with 5 ports valve)	For 15 and 18 series only.	○	–
M	3	2	Single solenoid, Normally closed	For 15 and 18 series only.	–	○
N	3	2	Single solenoid, Normally open	For 15 and 18 series only.	–	○
Z	3	2	Double solenoid	For 15 and 18 series only.	–	○
K	–	–	Combination of Valves		–	–
B	–	–	Blank plate		–	–

*1 For 10 series, only S, D, A, R and P are selectable.
*2 J, L, Y are only for mounting on a manifold.

■ Valve type JIS symbol



(9) Rated voltage

Code	D24	A100	A110	A200	A220
Rated voltage	24VDC	100VAC	110VAC	200VAC	220VAC

* 10 Series has 24VDC or 100VAC selection only.

(10) Piping specification (Entry needed only for 10 series)

Code	D	B
Specifications	Direct piping port	Manifold base piping port

* See page 215 for the example of piping specification.

(11) Check valve spec (10 series only)

Code	No code	C
Check valve spec.	Without check valve	With check valve

Model Designation of Manifold-Base alone (Example)

SVBM (1) **22** (2) **04** (3) (4) – (5)

(1) Solenoid Valve SVB Manifold-Base alone

(2) Valve series

Code	10	15	18	22
Series	10 Series (Valve width: 10mm (0.39in.))	15 Series (Valve width: 15mm (0.59in.))	18 Series (Valve width: 18mm (0.71in.))	22 Series (Valve width: 22mm (0.87in.))

(3) No. of stations

Code	02	03	04	05	06	07	08	09	10
No. of stations	2	3	4	5	6	7	8	9	10

(4) Piping specification (Entry needed only for 10 series)

Code	D	B
spec.	Direct piping port	Manifold base piping port

D: Direct piping port

B: Manifold base piping port

(4) Manifold specification (Entry needed only for 15, 18, 22 series)

Code	No code	Y
spec.	3- & 5-port mixed mount	3-port valve-dedicated (15, 18 Series only)

(5) Check valve specifications (10 series only)

Code	No code	C
Check valve spec.	Without check valve	With check valve

Model Designation of Blank plate only (Example)

SVBB (1) **15** (2) (3)

(1) Blank plate for Solenoid Valve SVB

(2) Valve series

Code	10	15	18	22
Series	10 Series (Valve width: 10mm (0.39in.))	15 Series (Valve width: 15mm (0.59in.))	18 Series (Valve width: 18mm (0.71in.))	22 Series (Valve width: 22mm (0.87in.))

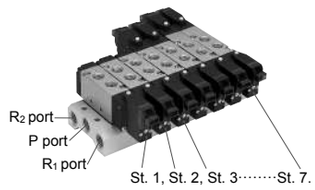
(3) Manifold specification (Entry needed only for 15, 18, 22 series)

Code	No code	Y
spec.	3- & 5-port mixed mount	3-port valve-dedicated (15, 18 Series only)

Solenoid Valve SVB

Order Example

Model (1)	Series (2)	No. of stations (3)	Manifold spec. (4)	–	Connector lead-out direction (5)	Body color (6)	Manual override (7)	–	Valve type (8)	–	Rated voltage (9)	–	Piping specification (10)	Check valve spec (11)
SVB	**18**	**07**		–	**L**	**B**		–	**K**	–	**D24**	–		



* Station mounting order: St.1, St.2, St.3.. from left side as having R1 port at front as the above picture.

Station No.	Valve type
St.1	**S**
St. 2	**S**
St. 3	**S**
St. 4	**D**
St. 5	**D**
St. 6	**R**
St. 7	**R**
St. 8	
St. 9	
St. 10	

Cut here

SVB Solenoid Valve Specification Order Form

Person in charge:

To: NIHON PISCO Co.,Ltd.

Distributor / Dealer address:

TEL

Delivery address: TEL

Customer address: TEL

Requested EX-W PISCO Date: Order quantity pcs

Model (1)	Series (2)	No. of stations (3)	Manifold spec. (4)	–	Connector lead-out direction (5)	Body color (6)	Manual override (7)	–	Valve type (8)	–	Rated voltage (9)	–	Piping specification (10)	Check valve spec (11)
SVB				–				–		–		–		

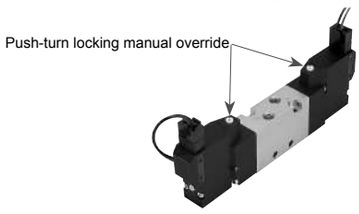
Station No.	Valve type
St.1	
St. 2	
St. 3	
St. 4	
St. 5	
St. 6	
St. 7	
St. 8	
St. 9	
St. 10	

Characteristics

15, 18, 22 series

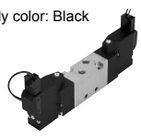
Equipped with Push-turn locking manual override as standard specification.

It enhances operational efficiency during maintenance work.



2 body colors. Black and light gray.

Body color: Black



Body color: Light gray

Equipped with individual connectors.

Top lead-out and side lead-out are available.
Select a lead-out direction suitable for installation site.

Connector lead out direction: Top

Connector lead out direction: Side

Valves with 15mm, 18mm, 22mm width are serialized.

10 series

Compact 10mm-wide solenoid valves is available.

Power consumption is 0.55W.

Energy saving type.

3 types are available.

Stand-alone type, Manifold type with direct port, and Manifold type with manifold base piping port are available. Select a type depending on your application. However, please note that stand-alone type and manifold type are not mutually convertible. (i.e. it is not possible to mount a stand-alone type valve on a manifold, or to use manifold type valve unit as a stand-alone type.)

Piping specification:
Direct piping port

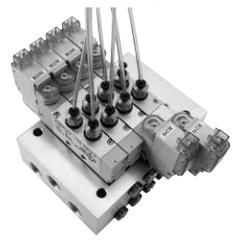
Piping specification:
Manifold base piping port

Equipped with individual connectors.

Top lead-out and side lead-out are available. Select a lead-out direction suitable for installation site.

Best match to PISCO Vacuum generator VH series which can be directly mounted on a solenoid valve.

In the case of applications requiring low flow rates, 1.8mm O.D. and 2mm O.D., Mini type fittings are ideal to use together.



Solenoid Valve SVB

Specifications

■ Pilot Valve Specifications (10 series)

Item \ Rated voltage	24VDC	100VAC
Operating system	Direct acting operation	
Valve structure	Elastic seal, Poppet valve	
Tolerance of voltage range	21.6 to 26.4 VDC	90 to 110VAC
Power consumption (with LED)	0.55 W	1 VA
Surge protection circuit	Surge absorber	Bridge diode
Manual override	Push-turn locking	
Connector lead-out direction	Top type (S), Side type (L)	
Operation indicator	LED	

■ Main Valve Specifications (10 series)

Item \ Model		Stand-alone unit type			Manifold type		
		SVB10S	SVB10D	SVB10A SVB10R SVB10P	SVB10S-M□	SVB10D-M□	SVB10A-M□ SVB10R-M□ SVB10P-M□
Fluid medium		Air					
Operating pressure range		0.2 to 0.7 MPa		0.3 to 0.7MPa	0.2 to 0.7 MPa		0.3 to 0.7MPa
Proof pressure		1.05 MPa					
Operating temperature range		5 to 50°C					
Installing direction		Universal					
Operating system		Indirect operation by pilot valve					
Port thread size		M5×0.8			M5×0.8		
Valve structure		Rubber seal, Spool valve					
No. of positions		2positions		3positions	2positions		3positions
No. of ports		5ports					
Valve function		Single	Double		Single	Double	
Response time (*1)	→ON	15msec	12msec	15msec(*2)	15msec	12msec	15msec(*2)
	→OFF	20msec	12msec	25msec(*2)	20msec	12msec	25msec(*2)
Max. operation cycle		5Hz					
Min. excitation time			50msec			50msec	
Lubrication		Not required					
Flow characteristics	1(P)→4(A),2(B) S(*3)	3.0 (0.16)		(*4): 2.0 (0.11)	1.8 (0.10)		(*4): 1.6 (0.09)
	1(P)→4(A),2(B) S(*3)			P: 4.0 (0.22)			P: 2.0 (0.11)
	4(A),2(B)→5(R1),3(R2) S(*3)	2.0 (0.11)		(*5): 2.0 (0.11)	1.6 (0.09)		(*5): 1.2 (0.07)
	4(A),2(B)→5(R1),3(R2) S(*3)			R: 4.0 (0.22)			R: 2.0 (0.11)

*1. Values at 0.5 MPa of supply.
*2. Response time for 3-Position represents the value from Neutral Position to ON and from ON to Neutral Position (OFF).
*3. S: Effective sectional area (mm^2 (Cv))
*4. 4 (A), 5 (R1) & 3 (R2) port
*5. 4 (A), 1(P) port

■ 10 Series Cylinder Speed Table

Cylinder speed (mm/s)	Cylinder tube bore (mm)			
	ø20	ø25	ø32	ø40
100				
200				
300				
400				
500				
600				
700				

*1. The cylinder average speed is referential at 0.5MPa of pressure, 30% of load factor and 1m of tube length.
*2. The cylinder speed can vary according to the configuration of piping and fittings.
*3. The data in the above table represents the value when dia. 6mm Push-in fitting is used on 4 (A) and 2 (B) ports of SVB10D.

■ Pilot Valve Specifications (15, 18, 22 series)

Item \ Rated voltage	24VDC	100VAC	110VAC	200VAC	220VAC
Operating system	Direct acting operation				
Valve structure	Elastic seal, Poppet valve				
Tolerance of voltage range	21.6 to 26.4 VDC	90 to 110 VAC	99 to 121 VAC	180 to 220 VAC	198 to 242 VAC
Power consumption (with LED)	0.8 W	1 VA	1.1 VA	2 VA	2.2 VA
Surge protection circuit	Surge absorber	Bridge diode			
Manual override	Push-turn locking				
Connector lead-out directions	Top type (S), Side type (L)				
Operation indicator	LED				

■ Main Valve Specifications (15 series)

Items \ Model	SVB15S	SVB15D	SVB15A SVB15R SVB15P	SVB15J SVB15L SVB15M SVB15N	SVB15Y SVB15Z
Fluid medium	Air				
Operating pressure range	0.15 to 0.7 MPa		0.2 to 0.7 MPa	0.15 to 0.7 MPa	
Proof pressure	1.05 MPa				
Operating temperature range	5 to 50°C				
Installing direction	Universal				
Operating system	Indirect operation by pilot valve				
Port thread size	M5×0.8(*1)				
Valve structure	Rubber seal, Spool valve				
No. of positions	2positions		3positions	2positions	
No. of ports	5ports			3ports	
Valve function	Single	Double		Single	Double
Response time	15msec	12msec		15msec	12msec
Max. operation cycle	5Hz				
Min. excitation time		50msec			50msec
Lubrication	Not required				
Flow characteristics S(*2)	3.4 (0.18)		(*3): 3.2(0.17)	3.4 (0.18)	
Flow characteristics S(*2)			P: 3.7(0.20)		

*1. SVB15J, L, and Y are valves to mount on a manifold base so that there is no thread cutting on 1 (P) and 3 (R1) ports.
*2. S: Effective sectional area (mm^2 (Cv)). The value is from 1 (P) to 4 (A) or 2 (B).
*3. S:Effective sectional area (mm^2/Cv)

■ 15 Series Cylinder Speed Table

Cylinder speed (mm/s)	Cylinder tube bore (mm)					
	ø20	ø25	ø32	ø40	ø50	ø63
100						
200						
300						
400						
500						
600						
700						
800						

*1. The cylinder average speed is referential at 0.5MPa of pressure, 30% of load factor and 1m of tube length.
*2. The cylinder speed can vary according to the configuration of piping and fittings.
*3. The data in the above table represents the value when dia. 6mm Push-in fitting is used on 4 (A) and 2 (B) ports of SVB15D.

■ Main Valve Specifications (18 series)

Item \ Model		SVB18S	SVB18D	SVB18A SVB18R SVB18P	SVB18J SVB18L SVB18M SVB18N	SVB18Y SVB18Z
Fluid medium		Air				
Operating pressure range		0.15 to 0.7 MPa		0.2 to 0.7 MPa	0.15 to 0.7 MPa	
Proof pressure		1.05 MPa				
Operating temp. range		5 to 50°C				
Installing direction		Universal				
Operating system		Indirect operation by pilot valve				
Port thread size		Rc1/8 (*1)				
Valve structure		Rubber seal, Spool valve				
No. of positions		2positions		3positions	2positions	
No. of ports		5ports			3ports	
Valve function		Single	Double		Single	Double
Response time		20msec	15msec		20msec	15msec
Max. operation cycle		5Hz				
Min. excitation time			50msec			50msec
Lubrication		Not required				
Flow characteristics	S(*2)	13 (0.70)		(*3) : 5.2(0.28)	13 (0.70)	
	S(*2)			P: 13(0.70)		

*1. SVB18J, L, and Y are valves to mount on a manifold base so that there is no thread cutting on 1(P) and 3 (R1) ports.
*2. S: Effective sectional area (mm^2 (Cv)). The value is from 1 (P) to 4 (A) or 2 (B).
*3. 4 (A), 5 (R1) & 3 (R2) port

■ Main Valve Specifications (22 series)

Item \ Model		SVB22S	SVB22D	SVB22A SVB22R SVB22P
Fluid medium		Air		
Operating pressure range		0.2 to 0.7 MPa		0.3 to 0.7 MPa
Proof pressure		1.05 MPa		
Operating temp. range		5 to 50°C		
Installing direction		Universal		
Operating system		Indirect operation by pilot valve		
Port thread size		1(P),4(A),2(B) port: Rc1/4 5(R_1),3(R_2) port: Rc1/8		
Valve structure		Rubber seal, Spool valve		
No. of positions		2positions		3positions
No. of ports		5ports		
Valve function		Single	Double	
Response time		25msec	18msec	25msec
Max. operation cycle		5Hz		
Min. excitation time			50msec	
Lubrication		Not required		
Flow characteristics	S(*)	18 (0.98)		A, R : 13 (0.70)
	S(*)			P : 15 (0.81)

* S: Effective sectional area (mm^2 (Cv)). The value is from 1 (P) to 4 (A) or 2 (B).

■ 18 Series Cylinder Speed Table

Cylinder speed (mm/s)	Cylinder tube bore (mm)							
	ø20	ø25	ø32	ø40	ø50	ø63	ø80	ø100
100								
200								
300								
400								
500								
600								
700								
800								
900								
1,000								
1,100								

*1. The cylinder average speed is referential at 0.5MPa of pressure, 30% of load factor and 1m of tube length.
*2. The cylinder speed can vary according to the configuration of piping and fittings.
*3. The data in the above table represents the value when dia. 8mm Push-in fitting is used on 4 (A) and 2 (B) ports of SVB18D.

■ 22 Series Cylinder Speed Table

Cylinder speed (mm/s)	Cylinder tube bore (mm)								
	ø20	ø25	ø32	ø40	ø50	ø63	ø80	ø100	ø125
100									
200									
300									
400									
500									
600									
700									
800									
900									
1,000									
1,100									

*1. The cylinder average speed is referential at 0.5MPa of pressure, 30% of load factor and 1m of tube length.
*2. The cylinder speed can vary according to the configuration of piping and fittings.
*3. The data in the above table represents the value when dia. 10mm Push-in fitting is used on 4 (A) and 2 (B) ports of SVB22D.

Solenoid Valve SVB

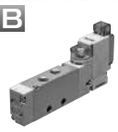
RoHS2 (2011/65/EU+EU2015/863) compliant

10 series

Stand-alone unit type

2 positions, 5 ports, Single solenoid

Type	Model code
Connector lead-out direction: Top	SVB10S-SW-[7]

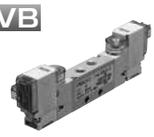


Type	Model code
Connector lead-out direction: Side	SVB10S-LW-[7]

2 positions, 5 ports, Double solenoid

Type	Model code
Connector lead-out direction: Top	SVB10D-SW-[7]

Type	Model code
Connector lead-out direction: Side	SVB10D-LW-[7]



3 positions, 5 ports, Closed Center/Exhaust Center/Pressure Center

Type	Model code
Connector lead-out direction: Top	SVB10A-SW-[7]
	SVB10R-SW-[7]
	SVB10P-SW-[7]

Type	Model code
Connector lead-out direction: Side	SVB10A-LW-[7]
	SVB10R-LW-[7]
	SVB10P-LW-[7]

Manifold type

Direct piping

Type	Model code
Connector lead-out direction: Top	SVB10[3]-SW-K-[9]-D[11]

Type	Model code
Connector lead-out direction: Side	SVB10[3]-LW-K-[9]-D[11]

Manifold base piping

Type	Model code
Connector lead-out direction: Top	SVB10[3]-SW-K-[9]-B[11]

Type	Model code
Connector lead-out direction: Side	SVB10[3]-LW-K-[9]-B[11]

Notes
*1. No. of manifold stations and valve type in pictures above are just examples.
*2. For [7] in model code of Stand-alone unit type, please select rated voltage code from page 214.
*3. For [3] in model code of Manifold type, please select a code for number of stations, for [9], please select a rated voltage code, and for [11] , please select check valve code from page 216.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

RoHS2 (2011/65/EU+EU2015/863) compliant

15 series

Stand-alone unit type

2 positions, 5 ports, Single solenoid

Type	Model code
Connector lead-out direction: Top	SVB15S-S[5][6]-[7]

▲Manifold specification: 3- & 5-port mixed mountable manifold base

Type	Model code
Connector lead-out direction: Side	SVB15S-L[5][6]-[7]

▲Manifold specification: 3- & 5-port mixed mountable manifold base

2 positions, 5 ports, Double solenoid

Type	Model code
Connector lead-out direction: Top	SVB15D-S[5][6]-[7]

▲Manifold specification: 3- & 5-port mixed mountable manifold base

Type	Model code
Connector lead-out direction: Side	SVB15D-L[5][6]-[7]

▲Manifold specification: 3- & 5-port mixed mountable manifold base

3 positions, 5 ports, Closed Center/Exhaust Center/Pressure Center

Type	Model code
Connector lead-out direction: Top	SVB15A-S[5][6]-[7]
	SVB15R-S[5][6]-[7]
	SVB15P-S[5][6]-[7]

▲Manifold specification: 3- & 5-port mixed mountable manifold base

Type	Model code
Connector lead-out direction: Side	SVB15A-L[5][6]-[7]
	SVB15R-L[5][6]-[7]
	SVB15P-L[5][6]-[7]

▲Manifold specification: 3- & 5-port mixed mountable manifold base

2 positions, 3 ports, Single solenoid, Normally closed, Normally open

For manifold mixied-mountable with 5-port valves

Type	Model code
Connector lead-out direction: Top	SVB15J-S[5][6]-[7]
	SVB15L-S[5][6]-[7]

Dedicated for Manifold installation

▲Manifold specification: 3- & 5-port mixed mountable manifold base

Type	Model code
Connector lead-out direction: Side	SVB15J-L[5][6]-[7]
	SVB15L-L[5][6]-[7]

Dedicated for Manifold installation

▲Manifold specification: 3- & 5-port mixed mountable manifold base

For manifold dedicated to 3-port valves

Type	Model code
Connector lead-out direction: Top	SVB15M-S[5][6]-[7]
	SVB15N-S[5][6]-[7]

▲Manifold specification: 3-port valve-dedicated manifold

Type	Model code
Connector lead-out direction: Side	SVB15M-L[5][6]-[7]
	SVB15N-L[5][6]-[7]

▲Manifold specification: 3-port valve-dedicated manifold

2 positions, 3 ports, Double solenoid

For manifold mixied-mountable with 5-port valves

Type	Model code
Connector lead-out direction: Top	SVB15Y-S[5][6]-[7]

Dedicated for Manifold installation

▲Manifold specification: 3- & 5-port mixed mountable manifold base

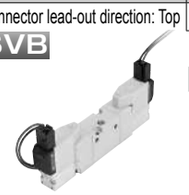
Type	Model code
Connector lead-out direction: Side	SVB15Y-L[5][6]-[7]

Dedicated for Manifold installation

▲Manifold specification: 3- & 5-port mixed mountable manifold base

For manifold dedicated to 3-port valves

Type	Model code
Connector lead-out direction: Top	SVB15Z-S[5][6]-[7]



▲Manifold specification: 3-port valve-dedicated manifold

Type	Model code
Connector lead-out direction: Side	SVB15Z-L[5][6]-[7]

▲Manifold specification: 3-port valve-dedicated manifold

Notes

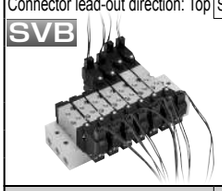
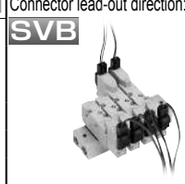
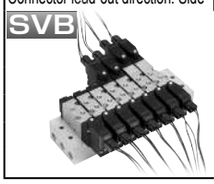
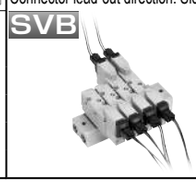
* Please select each code referring to the example of Stand-alone unit type model designation on page 214. [5]: Body color code, [6]: Manual override code, and [7]: Rated voltage code.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Solenoid Valve SVB

RoHS2 (2011/65/EU+EU2015/863) compliant

15 series			
Manifold type			
3- & 5-port valves mixed mounting type		For 3 port valves	
Type	Model code	Type	Model code
Connector lead-out direction: Top	SVB153-S67-8-9	Connector lead-out direction: Top	SVB153Y-S67-8-9
			
Type	Model code	Type	Model code
Connector lead-out direction: Side	SVB153-L67-8-9	Connector lead-out direction: Side	SVB153Y-L67-8-9
			

Notes
*1. No. of manifold stations and valve type in pictures above are just examples.
*2. Please select each code referring to the example of Manifold type model designation on page 216. 3: Number of stations code, 6: Body color code, 7: Manual override code, 8: Valve type code, and 9: Rated voltage code

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

RoHS2 (2011/65/EU+EU2015/863) compliant

18 series

Stand-alone unit type

2 positions, 5 ports, Single solenoid

Type	Model code
Connector lead-out direction: Top	SVB18S-S[5][6]-[7]

▲Manifold specification: 3- & 5-port mixed mountable manifold base

Type	Model code
Connector lead-out direction: Side	SVB18S-L[5][6]-[7]

▲Manifold specification: 3- & 5-port mixed mountable manifold base

2 positions, 5 ports, Double solenoid

Type	Model code
Connector lead-out direction: Top	SVB18D-S[5][6]-[7]

▲Manifold specification: 3- & 5-port mixed mountable manifold base

Type	Model code
Connector lead-out direction: Side	SVB18D-L[5][6]-[7]

▲Manifold specification: 3- & 5-port mixed mountable manifold base

3 positions, 5 ports, Closed Center/Exhaust Center/Pressure Cente

Type	Model code
Connector lead-out direction: Top	SVB18A-S[5][6]-[7]
	SVB18R-S[5][6]-[7]
	SVB18P-S[5][6]-[7]

▲Manifold specification: 3- & 5-port mixed mountable manifold base

Type	Model code
Connector lead-out direction: Side	SVB18A-L[5][6]-[7]
	SVB18R-L[5][6]-[7]
	SVB18P-L[5][6]-[7]

▲Manifold specification: 3- & 5-port mixed mountable manifold base

2 positions, 3 ports, Single solenoid, Normally closed, Normally open

For manifold mixied-mountable with 5-port valves

Type	Model code
Connector lead-out direction: Top	SVB18J-S[5][6]-[7]
	SVB18L-S[5][6]-[7]

Dedicated for Manifold installation

▲Manifold specification: 3- & 5-port mixed mountable manifold base

Type	Model code
Connector lead-out direction: Side	SVB18J-L[5][6]-[7]
	SVB18L-L[5][6]-[7]

Dedicated for Manifold installation

▲Manifold specification: 3- & 5-port mixed mountable manifold base

For manifold dedicated to 3-port valves

Type	Model code
Connector lead-out direction: Top	SVB18M-S[5][6]-[7]
	SVB18N-S[5][6]-[7]

▲Manifold specification: 3-port valve-dedicated manifold

Type	Model code
Connector lead-out direction: Side	SVB18M-L[5][6]-[7]
	SVB18N-L[5][6]-[7]

▲Manifold specification: 3-port valve-dedicated manifold

2 positions, 3 ports, Double solenoid

For manifold mixied-mountable with 5-port valves

Type	Model code
Connector lead-out direction: Top	SVB18Y-S[5][6]-[7]

Dedicated for Manifold installation

▲Manifold specification: 3- & 5-port mixed mountable manifold base

Type	Model code
Connector lead-out direction: Side	SVB18Y-L[5][6]-[7]

Dedicated for Manifold installation

▲Manifold specification: 3- & 5-port mixed mountable manifold base

For manifold dedicated to 3-port valves

Type	Model code
Connector lead-out direction: Top	SVB18Z-S[5][6]-[7]

▲Manifold specification: 3-port valve-dedicated manifold

Type	Model code
Connector lead-out direction: Side	SVB18Z-L[5][6]-[7]

▲Manifold specification: 3-port valve-dedicated manifold

Notes

* Please select each code referring to the example of Stand-alone unit type model designation on page 214. [5]: Body color code, [6]: Manual override code, and [7]: Rated voltage code.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Solenoid Valve SVB

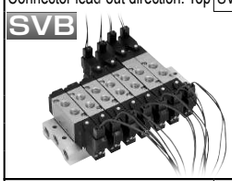
RoHS2 (2011/65/EU+EU2015/863) compliant

18 series

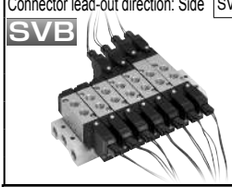
Manifold type

3- & 5-port valves mixed mounting type

Type	Model code
Connector lead-out direction: Top	SVB18[3]-S[6][7]-[8]-[9]

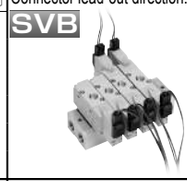


Type	Model code
Connector lead-out direction: Side	SVB18[3]-L[6][7]-[8]-[9]



For 3 port valves

Type	Model code
Connector lead-out direction: Top	SVB18[3]Y-S[6][7]-[8]-[9]



Type	Model code
Connector lead-out direction: Side	SVB18[3]Y-L[6][7]-[8]-[9]

22 series

Stand-alone unit type

2 positions, 5 ports, Single solenoid

Type	Model code
Connector lead-out direction: Top	SVB22S-S[5][6]-[7]

Type	Model code
Connector lead-out direction: Side	SVB22S-L[5][6]-[7]

2 positions, 5 ports, Double solenoid

Type	Model code
Connector lead-out direction: Top	SVB22D-S[5][6]-[7]

Type	Model code
Connector lead-out direction: Side	SVB22D-L[5][6]-[7]

3 positions, 5 ports, Closed Center/Exhaust Center/Pressure Center

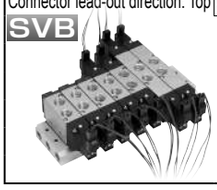
Type	Model code
Connector lead-out direction: Top	SVB22A-S[5][6]-[7]
	SVB22R-S[5][6]-[7]
	SVB22P-S[5][6]-[7]

Type	Model code
Connector lead-out direction: Side	SVB22A-L[5][6]-[7]
	SVB22R-L[5][6]-[7]
	SVB22P-L[5][6]-[7]

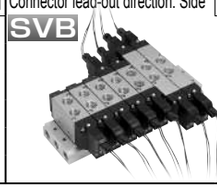
Manifold type

3- & 5-port valves mixed mounting type

Type	Model code
Connector lead-out direction: Top	SVB22[3]-S[6][7]-[8]-[9]



Type	Model code
Connector lead-out direction: Side	SVB22[3]-L[6][7]-[8]-[9]



Notes

*1. Please select each code referring to the example of Stand-alone unit type model designation on page 214. [5]: Body color code, [6]: Manual override code, and [7]: Rated voltage code.

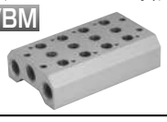
*2. No. of manifold stations and valve type in pictures above are just examples.

*3. Please select each code referring to the example of Manifold type model designation on page 216. [3]: Number of stations code, [6]: Body color code, [7]: Manual override code, [8]: Valve type code, and [9]: Rated voltage code.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

RoHS2 (2011/65/EU+EU2015/863) compliant

Manifold-base Only				Blank plate for Manifold-base	
10 series					
Type	Model code	Type	Model code	Type	Model code
Direct piping SVBM 	SVBM10[3]D-[5]	Manifold base piping SVBM 	SVBM10[3]B-[5]	Blank plate SVBB 	SVBB10
15, 18, 22 series					
Type	Model code	Type	Model code	Type	Model code
3- & 5-port valves mixed mounting type SVBM 	SVBM15[3] SVBM18[3] SVBM22[3]	For 3 port valves SVBM 	SVBM15[3]Y SVBM18[3]Y	Blank plate SVBB 	SVBB15 SVBB15Y SVBB18 SVBB18Y SVBB22

Notes
* Please select each code referring to the example of Manifold-base Only model designation on page 217. [3]: Number of stations code and [5]: Check valve specification code.

Packaging specifications
1 pc. /bag

Solenoid Valve SVA

Pilot solenoid valve with 2/3/5 ports (Stand-alone type, Manifold type)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation of SVA21 Sub-base piping type (Example)

SVA	21	-	6C	8C	S	-	S	B	-	D24
(1)	(2)		(3)	(4)	(5)		(6)	(7)		(8)

(1) Solenoid Valve SVA

(2) Valve series

21: Sub-base piping type (16mm width valve)

(3) Output port size

	mm size (mm)						inch size (inch)					
Port style	Side			Top			Side			Top		
Code	6C	8C	0C	6L	8L	0L	1/4C	5/16C	3/8C	1/4L	5/16L	3/8L
Tube O.D.	ø6	ø8	ø10	ø6	ø8	ø10	ø1/4	ø5/16	ø3/8	ø1/4	ø5/16	ø3/8

(4) Intake port size

	mm size (mm)						inch size (inch)					
Port style	Side			Top			Side			Top		
Code	6C	8C	0C	6L	8L	0L	1/4C	5/16C	3/8C	1/4L	5/16L	3/8L
Tube O.D.	ø6	ø8	ø10	ø6	ø8	ø10	ø1/4	ø5/16	ø3/8	ø1/4	ø5/16	ø3/8

* When a silencer is selected for Exhaust port, port style should be side.

(5) Exhaust port size

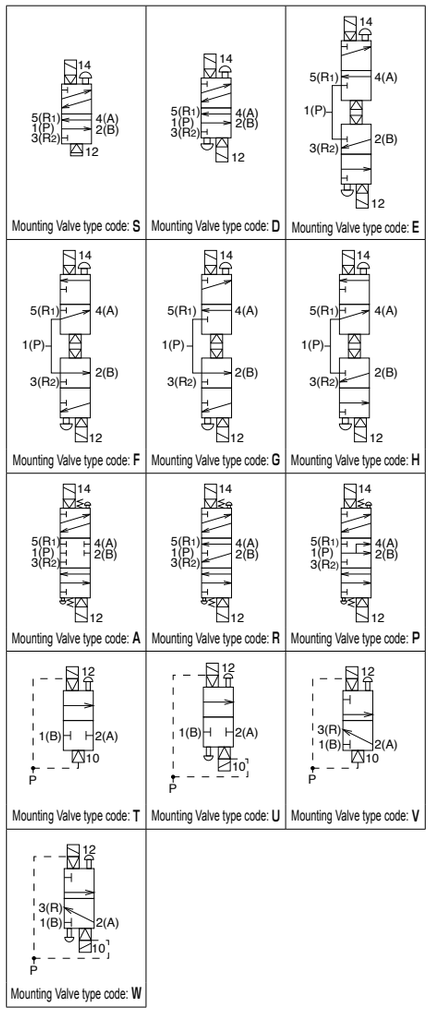
	mm size (mm)			inch size (inch)			Silencer (Open-Air Exhaust)
Code	6	8	0	1/4	5/16	3/8	S
Tube O.D.	ø6	ø8	ø10	ø1/4	ø5/16	ø3/8	—

*1. Port style of Exhaust port is the same as that of Intake port.
*2. When tube exhaust is selected and Valve type T or U for (6) , do not plug the exhaust port for any reason since the pilot air is discharged through the port. Plugging of exhaust port will cause malfunction.

(6) Mounting valve type

Code	No. of ports	No. of positions	Valve type
S	5	2	Single solenoid
D			Double solenoid
E	3	2	4 (A), 2 (B) port: Normally Closed (Twin 3-way valve)
F			4 (A), 2 (B) port: Normally Open (Twin 3-way valve)
G			4 (A) port: Normally Closed, 2 (B) port: Normally Open (Twin 3-way valve)
H			4 (A) port: Normally Open, 2(B) port: Normally Closed (Twin 3-way valve)
A	5	3	Closed Center
R			Exhaust Center
P			Pressure Center
T	2	2	Single solenoid (Vacuum-operatable valve)
U			Double solenoid (Vacuum-operatable valve)
V	3	2	Single solenoid (Vacuum-operatable valve)
W			Double solenoid (Vacuum-operatable valve)

■ Mounting Valve type JIS symbol



(7) Body color

B: Black

(8) Voltage

Code	D24	100
Coil voltage	24VDC	100VAC

Model Designation of Sub-base Mounting Valve Unit (Example)

SVA (1) **21** (2) **A** (3) – **100** (4) – **B** (5)

(1) Solenoid Valve SVA

(2) Valve series

21: Sub-base piping type (16mm width valve)

(3) Mounting Valve type

Code	No. of ports	No. of positions	Valve type
S	5	2	Single solenoid
D			Double solenoid
E	3	2	4 (A), 2 (B) port: Normally Closed (Twin 3-way valve)
F			4 (A), 2 (B) port: Normally Open (Twin 3-way valve)
G			4 (A) port: Normally Closed, 2 (B) port: Normally Open (Twin 3-way valve)
H			4 (A) port: Normally Open, 2(B) port: Normally Closed (Twin 3-way valve)
A	5	3	Closed Center
R			Exhaust Center
P			Pressure Center
T	2	2	Single solenoid (Vacuum-operatable valve)
U			Double solenoid (Vacuum-operatable valve)
V	3	2	Single solenoid (Vacuum-operatable valve)
W			Double solenoid (Vacuum-operatable valve)

* Valve type JIS symbol in on the previous page.

(4) Voltage

Code	D24	100
Coil voltage	24VDC	100VAC

(5) Body color

B: Black

Solenoid Valve SVA

Model Designation of Manifold piping type (Example)

SVA	20	08	A	–	8C	0C	A08	8	–	F	B	–	K	–	D24	–		
(1)	(2)	(3)	(4)		(5)	(6)	(7)	(8)		(9)	(10)		(11)		(12)		(13)	(14)

(1) Solenoid Valve SVA

(2) Valve series

20: Manifold piping type (16mm width valve)

(3) No. of stations

Code	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19
No. of stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

(4) Intake & Exhaust block

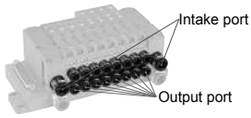
Code	A	B
Block shape	On Both sides	On One side

A: Intake & Exhaust block on Both sides

B: Intake & Exhaust block on One side

(5) Output port size

	mm size (mm)						inch size (inch)			
Port style	Side			Top			Side		Top	
Code	1C	6C	8C	1L	6L	8L	1/4C	5/16C	1/4L	5/16L
Tube O.D.	Combination in different sizes	ø6	ø8	Combination in different sizes	ø6	ø8	ø1/4	ø5/16	ø1/4	ø5/16



(6) Intake port size

	mm size (mm)						inch size (inch)					
Port style	Side			Top			Side			Top		
Code	8C	0C	2C	8L	0L	2L	5/16C	3/8C	1/2C	5/16L	3/8L	1/2L
Tube O.D.	ø8	ø10	ø12	ø8	ø10	ø12	ø5/16	ø3/8	ø1/2	ø5/16	ø3/8	ø1/2

(7) Exhaust check valve

Code	A01	A02	A03	A04	A05	A06	A07	A08	A09	A10	A11	A12	A13	A14	A15	A16	A17	A18	A19	No code
No. of stations	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	without check valve

(8) Exhaust port size

	mm size (mm)			inch size (inch)			Silencer (Open-Air Exhaust)
Code	8	0	2	5/16	3/8	1/2	S
Tube O.D.	ø8	ø10	ø12	ø5/16	ø3/8	ø1/2	—

*1. Port style of Exhaust port is the same as that of Intake port.
*2. When tube exhaust is selected and Valve type T or U for (11) , do not plug the exhaust port for any reason since the pilot air is discharged through the port. Plugging of exhaust port will cause malfunction.

Tube exhaust

Silencer exhaust

(9) Wiring type

Code	D	S	F
Wiring type	Sub-D Connector	Individual Plug-in Connector	Flat cable (ribbon-cable) connector

Sub-D Connector

Individual Plug-in Connector

Flat cable (ribbon-cable) connector

(10) Body color

B: Black

(11) Mounting valve type

Code	No. of ports	No. of positions	Valve type
S	5	2	Single solenoid
D			Double solenoid
E	3	2	4 (A), 2 (B) port: Normally Closed (Twin 3-way valve)
F			4 (A), 2 (B) port: Normally Open (Twin 3-way valve)
G			4 (A) port: Normally Closed, 2 (B) port: Normally Open (Twin 3-way valve)
H			4 (A) port: Normally Open, 2(B) port: Normally Closed (Twin 3-way valve)
A	5	3	Closed Center
R			Exhaust Center
P			Pressure Center
T	2	2	Single solenoid (Vacuum-operatable valve)
U			Double solenoid (Vacuum-operatable valve)
V	3	2	Single solenoid (Vacuum-operatable valve)
W			Double solenoid (Vacuum-operatable valve)
K	Combination of Valves		
B	Blank Plate		
M	Manifold-base only		

(12) Voltage

Code	D24	100
Coil voltage	24VDC	100VAC

* No entry when mounting valve type is B (Blank plate) or M (Manifold-base only)

(13) Dual pressure option

Code	No code	P
Supply pressure	Single pressure	Double pressure *1, 2

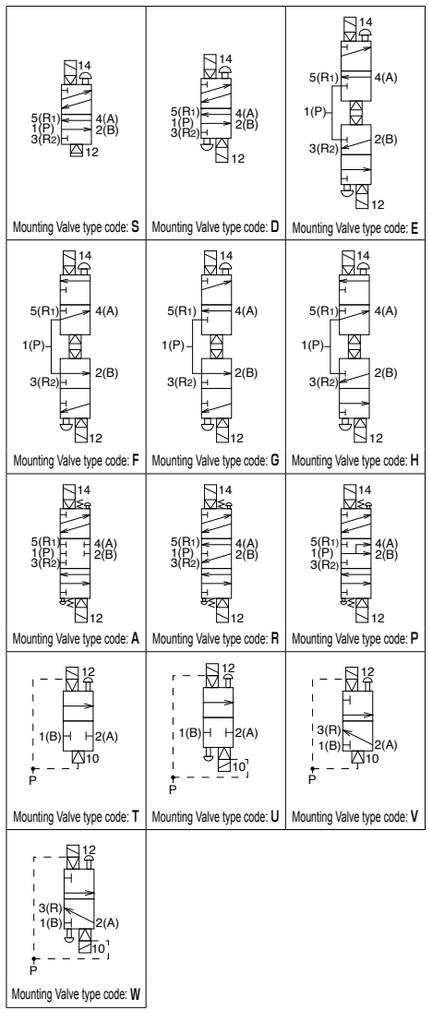
*1. Please specify pressure separating position by an order form.
*2. Intake & Exhaust Block for Dual Pressure is "A" type (Intake & Exhaust Block on Both sides) only.

(14) DIN-rail mounting bracket

Code	No code	D
DIN-rail mounting bracket	Without bracket	With DIN-rail bracket

* 1set of DIN-rail bracket contains 2pcs.

■ Mounting Valve type JIS symbol



Valve

Solenoid Valve SVA

Model Designation of Manifold mounting valve unit alone (Example)

SVA (1) 20 (2) D (3) – D24 (4) D (5) – B (6)

(1) Solenoid Valve SVA

(2) Valve series

20: Manifold piping type (16mm width valve)

(3) Mounting valve type

Code	No. of ports	No. of positions	Valve type
S	5	2	Single solenoid
D			Double solenoid
E	3	2	4 (A), 2 (B) port: Normally Closed (Twin 3-way valve)
F			4 (A), 2 (B) port: Normally Open (Twin 3-way valve)
G			4 (A) port: Normally Closed, 2 (B) port: Normally Open (Twin 3-way valve)
H			4 (A) port: Normally Open, 2(B) port: Normally Closed (Twin 3-way valve)
A	5	3	Closed Center
R			Exhaust Center
P			Pressure Center
T	2	2	Single solenoid (Vacuum-operatable valve)
U			Double solenoid (Vacuum-operatable valve)
V	3	2	Single solenoid (Vacuum-operatable valve)
W			Double solenoid (Vacuum-operatable valve)

(4) Voltage

Code	D24	100
Coil voltage	24VDC	100VAC

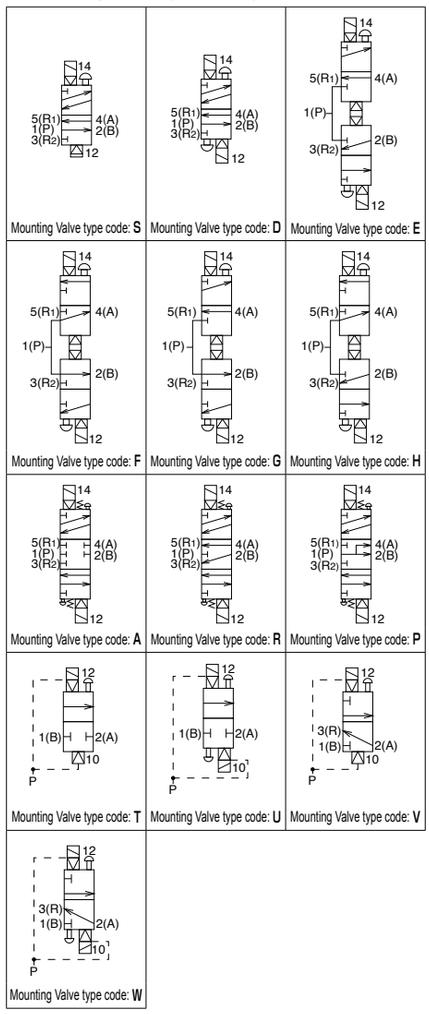
(5) Wiring type

Code	D	S
Wiring type	Concentrated wiring (Sub-D connector, Flat cable connector)	Individual wiring (Individual Plug-in Connector)

(6) Body color

B: Black

■ Mounting Valve type JIS symbol



Model Designation of DIN-rail mounting bracket

DRF35S (1)

(1) DIN-rail mounting bracket

Model Designation of Blank plate (Example)

SVA (1) 20 (2) B – B

(1) Solenoid Valve SVA

(2) Series

20 : For 20 series

Model Designation of Silencer element (Example)

SVA (1) 21 (2) EX – E

(1) Solenoid Valve SVA

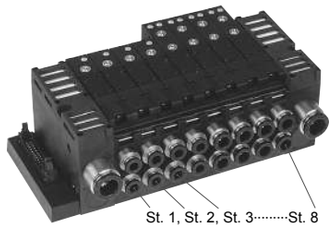
(2) Series

20: For 20 series

21: For 21 series

Example of Manifold type (20 series) Model Designation

Model (1)	Series (2)	No. of stations (3)	In. & Ex. block (4)	_	Out-port (5)	In-port (6)	Check valve (7)	Ex-port (8)	_	Wiring (9)	Color (10)	_	Valve (11)	_	Voltage (12)	_	2-press. (13)	DIN-rail (14)
SVA	20	08	A	–	1C	2C	A04	S	–	F	B	–	K	–	D24	–		



* Station No. is counted as St.1, St.2, St.3 ···St.8 from left side with the tube fittings at the front as shown in the figure above.

Station No.	Out-port	Check valve	Mounting valve type		2-press.
St. 1	6		SVA20	S	
St. 2	6		SVA20	S	
St. 3	6		SVA20	S	
St. 4	6		SVA20	S	
St. 5	8	A	SVA20	D	
St. 6	8	A	SVA20	D	
St. 7	8	A	SVA20	D	
St. 8	8	A	SVA20	D	

Cut here

SVA20 Solenoid Valve Specification Order Form

Person in charge:

To: NIHON PISCO Co.,Ltd.

Distributor/Dealer address: TEL

Delivery address: TEL

Customer address: TEL

Requested EX-W PISCO Date: Quantity pcs.

Model (1)	Series (2)	No. of stations (3)	In. & Ex. block (4)	_	Out-port (5)	In-port (6)	Check valve (7)	Ex-port (8)	_	Wiring (9)	Color (10)	_	Valve (11)	_	Voltage (12)	_	2-press. (13)	DIN-rail (14)
SVA	20			–					–		B	–		–		–		

Station No.	Out-port	Check valve	Mounting valve type		2-press.
St. 1			SVA20		
St. 2			SVA20		
St. 3			SVA20		
S.t 4			SVA20		
St. 5			SVA20		
St. 6			SVA20		
St. 7			SVA20		
St. 8			SVA20		
St. 9			SVA20		
St. 10			SVA20		
St. 11			SVA20		
St. 12			SVA20		
St. 13			SVA20		
St. 14			SVA20		
St. 15			SVA20		
St. 16			SVA20		
St. 17			SVA20		
St. 18			SVA20		
St. 19			SVA20		

Solenoid Valve SVA

Characteristics

Lightweight and small-sized, yet high flow.

Effective Sectional Area of 18mm^2 with valve width 16mm

Various valve types are available.

2 options of intake and output port position; Top or side

Twin 3-way valve allows to control different 2 actuators simultaneously, but separately.

It contributes to save room where many 3-way valves are used with air-operated valves or single acting cylinders.

Vacuum-operatable 2/3-Port Solenoid Valve

Vacuum-operatable 2 or 3-way valve which does not require external piping.

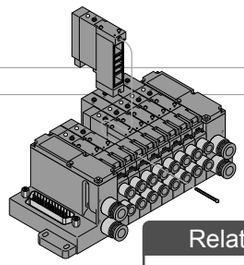
Same in function as the external pilot system.

Single and Double solenoid types are available.

External piping is not necessary, so that mix-mounting of different valve types is possible.

* 20 series realizes easy-wiring, and piping and less room.

Manifold piping type (20 series)



Easy maintenance with a single-screw mounting mechanism.

Centralized wire harness makes manifold piping easy.

Sub-D Connector and Flat cable (ribbon-cable) connector are available.

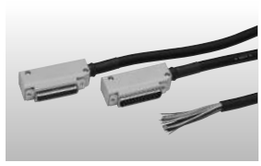
Individual Plug-in Connector of Manifold piping is also available.

Sub-D Connector

Flat cable (ribbon-cable) connector

Individual Plug-in Connector

Related products



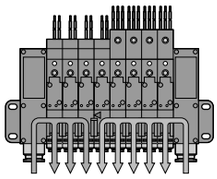
Sub-D Connector

▶ P.246

A check valve for each exhaust port to prevent back pressure can be installed as an option.

Dual pressure type allows 2 different pressures of supply air putting a separator between certain stations. Dual pressure type is an option.

Intake ports in a manifold are separated.



Bracket of DIN rail is available. It helps easy attachment and detachment.

With the bracket, a manifold can be firmly fixed.

Specifications

■ Sub-base Specifications

Model		SVA21	
Fluid medium		Air	
Operating pressure range		0.2 to 0.7 MPa	
Proof pressure		1.05 MPa	
Operating temp. range		5 to 50°C	
Installing direction		Universal (Conditional)	
No. of mountable main valve		1 pc.	
Tube dia.	1 (P) , 5 (R1) , 3 (R2) port	Push-in fitting (dia.)	ø6mm, ø8mm,ø10mm (*) ø1/4", ø5/16", ø3/8" (*)
	4 (A) , 2 (B) port	Push-in fitting (dia.)	ø6mm, ø8mm,10mm ø1/4", ø5/16", ø3/8"
Wiring type	Type	Individual Plug-in Connector	
	No. of pins	3 pins	
Silencer		Standard equipment only with silencer exhaust 5 (R1) and 3 (R2) port.	

■ Manifold specifications

Item \ Model		SVA20⋯A⋯D	SVA20⋯B⋯D	SVA20⋯A⋯F	SVA20⋯B⋯F	SVA20⋯A⋯S	SVA20⋯B⋯S
Fluid medium		Air					
Operating pressure range		0.2 to 0.7 MPa					
Proof pressure		1.05 MPa					
Operating temp. range		5 to 50°C					
Installing direction		Universal (Conditional)					
No. of mountable main valve		max. 12pcs.		max. 19pcs.			
Tube dia.	1 (P) , 5 (R1) , 3 (R2) port	Push-in fitting (dia.)					
		ø8㎜×2	ø8㎜×1	ø8㎜×2	ø8㎜×1	ø8㎜×2	ø8㎜×1
		ø10㎜×2	ø10㎜×1	ø10㎜×2	ø10㎜×1	ø10㎜×2	ø10㎜×1
		ø12㎜×2	ø12㎜×1	ø12㎜×2	ø12㎜×1	ø12㎜×2	ø12㎜×1
		Φ5/16"×2	Φ5/16"×1	Φ5/16"×2	Φ5/16"×1	Φ5/16"×2	Φ5/16"×1
		Φ3/8"×2	Φ3/8"×1	Φ3/8"×2	Φ3/8"×1	Φ3/8"×2	Φ3/8"×1
		Φ1/2"×2	Φ1/2"×1	Φ1/2"×2	Φ1/2"×1	Φ1/2"×2	Φ1/2"×1
	4 (A) , 2 (B) port	Push-in fitting (dia.): ø6mm, ø8smm					
Wiring type	Type	Sub-D Connector		Flat cable (ribbon-cable) connector		Individual Plug-in Connector	
	No. of pins	9pins, 25pins(*1)		10pin, 26pins, 40pins(*2)		3 pins	
Silencer		Standard equipment only with silencer exhaust 5 (R1) and 3 (R2) port.					

*1. For 2 to 4 stations, 9 pins. For 5 to 12 stations, 25 pins.
*2. For 2 to 4 stations, 10 pins. For 5 to 12 stations, 26 pins. For 13 to 19 stations, 40 pins.

■ Solenoid Valve Specifications (24VDC)

Model		SVA21-D24 / SVA20-D24							
Piping spec. \ Valve type		S	D	A,R,P	E,F,G,H	T	U	V	W
Pilot valve	Operating system	Direct acting operation							
	Valve structure	Rubber seal, Poppet valve							
	Rated coil voltage	24VDC							
	Tolerance of voltage range	21.6 to 26.4 VDC							
	Power consumption	1.2 W (with LED)							
	Surge protection circuit	Diode							
	Manual override	Non-lock push button							
	Operating pressure range	0.2 to 0.7 MPa							
Main valve	Operating system	Pneumatic operation by pilot valve							
	Valve structure	Rubber seal, Spool valve							
	No. of positions	2positions		3positions	2positions				
	No. of ports	5ports			3 ports ×2(*1)	2ports		3ports	
	Valve function	Single	Double		Single×2	Single	Double	Single	Double
	No. of pilot points	1	2			1	2	1	2
	Response time(*2)	18msec	12msec	18msec			12msec	18msec	12msec
	Max. operation cycle	5Hz							
	Min. excitation time		50msec				50msec		50msec
	Lubrication	Not required							
	Operating pressure range	0.2 to 0.7 MPa				- 0.1 to 0.7 MPa			

*1. This is a valve construction incorporating 2× 3-port valves. 1(P) is common.
*2. Values are at air pressure of 0.5MPa and from power off to on. For 3 positions valve, the value is from neutral position of closed center.

■ Solenoid Valve Specifications (100VAC)

Model		SVA21-100 / SVA20-100							
Piping spec. \ Valve type		S	D	A,R,P	E,F,G,H	T	U	V	W
Pilot valve	Operating system	Direct acting operation							
	Valve structure	Rubber seal, Poppet valve							
	Rated coil voltage	100VAC							
	Tolerance of voltage range	90 to 110 VAC							
	Power consumption	1.5 VA (with LED)							
	Surge protection circuit	Diode							
	Manual override	Non-lock push button							
	Operating pressure range	0.2 to 0.7 MPa							
Main valve	Operating system	Pneumatic operation by pilot valve							
	Valve structure	Rubber seal, Spool valve							
	No. of positions	2positions		3positions	2positions				
	No. of ports	5ports			3 ports ×2(*1)	2ports		3ports	
	Valve function	Single	Double		Single×2	Single	Double	Single	Double
	No. of pilot points	1	2			1	2	1	2
	Response time(*2)	18msec	12msec	18msec			12msec	18msec	12msec
	Max. operation cycle	5Hz							
	Min. excitation time		50msec				50msec		50msec
	Lubrication	Not required							
	Operating pressure range	0.2 to 0.7 MPa				- 0.1 to 0.7 MPa			

*1. This is a valve construction incorporating 2× 3-port valves. 1(P) is common.
*2. Values are at air pressure of 0.5MPa and from power off to on. For 3 positions valve, the value is from neutral position of closed center.

Solenoid Valve SVA

■ Flow characteristics of Sub-base type

Model		SVA21					
Piping spec. \ Valve type		S	D	A,R,P	E,F,G,H	T,U	V,W
1(P)→4(A).2(B)(ø10㎜)(*1)	S(*4)	17 (0.92)	17 (0.92)	12 (0.65)	15 (0.81)	17 (0.92)	17 (0.92)
1(P)→4(A).2(B)(ø8㎜)(*1)	S(*4)	16 (0.86)	16 (0.86)	12 (0.65)	14.5 (0.78)	13 (0.7)	13 (0.7)
1(P)→4(A).2(B)(ø6㎜)(*1)	S(*4)	10.5 (0.56)	10.5 (0.56)	9.5 (0.51)	10.5 (0.56)	8.5 (0.46)	8.5 (0.46)
4(A).2(B)(ø10 ㎜)→5(R_1).3(R_2) Without Check valve(*2,3)	S(*4)	18 (0.97)	18 (0.97)	14 (0.75)	14 (0.75)		17.5 (0.95)
4(A).2(B)(ø8 ㎜)→5(R_1).3(R_2) With Check valve(*2)	S(*4)						
4(A).2(B)(ø8 ㎜)→5(R_1).3(R_2) Without Check valve(*2,3)	S(*4)	17 (0.92)	17 (0.92)	13.5 (0.73)	13.5 (0.73)		14 (0.76)
4(A).2(B)(ø6 ㎜)→5(R_1).3(R_2) With Check valve(*2)	S(*4)						
4(A).2(B)(ø6 ㎜)→5(R_1).3(R_2) Without Check valve(*2,3)	S(*4)	10.5 (0.56)	10.5 (0.56)	10 (0.54)	10 (0.54)		9.5 (0.51)

*1. Values of valve type T/U/V/W are with the flow direction 1(B) to 2(A).
*2. The value of open-air R port exhaust flow rate.
*3. Values of valve type V/W are with the flow direction 2(A) to 3(R).
*4. S: Effective sectional area S (mm^2 (CV))
*5. Refer to the flow rate of dia. 6 mm for inch port size of dia. 1/4", refer to dia. 8 mm for dia. 5/16", refer to dia. 10 mm for dia. 3/8" respectively.

■ Flow characteristics of Manifold type

Model		SVA20					
Piping spec. \ Valve type		S	D	A,R,P	E,F,G,H	T,U	V,W
1(P)→4(A).2(B)(ø10㎜)(*1)	S(*4)						
1(P)→4(A).2(B)(ø8㎜)(*1)	S(*4)	16 (0.86)	16 (0.86)	12 (0.65)	14.5 (0.78)	13.5 (0.73)	13.5 (0.73)
1(P)→4(A).2(B)(ø6㎜)(*1)	S(*4)	10.5 (0.56)	10.5 (0.56)	9.5 (0.51)	10.5 (0.56)	9 (0.49)	9 (0.49)
4(A).2(B)(ø10 ㎜)→5(R_1).3(R_2) Without Check valve(*2)	S(*4)						
4(A).2(B)(ø8 ㎜)→5(R_1).3(R_2) With Check valve(*2,3)	S(*4)	17 (0.92)	17 (0.92)	13(0.7)	12.5 (0.67)		14 (0.76)
4(A).2(B)(ø8 ㎜)→5(R_1).3(R_2) Without Check valve(*2,3)	S(*4)	21(1.13)	21(1.13)	15(0.81)	13.5 (0.73)		15.5 (0.84)
4(A).2(B)(ø6 ㎜)→5(R_1).3(R_2) With Check valve(*2,3)	S(*4)	10.5 (0.56)	10.5 (0.56)	10 (0.54)	10 (0.54)		10 (0.54)
4(A).2(B)(ø6 ㎜)→5(R_1).3(R_2) Without Check valve(*2,3)	S(*4)	10.5 (0.56)	10.5 (0.56)	10 (0.54)	10 (0.54)		9.5 (0.51)

*1. Values of valve type T/U/V/W are with the flow direction 1(B) to 2(A).
*2. The value of open-air R port exhaust flow rate.
*3. Values of valve type V/W are with the flow direction 2(A) to 3(R).
*4. S: Effective sectional area S (mm^2 (CV))
*5. Refer to the flow rate of dia. 6 mm for inch port size of dia. 1/4", refer to dia. 8 mm for dia. 5/16", refer to dia. 10 mm for dia. 3/8" respectively.

■ Cylinder Speed Table

Cylinder speed (mm/s)	Cylinder tube bore (mm)									
	ø20	ø25	ø32	ø40	ø50	ø63	ø80	ø100	ø125	ø140
100										
200										
300										
400										
500										
600										
700										
800										

*1. The cylinder average speed is referential at 0.5 MPa of pressure, 30% of load factor and 1 m of tube length.
*2. The cylinder speed varies according to the configuration of piping and fittings.
*3. The data in the above table represents the value when dia. 8 mm Push-in fitting is used on 4 (A) and 2 (B) ports of SVA20S-D24.

■ Specification of DIN-rail mounting bracket

Recommended thread fixing torque	0.3 to 0.4 N·m
Max. load capacity	100 N

RoHS2 (2011/65/EU+EU2015/863) compliant

Specification of Sub-base piping type (21 series)

Double solenoid valve

Type	Model code
Tube exhaust	SVA21-[3][4][5]-[6]B-[8]

Type	Model code
Silencer exhaust	SVA21-[3][4]S-[6]B-[8]

Single solenoid valve

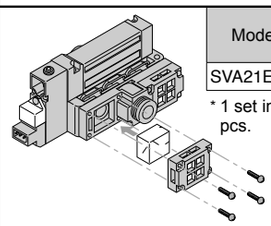
Type	Model code
Tube exhaust	SVA21-[3][4][5]-[6]B-[8]

Type	Model code
Silencer exhaust	SVA21-[3][4]S-[6]B-[8]

Silencer element

Model code
SVA21EX-E

* 1 set includes 2 pcs.



Notes
*1. Contact the nearest sales office for the price of SVA21 series.
*2. Please select each code referring to the example of model designation.from page 228 [3]: Output port size code, [4]: Intake port size code, [5]: Exhaust port size code, [6]: Valve type code and [8]: Voltage code.
*3. The element is available only for Silencer (Open-air exhaust) type.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag
Silencer element: 2 pcs/ set (=1 bag)

RoHS2 (2011/65/EU+EU2015/863) compliant

Manifold piping type (20 series)

Sub-D connector

Type	Model code	Type	Model code
In. & Ex. block on both sides (Tube exhaust)	SVA20③A-⑤⑥⑦⑧-DB-⑪-⑫-⑬⑭	In. & Ex. block on one side (Tube exhaust)	SVA20③B-⑤⑥⑦⑧-DB-⑪-⑫-⑬⑭
SVA		SVA	
In. & Ex. block on both sides (Silencer exhaust)	SVA20③A-⑤⑥⑦S-DB-⑪-⑫-⑬⑭	In. & Ex. block on one side (Silencer exhaust)	SVA20③B-⑤⑥⑦S-DB-⑪-⑫-⑬⑭
SVA		SVA	

Individual Plug-in Connector type

Type	Model code	Type	Model code
In. & Ex. block on both sides (Tube exhaust)	SVA20③A-⑤⑥⑦⑧-SB-⑪-⑫-⑬⑭	In. & Ex. block on one side (Tube exhaust)	SVA20③B-⑤⑥⑦⑧-SB-⑪-⑫-⑬⑭
SVA		SVA	
In. & Ex. block on both sides (Silencer exhaust)	SVA20③A-⑤⑥⑦S-SB-⑪-⑫-⑬⑭	In. & Ex. block on one side (Silencer exhaust)	SVA20③B-⑤⑥⑦S-SB-⑪-⑫-⑬⑭
SVA		SVA	

Flat cable (ribbon-cable) connector type

Type	Model code	Type	Model code
In. & Ex. block on both sides (Tube exhaust)	SVA20③A-⑤⑥⑦⑧-FB-⑪-⑫-⑬⑭	In. & Ex. block on one side (Tube exhaust)	SVA20③B-⑤⑥⑦⑧-FB-⑪-⑫-⑬⑭
SVA		SVA	
In. & Ex. block on both sides (Silencer exhaust)	SVA20③A-⑤⑥⑦S-FB-⑪-⑫-⑬⑭	In. & Ex. block on one side (Silencer exhaust)	SVA20③B-⑤⑥⑦S-FB-⑪-⑫-⑬⑭
SVA		SVA	

DIN-rail mounting bracket

Type	Model code
DIN-rail mounting bracket	DRF35S

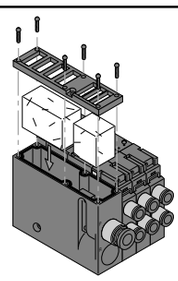
DRF

Blank plate

Type	Model code
Blank plate	SVA20B-B

SVA20B-B

Silencer element



Model code
SVA20EX-E

* 1 set includes 2 pcs.

Packaging specifications
1 pc. /bag
DIN-rail mounting bracket: 2 pcs/ bag
Silencer element: 2 pcs/ set (=1 bag)

Notes
*1. No. of manifold stations and valve type in pictures above are just examples.
*2. Please select each code referring to the example of model designation.from page 230 to 231 ③: No. of stations code, ⑤: Output port size, ⑥: Input port size, ⑦: Exhaust check valve code, ⑧: Exhaust port size code, ⑪ : Valve type code, ⑫ : Voltage code, ⑬ : Dual pressure code, and ⑭ : DIN-rail code.
*3. The element is available only for Silencer (Open-air exhaust) type.

CAD data is available at PISCO website.

Solenoid Valve SVR

Pilot solenoid valve with 3/5 ports (Manifold type)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

SVR10	08	A	-	8C	0C	A08	S	-	F	-	K	-	D24	-	(11)	(12)	4C	-	(14)
(1)	(2)	(3)		(4)	(5)	(6)	(7)		(8)		(9)		(10)				(13)		

(1) Solenoid Valve SVR

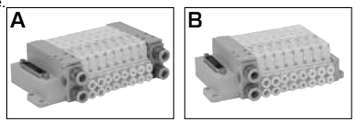
(2) No. of stations

Code	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20
No. of stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

* Maximum station number of individual wiring type is 20 and 12 for concentrated wiring type.

(3) Intake & Exhaust block

Code	A	B
Block type	Intake & Exhaust block on Both sides	Intake & Exhaust block on One side



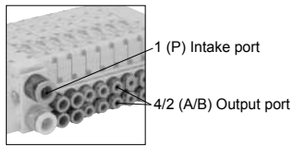
(4) 4/2 (A/B) Output port size

Fitting type	Push-in fitting mm size (mm)						Push-in fitting inch size (inch)			
Code	1C	2C	3C	4C	6C	8C(*)	1/8C	5/32C	1/4C	5/16C(*)
Size	Combination of port size	ø1.8	ø3	ø4	ø6	ø8	ø1/8	ø5/32	ø1/4	ø5/16
Piping direction	Side									

* Compression fitting for polyurethane tube

(5) 1 (P) Intake port size

Fitting type	Push-in fitting mm size (mm)			Push-in fitting inch size (inch)		
Code	6C	8C	0C	1/4C	5/16C	3/8C
Size	ø6	ø8	ø10	ø1/4	ø5/16	ø3/8
Piping direction	Side					



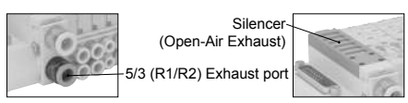
(6) Exhaust check valve specification

Code	A01	A02	A03	A04	A05	A06	A07	A08	A09	A10	A11	A12	A13	A14	A15	A16	A17	A18	A19	A20	No code
Qty.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Without Check valve

* This option is not selectable when Blank plate is selected in (9) . Valve type.

(7) 5/3 (R1/R2) Exhaust port size

Fitting type	Push-in fitting mm size (mm)			Push-in fitting inch size (inch)			Silencer (Open-Air Exhaust)
Code	6	8	0	1/4	5/16	3/8	S
Size	ø6	ø8	ø10	ø1/4	ø5/16	ø3/8	–



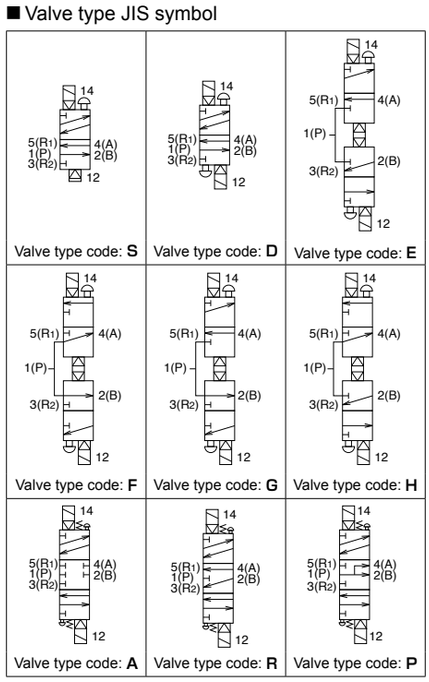
(8) Wiring type

Code	Wiring type
D	Sub-D connector
S	Individual Plug-in Connector
F	Flat cable (ribbon-cable) connector

(9) Mounting valve type

Code	No. of ports	No. of positions	Type
S	5	2	Single solenoid valve
D			Double solenoid valve
E	3	2	4 (A), 2 (B) port: Normally Closed (Twin 3-Way Valve)
F			4 (A), 2 (B) port: Normally Open (Twin 3-Way Valve)
G			4 (A) port: Normally Closed, 2 (B) port: Normally Open (Twin 3-Way Valve)
H			4 (A) port: Normally Open, 2 (B) port:. Normally Closed (Twin 3-Way Valve)
A	5	3	Closed Center
R			Exhaust Center
P			Pressure Center
K	Combination of Valves		
B	Blank Plate		
M	Manifold-base Only		

■ Valve type JIS symbol



(10) Voltage

Code	D24	A100
Coil voltage	24VDC	100VAC

* 100VAC valve is no CE marking product.

(11) Dual pressure option

Code	No code	P
Supply pressure	Single pressure	Dual pressure

*1. Please specify pressure separating position by an order form.
*2. Intake & Exhaust Block for Dual Pressure is "A" type (Intake & Exhaust Block on Both sides) only.
*3. When Twin 3-way valve is mounted on a dual pressure type manifold, supply pressure of 1 (P) L side should be equal or more than 1 (P) R side.

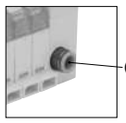
(12) DIN-rail mounting bracket

Code	No code	D
Bracket	Without bracket	With DIN-rail bracket(*)

* 1 set (2 pcs.) is equipped.

(13) (14/12) External pilot air port

Code	Specifications	Fitting size and type
No code	Internal pilot air	–
4C	External Pilot air	ø4mm·Straight
6C	External Pilot air	ø6mm·Straight
4L	External Pilot air	ø4mm·Elbow
6L	External Pilot air	ø6mm·Elbow


(14/12) External Pilot air port

(14) Pilot valve electrical polarity

Code	No code	MC
Specification	Positive common	Negative common

*1 Mixing of electrical polarity on a manifold is not possible.
*2 Negative common type is no CE marking product.

Solenoid Valve SVR

Model Designation of Manifold Top-mounting unit alone (Example)

SVR10 (1) D (2) – D24 (3) D (4)

(1) Solenoid Valve SVR

(2) Mounting valve type

Code	No. of ports	No. of positions	Valve type
S	5	2	Single solenoid valve
D			Double solenoid valve
E	3	2	4 (A), 2 (B) port: Normally Closed (Twin 3-Way Valve)
F			4 (A), 2 (B) port: Normally Open (Twin 3-Way Valve)
G			4 (A) port: Normally Closed, 2 (B) port: Normally Open (Twin 3-Way Valve)
H			4 (A) port: Normally Open, 2 (B) port:. Normally Closed (Twin 3-Way Valve)
A	5	3	Closed Center
R			Exhaust Center
P			Pressure Center
K	Combination of Valves		
B	Blank Plate		

(3) Valve coil voltage

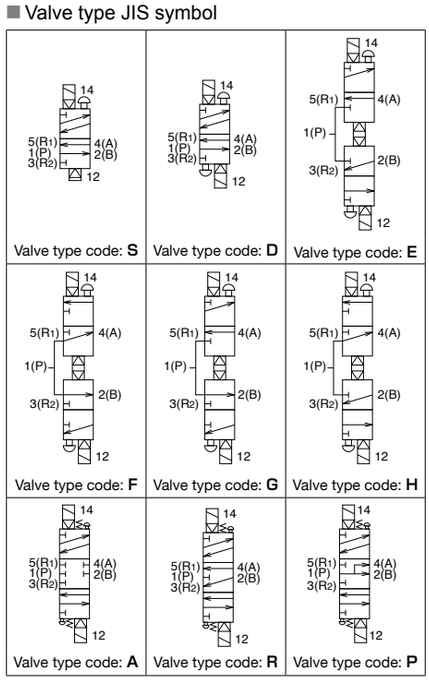
Code	D24	A100
Coil voltage	24VDC	100VAC

* 100VAC valve is no CE marking product.

(4) Wiring type

Code	Wiring type
D	Concentrated wiring (Sub-D connector, Flat cable connector)
S	Individual Plug-in Connector

■ Valve type JIS symbol



Model code of DIN-rail mounting bracket

DRF35S (1)

(1) DIN-rail mounting bracket

Model code of Silencer element

SVR10 (1) EX – E

(1) Solenoid Valve SVR

Model code of Blank Plate (Example)

SVR10 (1) B

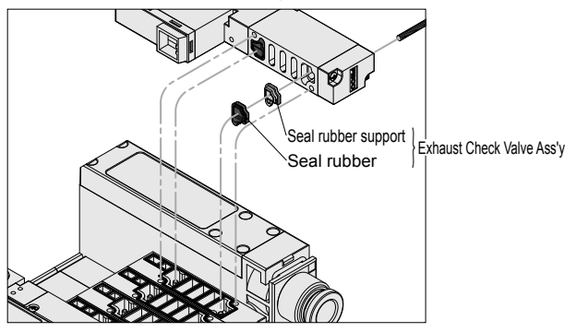
(1) Solenoid Valve SVR

Model code of Exhaust Check Valve

SVR10 (1) – EXV (2)

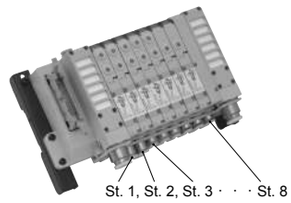
(1) Solenoid Valve SVR

(2) Exhaust Check Valve Ass'y (2 pcs/ set)



Order Example

Model (1)	No. of stations (2)	In. & Ex. block (3)	–	Out-port (4)	In-port (5)	Check valve (6)	Ex-port (7)	–	Wiring (8)	–	Valve (9)	–	Voltage (10)	–	2-press. (11)	DIN rail (12)	Extl. Pilot (13)	–	Elec. Polarity (14)
SVR10	08	A	–	1C	0C		S	–	F	–	K	–	D24	–	P	D	4C	–	



* Station No. is counted as St.1, St.2, St.3 ···St.8 from left side with the tube fittings at the front as shown in the figure above.

Station No.	Out-port	Check valve	Valve		2-press.
St. 1	6		SVR10	D	
St. 2	6		SVR10	D	○
St. 3	4	A	SVR10	D	
St. 4	4	A	SVR10	D	
St. 5	4	A	SVR10	D	
St. 6	3		SVR10	S	
St. 7	3		SVR10	S	
St. 8	3		SVR10	B	

Cut here

SVR10 Solenoid Valve Specification Order Form

To: NIHON PISCO Co.,Ltd.

Person in charge: _____

Distributor/Dealer address: _____ TEL _____

Delivery address: _____ TEL _____

Customer address: _____ TEL _____

Requested EX-W PISCO Date: _____ Quantity _____ pcs

Model (1)	No. of stations (2)	In. & Ex. block (3)	–	Out-port (4)	In-port (5)	Check valve (6)	Ex-port (7)	–	Wiring (8)	–	Valve (9)	–	Voltage (10)	–	2-press. (11)	DIN rail (12)	Extl. Pilot (13)	–	Elec. Polarity (14)
SVR10			–					–		–		–		–				–	

Station No.	Out-port	Check valve	Valve		2-press.
St. 1			SVR10		
St. 2			SVR10		
St. 3			SVR10		
St. 4			SVR10		
St. 5			SVR10		
St. 6			SVR10		
St. 7			SVR10		
St. 8			SVR10		
St. 9			SVR10		
St. 10			SVR10		
St. 11			SVR10		
St. 12			SVR10		
St. 13			SVR10		
St. 14			SVR10		
St. 15			SVR10		
St. 16			SVR10		
St. 17			SVR10		
St. 18			SVR10		
St. 19			SVR10		
St. 20			SVR10		

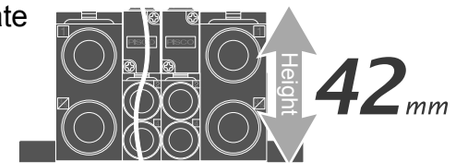
* (6). Check valve is not selectable when Blank plate is selected in (9). Valve type.

Solenoid Valve SVR

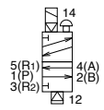
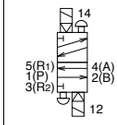
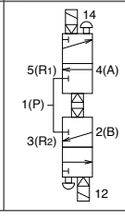
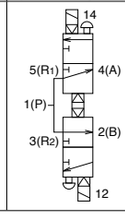
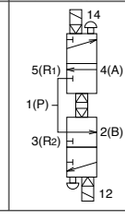
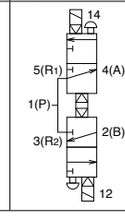
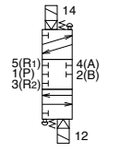
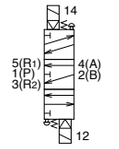
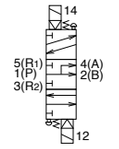
Characteristics

Compact body, but securing high flow rate

Suitable to be installed in limited space.



9 types of valves

Code▸**S**	Code▸**D**	Code▸**E**	Code▸**F**	Code▸**G**	Code▸**H**	Code▸**A**	Code▸**R**	Code▸**P**
5 ports 2 positions		3 ports 2 positions				5 ports 3 positions		
Single solenoid valve	Double solenoid valve	4 (A), 2 (B) port: Normally Closed (Twin 3-Way Valve)	4 (A), 2 (B) port: Normally Open (Twin 3-Way Valve)	4 (A) port: Normally Closed, 2 (B) port: Normally Open (Twin 3-Way Valve)	4 (A) port: Normally Open, 2 (B) port:. Normally Closed (Twin 3-Way Valve)	Closed Center	Exhaust Center	Pressure Center
								

Twin 3-way valve can reduce No. of manifold stations and contributes to space-saving.

Suitable for applications where 3-way valve is often used, such as air operated-valve and single acting cylinder.

Centralized wire harness makes manifold piping easy.

Sub-D connector and Flat cable (ribbon-cable) connector are available.

Easy exchange of input and output port fitings.

Cartridge fitting replacement is simple to do and just requires you to remove the lock pin.

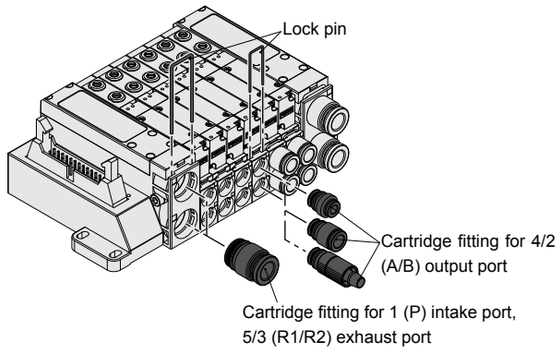
■Cartridge fitting for 1 (P) intake port, 5/3 (R1/R2) exhaust port

mm size			inch size		
ø6mm	ø8mm	ø10mm	ø1/4"	ø5/16"	ø3/8"

■Cartridge fittings for 4/2(A/B) output ports

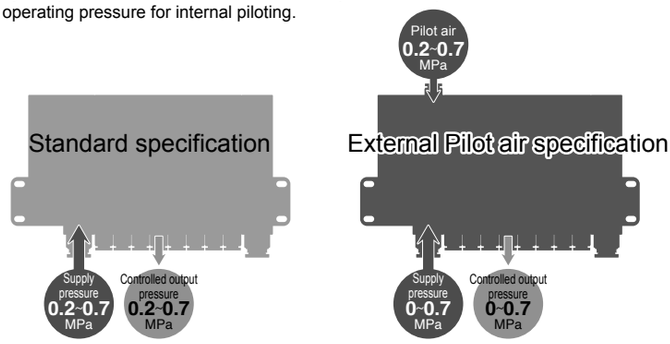
mm size					inch size			
ø1.8mm	ø3mm	ø4mm	ø6mm	ø8mm (*)	ø1/8"	ø5/32"	ø1/4"	ø5/16" (*)

* Compression fitting for urethane tube



Serviceable from 0 MPa operating pressure.

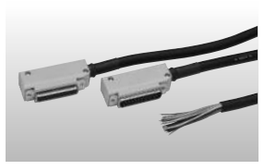
It can be used for application at low-pressures down to 0 MPa which is realized by independent external pilot while normal operatoins require at least 0.2 MPa operating pressure for internal piloting.



Exhaust check valve prevents malfunction of an actuator.

When using SVR with multiple manifold stations, exhaust check valve prevents malfunction of actuators, caused by a surge pressure in exhaust circuit when switching a valve.

Related products



Sub-D connector

► P.246

Specifications

■ Manifold specifications

Item \ Model		SVR10 □□-□-D	SVR10 □□-□-F	SVR10 □□-□-S
		Sub-D connector	Flat cable connector	Individual plug-in connector
Fluid medium		Air		
Operating pressure range		0.2 to 0.7 MPa (With external pilot air port: 0 to 0.7 MPa(*)) Pressure range of external pilot air port: 0.2 to 0.7 MPa		
Proof pressure		1.05MPa		
Operating temp. range		5 to 50°C		
Installing direction		Universal		
Vibration resistance		49m/s²		
Impact resistance		150m/s²		
No. of mountable main valve		Max 12pcs.		Max 20pcs.
Wiring type	Type	Sub-D	Flat cable	Individual plug-in
	No. of pins	2 to 4St.: 9pins	2 to 4St.: 10pins	3 pins
		5 to 12St.: 25pins	5 to 9St.: 20pins	
			10 to 12St.: 26pins	
Silencer		Standard equipment only with silencer exhaust 5 (R1) and 3 (R2) port.		

* When twin 3-way valve is mounted, 0.2 to 0.7 MPa.

■ Cylinder Speed Table

Cylinder speed (mm/s)	Cylinder tube bore(mm)						
	ø20	ø25	ø32	ø40	ø50	ø63	ø80
100	■	■	■	■	■	■	■
200	■	■	■	■	■		
300	■	■	■	■			
400	■	■	■				
500	■	■	■				
600	■	■					
700	■	■					
800	■						

*1 The cylinder average speed is referential at 0.5 MPa of pressure, 30% of load factor and 1 m of tube length.
*2 The cylinder speed can vary according to the configuration of piping and fittings.
*3 The data in the above table represents the value when ø6mm Push-in fitting is used on 4 (A) and 2 (B) ports of SVR10D.

■ Main valve specifications

Item \ Model		SVR10S	SVR10D	SVR10A SVR10R SVR10P	SVR10E SVR10F SVR10G SVR10H
Operating system		Pilot-operated			
Valve structure		Rubber seal, Spool valve			
No. of positions		2 positions		3 positions	2 positions
No. of ports		5 ports			3 ports×2
Valve function		Single	Double		Single×2
No. of pilot points		1	2		
Response time(*1)	→ON	11msec	8msec	10msec(*2)	12msec
	→OFF	6msec	−	15msec(*2)	11msec
Max. operation cycle		5Hz			
Min. excitation time		−	50msec	−	−
Vibration resistance		49m/s²			
Impact resistance		150m/s²			
Lubrication		Not required			
Operating pressure range		0.2 to 0.7 MPa (With external pilot air port: 0 to 0.7 MPa) (*3)			

*1. The value at supply air: 0.5 MPa with 24 VDC.
*2. Response time for 3-Position represents the value from Neutral Position to ON and from ON to Neutral Position (OFF).
*3. When twin 3-way valve is mounted, 0.2 to 0.7 MPa.

■ Pilot valve specifications

Item \ Rated voltage	24VDC	100VAC
Operating system	Direct acting	
Valve structure	Rubber seal, Poppet valve	
Tolerance of voltage range	21.6 to 26.4VDC	90 to 110VAC
Power consumption (With indication lamp)	0.7W	1.25VA
Surge protection circuit	Surge absorber	Bridge diode
Manual override	Push-lock button	
Max. operating pressure	0.7MPa	
Indication lamp	LED (4(A): Green, 2(B): Red)	

■ Effective sectional area

Piping spec. \ Model		SVR10S-□ SVR10D-□		SVR10A-□		SVR10R-□		SVR10P-□		SVR10E-□ SVR10G-□ (NC) SVR10H-□ (NC)		SVR10F-□ SVR10G-□ (NO) SVR10H-□ (NO)	
	Output port size	S(*3)	Cv	S(*3)	Cv	S(*3)	Cv	S(*3)	Cv	S(*3)	Cv	S(*3)	Cv
1(P)→4(A), 2(B)	ø8(*1)	6.0	0.33	4.7	0.25	4.7	0.25	6.8	0.37	3.5	0.19	5.9	0.32
	ø6	6.0	0.33	4.7	0.25	4.7	0.25	6.8	0.37	3.5	0.19	5.9	0.32
	ø4	4.0	0.22	3.8	0.21	3.8	0.21	4.3	0.23	3.3	0.18	4.0	0.22
	ø3	2.6	0.14	2.6	0.14	2.6	0.14	2.6	0.14	2.6	0.14	2.6	0.14
	ø1.8	1.1	0.06	1.1	0.06	1.1	0.06	1.1	0.06	1.1	0.06	1.1	0.06
4(A), 2(B)→ 5(R1), 3(R2) Without Exhaust check valve (*2)	ø8	5.6	0.30	3.6	0.20	6.7	0.36	3.6	0.20	5.1	0.28	5.1	0.28
	ø6	5.6	0.30	3.6	0.20	6.7	0.36	3.6	0.20	5.1	0.28	5.1	0.28
	ø4	3.6	0.20	3.3	0.18	4.3	0.23	3.3	0.18	4.0	0.22	4.0	0.22
	ø3	2.1	0.11	2.1	0.11	2.1	0.11	2.1	0.11	2.1	0.11	2.1	0.11
	ø1.8	0.5	0.03	0.5	0.03	0.5	0.03	0.5	0.03	0.5	0.03	0.5	0.03
4(A), 2(B)→ 5(R1), 3(R2) With Exhaust check valve (*2)	ø8	3.6	0.20	3.1	0.17	3.6	0.20	3.1	0.17	3.5	0.19	3.5	0.19
	ø6	3.6	0.20	3.1	0.17	3.6	0.20	3.1	0.17	3.5	0.19	3.5	0.19
	ø4	2.9	0.16	2.9	0.16	3.4	0.18	2.9	0.16	3.1	0.17	3.1	0.17
	ø3	2.1	0.11	2.1	0.11	2.1	0.11	2.1	0.11	2.1	0.11	2.1	0.11
	ø1.8	0.5	0.03	0.5	0.03	0.5	0.03	0.5	0.03	0.5	0.03	0.5	0.03

*1 The value of a compression fitting
*2 The value of 5/3 (R1/R2) with dia. 10mm fitting
*3 S: Effective Sectional Area (mm²)
*4 Refer to the effective sectional area of dia. 3mm for inch port size of dia. 1/8", refer to dia. 4mm for dia. 5/32", dia 6mm for 1/4" refer to dia. 8mm for dia . 5/16" respectively.

Solenoid Valve SVR

RoHS2 (2011/65/EU+EU2015/863) compliant CE (*3)

Sub-D connector type

Type	Model code	Type	Model code
Intake & Exhaust block on both sides (Tube exhaust)	SVR10②A-④⑤⑦-D-⑨-⑩-⑪⑫⑬-⑭	IIntake & Exhaust block on one side (Tube exhaust)	SVR10②B-④⑤⑦-D-⑨-⑩-⑪⑫⑬-⑭

Type	Model code	Type	Model code
Intake & Exhaust block on both sides (Silencer exhaust)	SVR10②A-④⑤S-D-⑨-⑩-⑪⑫⑬-⑭	Intake & Exhaust block on one side (Silencer exhaust)	SVR10②B-④⑤S-D-⑨-⑩-⑪⑫⑬-⑭

Individual Plug-in Connector type

Type	Model code	Type	Model code
Intake & Exhaust block on both sides (Tube exhaust)	SVR10②A-④⑤⑦-S-⑨-⑩-⑪⑫⑬-⑭	Intake & Exhaust block on one side (Tube exhaust)	SVR10②B-④⑤⑦-S-⑨-⑩-⑪⑫⑬-⑭

Type	Model code	Type	Model code
Intake & Exhaust block on both sides (Silencer exhaust)	SVR10②A-④⑤S-S-⑨-⑩-⑪⑫⑬-⑭	Intake & Exhaust block on one side (Silencerr exhaust)	SVR10②B-④⑤S-S-⑨-⑩-⑪⑫⑬-⑭

Flat cable (ribbon-cable) connector type

Type	Model code	Type	Model code
Intake & Exhaust block on both sides (Tube exhaust)	SVR10②A-④⑤⑦-F-⑨-⑩-⑪⑫⑬-⑭	Intake & Exhaust block on one side (Tube exhaust)	SVR10②B-④⑤⑦-F-⑨-⑩-⑪⑫⑬-⑭

Type	Model code	Type	Model code
Intake & Exhaust block on both sides (Silencer exhaust)	SVR10②A-④⑤S-F-⑨-⑩-⑪⑫⑬-⑭	In. & Ex. block on one side (Silencer exhaust)	SVR10②B-④⑤S-F-⑨-⑩-⑪⑫⑬-⑭

Notes

*1. No. of manifold stations and valve type in pictures above are just examples.

*2. Please select each code referring to the example of model designation on page 238 to 239. ②: Number of stations, ④: Output port size code, ⑤: Intake port size code, ⑦: Exhaust port size code, ⑨: Valve type code, ⑩ : Voltage code, ⑪ : Dual pressure option code, ⑫ : DIN rail bracket code, and ⑬ : External pilot air code.

*3. 100VAC valve and negative common type are no CE marking products.

Packaging specifications

1 pc. /bag

RoHS2 (2011/65/EU+EU2015/863) compliant

DIN-rail mounting bracket

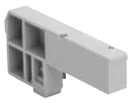
Type	Model code
DIN-rail mounting bracket	DRF35S

DRF

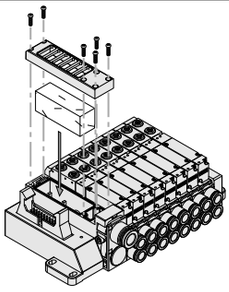
Blank Plate

Type	Model code
Blank Plate	SVR10B

SVR10B

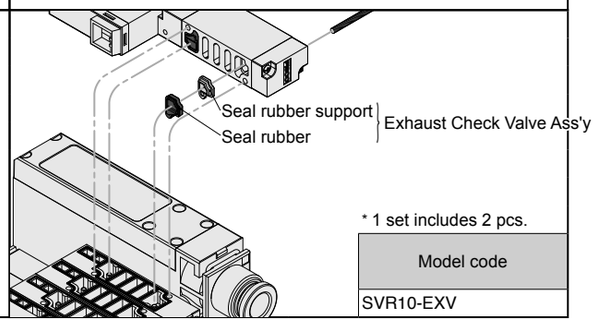


Silencer element



Model code
SVR10EX-E

Exhaust Check Valve Ass'y



* 1 set includes 2 pcs.

Model code
SVR10-EXV

Notes
* Replacement of Silencer element is possible only when a exhaust port is open-air type with a silencer.

Packaging specifications
1 pc. /bag : Blank plate
2 pcs. /bag: DIN rail bracket
10 sets/bag: Silencer element
1 set (2 pcs.) /bag: Exhaust check valve ass'y

Sub-D Connector

Centralized wiring Connector for SVA, SVR, VZ, VZP

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

DS (1) S (2) – 9 (3) F (4) W (5) – 100 (6) – S

(1) Sub-D connector

(2) Type

Code	S	P
Type	Socket	Pin

(3) No. of pins

Code	9	25
No. of pins	9 pins	25 pins

(4) Cable lead-out direction

Code	F	R
Direction	Fitting side	Manifold side

(5) Body color
W: Light gray

(6) Cable length

Code	100	200
Length(cm)	100	200

* Other lengths are available as make to order.

Model Designation of Connector Case (Example)

DSC (1) – 9 (2) – W (3)

(1) Connector Case for Sub-D Connector

(2) No. of pins

Code	9	25
No. of pins	9 Pins	25 Pins

(3) Body color
W: Light gray

Model Designation of Cable only (Example)

PCVV (1) 9 (2) – 100 (3)

(1) Cable for Sub-D Connector

(2) No. of pins

Code	9	25
No. of pins	9 Pins	25 Pins

(3) Cable length
100: 100cm

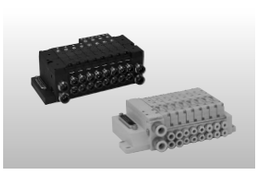
Characteristics

Lead-Out Direction of cable is selectable.

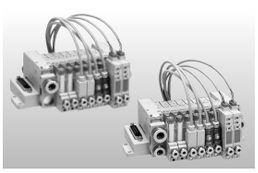
Space-efficient low-profile connector housing perfectly fits into SVR valve manifolds, other manifold-type PISCO products as well.

Applicable PISCO products : Solenoid valve SVR, SVA,
Vacuum generator VZ
External vacuum controller VZP

Related product



Solenoid valve SVA► P.228
Solenoid valve SVR► P.238



Vacuum generator VZ► P.311
External vacuum controller VZP► P.350

Specifications

No. of cores		9	25
Conductor	Size	0.3 mm	
	Material	Annealed copper strand wire	
	Structures	60 pcs/0.08 mm	
	Outer diameter	0.72 mm	
Insulator	Material	Semi-hard vinyl	
	Structures	0.25 mm	
	Outer diameter	1.2 mm	
Sheath	Material	Soft vinyl	
	Thickness	1 mm	
	Color	Black	
Rated voltage		60VAC or 60VDC	
Rated temperature		75 °C	
Finished O.D (approx.)		6.3 mm	9.3 mm
Approx. weight		60 kg/km	135 kg/km
Max. conductor resistance (20°C)		63.7 Ω/km	
Withstand voltage		350VAC or 500VDC (1 min.)	
Min. insulation resistance (20°C)		50 MΩ·km	

Wire Color / Terminal No.

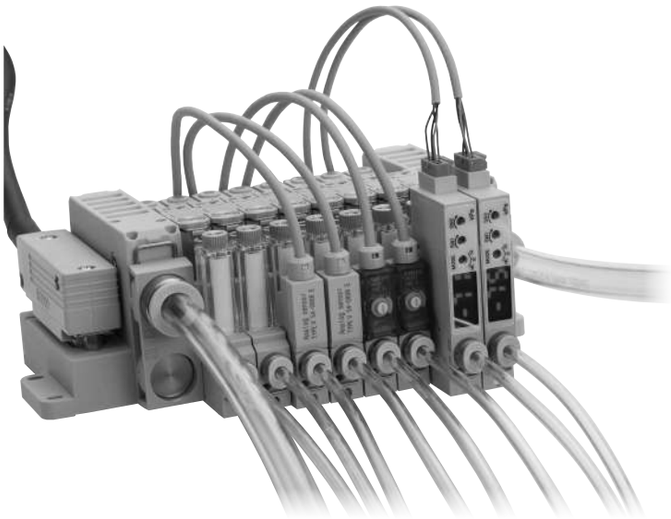
Terminal No.	Insulator color	Printing Mark
1	Black	(No marking)
2	Brown	(No marking)
3	Red	(No marking)
4	Orange	(No marking)
5	Yellow	(No marking)
6	Pink	(No marking)
7	Blue	(No marking)
8	Purple	White Dot
9	Gray	Black Dot
10	White	Black Dot
11	White	Red Dot
12	Yellow	Red Dot
13	Orange	Red Dot
14	Yellow	Black Dot
15	Pink	Black Dot
16	Blue	White Dot
17	Purple	(No marking)
18	Gray	(No marking)
19	Orange	Black Dot
20	Red	White Dot
21	Brown	White Dot
22	Pink	Red Dot
23	Gray	Red Dot
24	Black	White Dot
25	White	(No marking)

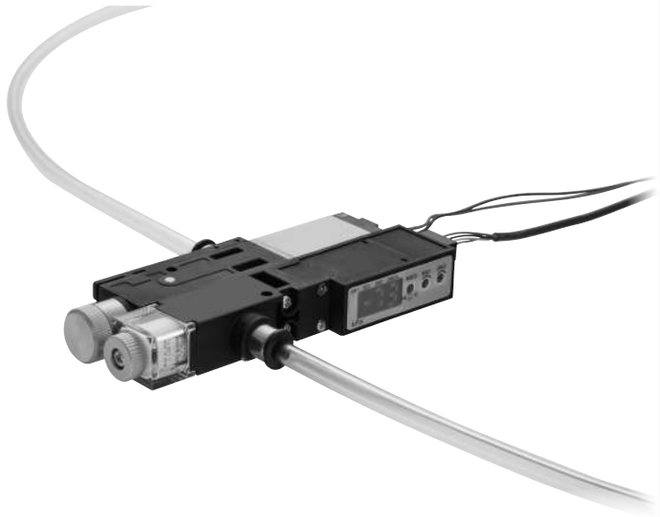
RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code	Connector Case Only	Cable only
Socket Pin DSS DSP	DSP-9④W-100-S	Model code	Model code
	DSP-9④W-200-S		
	DSP-25④W-100-S	DSC-9-W	PCVV9-100
	DSP-25④W-200-S	DSC-25-W	PCVV25-100
	DSS-9④W-100-S		
	DSS-9④W-200-S		
	DSS-25④W-100-S		
	DSS-25④W-200-S		

Notes
* For ④ in model code, please select a code for cable lead-out direction.

Packaging specifications
1 pc. /bag





Vacuum

Vacuum equipment

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Renewal Renewal product

Vacuum Generator

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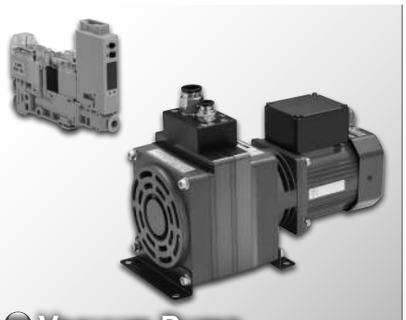

Vacuum Pump

Vacuum Pump
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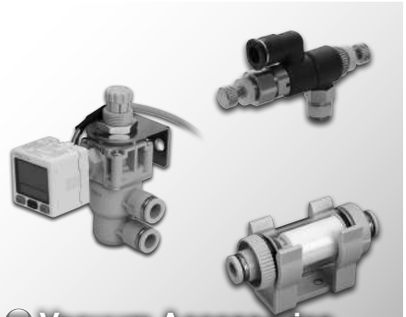

Vacuum Accessories

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Vacuum Pressure Controller
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Vacuum Generator Simple type

Simple type ejectors meet various piping conditions.

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model designation of VH & VS Type (Valve direct mounting Type) (Example)

V	H	H	07	-	6	01			
(1)	(2)	(3)	(4)		(5)	(6)	(7)	(8)	(9)

(1) Vacuum Generator Simple type

(2) Type

Code	H	S
Type	Valve direct mounting type elbow	Valve direct mounting type straight

(3) Vacuum Characteristics

Code	H	L	E
Characteristics	High-vacuum type (Rated supply pressure: 0.5 MPa)	Large-flow type (Rated supply pressure: 0.5 MPa)	High-vacuum at Low air pressure supply type (Rated supply pressure: 0.35 MPa)

(4) Nozzle bore

Code	Bore (mm)	H type		L type		E type	
		Vacuum level	Suction flow	Vacuum level	Suction flow	Vacuum level	Suction flow
05	0.5	-90 kPa	7 ℓ/min (ANR)	-66 kPa	12 ℓ/min (ANR)	–	–
07	0.7	-93 kPa	13 ℓ/min (ANR)	-66 kPa	26 ℓ/min (ANR)	-92 kPa	10.5 ℓ/min (ANR)
10	1.0	-93 kPa	28 ℓ/min (ANR)	-66 kPa	42 ℓ/min (ANR)	-92 kPa	21 ℓ/min (ANR)
12	1.2	-93 kPa	38 ℓ/min (ANR)	–	–	-92 kPa	27 ℓ/min (ANR)
15	1.5	-93 kPa	63 ℓ/min (ANR)	-66 kPa	95 ℓ/min (ANR)	-92 kPa	42 ℓ/min (ANR)
20	2.0	-93 kPa	104 ℓ/min (ANR)	-66 kPa	174 ℓ/min (ANR)	-92 kPa	82 ℓ/min (ANR)

*1. Rated supply pressure (H & L type: 0.5 MPa, E type: 0.35 MPa) is applied.
*2. The suction flow in the table is representing value and varies by vacuum port size. For details, contact us.

(5) Vacuum port size (V)

	mm size (mm)					Inch size (inch)				
Code	4	6	8	10	12	5/32	1/4	5/16	3/8	1/2
Tube dia.	ø4	ø6	ø8	ø10	ø12	ø5/32	ø1/4	ø5/16	ø3/8	ø1/2

(6) Air supply port size (P)

	Metric thread	Taper pipe thread			UNF thread	National pipe thread tapered		
Code	M5	01	02	03	U10	N1	N2	N3
Thread size	M5×0.8	R1/8	R1/4	R3/8	10-32UNF	NPT1/8	NPT1/4	NPT3/8

(7) Exhaust spec.

Code	No code	J
Specification	Open to air (Silencer vent)	Tube exhaust spec.

(8) -S3 spec. (Metal option)

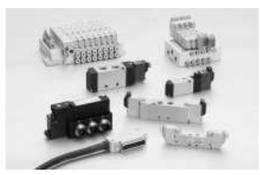
Code	No code	-S3 (*)
Metal material	Standard spec.	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard spec.	HNBR or FKM
Release-ring color	Black	Dark blue

*S3 spec. only supports tube exhaust type.

(9) Wrench size spec.

Code	No code	U
Wrench size spec.	mm spec.	Inch spec.

Related Products



Solenoid Valve Series
► P.214 -

Features of VH & VS Type (Stand-alone Type)

Mountable directly to solenoid valve and manifold.

VH VS

● -S3 spec. (Option)

No copper-based metallic materials used in flow paths.

HNBR or FKM with excellent ozone resistance is used for the seal rubber material.

Model designation of VU & VUM Type (In-Line/pipe Type) (Example)

V (1)	U (2)	H (3)	07 (4)	-	6 (5)	6 (6)	(7)	(8)	(9)

(1) Vacuum Generator Simple type

(2) Type

Code	U	UM
Type	Pipe type	Small-sized pipe type

(3) Vacuum Characteristics

Code	H	L	E
Characteristics	High-vacuum type (Rated supply pressure: 0.5 MPa)	Large-flow type (Rated supply pressure: 0.5 MPa)	High-vacuum at Low air pressure supply type (Rated supply pressure: 0.35 MPa)

(4) Nozzle bore

Code	Bore (mm)	H type		L type		E type	
		Vacuum level	Suction flow	Vacuum level	Suction flow	Vacuum level	Suction flow
03 (*1)	0.3	-90 kPa	2 ℓ/min (ANR)	-66 kPa	3 ℓ/min (ANR)	-88 kPa	1 ℓ/min (ANR)
04 (*1)	0.4	-90 kPa	4 ℓ/min (ANR)	-66 kPa	7 ℓ/min (ANR)	-90 kPa	2 ℓ/min (ANR)
05	0.5	-90 kPa	7 ℓ/min (ANR)	-66 kPa	12 ℓ/min (ANR)	-90 kPa (*3)	3 ℓ/min (ANR) (*3)
07 (*2)	0.7	-92 kPa	12.5 ℓ/min (ANR)	-66 kPa	22 ℓ/min (ANR)	-90 kPa	10 ℓ/min (ANR)

*1. Nozzle bore: 0.3 or 0.4 mm is available only for VUM.
*2. Nozzle bore: 0.7 mm is available only for VU Type.
*3. Nozzle bore: 0.5 mm of E type is available only for VUM.
*4. Rated supply pressure (H & L type: 0.5 MPa, E type: 0.35 MPa) is applied.
*5. The suction flow in the table is representing value and varies by vacuum port size. For details, contact us.

(5) Vacuum port size (V) (No code entry for adapter type)

■ Tube dia.

	mm size (mm)				Inch size (inch)	
Code	180 (*1)	3 (*1)	4	6 (*2)	5/32	1/4 (*2)
Tube dia.	ø1.8	ø3	ø4	ø6	ø5/32	ø1/4

*1. Tube dia. ø1.8 & ø3 mm are available only in VUM type.
*2. Tube dia. 6 mm and 1/4 inch are available only for VU Type.

■ Thread size

	Metric thread			Taper pipe thread	UNF thread	NPT thread
Code	M3 (*1)	M5	M6 (*2)	01 (*2)	U10 (*1)	N1 (*2)
Thread size	M3×0.5	M5×0.8	M6×1	R1/8	10-32UNF	NPT1/8

*1. Thread size: M3 and U10 are available only for VUM type.
*2. Thread size: M6, 01 and N1 are available only for VU type.

(6) Air supply port size (P)

■ Tube dia.

	mm size (mm)			Inch size (inch)	
Code	3 (*1)	4	6 (*2)	5/32	1/4 (*2)
Tube dia.	ø3	ø4	ø6	ø5/32	ø1/4

*1. Applicable tube size: Tube dia. 3 mm is available only for VUM Type.
*2. Applicable tube size: Tube dia. 6 mm and 1/4 inch are available only for VU Type.

(7) Exhaust spec. (No code entry for VUM)

Code	A	J
Specification	Open to air (Silencer vent)	Tube exhaust spec.

*VUM is only for open to air (Silencer vent).

(8) -S3 spec. (Metal option)

Code	No code	-S3 (*)
Metal material	Standard spec.	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard spec.	HNBR or FKM
Release-ring color	Black	Dark blue

*S3 spec. only supports tube exhaust type.

(9) Wrench size spec.

Code	No code	U
Wrench size spec.	mm spec.	Inch spec.

Features of VU & VUM Type (In-Line Type)

- Conversion from compressed air to vacuum is possible in one line.
- Easy installation and removal by use with the optional fixing holder (VUK).

VU

VUM

● -S3 spec. (Option)

- No copper-based metallic materials used in flow paths.
- HNBR or FKM with excellent ozone resistance is used for the seal rubber material.

● VUM type

- Super small-sized and light-weighed vacuum generator.
  Outer diameter: ø8.5 mm. Weight: Min. 6.4 g.
- It fits to request for less air consumption.
- This type can be directly mounted on the small pad holder (VPMB).

Vacuum Generator Simple type

Model designation for VB Type (In-Line/boxed Type) (Example)

V (1) **B** (2) **H** (3) **07** (4) – **6** (5) **6** (6) (7)

(1) Vacuum Generator Simple type

(2) Type

Code	B
Type	Boxed Type

(3) Vacuum Characteristics

Code	H	L	E
Characteristics	High-vacuum type (Rated supply pressure: 0.5 MPa)	Large-flow type (Rated supply pressure: 0.5 MPa)	High-vacuum at Low air pressure supply type (Rated supply pressure: 0.35 MPa)

(4) Nozzle bore

Code	Bore (mm)	H type		L type		E type	
		Vacuum level	Suction flow	Vacuum level	Suction flow	Vacuum level	Suction flow
05	0.5	-90 kPa	7 ℓ/min (ANR)	-66 kPa	12 ℓ/min (ANR)	–	–
07	0.7	-93 kPa	13 ℓ/min (ANR)	-66 kPa	26 ℓ/min (ANR)	-92 kPa	10.5 ℓ/min (ANR)
10	1.0	-93 kPa	28 ℓ/min (ANR)	-66 kPa	42 ℓ/min (ANR)	-92 kPa	21 ℓ/min (ANR)
12	1.2	-9 3kPa	38 ℓ/min (ANR)	–	–	-92 kPa	27 ℓ/min (ANR)

*1. Rated supply pressure (H & L type: 0.5 MPa, E type: 0.35 MPa) is applied.
*2. The suction flow in the table is representing value and varies by vacuum port size. For details, contact us.

(5) Vacuum port size (V)

	mm size (mm)		Inch size (inch)	
Code	**4**	**6**	**5/32**	**1/4**
Tube dia.	ø4	ø6	ø5/32	ø1/4

(6) Air supply port size (P)

	mm size (mm)		Inch size (inch)	
Code	**4**	**6**	**5/32**	**1/4**
Tube dia.	ø4	ø6	ø5/32	ø1/4

(7) Mechanical pressure sensor

Code	P	S
Pressure Sensor	Not Equipped	Equipped

Model designation for Mechanical Pressure Sensor for VB Type (Example)

VUSM10 (1) – **6** (2)

(1) Mechanical Pressure Sensor for vacuum generator VB

(2) Air supply port size (øD)

	mm size (mm)		Inch size (inch)	
Code	**4**	**6**	**5/32**	**1/4**
Tube dia.	ø4	ø6	ø5/32	ø1/4

Features of VB Type (Boxed type)

- Can be mounted in the middle of piping between the solenoid valve and the vacuum pad.
- A type integrated with a Mechanical Vacuum Sensor is also available.

VB

Model designation for VC & VM Type (Direct Mounting Vacuum pad holder) (Example)

V	C	H	07	–	01	6			
(1)	(2)	(3)	(4)		(5)	(6)	(7)	(8)	(9)

(1) Vacuum Generator Simple type

(2) Type

Code	C	M
Type	Vacuum pad Direct Mounting Type Straight	Vacuum pad Direct Mounting Type Elbow

(3) Vacuum Characteristics

Code	H	L	E
Characteristics	High-vacuum type (Rated supply pressure: 0.5 MPa)	Large-flow type (Rated supply pressure: 0.5 MPa)	High-vacuum at Low air pressure supply type (Rated supply pressure: 0.35 MPa)

(4) Nozzle bore

Code	Bore (mm)	H type		L type		E type	
		Vacuum level	Suction flow	Vacuum level	Suction flow	Vacuum level	Suction flow
03	0.3	-90 kPa	2 ℓ/min (ANR)	-66 kPa	4 ℓ/min (ANR)	–	–
04	0.4	-90 kPa	4 ℓ/min (ANR)	-66 kPa	7.5 ℓ/min (ANR)	–	–
05	0.5	-90 kPa	7 ℓ/min (ANR)	-66 kPa	11 ℓ/min (ANR)	–	–
07	0.7	-93 kPa	13 ℓ/min (ANR)	-66 kPa	26 ℓ/min (ANR)	-92 kPa	10.5 ℓ/min (ANR)
10	1.0	-93 kPa	28 ℓ/min (ANR)	-66 kPa	42 ℓ/min (ANR)	-92 kPa	21 ℓ/min (ANR)
12	1.2	-93 kPa	38 ℓ/min (ANR)	–	–	-92 kPa	27 ℓ/min (ANR)
15	1.5	-93 kPa	63 ℓ/min (ANR)	-66 kPa	95 ℓ/min (ANR)	-92 kPa	42 ℓ/min (ANR)
20	2.0	-93 kPa	110 ℓ/min (ANR)	-66 kPa	180 ℓ/min (ANR)	-92 kPa	84 ℓ/min (ANR)

*1. VM only has nozzle bore: 03, 04 and 05.
*2 .Rated supply pressure (H & L type: 0.5 MPa, E type: 0.35 MPa) is applied.
*3. The suction flow in the table is representing value and varies by vacuum port size. For details, contact us.

(5) Vacuum port size (V)

Code	Metric thread		Taper pipe thread			UNF thread	National pipe thread tapered		
	M5 (*)	M6 (*)	01	02	03	U10 (*)	N1	N2	N3
Thread size	M5×0.8	M6×1	R1/8	R1/4	R3/8	10-32UNF	NPT1/8	NPT1/4	NPT3/8

*Applicable thread sizes: M5, M6 are only VC nozzle bore 0.3 mm, 0.4 mm and 0.5 mm Type and VM. Thread size: U10 is available only for VC and VM type with nozzle bore 0.5 mm.

(6) Air supply port size (P)

Code		mm size (mm)		Inch size (inch)	mm size (mm)			Inch size (inch)		
	Straight	3(*)	4 (*)	5/32 (*)	6C	8C	10C	1/4C	5/16C	3/8C
	Elbow	—	—	—	6L	8L	10L	1/4L	5/16L	3/8L
Tube dia.		ø3	ø4	ø5/32	ø6	ø8	ø10	ø1/4	ø5/16	ø3/8

*Tube O.D. 3 and 4 mm are only VC nozzle bore 0.3 mm, 0.4 mm and 0.5 mm Type and VM. Tube O.D. 5/32 inch is available only for VC and VM type with nozzle bore 0.5 mm.

(7) Exhaust spec. (No code entry for VM)

Code	No code	J
Specification	Open to air (Silencer vent)	Tube exhaust spec.

*VM is only for open to air (Silencer vent).

(8) -S3 spec. (Metal option)

Code	No code	-S3 (*)
Metal material	Standard spec.	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard spec.	HNBR or FKM
Release-ring color	Black	Dark blue

*S3 spec. only supports tube exhaust type.

(9) Wrench size spec.

Code	No code	U
Wrench size spec.	mm spec.	Inch spec.

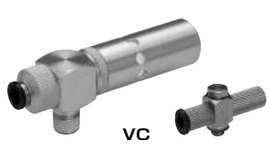
Related Products

Vacuum Pad Series
► P.369 -

Features of VC & VM Type (for Direct Mounting Vacuum pad holder)

Mountable directly on the pad holder of the vacuum pad.

Small metering nozzle to meet the need for low flow consumption: nozzle bore 0.3 and 0.4 mm also available.


VC

VM

● -S3 spec. (Option)

No copper-based metallic materials used in flow paths.

HNBR or FKM with excellent ozone resistance is used for the seal rubber material.

Vacuum Generator Simple type

2in1 Product

Model designation for VY Type (with Blow-Off Mechanism (Vacuum break function)) (Example)

V (1) Y (2) H (3) 07 (4) - 6 (5) 6 (6) 6 (7) (8) (9)

(1) Vacuum Generator Simple type

(2) Type

Y: Blow-off mechanism equipped type

(3) Vacuum Characteristics

Code	H	L	E
Characteristics	High-vacuum type (Rated supply pressure: 0.5 MPa)	Large-flow type (Rated supply pressure: 0.5 MPa)	High-vacuum at Low air pressure supply type (Rated supply pressure: 0.35 MPa)

(4) Nozzle bore

Code	Bore (mm)	H type		L type		E type	
		Vacuum level	Suction flow	Vacuum level	Suction flow	Vacuum level	Suction flow
05	0.5	-90 kPa	7 ℓ/min (ANR)	-66 kPa	12 ℓ/min (ANR)	-90 kPa	3 ℓ/min (ANR)
07	0.7	-92 kPa	12.5 ℓ/min (ANR)	-66 kPa	18 ℓ/min (ANR) (*1) 21 ℓ/min (ANR) (*2)	-90 kPa	9 ℓ/min (ANR)

*1. When the Tube dia. is 4 mm
*2. When the Tube dia. is 6 mm
*3. Rated supply pressure (H & L type: 0.5 MPa, E type: 0.35 MPa) is applied.
*4. The suction flow in the table is representing value and varies by vacuum port size. For details, contact us.

(5) Vacuum port size (V)

	mm size (mm)		Inch size (inch)
Code	4	6	1/4
Tube dia.	ø4	ø6	ø1/4

*VY Type tube size can only be combined with all ports of the same dia.

(6) Air supply port size (P)

	mm size (mm)		Inch size (inch)
Code	4	6	1/4
Tube dia.	ø4	ø6	ø1/4

(7) Blow-off air supply port (PD)

	mm size (mm)		Inch size (inch)
Code	4	6	1/4
Tube dia.	ø4	ø6	ø1/4

(8) Exhaust spec.

Code	No code	J
Specification	Silencer vent	Tube exhaust (ø6 mm or ø1/4" Push-in fitting)

(9) Filter

Code	No code	F
Vacuum filter	Not equipped	Equipped

Model designation of Vacuum Filter for VY (Example)

VYF (1) 6 (2) 6 (3) M

(1) Vacuum filter for VY Type

(2) (3) Vacuum port size (øD1, øD2)

	mm size (mm)		Inch size (inch)
Code	4	6	1/4
Tube dia.	ø4	ø6	ø1/4

Model designation of Bracket for VY Type

VYB11 (1)

(1) Bracket for VY Type

Features of VY Type (with Blow-Off Mechanism (Vacuum break function))

Blow-off mechanism is incorporated to ejector.

Switchover from vacuum generation to blow-off air is possible by applying or stopping supply air to ejector. This function ensures more reliable vacuum breaking compared to conventional vacuum generator unitasking types. (See next page for piping example.)

VY

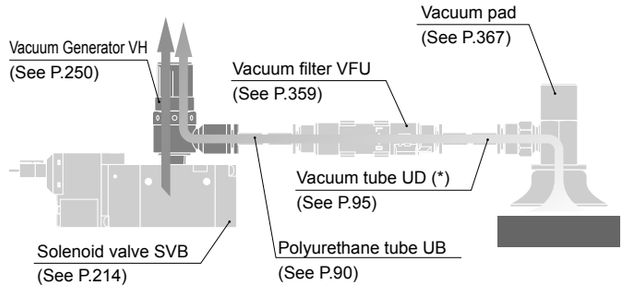
Greatly improved price compared to conventional vacuum generators with solenoid valve.

Small size and lightweight. Installation at the end of vacuum circuit is possible.

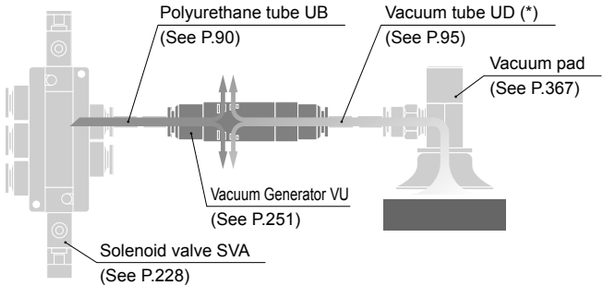
High cycle of suction and blow-off is realized by the equipped shut-off valve.

Piping example

■ Valve Direct Mounting Type: VH, VS



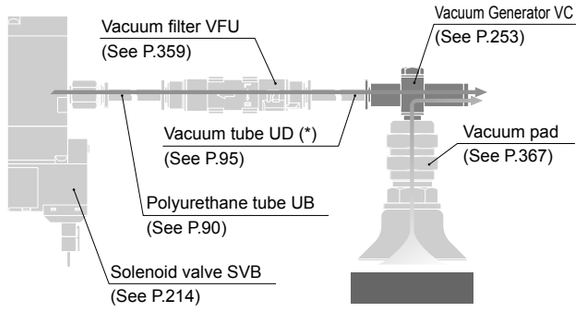
■ In-Line Type: VU, VUM



Compressed air

Vacuum

■ Vacuum pad Direct Mounting Type: VC, VM

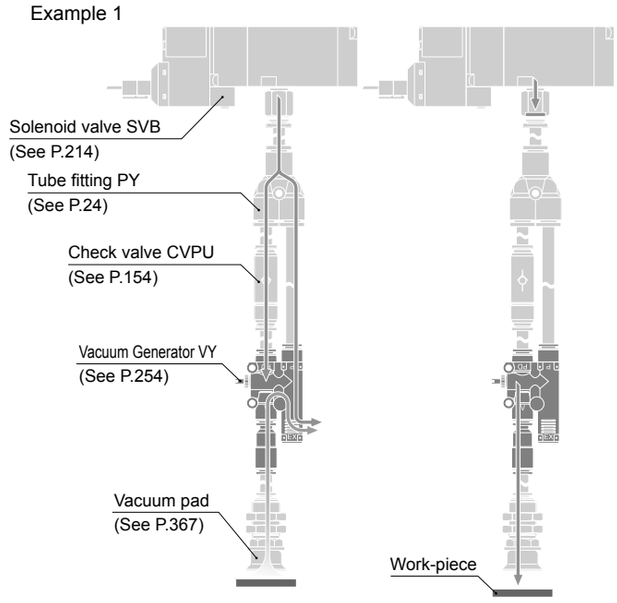


*Be sure to place Insert Ring (WR) into the tube edge when using Vacuum tube UD.

The Vacuum Generator, creating vacuum by use of compressed air, can be used to convey work-pieces in combination with a Vacuum Pad.

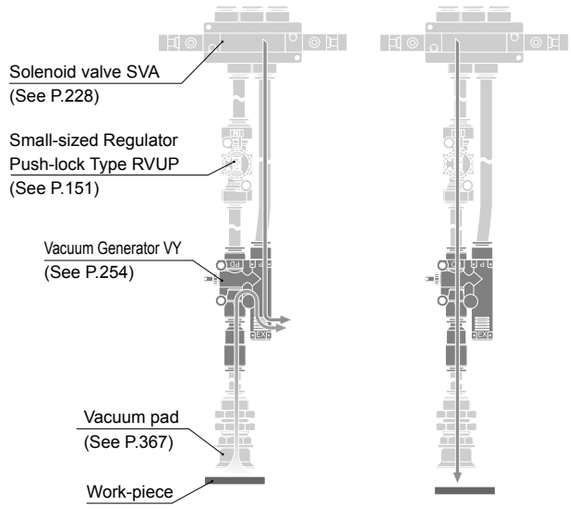
■ Blow-off mechanism equipped type: VY

Example 1



Connect P Port and PD Port with Check Valve (Purchase separately). The residual pressure between Check Valve and PD Port turns into a blow-off air. The flow rate of the blow-off air is adjusted by a release needle. Blow-off time can be controlled by the tube length between Check Valve and PD Port.

Example 2. Use with Twin 3-way solenoid valve (SVA21E)



Work-piece can be released instantly by adjusting a blow-off pressure and a flow rate. But it is necessary to pay attention not to blow away the work-piece. The above figure shows an example to arrange the different pressure supplies to vacuum generation side and Blow-Off Mechanism side when a blow-off pressure needs to be controlled low (Pressure to vacuum generation side ≧ Pressure to Blow-Off Mechanism side). A Blow-off air flow rate is adjusted by the release needle. Blow-off time is controlled by the solenoid valve.

Vacuum Generator Simple type

Specifications

■ VH, VS, VU, VUM, VB, VC, VM Type

Fluid medium	Air	
Operating pressure range	0.15 to 0.7 MPa	
Rated supply pressure	0.5 MPa: H, L Type	0.35 MPa: E Type
Operating temp. range	0 to 60°C (No freezing)	

■ Mechanical Pressure Sensor for VB

Pressure detection	Diaphragm to microswitch
Fluid medium	Air
Operating temp. range	0 to 60°C (No freezing)
Microswitch rating	3 A 250 V
Pressure setting range	-20 to -66 kPa
Accuracy	±5 kPa
Differential response	Max. 22 kPa
Factory default pressure	Approx. -50 kPa
Lead wire	Length: Approx. 300mm White: COMMON, Red: N.C., Black: N.O.

■ VY Type

Fluid medium	Air	
Operating pressure range	0.3 to 0.7 MPa	
Rated supply pressure	0.5 MPa: H, L Type	0.35 MPa: E Type
Operating temp. range	5 to 50°C	
Lubrication	Not required	

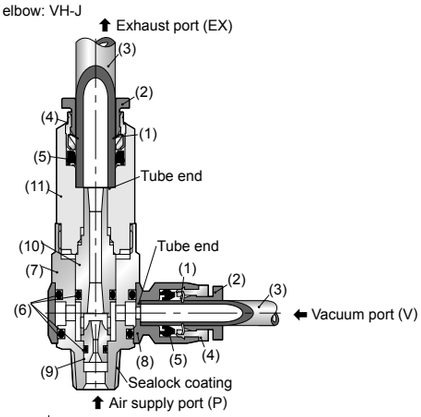
■ Vacuum filter for VY

Fluid medium	Air
Operating pressure range	-100 to 0 kPa
Filtering accuracy(*)	5 µm (Trapping efficiency: 95%)
Operating temp. range	0 to 60°C (No freezing)
Filter area	Joint size 44: 0.8 cm² Joint size 66: 1.1 cm²

*Based on PISCO measuring condition.

Sectional drawing

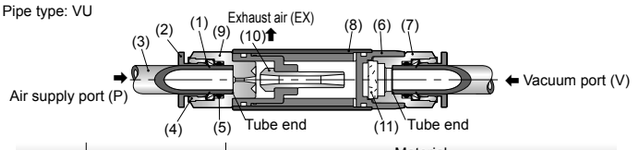
Valve direct mounting type elbow: VH-J



No,	Parts	Material	
		Standard spec.	–S3 spec. (Tube exhaust only)
(1)	Lock claws	Stainless steel	
(2)	Release-ring	POM	
(3)	Tube	Polyurethane, Nylon, etc	Fluororesin (PFA or FEP)
(4)	Guide ring	Nickel-plated brass	Special stainless steel (Austenite or ferritic)*2
(5)	Elastic sleeve	NBR	HNBR or FKM
(6)	O-ring	NBR	HNBR or FKM
(7)	Metallic body	Nickel-plated brass	Special stainless steel (Austenite or ferritic)*2
(8)	Resin body	PBT	
(9)	Nozzle	Nickel-plated brass	Special stainless steel (Austenite or ferritic)*2
(10)	Diffuser	Nickel-plated brass	Special stainless steel (Austenite or ferritic)*2
(11)	Exhaust body	Aluminum	

*1. For M5 and U10 thread, materials for Gasket are SUS304 + NBR or SPCC + NBR (POM is for only -S3 Spec.).
*2. The corrosive resistance is equivalent to SUS303.

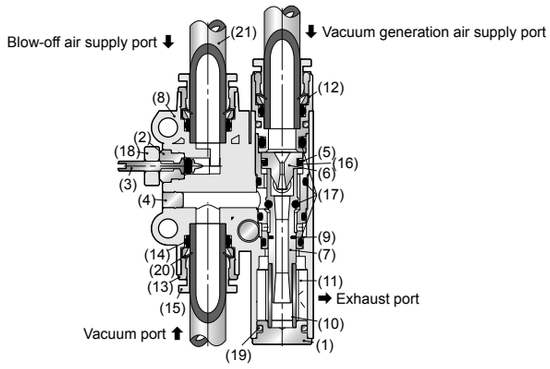
Pipe type: VU



No,	Parts	Material	
		Standard spec.	–S3 spec. (Tube exhaust only)
(1)	Lock claws	Stainless steel	Stainless steel
(2)	Release-ring	POM	POM
(3)	Tube	Polyurethane, Nylon, etc	Polyurethane, Nylon, etc
(4)	Guide ring	Nickel-plated brass	Special stainless steel (Austenite or ferritic)*2
(5)	Elastic sleeve	NBR	HNBR
(6)	Resin body	POM	POM
(7)	Joint metal	Nickel-plated brass	Special stainless steel (Austenite or ferritic)*2
(8)	Cover	PBT	PBT
(9)	Nozzle	Nickel-plated brass	Special stainless steel (Austenite or ferritic)*2
(10)	Diffuser	Nickel-plated brass	Special stainless steel (Austenite or ferritic)*2
(11)	Filter	PVF	PVF

*1. For metric and U10 thread, materials for Gasket are SUS304 + NBR or SPCC + NBR (POM is for only -S3 Spec.).
*2. The corrosive resistance is equivalent to SUS303.

Blow-Off Mechanism Equipped Type: VY

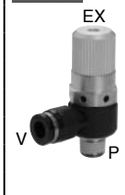


No,	Parts	Material
(1)	End plug	Nickel-plated brass
(2)	Upper stopper	Nickel-plated brass
(3)	Release needle	Special stainless steel (Austenite or ferritic)*
(4)	Plug	Nickel-plated brass
(5)	Sleeve	Nickel-plated brass
(6)	Nozzle piston	Nickel-plated brass
(7)	Diffuser spool	Nickel-plated brass
(8)	Resin body	15% glass contained PBT
(9)	Spool packing	HNBR
(10)	Diffuser spring	Stainless steel
(11)	Silencer element	PVFM
(12)	Cartridge	–
(13)	Guide ring	Nickel-plated brass
(14)	Elastic sleeve	NBR
(15)	Release-ring	POM
(16)	Y-packing	NBR
(17)	O-ring	NBR
(18)	Lock nut	Aluminum
(19)	Spring pin	Stainless steel
(20)	Lock claws	Stainless steel
(21)	Tube	Polyurethane, Nylon, etc

*The corrosive resistance is equivalent to SUS303.

RoHS2 (2011/65/EU+EU2015/863) compliant

Valve Direct Mounting Type

Type	Model code VH[3][4]-VPJ ([8]) (U)		Model code VH[3][4]-VPJ ([8]) (U)		Model code VH[3][4]-VPJ ([8]) (U)	
Elbow, Tube exhaust **VH**	High-vacuum type		Large-flow type		High-vacuum at Low air press. supply type	
	VHH05-4M5J[8]	VHH05-5/32U10JU	VHL05-4M5J[8]	VHL05-5/32U10JU	VHE07-601J[8]	VHE07-1/4N1JU
	VHH05-601J[8]	VHH05-1/4N1JU	VHL05-601J[8]	VHL05-1/4N1JU	VHE10-601J[8]	VHE10-1/4N1JU
	VHH07-601J[8]	VHH07-1/4N1JU	VHL07-601J[8]	VHL07-1/4N1JU	VHE10-801J[8]	VHE10-5/16N1JU
	VHH10-601J[8]	VHH10-1/4N1JU	VHL07-801J[8]	VHL07-5/16N1JU	VHE12-601J[8]	VHE12-1/4N1JU
	VHH10-801J[8]	VHH10-5/16N1JU	VHL10-601J[8]	VHL10-1/4N1JU	VHE12-801J[8]	VHE12-5/16N1JU
	VHH12-601J[8]	VHH12-1/4N1JU	VHL10-801J[8]	VHL10-5/16N1JU	VHE15-802J[8]	VHE15-5/16N2JU
	VHH12-801J[8]	VHH12-5/16N1JU	VHL15-802J[8]	VHL15-5/16N2JU	VHE15-1002J[8]	VHE15-3/8N2JU
	VHH15-802J[8]	VHH15-5/16N2JU	VHL15-1002J[8]	VHL15-3/8N2JU	VHE20-1002J[8]	
	VHH15-1002J[8]	VHH15-3/8N2JU	VHL15-1202J[8]	VHL15-1/2N2JU	VHE20-1003J[8]	
	VHH20-1002J[8]		VHL20-1002J[8]		VHE20-1202J[8]	
	VHH20-1003J[8]		VHL20-1003J[8]		VHE20-1203J[8]	
	VHH20-1202J[8]		VHL20-1202J[8]			
	VHH20-1203J[8]		VHL20-1203J[8]			
Type	Model code VS[3][4]-VPJ ([8]) (U)		Model code VS[3][4]-VPJ ([8]) (U)		Model code VS[3][4]-VPJ ([8]) (U)	
Straight, Tube exhaust **VS**	High-vacuum type		Large-flow type		High-vacuum at Low air press. supply type	
	VSH05-601J[8]	VSH05-1/4N1JU	VSL05-601J[8]	VSL05-1/4N1JU	VSE07-601J[8]	VSE07-1/4N1JU
	VSH07-601J[8]	VSH07-1/4N1JU	VSL07-601J[8]	VSL07-1/4N1JU	VSE10-601J[8]	VSE10-1/4N1JU
	VSH10-601J[8]	VSH10-1/4N1JU	VSL07-801J[8]	VSL07-5/16N1JU	VSE10-801J[8]	VSE10-5/16N1JU
	VSH10-801J[8]	VSH10-5/16N1JU	VSL10-601J[8]	VSL10-1/4N1JU	VSE12-601J[8]	VSE12-1/4N1JU
	VSH12-601J[8]	VSH12-1/4N1JU	VSL10-801J[8]	VSL10-5/16N1JU	VSE12-801J[8]	VSE12-5/16N1JU
	VSH12-801J[8]	VSH12-5/16N1JU	VSL15-802J[8]	VSL15-5/16N2JU	VSE15-802J[8]	VSE15-5/16N2JU
	VSH15-802J[8]	VSH15-5/16N2JU	VSL15-1002J[8]	VSL15-3/8N2JU	VSE15-1002J[8]	VSE15-3/8N2JU
	VSH15-1002J[8]	VSH15-3/8N2JU	VSL15-1202J[8]	VSL15-1/2N2JU	VSE20-1202J[8]	
	VSH20-1202J[8]		VSL20-1202J[8]		VSE20-1203J[8]	
	VSH20-1203J[8]		VSL20-1203J[8]			
Type	Model code VH[3][4]-VP (U)		Model code VH[3][4]-VP (U)		Model code VH[3][4]-VP (U)	
Elbow, Silencer vent **VH** 	High-vacuum type		Large-flow type		High-vacuum at Low air press. supply type	
	VHH05-4M5	VHH05-5/32U10U	VHL05-4M5	VHL05-5/32U10U	VHE07-601	VHE07-1/4N1U
	VHH05-601	VHH05-1/4N1U	VHL05-601	VHL05-1/4N1U	VHE10-601	VHE10-1/4N1U
	VHH07-601	VHH07-1/4N1U	VHL07-601	VHL07-1/4N1U	VHE10-801	VHE10-5/16N1U
	VHH10-601	VHH10-1/4N1U	VHL07-801	VHL07-5/16N1U	VHE12-601	VHE12-1/4N1U
	VHH10-801	VHH10-5/16N1U	VHL10-601	VHL10-1/4N1U	VHE12-801	VHE12-5/16N1U
	VHH12-601	VHH12-1/4N1U	VHL10-801	VHL10-5/16N1U	VHE15-802	VHE15-5/16N2U
	VHH12-801	VHH12-5/16N1U	VHL15-802	VHL15-5/16N2U	VHE15-1002	VHE15-3/8N2U
	VHH15-802	VHH15-5/16N2U	VHL15-1002	VHL15-3/8N2U	VHE20-1002	
	VHH15-1002	VHH15-3/8N2U	VHL15-1202	VHL15-1/2N2U	VHE20-1003	
	VHH20-1002		VHL20-1002		VHE20-1202	
	VHH20-1003		VHL20-1003		VHE20-1203	
	VHH20-1202		VHL20-1202			
	VHH20-1203		VHL20-1203			
Type	Model code VS[3][4]-VP (U)		Model code VS[3][4]-VP (U)		Model code VS[3][4]-VP (U)	
Straight, Silencer vent **VS**	High-vacuum type		Large-flow type		High-vacuum at Low air press. supply type	
	VSH05-601	VSH05-1/4N1U	VSL05-601	VSL05-1/4N1U	VSE07-601	VSE07-1/4N1U
	VSH07-601	VSH07-1/4N1U	VSL07-601	VSL07-1/4N1U	VSE10-601	VSE10-1/4N1U
	VSH10-601	VSH10-1/4N1U	VSL07-801	VSL07-5/16N1U	VSE10-801	VSE10-5/16N1U
	VSH10-801	VSH10-5/16N1U	VSL10-601	VSL10-1/4N1U	VSE12-601	VSE12-1/4N1U
	VSH12-601	VSH12-1/4N1U	VSL10-801	VSL10-5/16N1U	VSE12-801	VSE12-5/16N1U
	VSH12-801	VSH12-5/16N1U	VSL15-802	VSL15-5/16N2U	VSE15-802	VSE15-5/16N2U
	VSH15-802	VSH15-5/16N2U	VSL15-1002	VSL15-3/8N2U	VSE15-1002	VSE15-3/8N2U
	VSH15-1002	VSH15-3/8N2U	VSL15-1202	VSL15-1/2N2U	VSE20-1202	
	VSH20-1202		VSL20-1202		VSE20-1203	
	VSH20-1203		VSL20-1203			

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag: Vacuum generator
10 pcs. /bag: Replacement element

Standard options
[8] : -S3 ⇒ -S3 spec.

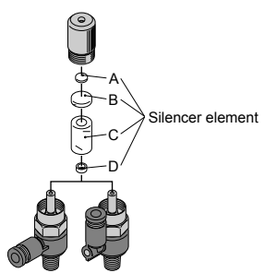
Notes

Exhaust port size (EX) Size List

Air supply port (P)	Exhaust port (EX)
M5 (U10)	ø6 mm (ø1/4")
01 (N1)	ø8 mm (ø5/16")
02, 03 (N2, N3)	ø12 mm (ø1/2")

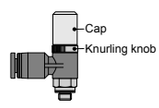
Replacement element

VH **VS**



Vacuum generator model code	Silencer element Model code
VH ··· M5 (U10U)	SEE0802 (Only B)
VH · VS ···01 (N1U)	SE01 (A, B & C set)
VH · VS ···02 (N2U)	SE02 (B, C & D set)

*1. Filter element of nozzle bore ø2.0 mm is the same as that of VC type (Element model code: VCSE20). (See page 261.)
*2. Hold the knurling knob (see below) to remove the cap, when replacing the element of M5 thread type.



Vacuum Generator Simple type

RoHS2 (2011/65/EU+EU2015/863) compliant

In-Line Type

Type	Model code VU[3][4]-VPJ ([8]) (U)	
Straight, Tube exhaust VU 	High-vacuum type	
	VUH05-M54J[8]	VUH05-U10-5/32JU
	VUH05-M56J[8]	VUH05-U10-1/4JU
	VUH05-M64J[8]	VUH05-N1-5/32JU
	VUH05-M66J[8]	VUH05-N1-1/4JU
	VUH05-014J[8]	VUH07-U10-5/32JU
	VUH05-016J[8]	VUH07-U10-1/4JU
	VUH07-M54J[8]	VUH07-N1-5/32JU
	VUH07-M56J[8]	VUH07-N1-1/4JU
	VUH07-M64J[8]	
	VUH07-M66J[8]	
	VUH07-014J[8]	
	VUH07-016J[8]	
	Large-flow type	
	VUL05-M54J[8]	VUL05-U10-5/32JU
	VUL05-M56J[8]	VUL05-U10-1/4JU
	VUL05-M64J[8]	VUL05-N1-5/32JU
	VUL05-M66J[8]	VUL05-N1-1/4JU
	VUL05-014J[8]	VUL07-U10-5/32JU
	VUL05-016J[8]	VUL07-U10-1/4JU
	VUL07-M54J[8]	VUL07-N1-5/32JU
	VUL07-M56J[8]	VUL07-N1-1/4JU
	VUL07-M64J[8]	
	VUL07-M66J[8]	
	VUL07-014J[8]	
	VUL07-016J[8]	
	High-vacuum at Low air press. supply type	
	VUE07-M54J[8]	VUE07-U10-5/32JU
	VUE07-M56J[8]	VUE07-U10-1/4JU
	VUE07-M64J[8]	VUE07-N1-5/32JU
	VUE07-M66J[8]	VUE07-N1-1/4JU
	VUE07-014J[8]	
	VUE07-016J[8]	

Type	Model code VU[3][4]-VPA (U)	
Straight, Silencer vent VU 	High-vacuum type	
	VUH05-M54A	VUH05-U10-5/32AU
	VUH05-M56A	VUH05-U10-1/4AU
	VUH05-M64A	VUH05-N1-5/32AU
	VUH05-M66A	VUH05-N1-1/4AU
	VUH05-014A	VUH07-U10-5/32AU
	VUH05-016A	VUH07-U10-1/4AU
	VUH07-M54A	VUH07-N1-5/32AU
	VUH07-M56A	VUH07-N1-1/4AU
	VUH07-M64A	
	VUH07-M66A	
	VUH07-014A	
	VUH07-016A	
	Large-flow type	
	VUL05-M54A	VUL05-U10-5/32AU
	VUL05-M56A	VUL05-U10-1/4AU
	VUL05-M64A	VUL05-N1-5/32AU
	VUL05-M66A	VUL05-N1-1/4AU
	VUL05-014A	VUL07-U10-5/32AU
	VUL05-016A	VUL07-U10-1/4AU
	VUL07-M54A	VUL07-N1-5/32AU
	VUL07-M56A	VUL07-N1-1/4AU
	VUL07-M64A	
	VUL07-M66A	
	VUL07-014A	
	VUL07-016A	
	High-vacuum at Low air press. supply type	
	VUE07-M54A	VUE07-U10-5/32AU
	VUE07-M56A	VUE07-U10-1/4AU
	VUE07-M64A	VUE07-N1-5/32AU
	VUE07-M66A	VUE07-N1-1/4AU
	VUE07-014A	
	VUE07-016A	

Type	Model code VU[3][4]-PJ ([8])	
Adapter, Tube exhaust VU 	High-vacuum type	
	VUH05-4J[8]	VUH05-5/32J
	VUH05-6J[8]	VUH05-1/4J
	VUH07-4J[8]	VUH07-5/32J
	VUH07-6J[8]	VUH07-1/4J
	Large-flow type	
	VUL05-4J[8]	VUL05-5/32J
	VUL05-6J[8]	VUL05-1/4J
	VUL07-4J[8]	VUL07-5/32J
	VUL07-6J[8]	VUL07-1/4J
	High-vacuum at Low air press. supply type	
	VUE07-4J[8]	VUE07-5/32J
	VUE07-6J[8]	VUE07-1/4J

Type	Model code VU[3][4]-PA	
Adapter, Silencer vent VU 	High-vacuum type	
	VUH05-4A	VUH05-5/32A
	VUH05-6A	VUH05-1/4A
	VUH07-4A	VUH07-5/32A
	VUH07-6A	VUH07-1/4A
	Large-flow type	
	VUL05-4A	VUL05-5/32A
	VUL05-6A	VUL05-1/4A
	VUL07-4A	VUL07-5/32A
	VUL07-6A	VUL07-1/4A
	High-vacuum at Low air press. supply type	
	VUE07-4A	VUE07-5/32A
	VUE07-6A	VUE07-1/4A

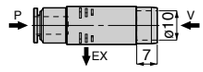
Type	Model code VUK[4]
Fixing holder for VU VUK 	VUK05
	VUK07

*See below for the VUK model code selection.
VUK05 for Nozzle dia. : ø0.5 mm
VUK07 for Nozzle dia. : ø0.7 mm

Type	Model code VU[3][4]-VPJ ([8])	
Union Straight, Tube exhaust VU 	High-vacuum type	
	VUH05-44J[8]	VUH05-5/32-5/32J
	VUH05-46J[8]	VUH05-5/32-1/4J
	VUH05-64J[8]	VUH05-1/4-5/32J
	VUH05-66J[8]	VUH05-1/4-1/4J
	VUH07-44J[8]	VUH07-5/32-5/32J
	VUH07-46J[8]	VUH07-5/32-1/4J
	VUH07-64J[8]	VUH07-1/4-5/32J
	VUH07-66J[8]	VUH07-1/4-1/4J
	Large-flow type	
	VUL05-44J[8]	VUL05-5/32-5/32J
	VUL05-46J[8]	VUL05-5/32-1/4J
	VUL05-64J[8]	VUL05-1/4-5/32J
	VUL05-66J[8]	VUL05-1/4-1/4J
	VUL07-44J[8]	VUL07-5/32-5/32J
	VUL07-46J[8]	VUL07-5/32-1/4J
	VUL07-64J[8]	VUL07-1/4-5/32J
	VUL07-66J[8]	VUL07-1/4-1/4J
	High-vacuum at Low air press. supply type	
	VUE07-44J[8]	VUE07-5/32-5/32J
	VUE07-46J[8]	VUE07-5/32-1/4J
	VUE07-64J[8]	VUE07-1/4-5/32J
	VUE07-66J[8]	VUE07-1/4-1/4J

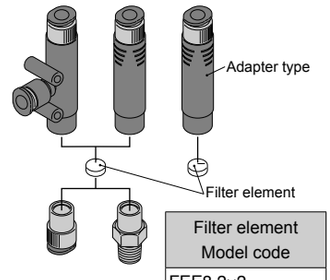
Type	Model code VU[3][4]-VPA	
Union Straight, Silencer vent VU 	High-vacuum type	
	VUH05-44A	VUH05-5/32-5/32A
	VUH05-46A	VUH05-5/32-1/4A
	VUH05-64A	VUH05-1/4-5/32A
	VUH05-66A	VUH05-1/4-1/4A
	VUH07-44A	VUH07-5/32-5/32A
	VUH07-46A	VUH07-5/32-1/4A
	VUH07-64A	VUH07-1/4-5/32A
	VUH07-66A	VUH07-1/4-1/4A
	Large-flow type	
	VUL05-44A	VUL05-5/32-5/32A
	VUL05-46A	VUL05-5/32-1/4A
	VUL05-64A	VUL05-1/4-5/32A
	VUL05-66A	VUL05-1/4-1/4A
	VUL07-44A	VUL07-5/32-5/32A
	VUL07-46A	VUL07-5/32-1/4A
	VUL07-64A	VUL07-1/4-5/32A
	VUL07-66A	VUL07-1/4-1/4A
	High-vacuum at Low air press. supply type	
	VUE07-44A	VUE07-5/32-5/32A
	VUE07-46A	VUE07-5/32-1/4A
	VUE07-64A	VUE07-1/4-5/32A
	VUE07-66A	VUE07-1/4-1/4A

*The adapter type does not have a Push-in fitting on the vacuum port (V). The tip parts are designed exclusively by the customer. Refer to the figure below for mounting dimensions.



Replacement element

VU



Filter element Model code
FEE8.2×2
FEE10×2

*Adapter type only for FEE10×2.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag: Vacuum generator
10 pcs. /bag: Replacement element

Standard options
[8] : -S3 ⇒ -S3 spec.

Small-sized In-Line Type

Type	Model code VUM[3][4]-VP		Model code VUM[3][4]-VP		Model code VUM[3][4]-VP	
Union Straight, Silencer vent **VUM**	High-vacuum type		Large-flow type		High-vacuum at Low air press. supply type	
	VUMH03-1803	VUMH03-5/32-5/32	VUML03-1803	VUML03-5/32-5/32	VUME03-1803	VUME03-5/32-5/32
	VUMH03-1804	VUMH04-5/32-5/32	VUML03-1804	VUML04-5/32-5/32	VUME03-1804	VUME04-5/32-5/32
	VUMH03-33	VUMH05-5/32-5/32	VUML03-33	VUML05-5/32-5/32	VUME03-33	VUME05-5/32-5/32
	VUMH03-34		VUML03-34		VUME03-34	
	VUMH03-43		VUML03-43		VUME03-43	
	VUMH03-44		VUML03-44		VUME03-44	
	VUMH04-1803		VUML04-1803		VUME04-1803	
	VUMH04-1804		VUML04-1804		VUME04-1804	
	VUMH04-33		VUML04-33		VUME04-33	
	VUMH04-34		VUML04-34		VUME04-34	
	VUMH04-43		VUML04-43		VUME04-43	
	VUMH04-44		VUML04-44		VUME04-44	
	VUMH05-1803		VUML05-33		VUME05-1803	
	VUMH05-1804		VUML05-34		VUME05-1804	
	VUMH05-33		VUML05-43		VUME05-33	
	VUMH05-34		VUML05-44		VUME05-34	
	VUMH05-43				VUME05-43	
	VUMH05-44				VUME05-44	

Type	Model code VUM[3][4]-VP		Model code VUM[3][4]-VP		Model code VUM[3][4]-VP	
Straight, Silencer vent **VUM**	High-vacuum type		Large-flow type		High-vacuum at Low air press. supply type	
	VUMH03-M33	VUMH03-U10-5/32	VUML03-M33	VUML03-U10-5/32	VUME03-M33	VUME03-U10-5/32
	VUMH03-M34	VUMH04-U10-5/32	VUML03-M34	VUML04-U10-5/32	VUME03-M34	VUME04-U10-5/32
	VUMH03-M53	VUMH05-U10-5/32	VUML03-M53	VUML05-U10-5/32	VUME03-M53	VUME05-U10-5/32
	VUMH03-M54		VUML03-M54		VUME03-M54	
	VUMH04-M33		VUML04-M33		VUME04-M33	
	VUMH04-M34		VUML04-M34		VUME04-M34	
	VUMH04-M53		VUML04-M53		VUME04-M53	
	VUMH04-M54		VUML04-M54		VUME04-M54	
	VUMH05-M33		VUML05-M33		VUME05-M33	
	VUMH05-M34		VUML05-M34		VUME05-M34	
	VUMH05-M53		VUML05-M53		VUME05-M53	
	VUMH05-M54		VUML05-M54		VUME05-M54	

Type	Model code VUK[4]
Fixing holder for VUM **VUK**	VUK04

In-Line Type for Boxed Type

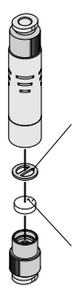
Type	Model code VB[3][4]-VPP	
Union, Silencer vent **VB**	High-vacuum type	
	VBH05-44P	VBH05-5/32-5/32P
	VBH07-66P	VBH07-1/4-1/4P
	VBH10-66P	VBH10-1/4-1/4P
	VBH12-66P	VBH12-1/4-1/4P
	Large-flow type	
	VBL05-44P	VBL05-5/32-5/32P
	VBL07-66P	VBL07-1/4-1/4P
	VBL10-66P	VBL10-1/4-1/4P
	High-vacuum at Low air press. supply type	
	VBE07-66P	VBE07-1/4-1/4P
	VBE10-66P	VBE10-1/4-1/4P
	VBE12-66P	VBE12-1/4-1/4P

Type	Model code VB[3][4]-VPS	
Union with Pressure sensor, Silencer vent **VB**	High-vacuum type	
	VBH05-44S	VBH05-5/32-5/32S
	VBH07-66S	VBH07-1/4-1/4S
	VBH10-66S	VBH10-1/4-1/4S
	VBH12-66S	VBH12-1/4-1/4S
	Large-flow type	
	VBL05-44S	VBL05-5/32-5/32S
	VBL07-66S	VBL07-1/4-1/4S
	VBL10-66S	VBL10-1/4-1/4S
	High-vacuum at Low air press. supply type	
	VBE07-66S	VBE07-1/4-1/4S
	VBE10-66S	VBE10-1/4-1/4S
	VBE12-66S	VBE12-1/4-1/4S

Type	Model code VUSM10-øD	
Mechanical pressure sensor **VUSM**	VUSM10-4	VUSM10-5/32
	VUSM10-6	VUSM10-1/4

Replacement element

VUM



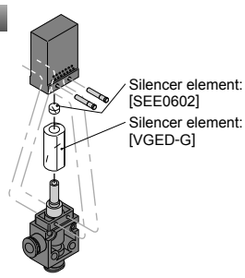
Spacer

Spacer Model code
VUM008S16

Filter element

Filter element Model code
FEE5.6×1.5

VB



Silencer element Model code
SEE0602
VGED-G

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag: Vacuum generator
10 pcs. /bag: Replacement element

Vacuum Generator Simple type

RoHS2 (2011/65/EU+EU2015/863) compliant

Vacuum pad holder Direct Mounting Type (small dia. nozzle type)

Type	Model code VM□4-VP (U)	
Elbow, Silencer vent VM 	High-vacuum type	
	VMH03-M53	VMH05-U10-5/32U
	VMH03-M54	
	VMH04-M53	
	VMH04-M54	
	VMH05-M54	
	VMH05-M64	
	Large-flow type	
	VML03-M53	VML05-U10-5/32U
	VML03-M54	
	VML04-M53	
	VML04-M54	
	VML05-M54	
	VML05-M64	

Type	Model code VC□4-VP (U)	
Straight, Silencer vent VC 	High-vacuum type	
	VCH03-M53	VCH05-U10-5/32U
	VCH03-M54	
	VCH04-M53	
	VCH04-M54	
	VCH05-M54	
	VCH05-M64	
	Large-flow type	
	VCL03-M53	VCL05-U10-5/32U
	VCL03-M54	
	VCL04-M53	
	VCL04-M54	
	VCL05-M54	
	VCL05-M64	

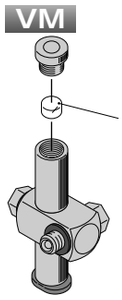
For Vacuum pad Direct Mounting

Type	Model code VC□4-VPLJ (8)	
Air supply port: Elbow Tube exhaust VC 	High-vacuum type	
	VCH07-016LJ8	VCH07-N1-1/4LJ
	VCH07-018LJ8	VCH07-N1-5/16LJ
	VCH10-016LJ8	VCH10-N1-1/4LJ
	VCH10-018LJ8	VCH10-N1-5/16LJ
	VCH12-016LJ8	VCH12-N1-1/4LJ
	VCH12-018LJ8	VCH12-N1-5/16LJ
	VCH15-028LJ8	VCH15-N2-5/16LJ
	VCH15-038LJ8	VCH15-N3-5/16LJ
	VCH15-0210LJ8	VCH15-N2-3/8LJ
	VCH15-0310LJ8	VCH15-N3-3/8LJ
	VCH20-028LJ8	VCH20-N2-5/16LJ
	VCH20-038LJ8	VCH20-N3-5/16LJ
	VCH20-0210LJ8	VCH20-N2-3/8LJ
	VCH20-0310LJ8	VCH20-N3-3/8LJ
	Large-flow type	
	VCL07-016LJ8	VCL07-N1-1/4LJ
	VCL07-018LJ8	VCL07-N1-5/16LJ
	VCL10-016LJ8	VCL10-N1-1/4LJ
	VCL10-018LJ8	VCL10-N1-5/16LJ
	VCL15-028LJ8	VCL15-N2-5/16LJ
	VCL15-038LJ8	VCL15-N3-5/16LJ
	VCL15-0210LJ8	VCL15-N2-3/8LJ
	VCL15-0310LJ8	VCL15-N3-3/8LJ
	VCL20-028LJ8	VCL20-N2-5/16LJ
	VCL20-038LJ8	VCL20-N3-5/16LJ
	VCL20-0210LJ8	VCL20-N2-3/8LJ
	VCL20-0310LJ8	VCL20-N3-3/8LJ
	High-vacuum at Low air press. supply type	
	VCE07-016LJ8	VCE07-N1-1/4LJ
	VCE07-018LJ8	VCE07-N1-5/16LJ
	VCE10-016LJ8	VCE10-N1-1/4LJ
	VCE10-018LJ8	VCE10-N1-5/16LJ
	VCE12-016LJ8	VCE12-N1-1/4LJ
	VCE12-018LJ8	VCE12-N1-5/16LJ
	VCE15-028LJ8	VCE15-N2-5/16LJ
	VCE15-038LJ8	VCE15-N3-5/16LJ
	VCE15-0210LJ8	VCE15-N2-3/8LJ
	VCE15-0310LJ8	VCE15-N3-3/8LJ
	VCE20-028LJ8	VCE20-N2-5/16LJ
	VCE20-038LJ8	VCE20-N3-5/16LJ
	VCE20-0210LJ8	VCE20-N2-3/8LJ
	VCE20-0310LJ8	VCE20-N3-3/8LJ

Type	Model code VC□4-VPCJ (8)	
Air supply port: Straight Tube exhaust VC 	High-vacuum type	
	VCH07-016CJ8	VCH07-N1-1/4CJ
	VCH07-018CJ8	VCH07-N1-5/16CJ
	VCH10-016CJ8	VCH10-N1-1/4CJ
	VCH10-018CJ8	VCH10-N1-5/16CJ
	VCH12-016CJ8	VCH12-N1-1/4CJ
	VCH12-018CJ8	VCH12-N1-5/16CJ
	VCH15-028CJ8	VCH15-N2-5/16CJ
	VCH15-038CJ8	VCH15-N3-5/16CJ
	VCH15-0210CJ8	VCH15-N2-3/8CJ
	VCH15-0310CJ8	VCH15-N3-3/8CJ
	VCH20-028CJ8	VCH20-N2-5/16CJ
	VCH20-038CJ8	VCH20-N3-5/16CJ
	VCH20-0210CJ8	VCH20-N2-3/8CJ
	VCH20-0310CJ8	VCH20-N3-3/8CJ
	Large-flow type	
	VCL07-016CJ8	VCL07-N1-1/4CJ
	VCL07-018CJ8	VCL07-N1-5/16CJ
	VCL10-016CJ8	VCL10-N1-1/4CJ
	VCL10-018CJ8	VCL10-N1-5/16CJ
	VCL15-028CJ8	VCL15-N2-5/16CJ
	VCL15-038CJ8	VCL15-N3-5/16CJ
	VCL15-0210CJ8	VCL15-N2-3/8CJ
	VCL15-0310CJ8	VCL15-N3-3/8CJ
	VCL20-028CJ8	VCL20-N2-5/16CJ
	VCL20-038CJ8	VCL20-N3-5/16CJ
	VCL20-0210CJ8	VCL20-N2-3/8CJ
	VCL20-0310CJ8	VCL20-N3-3/8CJ
	High-vacuum at Low air press. supply type	
	VCE07-016CJ8	VCE07-N1-1/4CJ
	VCE07-018CJ8	VCE07-N1-5/16CJ
	VCE10-016CJ8	VCE10-N1-1/4CJ
	VCE10-018CJ8	VCE10-N1-5/16CJ
	VCE12-016CJ8	VCE12-N1-1/4CJ
	VCE12-018CJ8	VCE12-N1-5/16CJ
	VCE15-028CJ8	VCE15-N2-5/16CJ
	VCE15-038CJ8	VCE15-N3-5/16CJ
	VCE15-0210CJ8	VCE15-N2-3/8CJ
	VCE15-0310CJ8	VCE15-N3-3/8CJ
	VCE20-028CJ8	VCE20-N2-5/16CJ
	VCE20-038CJ8	VCE20-N3-5/16CJ
	VCE20-0210CJ8	VCE20-N2-3/8CJ
	VCE20-0310CJ8	VCE20-N3-3/8CJ

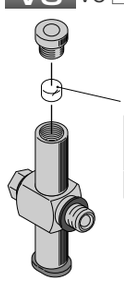
Replacement element

VM



Silencer element Model code
VMSE5×2

VC VC □ 03, 04, 05 Type



Silencer element Model code
VMSE5×2

Notes

Exhaust port size (EX) Size List

Vacuum port (V)	Exhaust port (EX)
01 (N1)	ø8 mm (ø5/16")
02, 03 (N2, N3)	ø12 mm (ø1/2")

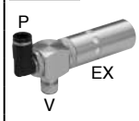
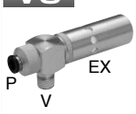
CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag: Vacuum generator
10 pcs. /bag: Replacement element

Standard options
8 : -S3 ⇒ -S3 spec.

RoHS2 (2011/65/EU+EU2015/863) compliant

For Vacuum pad Direct Mounting

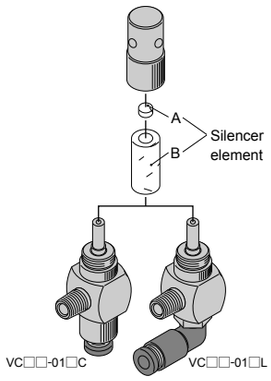
Type	Model code VC[3][4]-VPL		Type	Model code VC[3][4]-VPC	
Air supply port : Elbow Silencer vent VC 	High-vacuum type		Air supply port : Straight Silencer vent VC 	High-vacuum type	
	VCH07-016L	VCH07-N1-1/4L		VCH07-016C	VCH07-N1-1/4C
	VCH07-018L	VCH07-N1-5/16L		VCH07-018C	VCH07-N1-5/16C
	VCH10-016L	VCH10-N1-1/4L		VCH10-016C	VCH10-N1-1/4C
	VCH10-018L	VCH10-N1-5/16L		VCH10-018C	VCH10-N1-5/16C
	VCH12-016L	VCH12-N1-1/4L		VCH12-016C	VCH12-N1-1/4C
	VCH12-018L	VCH12-N1-5/16L		VCH12-018C	VCH12-N1-5/16C
	VCH15-028L	VCH15-N2-5/16L		VCH15-028C	VCH15-N2-5/16C
	VCH15-038L	VCH15-N3-5/16L		VCH15-038C	VCH15-N3-5/16C
	VCH15-0210L	VCH15-N2-3/8L		VCH15-0210C	VCH15-N2-3/8C
	VCH15-0310L	VCH15-N3-3/8L		VCH15-0310C	VCH15-N3-3/8C
	VCH20-028L	VCH20-N2-5/16L		VCH20-028C	VCH20-N2-5/16C
	VCH20-038L	VCH20-N3-5/16L		VCH20-038C	VCH20-N3-5/16C
	VCH20-0210L	VCH20-N2-3/8L		VCH20-0210C	VCH20-N2-3/8C
	VCH20-0310L	VCH20-N3-3/8L		VCH20-0310C	VCH20-N3-3/8C
	Large-flow type			Large-flow type	
	VCL07-016L	VCL07-N1-1/4L		VCL07-016C	VCL07-N1-1/4C
	VCL07-018L	VCL07-N1-5/16L		VCL07-018C	VCL07-N1-5/16C
	VCL10-016L	VCL10-N1-1/4L		VCL10-016C	VCL10-N1-1/4C
	VCL10-018L	VCL10-N1-5/16L		VCL10-018C	VCL10-N1-5/16C
	VCL15-028L	VCL15-N2-5/16L		VCL15-028C	VCL15-N2-5/16C
	VCL15-038L	VCL15-N3-5/16L		VCL15-038C	VCL15-N3-5/16C
	VCL15-0210L	VCL15-N2-3/8L		VCL15-0210C	VCL15-N2-3/8C
	VCL15-0310L	VCL15-N3-3/8L		VCL15-0310C	VCL15-N3-3/8C
	VCL20-028L	VCL20-N2-5/16L		VCL20-028C	VCL20-N2-5/16C
	VCL20-038L	VCL20-N3-5/16L		VCL20-038C	VCL20-N3-5/16C
	VCL20-0210L	VCL20-N2-3/8L		VCL20-0210C	VCL20-N2-3/8C
	VCL20-0310L	VCL20-N3-3/8L		VCL20-0310C	VCL20-N3-3/8C
	High-vacuum at Low air press. supply type			High-vacuum at Low air press. supply type	
	VCE07-016L	VCE07-N1-1/4L		VCE07-016C	VCE07-N1-1/4C
	VCE07-018L	VCE07-N1-5/16L		VCE07-018C	VCE07-N1-5/16C
	VCE10-016L	VCE10-N1-1/4L		VCE10-016C	VCE10-N1-1/4C
	VCE10-018L	VCE10-N1-5/16L		VCE10-018C	VCE10-N1-5/16C
	VCE12-016L	VCE12-N1-1/4L		VCE12-016C	VCE12-N1-1/4C
	VCE12-018L	VCE12-N1-5/16L		VCE12-018C	VCE12-N1-5/16C
	VCE15-028L	VCE15-N2-5/16L		VCE15-028C	VCE15-N2-5/16C
	VCE15-038L	VCE15-N3-5/16L		VCE15-038C	VCE15-N3-5/16C
	VCE15-0210L	VCE15-N2-3/8L		VCE15-0210C	VCE15-N2-3/8C
	VCE15-0310L	VCE15-N3-3/8L		VCE15-0310C	VCE15-N3-3/8C
	VCE20-028L	VCE20-N2-5/16L		VCE20-028C	VCE20-N2-5/16C
	VCE20-038L	VCE20-N3-5/16L		VCE20-038C	VCE20-N3-5/16C
	VCE20-0210L	VCE20-N2-3/8L		VCE20-0210C	VCE20-N2-3/8C
	VCE20-0310L	VCE20-N3-3/8L		VCE20-0310C	VCE20-N3-3/8C

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag: Vacuum generator
10 pcs. /bag: Replacement element

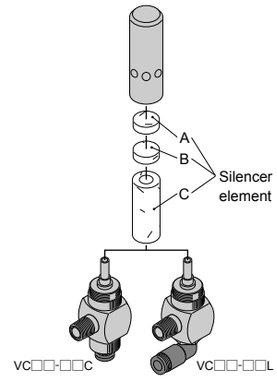
Replacement element

VC VC □ 07, 10, 12 Type



Vacuum generator model code	Silencer element Model code
VC□07-01(N1)□C (L)	VCSE12 (A & B set)
VC□10-01(N1)□C (L)	
VC□12-01(N1)□C (L)	

VC VC □ 15, 20 Type



Vacuum generator model code	Silencer element Model code
VC□15-028(N2-5/16)C(L)	VCSE15 (A, B & C set)
VC□15-038(N3-5/16)C(L)	
VC□15-0210(N2-3/8)C(L)	
VC□15-0310(N3-3/8)C(L)	
VC□20-028(N2-5/16)C(L)	VCSE20 (A, B & C set)
VC□20-038(N3-5/16)C(L)	
VC□20-0210(N2-3/8)C(L)	
VC□20-0310(N3-3/8)C(L)	

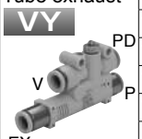
AbN automation

Vacuum Generator Simple type

2in1 Product

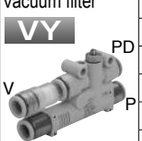
RoHS2 (2011/65/EU+EU2015/863) compliant

Blow-off mechanism equipped type

Type	Model code VY[3][4]-V·P·PD		Type	Model code VY[3][4]-V·P·PD·J	
Silencer vent VY 	High-vacuum type		Tube exhaust VY 	High-vacuum type	
	VYH05-444	VYH05-$^{1}/_{4}$-$^{1}/_{4}$-$^{1}/_{4}$		VYH05-444J	VYH05-$^{1}/_{4}$-$^{1}/_{4}$-$^{1}/_{4}$J
	VYH05-666	VYH07-$^{1}/_{4}$-$^{1}/_{4}$-$^{1}/_{4}$		VYH05-666J	VYH07-$^{1}/_{4}$-$^{1}/_{4}$-$^{1}/_{4}$J
	VYH07-444			VYH07-444J	
	VYH07-666			VYH07-666J	
	Large-flow type			Large-flow type	
	VYL05-444	VYL05-$^{1}/_{4}$-$^{1}/_{4}$-$^{1}/_{4}$		VYL05-444J	VYL05-$^{1}/_{4}$-$^{1}/_{4}$-$^{1}/_{4}$J
	VYL05-666	VYL07-$^{1}/_{4}$-$^{1}/_{4}$-$^{1}/_{4}$		VYL05-666J	VYL07-$^{1}/_{4}$-$^{1}/_{4}$-$^{1}/_{4}$J
	VYL07-444			VYL07-444J	
	VYL07-666			VYL07-666J	
	High-vacuum at Low air press. supply type			High-vacuum at Low air press. supply type	
	VYE05-444	VYE05-$^{1}/_{4}$-$^{1}/_{4}$-$^{1}/_{4}$		VYE05-444J	VYE05-$^{1}/_{4}$-$^{1}/_{4}$-$^{1}/_{4}$J
	VYE05-666	VYE07-$^{1}/_{4}$-$^{1}/_{4}$-$^{1}/_{4}$		VYE05-666J	VYE07-$^{1}/_{4}$-$^{1}/_{4}$-$^{1}/_{4}$J
	VYE07-444			VYE07-444J	
	VYE07-666			VYE07-666J	

Type	Model code VYFøD_1·øD_2M	
Vacuum filter for VY VYF 	VYF44M	VYF$^{1}/_{4}$-$^{1}/_{4}$M
	VYF66M	

Type	Model code
Bracket for VY VYB 	VYB11

Type	Model code VY[3][4]-V·P·PD·F		Type	Model code VY[3][4]-V·P·PD·J·F	
Silencer vent with Vacuum filter VY 	High-vacuum type		Tube exhaust with Vacuum filter VY 	High-vacuum type	
	VYH05-444F	VYH05-$^{1}/_{4}$-$^{1}/_{4}$-$^{1}/_{4}$F		VYH05-444JF	VYH05-$^{1}/_{4}$-$^{1}/_{4}$-$^{1}/_{4}$JF
	VYH05-666F	VYH07-$^{1}/_{4}$-$^{1}/_{4}$-$^{1}/_{4}$F		VYH05-666JF	VYH07-$^{1}/_{4}$-$^{1}/_{4}$-$^{1}/_{4}$JF
	VYH07-444F			VYH07-444JF	
	VYH07-666F			VYH07-666JF	
	Large-flow type			Large-flow type	
	VYL05-444F	VYL05-$^{1}/_{4}$-$^{1}/_{4}$-$^{1}/_{4}$F		VYL05-444JF	VYL05-$^{1}/_{4}$-$^{1}/_{4}$-$^{1}/_{4}$JF
	VYL05-666F	VYL07-$^{1}/_{4}$-$^{1}/_{4}$-$^{1}/_{4}$F		VYL05-666JF	VYL07-$^{1}/_{4}$-$^{1}/_{4}$-$^{1}/_{4}$JF
	VYL07-444F			VYL07-444JF	
	VYL07-666F			VYL07-666JF	
	High-vacuum at Low air press. supply type			High-vacuum at Low air press. supply type	
	VYE05-444F	VYE05-$^{1}/_{4}$-$^{1}/_{4}$-$^{1}/_{4}$F		VYE05-444JF	VYE05-$^{1}/_{4}$-$^{1}/_{4}$-$^{1}/_{4}$JF
	VYE05-666F	VYE07-$^{1}/_{4}$-$^{1}/_{4}$-$^{1}/_{4}$F		VYE05-666JF	VYE07-$^{1}/_{4}$-$^{1}/_{4}$-$^{1}/_{4}$JF
	VYE07-444F			VYE07-444JF	
	VYE07-666F			VYE07-666JF	

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Vacuum Generator VLS

PISCO®

>>> https://www.pisco.co.jp/en/

Stand-alone Type Ejector of Boxed Type Aluminum Body

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VLS (1) H (2) 20 (3) – 04 (4) 04 (5) – G (6)

(1) Vacuum Generator VLS

(2) Vacuum Characteristics
H: High-vacuum type

(3) Nozzle bore

Code	Nozzle bore (mm)	Final Vacuum (kPa)	Suction flow (ℓ/min [ANR])	Consumption flow (ℓ/min [ANR])
20	ø2.0	-91	100	230
25	ø2.5		150	345
28	ø2.8		200	410

*Rated supply pressure (H & L type: 0.5 MPa, E type: 0.35 MPa) is applied.

(4) Vacuum port size
04: Rc1/2

(5) Air supply port size
04: Rc1/2

(6) Pressure indicator

Code	Pressure indicator spec.		
No code	Without pressure indicator (Rc1/8 female thread)		
G	Digital pressure gauge		
NV	Pressure Sensor with Large Digital Display	NPN Open collector	2 points SW output & Analog output
N2			2 points SW output & Copy function
PV		PNP Open collector	2 points SW output & Analog output
P2			2 points SW output & Copy function

Model code of Silencer

VLSR06 (1)

(1) Silencer for Vacuum Generator VLS

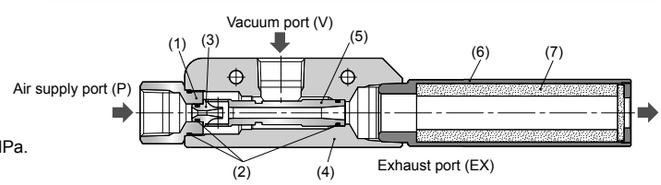
Characteristics

- The nozzle bore comes in three types: dia. 2.0, 2.5 and 2.8 mm.
- Suction flow rate is max. 200 L/min [ANR].
  *For the nozzle bore is dia. 2.8 mm and the rated supply pressure is 0.5 MPa.
- Boxed type Aluminum body
- Quiet operation with the cylinder type muffler
- Pressure gauge and sensor can be installed.

Specifications

Fluid medium	Air, Inert gas
Operating pressure range	0.15 to 0.7 MPa
Rated supply pressure	0.5 MPa
Operating temp. range	0 to 60°C (No freezing)

Sectional drawing



No.	Parts	Material
(1)	Nozzle holder	Nickel-plated brass
(2)	O-ring	NBR
(3)	Nozzle	Nickel-plated brass*1
(4)	Metallic body	Aluminum (anodized)
(5)	Diffuser	Brass
(6)	Silencer	PBT
(7)	Silencer element	PVFM

*1. The nozzle dia. 2.8 mm is not electroless nickel-plated.
*2. The plug attached to the connecting port of pressure indicator is made of iron (Chrome-plated).

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code VLSH[3]-RcRc	Type	Model code VLSH[3]-RcRc-G	Type	Model code VLSH[3]-RcRc-[6]
Without Pressure indicator VLS	VLSH20-0404 VLSH25-0404 VLSH28-0404	With Digital Pressure Gauge VLS	VLSH20-0404-G VLSH25-0404-G VLSH28-0404-G	Pressure Sensor with Large Digital Display VLS	VLSH20-0404-[6] VLSH25-0404-[6] VLSH28-0404-[6]

Attachment parts

Type	Model code
Silencer VLSR	VLSR06

Optional parts

Type	Model code
Digital Pressure Gauge for negative pressure GPD	GPD-V-01

Type	Model code
Compound type of Pressure sensor with Large Digital Display VUS	VUS-32R-NV-01 VUS-32R-N2-01 VUS-32R-PV-01 VUS-32R-P2-01

Notes
* In [6] in the Model Designation, please select and fill in the pressure indicator type from the above in Model Designation (Example).

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Vacuum Generator VVV

Multi-stage nozzle ejector with large suction flow rate.

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VVV (1) E (2) 16 (3) – 16 (4) 12 (5) S (6) –G (7)

(1) Vacuum Generator VVV

(2) Vacuum Characteristics

E: High-vacuum at Low air pressure supply type

(3) Nozzle bore

Code	Nozzle bore (mm)	Final Vacuum (kPa)	Suction flow (ℓ/min [ANR])	Consumption flow (ℓ/min [ANR])
16	ø1.6	-90	180	105
25	ø2.5	-94	430	270
27	ø2.7	-94	500	315

*Rated supply pressure: 0.35 MPa

(4) Vacuum port size (V)

Port type	Push-in straight fitting and plug (mm)		Taper pipe thread (Female)
Code	12	16	04
Size	ø12	ø16	Rc1/2
Note	Tube fitting: PC12-04 (3 pcs) and Plug: PP12 (2 pcs) are included.	Tube fitting: PC16-04 (3 pcs) and Plug: PP16 (2 pcs) are included.	Without fitting

(5) Air supply port size (P)

Port type	Push-in straight fitting (mm)			Taper pipe thread (Female)
Code	08	10	12	02
Size	ø8	ø10	ø12	Rc1/4
Note	PC8-02	PC10-02	PC12-02	Without fitting

(6) Exhaust port type (EX)

Code	No code	S
Type	Taper pipe thread (Female) : Rc3/4	With silencer

*Silencer type comes with elbow adapter block

(7) Digital pressure gauge

Code	No code	–G
Digital pressure gauge	No gauge (Plugging)	With gauge
Thread size	Rc1/8	

Model code of Silencer

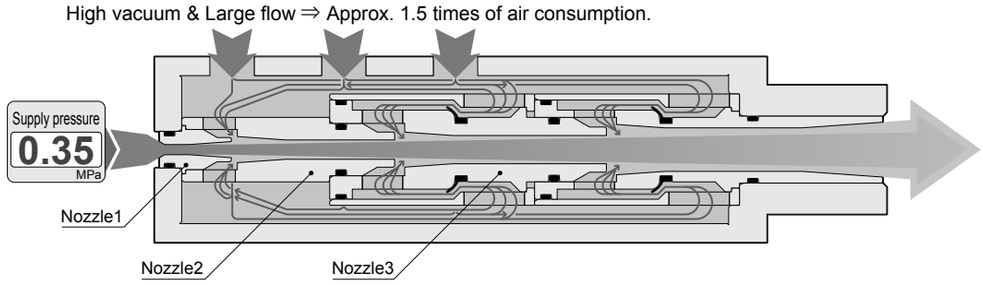
VVVSR06L (1)

(1) Silencer for Vacuum Generator VVV

Characteristics

Ensuring high vacuum pressure & high vacuum flow by low (0.35 MPa) air supply.

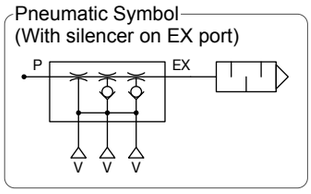
High vacuum & Large flow ⇒ Approx. 1.5 times of air consumption.



3 vacuum ports enable easy distribution.

See a pneumatic symbol on the right.

Pneumatic Symbol
(With silencer on EX port)



Vacuum port direction can be changed.

Depending on the installation site, exhaust direction can be selected from straight or elbow.

Elbow adapter block comes with a silencer, so exhaust direction can be either straight or elbow.

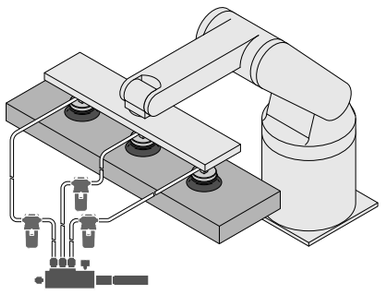
Easy maintenance and long life

Optional digital pressure gauge to check the pressure.

Applications

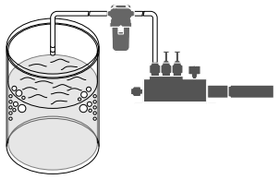
Suction Conveyance

Best suited for large and heavy or porous work-piece in automobile industry and packaging industry, etc.



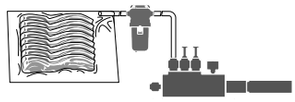
Defoaming·Deaeration

Bubble and air contained in adhesive, cosmetics (cream) and distilled water can be removed.



Vacuum packing

Can be used for vacuum packing of food or the like, removing air from the package.



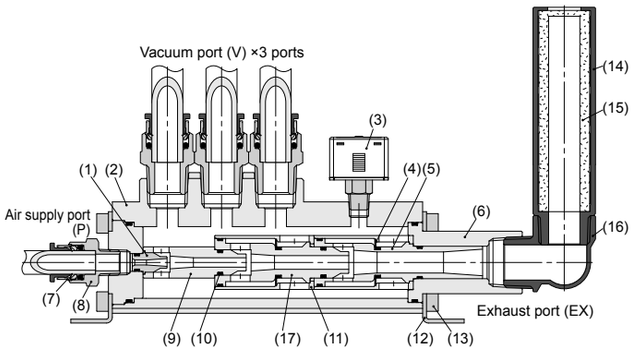
Other applications

【Filtering time savings】,【Collection of welding fume】,
【Dust collection】,【Vacuum source for vacuum casting】, etc.

Specifications

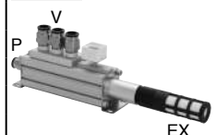
Fluid medium	Air
Operating pressure range	0.3 to 0.7 MPa
Rated supply pressure	0.35 MPa
Operating temp. range	5 to 50°C (No freezing)

Sectional drawing



No,	Parts	Material
(1)	Nozzle1	Nickel-plated brass
(2)	Body	Aluminum
(3)	Digital pressure gauge	–
(4)	One-way rubber seal	NBR
(5)	Diffuser	Aluminum
(6)	Exhaust cover	Aluminum
(7)	Fitting Ass'y	–
(8)	Fitting metallic body	Nickel-plated brass
(9)	Nozzle2	Aluminum
(10)	O-ring	NBR
(11)	Nozzle cover	Aluminum
(12)	Bracket	SPCC(Nickel-plated)
(13)	Fixing bolt	Iron (Nickel-plated)
(14)	Silencer unit	PBT
(15)	Element	PVFM
(16)	Elbow adapter block	PBT
(17)	Nozzle3	Aluminum

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code VVVE3-4 5 6 7
Multi-stage nozzle ejector VVV  *The product image above is with silencer and digital pressure gauge (optional).	VVVE3-0402 6 7
	VVVE3-0408 6 7
	VVVE3-0410 6 7
	VVVE3-0412 6 7
	VVVE3-1202 6 7
	VVVE3-1208 6 7
	VVVE3-1210 6 7
	VVVE3-1212 6 7
	VVVE3-1602 6 7
	VVVE3-1608 6 7
	VVVE3-1610 6 7
	VVVE3-1612 6 7

Optional parts

Type	Model code
Silencer VVV 	VVVSR06L

Type	Model code
Digital Pressure Gauge for negative pressure GPD 	GPD-V-01

Notes

*For 3 in model code, please select a code for nozzle bore, code for exhaust port type for 6,and code for digital pressure gauge for 7, referring to Model designation (Example).

CAD data is available at PISCO website.

Packaging specifications

1 pc. /bag

Vacuum Generator VLM

Multi-stage nozzle ejector with multi-layer structure achieves suction flow rate of up to 1,110 liters

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VLM (1) H (2) 163 (3) – 06 (4) 02 (5) – S2 (6)

(1) Vacuum Generator VLM

(2) Vacuum characteristic
H: High-vacuum type

(3) Nozzle specification

Code	161	162	163	164	165	166
Layer	Single layer		Double layer		Triple layer	
Nozzle quantity	1 pc.	2 pcs.	3 pcs.	4 pcs.	5 pcs.	6 pcs.
Suction flow (ℓ/min [ANR])	290	550	760	890	1,020	1,110
Air consumption (ℓ/min [ANR])	110	220	330	440	550	660
Final vacuum (kPa)	-94					
Nozzle bore (mm)	ø1.6					

*Rated supply pressure (0.5 MPa) is applied.

(4) Vacuum port size

Code	06	08
Taper pipe female thread	Rc3/4	Rc1

(5) Air supply port size

Code	02
Taper pipe female thread	Rc1/4

(6) Exhaust port (Connection type: Taper pipe female thread, Size: Rc3/4)

Code	161, 162 (Layer: Single layer)	163, 164 (Layer: Double layer)	165, 166 (Layer: Triple layer)
No code	No silencer, End cap 1 pc.	No silencer, End cap 1 pc.	No silencer, End cap 1 pc.
S1	Silencer 1 pc., End cap 1 pc.	Silencer 2 pcs, End cap 1 pc.	Silencer 3 pcs, End cap 1 pc.
S2	Silencer 1 pc., Rotate joint 1 pc., End cap 2 pcs	Silencer 2 pcs, Rotate joint 2 pcs, End cap 3 pcs	Silencer 3 pcs, Rotate joint 3 pcs, End cap 4 pcs

*All types contain 2 pcs of bracket for VLM installation and plug for pressure gauge port.

Model Designation of Attachment parts (Example)

VLM (1) – R (2)

(1) Large Flow Vacuum Generator VLM

(2) Parts name

Code	R	E	B	D
Parts	Rotate joint	End cap	Bracket (2 pcs/set)	Dummy plug (2 pcs/set (*))

*Dummy plug is needed to plug unnecessary nozzle ports.

PP01-A (1)

(1) Plug for Sensor port

PF06-04 (1)

(1) Bush
(For connecting Push-in fitting (Thread size: R1/2) to vacuum port (Rc3/4))

VVVSR06 (1)

(1) Silencer
(For direct mounting to body or attaching to rotate joint)

VLMH16-NS (1)

(1) Nozzle set
·Diffuser (O-ring),
·Nozzle 3 (O-ring+One-way rubber seal+Cover),
·Nozzle 2 (O-ring+One-way rubber seal+Cover),
·Nozzle 1 (O-ring)

Characteristics

Securing high vacuum and large flow rate.

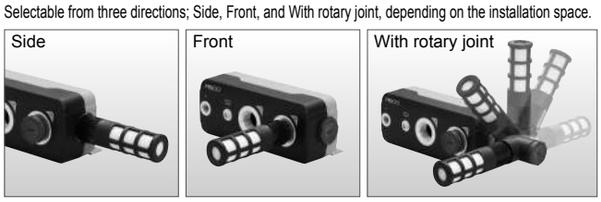
By adoption of multi-stage nozzle and multi-layer structure, suction flow can be secured approx. 2.2 times (on average) larger than air consumption.

Supply pressure	**0.5** MPa					
Final vacuum	**-94** kPa					
	Average About 2.2 times: Suction flow / Air consumption	About 2.6 times: 290ℓ / 110ℓ	About 2.5 times: 550ℓ / 220ℓ	About 2.3 times: 760ℓ / 330ℓ	About 2 times: 890ℓ / 440ℓ	About 1.9 times: 1,020ℓ / 550ℓ	About 1.7 times: 1,110ℓ / 660ℓ
Nozzle code	161	162	163	164	165	166
Layer	1 Layer		2 Layer		3 Layer	
Nozzle quantity	1 pc.	2 pcs.	3 pcs.	4 pcs.	5 pcs.	6 pcs.

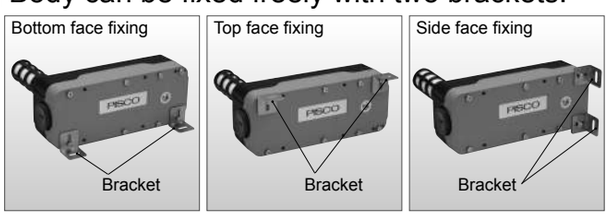
Excellent in ozone resistance.

Silencer installing direction is selectable.

Selectable from three directions; Side, Front, and With rotary joint, depending on the installation space.



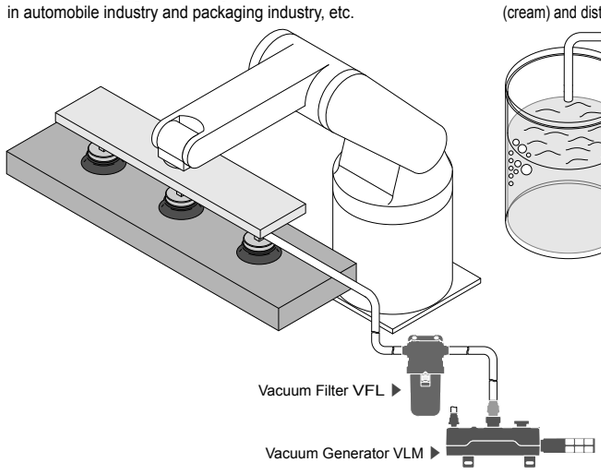
Body can be fixed freely with two brackets.



Applications

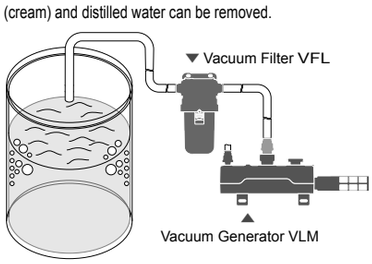
◆ Suction Conveyance

Best suited for large and heavy or porous work-piece in automobile industry and packaging industry, etc.



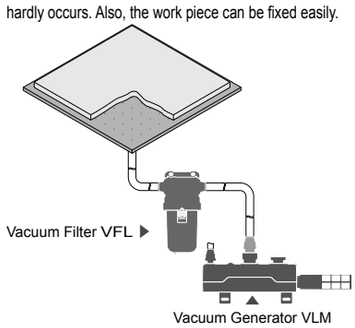
◆ Defoaming·Deaeration

Bubble and air contained in adhesive, cosmetics (cream) and distilled water can be removed.



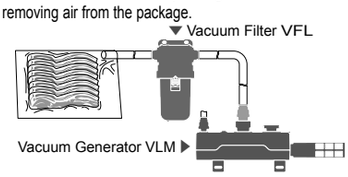
◆ Vacuum chuck

The processing accuracy can be stabilized because the distortion and thermal deformation of the work-piece hardly occurs. Also, the work piece can be fixed easily.



◆ Vacuum packing

Can be used for vacuum packing of food or the like, removing air from the package.



Related Products

Main Block (Large nozzle dia. Type)
► P.74

Vacuum Filter VFL
► P.360

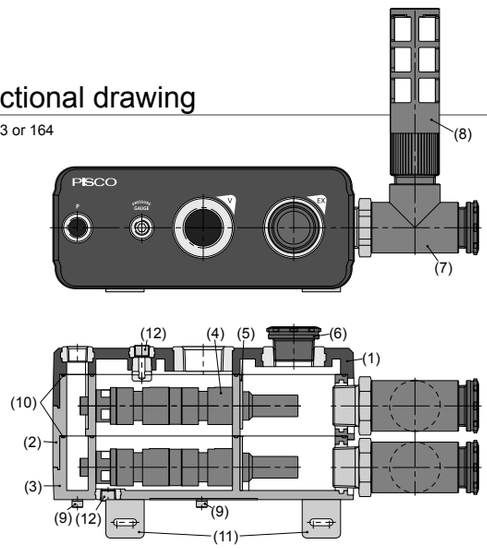
Vacuum Generator VLM

Specifications

Fluid medium	Air
Operating pressure range	0.3 to 0.7 MPa
Rated supply pressure	0.5 MPa
Operating temp. range	5 to 50°C (No freezing)

Sectional drawing

VLMH163 or 164



No.	Parts	Material
(1)	Top case	Brass, PA, Aluminum
(2)	Middle case	PA, Aluminum
(3)	Bottom case	PA, Aluminum
(4)	Nozzle Ass'y	PA, HNBR
(5)	Nozzle clip	Nickel-plated iron
(6)	End cap	PBT
(7)	Rotate joint	Aluminum, PBT
(8)	Silencer	Nickel-plated brass
(9)	Hexagon socket head bolt	Nickel-plated iron
(10)	Case packing	FKM
(11)	Bracket	Nickel-plated iron
(12)	Plug for pressure gauge port	Nickel-plated iron

RoHS2 (2011/65/EU+EU2015/863) compliant

Single layer, Nozzle 1 pc. or 2 pcs.		Double layers, Nozzle 3 pcs. or 4 pcs.		Triple layers, Nozzle 5 pcs. or 6 pcs.	
Type	Model code VLMH3-402	Type	Model code VLMH3-402	Type	Model code VLMH3-402
Without Silencer	VLMH161-402	Without Silencer	VLMH163-402	Without Silencer	VLMH165-402
VLM	VLMH162-402	VLM	VLMH164-402	VLM	VLMH166-402
Type	Model code VLMH3-402-S1	Type	Model code VLMH3-402-S1	Type	Model code VLMH3-402-S1
With Silencer	VLMH161-402-S1	With Silencer	VLMH163-402-S1	With Silencer	VLMH165-402-S1
VLM	VLMH162-402-S1	VLM	VLMH164-402-S1	VLM	VLMH166-402-S1
Type	Model code VLMH3-402-S2	Type	Model code VLMH3-402-S2	Type	Model code VLMH3-402-S2
Silencer with rotate joint	VLMH161-402-S2	Silencer with rotate joint	VLMH163-402-S2	Silencer with rotate joint	VLMH165-402-S2
VLM	VLMH162-402-S2	VLM	VLMH164-402-S2	VLM	VLMH166-402-S2

Notes
*For 4 in model code, please select a code for vacuum port size, referring to Model designation (Example).

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

RoHS2 (2011/65/EU+EU2015/863) compliant

Attachment parts

Type	Model code	Type	Model code	Type	Model code
Bracket VLM 	VLM-B	Rotate joint VLM Rc3/4 R3/4 	VLM-R	End cap VLM R3/4	VLM-E
Type	Model code	Type	Model code	Type	Model code
Dummy plug VLM 	VLM-D	Nozzle set VLM 	VLMH16-NS	Silencer VVV R3/4 	VVVSR06
Type	Model code	Type	Model code		
Bush PF Rc1/2 R3/4	PF06-04	Plug for Sensor port PP R1/8	PP01-A		

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag: Vacuum generator
1 Set (2 pcs). /bag: Bracket & Dummy plug

Vacuum Generator VRL

Ring blow type ejector for conveying particles, powder and fibers

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VRL (1) 50 (2) – 06 (3) 06 (4) 01 (5)

(1) Vacuum Generator VRL

(2) Vacuum characteristic

Code	Suction flow (ℓ/min [ANR])	Final vacuum (kPa)	Min. dia. of flow paths (mm)
50	50	-53	ø2.8
100	100	-53	ø4.1
200	200	-53	ø6
300	300	-53	ø7.5

*Rated supply pressure (0.5 MPa) is applied.

(3) Vacuum (Suction) port size (V)

■ Tube dia.

	mm size (mm)				
Code	06	08	10	12	16
Tube dia.	ø6	ø8	ø10	ø12	ø16

■ Thread size

	Taper pipe thread				NPT thread (Nipple B type only)			
Code	01	02	03	04	N1	N2	N3	N4
Thread size	R1/8	R1/4	R3/8	R1/2	NPT1/8	NPT1/4	NPT3/8	NPT1/2

(4) Air supply port size (P)

■ Tube dia.

	mm size (mm)		
Code	06	08	10
Tube dia.	ø6	ø8	ø10

■ Thread size

	Taper pipe thread		NPT thread (Nipple B type only)	
Code	01	02	N1	N2
Thread size	R1/8	R1/4	NPT1/8	NPT1/4

(5) Exhaust port size (EX)

■ Tube dia.

	mm size (mm)		
Code	08	12	16
Tube dia.	ø8	ø12	ø16 (Tube I.D. is over ø12 mm)

■ Thread size (Taper pipe thread)

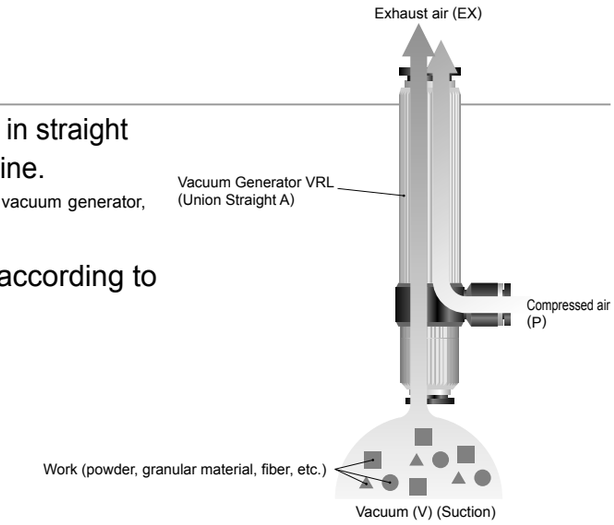
	Taper pipe thread			NPT thread (Nipple B type only)		
Code	01	02	04	N1	N2	N4
Thread size	R1/8	R1/4	R1/2	NPT1/8	NPT1/4	NPT1/2

Characteristics

The suction port and the exhaust port are located in straight line which make it possible to carry works in one line.

The works are sucked in from the suction port and pass through the inside of vacuum generator, which enables conveyance of works through a tube.

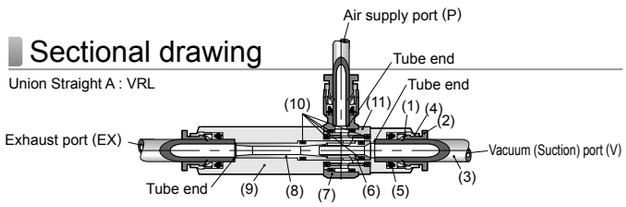
An optimal vacuum generator can be selected according to the work size.



Specifications

Fluid medium	Air, Inert gas
Operating pressure range	0 to 0.9 MPa
Rated supply pressure	0.5 MPa
Operating temp. range	0 to 60°C (No freezing)

Sectional drawing



No.	Parts	Material
(1)	Lock claws	Stainless steel
(2)	Release-ring	POM
(3)	Tube	Polyurethane, Nylon, etc
(4)	Guide ring	Nickel-plated brass
(5)	Elastic sleeve	NBR
(6)	NozzleA	Special stainless steel*
(7)	Resin body	PBT
(8)	NozzleB	Nickel-plated brass
(9)	Fitting body	Aluminum
(10)	O-ring	NBR
(11)	Metallic body	Nickel-plated brass

* Corrosion resistance of special stainless steel is equivalent to SUS303.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code VRL2-V·P·EX
Straight A	VRL50-060601
	VRL50-080601
	VRL50-060801
	VRL50-080801
	VRL100-100802
	VRL100-120802
	VRL100-101002
	VRL100-121002
	VRL200-121004
	VRL200-161004
	VRL300-121004
	VRL300-161004

Type	Model code VRL2-V·P·EX
Straight B	VRL50-010608
	VRL50-010808
	VRL100-020812
	VRL100-021012
	VRL200-031016
	VRL200-041016
	VRL300-031016
	VRL300-041016

Type	Model code VRL2-V·P·EX
Straight C	VRL50-060101
	VRL50-080101
	VRL100-100202
	VRL100-120202
	VRL200-120204
	VRL200-160204
	VRL300-120204
	VRL300-160204

Type	Model code VRL2-V·P·EX
Straight D	VRL50-010108
	VRL100-020212
	VRL200-030216
	VRL200-040216
	VRL300-030216
	VRL300-040216

Type	Model code VRL2-V·P·EX
Union Straight A	VRL50-060608
	VRL50-060808
	VRL50-080608
	VRL50-080808
	VRL100-100812
	VRL100-120812
	VRL100-101012
	VRL100-121012
	VRL200-121016
	VRL200-161016
	VRL300-121016
	VRL300-161016

Type	Model code VRL2-V·P·EX
Union Straight B	VRL50-060108
	VRL50-080108
	VRL100-100212
	VRL100-120212
	VRL200-120216
	VRL200-160216
	VRL300-120216
	VRL300-160216

Type	Model code VRL2-V·P·EX
Nipple type A	VRL50-010601
	VRL50-010801
	VRL100-020802
	VRL100-021002
	VRL100-N2-3/8-N2*
	VRL200-031004
	VRL200-041004
	VRL300-031004
	VRL300-041004

*V port: N2 (NPT1/4)
P port: 3/8 (ø3/8")
EX port: N2 (NPT1/4)

Type	Model code VRL2-V·P·EX	
Nipple type B	VRL50-010101	VRL50-N1N1N1
	VRL100-020202	VRL100-N2N2N2
	VRL200-030204	VRL200-N3N2N4
	VRL200-040204	VRL200-N4N2N4
	VRL300-030204	VRL300-N3N2N4
	VRL300-040204	VRL300-N4N2N4

CAD data is available at PISCO website.

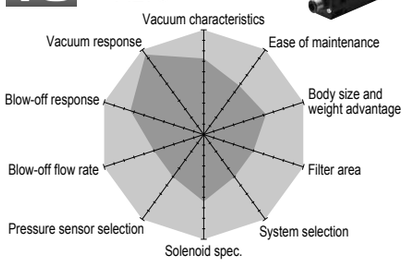
Packaging specifications
1 pc. /bag

Quick Selection Guide for Vacuum Generator Complex Type

Vacuum Generator Complex type comes in a wide variety of models to meet a wide range of needs in vacuum systems.

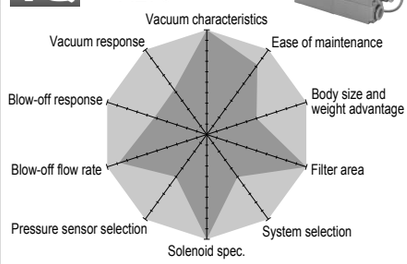
Focusing on basic performance.

VG >>>P.273



Vacuum unit with large flow rate, best suitable for large work-piece or work-piece with large leakage.

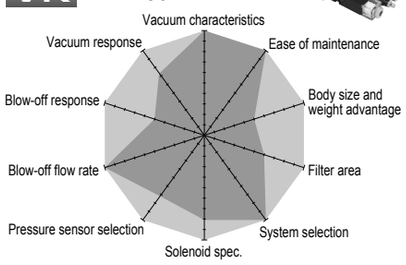
VQ >>>P.276



Manifold type

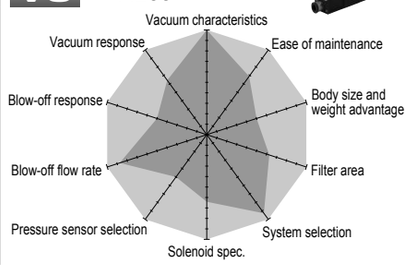
A wide variety of Modularized units to cater for various applications.

VK >>>P.280



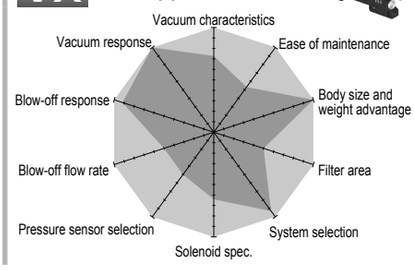
Vacuum unit with blow-off pressure and flow rate adjusting function.

VJ >>>P.288



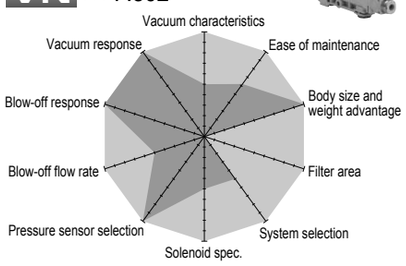
Good for high cycle operation. Compact, lightweight, and high speed response vacuum unit suitable for small work-piece.

VX >>>P.293

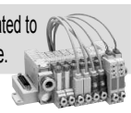


High speed and stable response.

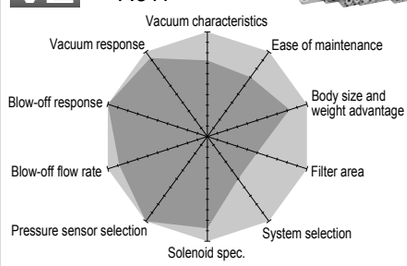
VN >>>P.302

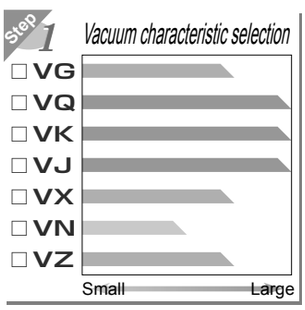


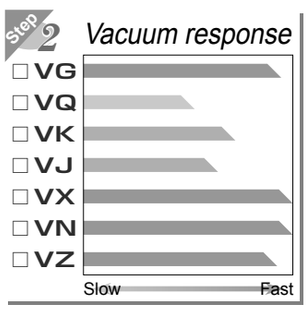
For blow-off time saving. Vacuum unit dedicated to manifold mount, suitable for small work-piece.

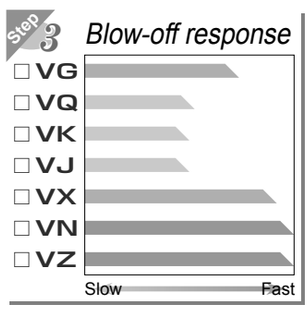


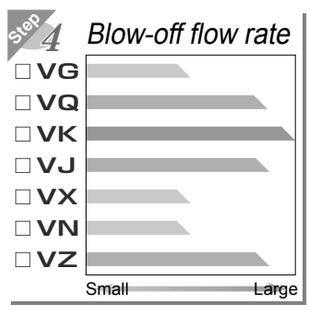
VZ >>>P.311

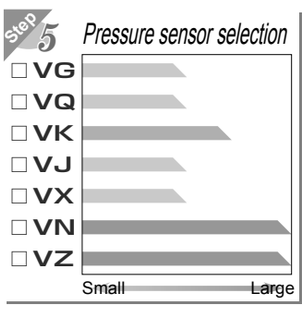


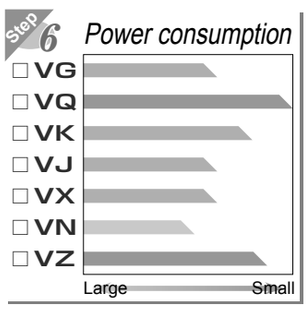


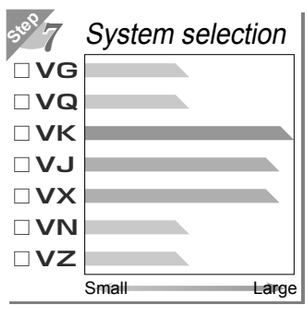


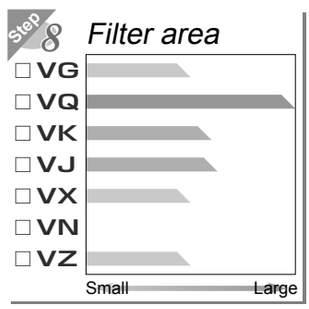












How to use the chart
【Selection guide】

Check the box of Vacuum Generator type that meets your requirement for each function (Step 1 to Step 8).
The Vacuum Generator with the most checks is the best suitable one for your application.

Vacuum Generator Complex Type VG

PISCO

>>> https://www.pisco.co.jp/en/

20 mm wide multi-functional type ejector (stand-alone type)

⚠ Safety instructions for this product

Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VG (1) H (2) 07 (3) F (4) – 6 (5) 6 (6) – DC24 (7) S (8) – A (9)

(1) Vacuum Generator Complex type VG

(2) Vacuum characteristics

Code	H	L	E
Charact.	High-vacuum type (Rated supply pressure: 0.5 MPa)	Large-flow type (Rated supply pressure: 0.5 MPa)	High-vacuum at Low air supply pressure type (Rated air supply pressure: 0.35 MPa)

(3) Nozzle bore

Code	Nozzle bore (mm)	H Type			L Type			E Type		
		Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])	Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])	Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])
05	0.5	-90	7 [7]	11.5	-66	12 [12]	11.5	–	–	–
07	0.7	-93	13 [13]	23	-66	23 [26]	23	-90	10.5 [10.5]	17
10	1.0	-93	26 [27]	46	-66	34 [40]	46	-90	21 [21]	34

*1. Values are when rated pressure is applied. (H and L type: 0.5 MPa, E type: 0.35 MPa.)
*2. Suction flow values on the left represent those of vacuum port dia. 4 mm or 5/32", and those in [ ] are of vacuum port dia. 6 mm or 1/4".
*3. The values in the table are representative values. Suction flow can vary by vacuum port dia. and tube length.

(4) Combination of units (○: Equipped)

Code	A	B	E	F
Filter	○	○	○	○
Pressure sensor		○		○
Suction valve			○	○
Blow-off valve			○	○

*Power Supply of Pressure Sensors is 12 to 24 VDC.

(5) Vacuum port size (V)

	mm size (mm)		inch size (inch)	
Code	4	6	5/32	1/4
Tube O.D.	ø4	ø6	ø5/32	ø1/4

(6) Air supply port size (P)

	mm size (mm)		inch size (inch)	
Code	4	6	5/32	1/4
Tube O.D.	ø4	ø6	ø5/32	ø1/4

(7) Solenoid valve specifications (Unit: E and F type only)

Code	DC24	AC100
Voltage	24 VDC	100 VAC

(8) Wire lead-out direction (Unit: E and F type only)

Code	S	L
Direction	Side	Top

(9) Pressure sensor (Unit: B and F type only)

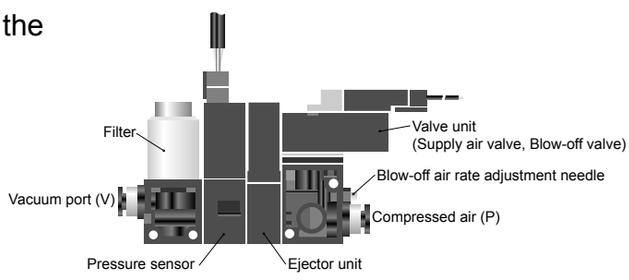
Code	Type
NW	2 switch outputs
NA	1 analog output and 1 switch output
A	1 analog output

Characteristics

Pressure sensor, blow-off valve, ejector and the like are unitized.

Select the best combination in accordance with your applications.

Three types of pressure sensors.



Vacuum Generator Complex type VG

Specifications

Fluid medium		Air (JIS B 8392-1: Compliant with [Class 1.2.1 to 2.4.3])
Operating press. range		0.25 to 0.7 MPa
Operating temp. range		5 to 50°C (No freezing)
Operating humid. range		35 to 85%RH (No dew condensation)
Vibration resist. /Shock resist.		50 m/s² max. /150m/s² max.
Protective structure		IEC standard IP40 equiv.
Lubrication		Not required
Proof pressure	Air spply. circuit	1.05 MPa
	Vac. circuit	0.2 MPa

*Proof pressure is the level of pressure at which the product would not be damaged. It does not mean the pressure where the product works normally.

Solenoid valve specifications

Rated voltage	24 VDC ±10%	100 VAC ±10%
Power consumption	1.2 W (with LED)	1.5 VA (with LED)
Surge protection	Varistor	Bridge diode
Operation indicator	Current application: Red LED ON	
Manual override	Push button (non-lock)	

Suction main valve specifications

Operation type		Indirect operation by pilot valve
Valve type		Normally closed
Response time	OFF→ON	24VDC Specification: 12 msec
		100VAC Specification: 15 msec
	ON→OFF	24VDC Specification: 20 msec
		100VAC Specification: 27 msec

*The response time at rated supply air pressure of 0.5 MPa and rated voltage (100%).

Blow-off main valve specifications

Operation type		Direct operating poppet
Valve type		Normally closed
Response time	OFF→ON	24 VDC Specification: 3.5 msec
		100 VAC Specification: 8 msec
	ON→OFF	24 VDC Specification: 3 msec
		100 VAC Specification: 14 msec

*The response time at rated supply air pressure of 0.5 MPa and rated voltage (100%).

Vacuum Filter specifications

Element material	PVFM (Polyvinyl formal)
Filtering accuracy (*)	5 µm
Filter area	1,130 mm²

*Based on PISCO measuring condition.

Blow-off function

Blow-off air rate	0 to 7 ℓ/min [ANR] (Supply pressure: 0.5 MPa)

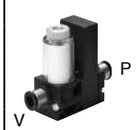
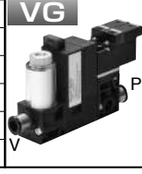
*Blow-off air rate varies according to the vacuum port dia. and tube length (piping resistance and others) on vacuum side.

Pressure sensor (without pressure display) specifications

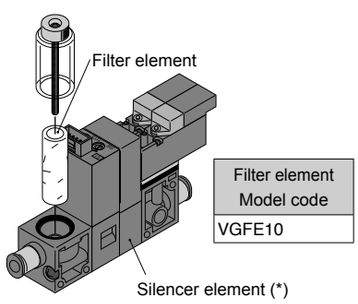
Pressure sensor code		-NW	-NA	-A
		2 switch outputs	1 switch output, 1 analog output	1 analog output
Power requirement		12 to 24 VDC ± 10% Ripple (P-P) 10% max.		
Current consumption		25 mA	17 mA	15 mA
Pressure detection		Diffused metaloxide semiconductive pressure sensor		
Proof pressure		0.2 MPa		
Switch output	Switch output	NPN open collector (30 V 80 mA max/Residual voltage 0.8 V max.)		
	No. of pressure setting	2	1	
	Pressure setting range	0 to -100 kPa		
	Operating accuracy	±3%F.S. (Standard temp. at 25°C)		
	Hysteresis	2%F.S. (Fixed)	Variable (About 1 to 15% of set value)	
	Operation indicator	SW1: Red LED turns ON, when the switch output is ON SW2: Green LED turns ON, when the switch output is ON	Red LED turns ON, when the switch output is ON.	
Analog output	Output voltage		1 to 5 V	
	Zero-point voltage		1 ±0.1 V	
	Span voltage		4 ±0.1 V	
	Output current		1 mA max.	
	Temp. charact. (Zero point)		±0.1 %F.S./°C (Standard temp. at 25°C)	
	Temp. charact. (Span)		±0.1 %F.S./°C (Standard temp. at 25°C)	
	Linearity		±0.5%F.S. max.	

*Allowable range of the variation of “Zero point voltage” and “Pressure setting value” caused by repeated voltage application is ±3%F.S.

RoHS2 (2011/65/EU+EU2015/863) compliant

Without Pressure sensor			With Pressure sensor					
			Analog output			2 switch outputs/1 switch + 1 analog output		
Type	Model code VG[2][3]A-VP		Type	Model code VG[2][3]B-VP-A		Type	Model code VG[2][3]B-VP-[9]	
Filter built-in VG  	VGH05A-44	VGH05A-$^{5}/_{32}$-$^{5}/_{32}$	Filter built-in VG 	VGH05B-44-A	VGH05B-$^{5}/_{32}$-$^{5}/_{32}$-A	Filter built-in VG 	VGH05B-44-[9]	VGH05B-$^{5}/_{32}$-$^{5}/_{32}$-[9]
	VGH07A-66	VGH07A-$^{1}/_{4}$-$^{1}/_{4}$		VGH07B-66-A	VGH07B-$^{1}/_{4}$-$^{1}/_{4}$-A		VGH07B-66-[9]	VGH07B-$^{1}/_{4}$-$^{1}/_{4}$-[9]
	VGH10A-66	VGH10A-$^{1}/_{4}$-$^{1}/_{4}$		VGH10B-66-A	VGH10B-$^{1}/_{4}$-$^{1}/_{4}$-A		VGH10B-66-[9]	VGH10B-$^{1}/_{4}$-$^{1}/_{4}$-[9]
	VGL05A-44	VGL05A-$^{5}/_{32}$-$^{5}/_{32}$		VGL05B-44-A	VGL05B-$^{5}/_{32}$-$^{5}/_{32}$-A		VGL05B-44-[9]	VGL05B-$^{5}/_{32}$-$^{5}/_{32}$-[9]
	VGL07A-66	VGL07A-$^{1}/_{4}$-$^{1}/_{4}$		VGL07B-66-A	VGL07B-$^{1}/_{4}$-$^{1}/_{4}$-A		VGL07B-66-[9]	VGL07B-$^{1}/_{4}$-$^{1}/_{4}$-[9]
	VGL10A-66	VGL10A-$^{1}/_{4}$-$^{1}/_{4}$		VGL10B-66-A	VGL10B-$^{1}/_{4}$-$^{1}/_{4}$-A		VGL10B-66-[9]	VGL10B-$^{1}/_{4}$-$^{1}/_{4}$-[9]
	VGE07A-66	VGE07A-$^{1}/_{4}$-$^{1}/_{4}$		VGE07B-66-A	VGE07B-1/4-1/4-A		VGE07B-66-[9]	VGE07B-$^{1}/_{4}$-$^{1}/_{4}$-[9]
	VGE10A-66	VGE10A-$^{1}/_{4}$-$^{1}/_{4}$		VGE10B-66-A	VGE10B-1/4-1/4-A		VGE10B-66-[9]	VGE10B-$^{1}/_{4}$-$^{1}/_{4}$-[9]
Type	Model code VG[2][3]E-VP-[7]L		Type	Model code VG[2][3]F-VP-[7]L-A		Type	Model code VG[2][3]F-VP-[7]L-[9]	
Suction valve, Blow-off valve, Filter, Lead-out: TOP VG 	VGH05E-44-[7]L	VGH05E-$^{5}/_{32}$-$^{5}/_{32}$-[7]L	Suction valve, Blow-off valve, Filter, Lead-out: TOP VG 	VGH05F-44-[7]L-A	VGH05F-$^{5}/_{32}$-$^{5}/_{32}$-[7]L-A	Suction valve, Blow-off valve, Filter, Lead-out: TOP VG 	VGH05F-44-[7]L-[9]	VGH05F-$^{5}/_{32}$-$^{5}/_{32}$-[7]L-[9]
	VGH07E-66-[7]L	VGH07E-$^{1}/_{4}$-$^{1}/_{4}$-[7]L		VGH07F-66-[7]L-A	VGH07F-$^{1}/_{4}$-$^{1}/_{4}$-[7]L-A		VGH07F-66-[7]L-[9]	VGH07F-$^{1}/_{4}$-$^{1}/_{4}$-[7]L-[9]
	VGH10E-66-[7]L	VGH10E-$^{1}/_{4}$-$^{1}/_{4}$-[7]L		VGH10F-66-[7]L-A	VGH10F-$^{1}/_{4}$-$^{1}/_{4}$-[7]L-A		VGH10F-66-[7]L-[9]	VGH10F-$^{1}/_{4}$-$^{1}/_{4}$-[7]L-[9]
	VGL05E-44-[7]L	VGL05E-$^{5}/_{32}$-$^{5}/_{32}$-[7]L		VGL05F-44-[7]L-A	VGL05F-$^{5}/_{32}$-$^{5}/_{32}$-[7]L-A		VGL05F-44-[7]L-[9]	VGL05F-$^{5}/_{32}$-$^{5}/_{32}$-[7]L-[9]
	VGL07E-66-[7]L	VGL07E-$^{1}/_{4}$-1/4-[7]L		VGL07F-66-[7]L-A	VGL07F-$^{1}/_{4}$-$^{1}/_{4}$-[7]L-A		VGL07F-66-[7]L-[9]	VGL07F-$^{1}/_{4}$-$^{1}/_{4}$-[7]L-[9]
	VGL10E-66-[7]L	VGL10E-$^{1}/_{4}$-$^{1}/_{4}$-[7]L		VGL10F-66-[7]L-A	VGL10F-$^{1}/_{4}$-$^{1}/_{4}$-[7]L-A		VGL10F-66-[7]L-[9]	VGL10F-$^{1}/_{4}$-$^{1}/_{4}$-[7]L-[9]
	VGE07E-66-[7]L	VGE07E-$^{1}/_{4}$-$^{1}/_{4}$-[7]L		VGE07F-66-[7]L-A	VGE07F-$^{1}/_{4}$-$^{1}/_{4}$-[7]L-A		VGE07F-66-[7]L-[9]	VGE07F-$^{1}/_{4}$-$^{1}/_{4}$-[7]L-[9]
	VGE10E-66-[7]L	VGE10E-$^{1}/_{4}$-$^{1}/_{4}$-[7]L		VGE10F-66-[7]L-A	VGE10F-$^{1}/_{4}$-$^{1}/_{4}$-[7]L-A		VGE10F-66-[7]L-[9]	VGE10F-$^{1}/_{4}$-$^{1}/_{4}$-[7]L-[9]
Type	Model code VG[2][3]E-VP-[7]S		Type	Model code VG[2][3]F-VP-[7]S-A		Type	Model code VG[2][3]F-VP-[7]S-[9]	
Suction valve, Blow-off valve, Filter, Lead-out: SIDE VG 	VGH05E-44-[7]S	VGH05E-$^{5}/_{32}$-$^{5}/_{32}$-[7]S	Suction valve, Blow-off valve, Filter, Lead-out: SIDE VG  	VGH05F-44-[7]S-A	VGH05F-$^{5}/_{32}$-$^{5}/_{32}$-[7]S-A	Suction valve, Blow-off valve, Filter, Lead-out: SIDE VG 	VGH05F-44-[7]S-[9]	VGH05F-$^{5}/_{32}$-$^{5}/_{32}$-[7]S-[9]
	VGH07E-66-[7]S	VGH07E-$^{1}/_{4}$-$^{1}/_{4}$-[7]S		VGH07F-66-[7]S-A	VGH07F-$^{1}/_{4}$-$^{1}/_{4}$-[7]S-A		VGH07F-66-[7]S-[9]	VGH07F-$^{1}/_{4}$-$^{1}/_{4}$-[7]S-[9]
	VGH10E-66-[7]S	VGH10E-$^{1}/_{4}$-$^{1}/_{4}$-[7]S		VGH10F-66-[7]S-A	VGH10F-$^{1}/_{4}$-$^{1}/_{4}$-[7]S-A		VGH10F-66-[7]S-[9]	VGH10F-$^{1}/_{4}$-$^{1}/_{4}$-[7]S-[9]
	VGL05E-44-[7]S	VGL05E-$^{5}/_{32}$-$^{5}/_{32}$-[7]S		VGL05F-44-[7]S-A	VGL05F-$^{5}/_{32}$-$^{5}/_{32}$-[7]S-A		VGL05F-44-[7]S-[9]	VGL05F-$^{5}/_{32}$-$^{5}/_{32}$-[7]S-[9]
	VGL07E-66-[7]S	VGL07E-$^{1}/_{4}$-$^{1}/_{4}$-[7]S		VGL07F-66-[7]S-A	VGL07F-$^{1}/_{4}$-$^{1}/_{4}$-[7]S-A		VGL07F-66-[7]S-[9]	VGL07F-$^{1}/_{4}$-$^{1}/_{4}$-[7]S-[9]
	VGL10E-66-[7]S	VGL10E-$^{1}/_{4}$-$^{1}/_{4}$-[7]S		VGL10F-66-[7]S-A	VGL10F-$^{1}/_{4}$-$^{1}/_{4}$-[7]S-A		VGL10F-66-[7]S-[9]	VGL10F-$^{1}/_{4}$-$^{1}/_{4}$-[7]S-[9]
	VGE07E-66-[7]S	VGE07E-$^{1}/_{4}$-$^{1}/_{4}$-[7]S		VGE07F-66-[7]S-A	VGE07F-$^{1}/_{4}$-$^{1}/_{4}$-[7]S-A		VGE07F-66-[7]S-[9]	VGE07F-$^{1}/_{4}$-$^{1}/_{4}$-[7]S-[9]
	VGE10E-66-[7]S	VGE10E-$^{1}/_{4}$-$^{1}/_{4}$-[7]S		VGE10F-66-[7]S-A	VGE10F-$^{1}/_{4}$-$^{1}/_{4}$-[7]S-A		VGE10F-66-[7]S-[9]	VGE10F-$^{1}/_{4}$-$^{1}/_{4}$-[7]S-[9]

Replacement element



Filter element Model code
VGFE10

* The silencer element is the same as one for vacuum generator Box type (VB). Please refer to page 259.

Notes
* Please select each code referring to the example of model designation.
[7]: Code for solenoid valve specification, and [9]: Pressure sensor code

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag: Vacuum generator
10 pcs /bag: Replacement element

Vacuum Generator Complex Type VQ

31.5 mm wide Vacuum Generator Complex Type for the control of large vacuum flow (Stand-alone type)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VQ (1) T15 (2) C (3) – O (4) O (5) S (6) – D24 (7) – NW (8) (9)

(1) Vacuum Generator Complex Type VQ

(2) Nozzle bore

Code		Vacuum characteristics	Nozzle bore (mm)	Supply pressure (MPa)	Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])
H15	Single nozzle type	High-vacuum type	1.5	0.5	-93	63〔63〕	100
L15		Large-flow type			-66	95〔95〕	
E15		High-vacuum at Low air supply pressure type		0.35	-92	42〔42〕	70
H20		High-vacuum type	2.0	0.5	-93	96〔97.5〕	200
L20		Large-flow type			-66	143〔160〕	
E20		High-vacuum at Low air supply pressure type		0.35	-92	70〔70〕	150
T15	Twin nozzle type		0.7	0.5	-93	24〔24〕	23
			1.5			40〔40〕	100
T20			1.0			36〔36〕	46
			2.0			70〔70〕	200
D07	Two-stage nozzle type		0.7	0.5	-93	52〔52〕	23
D10			1.0			75〔75〕	46
D12			1.2			85〔85〕	70

*1. Suction flow values on the left represent those of vacuum port dia. 8 mm and those in [ ] are of vacuum port dia. 10 mm.
*2. The values in the table are representative values. Suction flow can vary by vacuum port dia. and tube length.
*3. Twin nozzle type is not CE marked.

(3) Suction valve type

Code	C	O	D
Valve type	Normally closed (N.C.)	Normally open (N.O.)	Double-piloted (Self-holding function)

*1. Normally-closed (code: C) only when a twin-nozzle type is selected in (2).
*2. Normally-closed (code: C) or Normally-open (code: O) only when a 2 -stage nozzle type is selected in (2).

(4) Vacuum port size (V)

Code	8	0
Tube O.D. (mm)	ø8	ø10

(5) Air supply port size (PS)

Code	6	8	0
Tube O.D. (mm)	ø6	ø8	ø10

* Dia. 6 mm tube fitting is selectable only when 2 -stage nozzle type is selected in (2).

(6) Exhaust port (EX)

Code	S	J
Exhaust port	Open to air (Silencer vent)	Tube exhaust (ø12 mm Push-in fitting)

(7) Solenoid valve specification

Code	D24	D24MC	A100
Voltage	24 VDC	24 VDC (Minus Common)	100VAC

*1. For twin nozzle type, only 24 VDC can be selected.
*2. 100VAC type is not CE marked.

(8) Pressure sensor

Code	Specifications
No code	Without Pressure sensor
NW	□30x30 mm square display, 2 points SW output, NPN open collector
PW	□30x30 mm square display, 2 points SW output, PNP open collector

(9) -S3 spec. (Metal option)

Code	No code	-S3(*)
Metal material	Standard spec.	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard spec.	HNBR or FKM
Release-ring color	Black	Dark blue

* -S3 specification is only for tube exhaust type (for air flow) and is not available for electronic components and electric wires.
* Exhaust port of pilot valve: dia. 6 mm Push-in fitting

Characteristics

Exhaust noise of Silencer vent type is 78 dB [A]. (Measured by representative models.)

31.5 -mm wide vacuum unit suitable for the control of large vacuum flows.

3 types of nozzles, each of which has unique features, are offered.

· Nozzle bore for Single nozzle type (1.5, 2.0 mm)
· Nozzle bore for Two-stage nozzle type (0.7, 1.0, 1.2 mm)
· Nozzle bore for Twin nozzle type (1.5, 2.0 mm)

Various valve types.

· Single-nozzle type: Normally open, Normally closed, Double-piloted type
· Two-stage nozzle type: Normally open, Normally closed type
· Twin-nozzle type: Normally closed type

3 -color LCD dual display with high visibility.

Power-save mode can reduce power consumption by 30%.

Minus common spec. is selectable.

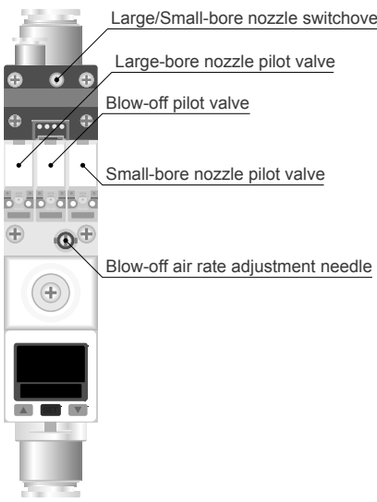
Suitable for applications where negative side of power supply is used as common reference potential.

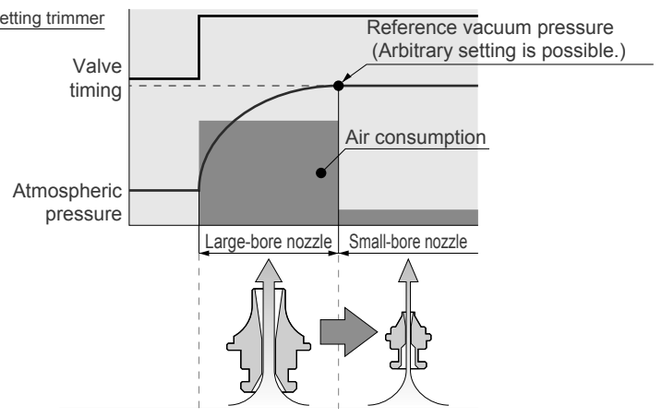
● Twin nozzle type

Energy saving

Twin nozzle type is suitable for applications with long suction time and conveyance time.

· The large-bore nozzle controls vacuum generation from the start to a prescribed reference vacuum pressure level, followed by the small-bore nozzle for maintaining a vacuum level. This combination allows for energy saving by reducing substantial air consumption.
· One signal controls vacuum generation just like the conventional models.



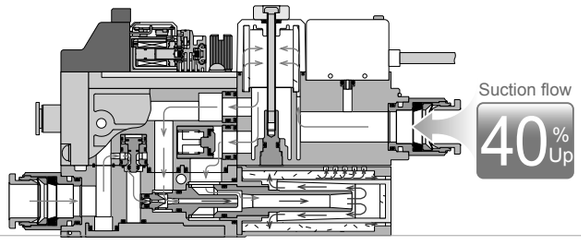


Nozzle type	Air consumption (ℓ/min [ANR])	
T15	100	23
T20	200	46

● Two-stage nozzle type

The two-stage nozzle type's vacuum suction rate has been increased by approximately 40% compared to conventional single nozzle type.

40% increase in suction flow when compared to PISCO Vacuum Generator complex type with the same single nozzle size.



● -S3 spec (Metal option)

No copper-based metallic materials used in flow paths.

Seal rubber material is HNBR or FKM, both of which have good ozone resistance.

Vacuum Generator Complex Type VQ

Specifications

Fluid medium		Air (JIS B 8392-1 : Compliant with [Class 1.2.1 to 2.4.3])
Operating press. range		0.3 to 0.7 MPa
Operating temp. range		5 to 50°C (No freezing)
Operating humid. range		35 to 85 %RH (No dew condensation)
Vibration resist. /Shock resist.		50 m/s² max ／ 150 m/s² max
Protective structure		IEC standard IP40 equiv.
Lubrication		Not required
Proof pressure	Air supply. circuit	1.05 MPa
	Vac. circuit	0.2 MPa

* Proof pressure is the level of pressure at which the product would not be damaged. It does not mean the pressure where the product works normally.

Solenoid valve specifications

Rated voltage	24 VDC ±10%	100 VAC ±10%
Power consumption	0.55 W (with LED)	1.0 VA (with LED)
Surge protection	Varistor	Bridge diode
Operation indicator	Current application: Red LED ON	
Manual override	Push-turn locking	

Suction main valve specifications

■ Single nozzle type

Operation type		Indirect operation by pilot valve		
Valve type		Normally closed	Normally open	Double-piloted (*1)
Response time (Standard)	OFF→ON	24 VDC: 15 msec	24 VDC: 15 msec	24 VDC: 10 msec
		100 VAC: 15 msec	100 VAC: 15 msec	100 VAC: 12 msec
	ON→OFF	24 VDC: 18 msec	24 VDC: 10 msec	–
		100 VAC: 24 msec	100 VAC: 16 msec	–
Response time (Metal option)	OFF→ON	24 VDC: 20 msec	24 VDC: 20 msec	24 VDC: 18 msec
		100 VAC: 20 msec	100 VAC: 20 msec	100 VAC: 20 msec
	ON→OFF	24 VDC: 25 msec	24 VDC: 15 msec	–
		100 VAC: 31 msec	100 VAC: 21 msec	–

*1. Excitation time of the solenoid must be 50 msec or more.
*2. The response time at supply air of 0.5 MPa with rated voltage (100%)

■ Two-stage nozzle type

Operation type		Indirect operation by pilot valve	
Valve type		Normally closed	Normally open
Response time (Standard)	OFF→ON	24 VDC: 10 msec	24 VDC: 18 msec
		100 VAC: 10 msec	100 VAC: 18 msec
	ON→OFF	24 VDC: 10 msec	24 VDC: 10 msec
		100 VAC: 16 msec	100 VAC: 16 msec
Response time (-S3 spec.)	OFF→ON	24 VDC: 15 msec	24 VDC: 35 msec
		100 VAC: 15 msec	100 VAC: 35 msec
	ON→OFF	24 VDC: 15 msec	24 VDC: 15 msec
		100 VAC: 21 msec	100 VAC: 21 msec

* The response time at supply air is when 0.5 MPa with rated voltage (100%).

■ Twin nozzle type

Operation type		Indirect operation by pilot valve
Valve type		Normally closed
Response time (Standard)	OFF→ON	24 VDC: 15 msec
Response time (Metal option)	OFF→ON	24 VDC: 20 msec

* The response time at supply air of 0.5 MPa with rated voltage (100%)

Vacuum filter specifications

Element material	PVFM (Polyvinyl formal)
Filtering accuracy (*)	5 µm
Filter area	1,507 mm²

* Based on PISCO measuring condition.

Blow-off main valve specifications

Operation type		Indirect operation by pilot valve
Valve type		Normally closed
Response time (Standard)	OFF→ON	24 VDC: 10 msec
		100 VAC: 10 msec
	ON→OFF	24 VDC: 10 msec
		100 VAC: 16 msec
Response time (Metal option)	OFF→ON	24 VDC: 12 msec
		100 VAC: 12 msec
	ON→OFF	24 VDC: 10 msec
		100 VAC: 16 msec

*2 The response time at supply air of 0.5 MPa with rated voltage (100%)

Valve lead wire color

24 VDC Specifications	Black	Gray	Blue	Brown
Twin nozzle type	Suction (–)	Blow-off (–)	Minus (–)	24 VDC (+common)
Two-stage nozzle type	Suction (–)	Blow-off (–)		24 VDC (+common)
Single nozzle type	Suction (–)	Blow-off (–)		24 VDC (+common)
24 VDC (Minus Common)	**Black**	**Gray**	**Blue**	**Brown**
Two-stage nozzle type	Suction (+)	Blow-off (+)		0V (-common)
Single nozzle type	Suction (+)	Blow-off (+)		0V (-common)
100 VAC Specifications	**Black**	**Gray**	**Blue**	**Brown**
Two-stage nozzle type	Suction (~)	Blow-off (~)		common (~)
Single nozzle type	Suction (~)	Blow-off (~)		common (~)

Blow-off function

Blow-off air rate	0 to 50 ℓ/min [ANR] (Supply pressure: 0.5MPa)

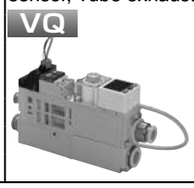
* Blow-off air rate varies according to the vacuum port dia. and tube length (piping resistance and others) on vacuum side.

Pressure sensor

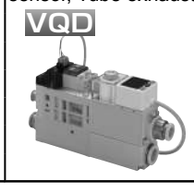
Model		VUS-33R-N2	VUS-33R-P2
Pressure range		Compound pressure	
Rated pressure range		-100 kPa to 100 kPa	
Proof pressure		500 kPa	
Fluid medium		Air, non-corrosive gas, incombustible gas	
Power requirement		12 to 24 VDC (Ripple ± 10% max.)	
Current consumption		40 mA max. (At no load)	
Switch output	Switch output	NPN open collector	PNP open collector
	No. of press. setting	2 points output (SW 1, SW 2)	
	Max. load current	125 mA	
	Max. supply voltage	30 VDC	24 VDC
	Int. voltage drop	1.5 V max	
Repeatability		±0.2%F.S. ±1 digit max	
Hysteresis	One point set mode	Adjustable	
	Hysteresis mode		
	Window comparator mode		
Response time		Selectable from 50 ms, 250 ms, 500 ms, 1,000 ms, 2,000 ms, 3,000 ms	
Output short circuit protection		Incorporated	
Digital display		Main display: 3 colors (Red, Green, Orange) Sampling rate: 1, 2 or 5 times/sec. (Adjustable)	
Indication accuracy		±2%F.S. ±1 digit max (Ambient temperature: 25 ±3°C)	
Operation indicator		Orange (1 & 2 indicator) OUT 1, OUT 2	
Weatherability	Protective structure	IEC standard IP40 equiv.	
	Ambient temp. range	Operation: 0 to 50°C, Storage: -10 to 60°C (No dew condensation or freezing)	
	Ambient humidity range	Operation/Storage: 35 to 85%RH (No dew condensation)	
	Withstand voltage	1000 VAC 1 min. (between case and lead wire)	
	Insulation resistance	50 MΩ min. (500 VDC) (between case and lead wire)	
	Vibration resist.	Total amplitude 1.5 mm or 100 m/s² 10 Hz-150 Hz-10 Hz scan for 1 min., 2 hours in each direction of X, Y, and Z.	
	Shock resist.	100 m/s², 3 times in each direction of X, Y, and Z.	
Temp. charact.		±2%F.S. max (Standard temp. at 25°C, Range: 0 to +50°C)	
Lead wire		Oil-resistance cable (0.15 mm²)	

RoHS2 (2011/65/EU+EU2015/863) compliant CE (*2)

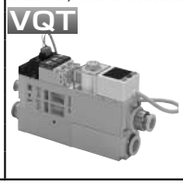
Single nozzle type

Type	Model code	Type	Model code
Without Pressure sensor, Silencer vent	VQ2[3]-[4][5]S-[7]	Without Pressure sensor, Tube exhaust	VQ2[3]-[4][5]J-[7][9]
Type	Model code	Type	Model code
2 switch outputs Pressure sensor, Silencer vent	VQ2[3]-[4][5]S-[7]-[8]	2 switch outputs Pressure sensor, Tube exhaust	VQ2[3]-[4][5]J-[7]-[8][9]
			

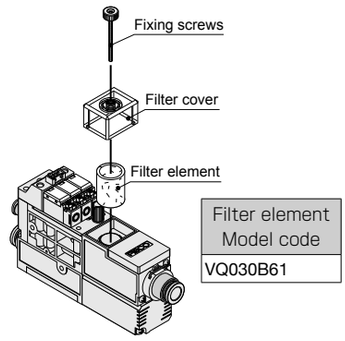
Two-stage nozzle type

Type	Model code	Type	Model code
Without Pressure sensor, Silencer vent	VQD2[3]-[4][5]S-[7]	Without Pressure sensor, Tube exhaust	VQD2[3]-[4][5]J-[7][9]
Type	Model code	Type	Model code
2 switch outputs Pressure sensor, Silencer vent	VQD2[3]-[4][5]S-[7]-[8]	2 switch outputs Pressure sensor, Tube exhaust	VQD2[3]-[4][5]J-[7]-[8][9]
			

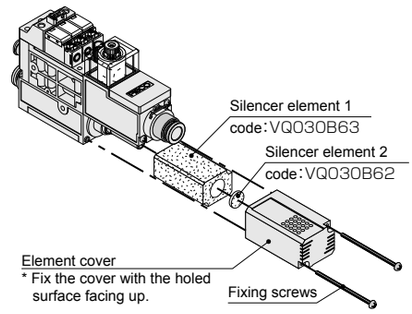
Twin nozzle type

Type	Model code	Type	Model code
Without Pressure senso, Silencer vent	VQT2C-[4][5]S-D24	Without Pressure sensor, Tube exhaust	VQT2C-[4][5]J-D24[9]
Type	Model code	Type	Model code
2 switch outputs Pressure sensor, Silencer vent	VQT2C-[4][5]S-D24-[8]	2 switch outputs Pressure sensor, Tube exhaust	VQT2C-[4][5]J-D24-[8][9]
			

Replacement element

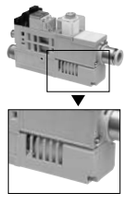


Filter element Model code
VQ030B61



Silencer element Model code	Remark
SED2212	Old type (*)
VQ030B63	Current type
VQ030B62	

* Old type before Oct. 2014 production



Notes

*1. Please select each code referring to the example of model designation. [2]: Code of vacuum characteristics and nozzle bore, [3]: Suction valve type code, [4]: Vacuum port size code, [5]: Supply air port size code, [7]: Solenoid valve spec. code, and [8]: Pressure sensor code.

*2. 100 VAC type and twin nozzle type are not CE marked.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
[9] : -S3 ⇒ -S3 spec. (Metal option)

Vacuum Generator Complex Type VK

16 mm wide complex type allows variety of unit combinations (Stand-alone and manifold types)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VK	A	H	07	W	–	06	06	08	E	–	B		–NW
(1)	(2)	(3)	(4)	(5)		(6)	(7)	(8)	(9)		(10)	(11)	(12)

(1) Vacuum Generator Complex Type VK

(2) Port position

Code	A	B	M
Port position	Stand-alone type with ports on 2 sides	Stand-alone type with ports on 1 side	Manifold type

(3) Vacuum characteristics

Code	H	L	E	No code
Charact.	High-vacuum type (Rated supply pressure: 0.5 MPa)	Large-flow type (Rated supply pressure: 0.5 MPa)	High-vacuum at Low air supply pressure type (Rated air supply pressure: 0.35 MPa)	Manifold-base alone

(4) Nozzle bore

Applicable unit combination code: For A, C, E, G, J, L, P, Q, R, S, T, W

Code	Nozzle bore (mm)	H type			Lt type			E type		
		Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])	Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])	Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])
05	0.5	-91	7 〔7〕〈7〉	11.5	-67	12 〔12〕〈12〉	11.5	—	—	—
07	0.7	-93	13 〔13〕〈13〉	23	-67	24 〔26〕〈26〉	23	-91	10.5 〔10.5〕〈10.5〉	17
10	1.0	-93	27 〔27〕〈27〉	46	-67	37 〔40〕〈40〉	46	-91	21 〔21〕〈21〉	34
12	1.2	-93	32 〔38〕〈38〉	70	-67	37 〔50〕〈50〉	70	-91	27 〔27〕〈27〉	47
No code	Manifold-base alone									

Applicable unit combination code: For B, D, F, H, K, M

Code	Nozzle bore (mm)	H type			L type			E type		
		Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])	Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])	Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])
05	0.5	-86.5	5.4 〔5.4〕〈5.4〉	11.5	-66.5	10 〔10〕〈10〉	11.5	–	–	–
07	0.7	-90.5	11 〔11〕〈11〉	23	-66.5	19 〔19〕〈19〉	23	-86.5	8.4 〔8.4〕〈8.4〉	17
10	1.0	-90.5	19 〔19〕〈19〉	46	-66.5	24 〔24〕〈24〉	46	-86.5	15.4 〔15.4〕〈 15.4〉	34
12	1.2	-90.5	24 〔24〕〈24〉	70	-66.5	24 〔27〕〈27〉	70	-90.5	19 〔19〕〈19〉	47
No code	Manifold-base alone									

*1. Values are when rated pressure is applied. (H and L type: 0.5 MPa, E type: 0.35 MPa.)
*2. Suction flow values on the left represent those of vacuum port dia. 4 mm or ø5/32", those in [ ] are of vacuum port dia. of 6 mm or 1/4", and those in < > are of vacuum port dia. of 8mm or 5/16".
*3. The values in the table are representative values. Suction flow can vary by vacuum port dia. and tube length.

(5) Combination of units (18 types) * ○ : Equipped

Code	A	B	C	D	E	F	G	H	J	K	L	M	P	Q	R	S	T	W	No code
Filter	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	Manifold-base alone
Suction solenoid valve	–	–	–	–	–	–	○	○	○	○	○	○	○	○	○	○	○	○	
Check valve (Vacuum retention func.)	–	○	–	○	–	○	–	○	–	○	–	○	–	–	–	–	–	–	
Mechanical pressure sensor	–	–	○	○	–	–	–	–	○	○	–	–	–	○	–	–	○	–	
Pressure sensor with LED display	–	–	–	–	○	○	–	–	–	–	○	○	–	–	○	–	–	○	
Air timer type blow-off valve	–	–	–	–	–	–	–	–	–	–	–	–	○	○	○	–	–	–	
Solenoid valve type blow-off valve	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	○	○	○	

(6) Vacuum port size (V)

■Stand-alone type

	mm size (mm)			inch size (inch)		
Code	04	06	08	5/32	1/4	5/16
Tube O.D.	ø4	ø6	ø8	ø5/32	ø1/4	ø5/16

■Manifold type (VKM)

Port position	Side (Straight)							Top (Straight)					
	mm size (mm)			inch size (inch)				mm size (mm)			inch size (inch)		
Code	S4	S6	S8	S5/32	S1/4	S5/16	PP	T4	T6	T8	T5/32	T1/4	T5/16
Tube O.D.	ø4	ø6	ø8	ø5/32	ø1/4	ø5/16	Plug	ø4	ø6	ø8	ø5/32	ø1/4	ø5/16
Code	OO												
	Applicable to a manifold installation top-mounting unit alone with the vacuum port on the side, or to manifold-base alone with any vacuum port in different size.												

* See "Manifold Type (reference)" on page 283 to confirm the port position.

(7) Air supply port size (PS)

■ Stand-alone type

	mm size (mm)			inch size (inch)		
Code	04	06	08	5/32	1/4	5/16
Tube O.D.	ø4	ø6	ø8	ø5/32	ø1/4	ø5/16

* Only 0.5 mm and 0.7 mm nozzle bore sizes are selectable when ø4 mm or ø5/32" air supply port is specified.

■ Manifold type (VKM)

		mm size (mm)							inch size (inch)						
Port type		Straight				Elbow			Straight				Elbow		
Code	R side only	16	18	10	12	48	40	42	11/4	15/16	13/8	11/2	45/16	43/8	41/2
	Both sides	26	28	20	22	58	50	52	21/4	25/16	23/8	21/2	55/16	53/8	51/2
	L side only	36	38	30	32	68	60	62	31/4	35/16	33/8	31/2	65/16	63/8	61/2
Tube O.D.		ø6	ø8	ø10	ø12	ø8	ø10	ø12	ø1/4	ø5/16	ø3/8	ø1/2	ø5/16	ø3/8	ø1/2
Code		00													
		Applicable to a manifold installation top-mounting unit alone.													

(8) Exhaust port (EX)

■ Stand-alone type

Code	S	08	L8
Specifications	Silencer vent	ø 8 mm (ø 5/16") Straight tube fitting (Tube exhaust)	ø 8 mm (ø 5/16") Elbow tube fitting (Tube exhaust)

■ Manifold type (VKM)

		Tube exhaust									
Port type		Push-in fitting, Straight				Push-in fitting, Elbow			Female taper thread		
Code	R side only	18	10	12	13	48	40	42	72	73	74
	Both sides	28	20	22	23	58	50	52	82	83	84
	L side only	38	30	32	33	68	60	62	92	93	94
Tube O.D. (mm)		ø8	ø10	ø12	ø16	ø8	ø10	ø12	Rc1/4	Rc3/8	Rc1/2

		Silencer vent
Code	R side only	S1
	Both sides	S2
	L side only	S3

		Tube exhaust									
Port type		Push-in fitting, Straight				Push-in fitting, Elbow			Female NPT thread		
Code	R side only	15/16	13/8	11/2	15/8	45/16	43/8	41/2	72N	73N	74N
	Both sides	25/16	23/8	21/2	25/8	55/16	53/8	51/2	82N	83N	84N
	L side only	35/16	33/8	31/2	35/8	65/16	63/8	61/2	92N	93N	94N
Tube O.D. (in.)		ø5/16	ø3/8	ø1/2	ø5/8	ø5/16	ø3/8	ø1/2	1/4NPT	3/8NPT	1/2NPT
Code		00									
		Applicable to a manifold installation top-mounting unit alone.									

(9) Solenoid valve type (Fill in only when you specify "combination of units" with suction solenoid valve.)

Code	E		G		F		H		No code
Voltage	24 VDC				100 VAC				Manifold-base alone
type	Normally closed (N.C.)		Normally open (N.O.)		Normally closed (N.C.)		Normally open (N.O.)		

(10) Body color

Code	W	B
Color	Light gray	Black

(11) No. of stations (Code entry for Manifold type only)

Code	02	03	04	05	06	07	08	09	10
No. of St.	2	3	4	5	6	7	8	9	10

*1. Special-order item when no. of stations are or more 11.
*2. Allowable No. of stations for simultaneous operation varies depending on the combination of nozzle bore and port size. Contact your nearest sales office for details.

(12) Pressure sensor (Selectable only when unit combination is E, F, L, M, R or W.)

Code	Specifications
-NW	NPN open collector output with 2 switch outputs
-NA	NPN open collector output with 1 switch output and 1 analog output
-PW	PNP open collector output with 2 switch outputs
-PA	PNP open collector output with 1 switch output and 1 analog output

Vacuum Generator Complex Type VK

Model Designation of Block Plate (Example)

VKM (1) – MB (2) – W (3)

(1) Vacuum Generator Complex type VK, Manifold

(2) Block plate

(3) Body color

Code	W	B
Color	Light gray	Black

Model Designation of nozzle set (Example)

VK (1) H (2) N 05 (3)

(1) Vacuum Generator Complex type VK

(2) Vacuum characteristics

Code	H	L	E
Charact.	High-vacuum type (Rated supply pressure: 0.5 MPa)	Large-flow type (Rated supply pressure: 0.5 MPa)	High-vacuum at Low air supply pressure type (Rated supply pressure: 0.35 MPa)

(3) Nozzle bore

Code	05	07	10	12
Nozzle bore (mm)	ø0.5	ø0.7	ø1.0	ø1.2

Order Example

■ Manifold type (VKM)

Ex. 1. When all stations have the same specifications.

VK (1) M (2) H (3) 10 (4) W (5) – T6 (6) 20 (7) S2 (8) E (9) – B (10) 04 (11) – NW (12)

(2) Port position: **M**→Manifold type
(3) Vacuum characteristics : **H**→High-vacuum type
(4) Nozzle bore: **10**→ø1.0mm
(5) Combinations: **W**→Filter, Suction solenoid valve, Pressure sensor with LED, Blow-off solenoid valve.
(6) Vacuum port: **T6**→ø 6 mm Push-in fitting on top
(7) Air supply port: **20**→ø 10 mm Push-in fitting on both sides of manifold-base
(8) Exhaust port: **S2**→Silencers on both sides of manifold-base
(9) Solenoid valve type: **E**→Normally closed (N.C.) type 24 VDC (for both suction and blow-off)
(10) Color: **B** → Black
(11) No. of stations: **04**→4 stations
(12) Pressure sensor: **NW**→NPN open collector output with 2 switch outputs

■ Manifold installation top-mounting unit alone

Ex. 2. When the vacuum port is on the side of the manifold-base

VK (1) M (2) H (3) 07 (4) G (5) – 00 (6) 00 (7) 00 (8) E (9) – W (10)

(2) Port position: **M**→Manifold type
(3) Vacuum characteristics: **H**→High-vacuum type
(4) Nozzle bore: **07**→ø0.7 mm
(5) Combinations: **G**→Filter, Suction solenoid valve
(6) Vacuum port: **00**→Manifold installation top-mounting unit alone with side vacuum port
(7) Air supply port: **00**→For manifold installation top-mounting unit alone
(8) Exhaust port: **00**→For manifold installation top-mounting unit alone
(9) Solenoid valve type: **E** → Normally closed (N.C.) type 24 VDC (for both suction and blow-off)
(10) Color: **W**→Light gray

Ex. 3. When vacuum port is on the top of the station.

VK (1) M (2) H (3) 12 (4) R (5) – T6 (6) 00 (7) 00 (8) E (9) – W (10) – NA (12)

(2) Port position: **M**→Manifold type
(3) Vacuum characteristics: **H**→High-vacuum type
(4) Nozzle bore: **12**→ø1.2mm
(5) Combinations: **R**→Filter, Suction solenoid valve, Pressure sensor with LED, Air timer-type blow-off valve.
(6) Vacuum port: **T6** →ø 6 mm Push-in fitting on top.
(7) Air supply port: **00**→For manifold installation top-mounting type alone.
(8) Exhaust port: **00**→For manifold installation top-mounting type alone.
(9) Solenoid valve type: **E**→Normally closed (N.C.) type 24 VDC (for both suction and blow-off)
(10) Color: **W**→Light gray
(12) Pressure sensor: **NA**→NPN open collector output with 1 switch output and 1 analog output

* For manifold installation top-mounting unit, vacuum ports are provided with a seal packing and two fixing screws.
Seals for exhaust port and supply port are not included. Instead, they come with manifold-base.

■ Manifold-base alone (Block plate is not included.)

Ex. 4. When all vacuum ports have the same specifications for all stations.

VK (1) M (2) – S6 (6) 48 (7) 62 (8) – W (10) 08 (11)

(2) Port position: **M**→Manifold type
(6) Vacuum port: **S6**→ø6 mm Push-in fittings for all 8 stations.
(7) Air supply port: **48**→ø 8 mm Push-in fitting (Elbow) on R side only.
(8) Exhaust port: **62**→ø 12 mm Push-in fitting (Elbow) on L side only.
(10) : **W**→Light gray
(11) No. of stations :**08**→8 stations

Ex. 5. When any of vacuum ports differs from the others. (Specification order form is required separately)

VK (1) M (2) – 00 (6) 48 (7) 62 (8) – W (10) 08 (11)

(2) Port position: **M**→Manifold type
(6) Vacuum port: **00** →When a vacuum port at any station differs in the manifold.
(Specification order form is required separately.)
(7) Air supply port: **48**→ø 8 mm Push-in fitting (Elbow) on R side only.
(8) Exhaust port: **62**→ø 12 mm Push-in fitting (Elbow) on L side only.
(10) Color: **W**→Light gray
(11) No. of stations :**08**→8 stations

■ Entry example in a specification form when any of vacuum ports differs.

			Type (Port pos.) (1)	Vacuum charact. (3)	Nozzle bore (4)	Combinations (5)	Vacuum port (6)	Air supply port (7)	Exhaust port (8)	Solenoid valve type (9)	Color (10)	No. of stations (11)	Pressure sensor (12)
Manifold model code			VKM		—		00	48	62	—	W	08	
Mounting unit model (Vacuum port spec. for manifold-base alone)	Lside	St.1					S6						
	⬆ Station No.	St.2					S6						
		St.3					S6						
		St.4					S6						
		St.5					S8						
		St.6					S8						
		St.7					S8						
	⬇	St.8					PP						
		St.9											
	Rside	St.10											

* Fill in "manifold model code" and (6) Vacuum port for each station only.
For (6) Vacuum port, S4, S6, S8 or PP are only selectable.

Order Example

■ When any station of manifold type (VKM) has different spec. of top-mounting unit or a different vacuum port

(1 and 2 below are examples of model code. Also fill in 3 (Specification Order Form) which shows station arrangements for manifold installation top-mounting unit and vacuum port.))

1 Model code and number of manifold-base units.

VK M – 00 48 62 – W 08····· 1pc.

*1. See the order form Example 5 for manifold-base.
*2. Even when all vacuum ports are the same size, model code of the vacuum ports should be "00".

2 Model code and No. of stations of top-mounting units

1)···**VK M H 07 G – S8 00 00 E – W** ····· 3pcs
2)···**VK M E 10 W – S6 00 00 G – NW**····· 1pc.
3)···**VK M H 12 R – T6 00 00 E – NA** ····· 3pcs
4)···**VK M – MB – W**····· 1pc.

*1. For 1), 2), 3) above, see the Order Example of "Manifold installation top-mounting unit alone Ex. 2 and Ex. 3 .
*2. For 4 above, see "Model Designation of Block Plate (Example)" on the previous page.

3 Specification order form (Example)

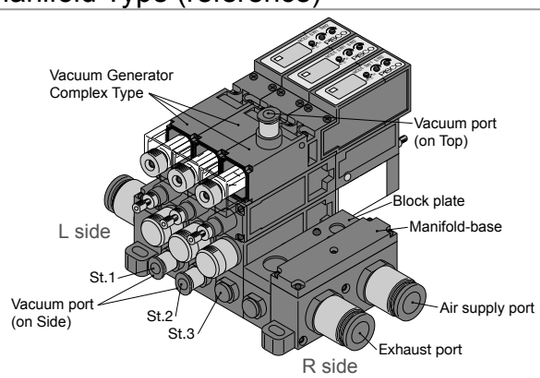
(Instruction about station arrangements for manifold installation top-mounting unit and vacuum port.)

			Type (Port pos.) (1)	Vacuum charact. (3)	Nozzle bore (4)	Combi-nation (5)	Vacuum port (6)	Air supply port (7)	Exhaust port (8)	Solenoid valve type (9)	Color (10)	s (11)	Pressure sensor (12)
Manifold model code			**VKM**		—		00	48	62	—	W	08	
Mounting unit model (Vacuum port spec. for manifold-base alone)	Lside	St.1	VKM	H	07	G	S8	00	00	E	W	3	
	⬆ Station No.	St.2	St 1				↖ ø 8 mm Push-in fitting on side port						
		St.3	St 1				↙ ø 6 mm Push-in fitting on side port						
		St.4	VKM	E	10	W	S6	00	00	G	W	1	-NW
		St.5	VKM	H	12	R	T6	00	00	E	W	3	-NA
		St.6	St 5				↖ ø 6 mm Push-in fitting on top port						
		St.7	St 5										
	⬇	St.8	VKM			MB					W	1	
		St.9											
	Rside	St.10											

Instructions for Specification order form

(1) In the case of 1) and 2) of 2 "Model code and No. of stations of top-mounting units", (6) Vacuum port code is "00" with side port specification, and the fitting size is unknown. Fitting size should be defined by 3 "Specification Order Form". Therefore, (6) Vacuum port spec. code in 2 "Model code and No. of stations of top mounting units" and 3 "Specification order form" may sometimes differ.
(2) Station numbers are arranged in serial order as St. 1, St. 2, …St. 10 from the L side toward the R side. To confirm their positions, see the Manifold Type reference below.
(3) If the manifold top-mounting units for St 1, St. 2 and St. 3 are the same spec. as the left order form (example) , fill in the top row of St 1only and enter "St. 1" for St. 2 and St. 3 on the type (port pos.) column. (e. g. If the manifold top-mounting unit for St. 6 is the same model as that for St. 1, enter "St. 1" in the type (port pos.) column of St. 6. Please put the number of manifold in" Manifold model code" row, but enter the number of common spec. units in the cells (cross sections of No. of stations column and St. 1 to 10 rows). Entering the number of common spec. units is necessary to check the number of the common spec. unit on a manifold type.
Basically, the working voltage of solenoid valves are one spec. However, it is possible to specify different voltage such as 24 VDC, 100 VAC per mounting unit. In such case, specify the voltage in (9) "Solenoid valve type" column referring to the order form example.

Manifold Type (reference)



Cut here

Vacuum Generator VK Specification Order Form

To: NIHON PISCO CO., Ltd. Name

Distributor address TEL

Delivery address TEL

Customer name and address TEL

Requested EX-W PISCO Date Order quantity: pcs.

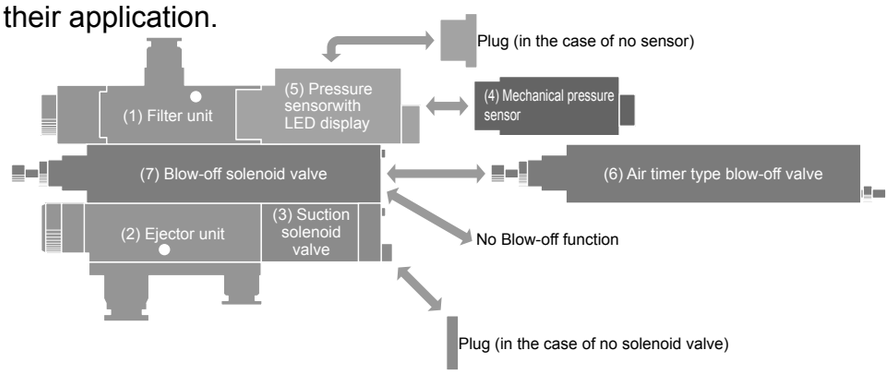
			Type (Port pos.) (1)	Vacuum charact. (3)	Nozzle bore (4)	Combinations (5)	Vacuum port (6)	Air supply port (7)	Exhaust port (8)	Solenoid valve type (9)	Color (10)	No. of stations (11)	Pressure sensor (12)	PISCO Regist. (For PISCO's use)
Manifold model code			**VKM**		—					—				
Mounting unit model (Vacuum port spec. for manifold-base alone)	L side	St.1												
	⬆ Station No.	St.2												
		St.3												
		St.4												
		St.5												
		St.6												
		St.7												
	⬇	St.8												
		St.9												
	R side	St.10												

*1. Make photocopies of this page. Cut off the form from the dotted line for use. Fill out the form referring to the examples. Use a new form when specifications of manifold types to be ordered are different.
*2. Enter the no. of common units in .

Vacuum Generator Complex Type VK

Characteristics

Rich combination of modularized units makes it possible for users to select the most suitable one to meet their application.

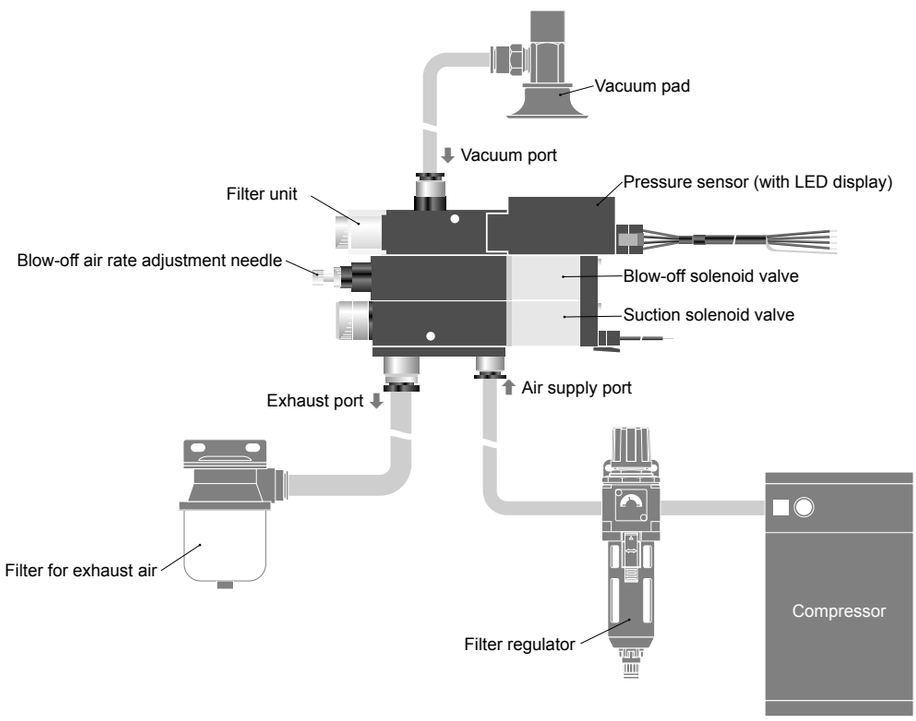


Combination of units code	A	B	C	D	E	F	G	H	J	K	L	M	P	Q	R	S	T	W
(1) Filter unit + (2) Ejector unit	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
(3) Suction solenoid valve	–	–	–	–	–	–	○	○	○	○	○	○	○	○	○	○	○	○
Check valve (Vacuum retention function)	–	○	–	○	–	○	–	○	–	○	–	○	–	–	–	–	–	–
(4) Mechanical pressure sensor	–	–	○	○	–	–	–	–	○	○	–	–	–	○	–	–	○	–
(5) Pressure sensor with LED display	–	–	–	–	○	○	–	–	–	–	○	○	–	–	○	–	–	○
(6) Air timer blow-off valve	–	–	–	–	–	–	–	–	–	–	–	–	○	○	○	–	–	–
(7) Blow-off solenoid valve	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	○	○	○

2 pressure sensor selections.

LED display type (2 switch outputs or 1 switch output + 1 analog output) and low cost, easy-to-use mechanical type are available.

Piping Example



Specifications

Fluid medium		Air (JIS B 8392-1 : Compliant with [Class 1.2.1 to 2.4.3])
Operating press. range		0.25 to 0.7 MPa
Operating temp. range		5 to 50°C (No freezing)
Operating humid. range		35 to 85%RH (No dew condensation)
Vibration resist. /Shock resist.		50 m/s² max / 150 m/s ²max
Protective structure		IEC standard IP 40 equiv.
Lubrication		Not required
Proof pressure	Air supply. circuit	1.05 MPa
	Vac. circuit	0.2 MPa

* Proof pressure is the level of pressure at which the product would not be damaged. It does not mean the pressure where the product works normally.

Solenoid valve specifications

Rated voltage	24 VDC ± 10%	100 AC V ± 10%
Power consumption	0.8 W (with LED)	1.0 VA (with LED)
Surge protection	Varistor	Bridge diode
Operation indicator	Current application: Red LED ON	
Manual override	Push-turn locking	

Suction main valve specifications

Operation type		Indirect operation by pilot valve	
Valve type		Normally closed	Normally open
Response time	OFF→ON	24 VDC: 20 msec	24 VDC: 30 msec
		100 VAC: 23 msec	100 VAC: 33 msec

* The response time at supply air: 0.5 MPa with rated voltage (100%).

Blow-off solenoid main valve specifications

Operation type		Indirect operation by pilot valve
Valve type		Normally closed
Response time	OFF→ON	24 VDC: 30 msec
		100 VAC: 33 msec

* The response time at supply air: 0.5 MPa with rated voltage (100%).

Air timer-type blow-off main valve specifications

Operation type	Indirect operation by air timer cylinder
Valve type	Normally closed
Proof pressure	1.05 MPa
Blow-off air discharge time	Approx.0.3 to 3 sec. right after suction solenoid valve is closed.

Vacuum filter specifications

Element material	PVFM (Polyvinyl formal)
Filtering accuracy (*)	5 μm
Filter area	1,130 mm²

* Based on PISCO measuring condition.

Blow-off function

Blow-off air rate	0 to 40 ℓ/min [ANR] (Supply pressure: 0.5 MPa)

* Blow-off air rate varies according to the vacuum port dia. and tube length (piping resistance and others) on vacuum side.

Mechanical pressure sensor specifications

Pressure detection	Diaphragm to microswitch
Pressure setting range	-20 to -80 kPa
Setting mode	Nut rotation (stepless adjustment)
Switch terminal	common, N.O., N.C.
Accuracy	±4 kPa
Hysteresis	16 kPa max
Micro switch	QJ (AM 8100) Matsushita Electric or J- 7 OMRON
Micro switch rating	7 A 250 V AC
Factory default pressure	Approx. -50 kPa

Specifications of Pressure sensor with LED display

■ NPN open collector

Specifications		–NW (2 switch outputs with LED display)	–NA (1 switch output & 1 analog output with LED display)
Current consumption		40 mA	
Pressure detection		Diffused metaloxide semiconductive pressure switch	
Operating press. range		-100 to 0 kPa	
Pressure setting range		-99 to 0 kPa	
Proof pressure		0.2 MPa	
Power requirement		12 to 24 VDC ± 10% Ripple (P-P) 10% max.	
No. of pressure setting		2	1
Operating accuracy		±3% F.S. max. (Standard temp. at 25°C)	
Hysteresis		Fixed (2%F.S. max.)	Variable (about 0 to 15%F.S. max.)
Switch output		NPN open collector output: 30 V 80 mA max., Residual voltage 0.8 V max.	
Analog output	Output voltage		1 to 5 V
	Zero-point voltage		1 ±0.1 V
	Span voltage		4 ±0.1 V
	Output current		1 mA max. (load resistance min. 5 kΩ)
	LIN / HYS		±0.5% F.S. max. (Standard temp. at 25°C)
Response		About 2 msec or less	
Indication		0 to - 99 kPa (2 -digit red LED display)	
Display frequency		About 4 times/sec	
Indication accuracy		±3%F.S. ±2 digit max	
Sensor resolution		1 digit	
Operation indicator		SW 1: Red LED turns on when pressure is above setting SW 2: Green LED turns on when pressure is above setting	Red LED turns on when pressure is above setting

* Allowable range of the variation of “Zero point voltage”, "Span voltage" and “Pressure setting value” caused by repeated voltage application is ±3% F.S.

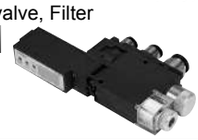
■ PNP open collector

Specifications		–PW (2 switch outputs with LED display)	–PA (1 switch output & 1 analog output with LED display)
Current consumption		40 mA	
Pressure detection		Diffused metaloxide semiconductive pressure switch	
Operating press. range		-100 to 0 kPa	
Pressure setting range		-99 to 0 kPa	
Proof pressure		0.2 MPa	
Power requirement		12 to 24 VDC ± 10% Ripple (P-P) 10% max.	
No. of pressure setting		2	1
Operating accuracy		±3% F.S. max. (Standard temp. at 25°C)	
Hysteresis		Fixed (2%F.S. max.)	Variable (about 0 to 15%F.S. max.)
Switch output		PNP open collector output: 30 V 80 mA max., Residual voltage 0.8 V max.	
Analog output	Output voltage		1 to 5 V
	Zero-point voltage		1 ±0.1 V
	Span voltage		4 ±0.1 V
	Output current		1 mA max. (load resistance min. 5 kΩ)
	LIN / HYS		±0.5% F.S. max. (Standard temp. at 25°C)
Response		About 2 msec or less	
Indication		0 to - 99 kPa (2 -digit red LED display)	
Display frequency		About 4 times/sec	
Indication accuracy		±3%F.S. ±2 digit max	
Sensor resolution		1 digit	
Operation indicator		SW 1: Red LED turns on when pressure is above setting SW 2: Green LED turns on when pressure is above setting	Red LED turns on when pressure is above setting

* Allowable range of the variation of “Zero point voltage”, "Span voltage" and “Pressure setting value” caused by repeated voltage application is ±3% F.S.

Vacuum Generator Complex Type VK

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code	Type	Model code
Filter VK A type 	VKA3 4A-6 7S-10 VKA3 4A-6 7 8-10 VKB3 4A-6 7S-10 VKB3 4A-6 7 8-10 VKM3 4A-6 7 8-10 11 VKM3 4A-T··· 7 8-10 11	Check valve, Filter VK B type 	VKA3 4B-6 7S-10 VKA3 4B-6 7 8-10 VKB3 4B-6 7S-10 VKB3 4B-6 7 8-10 VKM3 4B-6 7 8-10 11 VKM3 4B-T··· 7 8-10 11
Type	Model code	Type	Model code
Pressure sensor (Mechanical), Filter VK C type 	VKA3 4C-6 7S-10 VKA3 4C-6 7 8-10 VKB3 4C-6 7S-10 VKB3 4C-6 7 8-10 VKM3 4C-6 7 8-10 11 VKM3 4C-T··· 7 8-10 11	Pressure sensor (Mechanical), Check valve, Filter VK D type 	VKA3 4D-6 7S-10 VKA3 4D-6 7 8-10 VKB3 4D-6 7S-10 VKB3 4D-6 7 8-10 VKM3 4D-6 7 8-10 11 VKM3 4D-T··· 7 8-10 11
Type	Model code	Type	Model code
Pressure sensor (LED display), Filter VK E type 	VKA3 4E-6 7S-10 12 VKA3 4E-6 7 8-10 12 VKB3 4E-6 7S-10 12 VKB3 4E-6 7 8-10 12 VKM3 4E-6 7 8-10 11 12 VKM3 4E-T··· 7 8-10 11 12	Pressure sensor (LED display), Check valve, Filter VK F type 	VKA3 4F-6 7S-10 12 VKA3 4F-6 7 8-10 12 VKB3 4F-6 7S-10 12 VKB3 4F-6 7 8-10 12 VKM3 4F-6 7 8-10 11 12 VKM3 4F-T··· 7 8-10 11 12
Type	Model code	Type	Model code
Suction solenoid valve, Filter VK G type 	VKA3 4G-6 7S 9-10 VKA3 4G-6 7 8 9-10 VKB3 4G-6 7S 9-10 VKB3 4G-6 7 8 9-10 VKM3 4G-6 7 8 9-10 11 VKM3 4G-T··· 7 8 9-10 11	Suction solenoid valve, Check valve, Filter VK H type 	VKA3 4H-6 7S 9-10 VKA3 4H-6 7 8 9-10 VKB3 4H-6 7S 9-10 VKB3 4H-6 7 8 9-10 VKM3 4H-6 7 8 9-10 11 VKM3 4H-T··· 7 8 9-10 11
Type	Model code	Type	Model code
Pressure sensor (Mechanical), Suction solenoid valve, Filter VK J type 	VKA3 4J-6 7S 9-10 VKA3 4J-6 7 8 9-10 VKB3 4J-6 7S 9-10 VKB3 4J-6 7 8 9-10 VKM3 4J-6 7 8 9-10 11 VKM3 4J-T··· 7 8 9-10 11	Pressure sensor (Mechanical), Check valve, Suction solenoid valve, Filter VK K type 	VKA3 4K-6 7S 9-10 VKA3 4K-6 7 8 9-10 VKB3 4K-6 7S 9-10 VKB3 4K-6 7 8 9-10 VKM3 4K-6 7 8 9-10 11 VKM3 4K-T··· 7 8 9-10 11
Type	Model code	Type	Model code
Pressure sensor (LED display), Suction solenoid valve, Filter VK L type 	VKA3 4L-6 7S 9-10 12 VKA3 4L-6 7 8 9-10 12 VKB3 4L-6 7S 9-10 12 VKB3 4L-6 7 8 9-10 12 VKM3 4L-6 7 8 9-10 11 12 VKM3 4L-T··· 7 8 9-10 11 12	Pressure sensor (LED display), Check valve, Suction solenoid valve, Filter VK M type 	VKA3 4M-6 7S 9-10 12 VKA3 4M-6 7 8 9-10 12 VKB3 4M-6 7S 9-10 12 VKB3 4M-6 7 8 9-10 12 VKM3 4M-6 7 8 9-10 11 12 VKM3 4M-T··· 7 8 9-10 11 12
Type	Model code	Type	Model code
Blow-off valve (Air-timer), Suction solenoid valve, Filter VK P type 	VKA3 4P-6 7S 9-10 VKA3 4P-6 7 8 9-10 VKB3 4P-6 7S 9-10 VKB3 4P-6 7 8 9-10 VKM3 4P-6 7 8 9-10 11 VKM3 4P-T··· 7 8 9–10 11	Blow-off valve (Air-timer), Press. sensor (Mechanical), Suction solenoid valve, Filter VK Q type 	VKA3 4Q-6 7S 9-10 VKA3 4Q-6 7 8 9-10 VKB3 4Q-6 7S 9-10 VKB3 4Q-6 7 8 9-10 VKM3 4Q-6 7 8 9-10 11 VKM3 4Q-T··· 7 8 9-10 11

Notes

* Please select each code referring to the example of model designation. 3: Code of vacuum characteristic, 4: Nozzle dia. code, 6: Vacuum port size code, 7: Air supply port size, 8: Exhaust port code, 9: Solenoid valve type code, 10 : Body color code, 11 : No. of station code, and 12 : Pressure sensor code.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code
Blow-off valve (Air-timer), Press. sensor (LED display), Suction solenoid valve, Filter VK Rtype	VKA34R-67S9-1012
	VKA34R-6789-1012
	VKB34R-67S9-1012
	VKB34R-6789-1012
	VKM34R-6789-10112
	VKM34R-T···789-10112

Type	Model code
Blow-off valve (Solenoid valve), Suction solenoid valve, Filter VK Stype	VKA34S-67S9-10
	VKA34S-6789-10
	VKB34S-67S9-10
	VKB34S-6789-10
	VKM34S-6789-1011
	VKM34S-T···789–1011

Type	Model code
Blow-off valve (Solenoid valve), Press. sensor (Mechanical), Suction solenoid valve, Filter VK Ttype	VKA34T-67S9-10
	VKA34T-6789-10
	VKB34T-67S9-10
	VKB34T-6789-10
	VKM34T-6789-1011
	VKM34T-T···789-1011

Type	Model code
Blow-off valve (Solenoid valve), Press. sensor (LED display), Suction solenoid valve, Filter VK Wtype	VKA34W-67S9-1012
	VKA34W-6789-1012
	VKB34W-67S9-1012
	VKB34W-6789-1012
	VKM34W-6789-10112
	VKM34W-T···789-10112

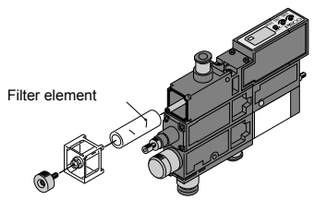
Type	No. of stations
Manifold-base alone	2 stations
	3 stations
	4 stations
	5 stations
	6 stations
	7 stations
	8 stations
	9 stations
	10 stations

*1 Above picture is an example.
*2 Block plate should be purchased separately.

Type	Model code
Block plate for manifold-base VKM-MB	VKM-MB-3

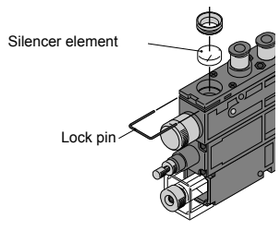
Replacement element

VK Filter element



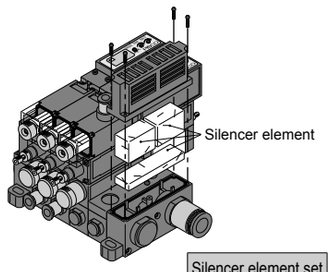
Filter element Model code
VGFE10

VK Silencer element



Silencer element Model code
VK-SE1

VKM Silencer element



Silencer element set Model code
VKM-SET

* Silencer element for VKM is available only in set of elements.
A set includes: VKM-SE1··2pcs + VKM-SE2··1pc.

Notes
*1. Please select each code referring to the example of model designation. 3: Code of vacuum characteristic, 4: Nozzle dia. code, 6: Vacuum port size code, 7: Air supply port size, 8: Exhaust port code, 9: Solenoid valve type code, 10 : Body color code, 11 : No. of station code, and 12 : Pressure sensor code.
*2. Please select a body color code for 3 for Block plate referring to the example of model designation.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag
10 pcs /bag: Replacement element for VK
1 set /bag: Replacement element for VKM

Vacuum Generator Complex type VJ

20 mm wide complex type ejector with a pressure control valve for blow-off air (stand-alone type and manifold type)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VJ	H	07	B	–	06	06	08	–	D24	L	–			–	W	
(1)	(2)	(3)	(4)		(5)	(6)	(7)		(8)	(9)		(10)	(11)		(12)	(13)

(1) Vacuum Generator Complex type VJ

(2) Vacuum characteristics

Code	H	L	E	K
Charact.	High-vacuum type (Rated supply pressure: 0.5 MPa)	Large-flow type (Rated supply pressure: 0.5 MPa)	High-vacuum at Low air supply pressure type (Rated supply pressure: 0.35 MPa)	Mixed configurations on a manifold (Fill out Specification Order Form.)

* Please secure supply pressure of 0.5 MPa when H or L type and E type are mounted on a manifold together. Vacuum performance indicated in the spec. can not be obtained by applying 0.35 MPa to H or L type unit.

(3) Nozzle bore

Code	Nozzle bore (mm)	H ype			L type			E type		
		Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])	Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])	Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])
05	0.5	-90.4	7 〔7〕〈7〉	11.5	-66.5	12 〔12〕〈12〉	11.5	–	–	–
07	0.7	-93.1	13 〔13〕〈13〉	23	-66.5	24 〔26〕〈26〉	23	-90.4	10.5 〔10.5〕〈10.5〉	17
10	1.0	-93.1	27 〔27〕〈27〉	46	-66.5	34 〔40〕〈40〉	46	-90.4	21 〔21〕〈21〉	34
12	1.2	-93.1	32 〔38〕〈38〉	70	–	–	–	-90.4	24 〔27〕〈27〉	47
00	Combination of different nozzle type per mounting unit on a manifold (Fill out Specification Order Form.)									

*1. Values are when rated pressure is applied. (H and L type: 0.5 MPa, E type: 0.35 MPa.)
*2. Suction flow values on the left represent those of vacuum port dia. 4mm, those in [ ] are of vacuum port dia. of 6mm, and those in < > are of vacuum port dia. of 8 mm.
*3. The values in the table are representative values. Suction flow can vary by vacuum port dia. and tube length.

(4) Suction solenoid valve type

Code	A	B	C	K
Valve unit	Double-piloted (Self-holding function)	Normally closed type (N.C.)	Normally open type (N.O.)	Different valve configurations on a manifold (Fill out Specification Order Form)

(5) Vacuum port size (V)

Code	04	06	08	00
Tube O.D. (mm)	ø4	ø6	ø8	Different fitting size per station on a manifold (Fill out Specification Order Form)

(6) Air supply port size (PS)

Code	04	06	08	10
Tube O.D. (mm)	ø4 (*1)	ø6	ø8 (*2)	ø10 (*2)

*1. Stand-alone type only
*2. Manifold type only

(7) Exhaust port (EX)

	Open to air (Silencer vent)	Tube exhaust (Push-in fitting)	
Code	S	08	10
Tube O.D. (mm)	–	ø8	ø10 (*)

* Manifold type only

(8) Solenoid valve voltage

Code	D24	A100
Voltage	24 VDC	100 VAC

(9) Wire lead-out direction

Code	S	L	K
Direction	Side	Top	Mixed specifications on a manifold (Fill out Specification Order Form)

(10) No. of stations (Code entry for Manifold type only)

Code	02	03	04	05	06	07	08	09	10
No. of St.	2	3	4	5	6	7	8	9	10

(11) Lead-out direction of air-supply & exhaust ports (Code entry for Manifold type only)

Code	A	B
Direction	Vacuum port side	Wiring side

(12) Pressure sensor

Code	Type
No code	Without pressure sensor
W	2 switch outputs
A	1 switch output and 1 analog output
K	Mixed specifications on a manifold (Fill out Specification Order Form.)

(13) –S3 spec. (Metal option)

Code	No code	–S3(*)
Metal material	Standard	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard spec.	HNBR or FKM
Release-ring color	Black	Dark blue

*1. -S3 specification is only for tube exhaust type
*2. -S3 is not corresponding to 100 VAC type.
*3. -S3 spec. is not available for electronic components and electric wires.

Order Example

1.Stand-alone type

VJ H 05 A - 04 06 S - D24 L - W
(2) (3) (4) (5) (6) (7) (8) (9) (12)

(2) Vacuum characteristics: **H**→High-vacuum type
(3) Nozzle bore: **05**→ø0.5 mm
(4) Suction solenoid valve type:
A→Double-piloted type (Self-holding function)
(5) Vacuum port: **04**→ø 4 mm Push-in fitting
(6) Air supply port: **06**→ø 6 mm Push-in fitting
(7) Exhaust port: **S**→Open to air (Silencer vent)
(8) Solenoid valve voltage: **D24**→24 VDC Specifications
(9) Wire lead-out direction: **L**→Top
(12) Pressure sensor: **W**→2 switch outputs

2.Manifold type

VJ H 05 A - 04 10 10 - D24 L - 04 A - W
(2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12)

(2) Vacuum characteristics: **H**→High-vacuum type
(3) Nozzle bore: **05**→ø0.5mm
(4) Suction solenoid valve type:
A→Double-piloted type (Self-holding function)
(5) Vacuum port: **04**→ø 4mm Push-in fitting
(6) Air supply port: **10**→ø 10mm Push-in fitting
(7) Exhaust port: **10**→ø 10mm Push-in fitting
(8) Solenoid valve voltage: **D24**→24 VDC Specifications
(9) Wire lead-out direction: **L**→Top
(10) No. of stations: **04**→4 stations
(11) Port lead-out direction: **A**→Vacuum port side
(12) Pressure sensor：**W**→2 switch outputs

3.Manifold type
(Different spec. of any mounting unit on a manifold)

VJ K 00 K - 00 10 10 - D24 L - 05 A - K
(2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12)

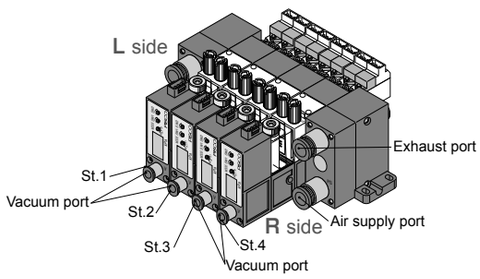
(2) Vacuum characteristics: **K**→ St.1, St.2, St.3: H type
St.4: E type
St.5: H type
(3) Nozzle bore: **00**→ St.1, St.2, St.3 : ø0.7 mm
St.4: ø1.0 mm
St.5: ø1.2 mm
(4) Suction solenoid valve type:
K → St.1, St.2, St.3: Double-piloted type (Self-holding function)
St.4, St.5: Normally closed type (N.C.)
(5) Vacuum port: **00**→St. 1, St. 2, St. 3: ø6 mm Push-in fitting
St. 4, St. 5: ø8 mm Push-in fitting
(6) Air supply port: **10**→ø 10 mm Push-in fitting
St. 1, St. 2, St. 3: Dia. 6 mm Push-in fitting
(7) Exhaust port: **10**→ø 10 mm Push-in fitting
(8) Solenoid valve voltage: **D24**→24 VDC Specifications
(9) Wire lead-out direction: **L**→Top
(10) No. of stations: **05**→5 stations
(11) Port lead-out direction: **A**→Vacuum port side
(12) Pressure sensor: **K**→St.1, St.2, St.3: 2 switch outputs
St.4: Without pressure sensor
St.5: 1 switch output and 1 analog output

■ Specification order form example (Example of the above 3)

			Type (1)	Vacuum charact. (2)	Nozzle bore (3)	Valve type (4)		Vacuum port (5)	Air supply port (6)	Exhaust port (7)		Solenoid valve voltage (8)	Wire lead-out direction (9)		No. of stations (10)	Port Lead-out direction (11)		Pressure sensor (12)	-S3 Metal option (13)
Manifold model code			VJ	K	00	K	–	00	10	10	–	D24	L	–	05	A	–	K	
Mounting unit model code	L side	St.1	H	07	A	–	06			–			–			–	W	
	⬆ Station No. ⬇	St.2	St.1			–				–			–			–		
		St.3	St.1			–				–			–			–		
		St.4	E	10	B	–	08			–			–			–		
		St.5	H	12	B	–	08			–			–			–	A	
		St.6				–				–			–			–		
		St.7				–				–			–			–		
		St.8				–				–			–			–		
		St.9				–				–			–			–		
	R side	St.10				–				–			–			–		

* If the manifold mounting units for St. 1, St. 2, and St. 3 are the same spec. as the above order form example, fill in the uppermost line of St. 1 only, and enter "St. 1" for St. 2 and St. 3 on (2) Vacuum charact. column.

Manifold Type (reference)



* Station No. is counted as St.1, St.2, ···St.10 from L side when the vacuum port is facing the front as shown in the figure.

Vacuum Generator Complex type VJ

Vacuum Generator VJ Series Manifold type Specification Order Form

Name

To: NIHON PISCO CO., Ltd.

Distributor address TEL

Delivery address TEL

Customer name
and address TEL

Requested EX-W PISCO Date: Order quantity: pcs.

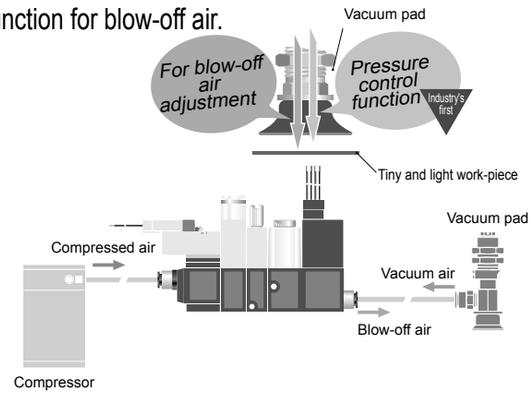
			Type (1)	Vacuum charact. (2)	Nozzle bore (3)	Valve type (4)		Vacuum port (5)	Air supply port (6)	Exhaust port (7)		Solenoid valve voltage (8)	Wire lead-out direction (9)		No. of stations (10)	Port Lead-out direction (11)		Pressure sensor (12)	-S3 Metal option (13)
Manifold model code			VJ				–				–			–			–		
Mounting unit model code	L side	St.1					–				–			–			–		
		St.2					–				–			–			–		
	⬆ Station No.	St.3					–				–			–			–		
		St.4					–				–			–			–		
		St.5					–				–			–			–		
		St.6					–				–			–			–		
		St.7					–				–			–			–		
		St.8					–				–			–			–		
		St.9					–				–			–			–		
	R side	St.10					–				–			–			–		

*1. Refer to the example in the previous page to fill in the form.
*2. Make photocopies of this page and fill in.
*3. When the combination of mounting unit spec. is different, a new Specification Order Form is required.

Characteristics

Pressure control function is added to the conventional flow control function for blow-off air.

Blowing away of work-pieces can be prevented.



Relief function, which releases excess pressure, is incorporated, and shorter blow-off time is achieved.

Compact vacuum system is achieved.

3 different supply valve types are available.

Double-piloted type is suitable for special applications where continuous vacuum generation is required for a long time and contributes to energy savings.

Pressure sensor with LED display. Good visibility.

2 output types are available. 2 switch outputs type and 1 switch output and 1 analog output type. Connector wires for easy wiring.

4 standard nozzle bore sizes: 0.5 mm, 0.7 mm, 1.0 mm and 1.2 mm.

● -S3 spec. (Metal option)

No copper-based metallic materials used in flow paths.

Seal rubber material is HNBR or FKM, both of which have good ozone resistance.

Specifications

Fluid medium		Air (JIS B 8392 - 1: Compliant with [Class 1.2.1 to 2.4.3])
Operating press. range		0.3 to 0.7 MPa
Operating temp. range		5 to 50°C (No freezing)
Operating humid. range		35 to 85% RH (No dew condensation)
Vibration resist. /Shock resist.		50 m/s² max / 150 m/s² max
Protective structure		IEC standard IP 40 equiv.
Lubrication		Not required
Proof pressure	Air supply. circuit	1.05 MPa
	Vac. circuit	0.2 MPa

* Proof pressure is the level of pressure at which the product would not be damaged. It does not mean the pressure where the product works normally.

Solenoid valve specifications

Rated voltage	24 VDC ±10%	100 VAC ±10%
Power consumption	1.2 W (with LED)	1.5 VA (with LED)
Surge protection	Varistor	Bridge diode
Operation indicator	Current application: Red LED ON	
Manual override	Push button (non-lock)	

Suction main valve specifications

Operation type		Indirect operation by pilot valve		
Valve type		Normally closed	Normally open	Double-piloted*1
Response time	OFF→ON	24 VDC: 10 msec [15 msec]	24 VDC: 15 msec [20 msec]	24 VDC: 10 msec [15 msec]
		100 VAC: 13 mse [18 msec]	100 VAC: 18 msec [23 msec]	100 VAC: 13 msec [18 msec]
	ON→OFF	24 VDC: 30 msec [35 msec]	24 VDC: 20 msec [25 msec]	24 VDC: 15 msec [20 msec]
		100 VAC: 33 msec [38 msec]	100 VAC: 23 msec [28 msec]	100 VAC: 18 msec [23 msec]

*1. Excitation time of the solenoid must be 50 msec or more.
*2. The response time at supply air: 0.5 MPa with rated voltage (100%).
*3. Figures in [ ] are of "-S3" spec. type.

Blow-off main valve specifications

Operation type		Indirect operation by pilot valve
Valve type		Normally closed
Response time	OFF→ON	24 VDC: 8 msec [13 msec]
		100 VAC: 11 msec [16 msec]
	ON→OFF	24 VDC: 18 msec [23 msec]
		100 VAC: 21 msec [26 msec]

*1. The response time at supply air: 0.5 MPa with rated voltage (100%).
*2. Figures in [ ] are of "-S3" spec. type.

Vacuum filter specifications

Element material	PVFM (Polyvinyl formal)
Filtering accuracy(*)	5 µm
Filter area	1,130 mm²

* Based on PISCO measuring condition.

Blow-off function

Blow-off air rate	0 to 50 ℓ/min [ANR] (Supply pressure: 0.5 MPa)
Blow-off pressure setting range	-25 to 25 kPa

* Blow-off air rate varies according to the vacuum port dia. and tube length (piping resistance and others) on vacuum side.

Specifications of Pressure sensor with LED display

Specifications		–W (2 switch outputs with LED display)	–A (1 switch output & 1 analog output with LED display)
Current consumption		40 mA	
Pressure detection		Diffused metaloxide semiconductive pressure switch	
Operating press. range		-100 to 0 kPa	
Pressure setting range		-99 to 0 kPa	
Proof pressure		0.2 MPa	
Power requirement		12 to 24 VDC ±10% Ripple (P-P) 10% max.	
No. of pressure setting		2	1
Operating accuracy		±3%F.S.max (Standard temp. at 25°C)	
Hysteresis		Fixed (2% F.S. max.)	Variable (about 0 -15% F.S. max.)
Switch output		NPN open collector output: 30 V 80 mA max. Residual voltage 0.8 V max.	
Analog output	Output voltage		1 to 5 V
	Zero-point voltage		1 ±0.1 V
	Span voltage		4 ±0.1 V
	Output current		1 mA max. (Load resistance min. 5 kΩ)
	LIN / HYS		±0.5% F.S.max (Standard temp. at 25°C)
Response		About 2 m·sec or less	
Indication		-99 to 0 kPa (2-digit red LED display)	
Display frequency		About 4 times/sec	
Indication accuracy		±3% F.S. ±2 digit max	
Sensor resolution		1 digit	
Operation indicator	SW 1: Red LED turns on when pressure is above setting	Red LED turns on when pressure is above setting	
	SW 2: Green LED turns on when pressure is above setting		

* Allowable range of the variation of "Zero point voltage", "Span voltage" and "Pressure setting value" caused by repeated voltage application is ± 3% F.S.

Vacuum Generator Complex type VJ

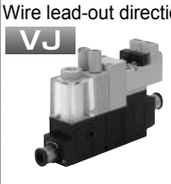
RoHS2 (2011/65/EU+EU2015/863) compliant

Stand-alone type

Suction solenoid valve, Blow-off solenoid valve, Filter

Silencer vent without Pressure sensor

Type	Model code
Wire lead-out direction :Top	VJ2 3 4-5 6S-8L



Type	Model code
Wire lead-out direction :Side	VJ2 3 4-5 6S-8S

Tube exhaust with Pressure sensor

Type	Model code
Wire lead-out direction :Top	VJ2 3 4-5 6 08-8L13

Type	Model code
Wire lead-out direction :Side	VJ2 3 4-5 6 08-8S13

Silencer vent with Pressure sensor

Type	Model code
Wire lead-out direction :Top	VJ2 3 4-5 6S-8L-12

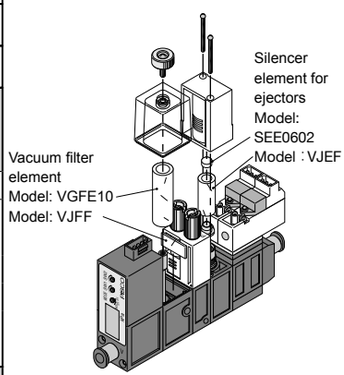
Type	Model code
Wire lead-out direction :Side	VJ2 3 4-5 6S-8S-12

Tube exhaust with Pressure sensor

Type	Model code
Wire lead-out direction :Top	VJ2 3 4-5 6 08-8L-12 13

Type	Model code
Wire lead-out direction :Side	VJ2 3 4-5 6 08-8S-12 13

Replacement element



Silencer element for ejectors

Silencer element Model code
VJEF
SEE0602

Vacuum filter element

Filter element Model code
VGFE10
VJFF

Manifold type

No. of stations
2 stations
3 stations
4 stations
5 stations
6 stations
7 stations
8 stations
9 stations
10 stations

Replacement of air supply port block

Specifications	Model code
ø 4 mm port block	VJV020A940
ø 6 mm port block	VJV020A960

Replacement of vacuum port cartridge

Specifications	Model code
ø 4 mm port	CJC09-04
ø 6 mm port	CJC09-06
ø 8 mm port	CJC09-08

Notes

*1. Please select each code referring to the example of model designation. 2: Code of vacuum characteristics, 3: Nozzle dia. code, 4: Suction solenoid valve type code, 5: Vacuum port size code, 6: Air supply port size code, 8: Solenoid valve type code, 12 :Pressure sensor code.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag
10 pcs /bag: Replacement element

Options
13 : -S3 ⇒ -S3 spec. (Metal option)

Vacuum Generator Complex type VX

PISCO
>>> https://www.pisco.co.jp/en/

Small and light weight 10.5 mm width complex type vacuum generator for high-cyclization(Stand-alone and Manifold types)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VX (1) H (2) 05 (3) D (4) - 4 (5) 4 (6) S (7) - D24 (8) -A0 (9) - D (10) (11)

(1) Vacuum Generator Complex type VX

(2) Vacuum characteristics

Code	H	L	E
Charact.	High-vacuum type (Rated supply pressure: 0.5 MPa)	Large-flow type (Rated supply pressure: 0.5 MPa)	High-vacuum at Low air supply pressure type (Rated supply pressure: 0.35 MPa)

(3) Nozzle bore

Code	Nozzle bore (mm)	H Type			L Type			E Type		
		Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])	Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])	Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])
05	0.5	-90.4	7〔7〕〈7〉	11.5	-66.5	12〔12〕〈12〉	11.5	-90.4	3〔3〕〈3〉	8.8
07	0.7	-93.1	12〔13〕〈13〉	23	-66.5	19〔23〕〈24〉 19〔22〕〈22〉	23	-90.4	10.5〔10.5〕〈10.5〉	17
10	1.0	-93.1	19〔24〕〈24〉 20〔20〕〈20〉	46	-66.5	20〔26〕〈26〉	46	-90.4	17〔20〕〈20〉 17〔19〕〈19〉	34

*1. Values are when rated pressure is applied. (H and L type: 0.5 MPa, E type: 0.35 MPa.)
*2. Suction flow values on the left represent those of vacuum port dia. 3mm, those in [ ] are of vacuum port dia. of 4mm, and those in <> are of vacuum port dia. of 6mm.
Suction flow values in upper column: Silencer vent type, in lower column: Tube exhaust type
*3. The values in the table are representative values. Suction flow can vary by vacuum port dia. or tube length.

(4) Valve type

Code	No code	D
Valve type	Normally closed type (N.C.)	Double-piloted (Self-holding function)

(5) Vacuum port size (V)

Code	3	4	6
Tube O.D. (mm)	ø3	ø4	ø6

(6) Air supply port size (PS)

Code	4	6
Tube O.D. (mm)	ø4	ø6

(7) Exhaust port (EX)

	Open to air (Silencer vent)	Tube exhaust
Code	S	J
Tube O.D. (mm)	–	ø6

*Tube exhaust (J) is not selectable for nozzle bore 1.0mm of L (Large-flow type).

(8) Solenoid valve voltage

Code	D24	A100
Voltage	24VDC	100VAC

*100 VAC type is not CE marked.

(9) Pressure sensor

Code	Type
No code	Without pressure sensor
-DW	2 switch outputs with LED display
-DA	1 switch output & 1 analog output with LED display
-A0	Analog output pressure sensor (No LED)

(10) Installation

Code	No code	D
Installation	Direct Instl.	DIN rail type

(11) -S3 spec. (Metal option)

Code	No code	-S3(*)
Metal material	Standard spec.	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard spec.	HNBR or FKM
Release-ring color	Black	Dark blue

*-S3 specification is available only for tube exhaust type with vacuum port sizes except for ø3 mm. It is not available for electronic components and electric wires.

Vacuum Generator Complex type VX

Model Designation of Manifold type (Example)

VX (1) H (2) 05 (3) D (4) – 4 (5) 1 (6) 1 (7) – D24 (8) -A0 (9) – M 08 (10) (11)

(1) Vacuum Generator Complex type VX

(2) Vacuum characteristics

Code	H	L	E	K
Charact.	High-vacuum type (Rated supply pressure: 0.5 MPa)	Large-flow type (Rated supply pressure: 0.5 MPa)	High-vacuum at Low air supply pressure type (Rated supply pressure: 0.35 MPa)	Mixed configurations on a manifold (Fill out Specification Order Form)

*Please secure supply pressure of 0.5 MPa when H or L type and E type are mounted on a manifold together. Vacuum performance indicated in the spec. can not be obtained by applying 0.35MPa to H or L type unit.

(3) Nozzle bore

Code	Nozzle bore (mm)	H type			L type			E type		
		Vacuum level (kPa)	Suction flow (ℓ/min[ANR])	Air consumption (ℓ/min[ANR])	Vacuum level (kPa)	Suction flow (ℓ/min[ANR])	Air consumption (ℓ/min[ANR])	Vacuum level (kPa)	Suction flow (ℓ/min[ANR])	Air consumption (ℓ/min[ANR])
05	0.5	-90.4	7〔7〕〈7〉	11.5	-66.5	12〔12〕〈12〉	11.5	-90.4	3〔3〕〈3〉	8.8
07	0.7	-93.1	12〔13〕〈13〉	23	-66.5	19〔23〕〈24〉 19〔22〕〈22〉	23	-90.4	10.5〔10.5〕〈10.5〉	17
10	1.0	-93.1	19〔24〕〈24〉 20〔20〕〈20〉	46	-66.5	20〔26〕〈26〉	46	-90.4	17〔20〕〈20〉 17〔19〕〈19〉	34
00	Mixed configurations on a manifold on a manifold (Fill out Specification Order Form.)									

*1 Values are when rated pressure is applied. (H and L type: 0.5 MPa, E type: 0.35 MPa.)
*2 Suction flow values on the left represent those of vacuum port dia. 3mm, those in [ ] are of vacuum port dia. of 4mm, and those in <> are of vacuum port dia. of 6mm.Suction flow values in upper column: Silencer vent type, in lower column: Tube exhaust type
*3 The values in the table are representative values. Suction flow can vary by vacuum port dia. or tube length.

(4) Valve type

Code	No code	D	K
Valve type	Normally closed type (N.C.)	Double-piloted (Self-holding function)	Mixed configurations on a manifold on a manifold (Fill out Specification Order Form.)

(5) Vacuum port size (V)

Code	3	4	6	0
Tube O.D. (mm)	ø3	ø4	ø6	Mixed configurations on a manifold on a manifold (Fill out Specification Order Form.)

(6) Air supply port size (PS)

Code	4	6	8	1
Tube O.D. (mm)	ø4	ø6	ø8	ø10

(7) Exhaust port (EX)

	Open to air (Silencer vent)	Tube exhaust		
Code	S	6	8	1
Tube O.D. (mm)	–	ø6	ø8	ø10

*Tube exhaust (J) is not selectable for nozzle bore 1.0mm of L (Large-flow type).

(8) Solenoid valve voltage

Code	D24	A100
Voltage	24 VDC	100 VAC

*100 VAC type is not CE marked.

(9) Pressure sensor

Code	Type
No code	Without pressure sensor
-DW	2 switch outputs with LED display
-DA	1 switch output & 1 analog output with LED display
-A0	Analog output pressure sensor (No LED)
-K	Different sensor configurations on a manifold (Fill out Specification Order Form)

(10) No. of stations

Code	02	03	04	05	06	07	08	09	10
No. of St.	2	3	4	5	6	7	8	9	10

*1. When simultaneous operation of all mounting units is required, contact us in advance.
*2. When 10 and more stations on a manifold are required, contact PISCO.
*3. Exhaust air of operating unit flows into the vacuum port of non-operating unit and comes out. If such exhaust air causes a problem, please contact PISCO.

(11) -S3 spec. (Metal option)

Code	No code	-S3(*)
Metal material	Standard spec.	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard spec.	HNBR or FKM
Release-ring color	Black	Dark blue

*-S3 specification is available only for tube exhaust type with vacuum port sizes except for ø3 mm. It is not available for electronic components and electric wires.

Model Designation of Manifold-base alone (Example)

VXM (1) – 8 (2) S (3) – 04 (4) (5)

(1) Manifold-base for Vacuum Generator VX

(2) Air supply port size (PS)

Code	4	6	8	1
Tube O.D. (mm)	ø4	ø6	ø8	ø10

(3) Exhaust port (EX)

Code	6	8	1	S
Tube O.D. (mm)	ø6	ø8	ø10	Open to air (Silencer vent)

(4) No. of stations

Code	02	03	04	05	06	07	08	09	10
No. of St.	2	3	4	5	6	7	8	9	10

(5) -S3 spec. (Metal option)

Code	No code	-S3(*)
Metal material	Standard spec.	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard spec.	HNBR or FKM
Release-ring color	Black	Dark blue

*-S3 specification is only for tube exhaust type.

Model Designation of Manifold Installation Top-Mounting Unit alone (Example)

VX (1) H (2) 05 (3) D (4) – 4 (5) – D24 (6) -DA (7) – M (8)

(1) Vacuum Generator Complex type VX

(2) Vacuum characteristics

Code	H	L	E
Charact.	High-vacuum type (Rated supply pressure: 0.5 MPa)	Large-flow type (Rated supply pressure: 0.5 MPa)	High-vacuum at Low air supply pressure type (Rated supply pressure: 0.35 MPa)

(3) Nozzle bore

Code	Nozzle bore (mm)	H type			L type			E type		
		Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])	Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])	Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])
05	0.5	-90.4	7〔7〕〈7〉	11.5	-66.5	12〔12〕〈12〉	11.5	-90.4	3〔3〕〈3〉	8.8
07	0.7	-93.1	12〔13〕〈13〉	23	-66.5	19〔23〕〈24〉 19〔22〕〈22〉	23	-90.4	10.5〔10.5〕〈10.5〉	17
10	1.0	-93.1	19〔24〕〈24〉 20〔20〕〈20〉	46	-66.5	20〔26〕〈26〉	46	-90.4	17〔20〕〈20〉 17〔19〕〈19〉	34

*1 Values are when rated pressure is applied. (H and L type: 0.5 MPa, E type: 0.35 MPa.)
*2 Suction flow values on the left represent those of vacuum port dia. 3mm, those in [ ] are of vacuum port dia. of 4mm, and those in <> are of vacuum port dia. of 6mm.
Suction flow values in upper column: Silencer vent type, in lower column: Tube exhaust type
*3 The values in the table are representative values. Suction flow can vary by vacuum port dia. or tube length.

(4) Valve type

Code	No code	D
Valve type	Normally closed type (N.C.)	Double-piloted (Self-holding function)

(5) Vacuum port size (V)

Code	3	4	6
Tube O.D. (mm)	ø3	ø4	ø6

(6) Solenoid valve voltage

Code	D24	A100
Voltage	24VDC	100VAC

*100 VAC type is not CE marked.

(7) Pressure sensor

Code	Type
No code	Without pressure sensor
-DW	2 switch outputs with LED display
-DA	1 switch output & 1 analog output with LED display
-A0	Analog output pressure sensor (No LED)

(8) -S3 spec. (Metal option)

Code	No code	-S3(*)
Metal material	Standard spec.	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard spec.	HNBR or FKM
Release-ring color	Black	Dark blue

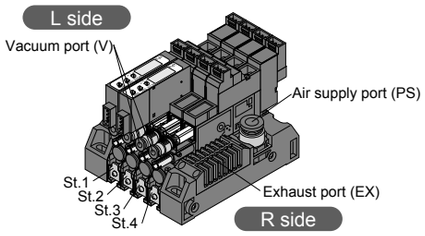
*-S3 specification is available only for tube exhaust type with vacuum port sizes except for ø3 mm. It is not available for electronic components and electric wires.

Vacuum Generator Complex type VX

Specification order form example for Manifold type

	Type (1)		Vacuum characteristics (2)	Nozzle bore (3)	Valve type (4)		Vacuum port (5)	Air supply port (6)	Exhaust port (EX) (7)		Solenoid valve voltage (8)		Pressure sensor (9)		No. of stations (10)	-S3 Metal option (11)
Manifold model code	VX		K	00	K	–	0	8	S	–	D24	–	K	–	04	
Mounting unit model code	L side	St.1	E	07	D	–	6			–		–	DW			
	⬆ Station No. ⬇	St.2	E	07	D	–	6			–		–	DW			
		St.3	H	05		–	4			–		–				
		St.4	H	05		–	4			–		–				
		St.5				–				–		–				
		St.6				–				–		–				
		St.7				–				–		–				
		St.8				–				–		–				
		St.9				–				–		–				
	R side	St.10				–				–		–				

Manifold Type (reference)



*Station No. is counted as St.1, St.2, ···St.10 from L (left) side when the vacuum port is facing the front as shown in the figure.

Cut here

Vacuum Generator VX Series Manifold type Specification Order Form

Name

To: NIHON PISCO CO., Ltd.

Distributor address TEL

Delivery address TEL

Customer name and address TEL

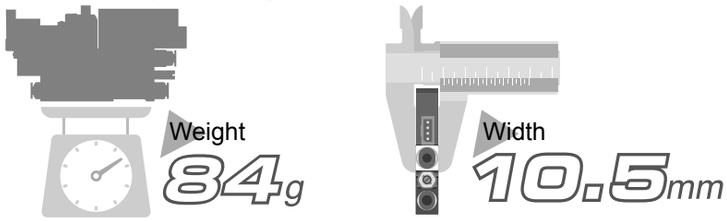
Requested EX-W PISCO Date: Order quantity: pcs.

	Type (1)		Vacuum characteristics (2)	Nozzle bore (3)	Valve type (4)		Vacuum port (5)	Air supply port (6)	Exhaust port (EX) (7)		Solenoid valve voltage (8)		Pressure sensor (9)		No. of stations (10)	-S3 Metal option (11)
Manifold model code	VX					–				–		–		–		
Mounting unit model code	L side	St.1				–				–		–				
	⬆ Station No. ⬇	St.2				–				–		–				
		St.3				–				–		–				
		St.4				–				–		–				
		St.5				–				–		–				
		St.6				–				–		–				
		St.7				–				–		–				
		St.8				–				–		–				
		St.9				–				–		–				
	R side	St.10				–				–		–				

*1. Refer to the above example to fill in the form.
*2. Make photocopies of this page and fill in.
*3. When the combination of mounting unit spec. is different, a new Specification Order Form is required.
*4. -S3 spec. is not available when selecting vacuum port dia. 3mm and/or silencer vent.

Characteristics

A light weight and compact body meeting market needs.



Pursuing responsiveness of suction solenoid valve to the fastest limit and achieving higher cycle rates of vacuum system.

Two types of valves are available: Normally closed type and Double-piloted type (self-holding function) that is suitable for saving energy.

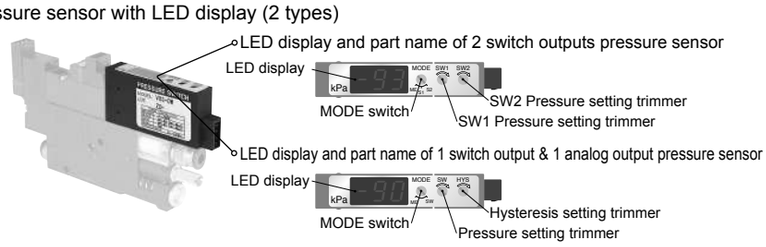
2 installation methods to better suit the applications.

Direct-installation type is to fix the product from side using threads. DIN rail type is to install the product on DIN rail.

2 types of pressure sensors.

Pressure sensor with legible LED display (2 switch outputs type and 1 switch output + 1 analog output) and cost-optimized analog type.

Pressure sensor with LED display (2 types)



Analog pressure sensor

Standard nozzle bore: dia. 0.5 mm, 0.7 mm and 10 mm.

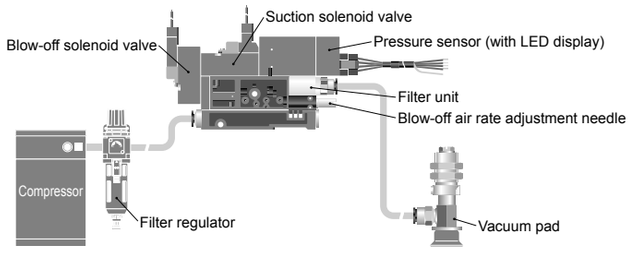
Manifold type allows up to 10 units to be mounted.

● -S3 spec. (Metal option)

No copper-based metallic materials used in flow paths.

Seal rubber material is HNBR or FKM, both of which have good ozone resistance.

Piping Example



Vacuum Generator Complex type VX

Specifications

Fluid medium		Air (JIS B 8392-1 : Compliant with [Class 1.2.1 to 2.4.3])
Operating press. range		0.3 to 0.7 MPa
Operating temp. range		5 to 50°C (No freezing)
Operating humid. range		35 to 85%RH (No dew condensation)
Vibration resist. /Shock resist.		50m/s² max / 150m/s² max
Protective structure		IEC standard IP40 equiv.
Lubrication		Not required
Proof pressure	Air supply. circuit	1.05 MPa
	Vac. circuit	0.2 MPa

*Proof pressure is the level of pressure at which the product would not be damaged. It does not mean the pressure where the product works normally.

Solenoid valve specifications

Rated voltage	24 VDC ±10%	100 VAC ±10%
Power consumption	1.2 W (with LED)	1.5 VA (with LED)
Surge protection	Varistor	Bridge diode
Operation indicator	Current application : Red LED ON	
Manual override	Push button (non-lock)	

Suction main valve specifications

Operation type		Indirect operation by pilot valve	
Valve type		Normally closed type	Double-piloted (Self-holding function)(*1)
Response time (Standard)	OFF→ON	24 VDC: 7 msec	24 VDC: 5.5 msec
		100 VAC: 10 msec	100 VAC: 8.5 msec
	ON→OFF	24 VDC: 14.5 msec	24 VDC: 10.5 msec
		100 VAC: 16 msec	100 VAC: 13.5 msec
Response time (-S3 spec.)	OFF→ON	24 VDC: 8 msec	24 VDC: 6.5 msec
		100 VAC: 11 msec	100 VAC: 9.5 msec
	ON→OFF	24 VDC: 23.5 msec	24 VDC: 18.5 msec
		100 VAC: 29.5 msec	100 VAC: 15 msec

*1. Excitation time of the solenoid must be 50 msec or more.
*2. The response time at supply air: 0.5 MPa with rated voltage (100%).

Blow-off main valve specifications

Operation type		Direct operating poppet
Valve type		Normally closed
Response time	OFF→ON	24 VDC: 3.5 msec
		100 VAC: 8 msec
	ON→OFF	24 VDC: 3 msec
		100 VAC: 14 msec

*The response time at supply air: 0.5 MPa with rated voltage (100%).

Vacuum filter specifications

Element material	PVFM (Polyvinyl formal)
Filtering accuracy (*)	5 µm
Filter area	502 mm²

*Based on PISCO measuring condition.

Blow-off function

Blow-off air rate	Normally closed	0 to 7.5 ℓ/min[ANR] (Supply pressure: 0.5 MPa)
	Double-piloted (Self-holding function)	0.2 to 2 ℓ/min[ANR] (Supply pressure: 0.5 MPa)

*1. The value of blow-off air rate of normally closed type is for vacuum characteristics E10, stand-alone type. Blow-off air rate varies according to vacuum characteristic. Also, the blow-off air rate of manifold-type is about 70% of the stand-alone type.
*2. When the air rate is out of the above range, the response of the double-piloted type does not satisfy the specification.
*3. Blow-off air rate varies according to the vacuum port dia. and tube length (piping resistance and others) on vacuum side.

Specifications of Pressure sensor with LED display

Specifications		–DW (2 switch outputs with LED display)	–DA (1 switch output & 1 analog output with LED display)
Current consumption		40 mA	
Pressure detection		Diffused metaloxide semiconductive pressure switch	
Operating press. range		-100 to 0 kPa	
Pressure setting range		-99 to 0 kPa	
Proof pressure		0.2 MPa	
Power requirements		12 to 24 VDC ±10% Ripple (P-P) 10% max.	
No. of pressure setting		2	1
Operating accuracy		±3%F.S. max. (Standard temp. at 25°C)	
Hysteresis		Fixed (2% F.S. max.)	Variable (about 0 to15% F.S. max.)
Switch output		NPN open collector output: 30 V 80 mA max. Residual voltage 0.8 V max.	
Analog output	Output voltage		1 to 5 V
	Zero-point voltage		1 ±0.1 V
	Span voltage		4 ±0.1 V
	Output current		1mA max. (load resistance min.5kΩ)
	LIN / HYS		±0.5% F.S. max. (Standard temp. at 25°C)
Response		About 2 msec or less	
Indication		0 to -99 kPa (2-digit red LED display)	
Display frequency		About 4 times/sec	
Indication accuracy		±3%F.S. ±2 digit max.	
Sensor resolution		1 digit	
Operation indicator		SW1: Red LED turns on when pressure is above setting SW2: Green LED turns on when pressure is above setting	Red LED turns on when pressure is above setting

*Allowable range of the variation of “Zero point voltage”, "Span voltage" and “Pressure setting value” caused by repeated voltage application is ± 3% F.S.

Pressure sensor (without display) specifications

Specifications		–A0 (1 analog output)
Power requirements		12 to 24 VDC ±10% Ripple (P-P) 10% max.
Current consumption		15 mA
Pressure detection		Diffused metaloxide semiconductive pressure sensor
Proof pressure		0.2 MPa
Analog output	Output voltage	1 to 5 V
	Zero-point voltage	1 ±0.1 V
	Span voltage	4 ±0.1 V
	Output current	1 mA max.
	Temp. charact. (Zero point)	±0.1 %F.S./ºC (Standard temp. at 25°C)
	Temp. charact. (Span)	±0.1 %F.S./ºC (Standard temp. at 25°C)
	Linearity	±0.5%F.S. max.

*Allowable range of the variation of “Zero point voltage”, "Span voltage" and “Pressure setting value” caused by repeated voltage application is ± 3% F.S.

RoHS2 (2011/65/EU+EU2015/863) compliant CE (*2)

Open to air (Silencer vent)

Direct install. type

Type	Model code
Without pressure sensor	VX2[3]4-5[6]S-[8]

Type	Model code
Pressure sensor with LED display (2 switch outputs)	VX2[3]4-5[6]S-[8]-DW

Type	Model code
Pressure sensor with LED display (1 analog and 1 switch output)	VX2[3]4-5[6]S-[8]-DA

Type	Model code
Analog output pressure sensor	VX2[3]4-5[6]S-[8]-A0

DIN rail type

Type	Model code
Without pressure sensor	VX2[3]4-5[6]S-[8]-D

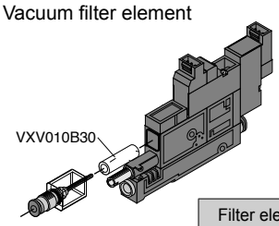
Type	Model code
Pressure sensor with LED display (2 switch outputs)	VX2[3]4-5[6]S-[8]-DW-D

Type	Model code
Pressure sensor with LED display (1 analog and 1 switch output)	VX2[3]4-5[6]S-[8]-DA-D

Type	Model code
Analog output pressure sensor	VX2[3]4-5[6]S-[8]-A0-D

Replacement element

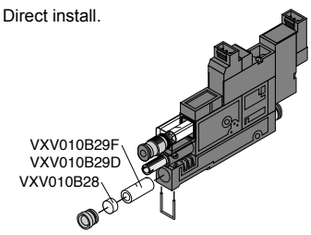
Vacuum filter element



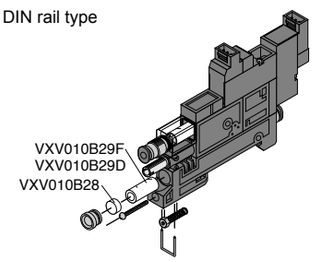
Filter element Model code
VXV010B30

Silencer element

Direct install.



DIN rail type



Silencer element Model code	Vacuum characteristics
VXV010B28	–
VXV010B29F	For H10, L10, E10, H07, L07
VXV010B29D	For E07, H05, L05

Notes

*1. Please select each code referring to the example of model designation. [2]: Code of vacuum characteristics, [3]: Nozzle dia. Code, [4]: Valve type, [5]: Vacuum port size code, [6]: Supply port size, [8]: Solenoid valve type code.

*2. 100 VAC type is not CE marked.

CAD data is available at PISCO website.

Packaging specifications

1 pc. /bag

10 pcs. /bag: Replacement element

Vacuum Generator Complex type VX

RoHS2 (2011/65/EU+EU2015/863) compliant CE (*3)

Tube exhaust

Direct install. type

Type	Model code
Without pressure sensor	VX2□3□4-5□6J-□-□1

Type	Model code
Pressure sensor with LED display (2 switch outputs)	VX2□3□4-5□6J-□-DW□1

Type	Model code
Pressure sensor with LED display (1 analog and 1 switch output)	VX2□3□4-5□6J-□-DA□1

Type	Model code
Analog output pressure sensor	VX2□3□4-5□6J-□-A0□1

DIN rail type

Type	Model code
Without pressure sensor	VX2□3□4-5□6J-□-D□1

Type	Model code
Pressure sensor with LED display (2 switch outputs)	VX2□3□4-5□6J-□-DW-D□1

Type	Model code
Pressure sensor with LED display (1 analog and 1 switch output)	VX2□3□4-5□6J-□-DA-D□1

Type	Model code
Analog output pressure sensor	VX2□3□4-5□6J-□-A0-D□1

Notes

*1. Please select each code referring to the example of model designation. □2: Code of vacuum characteristics, □3: Nozzle dia. Code, □4: Valve type, □5: Vacuum port size code, □6: Supply port size, □8: Solenoid valve type code.

*2. For Tube exhaust type (both Standard spec, and -S3 spec.), the combination of vacuum characteristics L and nozzle bore 1.0 mm is not available.

*3. 100 VAC type is not CE marked.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
□1 : -S3 ⇒ -S3 spec. (Metal option)
*-S3 spec. is not available for vacuum port size dia.3mm.

RoHS2 (2011/65/EU+EU2015/863) compliant CE (*3)

Manifold Installation Top-Mounting Unit alone

Type	Model code
Without pressure sensor	VX[2][3][4]-[5]-[6]-M[8]

VX-M

Type	Model code
Pressure sensor with LED display (2 switch outputs)	VX[2][3][4]-[5]-[6]-DW-M[8]

VX-M

Type	Model code
Pressure sensor with LED display (1 analog and 1 switch output)	VX[2][3][4]-[5]-[6]-DA-M[8]

VX-M

Type	Model code
Analog pressure sensor (No LED)	VX[2][3][4]-[5]-[6]-A0-M[8]

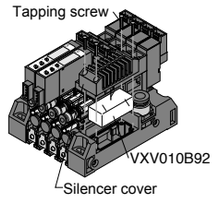
VX-M

Manifold-base alone

Type	Model code
	VXM-[2][3]-02[5] (2 stations)
	VXM-[2][3]-03[5] (3 stations)
	VXM-[2][3]-04[5] (4 stations)
	VXM-[2][3]-05[5] (5 stations)
	VXM-[2][3]-06[5] (6 stations)
	VXM-[2][3]-07[5] (7 stations)
	VXM-[2][3]-08[5] (8 stations)
	VXM-[2][3]-09[5] (9 stations)
	VXM-[2][3]-10[5] (10 stations)

Replacement element

Silencer element for Manifold-base



Silencer element Model code
VXV010B92

Notes

*1. Please select each code referring to the example of Manifold installation Top-Mounting unit model designation . [2]: Code of vacuum characteristics, [3]: Nozzle dia. code, [4]: Valve type code, [5]: Vacuum port size code, and [6]: Solenoid valve type.
*2. Please select each code referring to the example of Manifold -base alone model designation. [2]: Supply port size and [3]: Exhaust type code.
*3. 100 VAC type is not CE marked.

CAD data is available at PISCO website.

Options

1 pc. /bag
2 pcs. /set: Replacement element for Manifold-base

Options

[8] ([5] for Manifold-base alone): -S3 ⇒ -S3 spec. (Metal option)
*1. -S3 spec. for Manifold-base alone is available for Tube exhaust type only.
*2. -S3 spec. for Manifold installation Top-mounting unit is not available for vacuum port size dia. 3 mm.

Vacuum Generator Complex type VN

10.3 mm wide, lightweight, compact, direct acting valve equipped, and suitable for high-cycle operation (Stand-alone and Manifold types).

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation of Stand-alone type (Example)

VN (1) H05 (2) – 4 (3) 4 (4) 4 (5) S (6) – D24 –R1 (7)

(1) Vacuum Generator Complex type VN

(2) Vacuum characteristics, Nozzle bore

Code	Vacuum characteristics	Nozzle bore (mm)	Rated supply pressure (MPa)	Vacuum level (kPa)	Suction flow (ℓ/min[ANR])	Air consumption (ℓ/min[ANR])
E04	High-vacuum at Low air supply pressure type	0.4	0.35	-90.4	1.7〔2〕	6
H05	High-vacuum type	0.5	0.5		6.0〔7〕	11.5
E05	High-vacuum at Low air supply pressure type		0.35		2.6〔3〕	8
H06	High-vacuum type	0.6	0.5		8.1〔9.5〕	16
E06	High-vacuum at Low air supply pressure type		0.35		3.8〔4.5〕	12

*1. Suction flow values on the left represent those of vacuum port dia. 3mm, those in [ ] are of vacuum port dia. 4mm.
*2. The values in the table are representative values. Suction flow can vary by vacuum port dia. and tube length.

(3) Vacuum port size (V)

Code	3	4	3L	4L
Tube O.D. (mm)	ø3 Straight Push-in fitting	ø4 Straight Push-in fitting	ø3 Elbow Push-in fitting	ø4 Elbow Push-in fitting

(4) Air supply port for suction (PV)

Code	3	4
Tube O.D. (mm)	ø3 Straight Push-in fitting	ø4 Straight Push-in fitting

(5) Air supply port for blow-off air (PS)

Code	3	4	N
Tube O.D. (mm)	ø3 Straight Push-in fitting	ø4 Straight Push-in fitting	Common air supply port for suction and blow-off

*When 3 or 4 is selected for Air supply port for blow-off air, suction air and blow-off air are separately supplied.

(6) Exhaust port (EX)

Code	S	J(*)
Exhaust port	Open to air (Silencer vent)	Tube exhaust

"Tube exhaust" port comes with only for a 6 mm O.D. push-in fitting.

(7) Pressure sensor

Code	Specifications
No code	Without pressure sensor
–V1C□	Analog output vacuum sensor for negative press. with connector cable
–V2C□	Separate LED display + Analog output vacuum sensor for negative press. with connector cable
–R1	Analog output sensor for compound press.
–R2	Separate LED display + Analog output sensor for compound press.
–V4NC□	NPN output negative press. sensor with LED display
–V4PC□	PNP output negative press. sensor with LED display
–V4RNC□	NPN output compound press. sensor with LED display
–V4RPC□	PNP output compound press. sensor with LED display

*Select a cable length code from the below table for □ in pressure sensor code (connector type).

Code	No code	50	100	200	300
Cable length (mm)	Without cable	500	1,000	2,000	3,000

Model Code of bracket for stand-alone type (option)

VNB

*Including 2 hexagonal socket head screws (M3 x 12)

Model Designation of Connector cable for negative press. analog output sensor (Example) (Maintenance parts)

FSED012B07 (1) – C300 (2)

(1) Cable for connector type pressure sensor

(2) Cable length

Code	C50	C100	C200	C300
Cable length (mm)	500	1,000	2,000	3,000

Model Designation of Connector cable for pressure sensor with LED display (Example) (Maintenance parts)

FVML010A (1) 02 (2) – C300 (2)

(1) Cable for connector type pressure sensor

(2) Power supply line

Code	02	06
Power line	Included	Not included

(3) Cable length

Code	C50	C100	C200	C300
Cable length (mm)	500	1,000	2,000	3,000

Model Designation of Manifold type (Example)

VN (1) H05 (2) – 4 (3) 4 (4) 4 (5) S (6) – D24 –V1C (7) – M 04 (8)

(1) Vacuum Generator Complex type VN

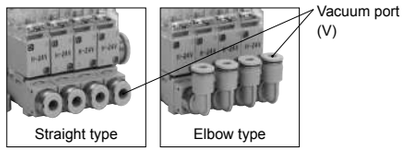
(2) Vacuum characteristics, Nozzle bore

Code	Vacuum characteristics	Nozzle bore (mm)	Rated supply pressure (MPa)	Vacuum level (kPa)	Suction flow (ℓ/min[ANR])	Air consumption (ℓ/min[ANR])
E04	High-vacuum at Low air supply pressure type	0.4	0.35	-90.4	1.7〔2〕	6
H05	High-vacuum type	0.5	0.5		6.0〔7〕	11.5
E05	High-vacuum at Low air supply pressure type		0.35		2.6〔3〕	8
H06	High-vacuum type	0.6	0.5		8.1〔9.5〕	16
E06	High-vacuum at Low air supply pressure type		0.35		3.8〔4.5〕	12
K	Mixed configurations on a manifold (Fill out Specification Order Form.)					

*1. Suction flow values on the left represent those of vacuum port dia. 3mm, those in [ ] are of vacuum port dia. 4mm.
*2. The values in the table are representative values. Suction flow can vary by vacuum port dia. and tube length.
*3. When vacuum characteristic code is K, E type and H type cannot be mounted on a same manifold-base. Only different nozzle bore with same vacuum characteristics can be mounted on a same manifold-base.

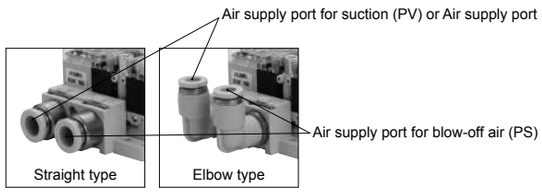
(3) Vacuum port size (V)

Port type	Straight Push-in fitting		Elbow Push-in fitting		
Code	3	4	3L	4L	K
Tube O.D. (mm)	ø3	ø4	ø3	ø4	Mixed configurations on a manifold (Fill out Specification Order Form.)



(4) Air supply port for suction (PV)

Port type		Straight Push-in fitting			Elbow Push-in fitting		
Code	R side	4R	6R	8R	4LR	6LR	8LR
	Both sides	4	6	8	4L	6L	8L
	L side	4H	6H	8H	4LH	6LH	8LH
Tube O.D. (mm)		ø4	ø6	ø8	ø4	ø6	ø8



(5) Air supply port for blow-off air (PS)

Port type		Straight Push-in fitting			Elbow Push-in fitting			
Code	R side	4R	6R	8R	4LR	6LR	8LR	N
	Both sides	4	6	8	4L	6L	8L	
	L side	4H	6H	8H	4LH	6LH	8LH	
Tube O.D. (mm)		ø4	ø6	ø8	ø4	ø6	ø8	Common air supply port for suction and blow-off

(6) Exhaust port (EX)

S: Open to air (Silencer vent)
*Tube exhaust type is not selectable for manifold type.

(7) Pressure sensor

Code	Specifications
No code	Without pressure sensor
–V1C□	Analog output vacuum sensor for negative press. with connector cable
–V2C□	Separate LED display + Analog output vacuum sensor for negative press. with connector cable
–R1	Analog output sensor for compound press.
–R2	Separate LED display + Analog output sensor for compound press.
–V4NC□	NPN output negative press. sensor with LED display
–V4PC□	PNP output negative press. sensor with LED display
–V4RNC□	NPN output compound press. sensor with LED display
–V4RPC□	PNP output compound press. sensor with LED display
–K	Different sensor configurations on a manifold (Fill out Specification Order Form)

*Select a cable length code from the below table for □ in pressure sensor code (connector type).

Code	No code	50	100	200	300
Cable length (mm)	Without cable	500	1,000	2,000	3,000

(8) No. of stations

Code	02	03	04	05	06	07	08	09	10
No. of St.	2	3	4	5	6	7	8	9	10

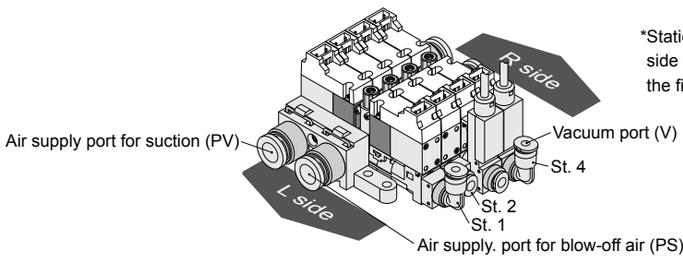
Vacuum Generator Complex type VN

Specification order form example for Manifold type

			Type (1)		Vac. charact. , Nozzle bore. (2)		Vacuum port (3)	Air supply port (4)	Air supply. port for blow-off air (5)	Exhaust port(EX) (6)		Voltage		Pressure sensor (7)		No. of stations (8)
Manifold model code			VN		K	–	K	8	8	S	–	D24	–	K	–	M04
Mounting unit model code	L side	St.1			H04	–	3L				–		–			
	⬆ Station No. ⬇	St.2			H05	–	4				–		–			
		St.3			H06	–	4				–		–	R1		
		St.4			H04	–	3L				–		–	R1		
		St.5				–					–		–			
		St.6				–					–		–			
		St.7				–					–		–			
		St.8				–					–		–			
		St.9				–					–		–			
	R side	St.10				–					–		–			

*When vacuum characteristic code is K, E type and H type cannot be mounted on a same manifold-base. Only different nozzle bore with same vacuum characteristics can be mounted on a same manifold-base.

Manifold Type (reference)



*Station No. is counted as St.1, St.2, ···St.10 from L (left) side when the vacuum port is facing the front as shown in the figure.

Cut here

Vacuum Generator VN Series Manifold type Specification Order Form

To: NIHON PISCO CO., Ltd.

Name

Distributor address

TEL

Delivery address

TEL

Customer name and address

TEL

Requested EX-W PISCO Date:

Order quantity: pcs.

			Type (1)		Vac. charact. , Nozzle bore. (2)		Vacuum port (3)	Air supply port (4)	Air supply. port for blow-off air (5)	Exhaust port(EX) (6)		Voltage		Pressure sensor (7)		No. of stations (8)
Manifold model code			VN			–				S	–	D24	–		–	
Mounting unit model code	L side	St.1				–					–		–			
	⬆ Station No. ⬇	St.2				–					–		–			
		St.3				–					–		–			
		St.4				–					–		–			
		St.5				–					–		–			
		St.6				–					–		–			
		St.7				–					–		–			
		St.8				–					–		–			
		St.9				–					–		–			
	R side	St.10				–					–		–			

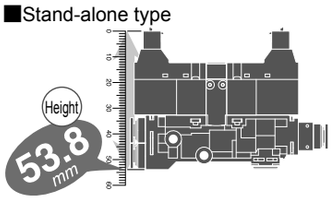
*When vacuum characteristic code is K, E type and H type cannot be mounted on a same manifold-base. Only different nozzle bore with same vacuum characteristics can be mounted on a same manifold-base.

Characteristics

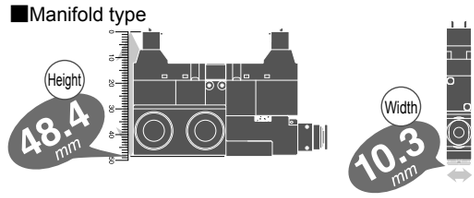
Suitable for the application with limited space.

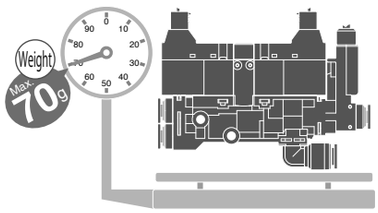
Compact and lightweight ejector unit. Particularly, the body height is minimized.

■Stand-alone type



■Manifold type



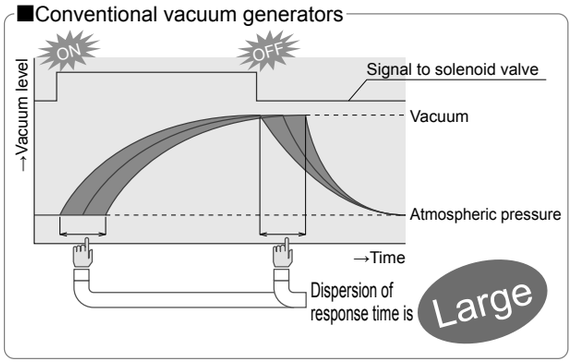


*Excluding pressure sensor with LED display and tube exhaust port.

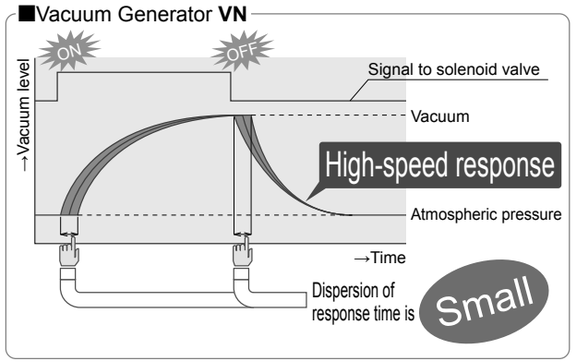
High-speed and stable response time. (ON / OFF = 5msec or less)

Direct acting valve is used for the main valve.

■Conventional vacuum generators



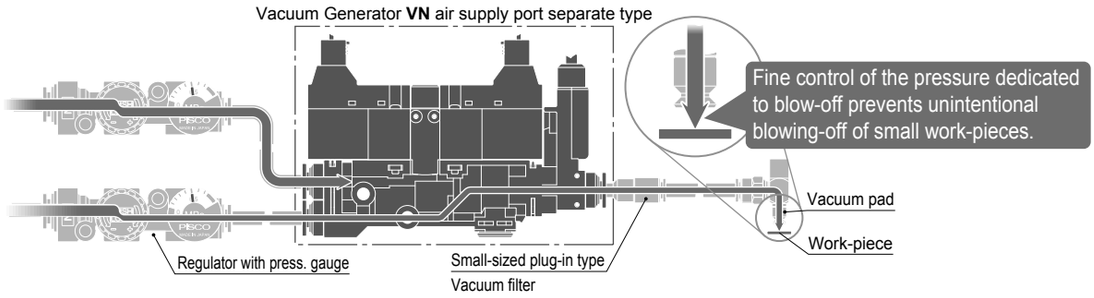
■Vacuum Generator **VN**



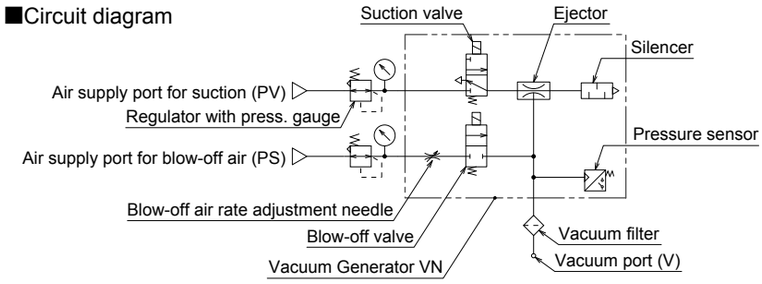
Releasing a tiny work-piece by blow-off air softly.

An air supply port dedicated to blow-off is provided separately. By placing a pressure regulator in the upstream of the port, not only the flow rate but also the pressure of blow-off air can be controlled easily.

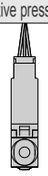
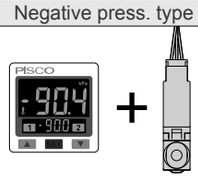
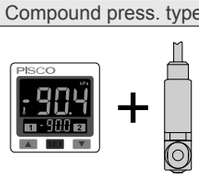
Vacuum Generator **VN** air supply port separate type



■Circuit diagram



Selectable form a total of 8, 4 types of analog output sensors and 4 types of sensors with built-in LED display.

Analog output sensor		Separate dual digital display and Analog output sensor		Pressure sensor with LED display			
Negative press. type	Compound press. type	Negative press. type	Compound press. type	Negative press. type		Compound press. type	
				NPN output	PNP output	NPN output	PNP output
							

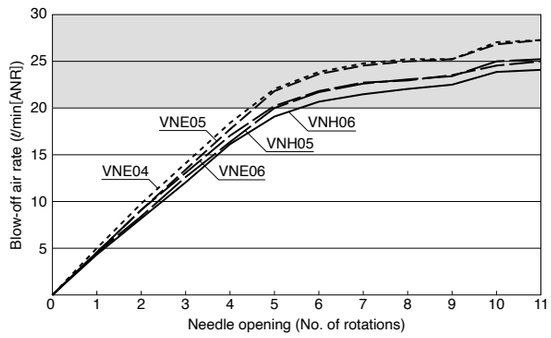
Vacuum Generator Complex type VN

Common supply port type is also available.

*Supply port: shared air supply port for suction and blow-off air.

Securing 20ℓ/min for blow-off air rate.

Supply pressure: 0.5 MPa



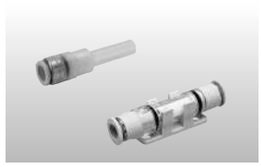
Lead wires of pressure sensor come as a connector cable. Easy wiring and enhanced maintenance performance. 4 types of cable length.

Select the most suitable one from 500, 1000, 2000, and 3000 mm.
Connector cable can be selected only for pressure sensor with negative pressure analog output type and LED display equipped types. Analog output type sensor for compound pressure comes with grommet mount.

External vacuum filter is available by separate ordering.

Separation of a vacuum filter is a solution for inconvenience at replacing it even with the compact vacuum generator.
*Vacuum Generator VN series is not equipped with a vacuum filter. Please make sure to use a vacuum filter (VFU or VFJ) together with VN series for long-lasting use.

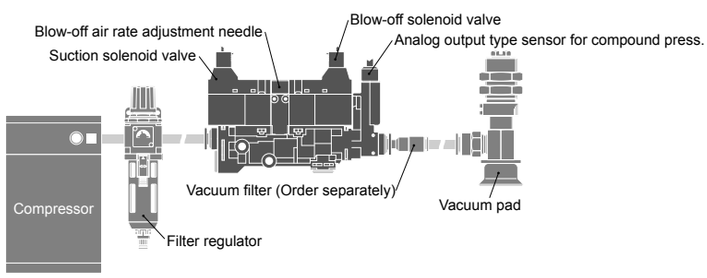
Related product



Vacuum Filter

▶ P.359

Piping Example



Specifications

Fluid medium		Air (JIS B 8392-1 : Compliant with [Class 1.2.1 to 2.4.3])
Operating press. range		0 to 0.55 MPa
Operating temp. range		5 to 50°C (No freezing)
Operating humid. range		35 to 85%RH (No dew condensation)
Vibration resist. /Shock resist.		50m/s² max. / 150m/s² max.
Protective structure		IEC standard IP40 equiv.
Lubrication		Not required
Proof pressure	Air supply. circuit	0.85 MPa
	Vac. circuit	0.2 MPa

*Proof pressure is the level of pressure at which the product would not be damaged. It does not mean the pressure where the product works normally.

Solenoid valve specifications

Rated voltage	24 VDC ±10%
Power consumption	Startup: 2.2 W, Retention: 0.6 W (Power saving LED circuit)
Surge protection	Incorporated
Operation indicator	Current application: Green LED ON
Manual override	Not equipped

Suction main valve specifications

Operation type		Direct operating poppet
Valve type		Normally closed
Response time	OFF→ON	5 msec
	ON→OFF	5 msec

*The response time is the figure at a steady state of supply air: 0.05 to 0.5 MPa, ambient temperature 20°C, and apply voltage 24 VDC ± 10%.

Blow-off main valve specifications

Operation type		Direct operating poppet
Valve type		Normally closed
Response time	OFF→ON	5 msec
	ON→OFF	5 msec

*The response time is the figure at a steady state of supply air: 0.05 to 0.5 MPa, ambient temperature 20°C, and apply voltage 24 VDC ± 10%.

Blow-off function

Blow-off air rate	0 to 20 ℓ/min[ANR](Supply pressure at 0.5 MPa)

*Blow-off air rate varies according to the vacuum port dia. and tube length (piping resistance and others) on vacuum side.

Pressure sensor (without display) specifications

		V1C □ (1 analog output for negative press.)	R1 (1 analog output for compound press.)
Electrical wiring		Connector type	Grommet type
Power requirements		10.8 to 30 VDC including ripple voltage	
Current consumption		20 mA (24VDC at no-load)	
Pressure detection		Diffused metaloxide semiconductive pressure sensor, gauge pressure	
Operating press. range		-100 to 0 kPa	-100 to 300 kPa
Proof pressure		1,000 kPa	600 kPa
Storage temp. range		-20 to 70°C (Atmospheric pressure, Humidity 65%RH max.)	
Operating pressure range		0 to 60°C (No freezing)	-10 to 60°C (No freezing)
Operation humidity range		30 to 85%RH (No dew condensation)	35 to 85%RH (No dew condensation)
Protective structure		IEC standard IP40 equiv.	
Analog output	Output voltage	1 to 5V	
	Zero-point voltage	1 ±0.04V(At atmospheric pressure)	1 ±0.1V(at -100kPa)
	Voltage at designated press.	4.6 ±0.04V(at -90kPa)	—
	Max. pressure voltage	(5 ±0.04V(at -100kPa))	5 ±0.1V(at -300kPa)
	Linearity	±0.5%F.S.max. (Standard temp. at 25°C)	
	Temp. charact.	±2%F.S.max. (0 to 60°C, Standard temp. at 25°C)	±2%F.S.max.
	Output current	0.495 mA max. (Load resistance: 10kΩmax.)	1 mA max. (Load resistance: 5kΩmax.)
	Output impedance	1kΩ	—

*When "Zero-point voltage" and "Span voltage "need repeated apply of voltage, the tolerance of amount of change is ± 3% F. S.

Specifications of Pressure sensor with LED display

		V4NC□	V4PC□	V4RNC□	V4RPC□
General spec.	Specifications	Negative / NPN output	Negative / PNP output	Compound / NPN output	Compound / PNP output
	Fluid medium	Air, non-corrosive / non-flammable gas			
	Pressure detection	Diffused metaloxide semiconductive pressure switch			
	Operating temp. range	0 to 50°C (No freezing)			
	Storage temp. range	-20 to 70°C (Atmospheric pressure, Humidity 65%RH max.)			
	Operating humid. range	35 to 85%RH (No dew condensation)			
	Vibration resistance	100m/s²			
	Shock resistance	150m/s²			
	Protective structure	IEC standard IP40 equiv.			
Press. Range Power	Operating press. range	-100kPa to 0kPa		-100kPa to 300kPa	
	Proof pressure	0.9MPa		1.4MPa	
	Power requirements	12 to 24VDC ±10% including ripple (P-P)			
	Current consumption	30mA max.(at all LED on, no load with 2 points outputs)			
Display	Display element	Sign & 2 digits, 7 segments Red LED			
	Display frequency	4 times/sec.			
	Monitor system	Overpressure indication, blinking display			
	Panel lock function	On/Off by push-button			
	Display / Non-display	On/Off by push-button			
	Indication accuracy	±3%F.S.(0 to 50°C, Standard temp. at 25°C)			
	Zero point adjustment	Adjustable by zero adjusting mode			
Switch output	No. of pressure setting	2-point switch outputs			
	Switch output	NPN Open collector	PNP Open collectort	NPN Open collector	PNP Open collector
	Switch capacity	30VDC 80mA max.	26.4VDC 80mA max.	30VDC 80mA max.	26.4VDC 80mA max.
	Residual voltage	1.2V max.(at NPN load current 80 mA)			
	Output mode	Separate mode, Window comparator mode (selectable)			
	Pressure setting range	-99 to 0 (kPa)		-99 to 0 (kPa), .00 to 0.30 (MPa)	
	Operation indicator	Output ON: LED ON (SW1: RED / SW2: GREEN)			
	Temp. charact.	±5%F.S. (0 to 50°C, Standard temp. at 25°C)			
	Repeat accuracy	±0.3%F.S.			
	Response	Digital filter setting at 0 msec: 5 msec, Setting range (Selectable range 0 to 99 msec)			
	Hysteresis adjustment	0 to 30 count			
	Overload protection	Incorporated	Not included	Incorporated	Not included
Analog output	No. of pressure setting	1 point			
	Output voltage	1 to 5V			
	Zero-point voltage (0kPa)	1 ±0.06V		2 ±0.06V	
	Voltage with neg. press.(-90kPa)	4.6 ±0.06V		1.1 ±0.06V	
	Max. voltage with pos. press.(300kPa)	—		5 ±0.06V	
	Output current	1mA (MAX)			
	Linearity	±0.5%F.S.			
	Repeat accuracy	±0.5%F.S.			
	Temp. charact.	5%F.S. (0 to 50°C, standard temp. at 25°C)			

Vacuum Generator Complex type VN

RoHS2 (2011/65/EU+EU2015/863) compliant CE

Stand-alone type

Separate air supply port type

Type	Model code
Silencer vent without pressure sensor	VN2-345S-D24

Type	Model code
Tube exhaust without pressure sensor	VN2-345J-D24

Optional part

Type	Model code
Bracket	VNB

*Including 2 hexagonal socket head screws (M3 x 12)

Type	Model code
Silencer vent, Analog output with pressure sensor	VN2-345S-D24-R1
	VN2-345S-D24-V1C
	VN2-345S-D24-V1C50
	VN2-345S-D24-V1C100
	VN2-345S-D24-V1C200
	VN2-345S-D24-V1C300

Type	Model code
Tube exhaust, Analog output with pressure sensor	VN2-345J-D24-R1
	VN2-345J-D24-V1C
	VN2-345J-D24-V1C50
	VN2-345J-D24-V1C100
	VN2-345J-D24-V1C200
	VN2-345J-D24-V1C300

Type	Model code
Silencer vent, Analog output with pressure sensor + separate display	VN2-345S-D24-R2
	VN2-345S-D24-V2C
	VN2-345S-D24-V2C50
	VN2-345S-D24-V2C100
	VN2-345S-D24-V2C200
	VN2-345S-D24-V2C300

Type	Model code
Tube exhaust, Analog output with pressure sensor + separate display	VN2-345J-D24-R2
	VN2-345J-D24-V2C
	VN2-345J-D24-V2C50
	VN2-345J-D24-V2C100
	VN2-345J-D24-V2C200
	VN2-345J-D24-V2C300

Type	Model code
Silencer vent, with LED display pressure sensor	VN2-345S-D24-V4NC
	VN2-345S-D24-V4PC
	VN2-345S-D24-V4RNC
	VN2-345S-D24-V4RPC
	VN2-345S-D24-V4NC50
	VN2-345S-D24-V4PC50
	VN2-345S-D24-V4RNC50
	VN2-345S-D24-V4RPC50
	VN2-345S-D24-V4NC100
	VN2-345S-D24-V4PC100
	VN2-345S-D24-V4RNC100
	VN2-345S-D24-V4RNC100
	VN2-345S-D24-V4NC200
	VN2-345S-D24-V4PC200
	VN2-345S-D24-V4RNC200
	VN2-345S-D24-V4RPC200
	VN2-345S-D24-V4NC300
	VN2-345S-D24-V4PC300
	VN2-345S-D24-V4RNC300
	VN2-345S-D24-V4RPC300

Type	Model code
Tube exhaust, with LED display pressure sensor	VN2-345J-D24-V4NC
	VN2-345J-D24-V4PC
	VN2-345J-D24-V4RNC
	VN2-345J-D24-V4RPC
	VN2-345J-D24-V4NC50
	VN2-345J-D24-V4PC50
	VN2-345J-D24-V4RNC50
	VN2-345J-D24-V4RPC50
	VN2-345J-D24-V4NC100
	VN2-345J-D24-V4PC100
	VN2-345J-D24-V4RNC100
	VN2-345J-D24-V4RPC100
	VN2-345J-D24-V4NC200
	VN2-345J-D24-V4PC200
	VN2-345J-D24-V4RNC200
	VN2-345J-D24-V4RPC200
	VN2-345J-D24-V4NC300
	VN2-345J-D24-V4PC300
	VN2-345J-D24-V4RNC300
	VN2-345J-D24-V4RPC300

Notes
*Please select each code referring to the example of model designation. 2: Vacuum characteristics and nozzle bore code, 3: Vacuum port size code , 4: Air supply port size for suction code, and 5: Air supply port size for blow-off.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

RoHS2 (2011/65/EU+EU2015/863) compliant CE

Stand-alone type

Common air supply port type

Type	Model code
Silencer vent without pressure sensor	VN2-34NS-D24

VN

Type	Model code
Tube exhaust without pressure sensor	VN2-345NJ-D24

VN

Type	Model code
Silencer vent, Analog output with pressure sensor	VN2-34NS-D24-R1
	VN2-34NS-D24-V1C
	VN2-34NS-D24-V1C50
	VN2-34NS-D24-V1C100
	VN2-34NS-D24-V1C200
	VN2-34NS-D24-V1C300

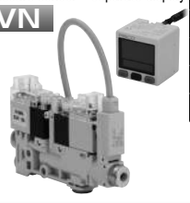
VN

Type	Model code
Tube exhaust, Analog output with pressure sensor	VN2-34NJ-D24-R1
	VN2-34NJ-D24-V1C
	VN2-34NJ-D24-V1C50
	VN2-34NJ-D24-V1C100
	VN2-34NJ-D24-V1C200
	VN2-34NJ-D24-V1C300

VN

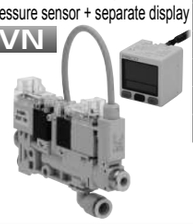
Type	Model code
Silencer vent, Analog output with pressure sensor + separate display	VN2-34NS-D24-R2
	VN2-34NS-D24-V2C
	VN2-34NS-D24-V2C50
	VN2-34NS-D24-V2C100
	VN2-34NS-D24-V2C200
	VN2-34NS-D24-V2C300

VN



Type	Model code
Tube exhaust, Analog output with pressure sensor + separate display	VN2-34NJ-D24-R2
	VN2-34NJ-D24-V2C
	VN2-34NJ-D24-V2C50
	VN2-34NJ-D24-V2C100
	VN2-34NJ-D24-V2C200
	VN2-34NJ-D24-V2C300

VN



Type	Model code
Silencer vent, with LED display pressure sensor	VN2-34NS-D24-V4NC
	VN2-34NS-D24-V4PC
	VN2-34NS-D24-V4RNC
	VN2-34NS-D24-V4RPC
	VN2-34NS-D24-V4NC50
	VN2-34NS-D24-V4PC50
	VN2-34NS-D24-V4RNC50
	VN2-34NS-D24-V4RPC50
	VN2-34NS-D24-V4NC100
	VN2-34NS-D24-V4PC100
	VN2-34NS-D24-V4RNC100
	VN2-34NS-D24-V4RPC100
	VN2-34NS-D24-V4NC200
	VN2-34NS-D24-V4PC200
	VN2-34NS-D24-V4RNC200
	VN2-34NS-D24-V4RPC200
	VN2-34NS-D24-V4NC300
	VN2-34NS-D24-V4PC300
	VN2-34NS-D24-V4RNC300
	VN2-34NS-D24-V4RPC300

VN

Type	Model code
Tube exhaust, with LED display pressure sensor	VN2-34NJ-D24-V4NC
	VN2-34NJ-D24-V4PC
	VN2-34NJ-D24-V4RNC
	VN2-34NJ-D24-V4RPC
	VN2-34NJ-D24-V4NC50
	VN2-34NJ-D24-V4PC50
	VN2-34NJ-D24-V4RNC50
	VN2-34NJ-D24-V4RPC50
	VN2-34NJ-D24-V4NC100
	VN2-34NJ-D24-V4PC100
	VN2-34NJ-D24-V4RNC100
	VN2-34NJ-D24-V4RPC100
	VN2-34NJ-D24-V4NC200
	VN2-34NJ-D24-V4PC200
	VN2-34NJ-D24-V4RNC200
	VN2-34NJ-D24-V4RPC200
	VN2-34NJ-D24-V4NC300
	VN2-34NJ-D24-V4PC300
	VN2-34NJ-D24-V4RNC300
	VN2-34NJ-D24-V4RPC300

VN

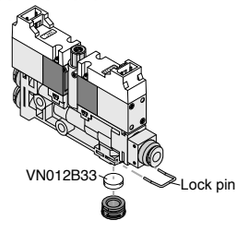
Notes
*Please select each code referring to the example of model designation. 2: Vacuum characteristics and nozzle bore code, 3: Vacuum port size code , 4: Air supply port size for suction code, and 5: Air supply port size for blow-off.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Replacement element

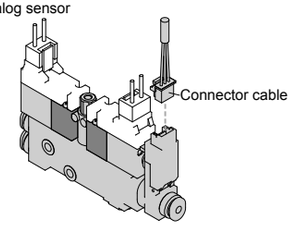
Silencer element



Silencer element Model code
VN012B33

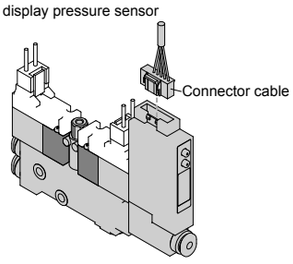
Cable for connector type pressure sensor

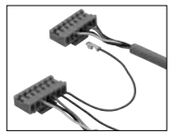
·Analog sensor



Connector cable Model code	Cable length (mm)
FSED012B07-C50	500
FSED012B07-C100	1,000
FSED012B07-C200	2,000
FSED012B07-C300	3,000

·LED display pressure sensor





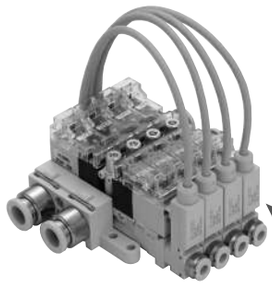
*Cable without power supply has internal crossover wire, and connecting it to the cable with power supply can reduce wiring.

Connector cable Model code		Cable length (mm)
With power supply	Without power supply	
FVML010A02-C50	FVML010A06-C50	500
FVML010A02-C100	FVML010A06-C100	1,000
FVML010A02-C200	FVML010A06-C200	2,000
FVML010A02-C300	FVML010A06-C300	3,000

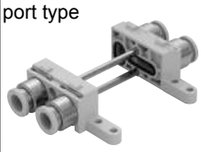
Vacuum Generator Complex type VN

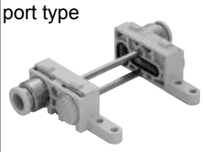
RoHS2 (2011/65/EU+EU2015/863) compliant CE

Manifold type



Manifold-base alone

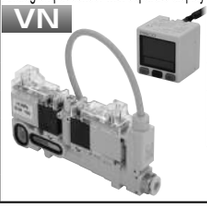
Type	No. of stations No. of St.
Separate air supply port type 	2St.
	3St.
	4St.
	5St.
	6St.
	7St.
	8St.
	9St.
	10St.

Type	No. of stations No. of St.
Common air supply port type 	2St.
	3St.
	4St.
	5St.
	6St.
	7St.
	8St.
	9St.
	10St.

Manifold mounting unit

Type	Model code
Without pressure sensor VN	VN2-34-D24-M

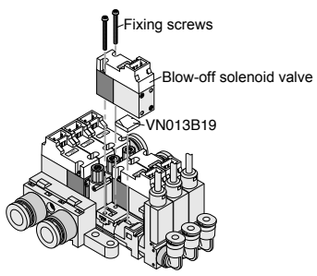
Type	Model code
Analog output press. sensor VN	VN2-34-D24-R1-M
	VN2-34-D24-V1C-M
	VN2-34-D24-V1C50-M
	VN2-34-D24-V1C100-M
	VN2-34-D24-V1C200-M
	VN2-34-D24-V1C300-M

Type	Model code
Analog output sensor with separate display VN 	VN2-34-D24-R2-M
	VN2-34-D24-V2C-M
	VN2-34-D24-V2C50-M
	VN2-34-D24-V2C100-M
	VN2-34-D24-V2C200-M
	VN2-34-D24-V2C300-M

Type	Model code
LED display press. sensor VN	VN2-34-D24-V4NC-M
	VN2-34-D24-V4PC-M
	VN2-34-D24-V4RNC-M
	VN2-34-D24-V4RPC-M
	VN2-34-D24-V4NC50-M
	VN2-34-D24-V4PC50-M
	VN2-34-D24-V4RNC50-M
	VN2-34-D24-V4RPC50-M
	VN2-34-D24-V4NC100-M
	VN2-34-D24-V4PC100-M
	VN2-34-D24-V4RNC100-M
	VN2-34-D24-V4RPC100-M
	VN2-34-D24-V4NC200-M
	VN2-34-D24-V4PC200-M
	VN2-34-D24-V4RNC200-M
	VN2-34-D24-V4RPC200-M
	VN2-34-D24-V4NC300-M
	VN2-34-D24-V4PC300-M
	VN2-34-D24-V4RNC300-M
	VN2-34-D24-V4RPC300-M

Replacement element

Manifold mounting unit
Silencer element



Silencer element Model code
VN013B19

*The above table is a reference of model code.
Only Manifold -base or only Manifold can not be sold except when those are necessary for replacement purposes. Please contact your nearest sales office for more details.

Notes
*Please select each code referring to the example of model designation. 2: Vacuum characteristics and nozzle bore code, 3: vacuum port size code. For 4, select code E for separate air supply ports for suction and blow-off, and code N for common air supply port for suction and blow-off.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Vacuum Generator Complex type VZ

PISCO
>>> https://www.pisco.co.jp/en/

Vacuum generator complex type suitable for application requiring large blow-off air rate and high cycle. (Manifold type)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VZ (1) H (2) 05 (3) D (4) – 4 (5) 1 (6) 1 (7) – D24 – R1 (8) – M 08 (9) – F (10) 26 (11)

(1) Vacuum Generator Complex type VZ

(2) Vacuum characteristics

Code	H	L	E	K
Characteristics	High-vacuum type (Rated supply pressure: 0.5 MPa)	Large-flow type (Rated supply pressure: 0.5 MPa)	High-vacuum at Low air supply pressure type (Rated supply pressure: 0.35 MPa)	Mixed configurations on a manifold (Fill out Specification Order Form.)

* Please secure supply pressure of 0.5 MPa when H or L type and E type are mounted on a manifold together. Vacuum performance indicated in the spec. can not be obtained by applying 0.35MPa to H or L type unit.

(3) Nozzle bore

Code	Nozzle bore (mm)	H type			L type			E type		
		Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])	Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])	Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])
05	0.5	-90.4	7〔7〕〈7〉	11.5	-66.5	12〔12〕〈12〉	11.5	-90.4	3〔3〕〈3〉	8
07	0.7	-93.1	13〔13〕〈13〉	23	-66.5	23〔24〕〈24〉	23	-90.4	10.5〔10.5〕〈10.5〉	17
10	1.0	-93.1	24〔24〕〈24〉	46	–	–	–	-90.4	20〔20〕〈20〉	34
00	Mixed configurations on a manifold (Fill out Specification Order Form.)									

*1. Values are when rated pressure is applied. (H and L type: 0.5 MPa, E type: 0.35 MPa.)
*2. Suction flow values on the left represent those of vacuum port size of M5 x 0.8 (female thread), those in [ ] are of vacuum port dia. of 4 mm, and those in < > are of vacuum port dia. of 6 mm.
*3. The values in the table are representative values. Suction flow can vary by vacuum port dia. and tube length.

(4) Valve type

Code	No code	D	K
Valve type	Normally closed type (N.C.)	Double-piloted (Self-holding function)	Mixed configurations on a manifold (Fill out Specification Order Form.)

(5) Vacuum port size (V)

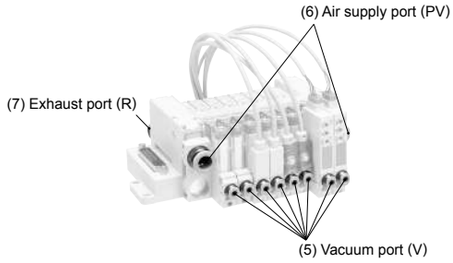
	Tube O.D. (mm)		Metric thread	
Code	4	6	5	0
Size	ø4	ø6	M5×0.8	Mixed configurations on a manifold (Fill out Specification Order Form.)

(6) Air supply port size (PV)

Code	4	6	8	1
Tube O.D. (mm)	ø4	ø6	ø8	ø10

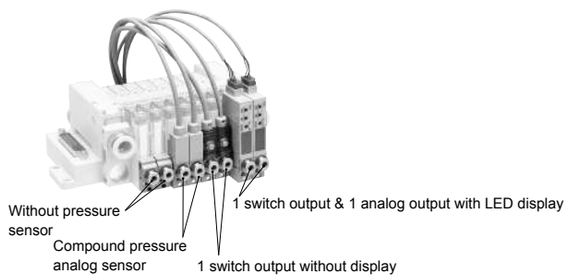
(7) Exhaust port (EX)

	Silencer	Tube O.D. (mm)		
Code	S	6	8	1
Size	Silencer vent	ø6	ø8	ø10



(8) Pressure sensor

Code	Specifications
No code	Without pressure sensors
DW	2 switch outputs with LED display
DA	1 switch output & 1 analog output with LED display
S	1 switch output without display
V1	Analog output sensor for negative pressure
V2	Separate LED display + analog sensor for negative pressure
R1	Analog sensor for compound pressure
R2	Separate LED display + analog sensor for compound pressure
K	Different sensor configurations on a manifold (Fill out Specification Order Form)



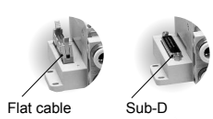
(9) No. of stations

Code	02	03	04	05	06	07	08	09	10	11	12
No. of St.	2	3	4	5	6	7	8	9	10	11	12

* Allowable No. of stations for simultaneous operation varies depending on the combination of nozzle bore and port size. Contact your nearest sales office for details.

(10) Wiring type

Code	F	D
Specifications	Flat cable connector	Sub-D connector



(11) No. of connector pins

Code	Specifications
No code	Connector with the optimal number of pins selected by PISCO (*)
20	20 -pin flat cable connector (Max. 9 stations)
26	26 -pin flat cable connector (Max. 12 stations)
25	25 -pin Sub-D connector (Max. 12 stations)

* For flat cable connector
2 to 4 stations: 10 -pin flat cable connector
5 to 9 stations: 20 -pin flat cable connector
10 to 12 stations: 26 -pin flat cable connector
For sub-D connector
2 to 4 stations: 9 -pin Sub-D connector
5 to 12 stations: 25 -pin Sub-D connector

Vacuum Generator Complex type VZ

Model Designation of Manifold-base alone (Example)

VZ (1) M (2) – 8 (3) S (4) – 05 (5) – D (6) 25 (7)

(1) Vacuum Generator Complex type VZ

(2) Manifold-base

(3) Air supply port size (PV)

Code	4	6	8	1
Tube O.D. (mm)	ø4	ø6	ø8	ø10

(4) Exhaust port (EX)

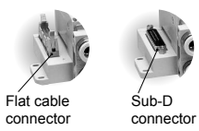
	Silencer	Tube O.D. (mm)		
Code	S	6	8	1
Size	Silencer vent	ø6	ø8	ø10

(5) No. of stations

Code	02	03	04	05	06	07	08	09	10	11	12
No. of St.	2	3	4	5	6	7	8	9	10	11	12

(6) Wiring type

Code	F	D
Specifications	Flat cable connector	Sub-D connector



(7) No. of connector pins

Code	Specifications
No code	Connector with the optimal number of pins selected by PISCO (*)
20	20 -pin flat cable connector (Max. 9 stations)
26	26 -pin flat cable connector (Max. 12 stations)
25	25 -pin Sub-D connector (Max. 12 stations)

* For flat cable connector
2 to 4 stations: 10 -pin flat cable connector
5 to 9 stations: 20 -pin flat cable connector
10 to 12 stations: 26 -pin flat cable connector
For sub-D connector
2 to 4 stations: 9 -pin Sub-D connector
5 to 12 stations: 25 -pin Sub-D connecto

Model Designation of Manifold Installation Top-Mounting Unit alone (Example)

VZ (1) L (2) 07 (3) – 6 (4) – S (5)

(1) Vacuum Generator Complex type VZ

(2) Vacuum characteristics

Code	H	L	E
Characteristics	High-vacuum type (Rated supply pressure: 0.5 MPa)	Large-flow type (Rated supply pressure: 0.5 MPa)	High-vacuum at Low air pressure supply type (Rated air supply pressure: 0.35 MPa)

(3) Nozzle bore

Code	Nozzle bore (mm)	H type			L type			E type		
		Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])	Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])	Vacuum level (kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])
05	0.5	-90.4	7 〔7〕 〈7〉	11.5	-66.5	12〔12〕〈12〉	11.5	-90.4	3 〔3〕 〈3〉	8
07	0.7	-93.1	13〔13〕〈13〉	23	-66.5	23〔24〕〈24〉	23	-90.4	10.5〔10.5〕〈10.5〉	17
10	1.0	-93.1	24〔24〕〈24〉	46	–	–	–	-90.4	20〔20〕〈20〉	34

*1. Values are when rated pressure is applied. (H and L type: 0.5 MPa, E type: 0.35 MPa.)
*2. Suction flow values on the left represent those of vacuum port size of M5 x 0.8 (female thread), those in [ ] are of vacuum port dia. of 4mm, and those in <> are of vacuum port dia. of 6mm.
*3. The values in the table are representative values. Suction flow can vary by vacuum port dia. and tube length.

(4) Vacuum port size (V)

	Tube O.D. (mm)		Metric thread
Code	4	6	5
Size	ø4	ø6	M5×0.8

(5) Pressure sensor

Code	Specifications
No code	Without pressure sensor
DW	2 switch outputs with LED display
DA	1 switch output & 1 analog output with LED display
S	1 switch output without display
V1	Analog output sensor for negative pressure
V2	Separate LED display + analog sensor for negative pressure
R1	Analog sensor for compound pressure
R2	Separate LED display + analog sensor for compound pressure

Model Designation of mounting valve unit (Example)

VZ (1) V (2) D (3) – D24

(1) Vacuum Generator Complex type VZ

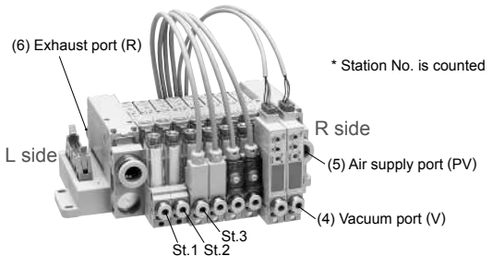
(2) Mounting valve unit

(3) Valve type

Code	No code	D
Valve type	Normally closed (N.C.)	Double-piloted (Self-holding function)

Specification order form example

			Type (1)	Vacuum characteristics (2)	Nozzle bore (3)	Valve type (4)		Vacuum port (5)	Air supply port (6)	Exhaust port (EX) (7)		Voltage		Pressure sensor (8)		No. of stations (9)	Wiring type (10)	No. of connector pins (11)
Manifold model code			VZ	K	00	K	–	4	1	1	–	D24	–	K	–	08	F	20
Mounting unit model code	L side	St.1		H	05		–				–		–					
	⬆	St.2		H	05		–				–		–					
	Station No.	St.3		H	05		–				–		–	R1				
		St.4		L	07	D	–				–		–	R1				
		St.5		L	07	D	–				–		–	S				
		St.6		L	07	D	–				–		–	S				
		St.7		E	10		–				–		–	DA				
		St.8		E	10		–				–		–	DA				
		St.9					–				–		–					
		St.10					–				–		–					
	⬇	St.11					–				–		–					
	R side	St.12					–				–		–					



* Station No. is counted as St.1, St.2, ···St.12 from L side when the vacuum port is facing the front as shown in the figure.

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Vacuum Generator VZ Series Specification Order Form

Name

To: NIHON PISCO CO., Ltd.

Distributor address TEL

Delivery address TEL

Customer name and address TEL

Requested EX-W PISCO Date: Order quantity: pcs.

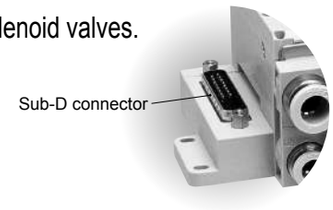
			Type (1)	Vacuum characteristics (2)	Nozzle bore (3)	Valve type (4)		Vacuum port (5)	Air supply port (6)	Exhaust port (EX) (7)		Voltage		Pressure sensor (8)		No. of stations (9)	Wiring type (10)	No. of connector pins (11)
Manifold model code			VZ				–				–	D24	–		–			
Mounting unit model code	L side	St.1					–				–		–					
	⬆	St.2					–				–		–					
	Station No.	St.3					–				–		–					
		St.4					–				–		–					
		St.5					–				–		–					
		St.6					–				–		–					
		St.7					–				–		–					
		St.8					–				–		–					
		St.9					–				–		–					
		St.10					–				–		–					
	⬇	St.11					–				–		–					
	R side	St.12					–				–		–					

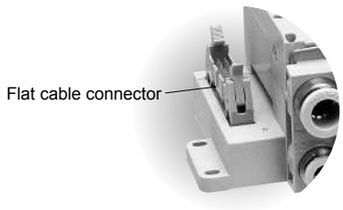
*1. Refer to the above example to fill in the form.
*2. Make photocopies of this page and fill in.
*3. When the combination of mounting unit spec. is different, a new Specification Order Form is required.

Vacuum Generator Complex type VZ

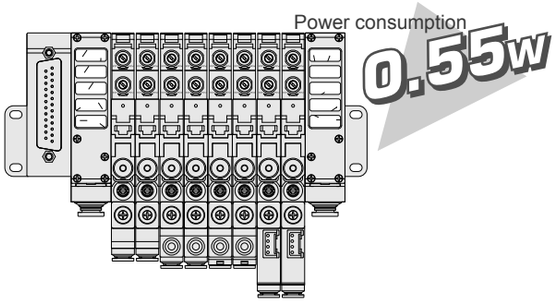
Characteristics

- Compact and light body. Vacuum generator dedicated to Manifold mount.
- Large volume of blow-off air by the incorporated air pressure release valve reduces blow-off time largely.
- Bundled wiring of the suction and blow-off solenoid valves.
  Centralized wiring can save wiring time.

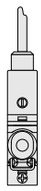
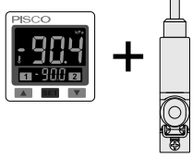




- 2 types of suction valves; Single solenoid and Double-piloted types.
- Energy saving. Power consumption of valve is 0.55 W.



- Various kinds of vacuum sensors for wide range of applications.

Without display		With separate display	With LED display	
Analog output	1 switch output	Pressure display + Analog output	1 switch output	2 switch outputs
				

- Easy maintenance with user-friendly design.
  The modular design makes it possible to replace only necessary parts.
- Push-in fitting or female thread is selectable according to piping requirements.
- The nozzle bore comes in three different sizes: dia. 0.5 mm, 0.7 mm and 1.0 mm.

Specifications

Fluid medium		Air (JIS B 8392 - 1 : Compliant with [Class 1.2.1 to 2.4.3])
Operating press. range		0.3 to 0.7 MPa
Operating temp. range		5 to 50°C (No freezing)
Operating humid. range		35 to 85%RH (No dew condensation)
Vibration resist. /Shock resist.		50 m/s^2 max. / 150 m/s^2 max.
Protective structure		IEC standard IP 40 equiv.
Lubrication		Not required
Proof pressure	Air spply. circuit	1.05 MPa
	Vac. circuit	0.2 MPa

* Proof pressure is the level of pressure at which the product would not be damaged. It does not mean the pressure where the product works normally.

Solenoid valve specifications

Rated voltage	24 VDC ±10%
Power consumption	0.55 W (with LED)
Surge protection	Varistor
Operation indicator	Current application to the suction / vacuum supply valve: Red LED ON Current application to the blow-off valve: Green LED ON
Manual override	Push-turn locking

Suction main valve specifications

Operation type		Indirect operation by pilot valve	
Valve type		Normally closed	Double-piloted (*1)
Response time	OFF→ON	10 msec	10 msec
	ON→OFF	15 msec	10 msec

*1. Excitation time of the solenoid must be 50 msec or more.
*2. The above response time at supply air: 0.5 MPa with rated voltage (100%).
*3. The above response time is when the nozzle dia. is 0.7 mm.

Blow-off main valve specifications

Operation type		Indirect operation by pilot valve
Valve type		Normally closed
Response time	OFF→ON	10 msec
	ON→OFF	15 msec

* The above response time at supply air: 0.5 MPa with rated voltage (100%).

Vacuum filter specifications

Element material	PVFM (Polyvinyl formal)
Filtering accuracy (*)	5 µm
Filter area	660 mm^2

* Based on PISCO measuring condition.

Blow-off function

Blow-off air rate		0 to 50 ℓ/min [ANR] (Supply pressure: 0.5 MPa)
Air pressure release valve	Operation type	Pilot valve-activated indirect operation
	Valve type	Normally open (During vacuum generation: closed)
	Lubrication	Not required

* Blow-off air rate varies according to the vacuum port dia. and tube length (piping resistance and others) on vacuum side.

Specifications of Pressure sensor with LED display

Specifications		–DW (2 switch outputs with LED display)	–DA (1 switch output & 1 analog output with LED display)
Current consumption		40 mA	
Pressure detection		Diffused metaloxide semiconductive pressure switch	
Operating press. range		-100 to 0 kPa	
Pressure setting range		-99 to 0 kPa	
Proof pressure		0.2 MPa	
Power requirements		12 to 24 VDC ±10% Ripple (P-P) 10% max.	
No. of pressure setting		2	1
Operating accuracy		±3% F.S. max. (Standard temp. at 25°C)	
Hysteresis		Fixed (2% F.S. max.)	Variable (about 0 to 15% F.S. max.)
Switch output		NPN open collector output: 30 V 80 mA max. Residual voltage 0.8 V max.	
Analog output	Output voltage		1 to 5 V
	Zero-point voltage		1 ±0.1 V
	Span voltage		4 ±0.1 V
	Output current		1 mA max. (Load resistance min.5kΩ)
	LIN/ HYS		±0.5%F.Smax. (Standard temp. at 25°C)
Response		About 2 msec or less	
Indication		0 to - 99 kPa (2 -digit red LED display)	
Display frequency		About 4 times/sec	
Indication accuracy		±3%F.S. ±2 digit max	
Sensor resolution		1 digit	
Operation indicator	SW 1: Red LED turns on when pressure is above setting	Red LED turns on when pressure is above setting	
	SW 2: Green LED turns on when pressure is above setting		

* Allowable range of the variation of “Zero point voltage”, "Span voltage" and “Pressure setting value” caused by repeated voltage application is ±3% F.S.

Pressure sensor (without pressure display) specifications

		-S (1 switch output)	-V1 (1 analog output for negative pressure)	-R1 (1 analog output for compound pressure)
Power requirements		10.8 to 30 VDC (Ripple voltage included)		
Current consumption		20 mA		
Pressure detection		Diffused metaloxide semiconductive pressure sensor		
Proof pressure		0.2 MPa		0.6 MPa
Switch output	Switch output	NPN open collector output: 30 V 80 mA max. Residual voltage 0.8 V max.		
	No. of pressure setting	1		
	Pressure setting range	-100 to 0 kPa		
	Operating accuracy	±3% F.S. max. (Standard temp. at 25°C)		
	Hysteresis	Fixed (2% F.S. max.)		
	Operation indicator	Red LED turns on when the switch output is on.		
Analog output	Pressure detecting range		-100 to 0 kPa	-100 to 300 kPa
	Output voltage		1 to 5V	
	Zero-point voltage		1 ±0.1V	
	Span voltage		4 ±0.1V	
	Output current		1 mA max	
	Temp. characteristics		±2% F.S. max. (Standard temp. at 25°C)	
	Linearity		±0.5%F.S. max	

* Allowable range of the variation of “Zero point voltage”, "Span voltage" and “Pressure setting value” caused by repeated voltage application is ±3% F.S.

Vacuum Generator Complex type VZ

RoHS2 (2011/65/EU+EU2015/863) compliant CE

Sub-D connector

Type	Model code
Tube exhaust	VZ□□□-□□□-D24-□-M□-D□

VZ

Type	Model code
Silencer vent	VZ□□□-□□S-D24-□-M□-D□

VZ

Flat cable connector

Type	Model code
Tube exhaust	VZ□□□-□□□-D24-□-M□-F□

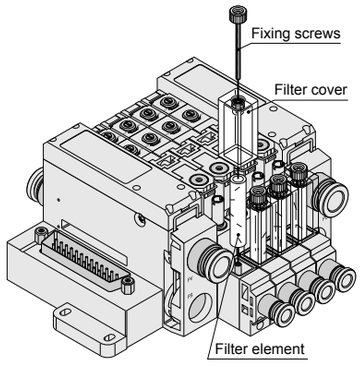
VZ

Type	Model code
Silencer vent	VZ□□□-□□S-D24-□-M□-F□

VZ

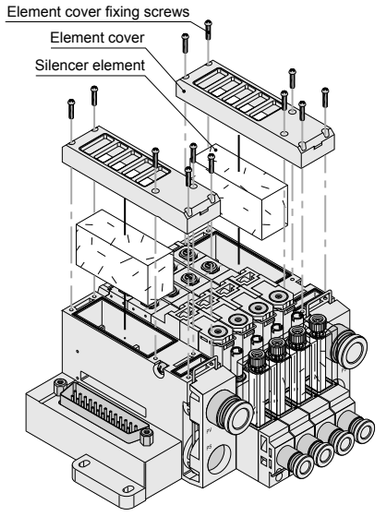
Replacement element

Filter element



Filter element Model code
VZ010B66

Silencer element



Silencer element Model code
VZ010B67

Notes

*Please select each code referring to the example of model designation. □: Code of vacuum characteristics, □:Nozzle bore code, □: Valve type code, □: Vacuum port size code, □: Air supply port size code, □:Exhaust port code, □: Pressure sensor code, □: No. of stations code and □ : No. of connector pins code.

Packaging specifications

1 pc. /bag: Vacuum generator, Filter element

2 pcs. /set: Silencer element

Rotary Vacuum Pump Series

Renewal

>>> https://www.pisco.co.jp/en/

Vacuum pumps with special shaped rotor

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

RPV06 (1) 2-60 (2) V200 (3) - 12 (4) - 30 (5) - 6 (6)

(1) Rotary Vacuum Pump Series

(2) Cylinder numbers and layout, motor power output

Code	2-60	3-90	4-200	A-60
Combination	Parallel twin, 60 W motor	Parallel triple, 90 W motor	Parallel quad, 200 W motor	In-line twin, 60 W motor
Final vacuum (50Hz/60Hz) (Pa abs)	≦3,500／≦3,000			≦350／≦300
Final vacuum (50Hz/60Hz) (kPa G)	≦-97.8 ／≦-98.3			≦-100.98 ／≦-101.03

(3) Motor type (○: Available)

Code	U100	U100SW	U110	V200
Type	Single phase 100 VAC induction motor	Single phase 100 VAC induction motor with a built-in power switch	Single phase 110/115 VAC induction motor	3 phase 200/220/230 VAC induction motor
RPV06A-60	○	○	○	○
RPV062-60	○	○	○	○
RPV063-90	—	—	—	○
RPV064-200	—	—	—	○

*1 For U100SW type, an electrical power cable (2m), a 3-prong to 2-prong electrical adapter, and a tubular fuse (5A) are enclosed.
*2 U100SW type is not CE marked.

(4) Vacuum port

Combination \ Tube O.D.			ø10 mm (*1)		ø12 mm		ø16 mm		ø3/8 (*1)		ø1/2		ø5/8	
Code	Push-in fitting (*3)	Straight	10		12		16		13/8		11/2		15/8	
		Elbow	20		22		26		23/8		21/2		25/8	
	Compression fitting	Straight	A0	B0	A2	B2	A6	B6	–	–	–	–	–	–
		Tube I.D. (mm)	ø6.5	ø7.5	ø8	ø9	ø11	ø13	–	–	–	–	–	–
	No fitting (*2)		No code											

*1 ø10 mm or ø3/8" fitting cannot be selectable for RPV064.
*2 The thread sizes of pump's port are different depending on (2) : the cylinder numbers, layout and motor power output. Please refer to Table- 1.
*3 Push-in fittings permit a leakage. Use compression fittings if there is any usability problem.

(5) Exhaust port

Combination \ Tube O.D.			ø10 m (*1)		ø12 mm		ø16 mm (*2)		ø3/8 (*1)		ø1/2		ø5/8 (*2)	
Code	Push-in fitting	Straight	30		32		36		33/8		31/2		35/8	
		Elbow	40		42		46		43/8		41/2		45/8	
	Compression fitting	Straight	C0	D0	C2	D2	C6	D6	–	–	–	–	–	–
		Tube I.D. (mm)	ø6.5	ø7.5	ø8	ø9	ø11	ø13	–	–	–	–	–	–
	No fitting(*3)		No code											

*1 ø10 mm or ø3/8" fitting cannot be selectable for RPV064.
*2 ø16 mm or ø5/8" fitting cannot be selectable for RPV06A.
*3 The thread sizes of pump's port are different depending on (2) : the cylinder numbers, layout and motor power output. Please refer to Table- 1.

(6) Exhaust cleaner (with fittings)

Combination \ Tube O.D.		ø10 mm (*1)	ø12 mm	ø16 (*2)	ø3/8 (*1)	ø1/2	ø5/8 (*2)
Code	Exhaust cleaner only	0					
	Exhaust cleaner & straight fitting	5					
	Exhaust cleaner & elbow fitting	6					
	No exhaust cleaner & fittings	No code					

*1 ø10 mm or ø3/8" fitting cannot be selectable for RPV064.
*2 ø16 mm or ø5/8" fitting cannot be selectable for RPV06A.
*3 When selecting code "5" or "6", the tube O.D. of the fitting is same size as the exhaust port (selected in ⑤).
*4 Connection thread size of exhaust cleaner is Rc1/2.

●Table-1. Thread size of vacuum & exhaust port (○: Available)

Thread size	Vacuum port												Exhaust port											
	G3/8						G1/2						G1/4						G3/8					
Tube O.D. (mm/in.)	ø10	ø12	ø16	ø3/8	ø1/2	ø5/8	ø10	ø12	ø16	ø3/8	ø1/2	ø5/8	ø10	ø12	ø16	ø3/8	ø1/2	ø5/8	ø10	ø12	ø16	ø3/8	ø1/2	ø5/8
RPV06A	○	○	○	○	○	○	–	–	–	–	–	–	○	○	–	○	○	–	–	–	–	–	–	–
RPV062	–	–	–	–	–	–	○	○	○	○	○	○	–	–	–	–	–	–	○	○	○	○	○	○
RPV063	–	–	–	–	–	–	○	○	○	○	○	○	–	–	–	–	–	–	○	○	○	○	○	○
RPV064	–	–	–	–	–	–	–	○	○	–	○	○	–	–	–	–	–	–	–	○	○	–	○	○

*1 The pump without a built-in power switch does not come with electrical power cables for motor. Properly connect cables by following the enclosed motor handling instruction manual and detailed safety instructions.
*2 For motor type U 100 (without built-in power switch type), a power supply box with cable, which is designed based on the recommended circuit (See the enclosed motor handling instruction manual.) can be provided. For details, please contact your nearest sales office.

Rotary Vacuum Pump Series

Characteristics

Contribute to energy saving

The top level high efficiency in the industry is realized for the pumping speed per motor power 1(W).
→ 1.0 / 1.2 [pumping speed (ℓ/min) /motor power (W)] (50 / 60 Hz)

Light weight and compact

Space saving is realized by adoption of the special rotor form.
Max weight: about 11.5 kgs. Max. dimension: 125 x 391.6 x 181 mm (width x depth x height) (For 120 L type RPV 064-120 V 200) (Can be installed in narrow space.)

Low heat generation

Low generation of heat is realized by adoption of forced air-cooling system.
No rotating seal structure by magnet coupling minimizes slide section. Thus, there is no heat generation by the seal. The pump can be kept at approx. 20°C lower than equivalent other brand models. (Based on our research.)
Suppressing a rise in room temperature.

Low driving noise and vibration

Low noise operation and low vibration are realized by thorough balancing design for rotary part.
Noise : ≦ 58/ ≦ 63 dB (50/60 Hz) (Same level as air conditioner or quiet car) Vibration is about 1/10 of equivalent other brand models. (Our investigation)

Long life

High durability is realized by adopting of super engineering plastic, which is excellent in self-lubricity and wear resistance, and special surface treatment.
With minimum clearance between rotor and cylinder wall, the fundamentally contactless structure and minimization of sliding parts are realized.
Adoption of magnet-coupling, no sliding seal required.
⇒ No maintenance necessary by seal abrasion
⇒ Support to longer operation life of motor by minimizing load to the motor shaft part.
Maintenance free for 3 years. (Based on our operational conditions. Life varies depending on operational conditions, suction air (dust, moisture, etc.) *1 year for RPV06A.

Low generation of dust

Lubrication is unnecessary by adoption of the excellent clean vacuum grease for low dust and low volatile. Low dust generation is realized by minimization of sliding parts.
⇒ Suppress environmental pollution such as abrasion powder created by vane pump.
Suppressing environmental pollution by exhausting cleaner air.

Eco friendly and safe design

RoHS compliance, CE marking corresponding (Single phase 100 VAC type with a built-in power switch does not have CE marking.)

Variety of options.

Not only a pump but also push-in fittings, compression fittings for medium vacuum model, and exhaust cleaners (exhaust mufflers) are prepared as optional.

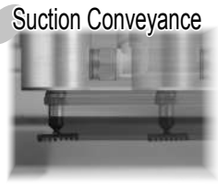
Single phase 100 VAC (Parallel twin / In-line twin) type with a built-in power switch is available.

It can be used immediately by plugging into an outlet.

Single phase 110 / 115 V type and inch size push-in fitting are selectable.

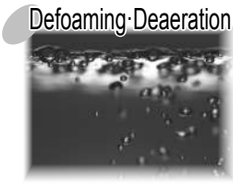
Applications

Suction Conveyance



Vacuum packing

Defoaming·Deaeration

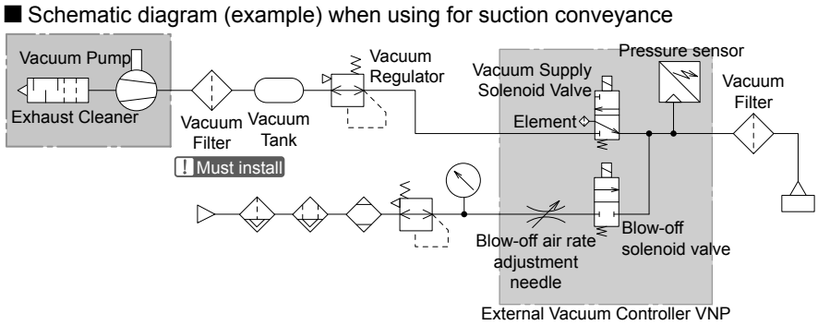


Vacuum forming

Others

Various vacuum system where scattering of oil or abrasion powder to circumference should be avoided.

■ Schematic diagram (example) when using for suction conveyance



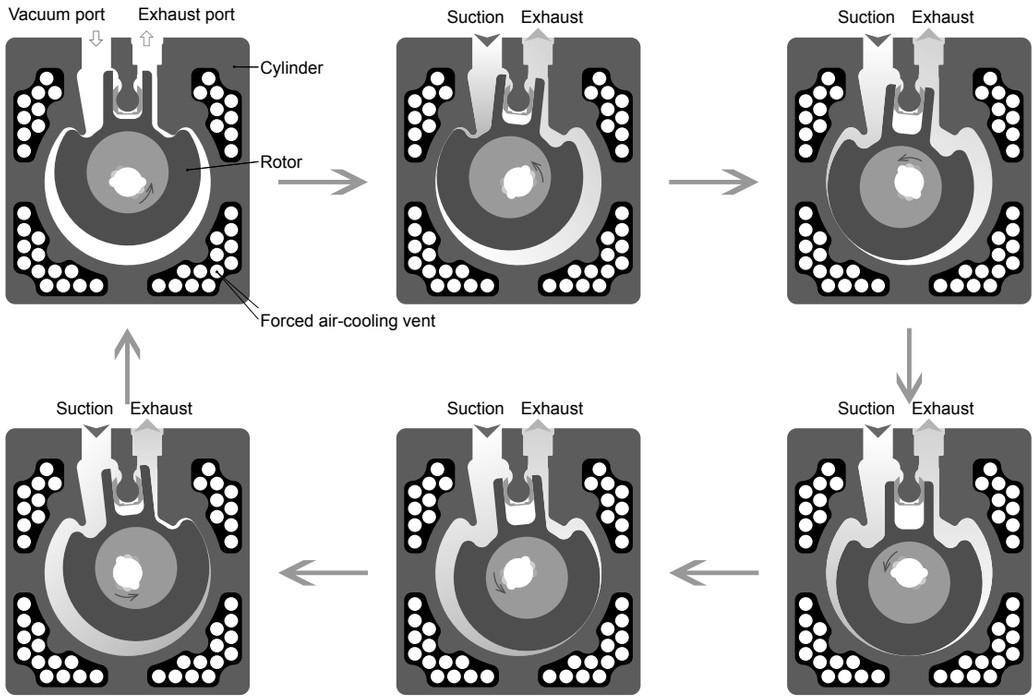
* Compressed air is not necessary for suction conveyance by using the external vacuum controller VNP, which have direct operating valve for vacuum supply and blow-off solenoid valve. (Compressed air is necessary for blow-off.) Therefore, the consumption amount of compressed air can be remarkably reduced.

⚠ Since the rotary vacuum pump is the delicate and precision equipment, make sure to install a vacuum filter, which filtration rate is 5 μm or less, on vacuum port in order to prevent water mist, dust or particles entering the pump. It causes deterioration in a lifetime or damage of the pump when they enter.

Related Products

Rotary Vacuum Pump Series
► P.326 to

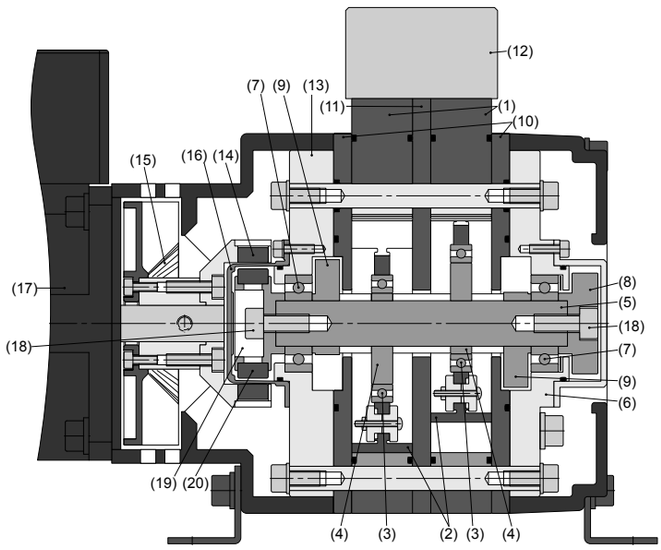
Operating principle



1. The eccentric rotor is placed in the space formed by the cylinder and plates which sandwich the cylinder.
2. When the rotor carries out eccentric rotations, air is inhaled by the pressure difference to atmospheric pressure with increasing capacity of the space formed between the rotor of vacuum port side and cylinder. At the same time, air is discharged with decreasing capacity of the space formed between the rotor of exhaust port side and cylinder.
3. By performing this operation continuously, the air transfer from the vacuum port to the exhaust port is realized.

Sectional drawing

Parallel twin, 60W motor type : RPV062-60



No.	Parts	Material
(1)	Cylinder	aluminum alloy
(2)	Rotor	PPS resin
(3)	Bearing	Stainless steel
(4)	Crank plate	Stainless steel
(5)	Main shaft	Stainless steel
(6)	Side block E	aluminum alloy
(7)	Bearing	Stainless steel
(8)	Balancer E	Stainless steel
(9)	Balancer R	Stainless steel
(10)	Side plate	aluminum alloy
(11)	Center plate	aluminum alloy
(12)	Manifold	aluminum alloy
(13)	Side block M	aluminum alloy
(14)	Magnet	Neodymium magnet
(15)	Cooling fan	PPS resin
(16)	Sealing cup	PPS resin
(17)	Motor	aluminum alloy, etc.
(18)	Cap screw	Stainless steel
(19)	Inner coupling	Stainless steel
(20)	Magnet	Neodymium magnet

* All seal rubber material is FKM.

Rotary Vacuum Pump Series

Specifications

Type			Medium vacuum· 30 ℓ		
Model code			RPV06A-60V200	RPV06A-60U100 (U100SW*2)	RPV06A-60U110
Numbers of cylinder			Twin (2)		
Cylinder layout			Parallel layout		
Pumping speed (ℓ/min)		50 Hz	30		
		60 Hz	36		
Final vacuum (Pa abs)		50 Hz	≦350		
		60 Hz	≦300		
Final vacuum (kPa G)		50 Hz	≦-100.98		
		60 Hz	≦-101.03		
Max. suction pressure			Atmospheric pressure		
Ambient temperature (indoor) (℃)			5 to 40		
Ambient humidity (indoor)			Max. 85%RH (no dew condensation)		
Gas (inhaled gas)			No corrosive or exposable gas		
Vibration of installation site			Max. 4.9 m/s² (10 to 60 Hz)		
Altitude of installation site			1000 m ASL or less		
Install orientation			Motor axis to be horizontal		
Motor	Output (W)		60		
	Type		3-phase motor, Built-in thermal protector Heat proof class: 130 (B)	Single-phase capacitor type induction motor Built-in thermal protector, Heat proof class: 130 (B)	
	Voltage (V) *3		200 / 220 / 230	100	110 / 115
	Rated current (A)	50 Hz	0.50 / — / —	1.2	—
		60 Hz	0.43 / 0.45 / 0.46	1.19	1.09 / 1.1
	Rated rotation speed (min^{-1})	50 Hz	1,300 / — / —	1,200	—
		60 Hz	1,550 / 1,600 / 1,600	1,450	1,450 / 1,450
	Striking current (A)	50 Hz	1.51 / — / —	2.66	—
		60 Hz	1.37 / 1.51 / 1.52	2.55	2.74 / 2.79
Operation noise (dB (A)) *1		50 Hz	≦58		—
		60 Hz	≦63		
Vacuum port size			G 3/8		
Exhaust port size			G 1/4		
Dimensions (width x depth x height) (mm)			125 × 299.6 × 166.5 (U 100 SW*2: 125 × 299.6 × 180.8)		
Weight (kg)			7.0	7.2 (U100SW*2：7.5 (including accessories))	
Cooling system			Forced air cooling		

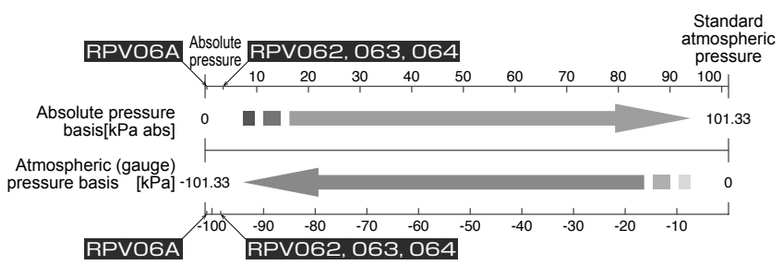
*1. Operating noise is an actually measured value excluding suction and exhaust noises, and is not a guaranteed value. Operating noise varies depending on operating condition.
*2. Power switch built-in type. Not CE marking product
*3. Temporary fluctuation range of voltage is within ±10% of rated voltage. In case of continuous fluctuation, ±3% of rated voltage is allowable.
*4. The final vacuum and the pumping speed described in the specification are confirmed at the time of delivery inspection according to our standard. The performance after normal operation for a certain running period of time will be the following table possibly.

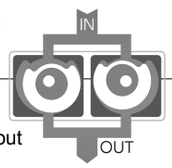
Type	Operation period	Final vacuum		Pumping speed
RPV06A	1 year	50 Hz	1.2 kPa abs -100.1 Kpa G	-20% compared with spec. value
		60 Hz	1.0 kPa abs -100.3 Kpa G	

*The values are based on our operating conditions. The product life varies depending on the operation conditions and the inhaled gas (moisture or dust), etc.

About vacuum pressure indication

■ Absolute pressure (kPa abs or Pa abs) and gauge pressure (kPa G) are used in Pisco's vacuum pump catalogue. Please be careful not to make a mistake in a unit when selecting a pump. For other Vacuum equipment in this catalog, Gauge pressure (-kPa) is used.



Type			Low vacuum· 60 ℓ		
Model code			RPV062-60V200	RPV062-60U100 (U100SW*2)	RPV062-60U110
Numbers of cylinder			Twin (2)		
Cylinder layout			Parallel layout 		
Pumping speed (ℓ/min)		50 Hz	60		
		60 Hz	72		
Final vacuum (Pa abs)		50 Hz	≦3,500		
		60 Hz	≦3,000		
Final vacuum (kPa G)		50 Hz	≦-97.8		
		60 Hz	≦-98.3		
Max. suction pressure			Atmospheric pressure		
Ambient temperature (indoor) (ºC)			5 to 40		
Ambient humidity (indoor)			Max. 85%RH (no dew condensation)		
Gas (inhaled gas)			No corrosive or exposable gas		
Vibration of installation site			Max. 4.9 m/s² (10 to 60 Hz)		
Altitude of installation site			1000 m ASL or less		
Install orientation			Motor axis to be horizontal		
Motor	Output (W)		60		
	Type		3-phase motor, Built-in thermal protector Heat proof class: 130 (B)	Single-phase capacitor type induction motor Built-in thermal protector, Heat proof class: 130 (B)	
	Voltage (V) *3		200 / 220 / 230	100	110 / 115
	Rated current (A)	50 Hz	0.50 / — / —	1.2	—
		60 Hz	0.43 / 0.45 / 0.46	1.19	1.09 / 1.1
	Rated rotation speed (min^{-1})	50 Hz	1,300 / — / —	1,200	—
		60 Hz	1,550 / 1,600 / 1,600	1,450	1,450 / 1,450
	Striking current (A)	50 Hz	1.51 / — / —	2.66	—
		60 Hz	1.37 / 1.51 / 1.52	2.55	2.74 / 2.79
Operation noise (dB (A)) *1		50 Hz	≦58		—
		60 Hz	≦63		
Vacuum port size			G1/2		
Exhaust port size			G3/8		
Dimensions (width × depth × height) (mm)			125 × 299.6 × 176 (U100SW *2: 125 × 299.6 × 180.8)		
Weight (kg)			7.2 (U100SW *2: 7.6 (including accessories))		
Cooling system			Forced air cooling		

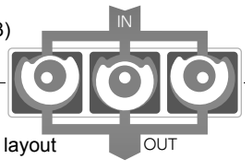
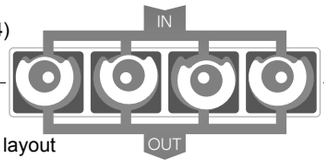
*1. Operating noise is an actually measured value excluding suction and exhaust noises, and is not a guaranteed value. Operating noise varies depending on operating condition.
*2. Power switch built-in type. Not CE marking product
*3. Temporary fluctuation range of voltage is within ±10% of rated voltage. In case of continuous fluctuation, ±3% of rated voltage is allowable.
*4. The final vacuum and the pumping speed described in the specification are confirmed at the time of delivery inspection according to our standard. The performance after normal operation for a certain running period of time will be the following table possibly.

■ Table. Final vacuum and pumping speed based on the running period

Type	Operation period	Final vacuum		Pumping speed
RPV062	3 years	50 Hz	12 kPa abs	-20% compared withspec. value
			-89.3 Kpa G	
		60 Hz	10 kPa abs	
			-91.3 Kpa G	

*The values are based on our operating conditions. The product life varies depending on the operation conditions and the inhaled gas (moisture or dust), etc.

Rotary Vacuum Pump Series

Type			Low vacuum· 90 ℓ				Low vacuum· 120 ℓ			
Model code			RPV063-90V200				RPV064-200V200			
Numbers of cylinder			Triple (3) 				Quad (4) 			
Cylinder layout			Parallel layout				Parallel layout			
Pumping speed (ℓ/min)		50 Hz	90				120			
		60 Hz	108				144			
Final vacuum (Pa abs)		50 Hz	≦3,500							
		60 Hz	≦3,000							
Final vacuum (kPa G)		50 Hz	≦-97.8							
		60 Hz	≦-98.3							
Max. suction pressure			Atmospheric pressure							
Ambient temperature (indoor) (ºC)			5 to 40							
Ambient humidity (indoor)			Max. 85%RH (no dew condensation)							
Gas (inhaled gas)			No corrosive or exposable gas							
Vibration of installation site			Max. 4.9 m/s² (10 to 60 Hz)							
Altitude of installation site			1000 m ASL or less							
Install orientation			Motor axis to be horizontal							
Motor	Output (W)		90				200			
	Type		3-phase motor, Built-in thermal protector Heat proof class: 130 (B)							
	Voltage (V) *3		200	/ 220	/ 230		200	/ 220	/ 230	
	Rated current (A)	50 Hz	0.64	/ —	/ —		1.1	/ —	/ —	
		60 Hz	0.59	/ 0.6	/ 0.61		1.1	/ 0.95	/ 0.95	
	Rated rotation speed (min^{-1})	50 Hz	1,300	/ —	/ —		1,250	/ —	/ —	
		60 Hz	1,550	/ 1,600	/ 1,600		1,500	/ 1,550	/ 1,600	
	Striking current (A)	50 Hz	2.01	/ —	/ —		3.60	/ —	/ —	
		60 Hz	1.86	/ 2.00	/ 2.05		3.27	/ 3.54	/ 3.63	
Operation noise (dB (A)) *1		50 Hz	≦58							
		60 Hz	≦63							
Vacuum port size			G1/2							
Exhaust port size			G3/8							
Dimensions (width × depth × height) (mm)			125 × 340.6 × 181				125 × 391.6 × 181			
Weight (kg)			8.8 *2				11.5 *2			
Cooling system			Forced air cooling							

*1. Operating noise is an actually measured value excluding suction and exhaust noises, and is not a guaranteed value. Operating noise varies depending on operating condition.
*2. Weight includes attached 2 plugs.
*3. Temporary fluctuation range of voltage is within ±10% of rated voltage. In case of continuous fluctuation, ±3% of rated voltage is allowable.
*4. The final vacuum and the pumping speed described in the specification are confirmed at the time of delivery inspection according to our standard. The performance after normal operation for a certain running period of time will be the following table possibly.

■ Table. Final vacuum and pumping speed based on the running period

Type	Operation period	Final vacuum		Pumping speed
RPV063 RPV064	3 years	50 Hz	12 kPa abs	-20% compared withspec. value
			-89.3 Kpa G	
		60 Hz	10 kPa abs	
			-91.3 Kpa G	

*The values are based on our operating conditions. The product life varies depending on the operation conditions and the inhaled gas (moisture or dust), etc.

RoHS2 (2011/65/EU+EU2015/863) compliant CE (*2)

In-line/Twin

Type	Model code
Medium vacuum, 30 ℓ RPV06A 	RPV06A-60V200-④-⑤-⑥ RPV06A-60U100-④-⑤-⑥ RPV06A-60U110-④-⑤-⑥

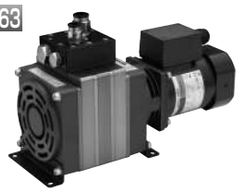
Type	Model code
Medium vacuum, 30 ℓ (Single-phase motor & Built-in power switch type) RPV06A 	RPV06A-60U100SW-④-⑤-⑥

Parallel/Twin

Type	Model code
Low vacuum·60 ℓ RPV062 	RPV062-60V200-④-⑤-⑥ RPV062-60U100-④-⑤-⑥ RPV062-60U110-④-⑤-⑥

Type	Model code
Low vacuum, 60 ℓ (Built-in power switch type) RPV062 	RPV062-60U100SW-④-⑤-⑥

Parallel/Triple

Type	Model code
Low vacuum·90 ℓ RPV063 	RPV063-90V200-④-⑤-⑥

Parallel/Quad

Type	Model code
Low vacuum·120 ℓ RPV064 	RPV064-200V200-④-⑤-⑥

Notes
*1. For ④ in model code, please select a vacuum port size. For ⑤, select an exhaust port size and for ⑥, select a code for exhaust cleaner (and fitting).
*2. U100SW type is not CE marked.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /box

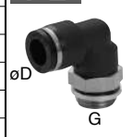
Rotary Vacuum Pump Series

RoHS2 (2011/65/EU+EU2015/863) compliant

Optional parts

For vacuum port

Type	Model code PCøD-G	Type	Model code PLøD-G	Type	Model code NBCøD-G
Push-in fitting Straight PC	PC10-G3	Push-in fitting Elbow PL	PL10-G3	Compression fitting Straight NBC	NBC1065-G3
	PC10-G4		PL10-G4		NBC1065-G4
	PC12-G3		PL12-G3		NBC1075-G3
	PC12-G4		PL12-G4		NBC1075-G4
	PC16-G3		PL16-G3		NBC1280-G3
	PC16-G4		PL16-G4		NBC1280-G4
	PC3/8-G3		PL3/8-G3		NBC1290-G3
	PC3/8-G4		PL3/8-G4		NBC1290-G4
	PC1/2-G3		PL1/2-G3		NBC1611-G3
	PC1/2-G4		PL1/2-G4		NBC1611-G4
	PC5/8-G3		PL5/8-G3		NBC1613-G3
	PC5/8-G4		PL5/8-G4		NBC1613-G4



For exhaust port

Type	Model code PCøD-G	Type	Model code PLøD-G	Type	Model code NBCøD-G
Push-in fitting Straight PC	PC10-G2	Push-in fitting Elbow PL	PL10-G2	Compression fitting Straight NBC	NBC1065-G2
	PC10-G3		PL10-G3		NBC1065-G3
	PC12-G2		PL12-G2		NBC1075-G2
	PC12-G3		PL12-G3		NBC1075-G3
	PC16-G3		PL16-G3		NBC1280-G2
	PC3/8-G2		PL3/8-G2		NBC1280-G3
	PC3/8-G3		PL3/8-G3		NBC1290-G2
	PC1/2-G2		PL1/2-G2		NBC1290-G3
	PC1/2-G3		PL1/2-G3		NBC1611-G3
	PC5/8-G3		PL5/8-G3		NBC1613-G3

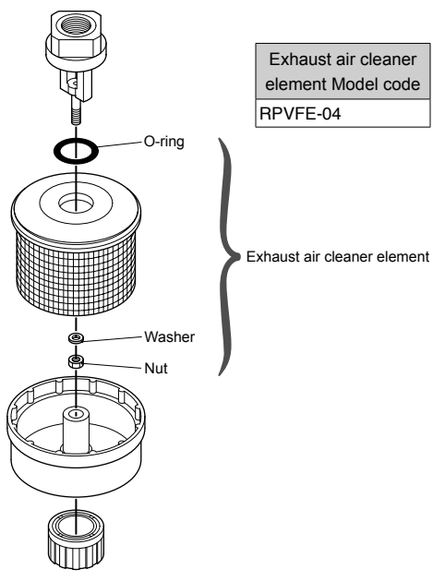
Exhaust air cleaner

Type	Model code
Exhaust air cleaner RPVF-04	RPVF-04

Type	Model code PCøD-R
Push-in fitting Straight for Exhaust air cleaner PC	PC10-04
	PC12-04
	PC16-04
	PC3/8-04
	PC1/2-04
	PC5/8-04

Type	Model code PLøD-R
Push-in fitting Elbow for Exhaust air cleaner PL	PL10-04
	PL12-04
	PL16-04
	PL3/8-04
	PL1/2-04
	PL5/8-04

Replacement element



Exhaust air cleaner element Model code
RPVFE-04

CAD data is available at PISCO website.

Packaging specifications

1 pc. /box: Exhaust air cleaner, Exhaust air cleaner element

10 pcs. /bag: Straight/Elbow fitting for vacuum/exhaust port or for exhaust air cleaner

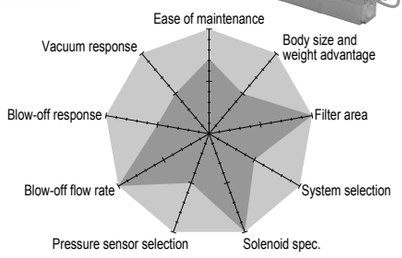
Quick Selection Guide for External Vacuum Controller

PISCO
>>>https://www.pisco.co.jp/en/

External vacuum controller comes in a wide variety of models to meet all your needs in vacuum systems.

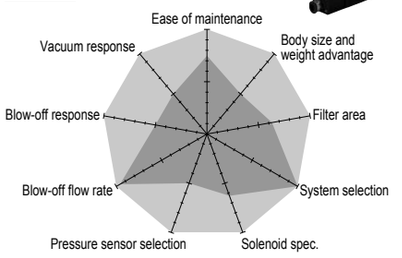
Vacuum unit with large flow rate, best suitable for large work-piece or work-piece with large leakage.

VQP >>>P.326



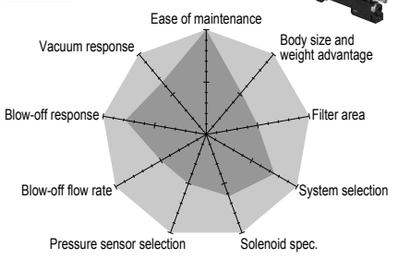
External vacuum controller with blow-off pressure and flow rate adjusting function.

VJP >>>P.328



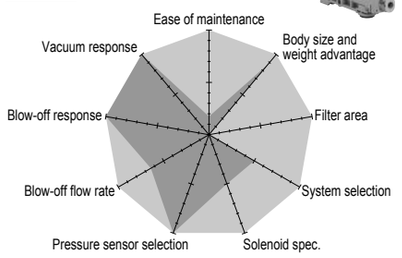
For high-cyclization of a vacuum system. Small, light weight and high cycle vacuum unit suitable for small work-piece.

VXP >>>P.333



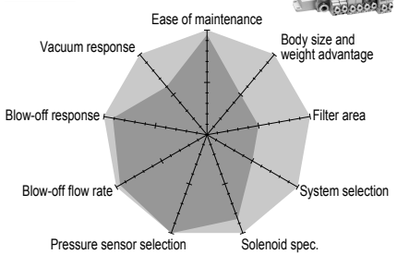
Compressed air is not necessary by direct operating valve for vacuum supply. Contributing to saving compressed air.

VNP >>>P.342



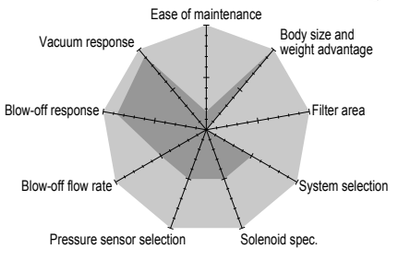
For blow-off time saving. Vacuum unit dedicated to manifold mount, suitable for small work-piece.

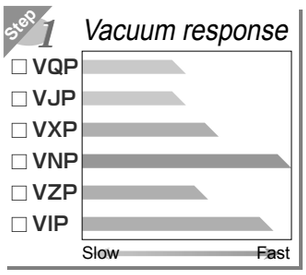
VZP >>>P.349

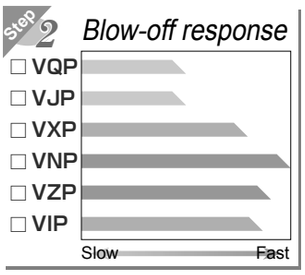


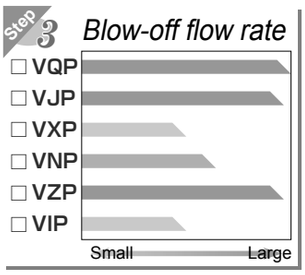
Suction of a small work-piece can be verified by built-in vacuum sensor.

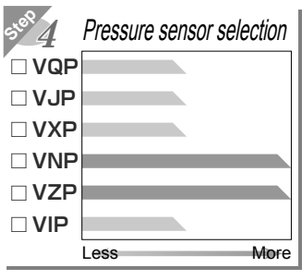
VIP >>>P.355

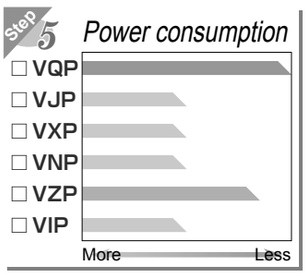


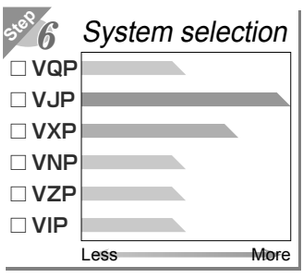


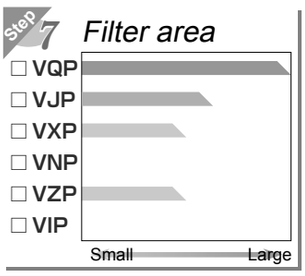












How to use the chart
【Selection guide】

Place a check mark in ☐ next tot the External vacuum controller type that meets your requirement for each function (Step 1 to 7). The External vacuum controller with the most check marks is the most suitable one for your application.

External Vacuum Controller VQP

31.5 mm wide External Vacuum Controller for large flow rates (Stand-alone type)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VQP (1) C (2) – 0 (3) 0 (4) – D24 (5) – NW (6) (7)

(1) External Vacuum Controller VQP

(2) Vacuum supply valve type

Code	C	O
Valve type	Normally closed (N.C.)	Normally open (N.O.)

(3) Vacuum port size (V)

Code	0	2	3
Tube O.D. (mm)	ø10	ø12	ø16

(4) Vacuum supply port size (PV)

Code	0	2	3
Tube O.D. (mm)	ø10	ø12	ø16

(5) Solenoid valve voltage

Code	D24	D24MC	A100
Voltage	24 VDC	24 VDC (Minus Common)	100 VAC

*100 VAC type is not CE marked.

(6) Pressure sensor

Code	Specifications
No code	Without Pressure sensor
NW	☐ 30 mm wide with 2 switch outputs, NPN open collector
PW	☐ 30 mm wide with 2 switch outputs, PNP open collector

(7) -S3 spec. (Metal option)

Code	No code	-S3 (*)
Metal material	Standard spec.	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard spec.	HNBR or FKM
Release-ring color	Black	Dark blue

*-S3 specification is not available for electronic components and wires.

Characteristics

31.5 mm wide vacuum unit suitable for the control of large vacuum flows.

A wide variety of valve types are available.

Normally closed and Normally open types are available.

Clear LCD dual displays. High level visibility with 3 colors.

Power-save mode can reduce power consumption by 30%.

Minus common spec. is selectable.

Suitable for applications where negative side of power supply is used as common reference potential.

● -S3 spec. (Metal option)

No copper-based metallic materials used in flow paths.

The seal rubber material is HNBR or FKM, both of which have good ozone resistance.

Specifications

Fluid medium		Air (JIS B 8392-1: Compliant with [Class 1.2.1 to 2.4.3]), Vacuum Air
Operating pressure range		0.3 to 0.7 MPa
Operating vacuum range		-100 to 0 kPa
Operating temp. range		5 to 50°C (No freezing)
Operating humidity range		35 to 85%RH (No dew condensation)
Vibration resist./Shock resist.		50 m/s² Max./150 m/s² Max.
Protective structure		IEC standard IP40 equiv.
Lubrication		Not required
Proof pressure	Air supply circuit	1.05 MPa
	Vacuum circuit	0.2 MPa

*Proof pressure shows the level of pressure at which the product would not be damaged. It does not mean the pressure where the product works normally.

Solenoid valve specifications

Rated voltage	24 VDC ±10%	100 VAC ±10%
Power consumption	0.55 W (with LED)	1.0 VA (with LED)
Surge protection	Varistor	Bridge diode
Operation indicator	Current application: Red LED ON	
Manual override	Push-turn locking	

Vacuum supply valve specifications

Operation type		Indirect operation by pilot valve	
Valve type		Normally closed	Normally open
Response time (Standard)	OFF→ON	24 VDC: 10 msec	
		100 VAC: 10 msec	
	ON→OFF		24 VDC: 15 msec
			100 VAC: 21 msec
Response time (-S3 spec.)	OFF→ON	24 VDC: 15 msec	
		100 VAC: 15 msec	
	ON→OFF		24 VDC: 20 msec
			100 VAC: 26 msec

*The response time at supply air: 0.5 MPa with rated voltage (100%).

Blow-off main valve specifications

Operation type		Indirect operation by pilot valve
Valve type		Normally closed
Response time (Standard)	OFF→ON	24 VDC: 10 msec
		100 VAC: 10 msec
	ON→OFF	24 VDC: 10 msec
		100 VAC: 16 msec
Response time (-S3 spec.)	OFF→ON	24 VDC: 12 msec
		100 VAC: 12 msec
	ON→OFF	24 VDC: 10 msec
		100 VAC: 16 msec

*The response time at supply air: 0.5 MPa with rated voltage (100%).

Vacuum filter specifications

Element material	PVFM (Polyvinyl formal)
Filtering accuracy (*)	5 μm
Filter area	1,507 mm²

*Based on PISCO measuring condition.

Blow-off function

Blow-off air rate	0 to 50 ℓ/min [ANR] (Supply pressure: 0.5 MPa)

*Blow-off air rate varies according to the vacuum port dia. and tube length (piping resistance and others) on vacuum side.

Pressure sensor specifications

Sensor model code		VUS-33R-N2	VUS-33R-P2
Description		Compound pressure	
Rated pressure range		-100 kPa to 100 kPa	
Proof pressure		500 kPa	
Fluid medium		Air, non-corrosive gas, incombustible gas	
Power supply		12 to 24VDC Ripple ±10% max.	
Current consumption		40mA Max. (at no load)	
Switch output	Switch output	NPN open collector	PNP open collector
	No. of pressure setting	2 points output (SW1, SW2)	
	Max. load current	125 mA	
	Max. supply voltage	30 VDC	24 VDC
	Int. voltage drop	1.5 V Max.	
Repeatability		±0.2%F.S. ±1 digit Max.	
Hysteresis	One point set mode	Adjustable	
	Hysteresis mode		
	Window comparator mode		
Response time		Selectable from 50 ms, 250 ms, 500 ms, 1,000 ms, 2,000 ms, 3,000 ms	
Output short circuit protection		Incorporated	
Digital display		Main display: 3 colors (Red, Green, Orange) Sampling rate: 1, 2 or 5 times/sec. (Adjustable)	
Indication accuracy		±2%F.S. ±1 digit Max. (Ambient temperature: 25±3°C)	
Operation indicator		Orange (1 & 2 indicator) OUT1, OUT2	
Weatherability	Protective structure	IP40	
	Ambient temp. range	Operation: 0 to 50°C, Storage: -10 to 60°C (No dew condensation or freezing)	
	Ambient humidity range	Operation/Storage: 35 to 85%RH (No dew condensation)	
	Withstand voltage	1000 VAC 1 min. (between case and lead wire)	
	Insulation resistance	50 MΩMin. (500 VDC) (between case and lead wire)	
	Vibration resistance	Total amplitude 1.5 mm or 100 m/s² 10 Hz-152 Hz-10 Hz scan for 1 min., two hours each in direction of X, Y and Z.	
	shock resistance	100 m/s², 3 times each in direction of X, Y and Z	
Temperature characteristics		±2%F.S.Max. (Standard temp. 25°C, Range: 0 to +50°C)	
Lead wire		Oil-resistance cable (0.15 mm²)	

RoHS2 (2011/65/EU+EU2015/863) compliant CE (*2)

Type	Model code
Without Pressure sensor	VQP2-3 4-5 7

Type	Model code
Pressure sensor with 2 Switch outputs	VQP2-3 4-5-6 7

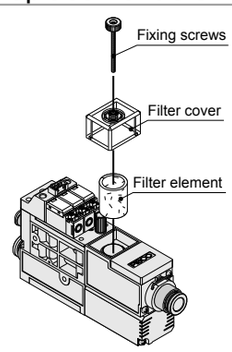
Notes
*1. Please select each code referring to the example of model designation. 2: Vacuum supply valve type code, 3: Vacuum port size code, 4: Vacuum supply port size code, 5: Solenoid valve type code, and 6: Pressure sensor code.
*2. 100 VAC type is not CE marked.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
7 : -S3 ⇒ –S3 spec.

Replacement element



Filter element Model code
VQ030B61

External Vacuum Controller VJP

20 mm wide External Vacuum Controller with blow-off air rate and pressure adjustment needles (Stand-alone and manifold types)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VJP	A	–	06	06		06	–	D24	L	–			–	W	
(1)	(2)		(3)	(4)	(5)	(6)		(7)	(8)		(9)	(10)		(11)	(12)

(1) External Vacuum Controller VJP

(2) Suction solenoid valve type

Code	A	B	C	K
Valve unit	Double-piloted (Self-holding function)	Normally closed type (N.C.)	Normally open type (N.O.)	Different valve configurations on a manifold (Fill out Specification Order Form)

(3) Vacuum port size (V)

Code	04	06	08	00
Tube O.D. (mm)	ø4	ø6	ø8	Different fitting size per station on a manifold (Fill out Specification Order Form)

(4) Air supply port size (PS)

Code	04	06	08	10
Tube O.D. (mm)	ø4 (*1)	ø6	ø8 (*2)	ø10 (*2)

*1. Stand-alone type only
*2. Manifold type only

(5) Exhaust port size (Code entry for Manifold type only)

Code	06	08	10
Tube O.D. (mm)	ø6	ø8	ø10

(6) Vacuum supply port size (PV)

Code	04	06	08	10
Tube O.D. (mm)	ø4 (*1)	ø6	ø8 (*2)	ø10 (*2)

*1. Stand-alone type only
*2. Manifold type only

(7) Solenoid valve voltage

Code	D24	A100
Voltage	24 VDC	100 VAC

(8) Wire lead-out direction

Code	S	L	K
Direction	Side	Top	Mixed specifications on a manifold (Fill out Specification Order Form)

(9) No. of stations (Code entry for Manifold type only)

Code	02	03	04	05	06	07	08	09	10
No. of stations	2	3	4	5	6	7	8	9	10

(10) Lead-out direction of air/vacuum supply & exhaust port (Code entry for Manifold type only)

Code	A	B
Direction	Vacuum port side	Wiring side

(11) Pressure sensor

Code	Specifications
No code	Without Pressure sensor
W	2 switch outputs
A	1 switch output and 1 analog output
K	Mixed specifications on a manifold (Fill out Specification Order Form)

(12) -S3 spec. (Metal option)

Code	No code	-S3 (*)
Metal material	Standard	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard spec.	HNBR or FKM
Release-ring color	Black	Dark blue

*1. -S3 specification is not available for electronic components and wires.
*2. -S3 specification is not available for 100 VAC spec.

Order Example

1. Stand-alone type

VJP A (2) – 04 (3) 04 (4) 06 (6) – D24 (7) L (8) – W (11)

(2) Suction solenoid valve unit type:
A→Double-piloted (Self-holding function)
(3) Vacuum port: **04**→ø4 mm Push-in fitting
(4) Air supply port: **04**→ø4 mm Push-in fitting
(6) Vacuum supply port: **06**→ø6 mm Push-in fitting
(7) Solenoid valve voltage: **D24**→24 VDC spec.
(8) Wire lead-out direction: **L**→Top
(11) Pressure sensor: **W**→2 switch outputs

2. Manifold type

VJP A (2) – 04 (3) 08 (4) 08 (5) 10 (6) – D24 (7) L (8) – 04 (9) A (10) – W (11)

(2) Suction solenoid valve unit type:
A→Double-piloted (Self-holding function)
(3) Vacuum port: **04**→ø4 mm Push-in fitting
(4) Air supply port: **08**→ø8 mm Push-in fitting
(5) Exhaust port: **08**→ø8 mm Push-in fitting
(6) Vacuum supply port: **10**→ø10 mm Push-in fitting
(7) Solenoid valve voltage: **D24**→24 VDC spec.
(8) Wire lead-out direction: **L**→Top
(9) No. of stations: **04**→4 stations
(10) Port lead-out direction: **A**→Vacuum port side
(11) Pressure sensor: **W**→2 switch outputs

3. Manifold type
(Mixed specifications of station on a manifold)

VJP K (2) – 00 (3) 10 (4) 10 (5) 10 (6) – D24 (7) L (8) – 05 (9) A (10) – K (11)

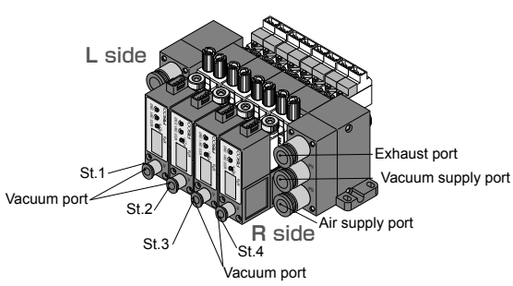
(2) Suction solenoid valve unit type:
K → St.1, St.2, St.3: Double-piloted (Self-holding function)
St.4, St.5: Normally closed type (N.C.)
(3) Vacuum port: **00**→St.1, St.2, St.3: ø4 mm Push-in fitting
St.4, St.5: ø8 mm Push-in fitting
(4) Air supply port: **10**→ø10 mm Push-in fitting
(5) Exhaust port: **10**→ø10 mm Push-in fitting
(6) Vacuum supply port: **10**→ø10 mm Push-in fitting
(7) Solenoid valve voltage: **D24**→24 VDC spec.
(8) Wire lead-out direction: **L**→Top
(9) No. of stations: **05**→5 stations
(10) Port lead-out direction: **A**→Vacuum port side
(11) Pressure sensor: **K**→St.1, St.2, St.3: 2 switch outputs
St.4: Without Pressure sensor
St.5: 1 switch output and 1 analog output

■ Specification order from example (example of the above 3)

			Type (1)		Valve type (2)		Vacuum port (3)	Air supply port (4)	Exhaust port (5)	Vacuum supply port (6)		Solenoid valve voltage (7)	Wire lead-out direction (8)		No. of stations (9)	Port Lead-out direction (10)		Pressure sensor (11)	-S3 spec. (12)
Manifold model code			VJP		K	–	00	10	10	10	–	D24	L	–	05	A	–	K	
Mounting unit model code	L side	St.1	A		06	–					–			–			–	W	
	⬆ Station No.	St.2	St.1			–					–			–			–		
		St.3	St.1			–					–			–			–		
		St.4	B		08	–					–			–			–		
		St.5	B		08	–					–			–			–	A	
		St.6				–					–			–			–		
		St.7				–					–			–			–		
	⬇	St.8				–					–			–			–		
		St.9				–					–			–			–		
	R side	St.10				–					–			–			–		

*If the mounting units for St. 1, St. 2 and St. 3 have the same spec., just like the above example of specification order form, fill in the space of St. 1 (uppermost line) only, and enter "St. 1" in the Valve type column (2) of St. 2 and St. 3.

Manifold Type (reference)



*Station numbers are arranged in serial order as St. 1, St. 2...St. 10 from the L side toward the R side with the vacuum ports facing the front as shown in the figure.

External Vacuum Controller VJP

External Vacuum Controller VJP Series Manifold type Specification Order Form

Name

To: NIHON PISCO CO., Ltd.

Distributor address: TEL

Delivery address: TEL

Customer name and address: TEL

Requested EX-W PISCO Date: Quantity: pcs.

■ External Vacuum Controller VJP Series Specification Order Form

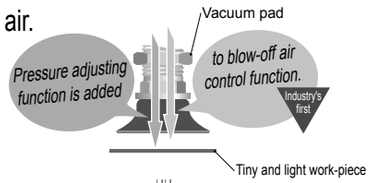
	Type (1)		Valve type (2)		Vacuum port (3)	Air supply port (4)	Exhaust port (5)	Vacuum supply port (6)		Solenoid valve voltage (7)	Wire lead-out direction (8)		No. of stations (9)	Port Lead-out direction (10)		Pressure sensor (11)	-S3 spec. (12)
Manifold model code	VJP			–					–			–			–		
Mounting unit model code	L side	St.1		–					–			–			–		
	⬆ Station No. ⬇	St.2		–					–			–			–		
		St.3		–					–			–			–		
		St.4		–					–			–			–		
		St.5		–					–			–			–		
		St.6		–					–			–			–		
		St.7		–					–			–			–		
		St.8		–					–			–			–		
		St.9		–					–			–			–		
	R side	St.10		–					–			–			–		

*Refer to the example in the previous page to fill in the form.
*Make photocopies of this page and fill in.
*When the combination of mounting unit spec. is different, a separate Specification Order Form is required.

Characteristics

Pressure control function is added to the conventional flow control function for blow-off air.

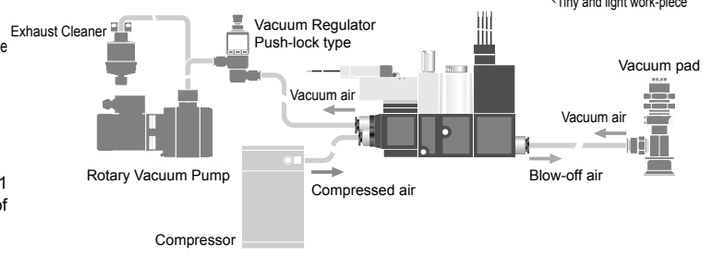
Blowing away of work-pieces can be prevented.



A relief function (function to release excess pressure) is built into the blow-off circuit to shorten the blow-off time.

Supply valves are available in three different types.

Double-piloted type (Vacuum retention type), which contributes to energy savings, is suitable for special applications where continuous vacuum generation is required for a long time.



Pressure sensor with LED display. Visibility improved.

2 output types are available. 2 switch outputs, 1 switch output and 1 analog output. A connector wire is adopted to enhance the ease of designing the wiring layout.

● -S3 spec. (Metal option)

No copper-based metallic materials used in flow paths.

The seal rubber material is HNBR or FKM, both of which have good ozone resistance.

Specifications

Fluid medium		Air (JIS B 8392-1: Compliant with [Class 1.2.1 to 2.4.3]), Vacuum Air
Operating pressure range		0.3 to 0.7 MPa
Operating vacuum range		-100 to 0 kPa
Operating temp. range		5 to 50°C (No freezing)
Operating humidity range		35 to 85%RH (No dew condensation)
Vibration resist. / shock resist.		50 m/s² max. /150 m/s² max.
Protective structure		IEC standard IP40 equiv.
Lubrication		Not required
Proof pressure	Air supply circuit	1.05 MPa
	Vacuum circuit	0.2 MPa

*Proof pressure shows the level of pressure at which the product would not be damaged. It does not mean the pressure where the product works normally.

Solenoid valve specifications

Rated voltage	24 VDC ±10%	100 VAC ±10%
Power consumption	1.2 W (with LED)	1.5 VA (with LED)
Surge protection	Varistor	Bridge diode
Operation indicator	Current application: Red LED ON	
Manual override	Push button (non-lock)	

Vacuum supply valve specifications

Operation type		Indirect operation by pilot valve		
Valve type		Normally closed	Normally open	Double solenoid (*1)
Response time	OFF→ON	24 VDC: 10 msec [15 msec]	24 VDC: 15 msec [20 msec]	24 VDC: 8 msec [13 msec]
		100 VAC: 13 msec [18 msec]	100 VAC: 18 msec [23 msec]	100 VAC: 11 msec [16 msec]
	ON→OFF	24 VDC: 15 msec [20 msec]	24 VDC: 10 msec [15 msec]	24 VDC: 8 msec [13 msec]
		100 VAC: 18 msec [23 msec]	100 VAC: 13 msec [18 msec]	100 VAC: 11 msec [16 msec]

*1. Excitation time of the solenoid must be 50 msec or more.
*2. The response time at supply air: 0.5 MPa with rated voltage (100%).
*3. The values in [ ] are for the -S3 specification.

Blow-off main valve specifications

Operation type		Indirect operation by pilot valve
Valve type		Normally closed
Response time	OFF→ON	24 VDC: 8 msec [13 msec]
		100 VAC: 11 msec [16 msec]
	ON→OFF	24 VDC: 18 msec [23 msec]
		100 VAC: 21 msec [26 msec]

*1. The response time at supply air: 0.5 MPa with rated voltage (100%).
*2. The values in [ ] are for the -S3 specification.

Vacuum filter specifications

Element material	PVFM (Polyvinyl formal)
Filtering accuracy (*)	5 µm
Filter area	1,130 mm²

*Based on PISCO measuring condition.

Blow-off function

Blow-off air rate	0 to 50 ℓ/min [ANR] (Supply pressure: 0.5 MPa)
Blow-off pressure setting range	-25 to 25 kPa

*Blow-off air rate varies according to the vacuum port dia. and tube length (piping resistance and others) on vacuum side.

Specifications of Pressure sensor with LED display

Specifications		–W (2 switch outputs with LED display)	–A (1 switch output & 1 analog output with LED display)
Current consumption		40 mA	
Pressure detection		Diffused metaloxide semiconductive pressure switch	
Operating pressure range		-100 to 0 kPa	
Pressure setting range		-99 to 0 kPa	
Proof pressure		0.2 MPa	
Power requirements		12 to 24 VDC ±10% Ripple (P-P) 10% max.	
No. of pressure setting		2	1
Operating accuracy		Less than ±3%F.S. (Standard temp. 25°C)	
Hysteresis		Fixed (2%F.S. max.)	Variable (about 0 -15%F.S. max.)
Switch output		NPN open collector output: 30 V 80 mA max. Residual voltage 0.8 V max.	
Analog output	Output voltage		1 to 5 V
	Zero-point voltage		1 ±0.1 V
	Span voltage		4 ±0.1 V
	Output current		1 mA max. (load resistance 5 kΩ max.)
	LIN / HYS		Less than ±0.5%F.S. (Standard temp. 25°C)
Response		About 2 m·sec or less	
Indication		-99 to 0 kPa (2-digit red LED display)	
Display frequency		About 4 times/sec	
Indication accuracy		±3%F.S. ±2 digit Max.	
Sensor resolution		1 digit	
Operation indicator	SW1: Red LED turns on when pressure is above setting	Red LED turns on when pressure is above setting	
	SW2: Green LED turns on when pressure is above setting		

*Allowable range of the variation of “Zero point voltage”, "Span voltage" and “Pressure setting value” caused by repeated voltage application is ±3%F.S.

External Vacuum Controller VJP

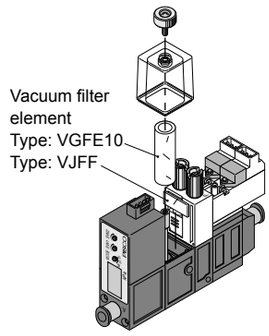
RoHS2 (2011/65/EU+EU2015/863) compliant

Stand-alone type

Suction solenoid valve, Blow-off solenoid valve, Filter

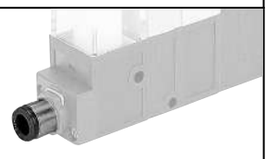
Without Pressure sensor		With Pressure sensor + LED display	
Type	Model code	Type	Model code
Wire lead-out direction: Top	VJP2-3456-7L12	Wire lead-out direction: Top	VJP2-3456-7L-1112
Type	Model code	Type	Model code
Wire lead-out direction: Side	VJP2-3456-7S12	Wire lead-out direction: Side	VJP2-3456-7S-1112

Replacement element



Vacuum filter element

Filter element Model code
VGFE10
VJFF

Manifold type		Suction port joint block		Cartridge joint for Vacuum port	
	No. of stations				
	2 stations				
	3 stations				
	4 stations				
	5 stations				
	6 stations	Specifications	Model code	Specifications	Model code
	7 stations				
	8 stations	Suction port joint block ø4-ø4 mm for External Vacuum Controller	VJV020A944	ø4 mm Push-in fitting	CJC09-04
	9 stations	Suction port joint block ø4-ø6 mm for External Vacuum Controller	VJV020A946	ø6 mm Push-in fitting	CJC09-06
	10 stations	Suction port joint block ø6-ø6 mm for External Vacuum Controller	VJV020A966	ø8 mm Push-in fitting	CJC09-08

Notes

*Please select each code referring to the example of model designation. Suction solenoid valve type code for 2, Vacuum port size code for 3, Air supply port size code for 4, Exhaust port size code for 5, Vacuum supply port for 6, Solenoid valve voltage code for 7, and pressure sensor code for 11 .

CAD data is available at PISCO website.

Packaging specifications

1 pc. /bag

10 pcs. /bag: Replacement element

Options

12 : -S3 ⇒ -S3 specification

External Vacuum Controller VXP/ VXPT

PISCO®

>>> https://www.pisco.co.jp/en/

Small and lightweight, 10.5 mm wide External Vacuum Controller for high-cycle operation (Stand-alone and Manifold types).

⚠ Safety instructions for this product

Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation of Stand-alone type (Example)

VXP (1) (2) – **4** (3) **4** (4) **4** (5) – **D24** (6) – **A0** (7) – **D** (8) (9)

(1) External Vacuum Controller VXP

(2) Valve type

Code	No code	T
Valve type	2 port valve	3 port valve

(3) Vacuum port size (V)

Code	3	4	6
Tube O.D. (mm)	ø3	ø4	ø6

(4) Air supply port size (PS)

Code	3	4	6
Tube O.D. (mm)	ø3	ø4	ø6

(5) Vacuum supply port size (PV)

Code	3	4	6
Tube O.D. (mm)	ø3	ø4	ø6

(6) Solenoid valve voltage

Code	D24	A100
Voltage	24 VDC	100 VAC

*100 VAC type is not CE marked.

(7) Pressure sensor

Code	Specifications
No code	Without pressure sensor
DW	2 switch outputs with LED display
DA	1 switch output & 1 analog output with LED display
A0	Analog output pressure sensor (No LED)

(8) Installation method

Code	No code	D
Installation method	Direct instal.	DIN rail type

(9) -S3 spec. (Metal option)

Code	No code	-S3 (*)
Metal material	Standard spec.	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard spec.	HNBR or FKM
Release-ring color	Black	Dark blue

*-S3 specification is available only for 2 port valve type with vacuum & air supply port size of ø4 or ø6 mm. (It is not available for electronic components and electric wires.)

External Vacuum Controller VXP/ VXPT

Model Designation of Manifold type (Example)

VXP (1) **T** (2) – **4** (3) **1** (4) **1** (5) – **D24** (6) – **A0** (7) – M **08** (8) (9)

(1) External Vacuum Controller VXP

(2) Valve type

Code	No code	T	K
Valve type	2 port valve	3 port valve	Mixed configurations on a manifold (Fill out Specification Order Form)

(3) Vacuum port size (V)

Code	3	4	6	0
Tube O.D. (mm)	ø3	ø4	ø6	Mixed configurations on a manifold (Fill out Specification Order Form)

(4) Air supply port size (PS)

Code	4	6	8	1
Tube O.D. (mm)	ø4	ø6	ø8	ø10

(5) Vacuum supply port size (PV)

Code	4	6	8	1
Tube O.D. (mm)	ø4	ø6	ø8	ø10

(6) Solenoid valve voltage

Code	D24	A100
Voltage	24 VDC	100 VAC

*100 VAC type is not CE marked.

(7) Pressure sensor

Code	Specifications
No code	Without pressure sensor
DW	2 switch outputs with LED display
DA	1 switch output & 1 analog output with LED display
A0	Analog output pressure sensor (No LED)
K	Different sensor configurations on a manifold (Fill out Specification Order Form)

(8) No. of stations

Code	02	03	04	05	06	07	08	09	10
No. of stations	2	3	4	5	6	7	8	9	10

(9) -S3 spec. (Metal option)

Code	No code	-S3 (*)
Metal material	Standard spec.	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard spec.	HNBR or FKM
Release-ring color	Black	Dark blue

*-S3 specification is available only for 2 port valve type with vacuum & air supply port size of ø4 or ø6 mm. (It is not available for electronic components and electric wires.)

*When 10 or more stations on a manifold are required, contact PISCO.

Model Designation of Manifold-base alone (Example)

VXM (1) – 8 (2) 6 (3) – 05 (4) (5)

(1) Manifold for External Vacuum Controller VXP or VXPT

(2) Vacuum supply port size (PV)

Code	4	6	8	1
Tube O.D. (mm)	ø4	ø6	ø8	ø10

(3) Pilot air supply port size (PS)

Code	4	6	8	1
Tube O.D. (mm)	ø4	ø6	ø8	ø10

(4) No. of stations

Code	02	03	04	05	06	07	08	09	10
No. of stations	2	3	4	5	6	7	8	9	10

(5) -S3 spec. (Metal option)

Code	No code	-S3
Metal material	Standard spec.	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard spec.	HNBR or FKM
Release-ring color	Black	Dark blue

Model Designation of Manifold Installation Top-Mounting Unit alone (Example)

VXP (1) (2) – 6 (3) – D24 (4) – DA (5) – M (6)

(1) External Vacuum Controller VXP

(2) Valve type

Code	No code	T
Valve type	2 port valve	3 port valve

(3) Vacuum port size (V)

Code	3	4	6
Tube O.D. (mm)	ø3	ø4	ø6

(4) Solenoid valve voltage

Code	D24	A100
Voltage	24 VDC	100 VAC

*100 VAC type is not CE marked.

(5) Pressure sensor

Code	Specifications
No code	Without pressure sensor
DW	2 switch outputs with LED display
DA	1 switch output & 1 analog output with LED display
AO	Analog output pressure sensor (No LED)

(6) -S3 spec. (Metal option)

Code	No code	-S3 (*)
Metal material	Standard spec.	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard spec.	HNBR or FKM
Release-ring color	Black	Dark blue

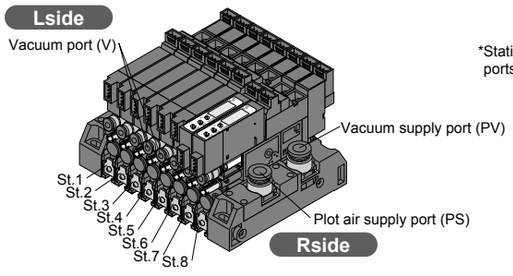
*-S3 specification is available only for 2 port valve type with vacuum & air supply port size of ø4 or ø6 mm. (It is not available for electronic components and electric wires.)

External Vacuum Controller VXP/ VXPT

Specification order form example for Manifold type

			Type (1)		Valve type (2)		Vacuum port (3)	Air supply port (4)	Vacuum supply port (5)		Solenoid valve voltage (6)		Pressure sensor (7)		No. of stations (8)	-S3 Metal option (9)
Manifold model code			VXP		K	–	0	1	1	–	D24	–	K	–	08	
Mounting unit model code	L side	St.1			T	–	4			–		–	A0			
	⬆ Station No. ⬇	St.2			T	–	4			–		–	A0			
		St.3			T	–	4			–		–	A0			
		St.4			T	–	4			–		–	A0			
		St.5			T	–	4			–		–	A0			
		St.6			T	–	4			–		–	A0			
		St.7				–	6			–		–	DA			
		St.8				–	6			–		–	DA			
		St.9				–				–		–				
	R side	St.10				–				–		–				

Manifold Type (reference)



*Station numbers are arranged in serial order as St. 1, St. 2, …St. 10 form the L side toward R side with the vacuum ports facing the front as shown in the figure.

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External Vacuum Controller VXP/VXPT Series Manifold type Specification Order Form

Name

To: NIHON PISCO CO., Ltd.

Distributor address: TEL

Delivery address : TEL

Customer name and address: TEL

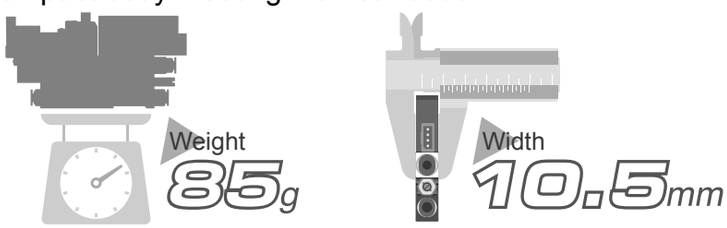
Requested EX-W PISCO Date: Quantity: pcs.

			Type (1)		Valve type (2)		Vacuum port (3)	Air supply port (4)	Vacuum supply port (5)		Solenoid valve voltage (6)		Pressure sensor (7)		No. of stations (8)	-S3 Metal option (9)
Manifold model code			VXP			–				–		–		–		
Mounting unit model code	L side	St.1				–				–		–				
	⬆ Station No. ⬇	St.2				–				–		–				
		St.3				–				–		–				
		St.4				–				–		–				
		St.5				–				–		–				
		St.6				–				–		–				
		St.7				–				–		–				
		St.8				–				–		–				
		St.9				–				–		–				
	R side	St.10				–				–		–				

*1. Refer to the above example of Specification Order Form to fill in the form.
*2. Make photocopies of this page and fill in.
*3. When the combination of mounting unit spec. is different, a new Specification Order Form is required.
*4. -S3 specification is not available when selecting 3 port valve and/or a vacuum port size of ø3 mm.

Characteristics

A light weight and compact body meeting market needs.



*The above weight is the value for a 2-port valve, direct mount type with pressure sensor with LED display.

Pursuing responsiveness of suction solenoid valve to the fastest limit and achieving higher cycle rates of vacuum system.

Normally closed (N.C.) type for suction solenoid valve.

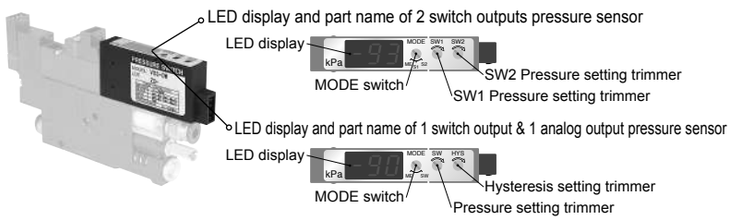
2 installation methods to better suit the applications.

Direct-installation type is to fix the product from side using threads. DIN rail type is to install the product on DIN rail.

2 types of pressure sensors.

Pressure sensor with legible LED display (2 switch outputs type and 1 switch output + 1 analog output) and cost-optimized analog type.

Pressure sensor with LED display (2 types)

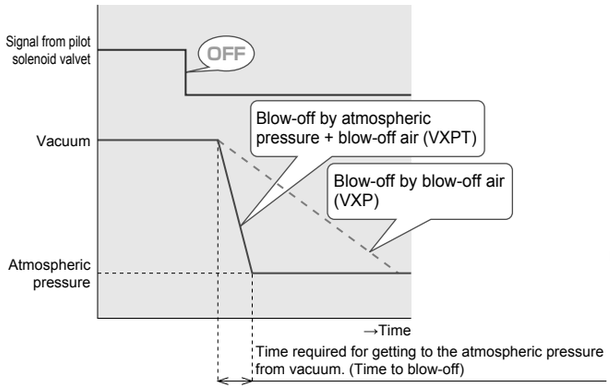


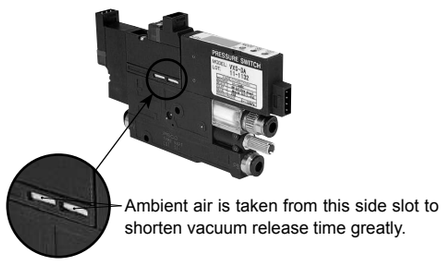
Analog output pressure sensor (No LED)

3 port valve type is also available.

The 3-port specification, VXPT, has adopted a three-way vacuum supply main valve, allowing drastic reduction in blow-off time.

Since the conventional two-way valve (VXP type) operates to maintain the vacuum immediately after the main valve is shut off, only blow-off air contributes to releasing vacuum. As for three-way valve (VXPT type) , on the other hand, the ambient air is introduced when the main valve is shut off, thus using the atmospheric pressure and the blow-off air to break vacuum.





Max. 10 mounting units on a manifold type.

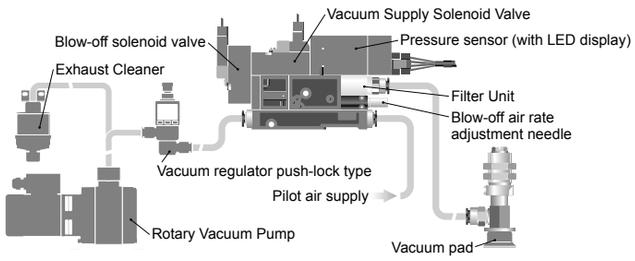
● -S3 spec. (Metal option)

No copper-based metallic materials used in flow paths.

Seal rubber material is HNBR or FKM, both of which have good ozone resistance.

External Vacuum Controller VXP/ VXPT

Piping Example



Specifications

Fluid medium		Air (JIS B 8392-1: Compliant with [Class 1.2.1 to 2.4.3]), Vacuum Air
Operating pressure range		0.3 to 0.7 MPa
Operating vacuum range		-100 to 0 kPa
Operating temp. range		5 to 50°C (No freezing)
Operating humidity range		35 to 85%RH (No dew condensation)
Vacuum resist. /shock resist.		50 m/s² max. /150 m/s² max.
Protective structure		IEC standard IP40 equiv.
Lubrication		Not required
Proof pressure	Air supply circuit	1.05 MPa
	Vacuum circuit	0.2 MPa

*Proof pressure shows the level of pressure at which the product would not be damaged. It does not mean the pressure where the product works normally.

Solenoid valve specifications

Rated voltage	24 VDC ±10%	100 VAC ±10%
Power consumption	1.2 W (with LED)	1.5 VA (with LED)
Surge protection	Varistor	Bridge diode
Operation indicator	Current application: Red LED ON	
Manual override	Push button (non-lock)	

Vacuum supply valve specifications

Operation type		Indirect operation by pilot valve	
Valve type		2 port valve Normally closed	3 port valve Normally closed
Response time (Standard)	OFF→ON	24 VDC: 7.5 msec	24 VDC: 6 msec
		100 VAC: 10.5 msec	100 VAC: 9 msec
	ON→OFF	24 VDC: 8.5 msec	24 VDC: 8.5 msec
		100 VAC: 10 msec	100 VAC: 10 msec
Response time (-S3 spec.)	OFF→ON	24 VDC: 7.5 msec	
		100 VAC: 10.5 msec	
	ON→OFF	24 VDC: 13 msec	
		100 VAC: 22.5 msec	

*The response time at supply air: 0.5 MPa with rated voltage (100%).

Blow-off valve specifications

Operation type		Direct operating poppet
Valve type		Normally closed
Response time	OFF→ON	24 VDC: 3.5 msec
		100 VAC: 8 msec
	ON→OFF	24 VDC: 3 msec
		100 VAC: 14 msec

*The response time at supply air: 0.5 MPa with rated voltage (100%).

Vacuum filter specifications

Element material	PVFM (Polyvinyl formal)
Filtering accuracy (*)	5 µm
Filter area	502 mm²

*Based on PISCO measuring condition.

Blow-off function

Blow-off air rate	2 port valve	0 to 11 ℓ/min [ANR] (Supply pressure: 0.5 MPa)
	3 port valve	0 to 7.5 ℓ/min [ANR] (Supply pressure: 0.5 MPa)

*Blow-off air rate varies according to the vacuum port dia. and tube length (piping resistance and others) on vacuum side.

Specifications of Pressure sensor with LED display

Specifications		–DW (2 switch outputs with LED display)	–DA (1 switch output & 1 analog output with LED display)
Current consumption		40 mA	
Pressure detection		Diffused metaloxide semiconductive pressure switch	
Operating pressure range		-100 to 0 kPa	
Pressure setting range		-99 to 0 kPa	
Proof pressure		0.2 MPa	
Power requirement		12 to 24 VDC ±10% Ripple (P-P) 10% max.	
No. of pressure setting		2	1
Operating accuracy		±3%F.S. max. (Standard temp. 25°C)	
Hysteresis		Fixed (2%F.S. max.)	Variable (about 0 to 15%F.S. max.)
Switch output		NPN open collector output: 30 V 80 mA max. Residual voltage 0.8 V max.	
Analog output	Output voltage		1 to 5 V
	Zero-point voltage		1 ±0.1 V
	Span voltage		4 ±0.1 V
	Output current		1 mA max. (load resistance min. 5 kΩ)
	LIN / HYS		±0.5%F.S. max. (Standard temp. 25°C)
Response		About 2 msec or less	
Indication		0 to -99 kPa (2-digit red LED display)	
Display frequency		About 4 times/sec	
Indication accuracy		±3%F.S. ±2 digit max.	
Sensor resolution		1 digit	
Operation indicator		SW1: Red LED turns on when pressure is above setting SW2: Green LED turns on when pressure is above setting	Red LED turns on when pressure is above setting

*Allowable range of the variation of "Zero point voltage", "Span voltage" and "Pressure setting value" caused by repeated voltage application is ±3% F.S.

Pressure sensor (without pressure indicator) specifications

Specifications		–A0 (1 analog output)
Power requirement		12 to 24 VDC ±10% Ripple (P-P) 10% max.
Current consumption		15 mA
Pressure detection		Diffused metaloxide semiconductive pressure sensor
Proof pressure		0.2 MPa
Analog output	Output voltage	1 to 5 V
	Zero-point voltage	1 ±0.1 V
	Span voltage	4 ±0.1 V
	Output current	1 mA max.
	Temp. characteristic (Zero point)	±0.1%F.S. /ºC (Standard temp. 25ºC)
	Temp. characteristic (Span)	±0.1%F.S. /ºC (Standard temp. 25ºC)
	Linearity	±0.5%F.S. max.

*Allowable range of the variation of "Zero point voltage", "Span voltage" and "Pressure setting value" caused by repeated voltage application is ±3% F.S.

RoHS2 (2011/65/EU+EU2015/863) compliant CE

2 port valve

Direct installation type

Type	Model code
Without pressure sensor	VXP-3 4 5-6 9

Type	Model code
Pressure sensor with LED display (2 switch outputs)	VXP-3 4 5-6-DW 9

Type	Model code
Pressure sensor with LED display (1 analog and 1 switch output)	VXP-3 4 5-6-DA 9

Type	Model code
Analog output pressure sensor (No LED)	VXP-3 4 5-6-A0 9

DIN rail type

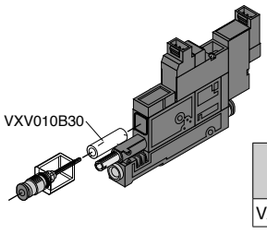
Type	Model code
Without pressure sensor	VXP-3 4 5-6-D 9

Type	Model code
Pressure sensor with LED display (2 switch outputs)	VXP-3 4 5-6-DW-D 9

Type	Model code
Pressure sensor with LED display (1 analog and 1 switch output)	VXP-3 4 5-6-DA-D 9

Type	Model code
Analog output pressure sensor (No LED)	VXP-3 4 5-6-A0-D 9

Replacement element



Filter element Model code
VXV010B30

Notes
*1. Please select each code referring to the example of model designation. 3: Vacuum port size code, 4: Air supply port size code, 5: Vacuum supply port size code, and 6: Solenoid valve voltage code.
*2. 100 VAC type is not CE marked.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag
10 pcs /bag: Replacement element

Options
9 : -S3 ⇒ -S3 spec. (Metal option)
* -S3 spec. is not available for vacuum port / vacuum supply port size : ø3 mm.

External Vacuum Controller VXP·VXPT

RoHS2 (2011/65/EU+EU2015/863) compliant CE (*2)

3 port valve

Direct installation type

Type	Model code
Without pressure sensor	VXPT-□□□-□

VXPT

Type	Model code
Pressure sensor with LED display (2 switch outputs)	VXPT-□□□-□-DW

VXPT

Type	Model code
Pressure sensor with LED display (1 analog and 1 switch output)	VXPT-□□□-□-DA

VXPT

Type	Model code
Analog output pressure sensor (No LED)	VXPT-□□□-□-A0

VXPT

DIN rail type

Type	Model code
Without pressure sensor	VXPT-□□□-□-D

VXPT

Type	Model code
Pressure sensor with LED display (2 switch outputs)	VXPT-□□□-□-DW-D

VXPT

Type	Model code
Pressure sensor with LED display (1 analog and 1 switch output)	VXPT-□□□-□-DA-D

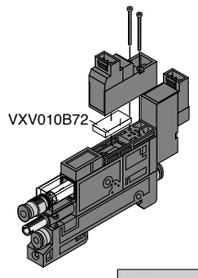
VXPT

Type	Model code
Analog output pressure sensor (No LED)	VXPT-□□□-□-A0-D

VXPT

Replacement element

Filter element for 3 port valve



Filter element Model code
VXV010B72

Notes

*1. Please select each code referring to the example of model designation. □3: Vacuum port size code, □4: Air supply port size code, □5: Vacuum supply port size code, and □6: Solenoid valve voltage code.

*2. 100 VAC type is not CE marked.

CAD data is available at PISCO website.

Packaging specifications

1 pc. /bag

10 pcs /bag : Replacement element

RoHS2 (2011/65/EU+EU2015/863) compliant CE (*3)

Manifold Installation Top-Mounting Unit alone

2 port valve

Type	Model code
Without pressure sensor	VXP-[3]-[4]-M[6]

VXP-M

Type	Model code
Pressure sensor with LED display (2 switch outputs)	VXP-[3]-[4]-DW-M[6]

VXP-M

Type	Model code
Pressure sensor with LED display (1 analog and 1 switch output)	VXP-[3]-[4]-DA-M[6]

VXP-M

Type	Model code
Analog output pressure sensor (No LED)	VXP-[3]-[4]-A0-M[6]

VXP-M

3 port valve

Type	Model code
Without pressure sensor	VXPT-[3]-[4]-M

VXPT-M

Type	Model code
Pressure sensor with LED display (2 switch outputs)	VXPT-[3]-[4]-DW-M

VXPT-M

Type	Model code
Pressure sensor with LED display (1 analog and 1 switch output)	VXPT-[3]-[4]-DA-M

VXPT-M

Type	Model code
Analog output pressure sensor (No LED)	VXPT-[3]-[4]-A0-M

VXPT-M

Manifold-base alone

Type	Model code
	VXM-[2][3]-02[5] (2 stations)
	VXM-[2][3]-03[5] (3 stations)
	VXM-[2][3]-04[5] (4 stations)
	VXM-[2][3]-05[5] (5 stations)
	VXM-[2][3]-06[5] (6 stations)
	VXM-[2][3]-07[5] (7 stations)
	VXM-[2][3]-08[5] (8 stations)
	VXM-[2][3]-09[5] (9 stations)
	VXM-[2][3]-10[5] (10 stations)

Notes

*1. Please select each code for Manifold installation Top-Mounting Unit referring to the example of model designation. [3]: Vacuum port size code, and [4]: Solenoid valve voltage code.

*2. Please select each code for Manifold-base alone referring to the example of model designation. [2]: Vacuum supply port size code, [3]: Pilot air supply port size code.

*3. 100 VAC type is not CE marked.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
[6] ([5] for manifold-base alone type): -S3 ⇒ -S3 spec. (Metal option).
-S3 spec. for Manifold Installation Top-Mounting unit is not available for the vacuum port size of ø 3 mm.

External Vacuum Controller VNP

Lightweight, compact, high cycle compatible 10.3 mm wide external vacuum controller with a direct acting valve. (Stand-alone type and Manifold type)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model designation of Stand-alone type (Example)

VNP (1) – 4 (2) 4 (3) 4 (4) – D24 –R1 (5)

(1) External Vacuum Controller VNP

(2) Vacuum port size (V)

Code	3	4	3L	4L
Tube O.D. (mm)	ø3 Straight	ø4 Straight	ø3 Elbow	ø4 sElbow

(3) Vacuum supply port (PV)

Code	3	4
Tube O.D. (mm)	ø3	ø4

(4) Air supply port for blow-off air (PS)

Code	3	4
Tube O.D. (mm)	ø3	ø4

(5) Pressure sensor

Code	Specifications
No code	Without pressure sensor
–V1C□	Analog output vacuum sensor for negative pressure with connector cable
–V2C□	Separate LED display + Analog output vacuum sensor for negative pressure with connector cable
–R1	Analog output sensor for compound pressure
–R2	Separate LED display + Analog output sensor for compound pressure
–V4NC□	NPN output negative press. sensor with LED display
–V4PC□	PNP output negative press. sensor with LED display
–V4RNC□	NPN output compound press. sensor with LED display
–V4RPC□	PNP output compound press. sensor with LED display

*Select a cable length code from the table below to fill in □ of a connector type sensor.

Code	No code	50	100	200	300
Cable length (mm)	Without connector cable	500	1,000	2,000	3,000

Model Code of bracket for stand-alone type (option)

VNB

* Including 2 hexagonal socket head screws (M3 x 12)

Model Designation of connector cable for analog pressure sensor for negative pressure (Example) (Maintenance parts)

FSED012B07 (1) – C300 (2)

(1) Cable for connector type pressure sensor

(2) Cable length

Code	C50	C100	C200	C300
Cable length (mm)	500	1,000	2,000	3,000

Model Designation of connector cable for pressure sensor with LED display (Example) (Maintenance parts)

FVML010A (1) 02 (2) – C300 (2)

(1) Cable for connector type pressure sensor

(2) Power supply line

Code	02	06
Power line	Included	Not included

(3) Cable length

Code	C50	C100	C200	C300
Cable length (mm)	500	1,000	2,000	3,000

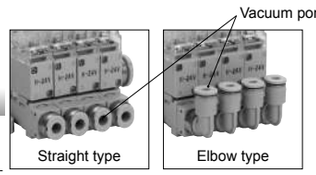
Model Designation of Manifold type (Example)

VNP (1) – **4** (2) **4** (3) **4** (4) – D24 **–R1** (5) – M **04** (6)

(1) External Vacuum Controller VNP

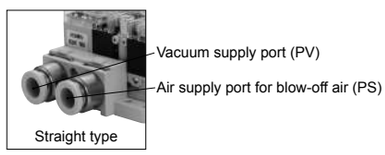
(2) Vacuum port size (V)

Port type	Straight		Elbow		
Code	3	4	3L	4L	K
Tube O.D. (mm)	ø3	ø4	ø3	ø4	Different vacuum port sizes and shapes on a manifold (Fill out Specification Order Form)



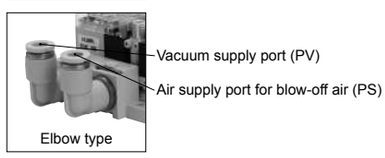
(3) Vacuum supply port (PV)

Port type		Straight			Elbow		
Code	R side	4R	6R	8R	4LR	6LR	8LR
	Both sides	4	6	8	4L	6L	8L
	L side	4H	6H	8H	4LH	6LH	8LH
Tube O.D. (mm)		ø4	ø6	ø8	ø4	ø6	ø8



(4) Air supply port for blow-off air (PS)

Port type		Straight			Elbow		
Code	R side	4R	6R	8R	4LR	6LR	8LR
	Both sides	4	6	8	4L	6L	8L
	L side	4H	6H	8H	4LH	6LH	8LH
Tube O.D. (mm)		ø4	ø6	ø8	ø4	ø6	ø8



(5) Pressure sensor

Code	Specifications
No code	Without pressure sensor
–V1C□	Analog output vacuum sensor for negative pressure with connector cable
–V2C□	Separate LED display + Analog output type vacuum sensor for negative pressure with connector cable
–R1	Analog output sensor for compound pressure
–R2	Separate LED display + Analog output sensor for compound pressure
–V4NC□	NPN output negative press. sensor with LED display
–V4PC□	PNP output negative press. sensor with LED display
–V4RNC□	NPN output compound press. sensor with LED display
–V4RPC□	PNP output compound press. sensor with LED display
–K	Different sensor configurations on a manifold (Fill out Specification Order Form)

* Select a cable length code from the table below to fill in □ of a connector type sensor.

Code	No code	50	100	200	300
Cable length (mm)	Without connector cable	500	1,000	2,000	3,000

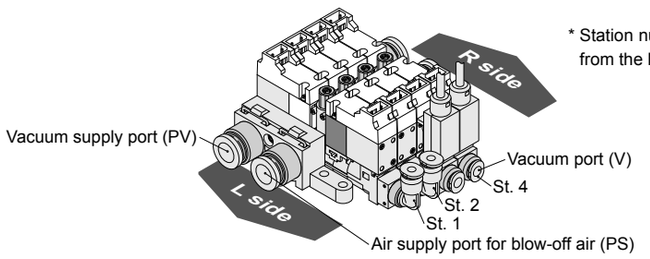
(6) No. of stations

Code	02	03	04	05	06	07	08	09	10
No. of stations	2	3	4	5	6	7	8	9	10

External Vacuum Controller VNP

Specification order form example for Manifold type

	Model code (1)			Vacuum port (2)	Vacuum supply port (3)	Air supply port for blow-off air (4)		Solenoid valve voltage		Pressure sensor (5)		No. of stations (6)
Manifold model code	VNP		–	K	8	8	–	D24	–	K	–	M04
Mounting unit model code	L side	St.1	–	3L			–		–			
	⬆ Station No.	St.2	–	3L			–		–			
		St.3	–	4			–		–	R1		
		St.4	–	4			–		–	R1		
		St.5	–				–		–			
		St.6	–				–		–			
		St.7	–				–		–			
	⬇	St.8	–				–		–			
		St.9	–				–		–			
	R side	St.10	–				–		–			



* Station numbers are arranged in serial order as St. 1, St. 2, …St. 10 from the L side toward the R side as shown in the figure.

Cut here

External Vacuum Controller VNP Series Manifold type Specification Order Form

To: NIHON PISCO CO., Ltd.

Name

Distributor address

TEL

Delivery address

TEL

Customer name and address

TEL

Requested EX-W PISCO Date:

Quantity: pcs.

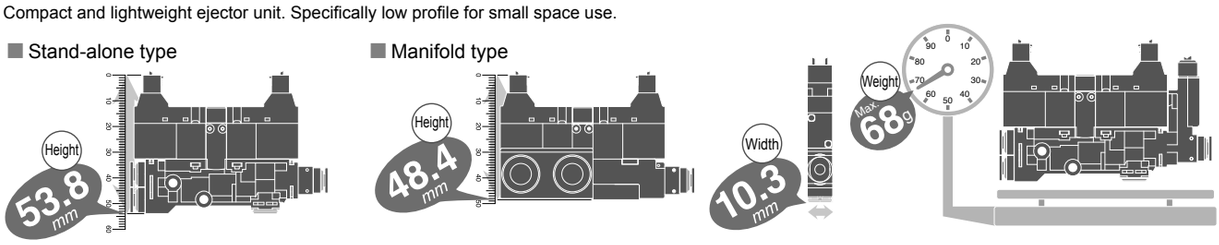
	Model code (1)			Vacuum port (2)	Vacuum supply port (3)	Air supply port for blow-off air (4)		Solenoid valve voltage		Pressure sensor (5)		No. of stations (6)
Manifold model code	VNP		–				–	D24	–		–	
Mounting unit model code	L side	St.1	–				–		–			
	⬆ Station No.	St.2	–				–		–			
		St.3	–				–		–			
		St.4	–				–		–			
		St.5	–				–		–			
		St.6	–				–		–			
		St.7	–				–		–			
	⬇	St.8	–				–		–			
		St.9	–				–		–			
	R side	St.10	–				–		–			

Characteristics

Suitable for the application with limited space.

Compact and lightweight ejector unit. Specifically low profile for small space use.

■ Stand-alone type ■ Manifold type

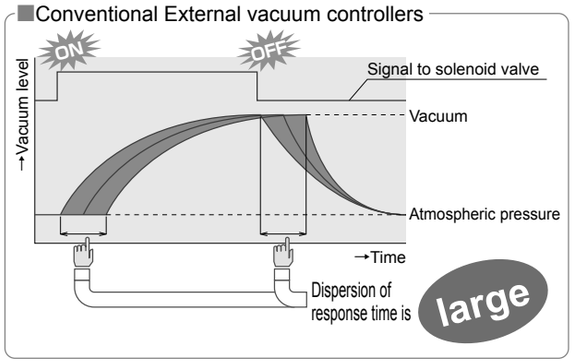


* Excluding pressure sensor with LED display.

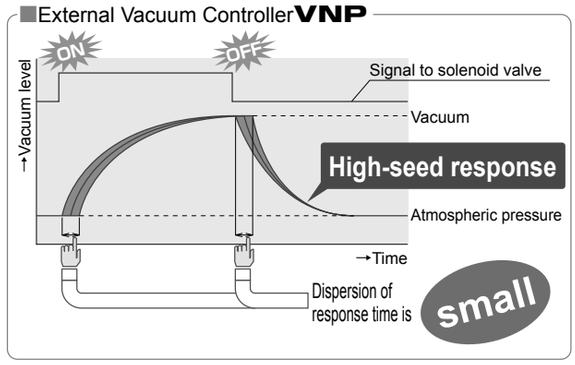
High-speed and stable response time. (ON/OF = 5 msec max.)

Direct acting valve is used for the main valve.

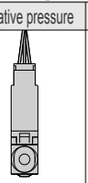
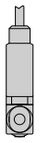
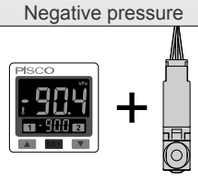
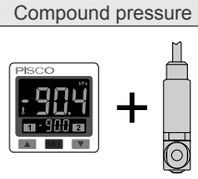
■ Conventional External vacuum controllers



■ External Vacuum Controller **VNP**



Selectable form a total of 8, 4 types of analog output sensors and 4 types of sensors with built-in LED display.

Analog output sensor		Separate dual digital display + analog output sensor		with LED display			
Negative pressure	Compound pressure	Negative pressure	Compound pressure	Negative pressure		Compound pressure	
				NPN Output	PNP Output	NPN Output	PNP Output
							

Lead wire of pressure sensor comes as a connector cable. Easy wiring and improved performance. 4 types of cable length.

Select the most suitable length from 500, 1000, 2000, and 3000 mm. according to the installation location.

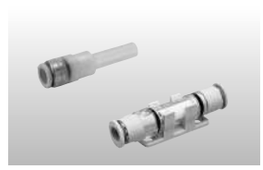
* For analog output type vacuum sensor for negative pressure and pressure sensor with LED display only. Analog output sensor for compound pressure comes with grommet type sensor cable.

External vacuum filter is available (option).

Inconvenience from filter replacement due to the downsizing of this external vacuum controller is resolved.

* External Vacuum Controller VNP series is not equipped with vacuum filter. Please make sure to use a filter (VFU or VFJ) with the VNP series for long-term use.

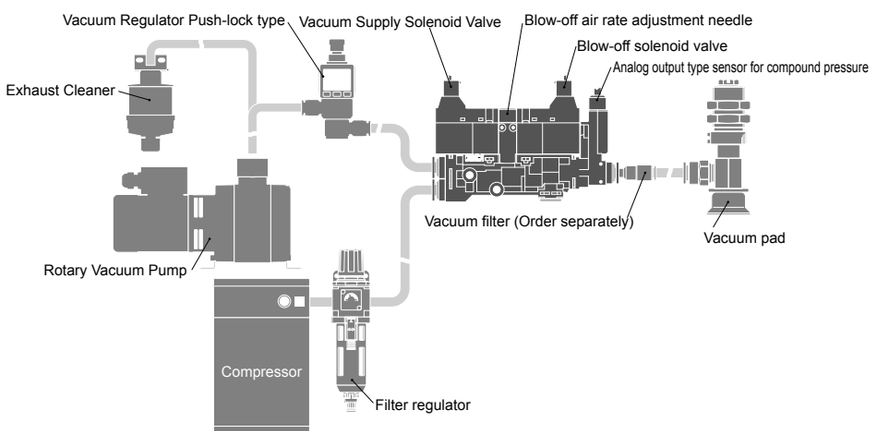
Related products



Vacuum filter

► P.359

Piping Example



External Vacuum Controller VNP

Specifications

Fluid medium		Air (JIS B 8392-1 : Compliant with [Class 1.2.1 to 2.4.3]), Vacuum Air
Operating pressure range		0 to 0.55 MPa
Operating vacuum range		-100 to 0 kPa
Operating temp. range		5 to 50°C (No freezing)
Operating humidity range		35 to 85%RH (No dew condensation)
Vibration resist. / shock resist.		Max.50 m/s² / Max.150 m/s²
Protective structure		IEC standard IP 40 equiv.
Lubrication		Not required
Proof pressure	Air supply circuit	0.85 MPa
	Vacuum circuit	0.2 MPa

* Proof pressure shows the level of pressure at which the product would not be damaged. It is different from the operating pressure range, in which the product operates properly.

Solenoid valve specifications

Rated voltage	24 VDC ±10%
Power consumption	Startup: 2.2 W, Retention: 0.6 W (with LED with built-in power saving circuit)
Surge protection	Incorporated
Operation indicator	Current application : Green LED ON
Manual override	Not equipped

Vacuum supply valve specifications

Operation type		Direct operating poppet
Valve type		Normally closed
Response time	OFF→ON	5 msec
	ON→OFF	5 msec

* The response time is the value in a steady state (at supply air: -100 to 0kPa, Operating temp.: 20°C, with rated voltage: 24 VDC±10%).

Blow-off main valve specifications

Operation type		Direct operating poppet
Valve type		Normally closed
Response time	OFF→ON	5 msec
	ON→OFF	5 msec

* The response time is the value in a steady state ((at supply air -0.05 to 0.55 MPa, Operating temp.: 20°C, with rated voltage: 24VDC ±10%).

Blow-off function

Blow-off air rate	0 to 20 ℓ/min [ANR] (Supply pressure: 0.5 MPa)

* Blow-off air rate varies according to the vacuum port dia. and tube length (piping resistance and others) on vacuum side.

Pressure sensor (without pressure indicator) specifications

		V1C □ (1 analog output for negative pressure)	R1 (1 analog output for compound pressure)
Lead wire type		Connector type	Grommet type
Power requirement		10.8 to 30 VDC Ripple voltage included	
Current consumption		20 mA (24 VDC at no-load)	
Pressure detection		Diffused metal oxide semi conductive pressure sensor, gauge pressure	
Operating pressure range		-100 to 0 kPa	-100 to 300 kPa
Proof pressure		1,000 kPa	600 kPa
Storage temp. range		-20 to 70°C (Atmospheric pressure, Humidity 65% RH max.)	
Operating pressure range		0 to 60°C (No freezing)	-10 to 60°C (No freezing)
Operating humidity range		30 to 85%RH (No dew condensation)	35 to 85%RH (No dew condensation)
Protective structure		IEC standard IP 40 equiv.	
Analog output	Output voltage	1 to 5V	
	Zero-point voltage	1 ±0.04 V (=Atmospheric pressure)	1 ±0.1 V (=at-100kPa)
	Specified pressure point voltage	4.6 ±0.04 V ((=at -90kPa))	—
	Max. pressure voltage	(5 ±0.04 V (=at -100kPa))	5 ±0.1 V (=at -300kPa)
	Linearity	±0.5%F.S.Max. (at standard temp. 25°C)	
	Temp. characteristics	±2%F.S.Max. (0 to 60°C, at standard temp. 25°C)	±2%F.S.Max.
	Output current	0.495 mA Max. (Load resistance: 10kΩMax.)	1 mA Max. (Load resistance: 5kΩMax.)
	Output impedance	1kΩ	—

* Allowable range of the variation of “Zero point voltage” and “Pressure setting value” caused by repeated voltage application is ±3% F.S.

Pressure sensor with LED display specifications

		V4NC□	V4PC□	V4RNC□	V4RPC□
General specifications	Specifications	Negative pressure/NPN	Negative pressure/PNP	Compound pressure/NPN	Compound pressure/PNP
	Fluid medium	Air, non-corrosive gas, incombustible gas			
	Pressure detection	Diffused metal oxide semi conductive pressure switch			
	Operating temp. range	0 to 50°C (No freezing)			
	Storage temp. range	-20 to 70°C (Atmospheric pressure, Humidity 65% RH or less) (No freezing)			
	Operating hum. range	35 to 85%RH (No dew condensation)			
	Vibration resistance	100 m/s²			
	shock resistance	150 m/s²			
	Protective structure	IEC standard IP 40 equiv.			
Pressure app.	Operating pressure range	-100 kPa to 0kPa		-100 kPa to 300 kPa	
	Proof pressure	0.9 MPa		1.4 MPa	
Power supply	Power requirement	12 to 24 VDC ±10% including Ripple P to P			
	Current consumption	30 mA Max. (at All LED on, no load with 2 points outputs)			
Display	Display element	Sign & 2 digits, 7 segments Red LED			
	Sampling rate	4 times / sec.			
	Monitor system	Overpressure indication, blinking display			
	Panel lock function	On / Off by push-button			
	Display / Non-display	On / Off by push-button			
	Indication accuracy	±3%F.S.(0 to 50°C, (at standard temp. 25°C)			
	Zero point adjustment	Adjustable by zero adjusting mode			
Switch output	No. of pressure setting	2 -point switch outputs			
	Switch output type	NPN Open collector	PNP Open collector	NPN Open collector	PNP Open collector
	Switch capacity	30 VDC 80 mAMax.	26.4 VDC 80 mAMax.	30 VDC 80 mAMax.	26.4 VDC 80 mAMax.
	Residual voltage	Max. 1.2V (at load current 80 mA)			
	Output mode	Separate mode, Window comparator mode (selectable)			
	Pressure setting range	-99 to 0(kPa)		-99 to 0(kPa), .00 to 0.30(MPa)	
	Operation indicator	Output ON: LED ON (SW1: RED / SW2: GREEN)			
	Temperature characteristics	±5%F.S. (0 to 50°C, at standard temp. 25°C)			
	Repeatability	±0.3%F.S.			
	Response	at filter setting 0 msec : 5 msec, setting range (selectable from 0 to 99 msec)			
	Hysteresis adjustment	0 to 30 count			
	Overload protection circuit	Incorporated	Not available	Incorporated	Not available
Analog output	No. of pressure setting	1			
	Output voltage	1 to 5 V			
	Zero-point voltage (0kPa)	1 ±0.06 V		2 ±0.06 V	
	Voltage when negative pressure is applied (-90kPa)	4.6 ±0.06 V		1.1 ±0.06 V	
	Voltage at max. positive press.	—		5 ±0.06 V	
	Output current	1 mA (MAX)			
	Linearity	±0.5%F.S.			
	Repeatability	±0.5%F.S.			
	Temp. characteristics	5%F.S. (0 to 50°C, at standard temp. 25°C)			

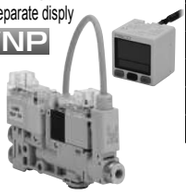
RoHS2 (2011/65/EU+EU2015/863) compliant CE

Stand-alone type

Type	Model code
Without pressure sensor VNP	VNP-□□□□-D24

Type	Model code
With analog press. Sensor VNP	VNP-□□□□-D24-R1
	VNP-□□□□-D24-V1C
	VNP-□□□□-D24-V1C50
	VNP-□□□□-D24-V1C100
	VNP-□□□□-D24-V1C200
	VNP-□□□□-D24-V1C300

Type	Model code
With analog press. sensor + separate disply VNP	VNP-□□□□-D24-R2
	VNP-□□□□-D24-V2C
	VNP-□□□□-D24-V2C50
	VNP-□□□□-D24-V2C100
	VNP-□□□□-D24-V2C200
	VNP-□□□□-D24-V2C300



Type	Model code
With pressure sensor with LED display VNP	VNP-□□□□-D24-V4NC
	VNP-□□□□-D24-V4PC
	VNP-□□□□-D24-V4RNC
	VNP-□□□□-D24-V4RPC
	VNP-□□□□-D24-V4NC50
	VNP-□□□□-D24-V4PC50
	VNP-□□□□-D24-V4RNC50
	VNP-□□□□-D24-V4RPC50
	VNP-□□□□-D24-V4NC100
	VNP-□□□□-D24-V4PC100
	VNP-□□□□-D24-V4RNC100
	VNP-□□□□-D24-V4RPC100
	VNP-□□□□-D24-V4NC200
	VNP-□□□□-D24-V4PC200
	VNP-□□□□-D24-V4RNC200
	VNP-□□□□-D24-V4RPC200
	VNP-□□□□-D24-V4NC300
	VNP-□□□□-D24-V4PC300
	VNP-□□□□-D24-V4RNC300
	VNP-□□□□-D24-V4RPC300

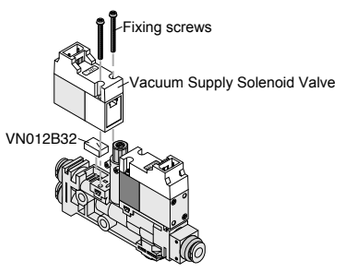
Option

Type	Model code
Bracket VNB	VNB

* Including 2 hexagonal socket head screws (M3 x 12)

Replacement element

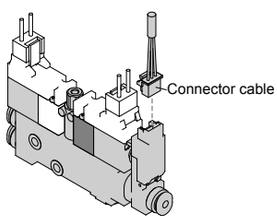
Filter element



Filter element Model code
VN012B32

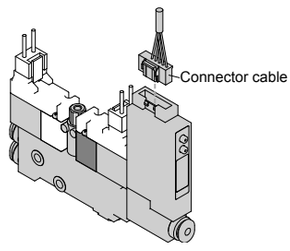
Connector cable for pressure sensor

·For analog output type sensor

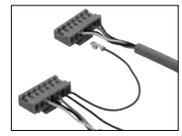


Connector cable Model code	Cable length (mm)
FSED012B07-C50	500
FSED012B07-C100	1,000
FSED012B07-C200	2,000
FSED012B07-C300	3,000

·For pressure sensor with LED display



Connector cable Model code		Cable length (mm)
With power supply line	Without power supply line	
FVML010A02-C50	FVML010A06-C50	500
FVML010A02-C100	FVML010A06-C100	1,000
FVML010A02-C200	FVML010A06-C200	2,000
FVML010A02-C300	FVML010A06-C300	3,000



* Cable without power supply has internal crossover wire, and connecting it to the cable with power supply can reduce wiring.

Notes
*Please select each code referring to the model designation example. □ : Vacuum port size code, □: Vacuum supply port size code, and □: code of air supply port size for blow-off.

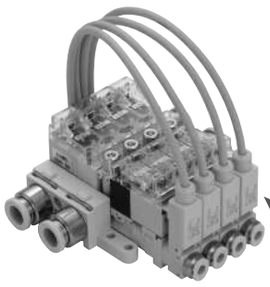
CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

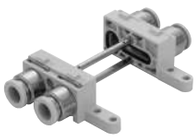
External Vacuum Controller VNP

RoHS2 (2011/65/EU+EU2015/863) compliant CE

Manifold type



Manifold-base alone

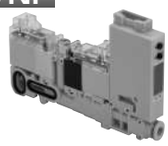
Type	No. of stations
	2St.
	3St.
	4St.
	5St.
	6St.
	7St.
	8St.
	9St.
	10St.

Manifold mounting unit

Type	Model code
Without pressure sensor VNP	VNP-[2]-D24-M

Type	Model code
With analog output press. Sensor VNP	VNP-[2]-D24-R1-M
	VNP-[2]-D24-V1C-M
	VNP-[2]-D24-V1C50-M
	VNP-[2]-D24-V1C100-M
	VNP-[2]-D24-V1C200-M
	VNP-[2]-D24-V1C300-M

Type	Model code
With analog press. sensor + separate disply VNP	VNP-[2]-D24-R2-M
	VNP-[2]-D24-V2C-M
	VNP-[2]-D24-V2C50-M
	VNP-[2]-D24-V2C100-M
	VNP-[2]-D24-V2C200-M
	VNP-[2]-D24-V2C300-M

Type	Model code
With pressure sensor + LED display VNP 	VNP-[2]-D24-V4NC-M
	VNP-[2]-D24-V4PC-M
	VNP-[2]-D24-V4RNC-M
	VNP-[2]-D24-V4RPC-M
	VNP-[2]-D24-V4NC50-M
	VNP-[2]-D24-V4PC50-M
	VNP-[2]-D24-V4RNC50-M
	VNP-[2]-D24-V4RPC50-M
	VNP-[2]-D24-V4NC100-M
	VNP-[2]-D24-V4PC100-M
	VNP-[2]-D24-V4RNC100-M
	VNP-[2]-D24-V4RPC100-M
	VNP-[2]-D24-V4NC200-M
	VNP-[2]-D24-V4PC200-M
	VNP-[2]-D24-V4RNC200-M
	VNP-[2]-D24-V4RPC200-M
	VNP-[2]-D24-V4NC300-M
	VNP-[2]-D24-V4PC300-M
	VNP-[2]-D24-V4RNC300-M
	VNP-[2]-D24-V4RPC300-M

* The above table is a reference of model code.
Only Manifold -base or only Manifold can not be sold except when those are necessary for replacement purposes. Please contact your nearest sales office for more details.

Notes
*Please select a vacuum port size code for [2] referring to the example of model designation.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

External Vacuum Controller VZP

PISCO®

>>> https://www.pisco.co.jp/en/

Large blow-off rate type, Compatible with high cycle External Vacuum controller (Manifold type)

⚠ Safety instructions for this product

Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

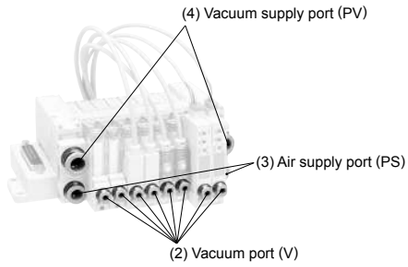
VZP – 4 6 1 – D24 – DW – M 05 – D 25

(1) (2) (3) (4) (5) (6) (7) (8)

(1) External Vacuum Controller VZP

(2) Vacuum port size (V)

	Tube O.D. (mm)		Metric thread	
Code	4	6	5	0
Size	ø4	ø6	M5×0.8	Mixed configurations on a manifold (Fill out Specification Order Form)



(3) Air supply port size (PS)

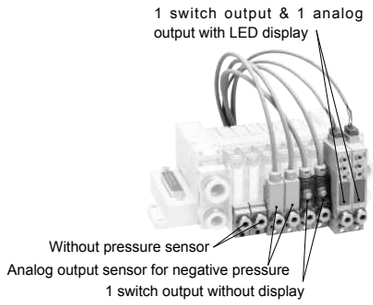
Code	4	6	8
Tube O.D. (mm)	ø4	ø6	ø8

(4) Vacuum supply port size (PV)

Code	6	8	1
Tube O.D. (mm)	ø6	ø8	ø10

(5) Pressure sensor

Code	Specifications
No code	Without pressure sensor
DW	2 switch outputs with LED display
DA	1 switch output & 1 analog output with LED display
S	1 switch output without display
V1	Analog output sensor for negative pressure
V2	Separate LED display + analog output sensor for negative pressure
R1	Analog output sensor for compound pressure
R2	Separate LED display + analog output sensor for compound pressure
K	Different sensor configurations on a manifold (Fill out Specification Order Form)

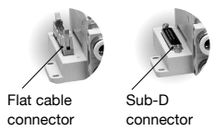


(6) No. of stations

Code	02	03	04	05	06	07	08	09	10	11	12
No. of stations	2	3	4	5	6	7	8	9	10	11	12

(7) Wiring type

Code	F	D
Specifications	Flat cable connector	Sub-D connector



(8) No. of connector pins

Code	Specifications
No code	Connector with the optimal number of pins selected by PISCO (*).
20	20 -pin flat cable connector (Max. 9 stations)
26	26 -pin flat cable connector (Max. 12 stations)
25	25 -pin Sub-D connector (Max. 12 stations)

* For flat cable connector
2 to 4 stations: 10 -pin flat cable connector
5 to 9 stations: 20 -pin flat cable connector
10 to 12 stations: 26 -pin flat cable connector
For Sub-D connector
2 to 4 stations: 9 -pin Sub-D connector
5 to 12 stations: 25 -pin Sub-D connector

External Vacuum Controller VZP

Model Designation of Manifold-base alone (Example)

VZP (1) M (2) – 8 (3) 6 (4) – 08 (5) – F (6) 26 (7)

(1) External Vacuum Controller VZP

(2) Manifold-base

(3) Air supply port size (PS)

Code	4	6	8
Tube O.D. (mm)	ø4	ø6	ø8

(4) Vacuum supply port (PV)

Code	6	8	1
Tube O.D. (mm)	ø6	ø8	ø10

(5) No. of stations

Code	02	03	04	05	06	07	08	09	10	11	12
No. of stations	2	3	4	5	6	7	8	9	10	11	12

(6) Wiring type

Code	F	D
Specifications	Flat cable connector	Sub-D connector

(7) No. of connector pins

Code	Specifications
No code	Connector with the optimal number of pins selected by PISCO (*).
20	20 -pin flat cable connector (Max. 9 stations)
26	26 -pin flat cable connector (Max. 12 stations)
25	25 -pin Sub-D connector (Max. 12 stations)

* For flat cable connector
2 to 4 stations: 10 -pin flat cable connector
5 to 9 stations: 20 -pin flat cable connector
10 to 12 stations: 26 -pin flat cable connector
For Sub-D connector
2 to 4 stations: 9 -pin Sub-D connector
5 to 12 stations: 25 -pin Sub-D connector

Model Designation of mounting valve unit (Example)

VZP (1) V (2) – D24

(1) External Vacuum Controller VZP

(2) Mounting valve unit

Model Designation of Manifold Installation Top-Mounting Unit alone (Example)

VZP (1) 5 (2) – DW (3)

(1) External Vacuum Controller VZP

(2) Vacuum port size (V)

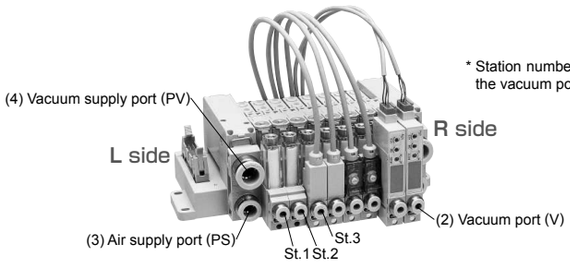
	Tube O.D. (mm)		Metric thread
Code	4	6	5
Size	ø4	ø6	M5×0.8

(3) Pressure sensor

Code	Specifications
No code	Without pressure sensor
DW	2 switch outputs with LED display
DA	1 switch output & 1 analog output with LED display
S	1 switch output without display
V1	Analog output sensor for negative pressure
V2	Separate LED display + analog output sensor for negative pressure
R1	Analog output sensor for compound pressure
R2	Separate LED display + analog output sensor for compound pressure

Specification order form example

	Model code (1)			Vacuum port (2)	Air supply port (3)	Vacuum supply port (4)		Voltage		Pressure sensor (5)		No. of stations (6)	Wiring type (7)	No. of connector pins (8)
Manifold model code	VZP		–	4	8	1	–	D24	–	K	–	M08	F	
Mounting unit model code	L side	St.1	–				–		–					
	⬆ Station No.	St.2	–				–		–					
		St.3	–				–		–	V1				
		St.4	–				–		–	V1				
		St.5	–				–		–	S				
		St.6	–				–		–	S				
		St.7	–				–		–	DW				
		St.8	–				–		–	DW				
		St.9	–				–		–					
	⬇	St.10	–				–		–					
		St.11	–				–		–					
	R side	St.12	–				–		–					



* Station numbers are arranged in serial order as St. 1, St. 2...St. 10 from the L side toward the R side with the vacuum ports facing the front as shown in the figure.

Cut here

External Vacuum Controller VZP Series Specification Order Form

Name

To: NIHON PISCO CO., Ltd.

Distributor addresss TEL

Delivery address TEL

Customer name and address TEL

Requested EX-W PISCO Date: Order quantity: pcs.

	Model code (1)			Vacuum port (2)	Air supply port (3)	Vacuum supply port (4)		Voltage		Pressure sensor (5)		No. of stations (6)	Wiring type (7)	No. of connector pins (8)
Manifold model code	VZP		–				–	D24	–		–	M		
Mounting unit model code	L side	St.1	–				–		–					
	⬆ Station No.	St.2	–				–		–					
		St.3	–				–		–					
		St.4	–				–		–					
		St.5	–				–		–					
		St.6	–				–		–					
		St.7	–				–		–					
		St.8	–				–		–					
		St.9	–				–		–					
	⬇	St.10	–				–		–					
		St.11	–				–		–					
	R side	St.12	–				–		–					

*1. Refer to the above example of Specification Order Form to fill in the form.
*2. Make photocopies of this page and fill in.
*3. When the combination of mounting unit spec. is different, a separate Specification Order Form is required

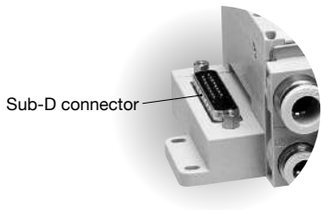
External Vacuum Controller VZP

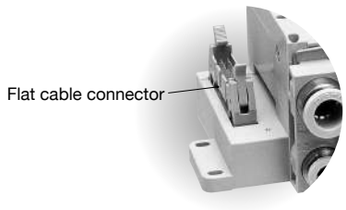
Characteristics

Compact and light body. External vacuum controller dedicated to Manifold mount.

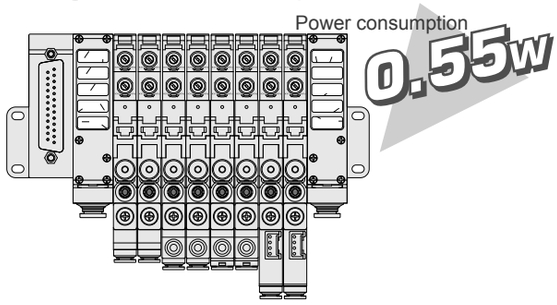
Bundled wiring of the suction and blow-off solenoid valves.

Centralized wiring can save wiring time.

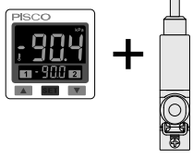




Energy saving. Power consumption of valve is 0.55 W.



Various kinds of vacuum sensors for wide range of applications.

Without display		With separate display	With LED display	
Analog output	1 switch output	Pressure indicator + Analog output	1 switch output	2 switch outputs
				

Easy maintenance with user-friendly design.

The modular design makes it possible to replace only necessary parts.

Push-in fitting or female thread is selectable according to piping requirements.

Specifications

Fluid medium		Air (JIS B 8392-1 : Compliant with [Class 1.2.1 to 2.4.3]), Vacuum Air
Operating pressure range		0.3 to 0.7 MPa
Operating vacuum range		-100 to 0 kPa
Operating temp. range		5 to 50°C (No freezing)
Operating humidity range		35 to 85%RH (No dew condensation)
Vibration resist./Shock resist.		Max. 50m/s² / Max. 150m/s²
Protective structure		IEC standard IP 40 equiv.
Lubrication		Not required
Proof pressure	Air supply circuit	1.05 MPa
	Vacuum circuit	0.2 MPa

* Proof pressure shows the level of pressure at which the product would not be damaged. It does not mean the pressure where the product works normally.

Solenoid valve specifications

Rated voltage	24 VDC ±10%
Power consumption	0.55W (with LED)
Surge protection	Varistor
Operation indicator	Current application to the suction / vacuum supply valve : Red LED ON Current application to the blow-off valve : Green LED ON
Manual override	Push-turn locking

Suction main valve specifications

Operation type		Indirect operation by pilot valve
Valve type		Normally closed
Response time	OFF→ON	10 msec

* The response time at supply air: 0.5MPa with rated voltage (100%).

Blow-off valve specifications

Operation type		Indirect operation by pilot valve
Valve type		Normally closed
Response time	OFF→ON	10 msec
	ON→OFF	15 msec

* The response time at supply air: 0.5MPa with rated voltage (100%).

Vacuum filter specifications

Element material	PVFM (Polyvinyl formal)
Filtering accuracy (*)	5 μm
Filter area	660 mm²

* Based on PISCO measuring condition.

Blow-off function

Blow-off air rate	0 to 50 ℓ/min [ANR] (Supply pressure : 0.5MPa)

* Blow-off air rate varies according to the vacuum port dia. and tube length (piping resistance and others) on vacuum side.

Specifications of Pressure sensor with LED display

Specifications		–DW (2 switch outputs with LED display)	–DA (1 switch output & 1 analog output with LED display)
Current consumption		40 mA	
Pressure detection		Diffused metaloxide semiconductive pressure switch	
Operating pressure range		-100 to 0 kPa	
Pressure setting range		-99 to 0 kPa	
Proof pressure		0.2 MPa	
Power requirements		12 to 24 VDC ±10% Ripple (P-P) 10% max.	
No. of pressure setting		2	1
Operating accuracy		Max. ±3%F.S.(at standard temp. 25°C)	
Hysteresis		Fixed (2%F.S. max.)	Variable (about 0 -15%F.S. max.)
Switch output		NPN open collector output: 30V 80mA max. Residual voltage 0.8V max.	
Analog output	Output voltage		1 to 5 V
	Zero-point voltage		1 ±0.1 V
	Span voltage		4 ±0.1 V
	Output current		1mA max. (load resistance min.5kΩ)
	LIN／HYS		±0.5%F.S.max. (at standard temp. 25°C)
Response		About 2 msec or lesss	
Indication		0 to -99 kPa (2-digit red LED display)	
Display frequency		About 4 times/sec	
Indication accuracy		±3%F.S. ±2 digit max.	
Sensor resolution		1 digit	
Operation indicator	SW1: Red LED turns on when pressure is above setting	Red LED turns on when pressure is above setting	
	SW2: Green LED turns on when pressure is above setting		

* Allowable range of the variation of “Zero point voltage”, "Span voltage" and “Pressure setting value” caused by repeated voltage application is ±3%F.S.

Pressure sensor (without pressure display) specifications

		-S (1 switch output)	-V1 (1 analog output for negative pressure)	-R1 (1 analog output for compound pressure)
Power requirements		10.8 to 30 VDC (Ripple voltage included)		
Current consumption		20 mA		
Pressure detection		Diffused metaloxide semiconductive pressure sensor		
Proof pressure		0.2 MPa		0.6 MPa
Switch output	Switch output	NPN open collector output: 30V 80mA max. Residual voltage 0.8V max.		
	No. of pressure setting	1		
	Pressure setting range	-100 to 0 kPa		
	Operating accuracy	±3%F.S. (at standard temp. 25°C)		
	Hysteresis	Fixed (2%F.S. max.)		
	Operation indicator	Red LED turns ON, when the switch output is ON.		
Analog output	Pressure detecting range		-100 to 0 kPa	-100 to 300 kPa
	Output voltage		1 to 5V	
	Zero-point voltage		1 ±0.1V	
	Span voltage		4 ±0.1V	
	Output current		1 mA max.	
	Temp. characteristics		±2% F.S. max. (at standard temp. 25°C)	
	Linearity		±0.5%F.S.max.	

* Allowable range of the variation of “Zero point voltage”, "Span voltage" and “Pressure setting value” caused by repeated voltage application is ±3%F.S.

External Vacuum Controller VZP

RoHS2 (2011/65/EU+EU2015/863) compliant

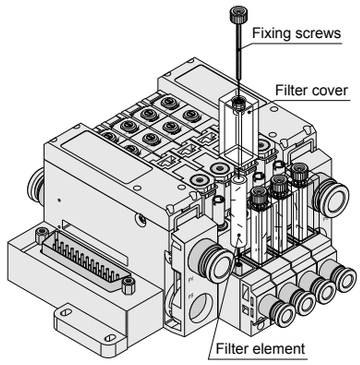
Type	Model code
Sub-D connector	VZP-[2][3][4]-D24-[5]-M[6]-D[8]

VZP

Type	Model code
Flat cable connector	VZP-[2][3][4]-D24-[5]-M[6]-F[8]

VZP

Replacement element



Filter element Model code
VZ010B66

Notes

* Please select each code referring to the example of model designation. Code of a vacuum port size for [2], code of air supply port size for [3], code of vacuum supply port size for [4], code of pressure sensor for [5], a number of stations code for [6], and a number of connector pins code for [8].

Packaging specifications

1 pc. /bag

External Vacuum Controller VIP

PISCO

>>> https://www.pisco.co.jp/en/

Flow rate sensor can be mounted, Compact External Vacuum Controller (Manifold type)

⚠ Safety instructions for this product

Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VIP (1) – 4 (2) 8 (3) 6 (4) – D24 –N (5) –AF050 (6) – M08 (7)

(1) External Vacuum Controller VIP

(2) Vacuum port size (V)

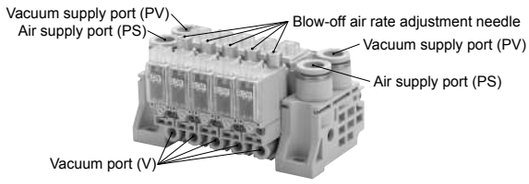
Code	180	3	4
Tube O.D. (mm)	ø1.8	ø3	ø4

(3) Vacuum supply port size (PV)

Code	4	6	8
Tube O.D. (mm)	ø4	ø6	ø8

(4) Air supply port size (PS)

Code	4	6	8
Tube O.D. (mm)	ø4	ø6	ø8

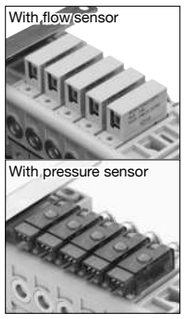


(5) Blow-off air rate adjustment needle

Code	No code	–N
Adjustment needle	Without adjustment needle	With adjustment needle

(6) Pressure sensor

Code	Specifications
No code	Without sensor
–AF005	Unidirectional flow sensor (Flow range :0 to 0.5ℓ/min [ANR])
–AF010	Unidirectional flow sensor (Flow range :0 to 1ℓ/min [ANR])
–AF050	Unidirectional flow sensor (Flow range :0 to 5ℓ/min [ANR])
–AF100	Unidirectional flow sensor (Flow range :0 to 10ℓ/min [ANR])
–AR005	Bi-directional flow sensor (Flow range :±0.5ℓ/min [ANR])
–AR010	Bi-directional flow sensor (Flow range :±1ℓ/min [ANR])
–AR050	Bi-directional flow sensor (Flow range :±5ℓ/min [ANR])
–AR100	Bi-directional flow sensor (Flow range :±10ℓ/min [ANR])
–V1	Analog output pressure sensor



(7) No. of stations

Code	M02	M03	M04	M05	M06	M07	M08	M09	M10
No. of stations	2	3	4	5	6	7	8	9	10

Characteristics

Suction of a small work-piece can be verified by built-in vacuum sensor.

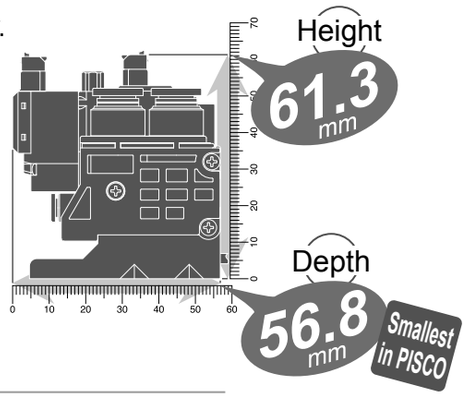
Flow sensor mounted type is added to the product lineup (The industry's first). Our conventional pressure sensor mounted type and without sensor type are also available.
Suitable for semiconductor related devices (chip-mounter, chip handler)and vacuum transfer equipment for small work-pieces.

Ultra small body (compared to other series in Pisco), and yet vacuum switchover with large flow is possible.

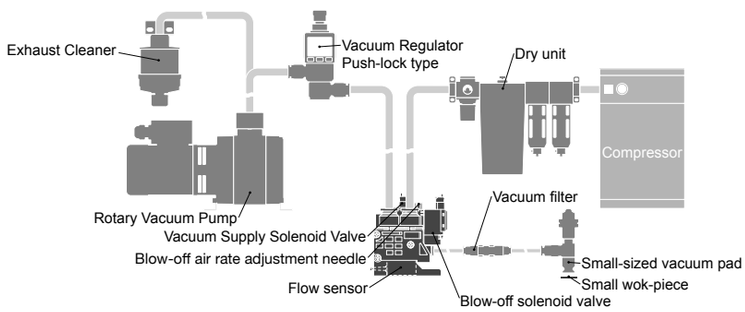
8.5l/min (ANR) or more at vacuum supply pressure : -80kPa

2 options for blow-off air rate setting method.

One is with blow-off air rate adjusting needle, and the other is with pre-set blow-off air rate (9.5 ℓ/min [ANR] or more at 0.5 MPa supply pressure).



Piping Example



External Vacuum Controller VIP

Specifications

Fluid medium		Air (JIS B 8392-1 : Compliant with [Class 1.2.1 to 2.4.3]), Vacuum Air
Operating pressure range		0.3 to 0.7 MPa
Operating vacuum range		-90 to 0 kPa
Operating temp. range		5 to 50°C (No freezing)
Operating humidity range		35 to 85%RH (No dew condensation)
Vibration resist./Shock resist.		50m/s² max. ／ Max.150m/s² max.
Protective structure		IEC standard IP40 equiv.
Lubrication		Not required
Proof pressure	Air supply circuit	1.05 MPa
	Vacuum circuit	0.2 MPa

* Proof pressure shows the level of pressure at which the product would not be damaged. It does not mean the pressure where the product works normally.

Solenoid valve specifications

Rated voltage	24 VDC ±10%
Power consumption	1.2 W (with LED)
Surge protection	Varistor
Operation indicator	Current application : Red LED ON
Manual override	Push-turn locking

Suction main valve specifications

Operation type		Indirect operation by pilot valve
Valve type		Normally closed
Vacuum supply air rate(*1,2,3)		10 ℓ/min [ANR] (at vacuum supply pressure: -80kPa)
Response time (*4)	OFF→ON	6.5 msec
	ON→OFF	8 msec

*1. The value above is when vacuum port size is ø4mm. The air flow rate decreases by 15% with ø3mm, and by 50% with ø1.8mm.
*2. The air flow rate decreases by 30% in the case of the flow sensor code "-A □ 005" and "-A □ 010" with vacuum port size of ø4 mm or ø3 mm.
*3. The vacuum supply air rate varies according to the vacuum port dia. and tube length (piping resistance and others) on vacuum side.
*4. The response time at supply air: 0.5MPa with rated voltage (100%).

Blow-off valve specifications

Operation type		Direct operating poppet
Valve type		Normally closed
Response time	OFF→ON	3.5 msec
	ON→OFF	2.5 msec

*1. The value above is when vacuum port size is ø4mm. The air flow rate decreases by 15% with ø3mm, and by 50% with ø1.8mm.
*2. The air flow rate decreases by 30% in the case of the flow sensor code "-A □ 005" and "-A □ 010" with vacuum port size of ø4 mm or ø3 mm.
*3. The response time at supply air: 0.5MPa with rated voltage (100%).

Blow-off function

Blow-off air rate	Without blow-off air rate adjustment needle: 9.5 ℓ/min [ANR] or more (at supply pressure0.5 MPa)
	With blow-off air rate adjustment needle: Approx. 0 to 9.5 ℓ/min [ANR] (at supply pressure0.5 sMPa)

* Blow-off air rate varies according to the vacuum port dia. and tube length (piping resistance and others) on vacuum side.

Pressure sensor (without pressure display) specifications

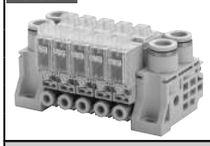
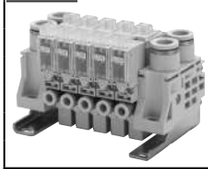
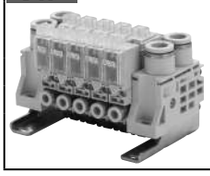
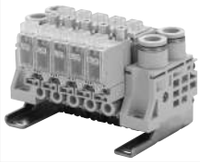
		-V1 (1 analog output)
Power requirements		10.8 to 30 VDC Ripple voltage included
Current consumption		20 mA
Pressure detection		Diffused metaloxide semiconductive pressure sensor
Proof pressure		1 MPa
Analog output	Pressure detecting range	-100 to 0 kPa
	Output voltage	1 to 5V
	Zero-point voltage	1 ±0.04V
	Span voltage	4 ±0.04V
	Output current	1 mA max.
	Temperature characteristics	±2%F.S. max. (at standard temp. 25°C)
	Linearity	±0.5%F.S. max.
	Output impedance	1 kΩ

* Allowable range of the variation of “Zero point voltage”, "Span voltage" and “Pressure setting value” caused by repeated voltage application is ±3%F.S.

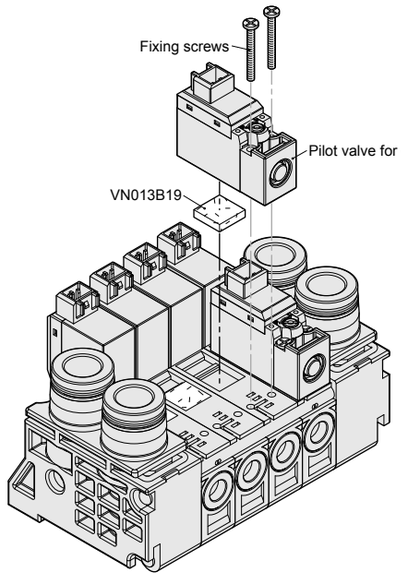
Flow sensor specifications

Power requirements	24 VDC ±10%
Current consumption	30mA max. (no-load)
Operating pressure range	-90 kPa to 0.2 MPa
Proof pressure	0.3 MPa
Analog output	1 to 5V (non-linear characteristic, connected load impedance 50kΩ or more)
Pressure characteristic	±10%F.S. max. (at standard temp. 25°C)
Temperature characteristics	±0.6%F.S./°C max. (at standard temp. 25°C)
Repeatability	±2%F.S. max.
Response time	5 msec max. (Sensor alone)
Output impedance	1 kΩ

RoHS2 (2011/65/EU+EU2015/863) compliant

Without Blow-off air rate adjustment needle		With Blow-off air rate adjustment needle	
Type	Model code	Type	Model code
Without sensor VIP	VIP-[2][3][4]-D24-[7]	Without sensor VIP	VIP-[2][3][4]-D24-N-[7]
			
Type	Model code	Type	Model code
With flow sensor VIP	VIP-[2][3][4]-D24-AF005-[7]	With flow sensor VIP	VIP-[2][3][4]-D24-N-AF005-[7]
	VIP-[2][3][4]-D24-AF010-[7]		VIP-[2][3][4]-D24-N-AF010-[7]
	VIP-[2][3][4]-D24-AF050-[7]		VIP-[2][3][4]-D24-N-AF050-[7]
	VIP-[2][3][4]-D24-AF100-[7]		VIP-[2][3][4]-D24-N-AF100-[7]
	VIP-[2][3][4]-D24-AR005-[7]		VIP-[2][3][4]-D24-N-AR005-[7]
	VIP-[2][3][4]-D24-AR010-[7]		VIP-[2][3][4]-D24-N-AR010-[7]
	VIP-[2][3][4]-D24-AR050-[7]		VIP-[2][3][4]-D24-N-AR050-[7]
	VIP-[2][3][4]-D24-AR100-[7]		VIP-[2][3][4]-D24-N-AR100-[7]
			
Type	Model code	Type	Model code
With pressure sensor VIP	VIP-[2][3][4]-D24-V1-[7]	With pressure sensor VIP	VIP-[2][3][4]-D24-N-V1-[7]
			

Replacement element



Filter element Model code
VN013B19

Notes

* Please select each code referring to the example of model designation. Vacuum port size code for [2], vacuum supply port size code for [3], air supply port size code for [4], and a number of stations code for [7]

Packaging specifications

1 pc. /bag

Vacuum Release Unit

Vacuum blow-off control valve equipped with blow-off air & pressure adjusting needles

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VLF (1) 6 (2) – 6 (3)

(1) Vacuum Release Unit

(2) VR port size (Vacuum generator side)

	Tube O.D. (mm)	
Code	4	6
Size	ø4	ø6

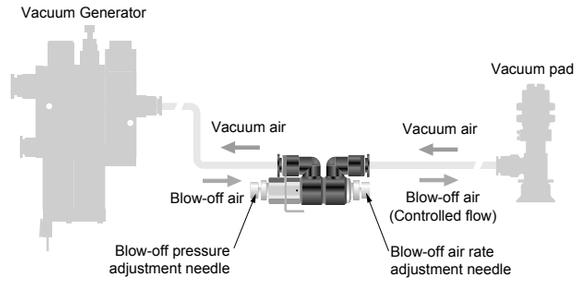
(3) W port size (Work-piece side)

	Tube O.D. (mm)		Taper pipe female thread
Code	4	6	01
Size	ø4	ø6	R1/8

* An installation bracket will be included if both (2) and (3) are push-in fitting types.

Characteristics

- This unit adjusts blow-off air, retaining vacuum generators' vacuum characteristics as they are.
- Blowing away of work-pieces can be prevented by added pressure adjusting function along with flow adjusting function.
- A relief mechanism in vacuum breaking circuit (the function to relieve extra pressure) allows for shorter vacuum breaking time.
- Tubes can be taken out freely in any direction by rotating resin body and joint parts.

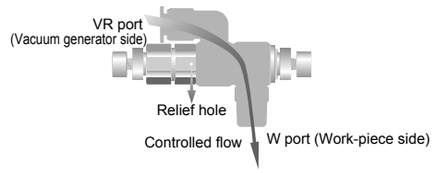


Specifications

Fluid medium	Air
Operating pressure range	0 to 0.7 MPa
Setting range of relief valve operating pressure	-0.015 to 0.015 MPa
Operating vacuum range	-101 to 0 kPa
Operating temp. range	0 to 60°C (No freezing)

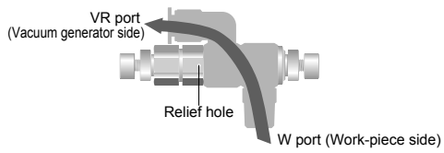
Control directions

■ Blow-off air



Blow-off air is controlled at the port on the vacuum generator side and is ejected via the port on the work-pieces side and through a relief hole.

■ Vacuum air



Vacuum air is not controlled at the port on the work pieces side and is ejected via the port on the vacuum generator side.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code VLF VR-W	Type	Model code VLF VR-W
VR port : Push-in fitting W port : Push-in fitting	VLF4-4	VR port : Push-in fitting W port : Taper pipe Thread	VLF4-01
	VLF6-6		VLF6-01
VLF		VLF	

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Vacuum Filter

PISCO

>>> https://www.pisco.co.jp/en/

Vacuum Filter for Various Vacuum Piping

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example) of VFU (union type)

VF	U	1	-	66	-	15	P		
(1)	(2)	(3)		(4)		(5)	(6)	(7)	(8)

(1) Vacuum Filter

(2) Type
U: Union type

(3) Filter size

Code	0	1		2	3
Filter area (cm^2)	1.4	2.8 (*1)	4.7 (*2)	7.5	12.5

*1. Filter area for element length: 15mm type
*2. Filter area for element length: 25mm type

(4) Connection type and size

	Tube O. D. (mm)						Tube O. D. (inch)				Female thread size	
Code	180180	33	44	66	88	1010	5/32-5/32	3/16-3-16	1/4-1/4	3/8-3/8	M3M3	55
Size	ø1.8	ø3	ø4	ø6	ø8	ø10	ø5/32	ø3/16	ø1/4	ø3/8	M3×0.5	M5×0.8

(5) Element length (Code entry for VFU 1only)

Code	15	25
Element length (mm)	15	25

(6) Body material (Code entry for VFU1, 2, 3)
P: Resin body type

(7) Holder

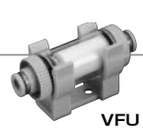
Code	No code	-NH
Holder	With holder	Without holder

(8)-S3 spec. (Metal option)

Code	No code	-S3 (*)
Metal material	Standard spec.	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard spec.	HNBR or FKM
Release-ring color	Light gray	Dark blue

*1. VFU0 type and connection size dia. 3mm are not available for -S3 spec.
*2. -S3 spec. is not available for inch size.

Characteristics of VFU type (union type)


VFU

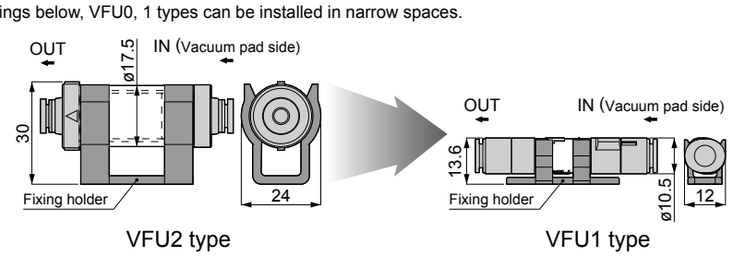
● VFU2, 3 type

Easy installing in-line type. Pipe resistance is small and stable.

● VFU0, 1 type

Smallest footprint. Best suitable for applications where a high-cycle vacuum system is required.

As shown in the drawings below, VFU0, 1 types can be installed in narrow spaces.



VFU2 type　　VFU1 type

2 options (for VFU1 type only) of element size (Filter area)

Selectable from 2 types, depending on dust size or replacement timing of the element.

For IN and OUT side connection, Push-in fitting and female thread are selectable.

Piping with various items, especially with a Minimal fitting, can save installation space.

Example of connection with a Minimal fitting.►

● -S3 spec. (Metal option)

No copper-based metallic materials used in flow paths.

Seal rubber material is HNBR or FKM, both of which have good ozone resistance.

Vacuum Filter

Model designation (Example) of VFB (large capacity: union type) and VFR (large capacity : bowl capacity 60 ㎡ type)

VF (1) B (2) 20 (3) – 6 (4) – 6 (5) (6)

(1) Vacuum Filter

(2) Type

Code	B	R
Type	Large capacity union type	Large capacity (bowl capacity 60 ㎡) type

(3) Filter size
20: 20cm²

(4) IN side tube dia.

Code	6	8	10	12	16
Size	ø6	ø8	ø10	ø12	ø16

(5) OUT side tube dia.

Code	6	8	10	12	16	3/16	1/4	5/16	3/8	1/2	No code
Tube O.D.	ø6mm	ø8mm	ø10mm	ø12mm	ø16mm	ø3/16"	ø1/4"	ø5/16"	ø3/8"	ø1/2"	Open to air (VFR only) type

(6) Body color

Code	No code	-W
Body color	Black	Light gray

Characteristics of VFB (large capacity: union type) and VFR (large capacity : bowl capacity 60m² type)

• VFB (Union) type

VFB

- Easy detachment of dust case prevents scattering of dust.
- To be used in the vacuum circuit, between vacuum generator and vacuum pad, or between vacuum pump and matched device.

• VFR (bowl capacity 60m²) type

- Removing dust and water droplets sucked in by vacuum generator or vacuum pump by cyclone effect and element.
- Large dust case reduces maintenance frequency.
- Filter for vacuum generator exhaust port is also available.

VFR

Model Designation (Example) of VFL (large capacity: bowl capacity 90m² type)

VF (1) L (2) 360 (3) – 16 (4) – 10M (5) (6)

(1) Vacuum Filter

(2) Type
L: Large capacity (bowl capacity 90m²) type

(3) Processing flow rate
360: 360ℓ / min〔ANR〕

(4) Connection type and size

	Push-in fitting			Taper pipe female thread			Parallel pipe female thread		
Code	10	12	16	03	04	06	G3	G4	G6
Size	ø10	ø12	ø16	R3/8	R1/2	R3/4	G3/8	G1/2	G3/4

(5) Filtering accuracy

Code	1M	5M	10M	200M
Filtering accuracy (㎛)	1	5	10	200

(6) Bracket

Code	No code	-NB
Bracket	With bracket	Without bracket

Characteristics of VFL (large capacity: bowl capacity 90m²) type

- Flow rate: 360ℓ/min [ANR]. Large capacity ensures large flow rate.
- Four types of filtration accuracy can be selected according to applications.
  Filtration accuracy: 1μm, 5μm, 10μm, 200μm
- Various types of connections.
  Taper pipe female thread, Parallel pipe female thread and Push-in fitting are available.

VFL

Model Designation (Example) of VFJ (Plug-in type)

VF (1) **J** (2) **44** (3)

(1) Vacuum Filter

(2) Type
J: Plug-in type

(3) Joint size

Code	33M	44	66	1/8-1/8M	1/4-1/4
Size	ø3mm	ø4mm	ø6mm	ø1/8"	ø1/4"

Characteristics of VFJ (Plug-in type)

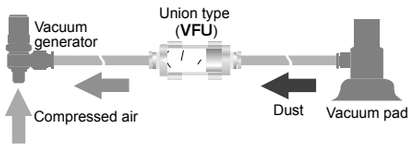
- Suitable for vacuum generator stand-alone type without built-in filter.
- Plug-in type with filter. PP material achieves a low price.
- Built-in filter inside.

VFJ

Piping example

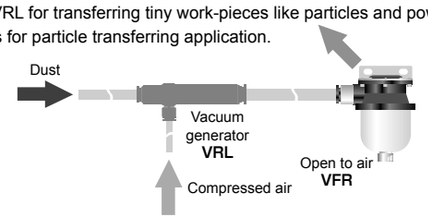
Union type (**VFU**), Large capacity union type (**VFB**)

Place a vacuum filter between vacuum generator and vacuum pad, or between vacuum pump and matched device to filter out dust and prevent damage to vacuum generator or vacuum pump.



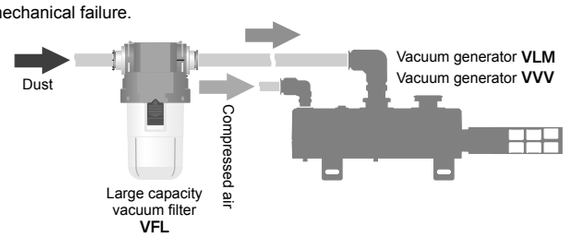
Large capacity type (bowl capacity 60m²) Open to air exhaust (**VFR**)

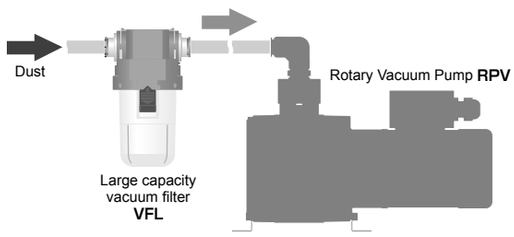
Open to air exhaust "VFR" is to be installed on the exhaust side of Vacuum Generator VRL for transferring tiny work-pieces like particles and powder.
* Contact us for particle transferring application.



Large capacity type (bowl capacity 90m²) (**VFL**)

Large capacity vacuum filter, by being installed close to the large flow vacuum generator or the vacuum pump, would remove dust particles and prevent their mechanical failure.





Specifications

■ VFU type

Type	VFU0	VFU1	VFU2	VFU3
Fluid medium	Air			
Operating pressure range	-100 to 0 kPa			
Filtering accuracy (*1)	5 μm (Trapping efficiency : 95%)			
Operating temp. range	0 to 60 ºC (No freezing)			
Filter area	1.4cm²	2.8cm² (*2) 4.7cm² (*3)	7.5cm²	12.5cm²

*1. Based on PISCO measuring condition.
*2. Filter area for element length: 15mm type
*3. Filter area for element length: 25mm type

■ VFR, VFB type

Type	VFR	VFB
Fluid medium	Air	
Operating pressure range	-100 to 0 kPa	
Filtering accuracy (*)	10 μm	
Operating temp. range	0 to 60 ºC (No freezing)	
Filter area	20 cm²	

* Based on PISCO measuring condition.

■ VFL type

Fluid medium	Air
Operating pressure range	-101 to 0 kPa
Filtering accuracy (*1)	1, 5, 10, 200 μm (Trapping efficiency : 95%)
Operating temp. range	0 to 60 ºC (No freezing)
Filter area	64.4 cm²
Processing flow rate (*2)	360 ℓ/min〔ANR〕
Bowl capacity	90 cm³
Blow-off pressure (*3)	0.1 MPa max

*1. Based on PISCO measuring condition.
*2. Processing flow rate with the condition under which the filtration accuracy is 5 μm and the pressure loss is 3 kPa of a representative filter.
*3. Allowable internal pressure when a momentary positive pressure is applied for blow-off purpose.

■ VFJ type

Fluid medium	Air
Operating pressure range	-100 to 0 kPa
Filtering accuracy (*1)	5 μm (Trapping efficiency : 95%)
Operating temp. range	0 to 60°C (No freezing)
Filter area	Joint size 33M, 44, 1/8-1/8M: 0.8cm² Joint size 66 1/4-1/4 : 1.1cm²

*1. Based on PISCO measuring condition.
*2. Proof pressure is 0.2MPa (29psi) max. when blow-off pressure is applied.

Vacuum Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Union type

Type	Model code VFU3-M-5P78
Union type Female thread	VFU0-M3M37
VFU 0, 1 Type	VFU1-55-15P78
	VFU1-55-25P78

* The picture shows the product with Holder.

Type	Model code VFU3-øD-5P78	Model code VFU3-øDP7
Union type VFU 0, 1 Type	VFU0-180180[7]	VFU2-5/32-5/32P[7]
	VFU0-33[7]	VFU2-3/16-3/16P[7]
	VFU1-33-15P[7]	VFU2-1/4-1/4P[7]
	VFU1-33-25P[7]	VFU3-3/16-3/16P[7]
	VFU1-44-15P78	VFU3-1/4-1/4P[7]
	VFU1-44-25P78	VFU3-5/16-5/16P[7]
	VFU1-66-15P78	VFU3-3/8-3/8P[7]
	VFU1-66-25P78	
	VFU2-44P78	
	VFU2-66P78	
	VFU3-66P78	
	VFU3-88P78	
	VFU3-1010P78	

* The picture shows the product with Holder.

Large capacity type (bowl capacity 60m²)

Type	Model code VFR20-øD-øD6	Model code VFR20-øD-øD
Union type VFR	VFR20-6-66	VFR20-3/16-3/16
	VFR20-8-86	VFR20-1/4-1/4
	VFR20-10-106	VFR20-5/16-5/16
	VFR20-12-126	VFR20-3/8-3/8
	VFR20-16-166	VFR20-1/2-1/2

* The picture shows the product with a black body.

Type	Model code VFR20-øD6	Model code VFR20-øD
Open to air type VFR	VFR20-66	VFR20-3/16
	VFR20-86	VFR20-1/4
	VFR20-106	VFR20-5/16
	VFR20-126	VFR20-3/8
	VFR20-166	VFR20-1/2

* The picture shows the product with a black body.

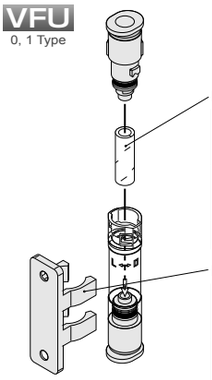
Large capacity union type

Type	Model code VFB20-øD-øD6	Model code VFB20-øD-øD
Union type VFB	VFB20-6-66	VFB20-3/16-3/16
	VFB20-8-86	VFB20-1/4-1/4
	VFB20-10-106	VFB20-5/16-5/16
	VFB20-12-126	VFB20-3/8-3/8
	VFB20-16-166	VFB20-1/2-1/2

* The picture shows the product with a black body.

Replacement element

VFU 0, 1 Type



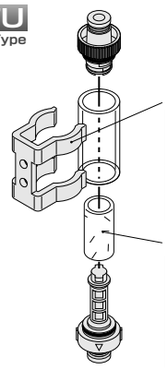
Filter element

Vacuum filter model code	Filter element Model code
VFU0-□	VFE010B08
VFU1-□-15P	VFE015B01
VFU1-□-25P	VFE025B01

Fixing holder

Vacuum filter model code	Fixing holder Model code
VFU0-□	VFUH002P09
VFU1-□-□P	VFUH010P01

VFU 2, 3 Type



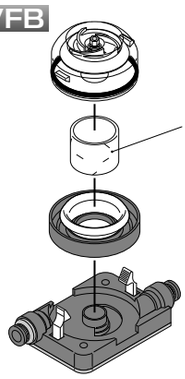
Fixing holder

Vacuum filter model code	Fixing holder Model code
VFU2-□□P	VFUH2
VFU3-□□P	VFUH3

Filter element

Vacuum filter model code	Filter element Model code
VFU2-□□P	VFE2
VFU3-□□P	VFE3

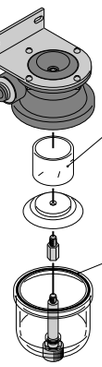
VFB



Filter element

Filter element Model code
VFE20

VFR



Filter element

Filter element Model code
VFE20

O-ring

O-ring Model code
S55

CAD 2D 3D CAD data is available at PISCO website.

Package Packaging specifications
1 pc. /bag
10 pcs /bag : Filter element

Option Option
VFUtype
7: -HN ⇒ Without holder
8: -S3 ⇒ -S3 spec.
VFB VFR type
6: -W ⇒ Light gray

RoHS2 (2011/65/EU+EU2015/863) compliant

Large capacity type (bowl capacity 90m²)

Type	Model code VFL360-øD-5 6	Type	Model code VFL360-R-5 6	Model code VFL360-R-5 6
Push-in fitting type	VFL360-10-1M6	Female thread type	Taper pipe female thread	Parallel pipe female thread
VFL	VFL360-10-5M6	VFL	VFL360-03-1M6	VFL360-G3-1M6
	VFL360-10-10M6		VFL360-03-5M6	VFL360-G3-5M6
	VFL360-10-200M6		VFL360-03-10M6	VFL360-G3-10M6
	VFL360-12-1M6		VFL360-03-200M6	VFL360-G3-200M6
	VFL360-12-5M6		VFL360-04-1M6	VFL360-G4-1M6
	VFL360-12-10M6		VFL360-04-5M6	VFL360-G4-5M6
	VFL360-12-200M6		VFL360-04-10M6	VFL360-G4-10M6
	VFL360-16-1M6		VFL360-04-200M6	VFL360-G4-200M6
	VFL360-16-5M6		VFL360-06-1M6	VFL360-G6-1M6
	VFL360-16-10M6		VFL360-06-5M6	VFL360-G6-5M6
	VFL360-16-200M6		VFL360-06-10M6	VFL360-G6-10M6
			VFL360-06-200M6	VFL360-G6-200M6

* The picture shows the product with Bracket.

* The picture shows the product with Bracket.

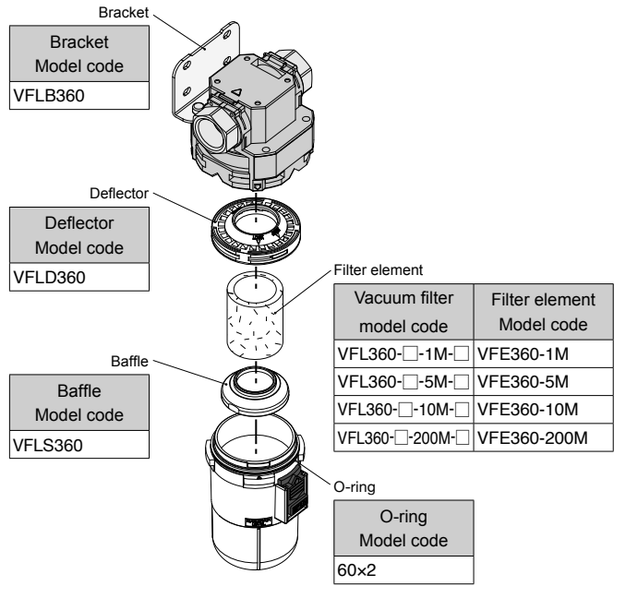
Plug-in Type

Type	Model code VFJøDøD
Plug-in Type	VFJ33M
VFJ	VFJ44
	VFJ66
	VFJ1/8-1/8M
	VFJ1/4-1/4

Option
6: -NB ⇒ No bracket

Replacement element

VFL



Bracket Model code
VFLB360

Deflector Model code
VFLD360

Vacuum filter model code	Filter element Model code
VFL360-□-1M-□	VFE360-1M
VFL360-□-5M-□	VFE360-5M
VFL360-□-10M-□	VFE360-10M
VFL360-□-200M-□	VFE360-200M

Baffle Model code
VFLS360

O-ring Model code
60×2

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Vacuum Regulator Push-lock type

Push-lock type vacuum pressure control valve

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

RVZ	6	U	M	
(1)	(2)	(3)	(4)	(5)

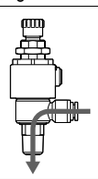
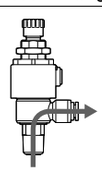
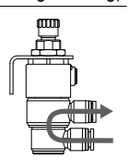
(1) Vacuum Regulator Push-lock type

(2) Tube dia.

Code	6	8
Tube O.D. (mm)	ø6	ø8

*Male thread size for elbow type is R1/4 only regardless of tube size.

(3) Type (Flow direction)

Code	A	B	U
	Elbow A type (Fitting → thread)	Elbow B type (Thread → fitting)	Union type (Fitting → fitting)
Flow direction			

(4) Pressure indication

Code	Indication		
No code	No pressure indication (with plug)		
M	No pressure indication (with M5x0.8 female thread)		
G	ø30mm negative pressure gauge		
D	Digital pressure gauge (□ 30mm negative pressure gauge)		
V4	Digital pressure sensor with LCD Dual-display (Connector type 2m cable)	2 switch outputs + 1 analog output	NPN output
V4P			PNP output
V5		2 switch outputs + copy function	NPN output
V5P			PNP output

ø30mm negative pressure gauge

Digital pressure gauge

Digital pressure sensor with LCD Dual-display

* Gauge and sensor types are excluded for -S3 (No copper-based metallic materials used in flow paths, Rubber material: HNBR) specifications.

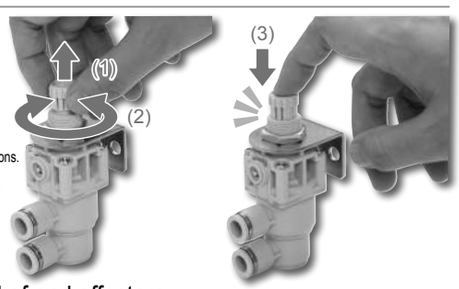
(5) Bracket (Code entry for Elbow type only)

Code	No code	B
Bracket	Without bracket	With bracket

* Union type is equipped with bracket as standard.

Characteristics

Push-lock knob for easy pressure adjustment.



Achieved max. 50% weight saving compared to the prevsious model.

Aluminum is used for the metal part.

Standard product equivalent to -S3 specifications.* Gauges and sensors are excluded for -S3 specifications.

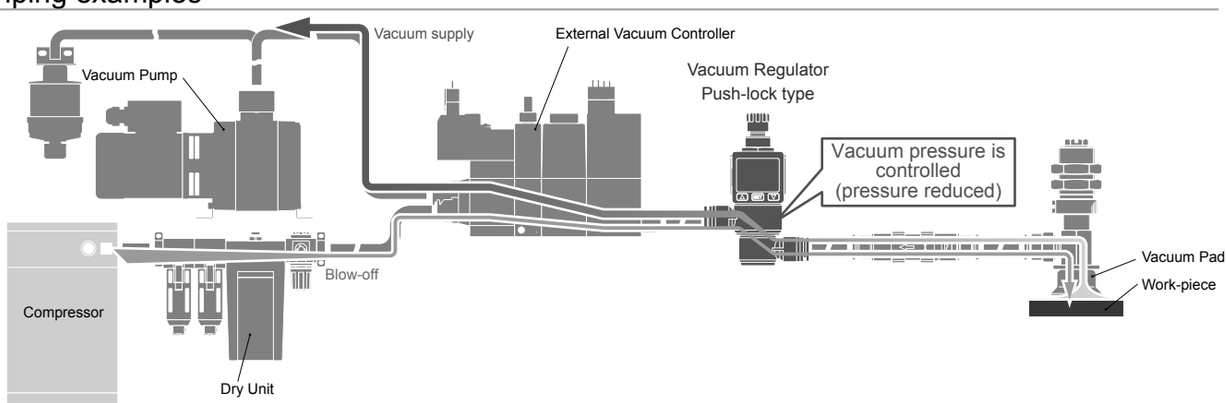
No copper-based metallic materials used in flow paths. The rubber material is HNBR, which has good ozone resistance.

Easy and flexible piping as each port rotates independently.

Suitable for pressure control of vacuum source, and vacuum pressure control of end effectors.

Elbow A type can be directly mounted on a vacuum port of vacuum source. Elbow B type can be directly mounted on pad holders with pad dia. 150 mm and 200 mm.

Piping examples



Regulator specifications

Pressure indication code	M,No code	V4 (P), V5 (P)	D	G
Fluid medium	Air			
Operating pressure range	-100 to 100 kPa		-100 to 0 kPa	
Pressure setting range	-100 to -1.3 kPa(*)			
Max. suction flow rate	30 ℓ/min[ANR]			
Operating temp. range	0 to 50 ºC (No freezing)			0 to 40 ºC (No freezing)

* Please note that it changes depending on the pressure of the vacuum source.

ø30 mm negative pressure gauge specifications

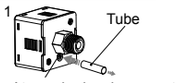
Fluid medium	Air
Indicated pressure range	-100 to 0 kPa
Pressure indication accuracy	±5% F.S (at 25ºC)

Digital pressure gauge specifications

Rated pressure range	-101 to 0 kPa
Indicated pressure range	-101 to 10 kPa (*1)
Proof pressure	300 kPa
Fluid medium	Air, non-corrosive gas, incombustible gas
Battery life	Approx. 3 years (when display turns on 5 times/day)
Low-power indicator	Incorporated
Battery replaceability	Possible
Turn-on interval	Display turns off after 60sec.
Sampling rate	2Hz (2 times/sec.)
Repeatability	≦ ±1% F.S. ±1 digit
LCD display	7 segment, 3.5 digit
Indication accuracy	±2% F.S. ±1 digit max. (ambient temperature: 25 ±3ºC)
Protective structure	IEC standard IP65 equivalent (*2)
Ambient temp. range	Operation : 0 to 50ºC, Storage: -10 to 60ºC (No dew condensation or freezing)
Ambient humidity range	Operation/Storage: 35 to 85%RH (No dew condensation)
Vibration resistance	Total amplitude 1.5mm or 100m/s², 10Hz-55Hz-10Hz scan for 1 min., two hours each direction of X, Y and Z.
Shock resistance	100m/s², 3 times each direction of X, Y and Z
Temperature characteristics	±2%F.S. of detected pressure (at 25°C)

*1. Indicator accuracy is not guaranteed for the pressure range 0 to 10kPa.
*2. A tube must be inserted into the air release port (Fig.1) to secure IP65.

Figure 1



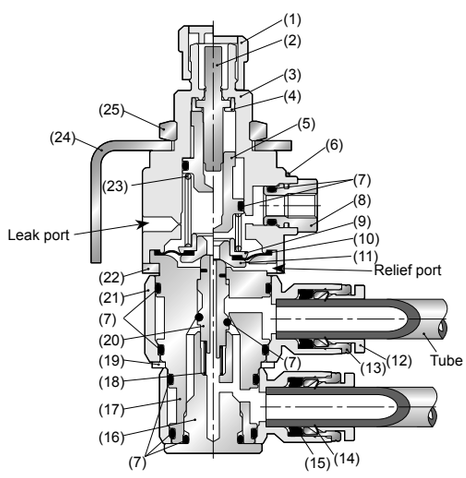
Digital pressure sensor with LCD Dual-display specifications

Model code		V4	V5	V4P	V5P
		VUS-32R-NV (Compound pressure)	VUS-32R-N2 (Compound pressure)	VUS-32R-PV (Compound pressure)	VUS-32R-P2 (Compound pressure)
Rated pressure range		-100.0 to 100.0 kPa			
Proof pressure		300 kPa			
Fluid medium		Air, non-corrosive gas, incombustible gas			
Power requirements		12 to 24 VDC Ripple ±10% max.			
Current consumption		40 mA max. (at no load)			
Switch output	Switch output	NPN open collector		PNP open collector	
	Max. load current	125mA			
	Max. supply voltage	30 VDC		24 VDC	
	Int. voltage drop	1.5V max.			
Repeatability		±0.2% F.S. ±1 digit max.			
Hysteresis	One point set mode	Adjustable (*)			
	Hysteresis mode				
	Int. voltage drop				
Response time		2.5 ms or less (Chattering-proof function : 25ms, 100ms, 250ms, 500ms, 1000ms, and 1500ms selections)			
Output short circuit protection		Incorporated			
LCD display		3 colors (Red/Green/Orange) (Sampling rate: 5 times/sec.)			
Indication accuracy		±2% F.S. ±1 digit max. (ambient temperature: at 25 ±3ºC)			
Operation indicator		Orange (1 & 2 Indicator)			
Analog output (Voltage output)		Output Voltage: 1 to 5V ±2.5% F.S. max. (within rated pressure range) Linearity: ±1% F.S.max. , Output impedance: about 1 kΩ			
Weatherability	Protective structure	IEC standard IP40 equiv.			
	Ambient temp. range	Operation : 0 to 50ºC, Storage : -10 to 60ºC (No dew condensation or freezing)			
	Ambient humidity range	Operation/Storage : 35 to 85%RH (No dew condensation)			
	Withstand voltage	100V AC 1 min. (between case and lead wire)			
	Insulation resistance	50MΩ max. (at 500V DC, between case and lead wire)			
	Vibration resistance	Total amplitude 1.5mm or 100m/s² 10Hz-55Hz-10Hz scan for 1 min., two hours each direction of X, Y and Z			
	shock resistance	100m/s², 3 times each direction of X, Y and Zs			
Temperature characteristics		±2% F.S. max. (at 25ºC. Range of 0 to 50ºC)			
Lead wire		Oil-resistant cable (0.15 mm^2)			

* Hysteresis value is adjustable within 1 to 8 digits for one point set mode and window comparator mode.

Sectional drawing

Union type



No,	Parts	Material
(1)	Pressure adjusting knob	POM
(2)	Pressure adjusting screw	SWCH (Nickel-plated)
(3)	Bonnet	PBT
(4)	Guide bush	Aluminum (Anodized)
(5)	Pressure adjusting bush	Aluminum (Anodized)
(6)	Pin	Stainless steel
(7)	O-ring	HNBR
(8)	Cartridge	Aluminum (Anodized)
(9)	Center disc A	Aluminum (Anodized)
(10)	Diaphragm	HNBR
(11)	Center disc B	Aluminum (Anodized)
(12)	Release-ring	POM
(13)	Guide ring	Special stainless steel (Austenite or ferritic)
(14)	Lock claws	Special stainless steel (Austenite or ferritic)
(15)	Elastic sleeve	HNBR
(16)	Plug	Aluminum (Anodized)
(17)	Metallic body	Aluminum (Anodized)
(18)	Valve spring	Stainless steel
(19)	Plate	Aluminum (Anodized)
(20)	Valve	Aluminum (Anodized)
(21)	Resin body	PBT
(22)	Body plate	Aluminum (Anodized)
(23)	Pressure adjusting spring	Stainless steel
(24)	Bracket	SPCC (Nickel-plated)
(25)	M16x1 Hexagon nut	SWCH (zinc plated)

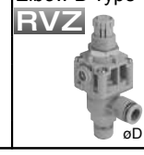
Vacuum Regulator Push-lock type

RoHS2 (2011/65/EU+EU2015/863) compliant

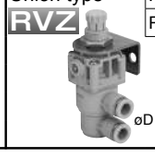
No pressure indication (with plug)

Type	Model code RVZøDA[5]
Elbow A Type	RVZ6A[5]
	RVZ8A[5]

Type	Model code RVZøDB[5]
Elbow B Type	RVZ6B[5]
	RVZ8B[5]



Type	Model code RVZøDU
Union type	RVZ6U
	RVZ8U

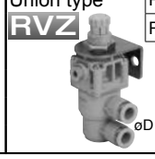


No pressure indication (with M5x0.8 female thread)

Type	Model code RVZøDAM[5]
Elbow A Type	RVZ6AM[5]
	RVZ8AM[5]

Type	Model code RVZøDBM[5]
Elbow B Type	RVZ6BM[5]
	RVZ8BM[5]

Type	Model code RVZøDUM
Union type	RVZ6UM
	RVZ8UM

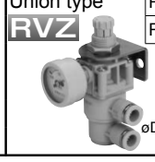


With ø30mm negative pressure gauge

Type	Model code RVZøDAG[5]
Elbow A Type	RVZ6AG[5]
	RVZ8AG[5]

Type	Model code RVZøDBG[5]
Elbow B Type	RVZ6BG[5]
	RVZ8BG[5]

Type	Model code RVZøDUG
Union type	RVZ6UG
	RVZ8UG

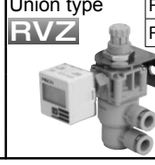


With Digital pressure gauge

Type	Model code RVZøDAD[5]
Elbow A Type	RVZ6AD[5]
	RVZ8AD[5]

Type	Model code RVZøDBD[5]
Elbow B Type	RVZ6BD[5]
	RVZ8BD[5]

Type	Model code RVZøDUD
Union type	RVZ6UD
	RVZ8UD

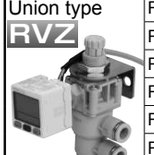


With Digital pressure sensor with LCD Dual-display

Type	Model code RVZøDA[4][5]
Elbow A Type	RVZ6AV4[5]
	RVZ6AV4P[5]
	RVZ6AV5[5]
	RVZ6AV5P[5]
	RVZ8AV4[5]
	RVZ8AV4P[5]
	RVZ8AV5[5]
	RVZ8AV5P[5]

Type	Model code RVZøDB[4][5]
Elbow B Type	RVZ6BV4[5]
	RVZ6BV4P[5]
	RVZ6BV5[5]
	RVZ6BV5P[5]
	RVZ8BV4[5]
	RVZ8BV4P[5]
	RVZ8BV5[5]
	RVZ8BV5P[5]

Type	Model code RVZøDU[4]
Union type	RVZ6UV4
	RVZ6UV4P
	RVZ6UV5
	RVZ6UV5P
	RVZ8UV4
	RVZ8UV4P
	RVZ8UV5
	RVZ8UV5P



Package Packaging specifications
1 pc. /bag

Option Option
[5]: B ⇒ with bracket

Vacuum pad (Suction cup)

Suction Cup

Index

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Vacuum Pad

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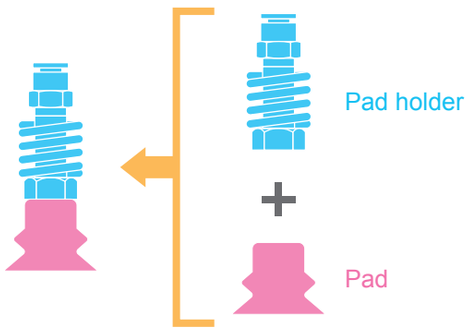
Multiple pad Holder ····· P.727

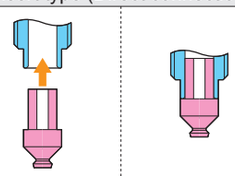
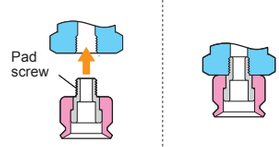
Before selecting a vacuum pad

Structure of Vacuum pad Series

1. PISCO's Vacuum pad series consists of the combination of vacuum pads and holders.

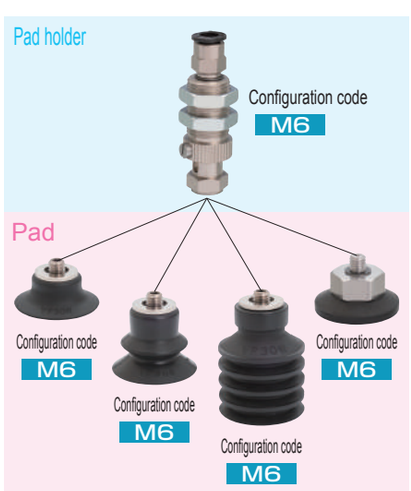


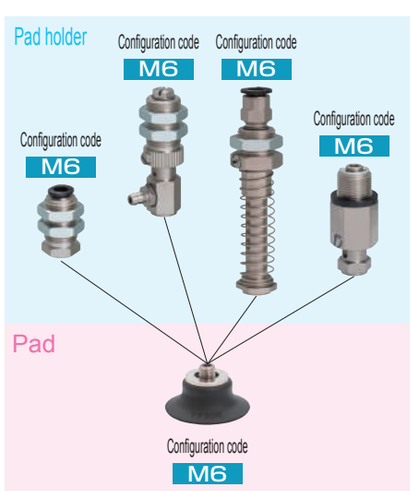
2. Vacuum pad and pad holder have a specific connection type depending on the size and shape.

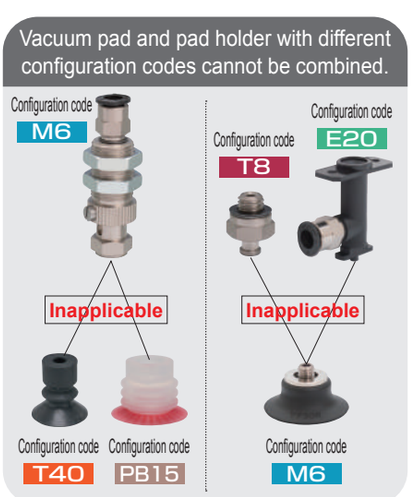
	Insert type (Direct connection)	Mount type (Direct connection)	Screw type (Connection with screw)
Pad connection type			
Connection configuration code	H3	T4 T8 T15 T40 (Exclusive to soft type & soft bellows type vacuum pads) PB8 PB15 (Exclusive to Vacuum pad for packaging bag) E10 E20 (Exclusive to Oval type vacuum pad)	M4 M6 M10 M20 G1 G2 G3 G4

*As shown in above drawings, Vacuum pad and pad holder are connected with a screw or a rim.

3. Any Vacuum pad and pad holder can be connected, as long as their connection configuration codes are same.







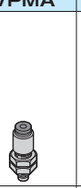
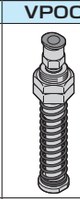
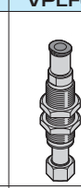
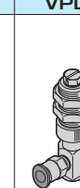
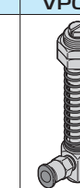
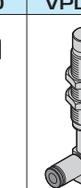
If you have purchased a pad and holder set but want to install a different pad or replace the holder with a different one...
→Please check the connection configuration code of your pad or pad holder and select the one that matches the configuration code.

4. Please refer to the below chart for the "Connection Configuration Code".

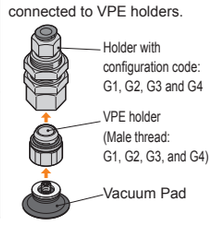
*Configuration codes are also listed on the page of model code list for each product.

Connection configuration code list (Holder)

●Common holder

		Fixed type		Spring type				
		Mini	Standard	Mini	Slim	Standard	No cover	Low dust emission
Top port	Code	VPMA	VPA	VPMC	VPSC	VPC	VPOC	VPLFC
	Type							
	Configuration code	T4 T8 M4 M6	H3 T8 M4 M6 M10 M20 G1 G2 G3 G4	T4 T8 M4 M6	H3 T8	H3 T8 M4 M6 M10 M20 G1 G2 G3 G4	T8 M4 M6	T4 T8 M4 M6
Side port	Code	VPMB	VPB	VPMD	—	VPD	VPOD	VPLFD
	Type				—			
	Configuration code	T4 T8 M4 M6	H3 T8 M4 M6 M10 M20 G1 G2 G3 G4	T4 T8 M4 M6	—	H3 T8 M4 M6 M10 M20 G1 G2 G3 G4	T8 M4 M6	T4 T8 M4 M6
Direct mount	Code	VPME	VPE	—	—	VPF		
	Type			—	—			
	Configuration code	T4 T8	H3 T4 T8 M4 M6 M10 M20 T15 T40	—	—	H3 T8 M4 M6		

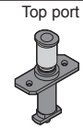
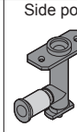
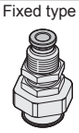
*Holders with configuration code: G1 to G4 can be connected to VPE holders.



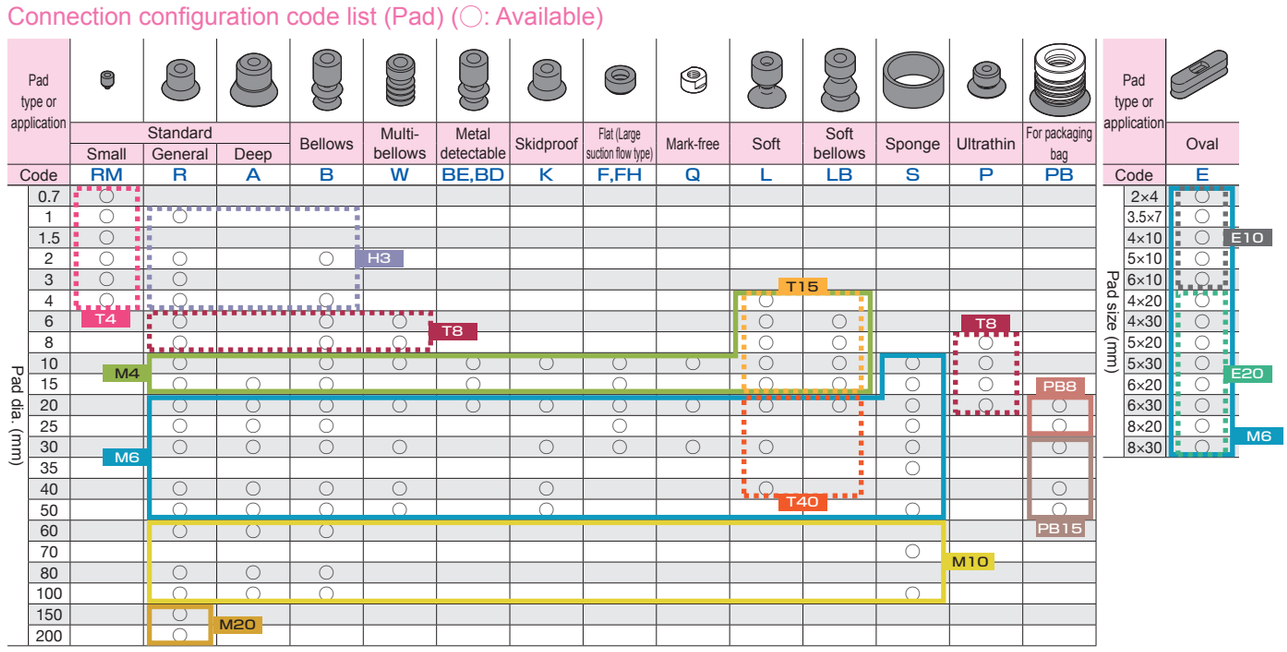
●Common holder (Lightweight/Low profile)

		Top port	Side port	Dual side port
Spring type (Lightweight)	Code	VPHC	VPHD	VPHDW
	Type			
	Configuration code	T15 T40 M4 M6	T15 T40 T8 M4 M6	T15 T40 T8 M4 M6
Fixed type, Direct mount (Low profile)	Code	—	VPHE	VPHEW
	Type	—		
	Configuration code	—	T15 T40 T8 M4 M6	T15 T40 T8 M4 M6

●Special holder *Pads of other shapes cannot be installed.

		VPA	VPB
For oval type	Code	VPA	VPB
	Type	Top port 	Side port 
	Configuration code	E10 E20	E10 E20
For packaging bag	Code	VPA	VPE
	Type	Fixed type 	Direct mount
	Configuration code	PB8 PB15	PB8 PB15

Connection configuration code list (Pad) (○: Available)



Some combinations are possible by using a conversion screw adapter.

H3, T4 and T8 can be converted to M4 or M6. M4 to M6 conversion is also available. For details, please see "Rearrangement parts" of each pad type.

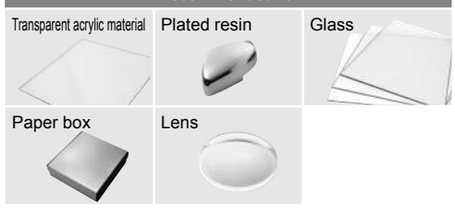
Optional function/material

1 Pad rubber surface treatment (Suction mark-free)

(1) Fiber surface type (Nylon fiber: -NF, Silk fiber: -SF)

Fiber (nylon or silk) on the pad surface prevents rubber material transfer by not directly touching the work-piece.

Recommended for



● Applicable pad material

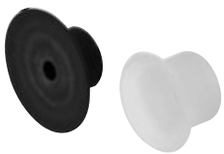
Code	S	F
Material	Silicone	Fluoro

● Applicable pad type/size

Code	R	A	L	LB	B
Type	Standard		Soft	Soft bellows	Bellows
	General	Deep			
Pad size (mm)	ø15 to ø80	ø15 to ø80	ø10 to ø40	ø10 to ø20	ø15 to ø80

(2) DLC. coating type (-DL)

Slippery special coating.
Effective for sticking prevention of lightweight or thin work-piece.



Recommended for

● Applicable pad material

Code	S	F	SE
Material	Silicone	Fluoro	Conductive silicone

● Applicable pad type/size

Code	R	A	L	LB	B	W	P	F	FH	E
Type	Standard		Soft	Soft bellows	Bellows	Multi-bellows	Ultrathin	Flat	Flat large suction flow	Oval
	General	Deep								
Pad size (mm)	ø6 to ø50	ø15 to ø50	ø4 to ø40	ø6 to ø20	ø6 to ø50	ø10, ø20	ø8 to ø20	ø10 to ø30	ø10 to ø30	2×4 to 8×30

(3) Reformed surface type (-ER)

Reduces suction marks by surface reforming of nitrile rubber with chemicals.

Recommended for

● Applicable pad material

Code	N	NE
Material	Nitrile	Conductive NBR (Low resistance)

● Applicable pad type/size

Code	R	A	RM	L	LB	B	W	P	F	FH	E
Type	Standard			Soft	Soft bellows	Bellows	Multi-bellows	Ultrathin	Flat	Flat large suction flow	Oval
	General	Deep	Small								
Pad size (mm)	ø6 to ø60	ø15 to ø60	ø0.7 to ø4	ø4 to ø40	ø6 to ø20	ø6 to ø60	ø10 to ø50	ø8 to ø20	ø10 to ø30	ø10 to ø30	2×4 to 8×30

(4) Fluoro-coating type (-FG) New

Surface reforming by special treatment prevents pads from sticking to work-pieces and bellows from sticking together. Improved pad durability and wear resistance.

Recommended for

● Applicable pad material

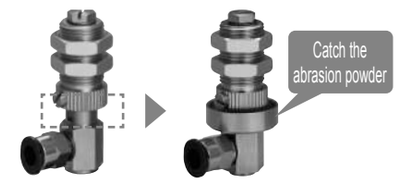
Code	S	SE	YS2	YS4
Material	Silicone	Conductive silicone	Extra soft silicone	
			Hardness20°	Hardness40°

● Applicable pad type/size

Code	R	A	RM	L	LB	B	W	PB	P	F	FH	E
Type	Standard			Soft	Soft bellows	Bellows	Multi-bellows	For packaging bag	Ultrathin	Flat	Flat, large suction flow	Oval
	General	Deep	Small									
Pad size (mm)	ø6 to ø200	ø15 to ø100	ø0.7 to ø4	ø4 to ø40	ø6 to ø20	ø6 to ø100	ø10 to ø50	ø20 to ø50	ø8 to ø20	ø10 to ø30	ø10 to ø30	2×4 to 8×30

2 Holder with Dust Catcher (Abrasion powder resistance, -DC)

Catches the abrasion powder generated by sliding of spring type holder.
With saucer which is inexpensive and simple.



Without dust catcher (Standard) | With dust catcher (Optional)

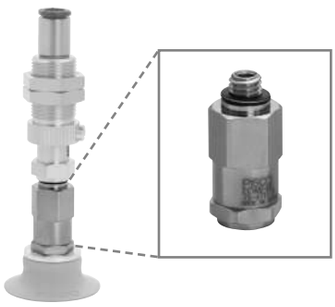
● Applicable pad holder

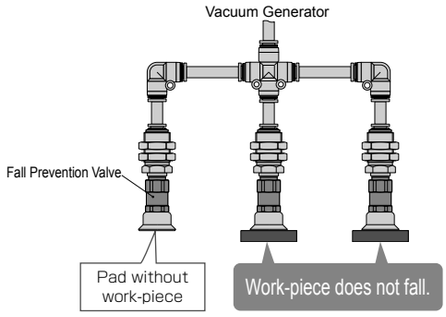
Top port	**VPSC, VPC**
Side port	**VPD**
Direct mount	**VPF**

*When "with dust catcher" is selected, the stroke is shorter than standard holder. For details, please see our web site.

3 Fall Prevention Valve (-ECV)

Even if some vacuum pads are not operated, pressure drop of other circuit is reduced.





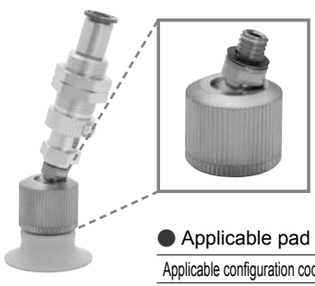
● Applicable pad and holder

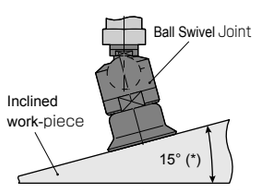
Applicable configuration code	M4	M6	M10
	M3 and M5 thread of VPME and VPE holder		

4 Pad swinging attachment (When the work-piece is in a inclined position against the contact surface)

(1) Ball Swivel Joint (-FH, -FHH)

2 articulation angles are available: 30° and 15°.





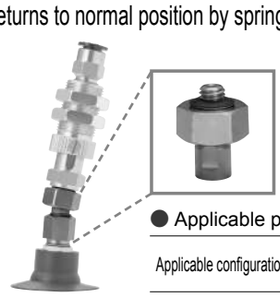
*For Articulation angle 15° type, it will be 7.5°.

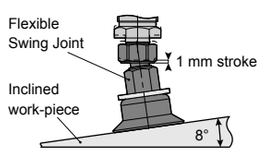
● Applicable pad and holder

Applicable configuration code	M4	M6	M10

(2) Flexible Swing Joint (-CFH)

Softens the impact when contacting the work-piece with a 1 mm stroke.
Returns to normal position by spring after releasing the work-piece.



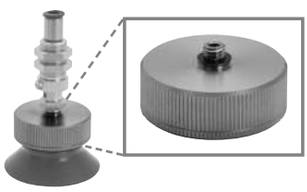


● Applicable pad and holder

Applicable configuration code	M4	M6
	M5 thread of VPME and VPE holder	

5 Filter (-F15, -F30)

Removes the suctioned dust.



● Applicable pad and holder

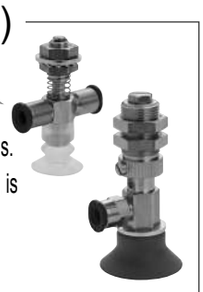
Code	-F15	-F30
Filter area	1.7cm²	7cm²
Applicable configuration code	M4 M6	M6

6 -S3 specification (-S3)

Suitable for manufacturing process of secondary battery, etc.

No copper-based metallic materials used in flow paths.
HNBR or FKM, material with good ozone resistance, is used for sealing rubber.

*For push-in fitting, the release ring color is dark blue.

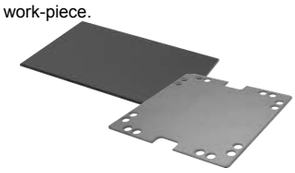


Quick reference for vacuum pad

Standard type P.406

General

Recommended for: thick and flat work-piece.



Size (mm)	18 types	ø1 to ø200
Material	9 types	Nitrile, Silicone, Urethane, Fluoro, Conductive silicone, Conductive NBR (Low resistance), Food Sanit. Act compliant NBR, HNBR, EPDM
Surface treatment	4 types	Fiber surface, DLC. coating, Reformed surface, Fluoro-coating
Food Sanitation Act compliant	Silicone, Food Sanit. Act compliant NBR	

Deep

Recommended for: round work-piece, such as fruits or balls.

Size (mm)	9 types	ø15 to ø100
Material	9 types	Nitrile, Silicone, Urethane, Fluoro, Conductive silicone, Conductive NBR (Low resistance), Food Sanit. Act compliant NBR, HNBR, EPDM
Surface treatment	4 types	Fiber surface, DLC. coating, Reformed surface, Fluoro-coating
Food Sanitation Act compliant	Silicone, Food Sanit. Act compliant NBR	

Small

Recommended for: small work-piece, such as semiconductor components.

Size (mm)	6 types	ø0.7 to ø4
Material	9 types	Nitrile, Silicone, Urethane, Fluoro, Conductive silicone, Conductive NBR (Low resistance), Food Sanit. Act compliant NBR, HNBR, EPDM
Surface treatment	2 types	Reformed surface, Fluoro-coating
Food Sanitation Act compliant	Silicone, Food Sanit. Act compliant. Act compliant NBR	

Soft type P.446

Recommended for: taking out resin molded plastic parts or fragile work-piece.

Size (mm)	8 types	ø4 to ø40
Material	5 types	Nitrile, Silicone, Fluorosilicone, Conductive silicone, Conductive NBR (Low resistance)
Surface treatment	4 types	Fiber surface, DLC. coating, Reformed surface, Fluoro-coating
Food Sanitation Act compliant	Silicone	

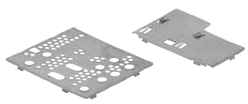
Soft Bellows type P.482

Recommended for: taking out resin molded plastic parts or fragile work-piece.

Size (mm)	5 types	ø6 to ø20
Material	7 types	Nitrile, Silicone, Urethane, Conductive silicone, Conductive NBR (Low resistance), HNBR, EPDM
Surface treatment	4 types	Fiber surface, DLC. coating, Reformed surface, Fluoro-coating
Food Sanitation Act compliant	Silicone	

Skidproof type P.508

Recommended for: oil-coated components, such as press parts.



Size (mm)	5 types	ø10 to ø50
Material	5 types	Silicone, Urethane, Fluoro, Oil proof NBR, Conductive NBR (Low resistance)
Surface treatment	-	–
Food Sanitation Act compliant	Silicone	

Bellows type P.526

Recommended for: food package.

Size (mm)	14 types	ø2 to ø100
Material	10 types	Nitrile, Silicone, Extra soft silicone (2 types of hardness), Urethane, Fluoro, Conductive silicone, Conductive NBR (Low resistance), HNBR, EPDM
Surface treatment	4 types	Fiber surface, DLC. coating, Reformed surface, Fluoro-coating
Food Sanitation Act compliant	Silicone, Extra soft silicone	FDA compliant Extra soft silicone

Multi-bellows type P.560

Recommended for: food package.

Size (mm)	7 types	ø6 to ø50
Material	10 types	Nitrile, Silicone, Extra soft silicone (2 types of hardness), Urethane, Fluoro, Conductive NBR (Low resistance), Food Sanit. Act compliant NBR, HNBR, EPDM
Surface treatment	3 types	DLC. coating, Reformed surface, Fluoro-coating
Food Sanitation Act compliant	Silicone, Extra soft silicone	FDA compliant Extra soft silicone

For Packaging bags P.586

Recommended for: plastic bags with liquid or plastic pouches.

Size (mm)	5 types	ø20 to ø50
Material	2 types	Lip part: Extra soft silicone (2 types of hardness) Bellows part: Silicone
No. of convolutions	2 types	3, 5
Surface treatment	1 type	Fluoro-coating

Food Sanitation Act compliant | FDA compliant

Metal Detectable type P.590

New

Recommended for: food manufacturing process where contamination of foreign objects are not desired.

Size (mm)	3 types	ø10, ø15, ø20
Material	4 types	Metal detectable silicone: iron powder type (2 types of hardness), Metal detectable silicone: SUS powder type (2 types of hardness)
Surface treatment	–	–

Food Sanitation Act compliant | FDA compliant

Ultrathin type P.604

Recommended for: thin work-piece, such as paper or plastic bag.

Size (mm)	4 types	ø8 to ø20
Material	6 types	Nitrile, Silicone, Urethane, Fluoro, Fluorosilicone, Conductive NBR (Low resistance)
Surface treatment	3 types	DLC. coating, Reformed surface, Fluoro-coating

Food Sanitation Act compliant | Silicone

Flat type/Flat Large Suction Flow type P.622

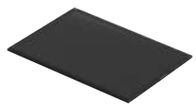
Recommended for: thin work-piece, such as sheet or plastic bag.

Size (mm)	5 types	ø10 to ø30
Material	6 types	Nitrile, Silicone, Urethane (*), Fluoro, Conductive silicone, Conductive NBR (Low resistance) *5 types except Urethane are available for large suction flow type.
Surface treatment	3 types	DLC. coating, Reformed surface, Fluoro-coating

Food Sanitation Act compliant | Silicone

Mark-free type P.642

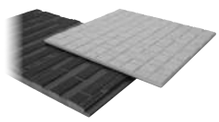
Recommended for: LCD glass / in Painting process / semiconductor manufacturing device.



Size (mm)	3 types	ø10 to ø30
Material	3 types	PEEK, POM, Conductive PEEK
Surface treatment	–	–

Sponge type P.656

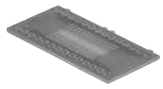
Recommended for: exterior wall panel, pebble and seashell.



Size (mm)	9 types	ø10 to ø100
Material	2 types	Chloroprene (Sponge), Silicone (Sponge)
Surface treatment	–	–

Oval type P.680

Recommended for: long work-piece, such as circuit board and semiconductor product.



Size (mm)	13 types	2×4 to 8×30
Material	8 types	Nitrile, Silicone, Urethane, Fluoro, Conductive silicone, Conductive NBR (Low resistance), HNBR, EPDM
Surface treatment	3 types	DLC. coating, Reformed surface, Fluoro-coating

Food Sanitation Act compliant | Silicone

With Mechanical Release Function type P.729

Recommended for: small and lightweight work-piece.

Size (mm)	6 types	ø2.5 to ø10
Material	4 types	Nitrile, Silicone, Fluoro, Conductive silicone
Surface treatment	–	–

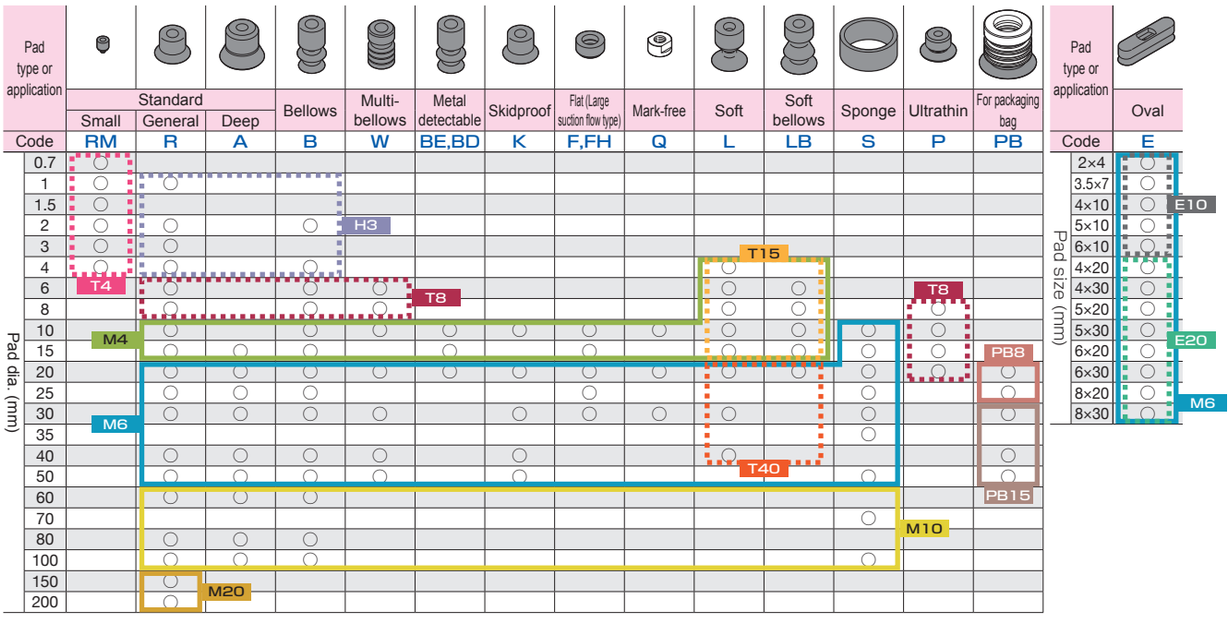
Vacuum pad / Pad & screw set

Model Designation (Example)

VP	20	R	S	-NF	-	M6		-S3
(1)	(2)	(3)	(4)	(5)		(6)	(7)	(8)
				Optional			Optional	Optional

(1) Vacuum Pad

(2) Pad size (3) Pad type (6) Connection configuration code *Required for Pad & screw set only. (○: Available)



(4) Pad material (○: Available)

Code			N	S	U	F	SE	NE	G	HN	EP	FS	NH	YS2	YS4	MSF3	MSF5	MSS3	MSS5
Rubber material			Nitrile	Silicone	Urethane	Fluoro	Conductive silicone	Conductive NBR (Low resistance)	Food Sanit. Act compliant NBR	HNBR	EPDM	Fluoro-silicone	Oil proof NBR	Extra soft silicone Hardness 20°	Extra soft silicone Hardness 40°	Metal detectable silicone Iron powder type Hardness 30°	Metal detectable silicone Iron powder type Hardness 50°	Metal detectable silicone SUS powder type Hardness 30°	Metal detectable silicone SUS powder type Hardness 50°
Pad color			Black	Clear white	Dark-blue	Gray	Black	Black	Light-gray	Black	Black	Dark-orange	Black	Pink	Blue	Reddish-brown	Dark-green	Brown	Green
Material code marking*1			None	None	None	None	SE	NE	None	HN	EP	None	None	None	None	SF	SF	SS	SS
Pad type	Standard	General R	○	○	○	○	○	○	○	○	○	—	—	—	—	—	—	—	—
		Deep A	○	○	○	○	○	○	○	○	○	—	—	—	—	—	—	—	—
		Small RM	○	○	○	○	○	○	○	○	○	—	—	—	—	—	—	—	—
	Soft	L	○	○	—	—	○	○	—	—	—	○	—	—	—	—	—	—	—
	Soft bellows	LB	○	○	○	—	○	○	—	○	○	—	—	—	—	—	—	—	—
	Skidproof	K	—	○	○	○	—	○	—	—	—	—	○	—	—	—	—	—	—
	Bellows	B	○	○	○	○	○	○	—	○	○	—	—	○	○	—	—	—	—
	Multi-bellows	W	○	○	○	○	—	○	○	○	○	—	—	○	○	—	—	—	—
	For packaging bag	PB	—	○*3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Metal Detectable (Bellows with bumps) Ribs	BE	—	—	—	—	—	—	—	—	—	—	—	—	—	○	○	○	○
	Metal Detectable (Bellows with bumps) No ribs	BD																	
	Ultrathin	P	○	○	○	○	—	○	—	—	—	○	—	—	—	—	—	—	—
	Flat	F	○	○	○	○	○	○	—	—	—	—	—	—	—	—	—	—	—
	Flat large suction flow	FH	○	○	—	○	○	○	—	—	—	—	—	—	—	—	—	—	—
	Oval	E	○	○	○	○	○	○	—	○	○	—	—	—	—	—	—	—	—

● Mark-free type (Pad type code: Q)

Code	K	M	KE
Resin material	PEEK	POM	Conductive PEEK
Pad color	Beige	White	Black

● Sponge type (Pad type code: S)

Code	S	C
Rubber material	Silicone	Chloroprene
Pad color	Dark-orange	Black

*1. For vacuum pads in black color (SE: Conductive silicone, NE: Conductive NBR (low resistance), HN: HNBR and EP: EPDM) and Vacuum pad Metal Detective type, the pad material code is marked on the top or the side of the vacuum pad for material identification. (The marking on black vacuum pads has started since Oct. 2023 gradually.)

Marking on the side

Connection config. Code: T4 and H3 (except ø2 mm of Bellows type)

Marking on the top

All pads other than Connection config. code: T4 and H3

*2. Some materials are not available depending on pad size. Please see the catalog for details.

*3. Pad color of pads for Packaging bag.
Lip hardness 20° (Pink)

Lip hardness 40° (Blue)

*4. The Conductive Silicone rubber (SE) is a silicon rubber capable of releasing static electricity. (Volume resistance: More than 200 Ω・cm and 10^5 Ω・cm or less)

*5. Nitrile rubber (N), Conductive NBR (Low resistance, Volume resistance: 200Ω・cm or less) (NE), Food Sanitation Act-compliant NBR (G), Oil proof NBR (NH) are not suitable for use with ozone environment.

*6. Extra soft silicone (YS2/YS4), Metal detectable silicone and Silicone for Packaging bag are compliant with Food Sanitation Act and FDA.

*7. Volume resistance of Conductive PEEK (KE) is 10^5 to 10^6 Ω・cm.

(5) Surface treatment Optional (○: Available)

Code				No code	-NF	-SF	-DL	-ER	-FG
Surface treatment				None	Fiber surface		DLC. coating	Reformed surface	Fluoro-coating
					Nylon fiber	Silk fiber			
				—					
Applicable pad material				—	Silicone (S) Fluoro (F)	Silicone (S) Fluoro (F)	Silicone (S) Fluoro (F) Conductive silicone (SE)	Nitrile (N) Conductive NBR (NE)	Silicone (S) Conductive silicone (SE) Extra soft silicone (YS2,YS4)
Pad type	Standard	General	R	—	○	○	○	○	○
		Deep	A	—	○	○	○	○	○
		Small	RM	—	—	—	—	○	○
	Soft		L	—	○	○	○	○	○
	Soft bellows		LB	—	○	○	○	○	○
	Skidproof		K	—	—	—	—	—	—
	Bellows		B	—	○	○	○	○	○
	Multi-bellows		W	—	—	—	○	○	○
	For packaging bag		PB	—	—	—	—	—	○
	Metal Detectable		BE,BD	—	—	—	—	—	—
	Ultrathin		P	—	—	—	○	○	○
	Flat		F	—	—	—	○	○	○
	Flat large suction flow		FH	—	—	—	○	○	○
	Mark-free		Q	—	—	—	—	—	—
	Sponge		S	—	—	—	—	—	—
	Oval		E	—	—	—	○	○	○

*Some surface treatments are not available depending on pad size.
Please refer to page 370 for the details of each pad surface type and treatment for Suction Mark-free.

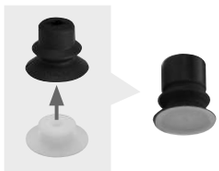
(6) Connection configuration code (Required for Pad & screw set only.) Please refer to the Pad size and type list on the 374 page.

Code	No code	-M4	-M6	-M10	-M20	-M5(*)
Connection config. code	—	M4	M6	M10	M20	—
Thread size	Pad rubber only	M4×0.7	M6×1	M10×1.5	M20×2	M5×0.8

*M5 thread is used for mounting on non-PISCO holders. Contact us for the price of screw set.

(7) Mark-free resin attachment material (Bellows type only) Optional

Code	No code	-QK	-QM	-QKE
Resin material	—	PEEK	POM	Conductive PEEK (Volume resistance: 10^5 to 10^6 Ω•cm)
	—			



*1. Selectable for Bellows type pad dia. 10 to 30 mm.
*2. Resin attachment cannot be installed when selecting surface treatment.
*3. Resin attachment cannot be installed when selecting Extra soft silicone for pad material.

(8) -S3 spec. (Required for Pad & screw set only) Optional

Code	No code	-S3
Metal material	Standard	No copper-based metallic materials used in flow paths

Vacuum pad / Pad & screw set

Holders with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable holders, please see the page of Pad holder only (page 384-).

P.406

Standard series, General type (R) and Deep type (A) Vacuum pad alone

Model code	○: Available as standard item 4 Pad rubber material N Nitrile	S Silicone	U Urethane	F Fluoro	SE Conductive silicone	NE Conductive NBR (Low resistance)	G Food Sanit. Act compliant NBR	HN HNBR	EP EPDM	Connection config. code
VP1R4	○	○	○	○	○	○	○	○	○	H3
VP2R4	○	○	○	○	○	○	○	○	○	
VP3R4	○	○	○	○	○	○	○	○	○	
VP4R4	○	○	○	○	○	○	○	○	○	
VP6R45	○	○	○	○	○	○	○	○	○	T8
VP8R45	○	○	○	○	○	○	○	○	○	
VP10R45	○	○	○	○	○	○	○	○	○	M4(*3)
VP15R(A)45	●	●	●	●	●	●	●	●	●	
VP20R(A)45	●	●	●	●	●	●	●	●	●	M6(*3)
VP25R(A)45	●	●	●	●	●	●	●	●	●	
VP30R(A)45	●	●	●	●	●	●	●	●	●	
VP40R(A)45	●	●	●	●	●	●	●	●	●	
VP50R(A)45	●	●	●	●	●	●	●	●	●	
VP60R(A)45	●	●	●	●	○	●	—	●	●	M10(*3)
VP80R(A)45	●	●	●	●	○	●	—	●	●	
VP100R(A)45	●	●	●	●	○	●	—	●	●	
VP150R45	○	○	○	○	○	○	—	○	○	M20(*3)
VP200R45	○	○	○	○	○	○	—	○	○	

P.406

Standard series, General type (R) and Deep type (A) Pad & screw set

Model code	○: Available as standard item 4 Pad rubber material N Nitrile	S Silicone	U Urethane	F Fluoro	SE Conductive silicone	NE Conductive NBR (Low resistance)	G Food Sanit. Act compliant NBR	HN HNBR	EP EPDM	8 -S3 -S3 spec.	Connection config. code
VP10R45-M48	○	○	○	○	○	○	○	○	○	○	M4
VP15R(A)45-M48	●	●	●	●	●	●	●	●	●	○	
VP20R(A)45-M68	●	●	●	●	●	●	●	●	●	○	M6
VP25R(A)45-M68	●	●	●	●	●	●	●	●	●	○	
VP30R(A)45-M68	●	●	●	●	●	●	●	●	●	○	
VP40R(A)45-M68	●	●	●	●	●	●	●	●	●	○	
VP50R(A)45-M68	●	●	●	●	●	●	●	●	●	○	
VP60R(A)45-M10	●	●	●	●	○	●	—	●	●	*2	M10
VP80R(A)45-M108	●	●	●	●	○	●	—	●	●	○	
VP100R(A)45-M108	●	●	●	●	○	●	—	●	●	○	
VP150R45-M208	○	○	○	○	○	○	—	○	○	○	M20
VP200R45-M208	○	○	○	○	○	○	—	○	○	○	

P.406

Standard series, Small type Vacuum pad alone

Model code	○: Available as standard item 4 Pad rubber material N Nitrile	S Silicone	U Urethane	F Fluoro	SE Conductive silicone	NE Conductive NBR (Low resistance)	G Food Sanit. Act compliant NBR	HN HNBR	EP EPDM	Connection config. code
VP0.7RM45	○	○	○	○	○	○	○	○	○	T4
VP1RM45	○	○	○	○	○	○	○	○	○	
VP1.5RM45	○	○	○	○	○	○	○	○	○	
VP2RM45	○	○	○	○	○	○	○	○	○	
VP3RM45	○	○	○	○	○	○	○	○	○	
VP4RM45	○	○	○	○	○	○	○	○	○	

■ Available pad size and material for surface treatment (Standard series, General type & Deep type)

Pad dia. (mm)	5 Surface treatment code -NF Fiber surface Nylon	-SF Fiber surface Silk	-DL DLC. coating	-ER Reformed surface	-FG Fluoro-coating
ø6	—	—	○	○	○
ø8	—	—	○	○	○
ø10	—	—	○	○	○
ø15	●	●	●	●	●
ø20	●	●	●	●	●
ø25	●	●	●	●	●
ø30	●	●	●	●	●
ø40	●	●	●	●	●
ø50	●	●	●	●	●
ø60	●	●	—	●	●
ø80	●	●	—	—	●
ø100	—	—	—	—	●
ø150	—	—	—	—	○
ø200	—	—	—	—	○
Material	S, F		S, F, SE	N, NE	S, SE

■ Available pad size and material for surface treatment (Standard series, Small type)

Pad dia. (mm)	5 Surface treatment code -ER Reformed surface	-FG Fluoro-coating
ø0.7	○	○
ø1	○	○
ø1.5	○	○
ø2	○	○
ø3	○	○
ø4	○	○
Material	N, NE	S, SE

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
5 : Surface treatment
8 : -S3 ⇒ -S3 spec.

Notes
*1. For ● part in the table above, deep type of standard series is available.
*2. For Pad & screw set of 60 mm pad dia. (for general type and deep type), the standard spec. is equivalent to "-S3" spec.
*3. A pad screw is required to mount on the holder. If you do not have a pad screw, please select from the Pad & screw set.
*4. Configuration code: H3 is not available for surface treatment.

Holders with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable holders, please see the page of Pad holder only (page 384-).

Soft series, Pad rubber alone

P.446

Model code	○: Available as standard item 4 Pad rubber material N Nitrile	S Silicone	FS Fluoro silicone	SE Conductive silicone	NE Conductive NBR (Low resistance)	Connection config. code
VP4L4 5	○	○	○	○	○	T15 M4(*)
VP6L4 5	○	○	○	○	○	
VP8L4 5	○	○	○	○	○	
VP10L4 5	○	○	○	○	○	
VP15L4 5	○	○	○	○	○	
VP20L4 5	○	○	○	○	○	T40 M6(*)
VP30L4 5	○	○	○	○	○	
VP40L4 5	○	○	○	○	○	

Soft series, Pad & screw set

P.446

Model code	○: Available as standard item 4 Pad rubber material N Nitrile	S Silicone	FS Fluoro silicone	SE Conductive silicone	NE Conductive NBR (Low resistance)	8 -S3 -S3 spec.	Connection config. code
VP4L4 5-M4 8	○	○	○	○	○	○	M4
VP6L4 5-M4 8	○	○	○	○	○	○	
VP8L4 5-M4 8	○	○	○	○	○	○	
VP10L4 5-M4 8	○	○	○	○	○	○	
VP15L4 5-M4 8	○	○	○	○	○	○	
VP20L4 5-M6 8	○	○	○	○	○	○	M6
VP30L4 5-M6 8	○	○	○	○	○	○	
VP40L4 5-M6 8	○	○	○	○	○	○	

Soft bellows series, Pad rubber alone

P.482

Model code	○: Available as standard item 4 Pad rubber material N Nitrile	S Silicone	U Urethane	SE Conductive silicone	NE Conductive NBR (Low resistance)	HN HNBR	EP EPDM	Connection config. code
VP6LB4 5	○	○	○	○	○	○	○	T15 M4(*)
VP8LB4 5	○	○	○	○	○	○	○	
VP10LB4 5	○	○	○	○	○	○	○	
VP15LB4 5	○	○	○	○	○	○	○	
VP20LB4 5	○	○	○	○	○	○	○	T40 M6(*)

■ Available pad size and material for surface treatment (Soft series) Add

Pad dia. (mm)	5 Surface treatment code -NF Fiber surface Nylon	-SF Fiber surface Silk	-DL DLC. coating	-ER Reformed surface	-FG Fluoro-coating
ø4	—	—	○	○	○
ø6	—	—	○	○	○
ø8	—	—	○	○	○
ø10	○	○	○	○	○
ø15	○	○	○	○	○
ø20	○	○	○	○	○
ø30	○	○	○	○	○
ø40	○	○	○	○	○
Material	S		S, SE	N, NE	S, SE

Soft bellows series, Pad & screw set

P.482

Model code	○: Available as standard item 4 Pad rubber material N Nitrile	S Silicone	U Urethane	SE Conductive silicone	NE Conductive NBR (Low resistance)	HN HNBR	EP EPDM	8 -S3 -S3 spec.	Connection config. code
VP6LB4 5-M4 8	○	○	○	○	○	○	○	○	M4
VP8LB4 5-M4 8	○	○	○	○	○	○	○	○	
VP10LB4 5-M4 8	○	○	○	○	○	○	○	○	
VP15LB4 5-M4 8	○	○	○	○	○	○	○	○	
VP20LB4 5-M6 8	○	○	○	○	○	○	○	○	M6

■ Available pad size and material for surface treatment (Soft bellows series) Add

Pad dia. (mm)	5 Surface treatment code -NF Fiber surface Nylon	-SF Fiber surface Silk	-DL DLC. coating	-ER Reformed surface	-FG Fluoro-coating
ø6	—	—	○	○	○
ø8	—	—	○	○	○
ø10	○	○	○	○	○
ø15	○	○	○	○	○
ø20	○	○	○	○	○
Material	S		S, SE	N, NE	S, SE

Skidproof series, Pad rubber alone

P.508

Model code	○: Available as standard item 4 Pad rubber material NH Oil proof NBR	S Silicone	U Urethane	F Fluoro	NE Conductive NBR (Low resistance)	Connection config. code
VP10K4	○	○	○	○	○	M4(*)
VP20K4	○	○	○	○	○	M6(*)
VP30K4	○	○	○	○	○	
VP40K4	○	○	○	○	○	
VP50K4	○	○	○	○	○	

Skidproof series, Pad & screw set

P.508

Model code	○: Available as standard item 4 Pad rubber material NH Oil proof NBR	S Silicone	U Urethane	F Fluoro	NE Conductive NBR (Low resistance)	8 -S3 -S3 spec.	Connection config. code
VP10K4-M4 8	○	○	○	○	○	○	M4
VP20K4-M6 8	○	○	○	○	○	○	M6
VP30K4-M6 8	○	○	○	○	○	○	
VP40K4-M6 8	○	○	○	○	○	○	
VP50K4-M6 8	○	○	○	○	○	○	

Notes
*A screw adapter (Soft/Soft bellows series) or a pad screw (Skidproof series) is required to mount on the holder. If you do not have a screw adapter and a pad screw, please select from the Pad & screw set.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
5 : Surface treatment 8 : -S3 ⇒ -S3 spec.

Vacuum pad / Pad & screw set

Holders with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable holders, please see the page of Pad holder only (page 384-).

Bellows series, Pad rubber alone

P.526

Model code	○: Available as standard item										Connection config. code
	4 Pad rubber material										
	N	S	YS2	YS4	U	F	SE	NE	HN	EP	
	Nitrile	Silicone	Extra soft silicone(*2) Hardness 20°	Extra soft silicone(*2) Hardness 40°	Urethane	Fluoro	Conductive silicone	Conductive NBR (Low resistance)	HNBR	EPDM	
VP2B4	○	○	—	—	—	—	—	—	—	—	H3
VP4B4	○	○	—	—	—	—	○	—	—	—	
VP6B45	○	○	—	—	○	○	○	○	○	○	T8
VP8B45	○	○	—	—	○	○	○	○	○	○	
VP10B45	○	○	(*4)	(*4)	○	○	○	○	○	○	M4(*3)
VP15B45	○	○	(*4)	○	○	○	○	○	○	○	
VP20B45	○	○	○	○	○	○	○	○	○	○	
VP25B45	○	○	○	○	○	○	○	○	○	○	
VP30B45	○	○	○	○	○	○	○	○	○	○	M6(*3)
VP40B45	○	○	○	○	○	○	○	○	○	○	
VP50B45	○	○	○	○	○	○	○	○	○	○	
VP60B45	○	○	—	—	○	○	○	○	○	○	
VP80B45	○	○	—	—	○	○	○	○	○	○	M10(*3)
VP100B45	○	○	—	—	○	○	○	○	○	○	

Bellows series, Pad & screw set

P.526

Model code	○: Available as standard item											Connection config. code
	4 Pad rubber material										8	
	N	S	YS2	YS4	U	F	SE	NE	HN	EP	-S3	
	Nitrile	Silicone	Extra soft silicone(*2) Hardness 20°	Extra soft silicone(*2) Hardness 40°	Urethane	Fluoro	Conductive silicone	Conductive NBR (Low resistance)	HNBR	EPDM	-S3 spec.	
VP10B45-M48	○	○	(*4)	(*4)	○	○	○	○	○	○	○	M4
VP15B45-M48	○	○	(*4)	○	○	○	○	○	○	○	○	
VP20B45-M68	○	○	○	○	○	○	○	○	○	○	○	
VP25B45-M68	○	○	○	○	○	○	○	○	○	○	○	
VP30B45-M68	○	○	○	○	○	○	○	○	○	○	○	M6
VP40B45-M68	○	○	○	○	○	○	○	○	○	○	○	
VP50B45-M68	○	○	○	○	○	○	○	○	○	○	○	
VP60B45-M10	○	○	—	—	○	○	○	○	○	○	(*1)	
VP80B45-M108	○	○	—	—	○	○	○	○	○	○	○	M10
VP100B45-M108	○	○	—	—	○	○	○	○	○	○	○	

■ Available pad size and material for surface treatment (Bellows series)

Add

Pad dia. (mm)	5 Surface treatment code					
	-NF	-SF	-DL	-ER	-FG	
	Fiber surface		DLC. coating	Reformed surface	Fluoro-coating	
	Nylon	Silk			(S, SE)	(YS2, YS4)
ø6	—	—	○	○	○	—
ø8	—	—	○	○	○	—
ø10	—	—	○	○	○	—
ø15	○	○	○	○	○	○
ø20	○	○	○	○	○	○
ø25	○	○	○	○	○	○
ø30	○	○	○	○	○	○
ø40	○	○	○	○	○	○
ø50	○	○	○	○	○	○
ø60	○	○	—	○	○	—
ø80	○	○	—	—	○	—
ø100	—	—	—	—	○	—
Material	S, F		S, F, SE	N, NE	S, SE, YS2, YS4	

*4.
Fluoro-coating of Extra soft silicone (YS2, YS4)
For Extra soft silicone pads, dia. 10 mm or 15 mm of 20° hardness type (YS2) and dia. 10 mm of 40° hardness type (YS4) can be selected only when Fluoro-coating treatment is selected.

Model code	YS2	YS4	8 -S3	Connection config. code
	Extra soft silicone(*2) Hardness20°	Extra soft silicone(*2) Hardness40°	-S3 spec.	
VP10B4-FG	○	○	—	M4(*3)
VP15B4-FG	○	—	—	
	Pad & screw set			
VP10B4-FG-M48	○	○	○	M4
VP15B4-FG-M48	○	—	○	

Notes
*1. For Pad & screw set of Bellows series 60 mm pad dia., the standard spec. is equivalent to "-S3" spec.
*2. Extra soft silicone is compliant with Food Sanitation Act and FDA.
*3. A pad screw is required to mount on the holder. If you do not have a pad screw, please select from the Pad & screw set.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
5 : Surface treatment
8 : -S3 ⇒ -S3 spec.

Holders with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable holders, please see the page of Pad holder only (page 384-).

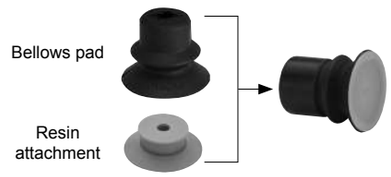
Bellows series, with Resin attachment

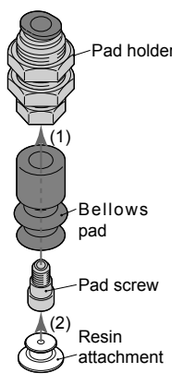
P.526

Model code	○: Available as standard item 4 Pad rubber material N Nitrile	S Silicone	U Urethane	F Fluoro	SE Conductive silicone	NE Conductive NBR (Low resistance)	HN HNBR	EP EPDM	Connection config. code
VP10B4-QK	○	○	○	○	○	○	○	○	M4(*1)
VP10B4-QM	○	○	○	○	○	○	○	○	
VP10B4-QKE	○	○	○	○	○	○	○	○	
VP15B4-QK	○	○	○	○	○	○	○	○	
VP15B4-QM	○	○	○	○	○	○	○	○	
VP15B4-QKE	○	○	○	○	○	○	○	○	
VP20B4-QK	○	○	○	○	○	○	○	○	M6(*1)
VP20B4-QM	○	○	○	○	○	○	○	○	
VP20B4-QKE	○	○	○	○	○	○	○	○	
VP25B4-QK	○	○	○	○	○	○	○	○	
VP25B4-QM	○	○	○	○	○	○	○	○	
VP25B4-QKE	○	○	○	○	○	○	○	○	
VP30B4-QK	○	○	○	○	○	○	○	○	
VP30B4-QM	○	○	○	○	○	○	○	○	
VP30B4-QKE	○	○	○	○	○	○	○	○	

Picture of mark-free resin attachment with pad

By attaching a resin attachment, bellows pad (pad dia.: 10 to 30 mm) can be used as Mark-free pad.





● How to attach

(1) Fix a bellows pad and a pad holder with a pad screw.

(2) Attach a resin attachment to the bellows pad.

Bellows series, Pad & screw set + Resin attachment

P.526

Model code	○: Available as standard item 4 Pad rubber material N Nitrile	S Silicone	U Urethane	F Fluoro	SE Conductive silicone	NE Conductive NBR (Low resistance)	HN HNBR	EP EPDM	8 -S3 -S3 spec.	Connection config. code
VP10B4-M4-QK8	○	○	○	○	○	○	○	○	○	M4
VP10B4-M4-QM8	○	○	○	○	○	○	○	○	○	
VP10B4-M4-QKE8	○	○	○	○	○	○	○	○	○	
VP15B4-M4-QK8	○	○	○	○	○	○	○	○	○	
VP15B4-M4-QM8	○	○	○	○	○	○	○	○	○	
VP15B4-M4-QKE8	○	○	○	○	○	○	○	○	○	
VP20B4-M6-QK8	○	○	○	○	○	○	○	○	○	M6
VP20B4-M6-QM8	○	○	○	○	○	○	○	○	○	
VP20B4-M6-QKE8	○	○	○	○	○	○	○	○	○	
VP25B4-M6-QK8	○	○	○	○	○	○	○	○	○	
VP25B4-M6-QM8	○	○	○	○	○	○	○	○	○	
VP25B4-M6-QKE8	○	○	○	○	○	○	○	○	○	
VP30B4-M6-QK8	○	○	○	○	○	○	○	○	○	
VP30B4-M6-QM8	○	○	○	○	○	○	○	○	○	
VP30B4-M6-QKE8	○	○	○	○	○	○	○	○	○	

Mark-free resin attachment for Bellows series

P.526

Model code	○: Available as standard item 4 Resin attachment material K PEEK	M POM	KE Conductive PEEK
VP10BQ4-AT	○	○	○
VP15BQ4-AT	○	○	○
VP20BQ4-AT	○	○	○
VP25BQ4-AT	○	○	○
VP30BQ4-AT	○	○	○

Notes
*1. A pad screw is required to mount on the holder. If you do not have a pad screw, please select from the Pad & screw set.
*2. Resin attachment must be used with a vacuum pad for work conveyance.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
8 : -S3 ⇒ -S3 spec.

Vacuum pad / Pad & screw set

Holders with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable holders, please see the page of Pad holder only (page 384-).

Multi-bellows series, Pad rubber alone

P.560

Model code	○: Available as standard item 4 Pad rubber material N Nitrile	S Silicone	YS2 Extra soft silicone(*1) Hardness 20°	YS4 Extra soft silicone(*1) Hardness 40°	U Urethane	F Fluoro	NE Conductive NBR (Low resistance)	G Food Sanit. Act compliant NBR	HN HNBR	EP EPDM	Connection config. code
VP6W4 5	○	○	—	—	—	○	○	○	○	○	T8
VP8W4 5	○	○	—	—	—	○	○	○	○	○	
VP10W4 5	○	○	(*3)	(*3)	○	○	○	○	○	○	M4(*2)
VP20W4 5	○	○	○	○	○	○	○	○	○	○	
VP30W4 5	○	○	○	○	○	○	○	○	○	○	
VP40W4 5	○	○	○	○	○	○	○	○	○	○	M6(*2)
VP50W4 5	○	○	○	○	○	○	○	○	○	○	

Multi-bellows series, Pad & screw set

P.560

Model code	○: Available as standard item 4 Pad rubber material N Nitrile	S Silicone	YS2 Extra soft silicone(*1) Hardness 20°	YS4 Extra soft silicone(*1) Hardness 40°	U Urethane	F Fluoro	NE Conductive NBR (Low resistance)	G Food Sanit. Act compliant NBR	HN HNBR	EP EPDM	8 -S3 -S3 spec.	Connection config. code
VP10W4 5-M4 8	○	○	(*3)	(*3)	○	○	○	○	○	○	○	M4
VP20W4 5-M6 8	○	○	○	○	○	○	○	○	○	○	○	
VP30W4 5-M6 8	○	○	○	○	○	○	○	○	○	○	○	
VP40W4 5-M6 8	○	○	○	○	○	○	○	○	○	○	○	M6
VP50W4 5-M6 8	○	○	○	○	○	○	○	○	○	○	○	

*cnvls=convolutions

P.586

Packaging bag 3 cnvls
Lip hardness 20°
Pad rubber alone

Model code	Connection config. code
VP20PBS23 5	PB8
VP25PBS23 5	
VP30PBS23 5	PB15
VP40PBS23 5	
VP50PBS23 5	

P.586

Packaging bag 3 cnvls
Lip hardness 40°
Pad rubber alone

Model code	Connection config. code
VP20PBS43 5	PB8
VP25PBS43 5	
VP30PBS43 5	PB15
VP40PBS43 5	
VP50PBS43 5	

P.586

Packaging bag 5 cnvls
Lip hardness 20°
Pad rubber alone

Model code	Connection config. code
VP20PBS25 5	PB8
VP25PBS25 5	
VP30PBS25 5	PB15
VP40PBS25 5	
VP50PBS25 5	

P.586

Packaging bag 5 cnvls
Lip hardness 40°
Pad rubber alone

Model code	Connection config. code
VP20PBS45 5	PB8
VP25PBS45 5	
VP30PBS45 5	PB15
VP40PBS45 5	
VP50PBS45 5	

P.586

Oversuction preventing adapter
Spherical type (exclusive to packaging bag pad)

Model code	Pad dia. (mm)
VP20PB-FS	ø20
VP25PB-FS	ø25
VP30PB-FS	ø30
VP40PB-FS	ø40
VP50PB-FS	ø50

P.586

Oversuction preventing adapter
Spherical type with stainless steel mesh (exclusive to packaging bag pad)

Model code	Pad dia. (mm)
VP20PB-MS	ø20
VP25PB-MS	ø25
VP30PB-MS	ø30
VP40PB-MS	ø40
VP50PB-MS	ø50

P.586

Oversuction preventing adapter
Plane type (exclusive to packaging bag pad)

Model code	Pad dia. (mm)
VP20PB-FF	ø20
VP25PB-FF	ø25
VP30PB-FF	ø30
VP40PB-FF	ø40
VP50PB-FF	ø50

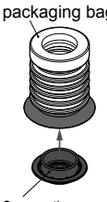
P.586

Oversuction preventing adapter
Plane type with stainless steel mesh (exclusive to packaging bag pad)

Model code	Pad dia. (mm)
VP20PB-MF	ø20
VP25PB-MF	ø25
VP30PB-MF	ø30
VP40PB-MF	ø40
VP50PB-MF	ø50

Oversuction preventing adapter with pad

Vacuum pad for packaging bag



Oversuction preventing adapter

Spherical type

Plane type

■ Available pad size and material for surface treatment (Multi-bellows series) Add

Pad dia. (mm)	5 Surface treatment code -DL DLC. coating	-ER Reformed surface	-FG Fluoro-coating (S)	(YS2, YS4)
ø6	—	○	○	—
ø8	—	○	○	—
ø10	○	○	○	—
ø20	○	○	○	○
ø30	—	○	○	○
ø40	—	○	○	○
ø50	—	○	○	○
Material	S, F	N, NE	S, YS2, YS4	

*3.
Fluoro-coating of Extra soft silicone (YS2, YS4)
For Extra soft silicone pads, dia. 10 mm can be selected only when Fluoro-coating treatment is selected.

Model code	YS2 Extra soft silicone(*1) Hardness 20°	YS4 Extra soft silicone(*1) Hardness 40°	8 -S3 -S3 spec.	Connection config. code
VP10W4-FG	○	○	—	M4(*2)
	Pad & screw set			
VP10W4-FG-M4 8	○	○	○	M4

■ Available pad size and material for surface treatment Add
(For Packaging bag)

Pad dia. (mm)	5 Surface treatment code -FG Fluoro-coating (3 cnvls)	(5 cnvls)
ø20	○	○
ø25	○	○
ø30	○	○
ø40	○	○
ø50	○	○

Notes
*1. Extra soft silicone and vacuum pad for packaging bag series (including oversuction preventing adapter) are compliant with Food Sanitation Act and FDA.
*2. A pad screw is required to mount on the holder. If you do not have a pad screw, please select from the Pad & screw set.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
5 : Surface treatment
8 : -S3 ⇒ -S3 spec.

Holders with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable holders, please see the page of Pad holder only (page 384-).

New P.590

Metal Detectable series (Bellows with bumps and ribs), Pad rubber alone

Model code	○: Available as standard item 4 Pad rubber material MSF3 / MSF5 / MSS3 / MSS5 Metal detectable silicone Iron powder type / SUS powder type Hardness 30° / Hardness 50° / Hardness 30° / Hardness 50°				Connection config. code
VP10BE4	○	○	○	○	M4(*)
VP15BE4	○	○	○	○	
VP20BE4	○	○	○	○	M6(*)

New P.590

Metal Detectable series (Bellows with bumps and ribs), Pad & screw set

Model code	○: Available as standard item 4 Pad rubber material MSF3 / MSF5 / MSS3 / MSS5 Metal detectable silicone Iron powder type / SUS powder type Hardness 30° / Hardness 50° / Hardness 30° / Hardness 50°				8 -S3 -S3 spec.	Connection config. code
VP10BE4-M48	○	○	○	○	○	M4
VP15BE4-M48	○	○	○	○	○	
VP20BE4-M68	○	○	○	○	○	M6

New P.590

Metal Detectable series (Bellows with bumps and no ribs), Pad rubber alone

Model code	○: Available as standard item 4 Pad rubber material MSF3 / MSF5 / MSS3 / MSS5 Metal detectable silicone Iron powder type / SUS powder type Hardness 30° / Hardness 50° / Hardness 30° / Hardness 50°				Connection config. code
VP10BD4	○	○	○	○	M4(*)
VP15BD4	○	○	○	○	
VP20BD4	○	○	○	○	M6(*)

New P.590

Metal Detectable series (Bellows with bumps and no ribs), Pad & screw set

Model code	○: Available as standard item 4 Pad rubber material MSF3 / MSF5 / MSS3 / MSS5 Metal detectable silicone Iron powder type / SUS powder type Hardness 30° / Hardness 50° / Hardness 30° / Hardness 50°				8 -S3 -S3 spec.	Connection config. code
VP10BD4-M48	○	○	○	○	○	M4
VP15BD4-M48	○	○	○	○	○	
VP20BD4-M68	○	○	○	○	○	M6

P.604

Ultrathin series, Pad rubber alone

Model code	○: Available as standard item 4 Pad rubber material N: Nitrile / S: Silicone / U: Urethane / F: Fluoro / FS: Fluoro silicone / NE: Conductive NBR (Low resistance)						Connection config. code
VP8P45	○	○	○	○	○	○	T8
VP10P45	○	○	○	○	○	○	
VP15P45	○	○	○	○	○	○	
VP20P45	○	○	○	○	○	○	

■ Available pad size and material for surface treatment (Ultrathin series) Add

Pad dia. (mm)	5 Surface treatment code -DL: DLC. coating / -ER: Reformed surface / -FG: Fluoro-coating		
ø8	○	○	○
ø10	○	○	○
ø15	○	○	○
ø20	○	○	○
Material	S, F	N, NE	S

Notes
*A pad screw is required to mount on the holder. If you do not have a pad screw, please select from the Pad & screw set.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
5 : Surface treatment
8 : -S3 ⇒ -S3 spec.

Vacuum pad / Pad & screw set

Holders with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable holders, please see the page of Pad holder only (page 384-).

Flat series, Pad rubber alone

P.622

Model code	○: Available as standard item 4 Pad rubber material N Nitrile	S Silicone	U Urethane	F Fluoro	SE Conductive silicone	NE Conductive NBR (Low resistance)	Connection config. code
VP10F4 5	○	○	○	○	○	○	M4(*1)
VP15F4 5	○	○	○	○	○	○	
VP20F4 5	○	○	○	○	○	○	M6(*1)
VP25F4 5	○	○	○	○	○	○	
VP30F4 5	○	○	○	○	○	○	

Flat series, Pad & screw set

P.622

Model code	○: Available as standard item 4 Pad rubber material N Nitrile	S Silicone	U Urethane	F Fluoro	SE Conductive silicone	NE Conductive NBR (Low resistance)	8 -S3 -S3 spec.	Connection config. code
VP10F4 5-M4 8	○	○	○	○	○	○	○	M4
VP15F4 5-M4 8	○	○	○	○	○	○	○	
VP20F4 5-M6 8	○	○	○	○	○	○	○	M6
VP25F4 5-M6 8	○	○	○	○	○	○	○	
VP30F4 5-M6 8	○	○	○	○	○	○	○	

Flat large suction flow series, Pad rubber alone

P.622

Model code	○: Available as standard item 4 Pad rubber material N Nitrile	S Silicone	F Fluoro	SE Conductive silicone	NE Conductive NBR (Low resistance)	Connection config. code
VP10FH4 5	○	○	○	○	○	M4(*1)
VP15FH4 5	○	○	○	○	○	
VP20FH4 5	○	○	○	○	○	M6(*1)
VP25FH4 5	○	○	○	○	○	
VP30FH4 5	○	○	○	○	○	

Flat large suction flow series, Pad & screw set

P.622

Model code	○: Available as standard item 4 Pad rubber material N Nitrile	S Silicone	F Fluoro	SE Conductive silicone	NE Conductive NBR (Low resistance)	8 -S3 -S3 spec.	Connection config. code
VP10FH4 5-M4 8	○	○	○	○	○	○	M4
VP15FH4 5-M4 8	○	○	○	○	○	○	
VP20FH4 5-M6 8	○	○	○	○	○	○	M6
VP25FH4 5-M6 8	○	○	○	○	○	○	
VP30FH4 5-M6 8	○	○	○	○	○	○	

Mark-free series, Resin pad alone

P.642

Model code	○: Available as standard item 4 Pad rubber material K PEEK	M POM	KE Conductive PEEK	Connection config. code
VP10Q4	○	○	○	M4(*1)
VP20Q4	○	○	○	M6(*1)
VP30Q4	○	○	○	

Mark-free series, with Flexible Swing Joint

P.642

Model code	○: Available as standard item 4 Pad rubber material K PEEK	M POM	KE Conductive PEEK	8 -S3 -S3 spec.	Connection config. code
VP10Q4-M4 8	○	○	○	○	M4
VP20Q4-M6 8	○	○	○	○	M6
VP30Q4-M6 8	○	○	○	○	

■ Available pad size and material for surface treatment (Flat・Flat large flow series) Add

Pad dia. (mm)	5 Surface treatment code -DL DLC. coating	-ER Reformed surface	-FG Fluoro-coating
ø10	○	○	○
ø15	○	○	○
ø20	○	○	○
ø25	○	○	○
ø30	○	○	○
Material	S, F, SE	N, NE	S, SE

Sponge series, Pad rubber alone

P.656

Model code	○: Available as standard item 4 Pad rubber material C Chloroprene	S Silicone	Connection config. code
VP10S4	○	○	
VP15S4	○	○	
VP20S4	○	○	
VP25S4	○	○	M6(*1)
VP30S4	○	○	
VP35S4	○	○	
VP50S4	○	○	
VP70S4	○	○	M10(*1)
VP100S4	○	○	

Sponge series, Pad & screw set

P.656

Model code	○: Available as standard item 4 Pad rubber material C Chloroprene	S Silicone	8 -S3 -S3 spec.	Connection config. code
VP10S4-M6 8	○	○	○	
VP15S4-M6 8	○	○	○	
VP20S4-M6 8	○	○	○	
VP25S4-M6 8	○	○	○	M6
VP30S4-M6 8	○	○	○	
VP35S4-M6 8	○	○	○	
VP50S4-M6 8	○	○	○	
VP70S4-M10	○	○	(*3)	M10
VP100S4-M10	○	○	(*3)	

Notes
*1. A pad screw is required to mount on the holder. If you do not have a pad screw, please select from the Pad & screw set.
*2. A Flexible Swing Joint is required to mount on the holder. If you do not have a Flexible Swing Joint, please select from the Mark-free series, with Flexible Swing Joint set.
*3. For Pad & screw set of Sponge series 70 mm and 100 mm pad dia., the standard spec. is equivalent to "-S3" spec.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
5 : Surface treatment
8 : -S3 ⇒ -S3 spec.

Holders with the same "connection configuration code (E10 , E20 etc.)" can be connected. For connectable holders, please see the page of Pad holder only (page 384-).

Oval series, Pad rubber alone

P.680

Model code	○: Available as standard item								Connection config. code	
	4 Pad rubber material									
	N	S	U	F	SE	NE	HN	EP		
	Nitrile	Silicone	Urethane	Fluoro	Conductive silicone	Conductive NBR (Low resistance)	HNBR	EPDM		
VP2×4E45	○	○	○	○	○	○	○	○		M6(*)
VP3.5×7E45	○	○	○	○	○	○	○	○	E10	
VP4×10E45	○	○	○	○	○	○	○	○		
VP4×20E45	○	○	○	○	○	○	○	○	E20	
VP4×30E45	○	○	—	—	○	○	○	○		
VP5×10E45	○	○	○	○	○	○	○	○	E10	
VP5×20E45	○	○	○	○	○	○	○	○	E20	
VP5×30E45	○	○	○	○	○	○	○	○		
VP6×10E45	○	○	○	○	○	○	○	○	E10	
VP6×20E45	○	○	○	○	○	○	○	○		
VP6×30E45	○	○	○	○	○	○	○	○	E20	
VP8×20E45	○	○	○	○	○	○	○	○		
VP8×30E45	○	○	○	○	○	○	○	○		

Oval series, Pad & screw set

P.680

Model code	○: Available as standard item									Connection config. code
	4 Pad rubber material								8	
	N	S	U	F	SE	NE	HN	EP	-S3	
	Nitrile	Silicone	Urethane	Fluoro	Conductive silicone	Conductive NBR (Low resistance)	HNBR	EPDM	-S3 spec.	
VP2×4E45-M68	○	○	○	○	○	○	○	○	○	M6
VP3.5×7E45-M68	○	○	○	○	○	○	○	○	○	
VP4×10E45-M68	○	○	○	○	○	○	○	○	○	
VP4×20E45-M68	○	○	○	○	○	○	○	○	○	
VP4×30E45-M68	○	○	—	—	○	○	○	○	○	
VP5×10E45-M68	○	○	○	○	○	○	○	○	○	
VP5×20E45-M68	○	○	○	○	○	○	○	○	○	
VP5×30E45-M68	○	○	○	○	○	○	○	○	○	
VP6×10E45-M68	○	○	○	○	○	○	○	○	○	
VP6×20E45-M68	○	○	○	○	○	○	○	○	○	
VP6×30E45-M68	○	○	○	○	○	○	○	○	○	
VP8×20E45-M68	○	○	○	○	○	○	○	○	○	
VP8×30E45-M68	○	○	○	○	○	○	○	○	○	

■ Available pad size and material for surface treatment (Oval series) Add

Pad dia. (mm)	5 Surface treatment code		
	-DL	-ER	-FG
	DLC. coating	Reformed surface	Fluoro-coating
2×4	○	○	○
3.5×7	○	○	○
4×10	○	○	○
4×20	○	○	○
4×30	○	○	○
5×10	○	○	○
5×20	○	○	○
5×30	○	○	○
6×10	○	○	○
6×20	○	○	○
6×30	○	○	○
8×20	○	○	○
8×30	○	○	○
Material	S, F, SE	N, NE	S, SE

Notes
*A pad screw is required to mount on the holder. If you do not have a pad screw, please select from the Pad & screw set.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
5 : Surface treatment
8 : -S3 ⇒ -S3 spec.

Vacuum pad holder only

For purchasing only vacuum pad holder to use with PISCO vacuum pad you have.

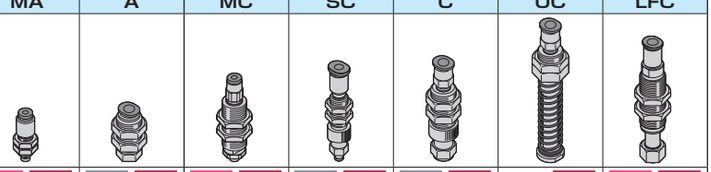
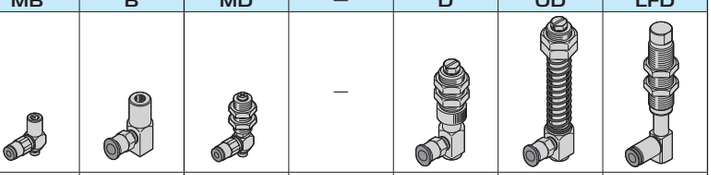
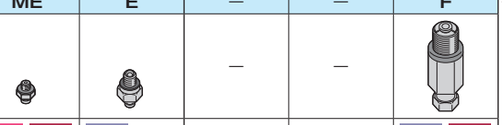
Model Designation (Example)

VP (1)	C (2)	– M4 (3)	-6 (4)	-4J (5)	-DC (6)	-ECV (7)	-FH (8)	-F15 (9)	-S3 (10)
					Optional	Optional	Optional	Optional	Optional

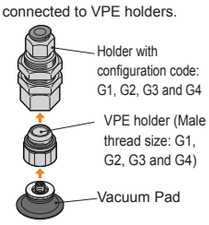
(1) Vacuum Pad

(2) Holder type

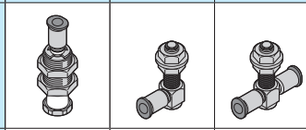
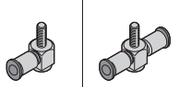
● Common holder

		Fixed type		Spring type				
		Mini	Standard	Mini	Slim	Standard	No cover	Low dust emission
Top port	Code	MA	A	MC	SC	C	OC	LFC
	Type							
	Configuration code	T4 T8 M4 M6	H3 T8 M4 M6 M10 M20 G1 G2 G3 G4	T4 T8 M4 M6	H3 T8	H3 T8 M4 M6 M10 M20 G1 G2 G3 G4	T8 M4 M6	T4 T8 M4 M6
Side port	Code	MB	B	MD	—	D	OD	LFD
	Type							
	Configuration code	T4 T8 M4 M6	H3 T8 M4 M6 M10 M20 G1 G2 G3 G4	T4 T8 M4 M6	—	H3 T8 M4 M6 M10 M20 G1 G2 G3 G4	T8 M4 M6	T4 T8 M4 M6
Direct mount	Code	ME	E	—	—	F		
	Type							
	Configuration code	T4 T8	H3 T4 T8 M4 M6 M10 M20 T15 T40	—	—	H3 T8 M4 M6		

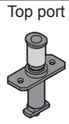
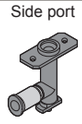
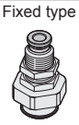
*Holders with configuration code: G1 to G4 can be connected to VPE holders.



● Common holder (Lightweight/Low Low profile)

		Top port	Side port	Dual side port
Spring type (Lightweight)	Code	HC	HD	HDW
	Type			
	Configuration code	T15 T40 M4 M6	T15 T40 T8 M4 M6	T15 T40 T8 M4 M6
Fixed type, Direct mount (Low profile)	Code	—	HE	HEW
	Type	—		
	Configuration code	—	T15 T40 T8 M4 M6	T15 T40 T8 M4 M6

● Special holder *Pads of other shapes cannot be installed.

		A	B
For oval type	Code	A	B
	Type	Top port 	Side port 
	Configuration code	E10 E20	E10 E20
For packaging bag	Code	A	E
	Type	Fixed type 	Direct mount
	Configuration code	PB8 PB15	PB8 PB15

(3) Pad connection type (○: Available)

Code	H3	T4	T8	M4	M6	M10	M20	G1	G2	G3	G4	T15	T40	E10	E20	PB8	PB15
Connection type	Insert type (Direct connection)	Mount type (Direct connection)		Screw type (Connection with screw)								Mount type (Direct connection)					
												Soft · Soft bellows		Oval		For packaging bag	

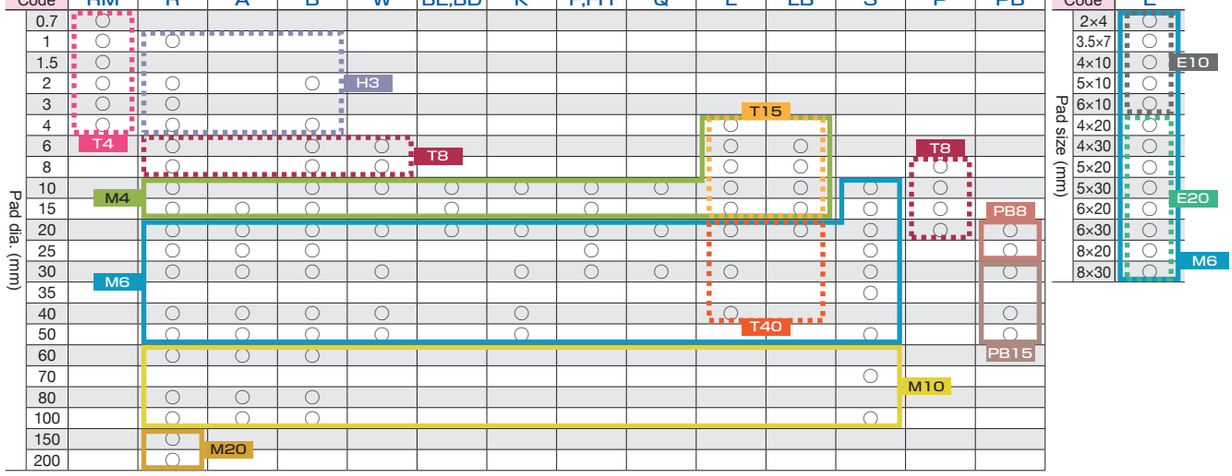
*Referring to the table below, select connection type corresponding the vacuum pad you have.

Pad type or application	Standard			Bellows	Multi-bellows	Metal detectable	Skidproof	Flat (Large suction flow type)	Mark-free	Soft	Soft bellows	Sponge	Ultrathin	For packaging bag
	Small	General	Deep											
Code	RM	R	A	B	W	BE,BD	K	F,FH	Q	L	LB	S	P	PB

Pad dia. (mm): 0.7, 1, 1.5, 2, 3, 4, 6, 8, 10, 15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 100, 150, 200

Pad type or application	Oval
Code	E

Pad size (mm): 2×4, 3.5×7, 4×10, 5×10, 6×10, 4×20, 4×30, 5×20, 5×30, 6×20, 6×30, 8×20, 8×30



(4) Stroke (No code entry for Holder type: MA, A, MB, B, ME, E, F, HE and HEW)

	Code	-2	-3	-4	-5	-6	-9	-10	-15	-20	-25	-30	-40	-50
	Stroke (mm)	2	3	4	5	6	9	10	15	20	25	30	40	50
Spring type holder code	VPMC	●●		●●										
	VPSC		●●											
	VPC		●●			●●		●●●●●●●●	●●●●	●●●●●●●●				
	VPOC									●●●		●●●	●●●	●●●
	VPLFC	●●●			●●●●			●●●●	●●●●	●●●●				
	VPMD	●●		●●										
	VPD		●●			●●		●●●●●●●●	●●●●	●●●●●●●●				
	VPOD									●●●		●●●	●●●	●●●
	VPLFD				●●●●			●●●●	●●●●	●●●●				
	VPHC						●●	●●	●●	●●	●●	●●	●●	●●
	VPHD				●●●●●									
	VPHDW				●●●●●									

Connection config. code
● : H3
● : T4
● : T8
● : M4
● : M6
● : M10
● : M20
● : G1
● : G2
● : G3
● : G4
● : T15
● : T40

(5) Vacuum port size and joint type (No code entry for Holder type: F) (○: Available)

Type		Push-in fitting														Barb fitting				Female thread (Male thread for VPE packaging bag)									
		mm size (mm)								inch size (inch)						mm size (mm)			inch size (inch)	Metric thread					Parallel pipe thread				NPT thread
	Code	-180J	-2J	-3J	-4J	-6J	-8J	-10J	-12J	-1/8J	-5/32J	-3/16J	-1/4J	-5/16J	-3/8J	-1/2J	-3B	-4B*	-6B	-1/4B	-M3	-M5	-M6	-M8	-M14	-G1	-G2	-G3	-G4	-N1	-N2
	Tube O.D.	ø1.8	ø2	ø3	ø4	ø6	ø8	ø10	ø12	ø1/8	ø5/32	ø3/16	ø1/4	ø5/16	ø3/8	ø1/2														
	Tube I.D.																ø2	ø2.5	ø4	Polyurethane tube ø0.163 Nylon tube ø0.180										
	Thread size																				M3×0.5	M5×0.8	M6×1	M8×1	M14×1	G1/8	G1/4	G3/8	G1/2	NPT1/8	NPT1/4
Holder	VPMA	○	○	○	○					○	○						○	○	○												
	VPA			○	○	○	○	○	○	○	○	○	○	○	○	○		○	○	○			○			○	○			○	○
	VPMB	○	○	○	○	○				○	○		○				○	○	○	○	○	○								
	VPB	○	○	○	○	○	○	○		○	○	○	○	○	○		○	○	○	○	○	○	○			○	○			○	○
	VPMC	○	○	○	○					○	○						○	○	○	○											
	VPSC	○	○	○	○					○	○						○	○	○		○										
	VPC	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		○	○			○	○			○	○
	VPOC			○	○	○				○	○		○					○	○	○			○								
	VPLFC			○	○	○				○	○		○				○	○	○			○	○								
	VPMD	○	○	○	○	○				○	○		○				○	○	○	○	○	○									
	VPD	○	○	○	○	○	○	○		○	○	○	○	○	○	○	○	○	○	○		○	○			○	○			○	○
	VPOD			○	○	○				○	○		○					○	○	○			○								
	VPLFD			○	○	○				○	○		○				○	○	○			○	○								
	VPHC	○	○	○	○	○				○	○		○				○	○	○	○		○									
	VPHD	○	○	○	○	○				○	○		○				○	○	○	○		○									
	VPHDW	○	○	○	○	○				○	○		○				○	○	○	○		○									
	VPHE	○	○	○	○	○				○	○		○				○	○	○	○		○									
	VPHEW	○	○	○	○	○				○	○		○				○	○	○	○		○									
	VPA for pkg. bag				○	○	○	○	○																						
	VPG for pkg. bag																					○	○	○	○	○	○	○	○		
	VPA(Oval)	○	○	○	○	○				○	○		○				○	○	○	○		○									
	VPB(Oval)	○	○	○	○	○				○	○		○				○	○	○	○		○									

*The barb fitting 5/32" is common with 4 mm size. Please order with the code: -4B.

Type		Male thread																		Female thread	
		Metric thread						Taper pipe thread				Parallel pipe thread				NPT thread				Metric thread	
	Code	-M3	-M5	-M8	-M10	-M12	-M14	-R1	-R2	-R3	-R4	-G1	-G2	-G3	-G4	-N1	-N2	-N3	-N4	-FM5	-FM8
	Thread size	M3×0.5	M5×0.8	M8×1.25	M10×1.5	M12×1.75	M14×2	R1/8	R1/4	R3/8	R1/2	G1/8	G1/4	G3/8	G1/2	NPT1/8	NPT1/4	NPT3/8	NPT1/2	M5×0.8	M8×1.25
Holder	VPME	○	○																		
	VPE	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

(6) Dust Catcher (Holder type: SC, C, D and F only) Optional

Code	No code	-DC
Dust Catcher	None	Installed

*Note that the holder stroke becomes shorter when a dust catcher is installed. Please visit our website for details.

(6) Spring load (Holder type: LFC only)

Code	No code	-SF1/4
Load	Standard load	Low load (1/4 of standard load)

*-SF1/4" is not selectable when 2 mm stroke is selected.

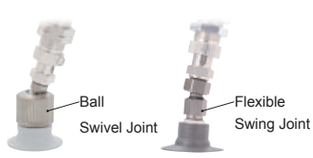
(7) Fall Prevention Valve Optional

Code	No code	-ECV
Fall Prevention Valve	None	Installed
Applicable connection type	—	Configuration code: M4, M6, M10
		M3, M5 thread size of VPME, VPE holder

*1. -S3 spec. is not selectable when Fall Prevention Valve is selected.
*2. Fall prevention valve cannot be installed when selecting fiber surface type (-SF, -NF) for surface treatment.

(8) Swivel Joint for vacuum pad Optional

Code	No code	-FH	-FHH	-CFH
Option	None	Ball Swivel Joint (Swivel angle: 30°)	Ball Swivel Joint (Swivel angle: 15°)	Flexible Swing Joint (Swing angle: 8°)
Applicable connection type	—	Configuration code: M4, M6, M10		Configuration code: M4, M6
				M5 thread size of VPME, VPE holder



*-S3 spec. is not selectable when Ball Swivel Joint is selected.

(9) Filter Optional

Code	No code	-F15	-F30
Filter	None	Installed (Filter area1.7cm²)	Installed (Filter area7cm²)
Applicable connection type	—	Configuration code: M4, M6	Configuration code: M6

*1. -S3 spec. is not selectable when Filter is selected.
*2. "-F30" is recommended when much dust is expected at sucking work pieces.

(10) -S3 spec. Optional

Code	No code	-S3
Metal material	Standard	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard	HNBR or FKM
Release ring color	Black	Dark-blue

*1. -S3 spec. is not available for the following fittings and holders: Push-in fitting with dia. size of 1.8, 2, 3 mm and inch sizes except dia. 1/8" (some) and 5/32". Barb fitting with dia. of 1/4". Pad holder with stroke length 10 mm or longer (except pad config. code M10, M20 and VPHC holders). VPLFC and VPLFD holders.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Vacuum pad holder only

Vacuum pads with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable vacuum pads, please see the page of Pad rubber only/Pad & screw set (page 374-).

● Fixed type/Top port/Mini holder (VPMA)

Joint type: Push-in fitting			
Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPMA	VPMA-T4-180J	—	T4
	VPMA-T4-2J	—	
	VPMA-T4-3J	—	
	VPMA-T8-180J	—	T8
	VPMA-T8-2J	—	
	VPMA-T8-3J	—	
	VPMA-M4-3J	—	M4
	VPMA-M4-4J 10	○	
	VPMA-M6-4J 10	○	M6
	VPMA-M4-5/32J 10	○	M4
	VPMA-M6-5/32J 10	○	M6

Joint type: Barb fitting			
Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPMA	VPMA-T4-3B10	○	T4
	VPMA-T4-4B10	○	
	VPMA-T8-3B10	○	T8
	VPMA-T8-4B10	○	
	VPMA-M4-3B10	○	M4
	VPMA-M4-4B10	○	
	VPMA-M6-4B10	○	M6
	VPMA-M6-6B10	○	

● Fixed type/Top port/Standard holder (VPA)

Joint type: Push-in fitting			
Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPA	VPA-H3-4J10	○	H3
	VPA-T8-4J10	○	T8
	VPA-T8-6J 10	○	
	VPA-M4-6J 10	○	M4
	VPA-M6-3J	—	M6
	VPA-M6-4J 10	○	
	VPA-M6-6J 10	○	
	VPA-M10-4J	—	M10
	VPA-M10-6J	—	
	VPA-M10-8J	—	
	VPA-M20-6J	—	M20
	VPA-M20-8J	—	
	VPA-M20-10J	—	
	VPA-M20-12J	—	
	VPA-G1-4J	—	G1
	VPA-G1-6J	—	
	VPA-G1-8J	—	
	VPA-G2-4J	—	G2
	VPA-G2-6J	—	
	VPA-G2-8J	—	
	VPA-G3-6J	—	G3
	VPA-G3-8J	—	
	VPA-G3-10J	—	
	VPA-G3-12J	—	
	VPA-G4-6J	—	G4
	VPA-G4-8J	—	
	VPA-G4-10J	—	
	VPA-G4-12J	—	
	VPA-H3-5/32J 10	○	H3
	VPA-T8-5/32J 10	○	T8
	VPA-T8-1/4J	—	
	VPA-M4-1/4J	—	M4
	VPA-M6-1/8J	—	M6
	VPA-M6-5/32J 10	○	
	VPA-M6-1/4J	—	
	VPA-M10-1/8J	—	M10
	VPA-M10-5/32J	—	
	VPA-M10-3/16J	—	
	VPA-M10-1/4J	—	
	VPA-M10-5/16J	—	
	VPA-M10-3/8J	—	
	VPA-M20-1/8J	—	M20
	VPA-M20-5/32J	—	
	VPA-M20-3/16J	—	
	VPA-M20-1/4J	—	
	VPA-M20-5/16J	—	
	VPA-M20-3/8J	—	
	VPA-M20-1/2J	—	

Joint type: Barb fitting			
Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPA	VPA-H3-4B10	○	H3
	VPA-T8-4B10	○	T8
	VPA-T8-6B10	○	
	VPA-M4-6B10	○	M4
	VPA-M6-4B10	○	M6
	VPA-M6-6B10	○	
	VPA-T8-1/4B	—	T8
	VPA-M4-1/4B	—	M4
	VPA-M6-1/4B	—	M6

Joint type: Female thread			
Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPA	VPA-M6-M610	○	M6
	VPA-M10-G110	○	M10
	VPA-M20-G210	○	M20
	VPA-G1-G1	—	G1
	VPA-G2-G1	—	G2
	VPA-G3-G2	—	G3
	VPA-G4-G2	—	G4
	VPA-M10-N1	—	M10
	VPA-M20-N2	—	M20
	VPA-G1-N1	—	G1
	VPA-G2-N1	—	G2
	VPA-G3-N2	—	G3
	VPA-G4-N2	—	G4

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
10 : -S3⇒-S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Vacuum pads with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable vacuum pads, please see the page of Pad rubber only/Pad & screw set (page 374-).

● Fixed type/Side port/Mini holder (VPMB)

Joint type: Push-in fitting

Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPMB	VPMB-T4-180J	—	T4
	VPMB-T4-2J	—	
	VPMB-T4-3J	—	
	VPMB-T4-4J10	○	
	VPMB-T8-180J	—	T8
	VPMB-T8-2J	—	
	VPMB-T8-3J	—	
	VPMB-T8-4J10	○	
	VPMB-M4-180J	—	M4
	VPMB-M4-2J	—	
	VPMB-M4-3J	—	
	VPMB-M4-4J10	○	
	VPMB-M4-6J10	○	
	VPMB-M6-180J	—	M6
	VPMB-M6-2J	—	
	VPMB-M6-3J	—	
	VPMB-M6-4J10	○	
	VPMB-M6-6J10	○	
	VPMB-T4-1/8J10	○	T4
	VPMB-T4-5/32J10	○	
	VPMB-T8-1/8J10	○	T8
	VPMB-T8-5/32J10	○	
	VPMB-M4-1/8J	—	M4
	VPMB-M4-5/32J10	○	
	VPMB-M4-1/4J	—	
	VPMB-M6-1/8J	—	M6
	VPMB-M6-5/32J10	○	
	VPMB-M6-1/4J	—	

Joint type: Barb fitting

Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPMB	VPMB-T4-3B10	○	T4
	VPMB-T4-4B10	○	
	VPMB-T4-6B10	○	
	VPMB-T8-3B10	○	T8
	VPMB-T8-4B10	○	
	VPMB-T8-6B10	○	
	VPMB-M4-3B10	○	M4
	VPMB-M4-4B10	○	
	VPMB-M4-6B10	○	
	VPMB-M6-3B10	○	M6
	VPMB-M6-4B10	○	
	VPMB-M6-6B10	○	
	VPMB-M4-1/4B	—	M4
	VPMB-M6-1/4B	—	M6

Joint type: Female thread

Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPMB	VPMB-T4-M310	○	T4
	VPMB-T8-M310	○	T8
	VPMB-M4-M510	○	M4
	VPMB-M6-M510	○	M6

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
10 : -S3⇒-S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Vacuum pad holder only

Vacuum pads with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable vacuum pads, please see the page of Pad rubber only/Pad & screw set (page 374-).

● Fixed type/Side port/Standard holder (VPB)

Joint type: Push-in fitting

Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPB	VPB-H3-180J	—	H3
	VPB-H3-2J	—	
	VPB-H3-3J	—	
	VPB-H3-4J10	○	
	VPB-T8-180J	—	T8
	VPB-T8-2J	—	
	VPB-T8-3J	—	
	VPB-T8-4J10	○	
	VPB-T8-6J10	○	
	VPB-M4-3J	—	M4
	VPB-M4-4J10	○	
	VPB-M4-6J10	○	
	VPB-M6-3J	—	M6
	VPB-M6-4J10	○	
	VPB-M6-6J10	○	
	VPB-M10-4J	—	M10
	VPB-M10-6J	—	
	VPB-M10-8J	—	
	VPB-M20-6J	—	M20
	VPB-M20-8J	—	
	VPB-M20-10J	—	
	VPB-G1-4J	—	G1
	VPB-G1-6J	—	
	VPB-G1-8J	—	
	VPB-G2-4J	—	G2
	VPB-G2-6J	—	
	VPB-G2-8J	—	
	VPB-G3-4J	—	G3
	VPB-G3-6J	—	
	VPB-G3-8J	—	
	VPB-G3-10J	—	
	VPB-G4-6J	—	G4
	VPB-G4-8J	—	
	VPB-G4-10J	—	
	VPB-H3-1/8J10	○	H3
	VPB-H3-5/32J10	○	
	VPB-T8-1/8J	—	T8
	VPB-T8-5/32J10	○	
	VPB-T8-1/4J	—	
	VPB-M4-1/8J	—	M4
	VPB-M4-5/32J10	○	
	VPB-M4-1/4J	—	
	VPB-M6-1/8J	—	M6
	VPB-M6-5/32J10	○	
	VPB-M6-1/4J	—	
	VPB-M10-1/8J	—	M10
	VPB-M10-5/32J	—	
	VPB-M10-3/16J	—	
	VPB-M10-1/4J	—	
	VPB-M10-5/16J	—	
	VPB-M20-1/8J	—	M20
	VPB-M20-5/32J	—	
	VPB-M20-3/16J	—	
	VPB-M20-1/4J	—	
	VPB-M20-5/16J	—	
	VPB-M20-3/8J	—	

Joint type: Barb fitting

Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPB	VPB-H3-3B10	○	H3
	VPB-H3-4B10	○	
	VPB-H3-6B10	○	
	VPB-T8-3B10	○	T8
	VPB-T8-4B10	○	
	VPB-T8-6B10	○	
	VPB-M4-4B10	○	M4
	VPB-M4-6B10	○	
	VPB-M6-4B10	○	M6
	VPB-M6-6B10	○	
	VPB-T8-1/4B	—	T8
	VPB-M4-1/4B	—	M4
	VPB-M6-1/4B	—	M6

Joint type: Female thread

Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPB	VPB-H3-M310	○	H3
	VPB-T8-M510	○	T8
	VPB-M4-M610	○	M4
	VPB-M6-M610	○	M6
	VPB-M10-G110	○	M10
	VPB-M20-G210	○	M20
	VPB-G1-G1	—	G1
	VPB-G2-G1	—	G2
	VPB-G3-G1	—	G3
	VPB-G3-G2	—	
	VPB-G4-G2	—	G4
	VPB-M10-N1	—	M10
	VPB-M20-N2	—	M20
	VPB-G1-N1	—	G1
	VPB-G2-N1	—	G2
	VPB-G3-N1	—	G3
	VPB-G3-N2	—	
	VPB-G4-N2	—	G4

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
10 : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Vacuum pads with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable vacuum pads, please see the page of Pad rubber only/Pad & screw set (page 374-).

● Spring type/Top port/Mini holder (VPMC)

Joint type: Push-in fitting			
Holder type	Model code	⑩ : -S3 -S3 spec.	Connection config. code
VPMC	VPMC-T4-2-180J	—	T4
	VPMC-T4-2-2J	—	
	VPMC-T4-2-3J	—	
	VPMC-T8-2-180J	—	T8
	VPMC-T8-2-2J	—	
	VPMC-T8-2-3J	—	
	VPMC-M4-4-180J	—	M4
	VPMC-M4-4-2J	—	
	VPMC-M4-4-3J	—	
	VPMC-M4-4-4J⑩	○	
	VPMC-M6-4-180J	—	M6
	VPMC-M6-4-2J	—	
	VPMC-M6-4-3J	—	
	VPMC-M6-4-4J⑩	○	
	VPMC-M4-4-1/8J	—	M4
	VPMC-M4-4-5/32J⑩	○	
	VPMC-M6-4-1/8J	—	M6
	VPMC-M6-4-5/32J⑩	○	

Joint type: Barb fitting			
Holder type	Model code	⑩ : -S3 -S3 spec.	Connection config. code
VPMC	VPMC-T4-2-3B⑩	○	T4
	VPMC-T4-2-4B⑩	○	
	VPMC-T4-2-6B⑩	○	
	VPMC-T8-2-3B⑩	○	T8
	VPMC-T8-2-4B⑩	○	
	VPMC-T8-2-6B⑩	○	
	VPMC-M4-4-3B⑩	○	M4
	VPMC-M4-4-4B⑩	○	
	VPMC-M4-4-6B⑩	○	
	VPMC-M6-4-3B⑩	○	M6
	VPMC-M6-4-4B⑩	○	
	VPMC-M6-4-6B⑩	○	
	VPMC-M4-4-1/4B	—	M4

● Spring type/Top port/Slim holder (VPSC)

Joint type: Push-in fitting			
Holder type	Model code	⑩ : -S3 -S3 spec.	Connection config. code
VPSC	VPSC-H3-3-180J⑥	—	H3
	VPSC-H3-3-2J⑥	—	
	VPSC-H3-3-3J⑥	—	
	VPSC-H3-3-4J⑥⑩	○	
	VPSC-T8-3-180J⑥	—	T8
	VPSC-T8-3-2J⑥	—	
	VPSC-T8-3-3J⑥	—	
	VPSC-T8-3-4J⑥⑩	○	
	VPSC-H3-3-1/8J⑥⑩	○	H3
	VPSC-H3-3-5/32J⑥⑩	○	
	VPSC-T8-3-1/8J⑥⑩	○	T8
	VPSC-T8-3-5/32J⑥⑩	○	

Joint type: Barb fitting			
Holder type	Model code	⑩ : -S3 -S3 spec.	Connection config. code
VPSC	VPSC-H3-3-3B⑥⑩	○	H3
	VPSC-H3-3-4B⑥⑩	○	
	VPSC-H3-3-6B⑥⑩	○	
	VPSC-T8-3-3B⑥⑩	○	T8
	VPSC-T8-3-4B⑥⑩	○	
	VPSC-T8-3-6B⑥⑩	○	

Joint type: Female thread			
Holder type	Model code	⑩ : -S3 -S3 spec.	Connection config. code
VPSC	VPSC-H3-3-M3⑥⑩	○	H3
	VPSC-T8-3-M3⑥⑩	○	T8

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
⑥ : -DC ⇒ With dust catcher
⑩ : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

● Dust Catcher

Holder type	
VPSC-DC	
Connection config. code	⑩ : -S3 -S3 spec.
H3	○
T8	○

Vacuum pad holder only

Vacuum pads with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable vacuum pads, please see the page of Pad rubber only/Pad & screw set (page 374-).

● Spring type/Top port/Standard holder (VPC)

Joint type: Push-in fitting						
Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code	Model code	10 : -S3 -S3 spec.	Connection config. code
VPC	VPC-H3-3-180J6	—	H3	VPC-M4-6-3J6	—	M4
	VPC-H3-3-2J6	—		VPC-M4-6-4J6 10	○	
	VPC-H3-3-3J6	—		VPC-M4-6-6J6 10	○	
	VPC-H3-3-4J6 10	○		VPC-M4-10-3J6	—	
	VPC-H3-3-6J6 10	○		VPC-M4-10-4J6	—	
	VPC-H3-10-180J6	—		VPC-M4-10-6J6	—	
	VPC-H3-10-2J6	—		VPC-M4-15-3J6	—	
	VPC-H3-10-3J6	—		VPC-M4-15-4J6	—	
	VPC-H3-10-4J6	—		VPC-M4-15-6J6	—	
	VPC-H3-10-6J6	—		VPC-M4-20-3J6	—	
	VPC-H3-15-180J6	—		VPC-M4-20-4J6	—	
	VPC-H3-15-2J6	—		VPC-M4-20-6J6	—	
	VPC-H3-15-3J6	—	M6	VPC-M6-6-3J6		M6
	VPC-H3-15-4J6	—		VPC-M6-6-4J6 10	○	
	VPC-H3-15-6J6	—		VPC-M6-6-6J6 10	○	
	VPC-H3-20-180J6	—		VPC-M6-10-3J6	—	
	VPC-H3-20-2J6	—		VPC-M6-10-4J6	—	
	VPC-H3-20-3J6	—		VPC-M6-10-6J6	—	
	VPC-H3-20-4J6	—		VPC-M6-15-3J6	—	
	VPC-H3-20-6J6	—		VPC-M6-15-4J6	—	
	VPC-T8-3-180J6	—	T8	VPC-M6-15-6J6	—	
	VPC-T8-3-2J6	—		VPC-M6-20-3J6	—	
	VPC-T8-3-3J6	—		VPC-M6-20-4J6	—	
	VPC-T8-3-4J6 10	○		VPC-M6-20-6J6	—	
	VPC-T8-3-6J6 10	○		VPC-M10-10-4J6	—	M10
	VPC-T8-10-180J6	—		VPC-M10-10-6J6	—	
	VPC-T8-10-2J6	—		VPC-M10-10-8J6	—	
	VPC-T8-10-3J6	—		VPC-M20-20-6J6	—	M20
	VPC-T8-10-4J6	—		VPC-M20-20-8J6	—	
	VPC-T8-10-6J6	—		VPC-M20-20-10J6	—	
	VPC-T8-15-180J6	—		VPC-M20-20-12J6	—	
	VPC-T8-15-2J6	—		VPC-G1-10-4J6	—	G1
	VPC-T8-15-3J6	—		VPC-G1-10-6J6	—	
	VPC-T8-15-4J6	—		VPC-G1-10-8J6	—	
	VPC-T8-15-6J6	—		VPC-G2-10-4J6	—	G2
	VPC-T8-20-180J6	—		VPC-G2-10-6J6	—	
	VPC-T8-20-2J6	—		VPC-G2-10-8J6	—	
	VPC-T8-20-3J6	—		VPC-G3-20-6J6	—	G3
	VPC-T8-20-4J6	—		VPC-G3-20-8J6	—	
	VPC-T8-20-6J6	—		VPC-G3-20-10J6	—	
	VPC-H3-3-1/8J6	—	H3	VPC-G3-20-12J6	—	G4
	VPC-H3-3-5/32J6 10	○		VPC-G4-20-6J6	—	
	VPC-H3-3-1/4J6	—		VPC-G4-20-8J6	—	
	VPC-H3-10-1/8J6	—		VPC-G4-20-10J6	—	
	VPC-H3-10-5/32J6	—		VPC-G4-20-12J6	—	
	VPC-H3-10-1/4J6	—	M4	VPC-M4-6-1/8J6	—	
	VPC-H3-15-1/8J6	—		VPC-M4-6-5/32J6 10	○	
	VPC-H3-15-5/32J6	—		VPC-M4-6-1/4J6	—	
	VPC-H3-15-1/4J6	—		VPC-M4-10-1/8J6	—	
	VPC-H3-20-1/8J6	—		VPC-M4-10-5/32J6	—	
	VPC-H3-20-5/32J6	—		VPC-M4-10-1/4J6	—	
	VPC-H3-20-1/4J6	—		VPC-M4-15-1/8J6	—	
	VPC-T8-3-1/8J6	—	T8	VPC-M4-15-5/32J6	—	M6
	VPC-T8-3-5/32J6 10	○		VPC-M4-15-1/4J6	—	
	VPC-T8-3-1/4J6	—		VPC-M4-20-1/8J6	—	
	VPC-T8-10-1/8J6	—		VPC-M4-20-5/32J6	—	
	VPC-T8-10-5/32J6	—		VPC-M4-20-1/4J6	—	
	VPC-T8-10-1/4J6	—		VPC-M6-6-1/8J6	—	
	VPC-T8-15-1/8J6	—		VPC-M6-6-5/32J6 10	○	
	VPC-T8-15-5/32J6	—		VPC-M6-6-1/4J6	—	
	VPC-T8-15-1/4J6	—		VPC-M6-10-1/8J6	—	
	VPC-T8-20-1/8J6	—		VPC-M6-10-5/32J6	—	
	VPC-T8-20-5/32J6	—		VPC-M6-10-1/4J6	—	
	VPC-T8-20-1/4J6	—		VPC-M6-15-1/8J6	—	
				VPC-M6-15-5/32J6	—	
				VPC-M6-15-1/4J6	—	
				VPC-M6-20-1/8J6	—	
				VPC-M6-20-5/32J6	—	
				VPC-M6-20-1/4J6	—	
				VPC-M10-10-1/8J6	—	M10
				VPC-M10-10-5/32J6	—	
				VPC-M10-10-3/16J6	—	
				VPC-M10-10-1/4J6	—	
				VPC-M10-10-5/16J6	—	
				VPC-M10-10-3/8J6	—	
				VPC-M20-20-1/8J6	—	M20
				VPC-M20-20-5/32J6	—	
				VPC-M20-20-3/16J6	—	
				VPC-M20-20-1/4J6	—	
				VPC-M20-20-5/16J6	—	
				VPC-M20-20-3/8J6	—	
				VPC-M20-20-1/2J6	—	

Joint type: Barb fitting			
Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPC	VPC-H3-3-3B6 10	○	H3
	VPC-H3-3-4B6 10	○	
	VPC-H3-3-6B6 10	○	
	VPC-H3-10-3B6	—	
	VPC-H3-10-4B6	—	
	VPC-H3-10-6B6	—	
	VPC-H3-15-3B6	—	
	VPC-H3-15-4B6	—	
	VPC-H3-15-6B6	—	
	VPC-H3-20-3B6	—	
	VPC-H3-20-4B6	—	
	VPC-H3-20-6B6	—	
	VPC-T8-3-3B6 10	○	T8
	VPC-T8-3-4B6 10	○	
	VPC-T8-3-6B6 10	○	
	VPC-T8-10-3B6	—	
	VPC-T8-10-4B6	—	
	VPC-T8-10-6B6	—	
	VPC-T8-15-3B6	—	
	VPC-T8-15-4B6	—	
	VPC-T8-15-6B6	—	
	VPC-T8-20-3B6	—	
	VPC-T8-20-4B6	—	
	VPC-T8-20-6B6	—	
	VPC-M4-6-4B6 10	○	M4
	VPC-M4-6-6B6 10	○	
	VPC-M4-10-4B6	—	
	VPC-M4-10-6B6	—	
	VPC-M4-15-4B6	—	
	VPC-M4-15-6B6	—	
	VPC-M4-20-4B6	—	
	VPC-M4-20-6B6	—	
	VPC-M6-6-4B6 10	○	M6
	VPC-M6-6-6B6 10	○	
	VPC-M6-10-4B6	—	
	VPC-M6-10-6B6	—	
	VPC-M6-15-4B6	—	
	VPC-M6-15-6B6	—	
	VPC-M6-20-4B6	—	
	VPC-M6-20-6B6	—	
	VPC-H3-3-1/4B6	—	H3
	VPC-H3-10-1/4B6	—	
	VPC-H3-15-1/4B6	—	
	VPC-H3-20-1/4B6	—	
	VPC-T8-3-1/4B6	—	T8
	VPC-T8-10-1/4B6	—	
	VPC-T8-15-1/4B6	—	
	VPC-T8-20-1/4B6	—	
	VPC-M4-6-1/4B6	—	M4
	VPC-M4-10-1/4B6	—	
	VPC-M4-15-1/4B6	—	
	VPC-M4-20-1/4B6	—	
	VPC-M6-6-1/4B6	—	M6
	VPC-M6-10-1/4B6	—	
	VPC-M6-15-1/4B6	—	
	VPC-M6-20-1/4B6	—	

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
6 : -DC ⇒ With dust catcher
10 : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Vacuum pads with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable vacuum pads, please see the page of Pad rubber only/Pad & screw set (page 374-).

Joint type: Female thread						
Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code	Model code	10 : -S3 -S3 spec.	Connection config. code
VPC	VPC-H3-3-M5[6][10]	○	H3	VPC-M6-6-M6[6][10]	○	M6
	VPC-H3-10-M5[6]	—		VPC-M6-10-M6[6]	—	
	VPC-H3-15-M5[6]	—		VPC-M6-15-M6[6]	—	
	VPC-H3-20-M5[6]	—		VPC-M6-20-M6[6]	—	
	VPC-T8-3-M5[6][10]	○	T8	VPC-M10-10-G1[6][10]	○	M10
	VPC-T8-10-M5[6]	—		VPC-M20-20-G2[6][10]	○	M20
	VPC-T8-15-M5[6]	—		VPC-G1-10-G1[6][10]	—	G1
	VPC-T8-20-M5[6]	—		VPC-G2-10-G1[6][10]	—	G2
	VPC-M4-6-M6[6][10]	○	M4	VPC-G3-20-G2[6][10]	—	G3
	VPC-M4-10-M6[6]	—		VPC-G4-20-G2[6][10]	—	G4
	VPC-M4-15-M6[6]	—		VPC-M10-10-N1[6]	—	M10
	VPC-M4-20-M6[6]	—		VPC-M20-20-N2[6]	—	M20
				VPC-G1-10-N1[6]	—	G1
				VPC-G2-10-N1[6]	—	G2
				VPC-G3-20-N2[6]	—	G3
				VPC-G4-20-N2[6]	—	G4

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
[6] : -DC ⇒ With dust catcher
[10] : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

● Dust Catcher

Holder type	Connection config. code	10 : -S3 -S3 spec.
VPC-DC	H3	○
	T8	○
	M4	○
	M6	○
	M10	○
	G1 G2	—
	M20	○
	G3 G4	—

Vacuum pad holder only

Vacuum pads with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable vacuum pads, please see the page of Pad rubber only/Pad & screw set (page 374-).

● Spring type/Top port/No cover holder (VPOC)

Joint type: Push-in fitting			Joint type: Push-in fitting			Joint type: Barb fitting		
Holder type	Model code	Connection config. code	Holder type	Model code	Connection config. code	Holder type	Model code	Connection config. code
VPOC	VPOC-T8-20-3J	T8		VPOC-T8-20-1/8J	T8	VPOC	VPOC-T8-20-4B	T8
	VPOC-T8-20-4J			VPOC-T8-20-5/32J			VPOC-T8-20-6B	
	VPOC-T8-20-6J			VPOC-T8-20-1/4J			VPOC-T8-30-4B	
	VPOC-T8-30-3J			VPOC-T8-30-1/8J			VPOC-T8-30-6B	
	VPOC-T8-30-4J			VPOC-T8-30-5/32J			VPOC-T8-40-4B	
	VPOC-T8-30-6J			VPOC-T8-30-1/4J			VPOC-T8-40-6B	
	VPOC-T8-40-3J			VPOC-T8-40-1/8J			VPOC-T8-50-4B	
	VPOC-T8-40-4J			VPOC-T8-40-5/32J			VPOC-T8-50-6B	
	VPOC-T8-40-6J			VPOC-T8-40-1/4J			VPOC-M4-20-4B	M4
	VPOC-T8-50-3J			VPOC-T8-50-1/8J			VPOC-M4-20-6B	
	VPOC-T8-50-4J			VPOC-T8-50-5/32J			VPOC-M4-30-4B	
	VPOC-T8-50-6J			VPOC-T8-50-1/4J			VPOC-M4-30-6B	
	VPOC-M4-20-3J	M4		VPOC-M4-20-1/8J	M4		VPOC-M4-40-4B	
	VPOC-M4-20-4J			VPOC-M4-20-5/32J			VPOC-M4-40-6B	
	VPOC-M4-20-6J			VPOC-M4-20-1/4J			VPOC-M4-50-4B	
	VPOC-M4-30-3J			VPOC-M4-30-1/8J			VPOC-M4-50-6B	
	VPOC-M4-30-4J			VPOC-M4-30-5/32J			VPOC-M6-20-4B	M6
	VPOC-M4-30-6J			VPOC-M4-30-1/4J			VPOC-M6-20-6B	
	VPOC-M4-40-3J			VPOC-M4-40-1/8J			VPOC-M6-30-4B	
	VPOC-M4-40-4J			VPOC-M4-40-5/32J			VPOC-M6-30-6B	
	VPOC-M4-40-6J			VPOC-M4-40-1/4J			VPOC-M6-40-4B	
	VPOC-M4-50-3J			VPOC-M4-50-1/8J			VPOC-M6-40-6B	
	VPOC-M4-50-4J			VPOC-M4-50-5/32J			VPOC-M6-50-4B	
	VPOC-M4-50-6J			VPOC-M4-50-1/4J			VPOC-M6-50-6B	
	VPOC-M6-20-3J	M6		VPOC-M6-20-1/8J	M6		VPOC-T8-20-1/4B	T8
	VPOC-M6-20-4J			VPOC-M6-20-5/32J			VPOC-T8-30-1/4B	
	VPOC-M6-20-6J			VPOC-M6-20-1/4J			VPOC-T8-40-1/4B	
	VPOC-M6-30-3J			VPOC-M6-30-1/8J			VPOC-T8-50-1/4B	
	VPOC-M6-30-4J			VPOC-M6-30-5/32J			VPOC-M4-20-1/4B	M4
	VPOC-M6-30-6J			VPOC-M6-30-1/4J			VPOC-M4-30-1/4B	
	VPOC-M6-40-3J			VPOC-M6-40-1/8J			VPOC-M4-40-1/4B	
	VPOC-M6-40-4J			VPOC-M6-40-5/32J			VPOC-M4-50-1/4B	
	VPOC-M6-40-6J			VPOC-M6-40-1/4J			VPOC-M6-20-1/4B	M6
	VPOC-M6-50-3J			VPOC-M6-50-1/8J			VPOC-M6-30-1/4B	
	VPOC-M6-50-4J			VPOC-M6-50-5/32J			VPOC-M6-40-1/4B	
	VPOC-M6-50-6J			VPOC-M6-50-1/4J			VPOC-M6-50-1/4B	

Joint type: Female thread		
Holder type	Model code	Connection config. code
VPOC	VPOC-T8-20-M6	T8
	VPOC-T8-30-M6	
	VPOC-T8-40-M6	
	VPOC-T8-50-M6	
	VPOC-M4-20-M6	M4
	VPOC-M4-30-M6	
	VPOC-M4-40-M6	
	VPOC-M4-50-M6	
	VPOC-M6-20-M6	M6
	VPOC-M6-30-M6	
	VPOC-M6-40-M6	
	VPOC-M6-50-M6	

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Vacuum pads with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable vacuum pads, please see the page of Pad rubber only/Pad & screw set (page 374-).

● Spring type/Top port/Low dust emission holder (VPLFC)

Joint type: Push-in fitting

Holder type	Model code	Connection config. code
VPLFC	VPLFC-T4-2-3J	T4
	VPLFC-T4-2-4J	
	VPLFC-T4-5-3J6	
	VPLFC-T4-5-4J6	
	VPLFC-T4-10-3J6	
	VPLFC-T4-10-4J6	
	VPLFC-T4-15-3J6	
	VPLFC-T4-15-4J6	
	VPLFC-T4-20-3J6	
	VPLFC-T4-20-4J6	
	VPLFC-T8-2-3J	T8
	VPLFC-T8-2-4J	
	VPLFC-T8-5-3J6	
	VPLFC-T8-5-4J6	
	VPLFC-T8-10-3J6	
	VPLFC-T8-10-4J6	
	VPLFC-T8-15-3J6	
	VPLFC-T8-15-4J6	
	VPLFC-T8-20-3J6	
	VPLFC-T8-20-4J6	
	VPLFC-M4-2-3J	M4
	VPLFC-M4-2-4J	
	VPLFC-M4-5-3J6	
	VPLFC-M4-5-4J6	
	VPLFC-M4-10-3J6	
	VPLFC-M4-10-4J6	
	VPLFC-M4-15-3J6	
	VPLFC-M4-15-4J6	
	VPLFC-M4-20-3J6	
	VPLFC-M4-20-4J6	
	VPLFC-M6-5-3J6	M6
	VPLFC-M6-5-4J6	
	VPLFC-M6-5-6J6	
	VPLFC-M6-10-3J6	
	VPLFC-M6-10-4J6	
	VPLFC-M6-10-6J6	
	VPLFC-M6-15-3J6	
	VPLFC-M6-15-4J6	
	VPLFC-M6-15-6J6	
	VPLFC-M6-20-3J6	
	VPLFC-M6-20-4J6	
	VPLFC-M6-20-6J6	
	VPLFC-T4-2-1/8J6	T4
	VPLFC-T4-2-5/32J6	
	VPLFC-T4-5-1/8J6	
	VPLFC-T4-5-5/32J6	
	VPLFC-T4-10-1/8J6	
	VPLFC-T4-10-5/32J6	
	VPLFC-T4-15-1/8J6	
	VPLFC-T4-15-5/32J6	
	VPLFC-T4-20-1/8J6	
	VPLFC-T4-20-5/32J6	
	VPLFC-T8-2-1/8J6	T8
	VPLFC-T8-2-5/32J6	
	VPLFC-T8-5-1/8J6	
	VPLFC-T8-5-5/32J6	
	VPLFC-T8-10-1/8J6	
	VPLFC-T8-10-5/32J6	
	VPLFC-T8-15-1/8J6	
	VPLFC-T8-15-5/32J6	
	VPLFC-T8-20-1/8J6	
	VPLFC-T8-20-5/32J6	
	VPLFC-M4-2-1/8J6	M4
	VPLFC-M4-2-5/32J6	
	VPLFC-M4-5-1/8J6	
	VPLFC-M4-5-5/32J6	
	VPLFC-M4-10-1/8J6	
	VPLFC-M4-10-5/32J6	
	VPLFC-M4-15-1/8J6	
	VPLFC-M4-15-5/32J6	
	VPLFC-M4-20-1/8J6	
	VPLFC-M4-20-5/32J6	
	VPLFC-M6-5-1/8J6	M6
	VPLFC-M6-5-5/32J6	
	VPLFC-M6-5-1/4J6	
	VPLFC-M6-10-1/8J6	
	VPLFC-M6-10-5/32J6	
	VPLFC-M6-10-1/4J6	
	VPLFC-M6-15-1/8J6	
	VPLFC-M6-15-5/32J6	
	VPLFC-M6-15-1/4J6	
	VPLFC-M6-20-1/8J6	
	VPLFC-M6-20-5/32J6	
	VPLFC-M6-20-1/4J6	

Joint type: Barb fitting

Holder type	Model code	Connection config. code	Model code	Connection config. code
VPLFC	VPLFC-T4-2-3B	T4	VPLFC-M4-2-3B	M4
	VPLFC-T4-2-4B		VPLFC-M4-2-4B	
	VPLFC-T4-2-6B		VPLFC-M4-2-6B	
	VPLFC-T4-5-3B6		VPLFC-M4-5-3B6	
	VPLFC-T4-5-4B6		VPLFC-M4-5-4B6	
	VPLFC-T4-5-6B6		VPLFC-M4-5-6B6	
	VPLFC-T4-10-3B6		VPLFC-M4-10-3B6	
	VPLFC-T4-10-4B6		VPLFC-M4-10-4B6	
	VPLFC-T4-10-6B6		VPLFC-M4-10-6B6	
	VPLFC-T4-15-3B6		VPLFC-M4-15-3B6	
	VPLFC-T4-15-4B6		VPLFC-M4-15-4B6	
	VPLFC-T4-15-6B6		VPLFC-M4-15-6B6	
	VPLFC-T4-20-3B6		VPLFC-M4-20-3B6	
	VPLFC-T4-20-4B6		VPLFC-M4-20-4B6	
	VPLFC-T4-20-6B6		VPLFC-M4-20-6B6	
	VPLFC-T8-2-3B	T8	VPLFC-M6-5-4B6	M6
	VPLFC-T8-2-4B		VPLFC-M6-5-6B6	
	VPLFC-T8-2-6B		VPLFC-M6-10-4B6	
	VPLFC-T8-5-3B6		VPLFC-M6-10-6B6	
	VPLFC-T8-5-4B6		VPLFC-M6-15-4B6	
	VPLFC-T8-5-6B6		VPLFC-M6-15-6B6	
	VPLFC-T8-10-3B6		VPLFC-M6-20-4B6	
	VPLFC-T8-10-4B6		VPLFC-M6-20-6B6	
	VPLFC-T8-10-6B6			
	VPLFC-T8-15-3B6			
	VPLFC-T8-15-4B6			
	VPLFC-T8-15-6B6			
	VPLFC-T8-20-3B6			
	VPLFC-T8-20-4B6			
	VPLFC-T8-20-6B6			

Joint type: Female thread

Holder type	Model code	Connection config. code	Model code	Connection config. code
VPLFC	VPLFC-T4-2-M5	T4	VPLFC-M4-2-M5	M4
	VPLFC-T4-5-M5[6]		VPLFC-M4-5-M5[6]	
	VPLFC-T4-10-M5[6]		VPLFC-M4-10-M5[6]	
	VPLFC-T4-15-M5[6]		VPLFC-M4-15-M5[6]	
	VPLFC-T4-20-M5[6]		VPLFC-M4-20-M5[6]	
	VPLFC-T8-2-M5	T8	VPLFC-M6-5-M6[6]	M6
	VPLFC-T8-5-M5[6]		VPLFC-M6-10-M6[6]	
	VPLFC-T8-10-M5[6]		VPLFC-M6-15-M6[6]	
	VPLFC-T8-15-M5[6]		VPLFC-M6-20-M6[6]	
	VPLFC-T8-20-M5[6]			

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
6 : -SF1/4 ⇒ Spring load 1/4

Vacuum pad holder only

Vacuum pads with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable vacuum pads, please see the page of Pad rubber only/Pad & screw set (page 374-).

● Spring type/Side port/Mini holder (VPMD)

Joint type: Push-in fitting

Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPMD	VPMD-T4-2-180J	—	T4
	VPMD-T4-2-2J	—	
	VPMD-T4-2-3J	—	
	VPMD-T4-2-4J10	○	
	VPMD-T8-2-180J	—	T8
	VPMD-T8-2-2J	—	
	VPMD-T8-2-3J	—	
	VPMD-T8-2-4J10	○	
	VPMD-M4-4-180J	—	M4
	VPMD-M4-4-2J	—	
	VPMD-M4-4-3J	—	
	VPMD-M4-4-4J10	○	
	VPMD-M4-4-6J10	○	
	VPMD-M6-4-180J	—	M6
	VPMD-M6-4-2J	—	
	VPMD-M6-4-3J	—	
	VPMD-M6-4-4J10	○	
	VPMD-M6-4-6J10	○	
	VPMD-T4-2-1/8J10	○	T4
	VPMD-T4-2-5/32J10	○	
	VPMD-T8-2-1/8J10	○	T8
	VPMD-T8-2-5/32J10	○	
	VPMD-M4-4-1/8J	—	M4
	VPMD-M4-4-5/32J10	○	
	VPMD-M4-4-1/4J	—	
	VPMD-M6-4-1/8J	—	M6
	VPMD-M6-4-5/32J10	○	
	VPMD-M6-4-1/4J	—	

Joint type: Barb fitting

Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPMD	VPMD-T4-2-3B10	○	T4
	VPMD-T4-2-4B10	○	
	VPMD-T4-2-6B10	○	
	VPMD-T8-2-3B10	○	T8
	VPMD-T8-2-4B10	○	
	VPMD-T8-2-6B10	○	
	VPMD-M4-4-3B10	○	M4
	VPMD-M4-4-4B10	○	
	VPMD-M4-4-6B10	○	
	VPMD-M6-4-3B10	○	M6
	VPMD-M6-4-4B10	○	
	VPMD-M6-4-6B10	○	
	VPMD-M4-4-1/4B	—	M4
	VPMD-M6-4-1/4B	—	M6

Joint type: Female thread

Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPMD	VPMD-T4-2-M3	○	T4
	VPMD-T8-2-M3	○	T8
	VPMD-M4-4-M5	○	M4
	VPMD-M6-4-M5	○	M6

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
10 : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Vacuum pads with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable vacuum pads, please see the page of Pad rubber only/Pad & screw set (page 374-).

● Spring type/Side port/Standard holder (VPD)

Joint type: Push-in fitting							Joint type: Barb fitting			
Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code	Model code	10 : -S3 -S3 spec.	Connection config. code	Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPD	VPD-H3-3-180J6	—	H3	VPD-M4-6-3J6	—	M4	VPD	VPD-H3-3-3B610	○	H3
	VPD-H3-3-2J6	—		VPD-M4-6-4J610	○			VPD-H3-3-4B610	○	
	VPD-H3-3-3J6	—		VPD-M4-6-6J610	○			VPD-H3-3-6B610	○	
	VPD-H3-3-4J610	○		VPD-M4-10-3J6	—			VPD-H3-10-3B6	—	
	VPD-H3-3-6J610	○		VPD-M4-10-4J6	—			VPD-H3-10-4B6	—	
	VPD-H3-10-180J6	—		VPD-M4-10-6J6	—			VPD-H3-10-6B6	—	
	VPD-H3-10-2J6	—		VPD-M4-15-3J6	—			VPD-H3-15-3B6	—	
	VPD-H3-10-3J6	—		VPD-M4-15-4J6	—			VPD-H3-15-4B6	—	
	VPD-H3-10-4J6	—		VPD-M4-15-6J6	—			VPD-H3-15-6B6	—	
	VPD-H3-10-6J6	—		VPD-M4-20-3J6	—			VPD-H3-20-3B6	—	
	VPD-H3-15-180J6	—		VPD-M4-20-4J6	—			VPD-H3-20-4B6	—	
	VPD-H3-15-2J6	—		VPD-M4-20-6J6	—			VPD-H3-20-6B6	—	
	VPD-H3-15-3J6	—	M6	VPD-M6-6-3J6	—	M6		VPD-T8-3-3B610	○	T8
	VPD-H3-15-4J6	—		VPD-M6-6-4J610	○			VPD-T8-3-4B610	○	
	VPD-H3-15-6J6	—		VPD-M6-6-6J610	○			VPD-T8-3-6B610	○	
	VPD-H3-20-180J6	—		VPD-M6-10-3J6	—			VPD-T8-10-3B6	—	
	VPD-H3-20-2J6	—		VPD-M6-10-4J6	—			VPD-T8-10-4B6	—	
	VPD-H3-20-3J6	—		VPD-M6-10-6J6	—			VPD-T8-10-6B6	—	
	VPD-H3-20-4J6	—		VPD-M6-15-3J6	—			VPD-T8-15-3B6	—	
	VPD-H3-20-6J6	—		VPD-M6-15-4J6	—			VPD-T8-15-4B6	—	
	VPD-T8-3-180J6	—	T8	VPD-M6-15-6J6	—			VPD-T8-15-6B6	—	
	VPD-T8-3-2J6	—		VPD-M6-20-3J6	—			VPD-T8-20-3B6	—	
	VPD-T8-3-3J6	—		VPD-M6-20-4J6	—			VPD-T8-20-4B6	—	
	VPD-T8-3-4J610	○		VPD-M6-20-6J6	—			VPD-T8-20-6B6	—	
	VPD-T8-3-6J610	○		VPD-M10-10-4J6	—	M10		VPD-M4-6-4B610	○	M4
	VPD-T8-10-180J6	—		VPD-M10-10-6J6	—			VPD-M4-6-6B610	○	
	VPD-T8-10-2J6	—		VPD-M10-10-8J6	—			VPD-M4-10-4B6	—	
	VPD-T8-10-3J6	—		VPD-M20-20-6J6	—	M20		VPD-M4-10-6B6	—	
	VPD-T8-10-4J6	—		VPD-M20-20-8J6	—			VPD-M4-15-4B6	—	
	VPD-T8-10-6J6	—		VPD-M20-20-10J6	—			VPD-M4-15-6B6	—	
	VPD-T8-15-180J6	—		VPD-G1-10-4J6	—	G1		VPD-M4-20-4B6	—	
	VPD-T8-15-2J6	—		VPD-G1-10-6J6	—			VPD-M4-20-6B6	—	
	VPD-T8-15-3J6	—		VPD-G1-10-8J6	—			VPD-M6-6-4B610	○	M6
	VPD-T8-15-4J6	—		VPD-G2-10-4J6	—	G2		VPD-M6-6-6B610	○	
	VPD-T8-15-6J6	—		VPD-G2-10-6J6	—			VPD-M6-10-4B6	—	
	VPD-T8-20-180J6	—		VPD-G2-10-8J6	—			VPD-M6-10-6B6	—	
	VPD-T8-20-2J6	—		VPD-G3-10-4J6	—	G3		VPD-M6-15-4B6	—	
	VPD-T8-20-3J6	—		VPD-G3-10-6J6	—			VPD-M6-15-6B6	—	
	VPD-T8-20-4J6	—		VPD-G3-10-8J6	—			VPD-M6-20-4B6	—	
	VPD-T8-20-6J6	—		VPD-G3-20-6J6	—			VPD-M6-20-6B6	—	
	VPD-H3-3-1/8J6	—	H3	VPD-G3-20-8J6	—			VPD-H3-3-1/4B6	—	H3
	VPD-H3-3-5/32J610	○		VPD-G3-20-10J6	—			VPD-H3-10-1/4B6	—	
	VPD-H3-3-1/4J6	—		VPD-G4-20-6J6	—	G4		VPD-H3-15-1/4B6	—	
	VPD-H3-10-1/8J6	—		VPD-G4-20-8J6	—			VPD-H3-20-1/4B6	—	
	VPD-H3-10-5/32J6	—		VPD-G4-20-10J6	—			VPD-T8-3-1/4B6	—	T8
	VPD-H3-10-1/4J6	—		VPD-M4-6-1/8J6	—	M4		VPD-T8-10-1/4B6	—	
	VPD-H3-15-1/8J6	—		VPD-M4-6-5/32J610	○			VPD-T8-15-1/4B6	—	
	VPD-H3-15-5/32J6	—		VPD-M4-6-1/4J6	—			VPD-T8-20-1/4B6	—	
	VPD-H3-15-1/4J6	—		VPD-M4-10-1/8J6	—			VPD-M4-6-1/4B6	—	M4
	VPD-H3-20-1/8J6	—		VPD-M4-10-5/32J6	—			VPD-M4-10-1/4B6	—	
	VPD-H3-20-5/32J6	—		VPD-M4-10-1/4J6	—			VPD-M4-15-1/4B6	—	
	VPD-H3-20-1/4J6	—		VPD-M4-15-1/8J6	—			VPD-M4-20-1/4B6	—	
	VPD-T8-3-1/8J6	—	T8	VPD-M4-15-5/32J6	—			VPD-M6-6-1/4B6	—	M6
	VPD-T8-3-5/32J610	○		VPD-M4-15-1/4J6	—			VPD-M6-10-1/4B6	—	
	VPD-T8-3-1/4J6	—		VPD-M4-20-1/8J6	—			VPD-M6-15-1/4B6	—	
	VPD-T8-10-1/8J6	—		VPD-M4-20-5/32J6	—			VPD-M6-20-1/4B6	—	
	VPD-T8-10-5/32J6	—		VPD-M4-20-1/4J6	—					
	VPD-T8-10-1/4J6	—		VPD-M6-6-1/8J6	—	M6				
	VPD-T8-15-1/8J6	—		VPD-M6-6-5/32J610	○					
	VPD-T8-15-5/32J6	—		VPD-M6-6-1/4J6	—					
	VPD-T8-15-1/4J6	—		VPD-M6-10-1/8J6	—					
	VPD-T8-20-1/8J6	—		VPD-M6-10-5/32J6	—					
	VPD-T8-20-5/32J6	—		VPD-M6-10-1/4J6	—					
	VPD-T8-20-1/4J6	—		VPD-M6-15-1/8J6	—					
				VPD-M6-15-5/32J6	—					
				VPD-M6-15-1/4J6	—					
				VPD-M6-20-1/8J6	—					
				VPD-M6-20-5/32J6	—					
				VPD-M6-20-1/4J6	—					
				VPD-M10-10-1/8J6	—	M10				
				VPD-M10-10-5/32J6	—					
				VPD-M10-10-3/16J6	—					
				VPD-M10-10-1/4J6	—					
				VPD-M10-10-5/16J6	—					
				VPD-M10-10-3/8J6	—					
				VPD-M20-20-1/8J6	—	M20				
				VPD-M20-20-5/32J6	—					
				VPD-M20-20-3/16J6	—					
				VPD-M20-20-1/4J6	—					
				VPD-M20-20-5/16J6	—					
				VPD-M20-20-3/8J6	—					
				VPD-M20-20-1/2J6	—					

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
6 : -DC ⇒ With dust catcher
10 : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Vacuum pad holder only

Vacuum pads with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable vacuum pads, please see the page of Pad rubber only/Pad & screw set (page 374-).

Joint type: Female thread						
Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code	Model code	10 : -S3 -S3 spec.	Connection config. code
VPD	VPD-H3-3-M5 6 10	○	H3	VPD-M6-6-M6 6 10	○	M6
	VPD-H3-10-M5 6	—		VPD-M6-10-M6 6	—	
	VPD-H3-15-M5 6	—		VPD-M6-15-M6 6	—	
	VPD-H3-20-M5 6	—		VPD-M6-20-M6 6	—	
	VPD-T8-3-M5 6 10	○	T8	VPD-M10-10-G1 6 10	○	M10
	VPD-T8-10-M5 6	—		VPD-M20-20-G2 6 10	○	M20
	VPD-T8-15-M5 6	—		VPD-G1-10-G1 6	—	G1
	VPD-T8-20-M5 6	—		VPD-G2-10-G1 6	—	G2
	VPD-M4-6-M6 6 10	○	M4	VPD-G3-10-G1 6	—	G3
	VPD-M4-10-M6 6	—		VPD-G3-20-G2 6	—	
	VPD-M4-15-M6 6	—		VPD-G4-20-G2 6	—	G4
	VPD-M4-20-M6 6	—		VPD-M10-10-N1 6	—	M10
				VPD-M20-20-N2 6	—	M20
				VPD-G1-10-N1 6	—	G1
				VPD-G2-10-N1 6	—	G2
				VPD-G3-10-N1 6	—	G3
				VPD-G3-20-N2 6	—	
				VPD-G4-20-N2 6	—	G4

● Dust Catcher

Holder type	Connection config. code	10 : -S3 -S3 spec.
VPD-DC	H3	○
	T8	○
	M4	○
	M6	○
	M10	○
	G1 G2 G3(*1)	—
	M20	○
	G3(*2) G4	—

*1. Stroke 10 mm only.
*2. Stroke 20 mm only.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
6 : -DC ⇒ With dust catcher
10 : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Vacuum pads with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable vacuum pads, please see the page of Pad rubber only/Pad & screw set (page 374-).

● Spring type/Side port/No cover holder (VPOD)

Joint type: Push-in fitting		
Holder type	Model code	Connection config. code
VPOD	VPOD-T8-20-3J	T8
	VPOD-T8-20-4J	
	VPOD-T8-20-6J	
	VPOD-T8-30-3J	
	VPOD-T8-30-4J	
	VPOD-T8-30-6J	
	VPOD-T8-40-3J	
	VPOD-T8-40-4J	
	VPOD-T8-40-6J	
	VPOD-T8-50-3J	
	VPOD-T8-50-4J	
	VPOD-T8-50-6J	
	VPOD-M4-20-3J	M4
	VPOD-M4-20-4J	
	VPOD-M4-20-6J	
	VPOD-M4-30-3J	
	VPOD-M4-30-4J	
	VPOD-M4-30-6J	
	VPOD-M4-40-3J	
	VPOD-M4-40-4J	
	VPOD-M4-40-6J	
	VPOD-M4-50-3J	
	VPOD-M4-50-4J	
	VPOD-M4-50-6J	
	VPOD-M6-20-3J	M6
	VPOD-M6-20-4J	
	VPOD-M6-20-6J	
	VPOD-M6-30-3J	
	VPOD-M6-30-4J	
	VPOD-M6-30-6J	
	VPOD-M6-40-3J	
	VPOD-M6-40-4J	
	VPOD-M6-40-6J	
	VPOD-M6-50-3J	
	VPOD-M6-50-4J	
	VPOD-M6-50-6J	
	VPOD-T8-20-1/8J	T8
	VPOD-T8-20-5/32J	
	VPOD-T8-20-1/4J	
	VPOD-T8-30-1/8J	
	VPOD-T8-30-5/32J	
	VPOD-T8-30-1/4J	
	VPOD-T8-40-1/8J	
	VPOD-T8-40-5/32J	
	VPOD-T8-40-1/4J	
	VPOD-T8-50-1/8J	
	VPOD-T8-50-5/32J	
	VPOD-T8-50-1/4J	
	VPOD-M4-20-1/8J	M4
	VPOD-M4-20-5/32J	
	VPOD-M4-20-1/4J	
	VPOD-M4-30-1/8J	
	VPOD-M4-30-5/32J	
	VPOD-M4-30-1/4J	
	VPOD-M4-40-1/8J	
	VPOD-M4-40-5/32J	
	VPOD-M4-40-1/4J	
	VPOD-M4-50-1/8J	
	VPOD-M4-50-5/32J	
	VPOD-M4-50-1/4J	
	VPOD-M6-20-1/8J	M6
	VPOD-M6-20-5/32J	
	VPOD-M6-20-1/4J	
	VPOD-M6-30-1/8J	
	VPOD-M6-30-5/32J	
	VPOD-M6-30-1/4J	
	VPOD-M6-40-1/8J	
	VPOD-M6-40-5/32J	
	VPOD-M6-40-1/4J	
	VPOD-M6-50-1/8J	
	VPOD-M6-50-5/32J	
	VPOD-M6-50-1/4J	

Joint type: Barb fitting		
Holder type	Model code	Connection config. code
VPOD	VPOD-T8-20-4B	T8
	VPOD-T8-20-6B	
	VPOD-T8-30-4B	
	VPOD-T8-30-6B	
	VPOD-T8-40-4B	
	VPOD-T8-40-6B	
	VPOD-T8-50-4B	
	VPOD-T8-50-6B	
	VPOD-M4-20-4B	M4
	VPOD-M4-20-6B	
	VPOD-M4-30-4B	
	VPOD-M4-30-6B	
	VPOD-M4-40-4B	
	VPOD-M4-40-6B	
	VPOD-M4-50-4B	
	VPOD-M4-50-6B	
	VPOD-M6-20-4B	M6
	VPOD-M6-20-6B	
	VPOD-M6-30-4B	
	VPOD-M6-30-6B	
	VPOD-M6-40-4B	
	VPOD-M6-40-6B	
	VPOD-M6-50-4B	
	VPOD-M6-50-6B	
	VPOD-T8-20-1/4B	T8
	VPOD-T8-30-1/4B	
	VPOD-T8-40-1/4B	
	VPOD-T8-50-1/4B	
	VPOD-M4-20-1/4B	M4
	VPOD-M4-30-1/4B	
	VPOD-M4-40-1/4B	
	VPOD-M4-50-1/4B	
	VPOD-M6-20-1/4B	M6
	VPOD-M6-30-1/4B	
	VPOD-M6-40-1/4B	
	VPOD-M6-50-1/4B	

Joint type: Female thread		
Holder type	Model code	Connection config. code
VPOD	VPOD-T8-20-M6	T8
	VPOD-T8-30-M6	
	VPOD-T8-40-M6	
	VPOD-T8-50-M6	
	VPOD-M4-20-M6	M4
	VPOD-M4-30-M6	
	VPOD-M4-40-M6	
	VPOD-M4-50-M6	
	VPOD-M6-20-M6	M6
	VPOD-M6-30-M6	
	VPOD-M6-40-M6	
	VPOD-M6-50-M6	

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Vacuum pad holder only

Vacuum pads with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable vacuum pads, please see the page of Pad rubber only/Pad & screw set (page 374-).

● Spring type/Side port/Low dust emission holder (VPLFD)

Joint type: Push-in fitting			Joint type: Barb fitting			
Holder type	Model code	Connection config. code	Holder type	Model code	Connection config. code	Model code	Connection config. code
VPLFD	VPLFD-T4-5-3J	T4	VPLFD	VPLFD-T4-5-3B	T4	VPLFD-M4-5-3B	M4
	VPLFD-T4-5-4J			VPLFD-T4-5-4B		VPLFD-M4-5-4B	
	VPLFD-T4-10-3J			VPLFD-T4-5-6B		VPLFD-M4-5-6B	
	VPLFD-T4-10-4J			VPLFD-T4-10-3B		VPLFD-M4-10-3B	
	VPLFD-T4-15-3J			VPLFD-T4-10-4B		VPLFD-M4-10-4B	
	VPLFD-T4-15-4J			VPLFD-T4-10-6B		VPLFD-M4-10-6B	
	VPLFD-T4-20-3J			VPLFD-T4-15-3B		VPLFD-M4-15-3B	
	VPLFD-T4-20-4J			VPLFD-T4-15-4B		VPLFD-M4-15-4B	
	VPLFD-T8-5-3J	T8		VPLFD-T4-15-6B		VPLFD-M4-15-6B	
	VPLFD-T8-5-4J			VPLFD-T4-20-3B		VPLFD-M4-20-3B	
	VPLFD-T8-10-3J			VPLFD-T4-20-4B		VPLFD-M4-20-4B	
	VPLFD-T8-10-4J			VPLFD-T4-20-6B		VPLFD-M4-20-6B	
	VPLFD-T8-15-3J			VPLFD-T8-5-3B	T8	VPLFD-M6-5-4B	M6
	VPLFD-T8-15-4J			VPLFD-T8-5-4B		VPLFD-M6-5-6B	
	VPLFD-T8-20-3J			VPLFD-T8-5-6B		VPLFD-M6-10-4B	
	VPLFD-T8-20-4J			VPLFD-T8-10-3B		VPLFD-M6-10-6B	
	VPLFD-M4-5-3J	M4		VPLFD-T8-10-4B		VPLFD-M6-15-4B	
	VPLFD-M4-5-4J			VPLFD-T8-10-6B		VPLFD-M6-15-6B	
	VPLFD-M4-10-3J			VPLFD-T8-15-3B		VPLFD-M6-20-4B	
	VPLFD-M4-10-4J			VPLFD-T8-15-4B		VPLFD-M6-20-6B	
	VPLFD-M4-15-3J			VPLFD-T8-15-6B			
	VPLFD-M4-15-4J			VPLFD-T8-20-3B			
	VPLFD-M4-20-3J			VPLFD-T8-20-4B			
	VPLFD-M4-20-4J			VPLFD-T8-20-6B			
	VPLFD-M6-5-3J	M6					
	VPLFD-M6-5-4J						
	VPLFD-M6-5-6J						
	VPLFD-M6-10-3J						
	VPLFD-M6-10-4J						
	VPLFD-M6-10-6J						
	VPLFD-M6-15-3J						
	VPLFD-M6-15-4J						
	VPLFD-M6-15-6J						
	VPLFD-M6-20-3J						
	VPLFD-M6-20-4J						
	VPLFD-M6-20-6J						
	VPLFD-T4-5-1/8J	T4					
	VPLFD-T4-5-5/32J						
	VPLFD-T4-10-1/8J						
	VPLFD-T4-10-5/32J						
	VPLFD-T4-15-1/8J						
	VPLFD-T4-15-5/32J						
	VPLFD-T4-20-1/8J						
	VPLFD-T4-20-5/32J						
	VPLFD-T8-5-1/8J	T8					
	VPLFD-T8-5-5/32J						
	VPLFD-T8-10-1/8J						
	VPLFD-T8-10-5/32J						
	VPLFD-T8-15-1/8J						
	VPLFD-T8-15-5/32J						
	VPLFD-T8-20-1/8J						
	VPLFD-T8-20-5/32J						
	VPLFD-M4-5-1/8J	M4					
	VPLFD-M4-5-5/32J						
	VPLFD-M4-10-1/8J						
	VPLFD-M4-10-5/32J						
	VPLFD-M4-15-1/8J						
	VPLFD-M4-15-5/32J						
	VPLFD-M4-20-1/8J						
	VPLFD-M4-20-5/32J						
	VPLFD-M6-5-1/8J	M6					
	VPLFD-M6-5-5/32J						
	VPLFD-M6-5-1/4J						
	VPLFD-M6-10-1/8J						
	VPLFD-M6-10-5/32J						
	VPLFD-M6-10-1/4J						
	VPLFD-M6-15-1/8J						
	VPLFD-M6-15-5/32J						
	VPLFD-M6-15-1/4J						
	VPLFD-M6-20-1/8J						
	VPLFD-M6-20-5/32J						
	VPLFD-M6-20-1/4J						

Joint type: Female thread				
Holder type	Model code	Connection config. code	Model code	Connection config. code
VPLFD	VPLFD-T4-5-M5	T4	VPLFD-M4-5-M5	M4
	VPLFD-T4-10-M5		VPLFD-M4-10-M5	
	VPLFD-T4-15-M5		VPLFD-M4-15-M5	
	VPLFD-T4-20-M5		VPLFD-M4-20-M5	
	VPLFD-T8-5-M5	T8	VPLFD-M6-5-M6	M6
	VPLFD-T8-10-M5		VPLFD-M6-10-M6	
	VPLFD-T8-15-M5		VPLFD-M6-15-M6	
	VPLFD-T8-20-M5		VPLFD-M6-20-M6	

● Fixed type/Direct mount/Mini holder (VPME)

Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPME	VPME-T4-M3 10	○	T4
	VPME-T8-M5 10	○	T8

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
10 : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Vacuum pads with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable vacuum pads, please see the page of Pad rubber only/Pad & screw set (page 374-).

● Fixed type/Direct mount/Standard holder (VPE)

Joint type: Male thread							Joint type: Female thread		
Holder type	Model code	⑩ : -S3 -S3 spec.	Connection config. code	Model code	⑩ : -S3 -S3 spec.	Connection config. code	Holder type	Model code	Connection config. code
VPE Metric thread	VPE-T4-M5⑩	○	T4	VPE-M20-R3	(*)	M20	VPE	VPE-T4-FM5	T4
	VPE-H3-M3⑩	○	H3	VPE-M20-R4	(*)			VPE-T4-FM8	
	VPE-H3-M5⑩	○		VPE-M20-G3	(*)			VPE-H3-FM5	H3
	VPE-T8-M5⑩	○	T8	VPE-M20-G4	(*)			VPE-H3-FM8	
	VPE-M4-M8	(*)	M4	VPE-T15-M8	(*)	T15		VPE-T8-FM5	T8
	VPE-M4-M10	(*)		VPE-T15-M10	(*)			VPE-T8-FM8	
	VPE-M4-M12	(*)		VPE-T15-M12	(*)			VPE-M4-FM5	M4
	VPE-M4-M14	(*)		VPE-T15-M14	(*)			VPE-M4-FM8	
Taper pipe thread	VPE-M4-R1	(*)		VPE-T15-R1	(*)			VPE-M6-FM5	M6
	VPE-M4-R2	(*)		VPE-T15-R2	(*)			VPE-M6-FM8	
	VPE-M4-R3	(*)		VPE-T15-R3	(*)			VPE-T15-FM5	T15
	VPE-M4-G1	(*)		VPE-T15-G1	(*)			VPE-T15-FM8	
	VPE-M4-G2	(*)		VPE-T15-G2	(*)			VPE-T40-FM5	T40
	VPE-M4-G3	(*)		VPE-T15-G3	(*)			VPE-T40-FM8	
Parallel pipe thread	VPE-M6-M8	(*)	M6	VPE-T40-M8	(*)	T40			
	VPE-M6-M10	(*)		VPE-T40-M10	(*)				
	VPE-M6-M12	(*)		VPE-T40-M12	(*)				
	VPE-M6-M14	(*)		VPE-T40-M14	(*)				
	VPE-M6-R1	(*)		VPE-T40-R1	(*)				
	VPE-M6-R2	(*)		VPE-T40-R2	(*)				
	VPE-M6-R3	(*)		VPE-T40-R3	(*)				
	VPE-M6-R4	(*)		VPE-T40-R4	(*)				
	VPE-M6-G1	(*)		VPE-T40-G1	(*)				
	VPE-M6-G2	(*)		VPE-T40-G2	(*)				
	VPE-M6-G3	(*)		VPE-T40-G3	(*)				
	VPE-M6-G4	(*)		VPE-T40-G4	—				
	VPE-M10-M12	(*)	M10	VPE-M4-N1	—	M4			
	VPE-M10-M14	(*)		VPE-M4-N2	—				
	VPE-M10-R1	(*)		VPE-M4-N3	—				
	VPE-M10-R2	(*)		VPE-M6-N1	—	M6			
	VPE-M10-R3	(*)		VPE-M6-N2	—				
	VPE-M10-R4	(*)		VPE-M6-N3	—				
	VPE-M10-G1	(*)		VPE-M6-N4	—				
	VPE-M10-G2	(*)		VPE-M10-N1	—	M10			
	VPE-M10-G3	(*)		VPE-M10-N2	—				
	VPE-M10-G4	(*)		VPE-M10-N3	—				
				VPE-M10-N4	—				
				VPE-M20-N3	—	M20			
				VPE-M20-N4	—				
				VPE-T15-N1	—	T15			
				VPE-T15-N2	—				
				VPE-T15-N3	—				
				VPE-T40-N1	—	T40			
				VPE-T40-N2	—				
				VPE-T40-N3	—				
				VPE-T40-N4	—				

● Spring type/Direct mount holder (VPF)

Holder type	Model code	⑩ : -S3 -S3 spec.	Connection config. code
VPF	VPF-H3⑥⑩	○	H3
	VPF-T8⑥⑩	○	T8
	VPF-M4⑥⑩	○	M4
	VPF-M6⑥⑩	○	M6

Notes
*The standard spec. is equivalent to "-S3" spec.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
⑥ : -DC ⇒ With dust catcher
⑩ : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

● Dust Catcher

Holder type	Connection config. code	⑩ : -S3 -S3 spec.
VPF-DC	H3	○
	T8	○
	M4	○
	M6	○

Vacuum pad holder only

Vacuum pads with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable vacuum pads, please see the page of Pad rubber only/Pad & screw set (page 374-).

● Spring type/Top port/Lightweight holder (VPHC)

*Configuration code: T15, T40 are for Soft and Soft bellows pad only.

Joint type: Push-in fitting

Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPHC	VPHC-T15-9-180J	—	
	VPHC-T15-9-2J	—	
	VPHC-T15-9-3J	—	T15
	VPHC-T15-9-4J10	○	
	VPHC-T15-9-6J10	○	
	VPHC-T40-9-180J	—	
	VPHC-T40-9-2J	—	
	VPHC-T40-9-3J	—	T40
	VPHC-T40-9-4J10	○	
	VPHC-T40-9-6J10	○	
	VPHC-M4-10-180J	—	
	VPHC-M4-10-2J	—	
	VPHC-M4-10-3J	—	
	VPHC-M4-10-4J10	○	
	VPHC-M4-10-6J10	○	
	VPHC-M4-15-180J	—	
	VPHC-M4-15-2J	—	
	VPHC-M4-15-3J	—	
	VPHC-M4-15-4J10	○	
	VPHC-M4-15-6J10	○	
	VPHC-M4-20-180J	—	
	VPHC-M4-20-2J	—	
	VPHC-M4-20-3J	—	
	VPHC-M4-20-4J10	○	
	VPHC-M4-20-6J10	○	
	VPHC-M4-25-180J	—	
	VPHC-M4-25-2J	—	
	VPHC-M4-25-3J	—	M4
	VPHC-M4-25-4J10	○	
	VPHC-M4-25-6J10	○	
	VPHC-M4-30-180J	—	
	VPHC-M4-30-2J	—	
	VPHC-M4-30-3J	—	
	VPHC-M4-30-4J10	○	
	VPHC-M4-30-6J10	○	
	VPHC-M4-40-180J	—	
	VPHC-M4-40-2J	—	
	VPHC-M4-40-3J	—	
	VPHC-M4-40-4J10	○	
	VPHC-M4-40-6J10	○	
	VPHC-M4-50-180J	—	
	VPHC-M4-50-2J	—	
	VPHC-M4-50-3J	—	
	VPHC-M4-50-4J10	○	
	VPHC-M4-50-6J10	○	
	VPHC-M6-10-180J	—	
	VPHC-M6-10-2J	—	
	VPHC-M6-10-3J	—	
	VPHC-M6-10-4J10	○	
	VPHC-M6-10-6J10	○	
	VPHC-M6-15-180J	—	
	VPHC-M6-15-2J	—	
	VPHC-M6-15-3J	—	
	VPHC-M6-15-4J10	○	
	VPHC-M6-15-6J10	○	
	VPHC-M6-20-180J	—	
	VPHC-M6-20-2J	—	
	VPHC-M6-20-3J	—	
	VPHC-M6-20-4J10	○	
	VPHC-M6-20-6J10	○	
	VPHC-M6-25-180J	—	
	VPHC-M6-25-2J	—	
	VPHC-M6-25-3J	—	M6
	VPHC-M6-25-4J10	○	
	VPHC-M6-25-6J10	○	
	VPHC-M6-30-180J	—	
	VPHC-M6-30-2J	—	
	VPHC-M6-30-3J	—	
	VPHC-M6-30-4J10	○	
	VPHC-M6-30-6J10	○	
	VPHC-M6-40-180J	—	
	VPHC-M6-40-2J	—	
	VPHC-M6-40-3J	—	
	VPHC-M6-40-4J10	○	
	VPHC-M6-40-6J10	○	
	VPHC-M6-50-180J	—	
	VPHC-M6-50-2J	—	
	VPHC-M6-50-3J	—	
	VPHC-M6-50-4J10	○	
	VPHC-M6-50-6J10	○	

Model code	10 : -S3 -S3 spec.	Connection config. code
VPHC-T15-9-1/8J	—	
VPHC-T15-9-5/32J10	○	T15
VPHC-T15-9-1/4J	—	
VPHC-T40-9-1/8J	—	
VPHC-T40-9-5/32J10	○	T40
VPHC-T40-9-1/4J	—	
VPHC-M4-10-1/8J	—	
VPHC-M4-10-5/32J10	○	
VPHC-M4-10-1/4J	—	
VPHC-M4-15-1/8J	—	
VPHC-M4-15-5/32J10	○	
VPHC-M4-15-1/4J	—	
VPHC-M4-20-1/8J	—	
VPHC-M4-20-5/32J10	○	
VPHC-M4-20-1/4J	—	
VPHC-M4-25-1/8J	—	
VPHC-M4-25-5/32J10	○	M4
VPHC-M4-25-1/4J	—	
VPHC-M4-30-1/8J	—	
VPHC-M4-30-5/32J10	○	
VPHC-M4-30-1/4J	—	
VPHC-M4-40-1/8J	—	
VPHC-M4-40-5/32J10	○	
VPHC-M4-40-1/4J	—	
VPHC-M4-50-1/8J	—	
VPHC-M4-50-5/32J10	○	
VPHC-M4-50-1/4J	—	
VPHC-M6-10-1/8J	—	
VPHC-M6-10-5/32J10	○	
VPHC-M6-10-1/4J	—	
VPHC-M6-15-1/8J	—	
VPHC-M6-15-5/32J10	○	
VPHC-M6-15-1/4J	—	
VPHC-M6-20-1/8J	—	
VPHC-M6-20-5/32J10	○	
VPHC-M6-20-1/4J	—	
VPHC-M6-25-1/8J	—	
VPHC-M6-25-5/32J10	○	M6
VPHC-M6-25-1/4J	—	
VPHC-M6-30-1/8J	—	
VPHC-M6-30-5/32J10	○	
VPHC-M6-30-1/4J	—	
VPHC-M6-40-1/8J	—	
VPHC-M6-40-5/32J10	○	
VPHC-M6-40-1/4J	—	
VPHC-M6-50-1/8J	—	
VPHC-M6-50-5/32J10	○	
VPHC-M6-50-1/4J	—	

Joint type: Barb fitting

Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPHC	VPHC-T15-9-3B10	○	
	VPHC-T15-9-4B10	○	T15
	VPHC-T15-9-6B10	○	
	VPHC-T40-9-3B10	○	
	VPHC-T40-9-4B10	○	T40
	VPHC-T40-9-6B10	○	
	VPHC-M4-10-3B10	○	
	VPHC-M4-10-4B10	○	
	VPHC-M4-10-6B10	○	
	VPHC-M4-15-3B10	○	
	VPHC-M4-15-4B10	○	
	VPHC-M4-15-6B10	○	
	VPHC-M4-20-3B10	○	
	VPHC-M4-20-4B10	○	
	VPHC-M4-20-6B10	○	
	VPHC-M4-25-3B10	○	
	VPHC-M4-25-4B10	○	M4
	VPHC-M4-25-6B10	○	
	VPHC-M4-30-3B10	○	
	VPHC-M4-30-4B10	○	
	VPHC-M4-30-6B10	○	
	VPHC-M4-40-3B10	○	
	VPHC-M4-40-4B10	○	
	VPHC-M4-40-6B10	○	
	VPHC-M4-50-3B10	○	
	VPHC-M4-50-4B10	○	
	VPHC-M4-50-6B10	○	
	VPHC-M6-10-3B10	○	
	VPHC-M6-10-4B10	○	
	VPHC-M6-10-6B10	○	
	VPHC-M6-15-3B10	○	
	VPHC-M6-15-4B10	○	
	VPHC-M6-15-6B10	○	
	VPHC-M6-20-3B10	○	
	VPHC-M6-20-4B10	○	
	VPHC-M6-20-6B10	○	
	VPHC-M6-25-3B10	○	M6
	VPHC-M6-25-4B10	○	
	VPHC-M6-25-6B10	○	
	VPHC-M6-30-3B10	○	
	VPHC-M6-30-4B10	○	
	VPHC-M6-30-6B10	○	
	VPHC-M6-40-3B10	○	
	VPHC-M6-40-4B10	○	
	VPHC-M6-40-6B10	○	
	VPHC-M6-50-3B10	○	
	VPHC-M6-50-4B10	○	
	VPHC-M6-50-6B10	○	
	VPHC-T15-9-1/4B	—	T15
	VPHC-T40-9-1/4B	—	T40
	VPHC-M4-10-1/4B	—	
	VPHC-M4-15-1/4B	—	
	VPHC-M4-20-1/4B	—	
	VPHC-M4-25-1/4B	—	M4
	VPHC-M4-30-1/4B	—	
	VPHC-M4-40-1/4B	—	
	VPHC-M4-50-1/4B	—	
	VPHC-M6-10-1/4B	—	
	VPHC-M6-15-1/4B	—	
	VPHC-M6-20-1/4B	—	
	VPHC-M6-25-1/4B	—	M6
	VPHC-M6-30-1/4B	—	
	VPHC-M6-40-1/4B	—	
	VPHC-M6-50-1/4B	—	

Joint type: Female thread

Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPHC	VPHC-T15-9-M510	○	T15
	VPHC-T40-9-M510	○	T40
	VPHC-M4-10-M510	○	
	VPHC-M4-15-M510	○	
	VPHC-M4-20-M510	○	
	VPHC-M4-25-M510	○	M4
	VPHC-M4-30-M510	○	
	VPHC-M4-40-M510	○	
	VPHC-M4-50-M510	○	

Model code	10 : -S3 -S3 spec.	Connection config. code
VPHC-M6-10-M510	○	
VPHC-M6-15-M510	○	
VPHC-M6-20-M510	○	
VPHC-M6-25-M510	○	M6
VPHC-M6-30-M510	○	
VPHC-M6-40-M510	○	
VPHC-M6-50-M510	○	

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
10 : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Vacuum pads with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable vacuum pads, please see the page of Pad rubber only/Pad & screw set (page 374-).

● Spring type/Side port/No cover Lightweight holder (VPHD)

*Configuration code: T15, T40 are for Soft and Soft bellows pad only.

Joint type: Push-in fitting

Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPHD	VPHD-T15-5-180J	—	
	VPHD-T15-5-2J	—	
	VPHD-T15-5-3J	—	T15
	VPHD-T15-5-4J10	○	
	VPHD-T15-5-6J10	○	
	VPHD-T40-5-180J	—	
	VPHD-T40-5-2J	—	
	VPHD-T40-5-3J	—	T40
	VPHD-T40-5-4J10	○	
	VPHD-T40-5-6J10	○	
	VPHD-T8-5-180J	—	
	VPHD-T8-5-2J	—	
	VPHD-T8-5-3J	—	T8
	VPHD-T8-5-4J	—	
	VPHD-T8-5-6J	—	
	VPHD-M4-5-180J	—	
	VPHD-M4-5-2J	—	
	VPHD-M4-5-3J	—	M4
	VPHD-M4-5-4J	—	
	VPHD-M4-5-6J	—	
	VPHD-M6-5-180J	—	
	VPHD-M6-5-2J	—	
	VPHD-M6-5-3J	—	M6
	VPHD-M6-5-4J	—	
	VPHD-M6-5-6J	—	
	VPHD-T15-5-1/8J	—	
	VPHD-T15-5-5/32J10	○	T15
	VPHD-T15-5-1/4J	—	
	VPHD-T40-5-1/8J	—	
	VPHD-T40-5-5/32J10	○	T40
	VPHD-T40-5-1/4J	—	
	VPHD-T8-5-1/8J	—	
	VPHD-T8-5-5/32J	—	T8
	VPHD-T8-5-1/4J	—	
	VPHD-M4-5-1/8J	—	
	VPHD-M4-5-5/32J	—	M4
	VPHD-M4-5-1/4J	—	
	VPHD-M6-5-1/8J	—	
	VPHD-M6-5-5/32J	—	M6
	VPHD-M6-5-1/4J	—	

Joint type: Barb fitting

Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPHD	VPHD-T15-5-3B10	○	
	VPHD-T15-5-4B10	○	T15
	VPHD-T15-5-6B10	○	
	VPHD-T40-5-3B10	○	
	VPHD-T40-5-4B10	○	T40
	VPHD-T40-5-6B10	○	
	VPHD-T8-5-3B	—	
	VPHD-T8-5-4B	—	T8
	VPHD-T8-5-6B	—	
	VPHD-M4-5-3B	—	
	VPHD-M4-5-4B	—	M4
	VPHD-M4-5-6B	—	
	VPHD-M6-5-3B	—	
	VPHD-M6-5-4B	—	M6
	VPHD-M6-5-6B	—	
	VPHD-T15-5-1/4B	—	T15
	VPHD-T40-5-1/4B	—	T40
	VPHD-T8-5-1/4B	—	T8
	VPHD-M4-5-1/4B	—	M4
	VPHD-M6-5-1/4B	—	M6

Joint type: Female thread

Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPHD	VPHD-T15-5-M510	○	T15
	VPHD-T40-5-M510	○	T40
	VPHD-T8-5-M5	—	T8
	VPHD-M4-5-M5	—	M4
	VPHD-M6-5-M5	—	M6

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
10 : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Vacuum pad holder only

Vacuum pads with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable vacuum pads, please see the page of Pad rubber only/Pad & screw set (page 374-).

● Spring type/Dual side port/No cover Lightweight holder (VPHDW)

*Configuration code: T15, T40 are for Soft and Soft bellows pad only.

Joint type: Push-in fitting

Holder type	Model code	⑩ : -S3 -S3 spec.	Connection config. code
VPHDW	VPHDW-T15-5-180J	—	
	VPHDW-T15-5-2J	—	
	VPHDW-T15-5-3J	—	T15
	VPHDW-T15-5-4J⑩	○	
	VPHDW-T15-5-6J⑩	○	
	VPHDW-T40-5-180J	—	
	VPHDW-T40-5-2J	—	
	VPHDW-T40-5-3J	—	T40
	VPHDW-T40-5-4J⑩	○	
	VPHDW-T40-5-6J⑩	○	
	VPHDW-T8-5-180J	—	
	VPHDW-T8-5-2J	—	
	VPHDW-T8-5-3J	—	T8
	VPHDW-T8-5-4J	—	
	VPHDW-T8-5-6J	—	
	VPHDW-M4-5-180J	—	
	VPHDW-M4-5-2J	—	
	VPHDW-M4-5-3J	—	M4
	VPHDW-M4-5-4J	—	
	VPHDW-M4-5-6J	—	
	VPHDW-M6-5-180J	—	
	VPHDW-M6-5-2J	—	
	VPHDW-M6-5-3J	—	M6
	VPHDW-M6-5-4J	—	
	VPHDW-M6-5-6J	—	
	VPHDW-T15-5-1/8J	—	
	VPHDW-T15-5-5/32J⑩	○	T15
	VPHDW-T15-5-1/4J	—	
	VPHDW-T40-5-1/8J	—	
	VPHDW-T40-5-5/32J⑩	○	T40
	VPHDW-T40-5-1/4J	—	
	VPHDW-T8-5-1/8J	—	
	VPHDW-T8-5-5/32J	—	T8
	VPHDW-T8-5-1/4J	—	
	VPHDW-M4-5-1/8J	—	
	VPHDW-M4-5-5/32J	—	M4
	VPHDW-M4-5-1/4J	—	
	VPHDW-M6-5-1/8J	—	
	VPHDW-M6-5-5/32J	—	M6
	VPHDW-M6-5-1/4J	—	

Joint type: Barb fitting

Holder type	Model code	⑩ : -S3 -S3 spec.	Connection config. code
VPHDW	VPHDW-T15-5-3B⑩	○	
	VPHDW-T15-5-4B⑩	○	T15
	VPHDW-T15-5-6B⑩	○	
	VPHDW-T40-5-3B⑩	○	
	VPHDW-T40-5-4B⑩	○	T40
	VPHDW-T40-5-6B⑩	○	
	VPHDW-T8-5-3B	—	
	VPHDW-T8-5-4B	—	T8
	VPHDW-T8-5-6B	—	
	VPHDW-M4-5-3B	—	
	VPHDW-M4-5-4B	—	M4
	VPHDW-M4-5-6B	—	
	VPHDW-M6-5-3B	—	
	VPHDW-M6-5-4B	—	M6
	VPHDW-M6-5-6B	—	
	VPHDW-T15-5-1/4B	—	T15
	VPHDW-T40-5-1/4B	—	T40
	VPHDW-T8-5-1/4B	—	T8
	VPHDW-M4-5-1/4B	—	M4
	VPHDW-M6-5-1/4B	—	M6

Joint type: Female thread

Holder type	Model code	⑩ : -S3 -S3 spec.	Connection config. code
VPHDW	VPHDW-T15-5-M5⑩	○	T15
	VPHDW-T40-5-M5⑩	○	T40
	VPHDW-T8-5-M5	—	T8
	VPHDW-M4-5-M5	—	M4
	VPHDW-M6-5-M5	—	M6

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
⑩ : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Vacuum pads with the same "connection configuration code (M4 , M6 etc.)" can be connected. For connectable vacuum pads, please see the page of Pad rubber only/Pad & screw set (page 374-).

● Fixed type/Side port/Low profile holder (VPHE)

*Configuration code: T15, T40 are for Soft and Soft bellows pad only.

Joint type: Push-in fitting

Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code	Model code	10 : -S3 -S3 spec.	Connection config. code
VPHE	VPHE-T15-180J	—	T15	VPHE-T15-1/8J	—	T15
	VPHE-T15-2J	—		VPHE-T15-5/32J10	○	
	VPHE-T15-3J	—		VPHE-T15-1/4J	—	
	VPHE-T15-4J10	○		VPHE-T40-1/8J	—	T40
	VPHE-T15-6J10	○		VPHE-T40-5/32J10	○	
	VPHE-T40-180J	—	T40	VPHE-T40-1/4J	—	
	VPHE-T40-2J	—		VPHE-T8-1/8J	—	T8
	VPHE-T40-3J	—		VPHE-T8-5/32J	—	
	VPHE-T40-4J10	○		VPHE-T8-1/4J	—	
	VPHE-T40-6J10	○		VPHE-M4-1/8J	—	M4
	VPHE-T8-180J	—	T8	VPHE-M4-5/32J	—	
	VPHE-T8-2J	—		VPHE-M4-1/4J	—	
	VPHE-T8-3J	—		VPHE-M6-1/8J	—	M6
	VPHE-T8-4J	—		VPHE-M6-5/32J	—	
	VPHE-T8-6J	—		VPHE-M6-1/4J	—	
	VPHE-M4-180J	—	M4			
	VPHE-M4-2J	—				
	VPHE-M4-3J	—				
	VPHE-M4-4J	—				
	VPHE-M4-6J	—				
	VPHE-M6-180J	—	M6			
	VPHE-M6-2J	—				
	VPHE-M6-3J	—				
	VPHE-M6-4J	—				
	VPHE-M6-6J	—				

Joint type: Barb fitting

Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPHE	VPHE-T15-3B10	○	T15
	VPHE-T15-4B10	○	
	VPHE-T15-6B10	○	
	VPHE-T40-3B10	○	T40
	VPHE-T40-4B10	○	
	VPHE-T40-6B10	○	
	VPHE-T8-3B	—	T8
	VPHE-T8-4B	—	
	VPHE-T8-6B	—	
	VPHE-M4-3B	—	M4
	VPHE-M4-4B	—	
	VPHE-M4-6B	—	
	VPHE-M6-3B	—	M6
	VPHE-M6-4B	—	
	VPHE-M6-6B	—	
	VPHE-T15-1/4B	—	T15
	VPHE-T40-1/4B	—	T40
	VPHE-T8-1/4B	—	T8
	VPHE-M4-1/4B	—	M4
	VPHE-M6-1/4B	—	M6

Joint type: Female thread

Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPHE	VPHE-T15-M510	○	T15
	VPHE-T40-M510	○	T40
	VPHE-T8-M5	—	T8
	VPHE-M4-M5	—	M4
	VPHE-M6-M5	—	M6

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
10 : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

● Fixed type/Dual side port/Low profile holder (VPHEW)

*Configuration code: T15, T40 are for Soft and Soft bellows pad only.

Joint type: Push-in fitting

Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code	Model code	10 : -S3 -S3 spec.	Connection config. code
VPHEW	VPHEW-T15-180J	—	T15	VPHEW-T15-1/8J	—	T15
	VPHEW-T15-2J	—		VPHEW-T15-5/32J10	○	
	VPHEW-T15-3J	—		VPHEW-T15-1/4J	—	
	VPHEW-T15-4J10	○		VPHEW-T40-1/8J	—	T40
	VPHEW-T15-6J10	○		VPHEW-T40-5/32J10	○	
	VPHEW-T40-180J	—	T40	VPHEW-T40-1/4J	—	
	VPHEW-T40-2J	—		VPHEW-T8-1/8J	—	T8
	VPHEW-T40-3J	—		VPHEW-T8-5/32J	—	
	VPHEW-T40-4J10	○		VPHEW-T8-1/4J	—	
	VPHEW-T40-6J10	○		VPHEW-M4-1/8J	—	M4
	VPHEW-T8-180J	—	T8	VPHEW-M4-5/32J	—	
	VPHEW-T8-2J	—		VPHEW-M4-1/4J	—	
	VPHEW-T8-3J	—		VPHEW-M6-1/8J	—	M6
	VPHEW-T8-4J	—		VPHEW-M6-5/32J	—	
	VPHEW-T8-6J	—		VPHEW-M6-1/4J	—	
	VPHEW-M4-180J	—	M4			
	VPHEW-M4-2J	—				
	VPHEW-M4-3J	—				
	VPHEW-M4-4J	—				
	VPHEW-M4-6J	—				
	VPHEW-M6-180J	—	M6			
	VPHEW-M6-2J	—				
	VPHEW-M6-3J	—				
	VPHEW-M6-4J	—				
	VPHEW-M6-6J	—				

Joint type: Barb fitting

Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPHEW	VPHEW-T15-3B10	○	T15
	VPHEW-T15-4B10	○	
	VPHEW-T15-6B10	○	
	VPHEW-T40-3B10	○	T40
	VPHEW-T40-4B10	○	
	VPHEW-T40-6B10	○	
	VPHEW-T8-3B	—	T8
	VPHEW-T8-4B	—	
	VPHEW-T8-6B	—	
	VPHEW-M4-3B	—	M4
	VPHEW-M4-4B	—	
	VPHEW-M4-6B	—	
	VPHEW-M6-3B	—	M6
	VPHEW-M6-4B	—	
	VPHEW-M6-6B	—	
	VPHEW-T15-1/4B	—	T15
	VPHEW-T40-1/4B	—	T40
	VPHEW-T8-1/4B	—	T8
	VPHEW-M4-1/4B	—	M4
	VPHEW-M6-1/4B	—	M6

Joint type: Female thread

Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPHEW	VPHEW-T15-M510	○	T15
	VPHEW-T40-M510	○	T40
	VPHEW-T8-M5	—	T8
	VPHEW-M4-M5	—	M4
	VPHEW-M6-M5	—	M6

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
10 : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Vacuum pad holder only

Vacuum pads with the same "connection configuration code (E10 , E20 etc.)" can be connected. For connectable vacuum pads, please see the page of Pad rubber only/Pad & screw set (page 374-).

For Packaging bag pad

● Fixed type/Top port holder (VPA) ● Fixed type/Direct mount holder (VPE)

Joint type: Push-in fitting			Joint type: Male thread		
Holder type	Model code	Connection config. code	Holder type	Model code	Connection config. code
VPA	VPA-PB8-4J	PB8	VPE	VPE-PB8-M5	PB8
	VPA-PB8-6J			VPE-PB8-M6	
	VPA-PB8-8J			VPE-PB8-M8	
	VPA-PB15-6J	PB15		VPE-PB8-G1	
	VPA-PB15-8J			VPE-PB15-M5	PB15
	VPA-PB15-10J			VPE-PB15-M6	
	VPA-PB15-12J			VPE-PB15-M8	
				VPE-PB15-M14	
				VPE-PB15-G1	
				VPE-PB15-G2	
				VPE-PB15-G3	
				VPE-PB15-G4	

For Oval pad

● Screwed type/Top port holder (VPA) ● Screwed type/Side port holder (VPB)

Joint type: Push-in fitting				Joint type: Push-in fitting			
Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code	Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPA	VPA-E10-180J	—	E10	VPB	VPB-E10-180J	—	E10
	VPA-E10-2J	—			VPB-E10-2J	—	
	VPA-E10-3J	—			VPB-E10-3J	—	
	VPA-E10-4J10	○			VPB-E10-4J10	○	
	VPA-E10-6J10	○			VPB-E10-6J10	○	
	VPA-E20-180J	—	E20		VPB-E20-180J	—	E20
	VPA-E20-2J	—			VPB-E20-2J	—	
	VPA-E20-3J	—			VPB-E20-3J	—	
	VPA-E20-4J10	○			VPB-E20-4J10	○	
	VPA-E20-6J10	○			VPB-E20-6J10	○	
	VPA-E10-1/8J	—	E10		VPB-E10-1/8J	—	E10
	VPA-E10-5/32J10	○			VPB-E10-5/32J10	○	
	VPA-E10-1/4J	—			VPB-E10-1/4J	—	
	VPA-E20-1/8J	—	E20		VPB-E20-1/8J	—	E20
	VPA-E20-5/32J10	○			VPB-E20-5/32J10	○	
	VPA-E20-1/4J	—			VPB-E20-1/4J	—	
Joint type: Barb fitting				Joint type: Barb fitting			
Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code	Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPA	VPA-E10-3B10	○	E10	VPB	VPB-E10-3B10	○	E10
	VPA-E10-4B10	○			VPB-E10-4B10	○	
	VPA-E10-6B10	○			VPB-E10-6B10	○	
	VPA-E20-3B10	○	E20		VPB-E20-3B10	○	E20
	VPA-E20-4B10	○			VPB-E20-4B10	○	
	VPA-E20-6B10	○			VPB-E20-6B10	○	
	VPA-E10-1/4B	—	E10		VPB-E10-1/4B	—	E10
	VPA-E20-1/4B	—	E20		VPB-E20-1/4B	—	E20
Joint type: Female thread				Joint type: Female thread			
Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code	Holder type	Model code	10 : -S3 -S3 spec.	Connection config. code
VPA	VPA-E10-M510	○	E10	VPB	VPB-E10-M510	○	E10
	VPA-E20-M510	○	E20		VPB-E20-M510	○	E20

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

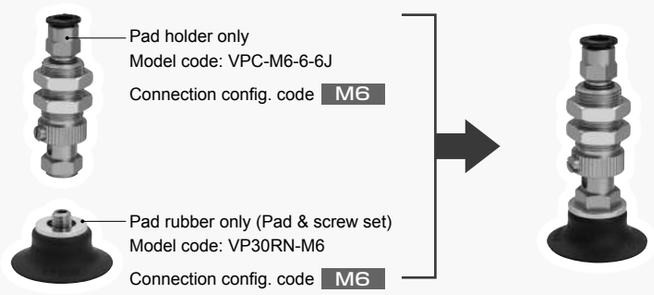
Options
10 : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

This catalog does not list the complete lineup of holder with pad products.

Holders and pads with matching "configuration codes" can be combined.

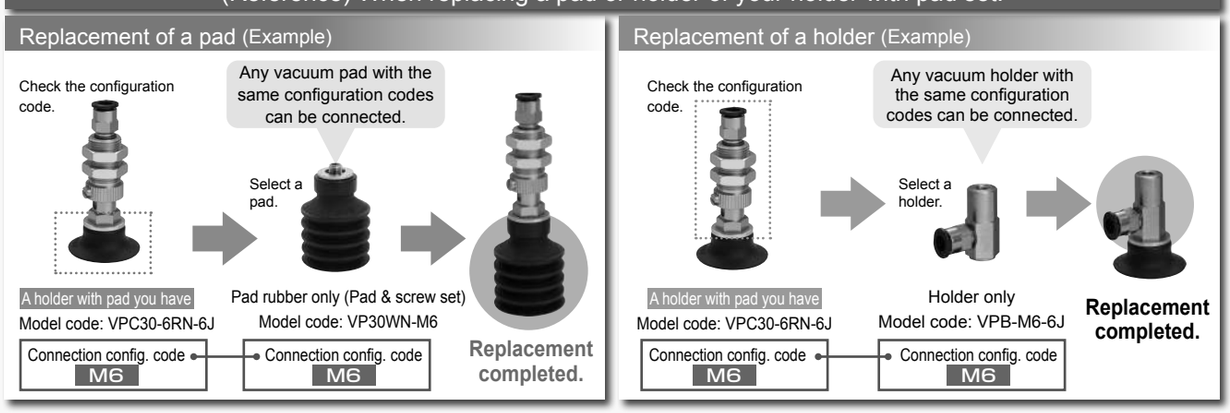
PISCO's vacuum pads consist of combinations of vacuum pads and holders. "Configuration codes" are set according to the size and shape.
Any vacuum pad and pad holder can be connected, as long as their connection configuration codes are same.



Combinations not listed in the model code list of Holder with pad can also be selected.

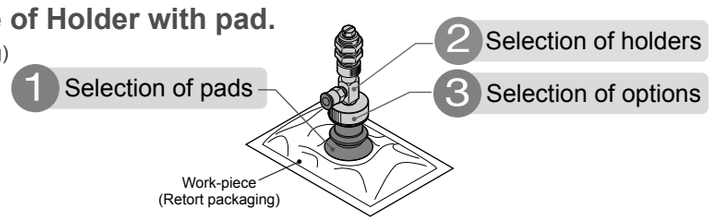
Some set models are not on the model code lists from the next page onward (Holders with small-dia. push-in fittings and barb fittings, direct mount type holders, etc.). Even so, a Holder with pad is selectable as long as the configuration code matches.

(Reference) When replacing a pad or holder of your holder with pad set.

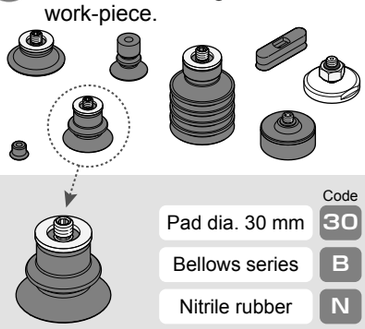


Selection example of Holder with pad.

(Work piece: retort packaging)



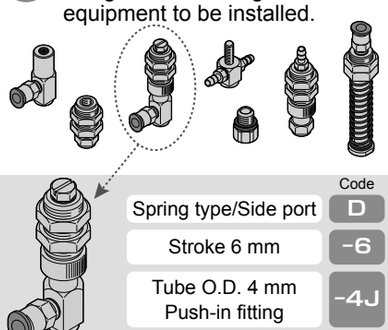
1 Select the pad size, shape and material according to the work-piece.



	Code
Pad dia. 30 mm	30
Bellows series	B
Nitrile rubber	N

(Model designation of Pad only: VP30BN-M6, Connection config. code M6)

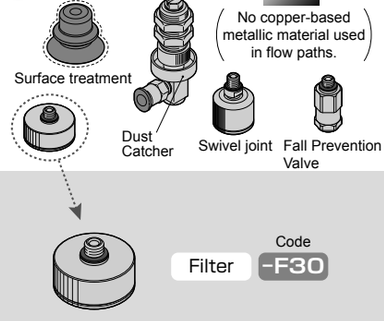
2 Select the holder type and fitting size according to the equipment to be installed.



	Code
Spring type/Side port	D
Stroke 6 mm	-6
Tube O.D. 4 mm Push-in fitting	-4J

(Model designation of Holder only: VPD-M6-6-4J, Connection config. code M6)

3 Select options.



	Code
Filter	-F30

(Model designation of Filter only: VFF30-M6, Connection config. code M6)

Model designation of Holder with pad
VPD30-6BN-4J-F30

Vacuum Pad Standard Type

Vacuum pad for flat, round or small work-piece.

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VP (1)	C (2)	40 (3)	-20 (4)	R (5)	N (6)	-ER (7)	-6J (8)	-DC (9)	-ECV (10)	-FH (11)	-F30 (12)	(13)
						Optional		Optional	Optional	Optional	Optional	Optional

(1) Vacuum Pad

(2) Holder type

Holder type		Fixed type		Spring type				
		Mini	Standard	Mini	Slim	Standard	No cover	Low dust emission
Code	Top port	MA	A(*3)	MC	SC	C	OC	LFC
	Side port	MB	B(*3)	MD	–	D	OD	LFD
	Direct mount	ME(*1)	E	–	–	F(*2)	–	–
Connection config. code		T4 T8 M4 M6	T4 H3 T8 M4 M6 M10 M20	T4 T8 M4 M6	H3 T8	H3 T8 M4 M6 M10 M20	T8 M4 M6	T4 T8 M4 M6

Holder type		Lightweight	Low profile
		Spring type	Direct mount
Code	Top port	HC(*4)	–
	Side port	HD	HE
	Dual side port	HDW	HEW
Connection config. code		T8 M4 M6	T8 M4 M6

*1. ME holder is available only for configuration code: T4 and T8.
*2. F holder is available only for configuration code: H3, T8, M4 and M6.
*3. Configuration code: T4 is not available for A and B holder.
*4. Configuration code: T8 is not available for HC holder.

(3) Pad dia. (○: Available)

Code	0.7	1	1.5	2	3	4	6	8	10	15	20	25	30	40	50	60	80	100	150	200
Pad dia. (mm)	ø0.7	ø1	ø1.5	ø2	ø3	ø4	ø6	ø8	ø10	ø15	ø20	ø25	ø30	ø40	ø50	ø60	ø80	ø100	ø150	ø200
Pad type Small	○	○	○	○	○	○			M4		M6					M10			M20	
Pad type General	T4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Pad type Deep		H3					T8			○	○	○	○	○	○	○	○	○		

(4) Stroke (No code entry for Holder type: MA, A, MB, B, ME, E, F, HE, HEW)

Code	-2	-3	-4	-5	-6	-10	-15	-20	-25	-30	-40	-50
Stroke (mm)	2	3	4	5	6	10	15	20	25	30	40	50
Spring type holder code VPMC	●●		●●									
VPSC		●●										
VPC		●●			●●	●●●●●	●●●●	●●●●●				
VPOC								●●●		●●●	●●●	●●●
VPLFC	●●●			●●●●		●●●●	●●●●	●●●●				
VPMD	●●		●●									
VPD		●●			●●	●●●●●	●●●●	●●●●●				
VPOD								●●●		●●●	●●●	●●●
VPLFD				●●●●		●●●●	●●●●	●●●●				
VPHC						●●	●●	●●	●●	●●	●●	●●
VPHD				●●●								
VPHDW				●●●								

Connection config. code
● : H3
● : T4
● : T8
● : M4
● : M6
● : M10
● : M20

(5) Pad type

R: General **A:** Deep **RM:** Small

(6) Pad material (○: Available)

Code	N	S	U	F	SE	NE	G	HN	EP
Rubber material	Nitrile	Silicone	Urethane	Fluoro	Conductive Silicone	Conductive NBR (Low resistance)	Food Sanit. Act compliant NBR	HNBR	EPDM
Pad type Small	○	○	○	○	○	○	○	○	○
Pad type General	○	○	○	○	○	○	○	○	○
Pad type Deep	○	○	○	○	○	○	○	○	○

*1. The Conductive Silicone rubber (SE) is a silicon rubber capable of releasing static electricity. (Volume resistance: More than 200 Ω·cm and $1x10^5$ Ω·cm or less)
*2. Nitrile rubber (N), Conductive NBR (Low resistance, Volume resistance: 200 Ω·cm or less) (NE), Food Sanit. Act compliant NBR (G) are not suitable for use with ozone environment.
*3. Pad dia. 60mm or larger is not available for Food Sanit. Act compliant NBR (G).
*4. Only pad dia. 15 to 50 mm are available for Conductive Silicone rubber (SE) of deep type.

(7) Pad surface treatment for suction mark-free Optional

Code	No code	-NF	-SF	-DL	-ER	-FG
Surface treatment	None	Fiber surface: Nylon	Fiber surface: Silk	DLC. coating	Reformed surface	Fluoro-coating
Applicable pad material	—	Silicone (S), Fluoro (F)		Silicone (S), Fluoro (F), Conductive Silicone (SE)	Nitrile (N), Conductive NBR (Low resistance) (NE)	Silicone (S), Conductive Silicone (SE)
Applicable pad dia. Small	—	—		—	ø0.7 to ø4 mm	ø0.7 to ø4 mm
Applicable pad dia. General	—	ø15 to ø80 mm		ø6 to ø50 mm	ø6 to ø60 mm	ø6 to ø200 mm
Applicable pad dia. Deep	—	ø15 to ø80 mm		ø15 to ø50 mm	ø15 to ø60 mm	ø15 to ø100 mm

*Configuration code: H3 and M20 are not available for surface treatment.
Please refer to page 370 for the details of each pad surface type and treatment for Suction Mark-free.

(8) Vacuum port size and joint type (No code entry for Holder type: F)(○: Available)

Push-in fitting

Type	Push-in fitting														
	mm size (mm)								inch size (inch)						
Code	-180J	-2J	-3J	-4J	-6J	-8J	-10J	-12J	-1/8J	-5/32J	-3/16J	-1/4J	-5/16J	-3/8J	-1/2J
Tube O.D.	ø1.8	ø2	ø3	ø4	ø6	ø8	ø10	ø12	ø1/8	ø5/32	ø3/16	ø1/4	ø5/16	ø3/8	ø1/2
Tube I.D.															
Thread size															
Holder type VPMA	○	○	○	○						○					
VPA			○	○	○	○	○	○	○	○	○	○	○	○	○
VPMB	○	○	○	○	○				○	○		○			
VPB	○	○	○	○	○	○	○		○	○	○	○	○	○	
VPMC	○	○	○	○					○	○					
VPSC	○	○	○	○					○	○					
VPC	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
VPOC			○	○	○				○	○		○			
VPLFC			○	○	○				○	○		○			
VPMD	○	○	○	○	○				○	○		○			
VPD	○	○	○	○	○	○	○		○	○	○	○	○	○	○
VPOD			○	○	○				○	○		○			
VPLFD			○	○	○				○	○		○			
VPHC	○	○	○	○	○				○	○		○			
VPHD	○	○	○	○	○				○	○		○			
VPHDW	○	○	○	○	○				○	○		○			
VPHE	○	○	○	○	○				○	○		○			
VPHEW	○	○	○	○	○				○	○		○			

Barb fitting

Female thread

Type	Barb fitting				Female thread						
	mm size (mm)			inch size (inch)	Metric thread			Parallel pipe thread		NPT thread	
Code	-3B	-4B*	-6B	-1/4B	-M3	-M5	-M6	-G1	-G2	-N1	-N2
Tube O.D.											
Tube I.D.	ø2	ø2.5	ø4	Polyurethane tube ø0.163 Nylon tube ø0.180							
Thread size					M3×0.5	M5×0.8	M6×1	G1/8	G1/4	NPT1/8	NPT1/4
Holder type VPMA	○	○	○								
VPA		○	○	○			○	○	○	○	○
VPMB	○	○	○	○	○	○					
VPB	○	○	○	○	○	○	○	○	○	○	○
VPMC	○	○	○	○							
VPSC	○	○	○		○						
VPC	○	○	○	○		○	○	○	○	○	○
VPOC		○	○	○			○				
VPLFC	○	○	○			○	○				
VPMD	○	○	○	○	○	○					
VPD	○	○	○	○		○	○	○	○	○	○
VPOD		○	○	○			○				
VPLFD	○	○	○			○	○				
VPHC	○	○	○	○		○					
VPHD	○	○	○	○		○					
VPHDW	○	○	○	○		○					
VPHE	○	○	○	○		○					
VPHEW	○	○	○	○		○					

*The barb fitting of 5/32" size is common with 4 mm size. Please order with the code: -4B.

Direct mount

Type	Male thread														
	Metric thread						Taper pipe thread				Parallel pipe thread				
Code	-M3	-M5	-M8	-M10	-M12	-M14	-R1	-R2	-R3	-R4	-G1	-G2	-G3	-G4	
Thread size	M3×0.5	M5×0.8	M8×1.25	M10×1.5	M12×1.75	M14×2	R1/8	R1/4	R3/8	R1/2	G1/8	G1/4	G3/8	G1/2	
Holder type VPME	○	○													
VPE	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

Type	Male thread				Female thread	
	NPT thread				Metric thread	
Code	-N1	-N2	-N3	-N4	-FM5	-FM8
Thread size	NPT1/8	NPT1/4	NPT3/8	NPT1/2	M5×0.8	M8×1.25
Holder type VPME						
VPE	○	○	○	○	○	○

*Available port size varies depending on pad dia. See model code lists on the following pages.

Vacuum Pad Standard Type

(9) Dust Catcher (Holder type: SC, C, D and F only) Optional

Code	No code	-DC
Dust Catcher	None	Installed

*Note that the holder stroke becomes shorter when a dust catcher is installed. Please visit our website for details.

(9) Spring load (Holder type: LFC only)

Code	No code	-SF1/4
Load	Standard load	Low load (1/4 of standard load)

*"-SF1/4" is not selectable when 2 mm stroke is selected.

(10) Fall Prevention Valve Optional

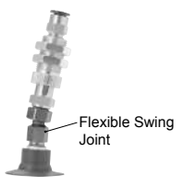
Code	No code	-ECV
Fall Prevention Valve	None	Installed
Applicable connection type	—	Configuration code: M4, M6, M10
		M3, M5 thread size of VPME, VPE holder

*1. -S3 spec. is not selectable when Fall Prevention Valve is selected.
*2. Fall prevention valve cannot be installed when selecting fiber surface type (-SF, -NF) for surface treatment.

(11) Swivel Joint for vacuum pad Optional

Code	No code	-FH	-FHH	-CFH
Option	None	Ball Swivel Joint (Swivel angle: 30°)	Ball Swivel Joint (Swivel angle: 15°)	Flexible Swing Joint (Swing angle: 8°)
Applicable connection type	—	Configuration code: M4, M6, M10		Configuration code: M4, M6
				M5 thread size of VPME, VPE holder

*-S3 spec. is not selectable when Ball Swivel Joint is selected.



(12) Filter Optional

Code	No code	-F15	-F30
Filter	None	Installed (Filter area 1.7 cm^2)	Installed (Filter area 7 cm^2)
Applicable config. code	—	M4, M6	M6

*1. -S3 spec. is not selectable when Filter is selected.
*2. "-F30" is recommended when much dust is expected at sucking work pieces.

(13) -S3 spec. Optional

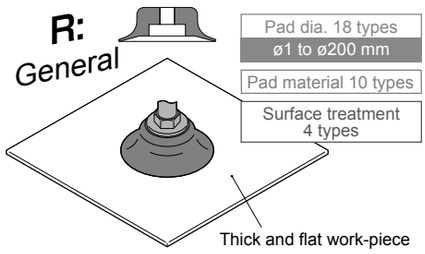
Code	No code	-S3
Metal material	Standard	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard	HNBR or FKM
Release ring color	Black	Dark blue

*1. -S3 spec. is not available for following fittings and holders;
·Push-in fitting with dia. size of 1.8, 2, 3 mm and inch sizes except dia. 1/8" (some) and 5/32"
·Barb fitting: dia. 1/4".
·Pad holder with stroke length 10 mm or longer (except for pad dia. 60 mm or larger and VPHC holders).
·VPLFC and VPLFD holders.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Characteristics

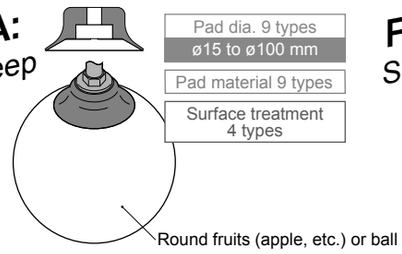
3 types of pads are available: general type suitable for thick and flat work-piece, deep type for round work-piece such as fruits (apple, etc.) or ball, and small type for small work-piece such as semiconductor components.

R: General



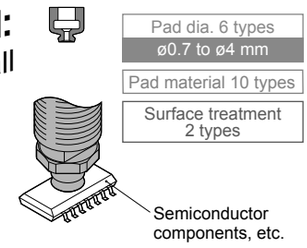
Pad dia. 18 types
ø1 to ø200 mm
Pad material 10 types
Surface treatment 4 types

A: Deep



Pad dia. 9 types
ø15 to ø100 mm
Pad material 9 types
Surface treatment 4 types

RM: Small



Pad dia. 6 types
ø0.7 to ø4 mm
Pad material 10 types
Surface treatment 2 types

NBR (G) and Silicone (S) are Food Sanitation Act compliant.

(Holder is not compliant. Vacuum pad complies only at work-piece contact area.) *See page 6 for the details of the Food Sanitation Act.

Wide variations of Pad holders.

The following combinations of holder and pad rubber are also available although they are not listed on the model code list from the next page onward. Contact us for the details.

- Lightweight VPHC holder is made of resin and aluminum.
- Lightweight VPHD and VPHDW holders with spring type without cover.
- VPHE and VPHEW holders with reduced height.
- VPHDW and VPHEW holders with dual side vacuum ports are suitable for piping connection of multiple vacuum pads.

Low dust emission holders (VPLFC, VPLFD) with low noise and less wear from sliding are available to prevent dust generation.

VPLFC holder with top port has a separate shaft on the pad side and the vacuum port side, so there is no effect on the stroke caused by the tension of the tube. Low load type is also available to suppress impact when contacting the work-piece.

Wide variations of fixed type direct mount holder (VPE) for various thread sizes.

Metric male threads, metric female threads, taper pipe threads and parallel pipe threads are available.
*Only a part of the combinations are shown on the model code list from the next page onward. Contact us for the details.

● Pad surface treatment for suction mark-free (Optional)

NEW Fluoro-coating type is added to the pad rubber surface treatment option to prevent tracing marks.

- Fiber surface type: Fiber (nylon or silk) on the pad surface prevents rubber material transfer by not directly touching the work-piece.
- DLC. coating type: Slippery special coating. Effective for sticking prevention of lightweight or thin work-piece.
- Reformed surface type: Reduces tracing marks by surface reforming of nitrile rubber with chemicals.
- Fluoro-coating type: Surface reforming by special treatment prevents sticking to work-pieces. Improved pad durability and wear resistance.

● Holder with dust catcher (Optional)

Collects wear debris generated by sliding spring type holders. Low-cost, simple holder with receiver tray.

Applicable to VPSC, VPC, VPD and VPF holders.

◄ Dust Catcher

● Accessories (Optional)

Fall Prevention Valve, Swivel (Ball Swivel Joint, Flexible Swing Joint) and Filter options are selectable.

● -S3 spec. (Optional)

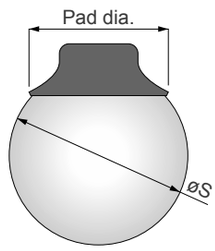
No copper-based metallic materials used in flow paths.

The seal rubber material of the fitting is HNBR or FKM, with good ozone resistance.

Suction of Spherical Surface (Deep type pad)

■ Minimum diameter of suction capacity

Pad dia.	ø15	ø20	ø25	ø30	ø40	ø50	ø60	ø80	ø100
Spherical dia.	20mm	30mm	40mm	50mm	80mm	100mm	120mm	160mm	200mm



Vacuum Pad Standard Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	[13] -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Mini **VPMA**	ø0.7	ø3	VPMA0.7RM[6][7]-3J	—	T4
	ø1	ø3	VPMA1RM[6][7]-3J	—	
	ø1.5	ø3	VPMA1.5RM[6][7]-3J	—	
	ø2	ø3	VPMA2RM[6][7]-3J	—	
	ø3	ø3	VPMA3RM[6][7]-3J	—	
	ø4	ø3	VPMA4RM[6][7]-3J	—	
	ø6	ø3	VPMA6R[6][7]-3J	—	T8
	ø8	ø3	VPMA8R[6][7]-3J	—	
	ø10	ø3	VPMA10R[6][7]-3J	—	M4
		ø4	VPMA10R[6][7]-4J[13]	○	
	ø15	ø3	VPMA15R(A)[6][7]-3J	—	
		ø4	VPMA15R(A)[6][7]-4J[13]	○	
	ø20	ø4	VPMA20R(A)[6][7]-4J[13]	○	M6
	ø25	ø4	VPMA25R(A)[6][7]-4J[13]	○	
	ø30	ø4	VPMA30R(A)[6][7]-4J[13]	○	
	ø40	ø4	VPMA40R(A)[6][7]-4J[13]	○	
	ø50	ø4	VPMA50R(A)[6][7]-4J[13]	○	

Pad dia. (mm)	Tube O.D. (inch)	Model code	[13] -S3 -S3 spec.	Connection config. code
ø10	ø5/32	VPMA10R[6][7]-5/32J[13]	○	M4
ø15	ø5/32	VPMA15R(A)[6][7]-5/32J[13]	○	
ø20	ø5/32	VPMA20R(A)[6][7]-5/32J[13]	○	M6
ø25	ø5/32	VPMA25R(A)[6][7]-5/32J[13]	○	
ø30	ø5/32	VPMA30R(A)[6][7]-5/32J[13]	○	
ø40	ø5/32	VPMA40R(A)[6][7]-5/32J[13]	○	
ø50	ø5/32	VPMA50R(A)[6][7]-5/32J[13]	○	

Notes

*1. Deep type pad can be selected for the models with pad type code: R (A) in the model code. Please select "R" for general type and "A" for deep type pad.

*2. Holders are also available in Push-in fitting type (limited to pad dia. 8 mm or smaller) for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications

1 pc./bag

Options

[7]: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)

[13]: -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.

*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.442

Surface treatment

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	⓭ -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Standard	ø1	ø4	VPA1R⑥-4J⑬	○	H3
	ø2	ø4	VPA2R⑥-4J⑬	○	
	ø3	ø4	VPA3R⑥-4J⑬	○	
	ø4	ø4	VPA4R⑥-4J⑬	○	
	ø6	ø4	VPA6R⑥⑦-4J⑬	○	T8
		ø6	VPA6R⑥⑦-6J⑬		
	ø8	ø4	VPA8R⑥⑦-4J⑬	○	
		ø6	VPA8R⑥⑦-6J⑬		
	ø10	ø6	VPA10R⑥⑦-6J⑬	○	M4
	ø15	ø6	VPA15R(A)⑥⑦-6J⑬	○	
	ø20	ø3	VPA20R(A)⑥⑦-3J	—	M6
		ø4	VPA20R(A)⑥⑦-4J⑬	○	
		ø6	VPA20R(A)⑥⑦-6J⑬	○	
	ø25	ø3	VPA25R(A)⑥⑦-3J	—	
		ø4	VPA25R(A)⑥⑦-4J⑬	○	
		ø6	VPA25R(A)⑥⑦-6J⑬	○	
	ø30	ø3	VPA30R(A)⑥⑦-3J	—	
		ø4	VPA30R(A)⑥⑦-4J⑬	○	
		ø6	VPA30R(A)⑥⑦-6J⑬	○	
	ø40	ø3	VPA40R(A)⑥⑦-3J	—	
		ø4	VPA40R(A)⑥⑦-4J⑬	○	
		ø6	VPA40R(A)⑥⑦-6J⑬	○	
	ø50	ø3	VPA50R(A)⑥⑦-3J	—	
		ø4	VPA50R(A)⑥⑦-4J⑬	○	
		ø6	VPA50R(A)⑥⑦-6J⑬	○	
	ø60	ø4	VPA60R(A)⑥⑦-4J *2*3	—	M10
		ø6	VPA60R(A)⑥⑦-6J *2*3	—	
		ø8	VPA60R(A)⑥⑦-8J *2*3	—	
	ø80	ø4	VPA80R(A)⑥⑦-4J *2*3	—	
		ø6	VPA80R(A)⑥⑦-6J *2*3	—	
		ø8	VPA80R(A)⑥⑦-8J *2*3	—	
	ø100	ø4	VPA100R(A)⑥⑦-4J *2*3	—	
		ø6	VPA100R(A)⑥⑦-6J *2*3	—	
		ø8	VPA100R(A)⑥⑦-8J *2*3	—	
	ø150	ø6	VPA150R⑥⑦-6J *3	—	M20
		ø8	VPA150R⑥⑦-8J *3	—	
		ø10	VPA150R⑥⑦-10J *3	—	
		ø12	VPA150R⑥⑦-12J *3	—	
	ø200	ø6	VPA200R⑥⑦-6J *3	—	
		ø8	VPA200R⑥⑦-8J *3	—	
		ø10	VPA200R⑥⑦-10J *3	—	
		ø12	VPA200R⑥⑦-12J *3	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	⓭ -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Female thread, Standard	ø20	M6×1	VPA20R(A)⑥⑦-M6⑬	○	M6
	ø25	M6×1	VPA25R(A)⑥⑦-M6⑬	○	
	ø30	M6×1	VPA30R(A)⑥⑦-M6⑬	○	
	ø40	M6×1	VPA40R(A)⑥⑦-M6⑬	○	
	ø50	M6×1	VPA50R(A)⑥⑦-M6⑬	○	
	ø60	G1/8	VPA60R(A)⑥⑦-G1⑬ *2*3	○	M10
	ø80	G1/8	VPA80R(A)⑥⑦-G1⑬ *2*3	○	
	ø100	G1/8	VPA100R(A)⑥⑦-G1⑬ *2*3	○	
	ø150	G1/4	VPA150R⑥⑦-G2⑬ *3	○	M20
	ø200	G1/4	VPA200R⑥⑦-G2⑬ *3	○	
	ø60	NPT1/8	VPA60R(A)⑥⑦-N1 *2*3	—	M10
	ø80	NPT1/8	VPA80R(A)⑥⑦-N1 *2*3	—	
	ø100	NPT1/8	VPA100R(A)⑥⑦-N1 *2*3	—	
	ø150	NPT1/4	VPA150R(A)⑥⑦-N2 *3	—	M20
	ø200	NPT1/4	VPA200R(A)⑥⑦-N2 *3	—	

Pad dia. (mm)	Tube O.D. (inch)	Model code	⓭ -S3 -S3 spec.	Connection config. code
ø1	ø5/32	VPA1R⑥-5/32J⑬	○	H3
ø2	ø5/32	VPA2R⑥-5/32J⑬	○	
ø3	ø5/32	VPA3R⑥-5/32J⑬	○	
ø4	ø5/32	VPA4R⑥-5/32J⑬	○	
ø6	ø5/32	VPA6R⑥⑦-5/32J⑬	○	T8
	ø1/4	VPA6R⑥⑦-1/4J	—	
ø8	ø5/32	VPA8R⑥⑦-5/32J⑬	○	
	ø1/4	VPA8R⑥⑦-1/4J	—	
ø10	ø1/4	VPA10R⑥⑦-1/4J	—	M4
ø15	ø1/4	VPA15R(A)⑥⑦-1/4J	—	
ø20	ø1/8	VPA20R(A)⑥⑦-1/8J	—	M6
	ø5/32	VPA20R(A)⑥⑦-5/32J⑬	○	
	ø1/4	VPA20R(A)⑥⑦-1/4J	—	
ø25	ø1/8	VPA25R(A)⑥⑦-1/8J	—	
	ø5/32	VPA25R(A)⑥⑦-5/32J⑬	○	
	ø1/4	VPA25R(A)⑥⑦-1/4J	—	
ø30	ø1/8	VPA30R(A)⑥⑦-1/8J	—	
	ø5/32	VPA30R(A)⑥⑦-5/32J⑬	○	
	ø1/4	VPA30R(A)⑥⑦-1/4J	—	
ø40	ø1/8	VPA40R(A)⑥⑦-1/8J	—	
	ø5/32	VPA40R(A)⑥⑦-5/32J⑬	○	
	ø1/4	VPA40R(A)⑥⑦-1/4J	—	
ø50	ø1/8	VPA50R(A)⑥⑦-1/8J	—	
	ø5/32	VPA50R(A)⑥⑦-5/32J⑬	○	
	ø1/4	VPA50R(A)⑥⑦-1/4J	—	
ø60	ø1/8	VPA60R(A)⑥⑦-1/8J *2*3	—	M10
	ø5/32	VPA60R(A)⑥⑦-5/32J *2*3	—	
	ø3/16	VPA60R(A)⑥⑦-3/16J *2*3	—	
	ø1/4	VPA60R(A)⑥⑦-1/4J *2*3	—	
	ø5/16	VPA60R(A)⑥⑦-5/16J *2*3	—	
	ø3/8	VPA60R(A)⑥⑦-3/8J *2*3	—	
ø80	ø1/8	VPA80R(A)⑥⑦-1/8J *2*3	—	
	ø5/32	VPA80R(A)⑥⑦-5/32J *2*3	—	
	ø3/16	VPA80R(A)⑥⑦-3/16J *2*3	—	
	ø1/4	VPA80R(A)⑥⑦-1/4J *2*3	—	
	ø5/16	VPA80R(A)⑥⑦-5/16J *2*3	—	
	ø3/8	VPA80R(A)⑥⑦-3/8J *2*3	—	
ø100	ø1/8	VPA100R(A)⑥⑦-1/8J *2*3	—	
	ø5/32	VPA100R(A)⑥⑦-5/32J *2*3	—	
	ø3/16	VPA100R(A)⑥⑦-3/16J *2*3	—	
	ø1/4	VPA100R(A)⑥⑦-1/4J *2*3	—	
	ø5/16	VPA100R(A)⑥⑦-5/16J *2*3	—	
	ø3/8	VPA100R(A)⑥⑦-3/8J *2*3	—	
ø150	ø1/8	VPA150R⑥⑦-1/8J *3	—	M20
	ø5/32	VPA150R⑥⑦-5/32J *3	—	
	ø3/16	VPA150R⑥⑦-3/16J *3	—	
	ø1/4	VPA150R⑥⑦-1/4J *3	—	
	ø5/16	VPA150R⑥⑦-5/16J *3	—	
	ø3/8	VPA150R⑥⑦-3/8J *3	—	
	ø1/2	VPA150R⑥⑦-1/2J *3	—	
ø200	ø1/8	VPA200R⑥⑦-1/8J *3	—	
	ø5/32	VPA200R⑥⑦-5/32J *3	—	
	ø3/16	VPA200R⑥⑦-3/16J *3	—	
	ø1/4	VPA200R⑥⑦-1/4J *3	—	
	ø5/16	VPA200R⑥⑦-5/16J *3	—	
	ø3/8	VPA200R⑥⑦-3/8J *3	—	
	ø1/2	VPA200R⑥⑦-1/2J *3	—	

Notes

*1. Deep type pad can be selected for the models with pad type code: R (A) in the model code. Please select "R" for general type and "A" for deep type pad.

*2. Pad material code: SE of pad dia. 60 mm or larger are not available for Deep type pad.

*3. Food Sanit. Act-compliant NBR (G) is not available.

*4. Barb fitting type holders (limited to pad dia. 50 mm or smaller) are also available. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⑬: -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.

*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.442

Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Standard Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	⑬ -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	⑬ -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Push-in fitting, Mini VPMB	ø0.7	ø3	VPMB0.7RM⑥⑦-3J	—	T4	ø0.7	ø1/8	VPMB0.7RM⑥⑦-1/8J⑬	○	T4
		ø4	VPMB0.7RM⑥⑦-4J⑬	○			ø5/32	VPMB0.7RM⑥⑦-5/32J⑬	○	
	ø1	ø3	VPMB1RM⑥⑦-3J	—		ø1	ø1/8	VPMB1RM⑥⑦-1/8J⑬	○	
		ø4	VPMB1RM⑥⑦-4J⑬	○			ø5/32	VPMB1RM⑥⑦-5/32J⑬	○	
	ø1.5	ø3	VPMB1.5RM⑥⑦-3J	—		ø1.5	ø1/8	VPMB1.5RM⑥⑦-1/8J⑬	○	
		ø4	VPMB1.5RM⑥⑦-4J⑬	○			ø5/32	VPMB1.5RM⑥⑦-5/32J⑬	○	
	ø2	ø3	VPMB2RM⑥⑦-3J	—		ø2	ø1/8	VPMB2RM⑥⑦-1/8J⑬	○	
		ø4	VPMB2RM⑥⑦-4J⑬	○			ø5/32	VPMB2RM⑥⑦-5/32J⑬	○	
	ø3	ø3	VPMB3RM⑥⑦-3J	—		ø3	ø1/8	VPMB3RM⑥⑦-1/8J⑬	○	
		ø4	VPMB3RM⑥⑦-4J⑬	○			ø5/32	VPMB3RM⑥⑦-5/32J⑬	○	
	ø4	ø3	VPMB4RM⑥⑦-3J	—		ø4	ø1/8	VPMB4RM⑥⑦-1/8J⑬	○	
		ø4	VPMB4RM⑥⑦-4J⑬	○			ø5/32	VPMB4RM⑥⑦-5/32J⑬	○	
	ø6	ø3	VPMB6R⑥⑦-3J	—	T8	ø6	ø1/8	VPMB6R⑥⑦-1/8J⑬	○	T8
		ø4	VPMB6R⑥⑦-4J⑬	○			ø5/32	VPMB6R⑥⑦-5/32J⑬	○	
	ø8	ø3	VPMB8R⑥⑦-3J	—		ø8	ø1/8	VPMB8R⑥⑦-1/8J⑬	○	
		ø4	VPMB8R⑥⑦-4J⑬	○			ø5/32	VPMB8R⑥⑦-5/32J⑬	○	
	ø10	ø3	VPMB10R⑥⑦-3J	—	M4	ø10	ø1/8	VPMB10R⑥⑦-1/8J	—	M4
		ø4	VPMB10R⑥⑦-4J⑬	○			ø5/32	VPMB10R⑥⑦-5/32J⑬	○	
		ø6	VPMB10R⑥⑦-6J⑬	○			ø1/4	VPMB10R⑥⑦-1/4J	—	
	ø15	ø3	VPMB15R(A)⑥⑦-3J	—		ø15	ø1/8	VPMB15R(A)⑥⑦-1/8J	—	
		ø4	VPMB15R(A)⑥⑦-4J⑬	○			ø5/32	VPMB15R(A)⑥⑦-5/32J⑬	○	
		ø6	VPMB15R(A)⑥⑦-6J⑬	○			ø1/4	VPMB15R(A)⑥⑦-1/4J	—	
	ø20	ø3	VPMB20R(A)⑥⑦-3J	—	M6	ø20	ø1/8	VPMB20R(A)⑥⑦-1/8J	—	M6
		ø4	VPMB20R(A)⑥⑦-4J⑬	○			ø5/32	VPMB20R(A)⑥⑦-5/32J⑬	○	
		ø6	VPMB20R(A)⑥⑦-6J⑬	○			ø1/4	VPMB20R(A)⑥⑦-1/4J	—	
	ø25	ø3	VPMB25R(A)⑥⑦-3J	—		ø25	ø1/8	VPMB25R(A)⑥⑦-1/8J	—	
		ø4	VPMB25R(A)⑥⑦-4J⑬	○			ø5/32	VPMB25R(A)⑥⑦-5/32J⑬	○	
		ø6	VPMB25R(A)⑥⑦-6J⑬	○			ø1/4	VPMB25R(A)⑥⑦-1/4J	—	
	ø30	ø3	VPMB30R(A)⑥⑦-3J	—		ø30	ø1/8	VPMB30R(A)⑥⑦-1/8J	—	
		ø4	VPMB30R(A)⑥⑦-4J⑬	○			ø5/32	VPMB30R(A)⑥⑦-5/32J⑬	○	
		ø6	VPMB30R(A)⑥⑦-6J⑬	○			ø1/4	VPMB30R(A)⑥⑦-1/4J	—	
	ø40	ø3	VPMB40R(A)⑥⑦-3J	—		ø40	ø1/8	VPMB40R(A)⑥⑦-1/8J	—	
		ø4	VPMB40R(A)⑥⑦-4J⑬	○			ø5/32	VPMB40R(A)⑥⑦-5/32J⑬	○	
		ø6	VPMB40R(A)⑥⑦-6J⑬	○			ø1/4	VPMB40R(A)⑥⑦-1/4J	—	
	ø50	ø3	VPMB50R(A)⑥⑦-3J	—		ø50	ø1/8	VPMB50R(A)⑥⑦-1/8J	—	
		ø4	VPMB50R(A)⑥⑦-4J⑬	○			ø5/32	VPMB50R(A)⑥⑦-5/32J⑬	○	
		ø6	VPMB50R(A)⑥⑦-6J⑬	○			ø1/4	VPMB50R(A)⑥⑦-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	⑬ -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Male thread size	Model code	⑬ -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Female thread, Mini VPMB	ø0.7	M3×0.5	VPMB0.7RM⑥⑦-M3⑬	○	T4	ø10	M5×0.8	VPMB10R⑥⑦-M5⑬	○	M4
	ø1	M3×0.5	VPMB1RM⑥⑦-M3⑬	○		ø15	M5×0.8	VPMB15R(A)⑥⑦-M5⑬	○	
	ø1.5	M3×0.5	VPMB1.5RM⑥⑦-M3⑬	○		ø20	M5×0.8	VPMB20R(A)⑥⑦-M5⑬	○	M6
	ø2	M3×0.5	VPMB2RM⑥⑦-M3⑬	○		ø25	M5×0.8	VPMB25R(A)⑥⑦-M5⑬	○	
	ø3	M3×0.5	VPMB3RM⑥⑦-M3⑬	○		ø30	M5×0.8	VPMB30R(A)⑥⑦-M5⑬	○	
	ø4	M3×0.5	VPMB4RM⑥⑦-M3⑬	○		ø40	M5×0.8	VPMB40R(A)⑥⑦-M5⑬	○	
	ø6	M3×0.5	VPMB6R⑥⑦-M3⑬	○	T8	ø50	M5×0.8	VPMB50R(A)⑥⑦-M5⑬	○	
	ø8	M3×0.5	VPMB8R⑥⑦-M3⑬	○						

Notes

*1. Deep type pad can be selected for the models with pad type code: R (A) in the model code. Please select "R" for general type and "A" for deep type pad.

*2. Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⑬: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.442

Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Push-in fitting, Standard VPB	ø1	ø3	VPB1R6-3J	—	H3
		ø4	VPB1R6-4J13	○	
	ø2	ø3	VPB2R6-3J	—	
		ø4	VPB2R6-4J13	○	
	ø3	ø3	VPB3R6-3J	—	
		ø4	VPB3R6-4J13	○	
	ø4	ø3	VPB4R6-3J	—	
		ø4	VPB4R6-4J13	○	
	ø6	ø3	VPB6R67-3J	—	T8
		ø4	VPB6R67-4J13	○	
		ø6	VPB6R67-6J13	○	
	ø8	ø3	VPB8R67-3J	—	
		ø4	VPB8R67-4J13	○	
		ø6	VPB8R67-6J13	○	
	ø10	ø3	VPB10R67-3J	—	M4
		ø4	VPB10R67-4J13	○	
		ø6	VPB10R67-6J13	○	
	ø15	ø3	VPB15R(A)67-3J	—	
		ø4	VPB15R(A)67-4J13	○	
		ø6	VPB15R(A)67-6J13	○	
	ø20	ø3	VPB20R(A)67-3J	—	M6
		ø4	VPB20R(A)67-4J13	○	
		ø6	VPB20R(A)67-6J13	○	
	ø25	ø3	VPB25R(A)67-3J	—	
		ø4	VPB25R(A)67-4J13	○	
		ø6	VPB25R(A)67-6J13	○	
	ø30	ø3	VPB30R(A)67-3J	—	
		ø4	VPB30R(A)67-4J13	○	
		ø6	VPB30R(A)67-6J13	○	
	ø40	ø3	VPB40R(A)67-3J	—	
		ø4	VPB40R(A)67-4J13	○	
		ø6	VPB40R(A)67-6J13	○	
	ø50	ø3	VPB50R(A)67-3J	—	
		ø4	VPB50R(A)67-4J13	○	
		ø6	VPB50R(A)67-6J13	○	
	ø60	ø4	VPB60R(A)67-4J *2*3	—	M10
		ø6	VPB60R(A)67-6J *2*3	—	
		ø8	VPB60R(A)67-8J *2*3	—	
	ø80	ø4	VPB80R(A)67-4J *2*3	—	
		ø6	VPB80R(A)67-6J *2*3	—	
		ø8	VPB80R(A)67-8J *2*3	—	
	ø100	ø4	VPB100R(A)67-4J *2*3	—	
		ø6	VPB100R(A)67-6J *2*3	—	
		ø8	VPB100R(A)67-8J *2*3	—	
	ø150	ø6	VPB150R67-6J *3	—	M20
		ø8	VPB150R67-8J *3	—	
		ø10	VPB150R67-10J *3	—	
	ø200	ø6	VPB200R67-6J *3	—	
		ø8	VPB200R67-8J *3	—	
		ø10	VPB200R67-10J *3	—	

Pad dia. (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
ø1	ø1/8	VPB1R6-1/8J13	○	H3
	ø5/32	VPB1R6-5/32J13	○	
ø2	ø1/8	VPB2R6-1/8J13	○	
	ø5/32	VPB2R6-5/32J13	○	
ø3	ø1/8	VPB3R6-1/8J13	○	
	ø5/32	VPB3R6-5/32J13	○	
ø4	ø1/8	VPB4R6-1/8J13	○	
	ø5/32	VPB4R6-5/32J13	○	
ø6	ø1/8	VPB6R67-1/8J	—	T8
	ø5/32	VPB6R67-5/32J13	○	
	ø1/4	VPB6R67-1/4J	—	
ø8	ø1/8	VPB8R67-1/8J	—	
	ø5/32	VPB8R67-5/32J13	○	
	ø1/4	VPB8R67-1/4J	—	
ø10	ø1/8	VPB10R67-1/8J	—	M4
	ø5/32	VPB10R67-5/32J13	○	
	ø1/4	VPB10R67-1/4J	—	
ø15	ø1/8	VPB15R(A)67-1/8J	—	
	ø5/32	VPB15R(A)67-5/32J13	○	
	ø1/4	VPB15R(A)67-1/4J	—	
ø20	ø1/8	VPB20R(A)67-1/8J	—	M6
	ø5/32	VPB20R(A)67-5/32J13	○	
	ø1/4	VPB20R(A)67-1/4J	—	
ø25	ø1/8	VPB25R(A)67-1/8J	—	
	ø5/32	VPB25R(A)67-5/32J13	○	
	ø1/4	VPB25R(A)67-1/4J	—	
ø30	ø1/8	VPB30R(A)67-1/8J	—	
	ø5/32	VPB30R(A)67-5/32J13	○	
	ø1/4	VPB30R(A)67-1/4J	—	
ø40	ø1/8	VPB40R(A)67-1/8J	—	
	ø5/32	VPB40R(A)67-5/32J13	○	
	ø1/4	VPB40R(A)67-1/4J	—	
ø50	ø1/8	VPB50R(A)67-1/8J	—	
	ø5/32	VPB50R(A)67-5/32J13	○	
	ø1/4	VPB50R(A)67-1/4J	—	
ø60	ø1/8	VPB60R(A)67-1/8J *2*3	—	M10
	ø5/32	VPB60R(A)67-5/32J *2*3	—	
	ø3/16	VPB60R(A)67-3/16J *2*3	—	
	ø1/4	VPB60R(A)67-1/4J *2*3	—	
	ø5/16	VPB60R(A)67-5/16J *2*3	—	
ø80	ø1/8	VPB80R(A)67-1/8J *2*3	—	
	ø5/32	VPB80R(A)67-5/32J *2*3	—	
	ø3/16	VPB80R(A)67-3/16J *2*3	—	
	ø1/4	VPB80R(A)67-1/4J *2*3	—	
	ø5/16	VPB80R(A)67-5/16J *2*3	—	
ø100	ø1/8	VPB100R(A)67-1/8J *2*3	—	
	ø5/32	VPB100R(A)67-5/32J *2*3	—	
	ø3/16	VPB100R(A)67-3/16J *2*3	—	
	ø1/4	VPB100R(A)67-1/4J *2*3	—	
	ø5/16	VPB100R(A)67-5/16J *2*3	—	
ø150	ø1/8	VPB150R67-1/8J *3	—	M20
	ø5/32	VPB150R67-5/32J *3	—	
	ø3/16	VPB150R67-3/16J *3	—	
	ø1/4	VPB150R67-1/4J *3	—	
	ø5/16	VPB150R67-5/16J *3	—	
	ø3/8	VPB150R67-3/8J *3	—	
ø200	ø1/8	VPB200R67-1/8J *3	—	
	ø5/32	VPB200R67-5/32J *3	—	
	ø3/16	VPB200R67-3/16J *3	—	
	ø1/4	VPB200R67-1/4J *3	—	
	ø5/16	VPB200R67-5/16J *3	—	
	ø3/8	VPB200R67-3/8J *3	—	

Notes
*1. Deep type pad can be selected for the models with pad type code: R (A) in the model code. Please select "R" for general type and "A" for deep type pad.
*2. Pad material code: SE of pad dia. 60 mm or larger are not available for Deep type pad.
*3. Food Sanit. Act-compliant NBR (G) is not available.
*4. Holders are also available in Push-in fitting type (limited to pad dia. 8 mm or smaller) for tube O.D. of 1.8 mm and 2 mm, and barb fitting type (limited to pad dia. 50 mm or smaller). Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.442
Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Standard Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Female thread, Standard VPB	ø1	M3×0.5	VPB1R6-M313	○	H3
	ø2	M3×0.5	VPB2R6-M313	○	
	ø3	M3×0.5	VPB3R6-M313	○	
	ø4	M3×0.5	VPB4R6-M313	○	
	ø6	M5×0.8	VPB6R67-M513	○	T8
	ø8	M5×0.8	VPB8R67-M513	○	
	ø10	M6×1	VPB10R67-M613	○	M4
	ø15	M6×1	VPB15R(A)67-M613	○	
	ø20	M6×1	VPB20R(A)67-M613	○	M6
	ø25	M6×1	VPB25R(A)67-M613	○	
	ø30	M6×1	VPB30R(A)67-M613	○	
	ø40	M6×1	VPB40R(A)67-M613	○	
	ø50	M6×1	VPB50R(A)67-M613	○	
	ø60	G1/8	VPB60R(A)67-G113 *2*3	○	M10
	ø80	G1/8	VPB80R(A)67-G113 *2*3	○	
	ø100	G1/8	VPB100R(A)67-G113 *2*3	○	
	ø150	G1/4	VPB150R67-G213 *3	○	M20
	ø200	G1/4	VPB200R67-G213 *3	○	
	ø60	NPT1/8	VPB60R(A)67-N1 *2*3	—	M10
	ø80	NPT1/8	VPB80R(A)67-N1 *2*3	—	
	ø100	NPT1/8	VPB100R(A)67-N1 *2*3	—	
	ø150	NPT1/4	VPB150R67-N2 *3	—	M20
	ø200	NPT1/4	VPB200R67-N2 *3	—	

Notes
*1. Deep type pad can be selected for the models with pad type code: R (A) in the model code. Please select "R" for general type and "A" for deep type pad.
*2. Pad material code: SE of pad dia. 60 mm or larger are not available for Deep type pad.
*3. Food Sanit. Act-compliant NBR (G) is not available.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.442
Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	⑬ -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Mini **VPMC** Pad dia. 8mm or smaller Stroke 2mm Pad dia. 10mm or larger Stroke 4mm	ø0.7	ø3	VPMC0.7-2RM⑥⑦-3J	—	T4
	ø1	ø3	VPMC1-2RM⑥⑦-3J	—	
	ø1.5	ø3	VPMC1.5-2RM⑥⑦-3J	—	
	ø2	ø3	VPMC2-2RM⑥⑦-3J	—	
	ø3	ø3	VPMC3-2RM⑥⑦-3J	—	
	ø4	ø3	VPMC4-2RM⑥⑦-3J	—	
	ø6	ø3	VPMC6-2R⑥⑦-3J	—	T8
	ø8	ø3	VPMC8-2R⑥⑦-3J	—	
	ø10	ø3	VPMC10-4R⑥⑦-3J	—	M4
		ø4	VPMC10-4R⑥⑦-4J⑬	○	
	ø15	ø3	VPMC15-4R(A)⑥⑦-3J	—	
		ø4	VPMC15-4R(A)⑥⑦-4J⑬	○	
	ø20	ø3	VPMC20-4R(A)⑥⑦-3J	—	M6
		ø4	VPMC20-4R(A)⑥⑦-4J⑬	○	
	ø25	ø3	VPMC25-4R(A)⑥⑦-3J	—	
		ø4	VPMC25-4R(A)⑥⑦-4J⑬	○	
	ø30	ø3	VPMC30-4R(A)⑥⑦-3J	—	
		ø4	VPMC30-4R(A)⑥⑦-4J⑬	○	
	ø40	ø3	VPMC40-4R(A)⑥⑦-3J	—	
		ø4	VPMC40-4R(A)⑥⑦-4J⑬	○	
	ø50	ø3	VPMC50-4R(A)⑥⑦-3J	—	
		ø4	VPMC50-4R(A)⑥⑦-4J⑬	○	
	ø10	ø1/8	VPMC10-4R⑥⑦-1/8J	—	M4
		ø5/32	VPMC10-4R⑥⑦-5/32J⑬	○	
	ø15	ø1/8	VPMC15-4R(A)⑥⑦-1/8J	—	
		ø5/32	VPMC15-4R(A)⑥⑦-5/32J⑬	○	
	ø20	ø1/8	VPMC20-4R(A)⑥⑦-1/8J	—	M6
		ø5/32	VPMC20-4R(A)⑥⑦-5/32J⑬	○	
	ø25	ø1/8	VPMC25-4R(A)⑥⑦-1/8J	—	
		ø5/32	VPMC25-4R(A)⑥⑦-5/32J⑬	○	
	ø30	ø1/8	VPMC30-4R(A)⑥⑦-1/8J	—	
		ø5/32	VPMC30-4R(A)⑥⑦-5/32J⑬	○	
	ø40	ø1/8	VPMC40-4R(A)⑥⑦-1/8J	—	
		ø5/32	VPMC40-4R(A)⑥⑦-5/32J⑬	○	
	ø50	ø1/8	VPMC50-4R(A)⑥⑦-1/8J	—	
		ø5/32	VPMC50-4R(A)⑥⑦-5/32J⑬	○	

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	⑬ -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Slim **VPSC** Stroke 3mm	ø1	ø3	VPSC1-3R⑥-3J⑨	—	H3
		ø4	VPSC1-3R⑥-4J⑨⑬	○	
	ø2	ø3	VPSC2-3R⑥-3J⑨	—	
		ø4	VPSC2-3R⑥-4J⑨⑬	○	
	ø3	ø3	VPSC3-3R⑥-3J⑨	—	
		ø4	VPSC3-3R⑥-4J⑨⑬	○	
	ø4	ø3	VPSC4-3R⑥-3J⑨	—	
		ø4	VPSC4-3R⑥-4J⑨⑬	○	
	ø6	ø3	VPSC6-3R⑥⑦-3J⑨	—	T8
		ø4	VPSC6-3R⑥⑦-4J⑨⑬	○	
	ø8	ø3	VPSC8-3R⑥⑦-3J⑨	—	
		ø4	VPSC8-3R⑥⑦-4J⑨⑬	○	
	ø1	ø1/8	VPSC1-3R⑥-1/8J⑨⑬	○	H3
		ø5/32	VPSC1-3R⑥-5/32J⑨⑬	○	
	ø2	ø1/8	VPSC2-3R⑥-1/8J⑨⑬	○	
		ø5/32	VPSC2-3R⑥-5/32J⑨⑬	○	
	ø3	ø1/8	VPSC3-3R⑥-1/8J⑨⑬	○	
		ø5/32	VPSC3-3R⑥-5/32J⑨⑬	○	
	ø4	ø1/8	VPSC4-3R⑥-1/8J⑨⑬	○	
		ø5/32	VPSC4-3R⑥-5/32J⑨⑬	○	
	ø6	ø1/8	VPSC6-3R⑥⑦-1/8J⑨⑬	○	T8
		ø5/32	VPSC6-3R⑥⑦-5/32J⑨⑬	○	
	ø8	ø1/8	VPSC8-3R⑥⑦-1/8J⑨⑬	○	
		ø5/32	VPSC8-3R⑥⑦-5/32J⑨⑬	○	

Holder type	Pad dia. (mm)	Male thread size	Model code	⑬ -S3 -S3 spec.	Connection config. code
Spring type, Top port, Female thread, Slim **VPSC** Stroke 3mm	ø1	M3×0.5	VPSC1-3R⑥-M3⑨⑬	○	H3
	ø2	M3×0.5	VPSC2-3R⑥-M3⑨⑬	○	
	ø3	M3×0.5	VPSC3-3R⑥-M3⑨⑬	○	
	ø4	M3×0.5	VPSC4-3R⑥-M3⑨⑬	○	
	ø6	M3×0.5	VPSC6-3R⑥⑦-M3⑨⑬	○	T8
	ø8	M3×0.5	VPSC8-3R⑥⑦-M3⑨⑬	○	

Notes

*1. Deep type pad can be selected for the models with pad type code: R (A) in the model code. Please select "R" for general type and "A" for deep type pad.

*2. Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options

⑦: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⑨: -DC ⇒ Holder with dust catcher
⑬: -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.442

Surface treatment
Dust Catcher (VPSC)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Standard Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Standard **VPC** Pad dia. ø1 mm to ø4 mm	ø1	3	ø3	VPC1-3R6-3J9	—		ø1	3	ø1/8	VPC1-3R6-1/8J9	—	
			ø4	VPC1-3R6-4J913	○				ø5/32	VPC1-3R6-5/32J913	○	
			ø6	VPC1-3R6-6J913	○				ø1/4	VPC1-3R6-1/4J9	—	
		10	ø3	VPC1-10R6-3J9	—			10	ø1/8	VPC1-10R6-1/8J9	—	
			ø4	VPC1-10R6-4J9	—				ø5/32	VPC1-10R6-5/32J9	—	
			ø6	VPC1-10R6-6J9					ø1/4	VPC1-10R6-1/4J9	—	
		15	ø3	VPC1-15R6-3J9	—			15	ø1/8	VPC1-15R6-1/8J9	—	
			ø4	VPC1-15R6-4J9	—				ø5/32	VPC1-15R6-5/32J9	—	
			ø6	VPC1-15R6-6J9					ø1/4	VPC1-15R6-1/4J9	—	
		20	ø3	VPC1-20R6-3J9	—			20	ø1/8	VPC1-20R6-1/8J9	—	
			ø4	VPC1-20R6-4J9	—				ø5/32	VPC1-20R6-5/32J9	—	
			ø6	VPC1-20R6-6J9					ø1/4	VPC1-20R6-1/4J9	—	
	ø2	3	ø3	VPC2-3R6-3J9	—		ø2	3	ø1/8	VPC2-3R6-1/8J9	—	
			ø4	VPC2-3R6-4J913	○				ø5/32	VPC2-3R6-5/32J913	○	
			ø6	VPC2-3R6-6J913	○				ø1/4	VPC2-3R6-1/4J9	—	
		10	ø3	VPC2-10R6-3J9	—			10	ø1/8	VPC2-10R6-1/8J9	—	
			ø4	VPC2-10R6-4J9	—				ø5/32	VPC2-10R6-5/32J9	—	
			ø6	VPC2-10R6-6J9					ø1/4	VPC2-10R6-1/4J9	—	
		15	ø3	VPC2-15R6-3J9	—			15	ø1/8	VPC2-15R6-1/8J9	—	
			ø4	VPC2-15R6-4J9	—				ø5/32	VPC2-15R6-5/32J9	—	
			ø6	VPC2-15R6-6J9					ø1/4	VPC2-15R6-1/4J9	—	
		20	ø3	VPC2-20R6-3J9	—			20	ø1/8	VPC2-20R6-1/8J9	—	
			ø4	VPC2-20R6-4J9	—				ø5/32	VPC2-20R6-5/32J9	—	
			ø6	VPC2-20R6-6J9		H3			ø1/4	VPC2-20R6-1/4J9	—	H3
	ø3	3	ø3	VPC3-3R6-3J9	—		ø3	3	ø1/8	VPC3-3R6-1/8J9	—	
			ø4	VPC3-3R6-4J913	○				ø5/32	VPC3-3R6-5/32J913	○	
			ø6	VPC3-3R6-6J913	○				ø1/4	VPC3-3R6-1/4J9	—	
		10	ø3	VPC3-10R6-3J9	—			10	ø1/8	VPC3-10R6-1/8J9	—	
			ø4	VPC3-10R6-4J9	—				ø5/32	VPC3-10R6-5/32J9	—	
			ø6	VPC3-10R6-6J9					ø1/4	VPC3-10R6-1/4J9	—	
		15	ø3	VPC3-15R6-3J9	—			15	ø1/8	VPC3-15R6-1/8J9	—	
			ø4	VPC3-15R6-4J9	—				ø5/32	VPC3-15R6-5/32J9	—	
			ø6	VPC3-15R6-6J9					ø1/4	VPC3-15R6-1/4J9	—	
		20	ø3	VPC3-20R6-3J9	—			20	ø1/8	VPC3-20R6-1/8J9	—	
			ø4	VPC3-20R6-4J9	—				ø5/32	VPC3-20R6-5/32J9	—	
			ø6	VPC3-20R6-6J9					ø1/4	VPC3-20R6-1/4J9	—	
	ø4	3	ø3	VPC4-3R6-3J9	—		ø4	3	ø1/8	VPC4-3R6-1/8J9	—	
			ø4	VPC4-3R6-4J913	○				ø5/32	VPC4-3R6-5/32J913	○	
			ø6	VPC4-3R6-6J913	○				ø1/4	VPC4-3R6-1/4J9	—	
		10	ø3	VPC4-10R6-3J9	—			10	ø1/8	VPC4-10R6-1/8J9	—	
			ø4	VPC4-10R6-4J9	—				ø5/32	VPC4-10R6-5/32J9	—	
			ø6	VPC4-10R6-6J9					ø1/4	VPC4-10R6-1/4J9	—	
		15	ø3	VPC4-15R6-3J9	—			15	ø1/8	VPC4-15R6-1/8J9	—	
			ø4	VPC4-15R6-4J9	—				ø5/32	VPC4-15R6-5/32J9	—	
			ø6	VPC4-15R6-6J9					ø1/4	VPC4-15R6-1/4J9	—	
		20	ø3	VPC4-20R6-3J9	—			20	ø1/8	VPC4-20R6-1/8J9	—	
			ø4	VPC4-20R6-4J9	—				ø5/32	VPC4-20R6-5/32J9	—	
			ø6	VPC4-20R6-6J9					ø1/4	VPC4-20R6-1/4J9	—	

Notes
*Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
9: -DC ⇒ Holder with dust catcher
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.442
Dust Catcher (VPC)

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Standard VPC Pad dia. ø6 mm to ø15 mm	ø6	3	ø3	VPC6-3R6 7-3J 9	—	T8	ø6	3	ø1/8	VPC6-3R6 7-1/8J 9	—	T8
			ø4	VPC6-3R6 7-4J 9 13	○				ø5/32	VPC6-3R6 7-5/32J 9 13	○	
			ø6	VPC6-3R6 7-6J 9 13	○				ø1/4	VPC6-3R6 7-1/4J 9	—	
		10	ø3	VPC6-10R6 7-3J 9	—			10	ø1/8	VPC6-10R6 7-1/8J 9	—	
			ø4	VPC6-10R6 7-4J 9	—				ø5/32	VPC6-10R6 7-5/32J 9	—	
			ø6	VPC6-10R6 7-6J 9					ø1/4	VPC6-10R6 7-1/4J 9	—	
		15	ø3	VPC6-15R6 7-3J 9	—			15	ø1/8	VPC6-15R6 7-1/8J 9	—	
			ø4	VPC6-15R6 7-4J 9	—				ø5/32	VPC6-15R6 7-5/32J 9	—	
			ø6	VPC6-15R6 7-6J 9					ø1/4	VPC6-15R6 7-1/4J 9	—	
		20	ø3	VPC6-20R6 7-3J 9	—			20	ø1/8	VPC6-20R6 7-1/8J 9	—	
			ø4	VPC6-20R6 7-4J 9	—				ø5/32	VPC6-20R6 7-5/32J 9	—	
			ø6	VPC6-20R6 7-6J 9					ø1/4	VPC6-20R6 7-1/4J 9	—	
	ø8	3	ø3	VPC8-3R6 7-3J 9	—		ø8	3	ø1/8	VPC8-3R6 7-1/8J 9	—	
			ø4	VPC8-3R6 7-4J 9 13	○				ø5/32	VPC8-3R6 7-5/32J 9 13	○	
			ø6	VPC8-3R6 7-6J 9 13	○				ø1/4	VPC8-3R6 7-1/4J 9	—	
		10	ø3	VPC8-10R6 7-3J 9	—			10	ø1/8	VPC8-10R6 7-1/8J 9	—	
			ø4	VPC8-10R6 7-4J 9	—				ø5/32	VPC8-10R6 7-5/32J 9	—	
			ø6	VPC8-10R6 7-6J 9					ø1/4	VPC8-10R6 7-1/4J 9	—	
		15	ø3	VPC8-15R6 7-3J 9	—			15	ø1/8	VPC8-15R6 7-1/8J 9	—	
			ø4	VPC8-15R6 7-4J 9	—				ø5/32	VPC8-15R6 7-5/32J 9	—	
			ø6	VPC8-15R6 7-6J 9					ø1/4	VPC8-15R6 7-1/4J 9	—	
		20	ø3	VPC8-20R6 7-3J 9	—			20	ø1/8	VPC8-20R6 7-1/8J 9	—	
			ø4	VPC8-20R6 7-4J 9	—				ø5/32	VPC8-20R6 7-5/32J 9	—	
			ø6	VPC8-20R6 7-6J 9					ø1/4	VPC8-20R6 7-1/4J 9	—	
	ø10	6	ø3	VPC10-6R6 7-3J 9	—	M4	ø10	6	ø1/8	VPC10-6R6 7-1/8J 9	—	M4
			ø4	VPC10-6R6 7-4J 9 13	○				ø5/32	VPC10-6R6 7-5/32J 9 13	○	
			ø6	VPC10-6R6 7-6J 9 13	○				ø1/4	VPC10-6R6 7-1/4J 9	—	
		10	ø3	VPC10-10R6 7-3J 9	—			10	ø1/8	VPC10-10R6 7-1/8J 9	—	
			ø4	VPC10-10R6 7-4J 9	—				ø5/32	VPC10-10R6 7-5/32J 9	—	
			ø6	VPC10-10R6 7-6J 9	—				ø1/4	VPC10-10R6 7-1/4J 9	—	
		15	ø3	VPC10-15R6 7-3J 9	—			15	ø1/8	VPC10-15R6 7-1/8J 9	—	
			ø4	VPC10-15R6 7-4J 9	—				ø5/32	VPC10-15R6 7-5/32J 9	—	
			ø6	VPC10-15R6 7-6J 9	—				ø1/4	VPC10-15R6 7-1/4J 9	—	
		20	ø3	VPC10-20R6 7-3J 9	—			20	ø1/8	VPC10-20R6 7-1/8J 9	—	
			ø4	VPC10-20R6 7-4J 9	—				ø5/32	VPC10-20R6 7-5/32J 9	—	
			ø6	VPC10-20R6 7-6J 9	—				ø1/4	VPC10-20R6 7-1/4J 9	—	
	ø15	6	ø3	VPC15-6R(A)6 7-3J 9	—		ø15	6	ø1/8	VPC15-6R(A)6 7-1/8J 9	—	
			ø4	VPC15-6R(A)6 7-4J 9 13	○				ø5/32	VPC15-6R(A)6 7-5/32J 9 13	○	
			ø6	VPC15-6R(A)6 7-6J 9 13	○				ø1/4	VPC15-6R(A)6 7-1/4J 9	—	
		10	ø3	VPC15-10R(A)6 7-3J 9	—			10	ø1/8	VPC15-10R(A)6 7-1/8J 9	—	
			ø4	VPC15-10R(A)6 7-4J 9	—				ø5/32	VPC15-10R(A)6 7-5/32J 9	—	
			ø6	VPC15-10R(A)6 7-6J 9	—				ø1/4	VPC15-10R(A)6 7-1/4J 9	—	
		15	ø3	VPC15-15R(A)6 7-3J 9	—			15	ø1/8	VPC15-15R(A)6 7-1/8J 9	—	
			ø4	VPC15-15R(A)6 7-4J 9	—				ø5/32	VPC15-15R(A)6 7-5/32J 9	—	
			ø6	VPC15-15R(A)6 7-6J 9	—				ø1/4	VPC15-15R(A)6 7-1/4J 9	—	
		20	ø3	VPC15-20R(A)6 7-3J 9	—			20	ø1/8	VPC15-20R(A)6 7-1/8J 9	—	
			ø4	VPC15-20R(A)6 7-4J 9	—				ø5/32	VPC15-20R(A)6 7-5/32J 9	—	
			ø6	VPC15-20R(A)6 7-6J 9	—				ø1/4	VPC15-20R(A)6 7-1/4J 9	—	

Notes

*1. Deep type pad can be selected for the models with pad type code: R (A) in the model code. Please select "R" for general type and "A" for deep type pad.

*2. Holders are also available in Push-in fitting type (limited to pad dia. 8 mm or smaller) for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options

7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
9: -DC ⇒ Holder with dust catcher
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.442

Surface treatment
Dust Catcher (VPC)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Standard Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	⑬ -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	⑬ -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Standard VPC Pad dia. ø20 mm to ø50 mm	ø20	6	ø3	VPC20-6R(A)⑥⑦-3J⑨	—	M6	ø20	6	ø1/8	VPC20-6R(A)⑥⑦-1/8J⑨	—	
			ø4	VPC20-6R(A)⑥⑦-4J⑨⑬	○				ø5/32	VPC20-6R(A)⑥⑦-5/32J⑨⑬	○	
			ø6	VPC20-6R(A)⑥⑦-6J⑨⑬	○				ø1/4	VPC20-6R(A)⑥⑦-1/4J⑨	—	
		10	ø3	VPC20-10R(A)⑥⑦-3J⑨	—			10	ø1/8	VPC20-10R(A)⑥⑦-1/8J⑨	—	
			ø4	VPC20-10R(A)⑥⑦-4J⑨	—				ø5/32	VPC20-10R(A)⑥⑦-5/32J⑨	—	
			ø6	VPC20-10R(A)⑥⑦-6J⑨	—				ø1/4	VPC20-10R(A)⑥⑦-1/4J⑨	—	
		15	ø3	VPC20-15R(A)⑥⑦-3J⑨	—			15	ø1/8	VPC20-15R(A)⑥⑦-1/8J⑨	—	
			ø4	VPC20-15R(A)⑥⑦-4J⑨	—				ø5/32	VPC20-15R(A)⑥⑦-5/32J⑨	—	
			ø6	VPC20-15R(A)⑥⑦-6J⑨	—				ø1/4	VPC20-15R(A)⑥⑦-1/4J⑨	—	
		20	ø3	VPC20-20R(A)⑥⑦-3J⑨	—			20	ø1/8	VPC20-20R(A)⑥⑦-1/8J⑨	—	
			ø4	VPC20-20R(A)⑥⑦-4J⑨	—				ø5/32	VPC20-20R(A)⑥⑦-5/32J⑨	—	
			ø6	VPC20-20R(A)⑥⑦-6J⑨	—				ø1/4	VPC20-20R(A)⑥⑦-1/4J⑨	—	
	ø25	6	ø3	VPC25-6R(A)⑥⑦-3J⑨	—		ø25	6	ø1/8	VPC25-6R(A)⑥⑦-1/8J⑨	—	
			ø4	VPC25-6R(A)⑥⑦-4J⑨⑬	○				ø5/32	VPC25-6R(A)⑥⑦-5/32J⑨⑬	○	
			ø6	VPC25-6R(A)⑥⑦-6J⑨⑬	○				ø1/4	VPC25-6R(A)⑥⑦-1/4J⑨	—	
		10	ø3	VPC25-10R(A)⑥⑦-3J⑨	—			10	ø1/8	VPC25-10R(A)⑥⑦-1/8J⑨	—	
			ø4	VPC25-10R(A)⑥⑦-4J⑨	—				ø5/32	VPC25-10R(A)⑥⑦-5/32J⑨	—	
			ø6	VPC25-10R(A)⑥⑦-6J⑨	—				ø1/4	VPC25-10R(A)⑥⑦-1/4J⑨	—	
		15	ø3	VPC25-15R(A)⑥⑦-3J⑨	—			15	ø1/8	VPC25-15R(A)⑥⑦-1/8J⑨	—	
			ø4	VPC25-15R(A)⑥⑦-4J⑨	—				ø5/32	VPC25-15R(A)⑥⑦-5/32J⑨	—	
			ø6	VPC25-15R(A)⑥⑦-6J⑨	—				ø1/4	VPC25-15R(A)⑥⑦-1/4J⑨	—	
		20	ø3	VPC25-20R(A)⑥⑦-3J⑨	—			20	ø1/8	VPC25-20R(A)⑥⑦-1/8J⑨	—	
			ø4	VPC25-20R(A)⑥⑦-4J⑨	—				ø5/32	VPC25-20R(A)⑥⑦-5/32J⑨	—	
			ø6	VPC25-20R(A)⑥⑦-6J⑨	—				ø1/4	VPC25-20R(A)⑥⑦-1/4J⑨	—	
	ø30	6	ø3	VPC30-6R(A)⑥⑦-3J⑨	—		ø30	6	ø1/8	VPC30-6R(A)⑥⑦-1/8J⑨	—	
			ø4	VPC30-6R(A)⑥⑦-4J⑨⑬	○				ø5/32	VPC30-6R(A)⑥⑦-5/32J⑨⑬	○	
			ø6	VPC30-6R(A)⑥⑦-6J⑨⑬	○				ø1/4	VPC30-6R(A)⑥⑦-1/4J⑨	—	
		10	ø3	VPC30-10R(A)⑥⑦-3J⑨	—			10	ø1/8	VPC30-10R(A)⑥⑦-1/8J⑨	—	
			ø4	VPC30-10R(A)⑥⑦-4J⑨	—				ø5/32	VPC30-10R(A)⑥⑦-5/32J⑨	—	
			ø6	VPC30-10R(A)⑥⑦-6J⑨	—				ø1/4	VPC30-10R(A)⑥⑦-1/4J⑨	—	
		15	ø3	VPC30-15R(A)⑥⑦-3J⑨	—			15	ø1/8	VPC30-15R(A)⑥⑦-1/8J⑨	—	
			ø4	VPC30-15R(A)⑥⑦-4J⑨	—				ø5/32	VPC30-15R(A)⑥⑦-5/32J⑨	—	
			ø6	VPC30-15R(A)⑥⑦-6J⑨	—				ø1/4	VPC30-15R(A)⑥⑦-1/4J⑨	—	
		20	ø3	VPC30-20R(A)⑥⑦-3J⑨	—			20	ø1/8	VPC30-20R(A)⑥⑦-1/8J⑨	—	
			ø4	VPC30-20R(A)⑥⑦-4J⑨	—				ø5/32	VPC30-20R(A)⑥⑦-5/32J⑨	—	
			ø6	VPC30-20R(A)⑥⑦-6J⑨	—				ø1/4	VPC30-20R(A)⑥⑦-1/4J⑨	—	
	ø40	6	ø3	VPC40-6R(A)⑥⑦-3J⑨	—		ø40	6	ø1/8	VPC40-6R(A)⑥⑦-1/8J⑨	—	
			ø4	VPC40-6R(A)⑥⑦-4J⑨⑬	○				ø5/32	VPC40-6R(A)⑥⑦-5/32J⑨⑬	○	
			ø6	VPC40-6R(A)⑥⑦-6J⑨⑬	○				ø1/4	VPC40-6R(A)⑥⑦-1/4J⑨	—	
		10	ø3	VPC40-10R(A)⑥⑦-3J⑨	—			10	ø1/8	VPC40-10R(A)⑥⑦-1/8J⑨	—	
			ø4	VPC40-10R(A)⑥⑦-4J⑨	—				ø5/32	VPC40-10R(A)⑥⑦-5/32J⑨	—	
			ø6	VPC40-10R(A)⑥⑦-6J⑨	—				ø1/4	VPC40-10R(A)⑥⑦-1/4J⑨	—	
		15	ø3	VPC40-15R(A)⑥⑦-3J⑨	—			15	ø1/8	VPC40-15R(A)⑥⑦-1/8J⑨	—	
			ø4	VPC40-15R(A)⑥⑦-4J⑨	—				ø5/32	VPC40-15R(A)⑥⑦-5/32J⑨	—	
			ø6	VPC40-15R(A)⑥⑦-6J⑨	—				ø1/4	VPC40-15R(A)⑥⑦-1/4J⑨	—	
		20	ø3	VPC40-20R(A)⑥⑦-3J⑨	—			20	ø1/8	VPC40-20R(A)⑥⑦-1/8J⑨	—	
			ø4	VPC40-20R(A)⑥⑦-4J⑨	—				ø5/32	VPC40-20R(A)⑥⑦-5/32J⑨	—	
			ø6	VPC40-20R(A)⑥⑦-6J⑨	—				ø1/4	VPC40-20R(A)⑥⑦-1/4J⑨	—	
	ø50	6	ø3	VPC50-6R(A)⑥⑦-3J⑨	—		ø50	6	ø1/8	VPC50-6R(A)⑥⑦-1/8J⑨	—	
			ø4	VPC50-6R(A)⑥⑦-4J⑨⑬	○				ø5/32	VPC50-6R(A)⑥⑦-5/32J⑨⑬	○	
			ø6	VPC50-6R(A)⑥⑦-6J⑨⑬	○				ø1/4	VPC50-6R(A)⑥⑦-1/4J⑨	—	
		10	ø3	VPC50-10R(A)⑥⑦-3J⑨	—			10	ø1/8	VPC50-10R(A)⑥⑦-1/8J⑨	—	
			ø4	VPC50-10R(A)⑥⑦-4J⑨	—				ø5/32	VPC50-10R(A)⑥⑦-5/32J⑨	—	
			ø6	VPC50-10R(A)⑥⑦-6J⑨	—				ø1/4	VPC50-10R(A)⑥⑦-1/4J⑨	—	
		15	ø3	VPC50-15R(A)⑥⑦-3J⑨	—			15	ø1/8	VPC50-15R(A)⑥⑦-1/8J⑨	—	
			ø4	VPC50-15R(A)⑥⑦-4J⑨	—				ø5/32	VPC50-15R(A)⑥⑦-5/32J⑨	—	
			ø6	VPC50-15R(A)⑥⑦-6J⑨	—				ø1/4	VPC50-15R(A)⑥⑦-1/4J⑨	—	
		20	ø3	VPC50-20R(A)⑥⑦-3J⑨	—			20	ø1/8	VPC50-20R(A)⑥⑦-1/8J⑨	—	
			ø4	VPC50-20R(A)⑥⑦-4J⑨	—				ø5/32	VPC50-20R(A)⑥⑦-5/32J⑨	—	
			ø6	VPC50-20R(A)⑥⑦-6J⑨	—				ø1/4	VPC50-20R(A)⑥⑦-1/4J⑨	—	

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type, Top port, Push-in fitting, Standard

VPC

Pad dia. ø60 mm to ø200 mm

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Standard	ø60	10	ø4	VPC60-10R(A)67-4J9*23	—	M10
			ø6	VPC60-10R(A)67-6J9*23	—	
			ø8	VPC60-10R(A)67-8J9*23	—	
	ø80	10	ø4	VPC80-10R(A)67-4J9*23	—	
			ø6	VPC80-10R(A)67-6J9*23	—	
			ø8	VPC80-10R(A)67-8J9*23	—	
	ø100	10	ø4	VPC100-10R(A)67-4J9*23	—	
			ø6	VPC100-10R(A)67-6J9*23	—	
			ø8	VPC100-10R(A)67-8J9*23	—	
	ø150	20	ø6	VPC150-20R67-6J9*3	—	M20
			ø8	VPC150-20R67-8J9*3	—	
			ø10	VPC150-20R67-10J9*3	—	
			ø12	VPC150-20R67-12J9*3	—	
	ø200	20	ø6	VPC200-20R67-6J9*3	—	
			ø8	VPC200-20R67-8J9*3	—	
			ø10	VPC200-20R67-10J9*3	—	
			ø12	VPC200-20R67-12J9*3	—	

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Standard	ø60	10	ø1/8	VPC60-10R(A)67-1/8J9*23	—	M10
			ø5/32	VPC60-10R(A)67-5/32J9*23	—	
			ø3/16	VPC60-10R(A)67-3/16J9*23	—	
			ø1/4	VPC60-10R(A)67-1/4J9*23	—	
			ø5/16	VPC60-10R(A)67-5/16J9*23	—	
			ø3/8	VPC60-10R(A)67-3/8J9*23	—	
	ø80	10	ø1/8	VPC80-10R(A)67-1/8J9*23	—	
			ø5/32	VPC80-10R(A)67-5/32J9*23	—	
			ø3/16	VPC80-10R(A)67-3/16J9*23	—	
			ø1/4	VPC80-10R(A)67-1/4J9*23	—	
			ø5/16	VPC80-10R(A)67-5/16J9*23	—	
			ø3/8	VPC80-10R(A)67-3/8J9*23	—	
	ø100	10	ø1/8	VPC100-10R(A)67-1/8J9*23	—	
			ø5/32	VPC100-10R(A)67-5/32J9*23	—	
			ø3/16	VPC100-10R(A)67-3/16J9*23	—	
			ø1/4	VPC100-10R(A)67-1/4J9*23	—	
			ø5/16	VPC100-10R(A)67-5/16J9*23	—	
			ø3/8	VPC100-10R(A)67-3/8J9*23	—	
	ø150	20	ø1/8	VPC150-20R67-1/8J9*3	—	M20
			ø5/32	VPC150-20R67-5/32J9*3	—	
			ø3/16	VPC150-20R67-3/16J9*3	—	
			ø1/4	VPC150-20R67-1/4J9*3	—	
			ø5/16	VPC150-20R67-5/16J9*3	—	
			ø3/8	VPC150-20R67-3/8J9*3	—	
			ø1/2	VPC150-20R67-1/2J9*3	—	
	ø200	20	ø1/8	VPC200-20R67-1/8J9*3	—	
			ø5/32	VPC200-20R67-5/32J9*3	—	
			ø3/16	VPC200-20R67-3/16J9*3	—	
			ø1/4	VPC200-20R67-1/4J9*3	—	
			ø5/16	VPC200-20R67-5/16J9*3	—	
			ø3/8	VPC200-20R67-3/8J9*3	—	
			ø1/2	VPC200-20R67-1/2J9*3	—	

Notes

*1. Deep type pad can be selected for the models with pad type code: R (A) in the model code. Please select "R" for general type and "A" for deep type pad.
*2. Pad material code: SE of pad dia. 60 mm or larger are not available for Deep type pad.
*3. Food Sanit. Act-compliant NBR (G) is not available.
*4. Barb fitting type holders (limited to pad dia. 50 mm or smaller) are also available. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./1 bag

Options

7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
9: -DC ⇒ Holder with dust catcher
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.442

Surface treatment
Dust Catcher (VPC)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Standard Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Female thread, Standard VPC 	ø1	3	M5×0.8	VPC1-3R6-M5913	○	H3
		10		VPC1-10R6-M59	—	
		15		VPC1-15R6-M59	—	
		20		VPC1-20R6-M59	—	
	ø2	3	M5×0.8	VPC2-3R6-M5913	○	
		10		VPC2-10R6-M59	—	
		15		VPC2-15R6-M59	—	
		20		VPC2-20R6-M59	—	
	ø3	3	M5×0.8	VPC3-3R6-M5913	○	
		10		VPC3-10R6-M59	—	
		15		VPC3-15R6-M59	—	
		20		VPC3-20R6-M59	—	
	ø4	3	M5×0.8	VPC4-3R6-M5913	○	
		10		VPC4-10R6-M59	—	
		15		VPC4-15R6-M59	—	
		20		VPC4-20R6-M59	—	
	ø6	3	M5×0.8	VPC6-3R67-M5913	○	T8
		10		VPC6-10R67-M59	—	
		15		VPC6-15R67-M59	—	
		20		VPC6-20R67-M59	—	
	ø8	3	M5×0.8	VPC8-3R67-M5913	○	
		10		VPC8-10R67-M59	—	
		15		VPC8-15R67-M59	—	
		20		VPC8-20R67-M59	—	
	ø10	6	M6×1	VPC10-6R67-M6913	○	M4
		10		VPC10-10R67-M69	—	
		15		VPC10-15R67-M69	—	
		20		VPC10-20R67-M69	—	
	ø15	6	M6×1	VPC15-6R(A)67-M6913	○	
		10		VPC15-10R(A)67-M69	—	
		15		VPC15-15R(A)67-M69	—	
		20		VPC15-20R(A)67-M69	—	
	ø20	6	M6×1	VPC20-6R(A)67-M6913	○	M6
		10		VPC20-10R(A)67-M69	—	
		15		VPC20-15R(A)67-M69	—	
		20		VPC20-20R(A)67-M69	—	
	ø25	6	M6×1	VPC25-6R(A)67-M6913	○	
		10		VPC25-10R(A)67-M69	—	
		15		VPC25-15R(A)67-M69	—	
		20		VPC25-20R(A)67-M69	—	
	ø30	6	M6×1	VPC30-6R(A)67-M6913	○	
		10		VPC30-10R(A)67-M69	—	
		15		VPC30-15R(A)67-M69	—	
		20		VPC30-20R(A)67-M69	—	
	ø40	6	M6×1	VPC40-6R(A)67-M6913	○	
		10		VPC40-10R(A)67-M69	—	
		15		VPC40-15R(A)67-M69	—	
		20		VPC40-20R(A)67-M69	—	
	ø50	6	M6×1	VPC50-6R(A)67-M6913	○	
		10		VPC50-10R(A)67-M69	—	
		15		VPC50-15R(A)67-M69	—	
		20		VPC50-20R(A)67-M69	—	
	ø60	10	G1/8	VPC60-10R(A)67-G1913*23	○	M10
	ø80	10	G1/8	VPC80-10R(A)67-G1913*23	○	
	ø100	10	G1/8	VPC100-10R(A)67-G1913*23	○	
	ø150	20	G1/4	VPC150-20R67-G2913*3	○	M20
	ø200	20	G1/4	VPC200-20R67-G2913*3	○	
	ø60	10	NPT1/8	VPC60-10R(A)67-N19*23	—	M10
	ø80	10	NPT1/8	VPC80-10R(A)67-N19*23	—	
	ø100	10	NPT1/8	VPC100-10R(A)67-N19*23	—	
	ø150	20	NPT1/4	VPC150-20R67-N29*3	—	M20
	ø200	20	NPT1/4	VPC200-20R67-N29*3	—	

Notes

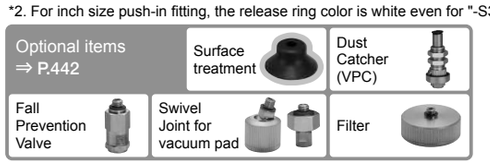
*1. Deep type pad can be selected for the models with pad type code: R (A) in the model code. Please select "R" for general type and "A" for deep type pad.
*2. Pad material code: SE of pad dia. 60 mm or larger are not available for Deep type pad.
*3. Food Sanit. Act-compliant NBR (G) is not available.

Options

7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
9: -DC ⇒ Holder with dust catcher
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.442



RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, No cover VPOC Pad dia. ø6 mm to ø15 mm	ø6	20	ø3	VPOC6-20R⑥⑦-3J	T8	ø6	20	ø1/8	VPOC6-20R⑥⑦-1/8J	T8
			ø4	VPOC6-20R⑥⑦-4J				ø5/32	VPOC6-20R⑥⑦-5/32J	
			ø6	VPOC6-20R⑥⑦-6J				ø1/4	VPOC6-20R⑥⑦-1/4J	
		30	ø3	VPOC6-30R⑥⑦-3J			30	ø1/8	VPOC6-30R⑥⑦-1/8J	
			ø4	VPOC6-30R⑥⑦-4J				ø5/32	VPOC6-30R⑥⑦-5/32J	
			ø6	VPOC6-30R⑥⑦-6J				ø1/4	VPOC6-30R⑥⑦-1/4J	
		40	ø3	VPOC6-40R⑥⑦-3J			40	ø1/8	VPOC6-40R⑥⑦-1/8J	
			ø4	VPOC6-40R⑥⑦-4J				ø5/32	VPOC6-40R⑥⑦-5/32J	
			ø6	VPOC6-40R⑥⑦-6J				ø1/4	VPOC6-40R⑥⑦-1/4J	
		50	ø3	VPOC6-50R⑥⑦-3J			50	ø1/8	VPOC6-50R⑥⑦-1/8J	
			ø4	VPOC6-50R⑥⑦-4J				ø5/32	VPOC6-50R⑥⑦-5/32J	
			ø6	VPOC6-50R⑥⑦-6J				ø1/4	VPOC6-50R⑥⑦-1/4J	
	ø8	20	ø3	VPOC8-20R⑥⑦-3J		ø8	20	ø1/8	VPOC8-20R⑥⑦-1/8J	
			ø4	VPOC8-20R⑥⑦-4J				ø5/32	VPOC8-20R⑥⑦-5/32J	
			ø6	VPOC8-20R⑥⑦-6J				ø1/4	VPOC8-20R⑥⑦-1/4J	
		30	ø3	VPOC8-30R⑥⑦-3J			30	ø1/8	VPOC8-30R⑥⑦-1/8J	
			ø4	VPOC8-30R⑥⑦-4J				ø5/32	VPOC8-30R⑥⑦-5/32J	
			ø6	VPOC8-30R⑥⑦-6J				ø1/4	VPOC8-30R⑥⑦-1/4J	
		40	ø3	VPOC8-40R⑥⑦-3J			40	ø1/8	VPOC8-40R⑥⑦-1/8J	
			ø4	VPOC8-40R⑥⑦-4J				ø5/32	VPOC8-40R⑥⑦-5/32J	
			ø6	VPOC8-40R⑥⑦-6J				ø1/4	VPOC8-40R⑥⑦-1/4J	
		50	ø3	VPOC8-50R⑥⑦-3J			50	ø1/8	VPOC8-50R⑥⑦-1/8J	
			ø4	VPOC8-50R⑥⑦-4J				ø5/32	VPOC8-50R⑥⑦-5/32J	
			ø6	VPOC8-50R⑥⑦-6J				ø1/4	VPOC8-50R⑥⑦-1/4J	
	ø10	20	ø3	VPOC10-20R⑥⑦-3J	M4	ø10	20	ø1/8	VPOC10-20R⑥⑦-1/8J	M4
			ø4	VPOC10-20R⑥⑦-4J				ø5/32	VPOC10-20R⑥⑦-5/32J	
			ø6	VPOC10-20R⑥⑦-6J				ø1/4	VPOC10-20R⑥⑦-1/4J	
		30	ø3	VPOC10-30R⑥⑦-3J			30	ø1/8	VPOC10-30R⑥⑦-1/8J	
			ø4	VPOC10-30R⑥⑦-4J				ø5/32	VPOC10-30R⑥⑦-5/32J	
			ø6	VPOC10-30R⑥⑦-6J				ø1/4	VPOC10-30R⑥⑦-1/4J	
		40	ø3	VPOC10-40R⑥⑦-3J			40	ø1/8	VPOC10-40R⑥⑦-1/8J	
			ø4	VPOC10-40R⑥⑦-4J				ø5/32	VPOC10-40R⑥⑦-5/32J	
			ø6	VPOC10-40R⑥⑦-6J				ø1/4	VPOC10-40R⑥⑦-1/4J	
		50	ø3	VPOC10-50R⑥⑦-3J			50	ø1/8	VPOC10-50R⑥⑦-1/8J	
			ø4	VPOC10-50R⑥⑦-4J				ø5/32	VPOC10-50R⑥⑦-5/32J	
			ø6	VPOC10-50R⑥⑦-6J				ø1/4	VPOC10-50R⑥⑦-1/4J	
	ø15	20	ø3	VPOC15-20R(A)⑥⑦-3J		ø15	20	ø1/8	VPOC15-20R(A)⑥⑦-1/8J	
			ø4	VPOC15-20R(A)⑥⑦-4J				ø5/32	VPOC15-20R(A)⑥⑦-5/32J	
			ø6	VPOC15-20R(A)⑥⑦-6J				ø1/4	VPOC15-20R(A)⑥⑦-1/4J	
		30	ø3	VPOC15-30R(A)⑥⑦-3J			30	ø1/8	VPOC15-30R(A)⑥⑦-1/8J	
			ø4	VPOC15-30R(A)⑥⑦-4J				ø5/32	VPOC15-30R(A)⑥⑦-5/32J	
			ø6	VPOC15-30R(A)⑥⑦-6J				ø1/4	VPOC15-30R(A)⑥⑦-1/4J	
		40	ø3	VPOC15-40R(A)⑥⑦-3J			40	ø1/8	VPOC15-40R(A)⑥⑦-1/8J	
			ø4	VPOC15-40R(A)⑥⑦-4J				ø5/32	VPOC15-40R(A)⑥⑦-5/32J	
			ø6	VPOC15-40R(A)⑥⑦-6J				ø1/4	VPOC15-40R(A)⑥⑦-1/4J	
		50	ø3	VPOC15-50R(A)⑥⑦-3J			50	ø1/8	VPOC15-50R(A)⑥⑦-1/8J	
			ø4	VPOC15-50R(A)⑥⑦-4J				ø5/32	VPOC15-50R(A)⑥⑦-5/32J	
			ø6	VPOC15-50R(A)⑥⑦-6J				ø1/4	VPOC15-50R(A)⑥⑦-1/4J	

Notes
*1. Deep type pad can be selected for the models with pad type code: R (A) in the model code. Please select "R" for general type and "A" for deep type pad.
*2. Barb fitting type holders are also available. Contact us for the details.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.442

Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Standard Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type,
Top port,
Push-in fitting,
No cover

VPOC

Pad dia.
ø20 mm
to
ø50 mm

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, No cover VPOC	ø20	20	ø3	VPOC20-20R(A)□7-3J	M6	ø20	20	ø1/8	VPOC20-20R(A)□7-1/8J	M6
			ø4	VPOC20-20R(A)□7-4J				ø5/32	VPOC20-20R(A)□7-5/32J	
			ø6	VPOC20-20R(A)□7-6J				ø1/4	VPOC20-20R(A□7-1/4J	
		30	ø3	VPOC20-30R(A)□7-3J			30	ø1/8	VPOC20-30R(A)□7-1/8J	
			ø4	VPOC20-30R(A)□7-4J				ø5/32	VPOC20-30R(A)□7-5/32J	
			ø6	VPOC20-30R(A)□7-6J				ø1/4	VPOC20-30R(A)□7-1/4J	
		40	ø3	VPOC20-40R(A)□7-3J			40	ø1/8	VPOC20-40R(A)□7-1/8J	
			ø4	VPOC20-40R(A)□7-4J				ø5/32	VPOC20-40R(A)□7-5/32J	
			ø6	VPOC20-40R(A)□7-6J				ø1/4	VPOC20-40R(A)□7-1/4J	
		50	ø3	VPOC20-50R(A)□7-3J			50	ø1/8	VPOC20-50R(A)□7-1/8J	
			ø4	VPOC20-50R(A)□7-4J				ø5/32	VPOC20-50R(A)□7-5/32J	
			ø6	VPOC20-50R(A)□7-6J				ø1/4	VPOC20-50R(A)□7-1/4J	
	ø25	20	ø3	VPOC25-20R(A)□7-3J		ø25	20	ø1/8	VPOC25-20R(A)□7-1/8J	
			ø4	VPOC25-20R(A)□7-4J				ø5/32	VPOC25-20R(A)□7-5/32J	
			ø6	VPOC25-20R(A)□7-6J				ø1/4	VPOC25-20R(A)□7-1/4J	
		30	ø3	VPOC25-30R(A)□7-3J			30	ø1/8	VPOC25-30R(A)□7-1/8J	
			ø4	VPOC25-30R(A)□7-4J				ø5/32	VPOC25-30R(A)□7-5/32J	
			ø6	VPOC25-30R(A)□7-6J				ø1/4	VPOC25-30R(A)□7-1/4J	
		40	ø3	VPOC25-40R(A)□7-3J			40	ø1/8	VPOC25-40R(A)□7-1/8J	
			ø4	VPOC25-40R(A)□7-4J				ø5/32	VPOC25-40R(A)□7-5/32J	
			ø6	VPOC25-40R(A)□7-6J				ø1/4	VPOC25-40R(A)□7-1/4J	
		50	ø3	VPOC25-50R(A)□7-3J			50	ø1/8	VPOC25-50R(A)□7-1/8J	
			ø4	VPOC25-50R(A)□7-4J				ø5/32	VPOC25-50R(A)□7-5/32J	
			ø6	VPOC25-50R(A)□7-6J				ø1/4	VPOC25-50R(A)□7-1/4J	
	ø30	20	ø3	VPOC30-20R(A)□7-3J		ø30	20	ø1/8	VPOC30-20R(A)□7-1/8J	
			ø4	VPOC30-20R(A)□7-4J				ø5/32	VPOC30-20R(A)□7-5/32J	
			ø6	VPOC30-20R(A)□7-6J				ø1/4	VPOC30-20R(A)□7-1/4J	
		30	ø3	VPOC30-30R(A)□7-3J			30	ø1/8	VPOC30-30R(A)□7-1/8J	
			ø4	VPOC30-30R(A)□7-4J				ø5/32	VPOC30-30R(A)□7-5/32J	
			ø6	VPOC30-30R(A)□7-6J				ø1/4	VPOC30-30R(A)□7-1/4J	
		40	ø3	VPOC30-40R(A)□7-3J			40	ø1/8	VPOC30-40R(A)□7-1/8J	
			ø4	VPOC30-40R(A)□7-4J				ø5/32	VPOC30-40R(A)□7-5/32J	
			ø6	VPOC30-40R(A)□7-6J				ø1/4	VPOC30-40R(A)□7-1/4J	
		50	ø3	VPOC30-50R(A)□7-3J			50	ø1/8	VPOC30-50R(A)□7-1/8J	
			ø4	VPOC30-50R(A)□7-4J				ø5/32	VPOC30-50R(A)□7-5/32J	
			ø6	VPOC30-50R(A)□7-6J				ø1/4	VPOC30-50R(A)□7-1/4J	
	ø40	20	ø3	VPOC40-20R(A)□7-3J		ø40	20	ø1/8	VPOC40-20R(A)□7-1/8J	
			ø4	VPOC40-20R(A)□7-4J				ø5/32	VPOC40-20R(A)□7-5/32J	
			ø6	VPOC40-20R(A)□7-6J				ø1/4	VPOC40-20R(A)□7-1/4J	
		30	ø3	VPOC40-30R(A)□7-3J			30	ø1/8	VPOC40-30R(A)□7-1/8J	
			ø4	VPOC40-30R(A)□7-4J				ø5/32	VPOC40-30R(A)□7-5/32J	
			ø6	VPOC40-30R(A)□7-6J				ø1/4	VPOC40-30R(A)□7-1/4J	
		40	ø3	VPOC40-40R(A)□7-3J			40	ø1/8	VPOC40-40R(A)□7-1/8J	
			ø4	VPOC40-40R(A)□7-4J				ø5/32	VPOC40-40R(A)□7-5/32J	
			ø6	VPOC40-40R(A)□7-6J				ø1/4	VPOC40-40R(A)□7-1/4J	
		50	ø3	VPOC40-50R(A)□7-3J			50	ø1/8	VPOC40-50R(A)□7-1/8J	
			ø4	VPOC40-50R(A)□7-4J				ø5/32	VPOC40-50R(A)□7-5/32J	
			ø6	VPOC40-50R(A)□7-6J				ø1/4	VPOC40-50R(A)□7-1/4J	
	ø50	20	ø3	VPOC50-20R(A)□7-3J		ø50	20	ø1/8	VPOC50-20R(A)□7-1/8J	
			ø4	VPOC50-20R(A)□7-4J				ø5/32	VPOC50-20R(A)□7-5/32J	
			ø6	VPOC50-20R(A)□7-6J				ø1/4	VPOC50-20R(A)□7-1/4J	
		30	ø3	VPOC50-30R(A)□7-3J			30	ø1/8	VPOC50-30R(A)□7-1/8J	
			ø4	VPOC50-30R(A)□7-4J				ø5/32	VPOC50-30R(A)□7-5/32J	
			ø6	VPOC50-30R(A)□7-6J				ø1/4	VPOC50-30R(A)□7-1/4J	
		40	ø3	VPOC50-40R(A)□7-3J			40	ø1/8	VPOC50-40R(A)□7-1/8J	
			ø4	VPOC50-40R(A)□7-4J				ø5/32	VPOC50-40R(A)□7-5/32J	
			ø6	VPOC50-40R(A)□7-6J				ø1/4	VPOC50-40R(A)□7-1/4J	
		50	ø3	VPOC50-50R(A)□7-3J			50	ø1/8	VPOC50-50R(A)□7-1/8J	
			ø4	VPOC50-50R(A)□7-4J				ø5/32	VPOC50-50R(A)□7-5/32J	
			ø6	VPOC50-50R(A)□7-6J				ø1/4	VPOC50-50R(A)□7-1/4J	

CAD 2D 3D CAD data is available at PISCO website.

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Top port, Female thread, No cover VPOC 	ø6	20	M6×1	VPOC6-20R⑥⑦-M6	T8
		30		VPOC6-30R⑥⑦-M6	
		40		VPOC6-40R⑥⑦-M6	
		50		VPOC6-50R⑥⑦-M6	
	ø8	20	M6×1	VPOC8-20R⑥⑦-M6	
		30		VPOC8-30R⑥⑦-M6	
		40		VPOC8-40R⑥⑦-M6	
		50		VPOC8-50R⑥⑦-M6	
	ø10	20	M6×1	VPOC10-20R⑥⑦-M6	M4
		30		VPOC10-30R⑥⑦-M6	
		40		VPOC10-40R⑥⑦-M6	
		50		VPOC10-50R⑥⑦-M6	
	ø15	20	M6×1	VPOC15-20R(A)⑥⑦-M6	
		30		VPOC15-30R(A)⑥⑦-M6	
		40		VPOC15-40R(A)⑥⑦-M6	
		50		VPOC15-50R(A)⑥⑦-M6	
	ø20	20	M6×1	VPOC20-20R(A)⑥⑦-M6	M6
		30		VPOC20-30R(A)⑥⑦-M6	
		40		VPOC20-40R(A)⑥⑦-M6	
		50		VPOC20-50R(A)⑥⑦-M6	
	ø25	20	M6×1	VPOC25-20R(A)⑥⑦-M6	
		30		VPOC25-30R(A)⑥⑦-M6	
		40		VPOC25-40R(A)⑥⑦-M6	
		50		VPOC25-50R(A)⑥⑦-M6	
	ø30	20	M6×1	VPOC30-20R(A)⑥⑦-M6	
		30		VPOC30-30R(A)⑥⑦-M6	
		40		VPOC30-40R(A)⑥⑦-M6	
		50		VPOC30-50R(A)⑥⑦-M6	
	ø40	20	M6×1	VPOC40-20R(A)⑥⑦-M6	
		30		VPOC40-30R(A)⑥⑦-M6	
		40		VPOC40-40R(A)⑥⑦-M6	
		50		VPOC40-50R(A)⑥⑦-M6	
	ø50	20	M6×1	VPOC50-20R(A)⑥⑦-M6	
		30		VPOC50-30R(A)⑥⑦-M6	
		40		VPOC50-40R(A)⑥⑦-M6	
		50		VPOC50-50R(A)⑥⑦-M6	

Notes
*Deep type pad can be selected for the models with pad type code: R (A) in the model code. Please select "R" for general type and "A" for deep type pad.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.442

Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Standard Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type,
Top port,
Push-in fitting,
Low dust emission

VPLFC

Pad dia.
ø0.7 mm
to
ø4 mm

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
	ø0.7	2	ø3	VPLFC0.7-2RM⑥⑦-3J	T4	ø0.7	2	ø1/8	VPLFC0.7-2RM⑥⑦-1/8J	T4
			ø4	VPLFC0.7-2RM⑥⑦-4J				ø5/32	VPLFC0.7-2RM⑥⑦-5/32J	
		5	ø3	VPLFC0.7-5RM⑥⑦-3J⑨			5	ø1/8	VPLFC0.7-5RM⑥⑦-1/8J⑨	
			ø4	VPLFC0.7-5RM⑥⑦-4J⑨				ø5/32	VPLFC0.7-5RM⑥⑦-5/32J⑨	
		10	ø3	VPLFC0.7-10RM⑥⑦-3J⑨			10	ø1/8	VPLFC0.7-10RM⑥⑦-1/8J⑨	
			ø4	VPLFC0.7-10RM⑥⑦-4J⑨				ø5/32	VPLFC0.7-10RM⑥⑦-5/32J⑨	
		15	ø3	VPLFC0.7-15RM⑥⑦-3J⑨			15	ø1/8	VPLFC0.7-15RM⑥⑦-1/8J⑨	
			ø4	VPLFC0.7-15RM⑥⑦-4J⑨				ø5/32	VPLFC0.7-15RM⑥⑦-5/32J⑨	
		20	ø3	VPLFC0.7-20RM⑥⑦-3J⑨			20	ø1/8	VPLFC0.7-20RM⑥⑦-1/8J⑨	
			ø4	VPLFC0.7-20RM⑥⑦-4J⑨				ø5/32	VPLFC0.7-20RM⑥⑦-5/32J⑨	
	ø1	2	ø3	VPLFC1-2RM⑥⑦-3J		ø1	2	ø1/8	VPLFC1-2RM⑥⑦-1/8J	
			ø4	VPLFC1-2RM⑥⑦-4J				ø5/32	VPLFC1-2RM⑥⑦-5/32J	
		5	ø3	VPLFC1-5RM⑥⑦-3J⑨			5	ø1/8	VPLFC1-5RM⑥⑦-1/8J⑨	
			ø4	VPLFC1-5RM⑥⑦-4J⑨				ø5/32	VPLFC1-5RM⑥⑦-5/32J⑨	
		10	ø3	VPLFC1-10RM⑥⑦-3J⑨			10	ø1/8	VPLFC1-10RM⑥⑦-1/8J⑨	
			ø4	VPLFC1-10RM⑥⑦-4J⑨				ø5/32	VPLFC1-10RM⑥⑦-5/32J⑨	
		15	ø3	VPLFC1-15RM⑥⑦-3J⑨			15	ø1/8	VPLFC1-15RM⑥⑦-1/8J⑨	
			ø4	VPLFC1-15RM⑥⑦-4J⑨				ø5/32	VPLFC1-15RM⑥⑦-5/32J⑨	
		20	ø3	VPLFC1-20RM⑥⑦-3J⑨			20	ø1/8	VPLFC1-20RM⑥⑦-1/8J⑨	
			ø4	VPLFC1-20RM⑥⑦-4J⑨				ø5/32	VPLFC1-20RM⑥⑦-5/32J⑨	
	ø1.5	2	ø3	VPLFC1.5-2RM⑥⑦-3J		ø1.5	2	ø1/8	VPLFC1.5-2RM⑥⑦-1/8J	
			ø4	VPLFC1.5-2RM⑥⑦-4J				ø5/32	VPLFC1.5-2RM⑥⑦-5/32J	
		5	ø3	VPLFC1.5-5RM⑥⑦-3J⑨			5	ø1/8	VPLFC1.5-5RM⑥⑦-1/8J⑨	
			ø4	VPLFC1.5-5RM⑥⑦-4J⑨				ø5/32	VPLFC1.5-5RM⑥⑦-5/32J⑨	
		10	ø3	VPLFC1.5-10RM⑥⑦-3J⑨			10	ø1/8	VPLFC1.5-10RM⑥⑦-1/8J⑨	
			ø4	VPLFC1.5-10RM⑥⑦-4J⑨				ø5/32	VPLFC1.5-10RM⑥⑦-5/32J⑨	
		15	ø3	VPLFC1.5-15RM⑥⑦-3J⑨			15	ø1/8	VPLFC1.5-15RM⑥⑦-1/8J⑨	
			ø4	VPLFC1.5-15RM⑥⑦-4J⑨				ø5/32	VPLFC1.5-15RM⑥⑦-5/32J⑨	
		20	ø3	VPLFC1.5-20RM⑥⑦-3J⑨			20	ø1/8	VPLFC1.5-20RM⑥⑦-1/8J⑨	
			ø4	VPLFC1.5-20RM⑥⑦-4J⑨				ø5/32	VPLFC1.5-20RM⑥⑦-5/32J⑨	
	ø2	2	ø3	VPLFC2-2RM⑥⑦-3J		ø2	2	ø1/8	VPLFC2-2RM⑥⑦-1/8J	
			ø4	VPLFC2-2RM⑥⑦-4J				ø5/32	VPLFC2-2RM⑥⑦-5/32J	
		5	ø3	VPLFC2-5RM⑥⑦-3J⑨			5	ø1/8	VPLFC2-5RM⑥⑦-1/8J⑨	
			ø4	VPLFC2-5RM⑥⑦-4J⑨				ø5/32	VPLFC2-5RM⑥⑦-5/32J⑨	
		10	ø3	VPLFC2-10RM⑥⑦-3J⑨			10	ø1/8	VPLFC2-10RM⑥⑦-1/8J⑨	
			ø4	VPLFC2-10RM⑥⑦-4J⑨				ø5/32	VPLFC2-10RM⑥⑦-5/32J⑨	
		15	ø3	VPLFC2-15RM⑥⑦-3J⑨			15	ø1/8	VPLFC2-15RM⑥⑦-1/8J⑨	
			ø4	VPLFC2-15RM⑥⑦-4J⑨				ø5/32	VPLFC2-15RM⑥⑦-5/32J⑨	
		20	ø3	VPLFC2-20RM⑥⑦-3J⑨			20	ø1/8	VPLFC2-20RM⑥⑦-1/8J⑨	
			ø4	VPLFC2-20RM⑥⑦-4J⑨				ø5/32	VPLFC2-20RM⑥⑦-5/32J⑨	
	ø3	2	ø3	VPLFC3-2RM⑥⑦-3J		ø3	2	ø1/8	VPLFC3-2RM⑥⑦-1/8J	
			ø4	VPLFC3-2RM⑥⑦-4J				ø5/32	VPLFC3-2RM⑥⑦-5/32J	
		5	ø3	VPLFC3-5RM⑥⑦-3J⑨			5	ø1/8	VPLFC3-5RM⑥⑦-1/8J⑨	
			ø4	VPLFC3-5RM⑥⑦-4J⑨				ø5/32	VPLFC3-5RM⑥⑦-5/32J⑨	
		10	ø3	VPLFC3-10RM⑥⑦-3J⑨			10	ø1/8	VPLFC3-10RM⑥⑦-1/8J⑨	
			ø4	VPLFC3-10RM⑥⑦-4J⑨				ø5/32	VPLFC3-10RM⑥⑦-5/32J⑨	
		15	ø3	VPLFC3-15RM⑥⑦-3J⑨			15	ø1/8	VPLFC3-15RM⑥⑦-1/8J⑨	
			ø4	VPLFC3-15RM⑥⑦-4J⑨				ø5/32	VPLFC3-15RM⑥⑦-5/32J⑨	
		20	ø3	VPLFC3-20RM⑥⑦-3J⑨			20	ø1/8	VPLFC3-20RM⑥⑦-1/8J⑨	
			ø4	VPLFC3-20RM⑥⑦-4J⑨				ø5/32	VPLFC3-20RM⑥⑦-5/32J⑨	
	ø4	2	ø3	VPLFC4-2RM⑥⑦-3J		ø4	2	ø1/8	VPLFC4-2RM⑥⑦-1/8J	
			ø4	VPLFC4-2RM⑥⑦-4J				ø5/32	VPLFC4-2RM⑥⑦-5/32J	
		5	ø3	VPLFC4-5RM⑥⑦-3J⑨			5	ø1/8	VPLFC4-5RM⑥⑦-1/8J⑨	
			ø4	VPLFC4-5RM⑥⑦-4J⑨				ø5/32	VPLFC4-5RM⑥⑦-5/32J⑨	
		10	ø3	VPLFC4-10RM⑥⑦-3J⑨			10	ø1/8	VPLFC4-10RM⑥⑦-1/8J⑨	
			ø4	VPLFC4-10RM⑥⑦-4J⑨				ø5/32	VPLFC4-10RM⑥⑦-5/32J⑨	
		15	ø3	VPLFC4-15RM⑥⑦-3J⑨			15	ø1/8	VPLFC4-15RM⑥⑦-1/8J⑨	
			ø4	VPLFC4-15RM⑥⑦-4J⑨				ø5/32	VPLFC4-15RM⑥⑦-5/32J⑨	
		20	ø3	VPLFC4-20RM⑥⑦-3J⑨			20	ø1/8	VPLFC4-20RM⑥⑦-1/8J⑨	
			ø4	VPLFC4-20RM⑥⑦-4J⑨				ø5/32	VPLFC4-20RM⑥⑦-5/32J⑨	

Notes
*Barb fitting type holders are also available. Contact us for the details.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (Reformed surface, and Fluoro-coating)
⑨: -SF1/4 ⇒ Spring load 1/4

Optional items
⇒ P.442

Surface treatment

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type,
Top port,
Push-in fitting,
Low dust emission

VPLFC

Pad dia.
ø6 mm
to
ø15 mm

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, Low dust emission **VPLFC**	ø6	2	ø3	VPLFC6-2R⑥⑦-3J	T8	ø6	2	ø1/8	VPLFC6-2R⑥⑦-1/8J	T8
			ø4	VPLFC6-2R⑥⑦-4J				ø5/32	VPLFC6-2R⑥⑦-5/32J	
		5	ø3	VPLFC6-5R⑥⑦-3J⑨			5	ø1/8	VPLFC6-5R⑥⑦-1/8J⑨	
			ø4	VPLFC6-5R⑥⑦-4J⑨				ø5/32	VPLFC6-5R⑥⑦-5/32J⑨	
		10	ø3	VPLFC6-10R⑥⑦-3J⑨			10	ø1/8	VPLFC6-10R⑥⑦-1/8J⑨	
			ø4	VPLFC6-10R⑥⑦-4J⑨				ø5/32	VPLFC6-10R⑥⑦-5/32J⑨	
		15	ø3	VPLFC6-15R⑥⑦-3J⑨			15	ø1/8	VPLFC6-15R⑥⑦-1/8J⑨	
			ø4	VPLFC6-15R⑥⑦-4J⑨				ø5/32	VPLFC6-15R⑥⑦-5/32J⑨	
		20	ø3	VPLFC6-20R⑥⑦-3J⑨			20	ø1/8	VPLFC6-20R⑥⑦-1/8J⑨	
			ø4	VPLFC6-20R⑥⑦-4J⑨				ø5/32	VPLFC6-20R⑥⑦-5/32J⑨	
	ø8	2	ø3	VPLFC8-2R⑥⑦-3J		ø8	2	ø1/8	VPLFC8-2R⑥⑦-1/8J	
			ø4	VPLFC8-2R⑥⑦-4J				ø5/32	VPLFC8-2R⑥⑦-5/32J	
		5	ø3	VPLFC8-5R⑥⑦-3J⑨			5	ø1/8	VPLFC8-5R⑥⑦-1/8J⑨	
			ø4	VPLFC8-5R⑥⑦-4J⑨				ø5/32	VPLFC8-5R⑥⑦-5/32J⑨	
		10	ø3	VPLFC8-10R⑥⑦-3J⑨			10	ø1/8	VPLFC8-10R⑥⑦-1/8J⑨	
			ø4	VPLFC8-10R⑥⑦-4J⑨				ø5/32	VPLFC8-10R⑥⑦-5/32J⑨	
		15	ø3	VPLFC8-15R⑥⑦-3J⑨			15	ø1/8	VPLFC8-15R⑥⑦-1/8J⑨	
			ø4	VPLFC8-15R⑥⑦-4J⑨				ø5/32	VPLFC8-15R⑥⑦-5/32J⑨	
		20	ø3	VPLFC8-20R⑥⑦-3J⑨			20	ø1/8	VPLFC8-20R⑥⑦-1/8J⑨	
			ø4	VPLFC8-20R⑥⑦-4J⑨				ø5/32	VPLFC8-20R⑥⑦-5/32J⑨	
	ø10	2	ø3	VPLFC10-2R⑥⑦-3J	M4	ø10	2	ø1/8	VPLFC10-2R⑥⑦-1/8J	M4
			ø4	VPLFC10-2R⑥⑦-4J				ø5/32	VPLFC10-2R⑥⑦-5/32J	
		5	ø3	VPLFC10-5R⑥⑦-3J⑨			5	ø1/8	VPLFC10-5R⑥⑦-1/8J⑨	
			ø4	VPLFC10-5R⑥⑦-4J⑨				ø5/32	VPLFC10-5R⑥⑦-5/32J⑨	
		10	ø3	VPLFC10-10R⑥⑦-3J⑨			10	ø1/8	VPLFC10-10R⑥⑦-1/8J⑨	
			ø4	VPLFC10-10R⑥⑦-4J⑨				ø5/32	VPLFC10-10R⑥⑦-5/32J⑨	
		15	ø3	VPLFC10-15R⑥⑦-3J⑨			15	ø1/8	VPLFC10-15R⑥⑦-1/8J⑨	
			ø4	VPLFC10-15R⑥⑦-4J⑨				ø5/32	VPLFC10-15R⑥⑦-5/32J⑨	
		20	ø3	VPLFC10-20R⑥⑦-3J⑨			20	ø1/8	VPLFC10-20R⑥⑦-1/8J⑨	
			ø4	VPLFC10-20R⑥⑦-4J⑨				ø5/32	VPLFC10-20R⑥⑦-5/32J⑨	
	ø15	2	ø3	VPLFC15-2R(A)⑥⑦-3J		ø15	2	ø1/8	VPLFC15-2R(A)⑥⑦-1/8J	
			ø4	VPLFC15-2R(A)⑥⑦-4J				ø5/32	VPLFC15-2R(A)⑥⑦-5/32J	
		5	ø3	VPLFC15-5R(A)⑥⑦-3J⑨			5	ø1/8	VPLFC15-5R(A)⑥⑦-1/8J⑨	
			ø4	VPLFC15-5R(A)⑥⑦-4J⑨				ø5/32	VPLFC15-5R(A)⑥⑦-5/32J⑨	
		10	ø3	VPLFC15-10R(A)⑥⑦-3J⑨			10	ø1/8	VPLFC15-10R(A)⑥⑦-1/8J⑨	
			ø4	VPLFC15-10R(A)⑥⑦-4J⑨				ø5/32	VPLFC15-10R(A)⑥⑦-5/32J⑨	
		15	ø3	VPLFC15-15R(A)⑥⑦-3J⑨			15	ø1/8	VPLFC15-15R(A)⑥⑦-1/8J⑨	
			ø4	VPLFC15-15R(A)⑥⑦-4J⑨				ø5/32	VPLFC15-15R(A)⑥⑦-5/32J⑨	
		20	ø3	VPLFC15-20R(A)⑥⑦-3J⑨			20	ø1/8	VPLFC15-20R(A)⑥⑦-1/8J⑨	
			ø4	VPLFC15-20R(A)⑥⑦-4J⑨				ø5/32	VPLFC15-20R(A)⑥⑦-5/32J⑨	

Notes

*1. Deep type pad can be selected for the models with pad type code: R (A) in the model code.
Please select "R" for general type and "A" for deep type pad.
*2. Barb fitting type holders are also available. Contact us for the details.

Packaging specifications

1 pc./bag

Options

⑦: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⑨: -SF1/4 ⇒ Spring load 1/4

Optional items ⇒ P.442

Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Standard Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type,
Top port,
Push-in fitting,
Low dust emission

VPLFC

Pad dia.
ø20 mm
to
ø50 mm

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, Low dust emission **VPLFC**	ø20	5	ø3	VPLFC20-5R(A)□-3J□	M6	ø20	5	ø1/8	VPLFC20-5R(A)□-1/8J□	M6
			ø4	VPLFC20-5R(A)□-4J□				ø5/32	VPLFC20-5R(A)□-5/32J□	
			ø6	VPLFC20-5R(A)□-6J□				ø1/4	VPLFC20-5R(A)□-1/4J□	
		10	ø3	VPLFC20-10R(A)□-3J□			10	ø1/8	VPLFC20-10R(A)□-1/8J□	
			ø4	VPLFC20-10R(A)□-4J□				ø5/32	VPLFC20-10R(A)□-5/32J□	
			ø6	VPLFC20-10R(A)□-6J□				ø1/4	VPLFC20-10R(A)□-1/4J□	
		15	ø3	VPLFC20-15R(A)□-3J□			15	ø1/8	VPLFC20-15R(A)□-1/8J□	
			ø4	VPLFC20-15R(A)□-4J□				ø5/32	VPLFC20-15R(A)□-5/32J□	
			ø6	VPLFC20-15R(A)□-6J□				ø1/4	VPLFC20-15R(A)□-1/4J□	
		20	ø3	VPLFC20-20R(A)□-3J□			20	ø1/8	VPLFC20-20R(A)□-1/8J□	
			ø4	VPLFC20-20R(A)□-4J□				ø5/32	VPLFC20-20R(A)□-5/32J□	
			ø6	VPLFC20-20R(A)□-6J□				ø1/4	VPLFC20-20R(A)□-1/4J□	
	ø25	5	ø3	VPLFC25-5R(A)□-3J□		ø25	5	ø1/8	VPLFC25-5R(A)□-1/8J□	
			ø4	VPLFC25-5R(A)□-4J□				ø5/32	VPLFC25-5R(A)□-5/32J□	
			ø6	VPLFC25-5R(A)□-6J□				ø1/4	VPLFC25-5R(A)□-1/4J□	
		10	ø3	VPLFC25-10R(A)□-3J□			10	ø1/8	VPLFC25-10R(A)□-1/8J□	
			ø4	VPLFC25-10R(A)□-4J□				ø5/32	VPLFC25-10R(A)□-5/32J□	
			ø6	VPLFC25-10R(A)□-6J□				ø1/4	VPLFC25-10R(A)□-1/4J□	
		15	ø3	VPLFC25-15R(A)□-3J□			15	ø1/8	VPLFC25-15R(A)□-1/8J□	
			ø4	VPLFC25-15R(A)□-4J□				ø5/32	VPLFC25-15R(A)□-5/32J□	
			ø6	VPLFC25-15R(A)□-6J□				ø1/4	VPLFC25-15R(A)□-1/4J□	
		20	ø3	VPLFC25-20R(A)□-3J□			20	ø1/8	VPLFC25-20R(A)□-1/8J□	
			ø4	VPLFC25-20R(A)□-4J□				ø5/32	VPLFC25-20R(A)□-5/32J□	
			ø6	VPLFC25-20R(A)□-6J□				ø1/4	VPLFC25-20R(A)□-1/4J□	
	ø30	5	ø3	VPLFC30-5R(A)□-3J□		ø30	5	ø1/8	VPLFC30-5R(A)□-1/8J□	
			ø4	VPLFC30-5R(A)□-4J□				ø5/32	VPLFC30-5R(A)□-5/32J□	
			ø6	VPLFC30-5R(A)□-6J□				ø1/4	VPLFC30-5R(A)□-1/4J□	
		10	ø3	VPLFC30-10R(A)□-3J□			10	ø1/8	VPLFC30-10R(A)□-1/8J□	
			ø4	VPLFC30-10R(A)□-4J□				ø5/32	VPLFC30-10R(A)□-5/32J□	
			ø6	VPLFC30-10R(A)□-6J□				ø1/4	VPLFC30-10R(A)□-1/4J□	
		15	ø3	VPLFC30-15R(A)□-3J□			15	ø1/8	VPLFC30-15R(A)□-1/8J□	
			ø4	VPLFC30-15R(A)□-4J□				ø5/32	VPLFC30-15R(A)□-5/32J□	
			ø6	VPLFC30-15R(A)□-6J□				ø1/4	VPLFC30-15R(A)□-1/4J□	
		20	ø3	VPLFC30-20R(A)□-3J□			20	ø1/8	VPLFC30-20R(A)□-1/8J□	
			ø4	VPLFC30-20R(A)□-4J□				ø5/32	VPLFC30-20R(A)□-5/32J□	
			ø6	VPLFC30-20R(A)□-6J□				ø1/4	VPLFC30-20R(A)□-1/4J□	
	ø40	5	ø3	VPLFC40-5R(A)□-3J□		ø40	5	ø1/8	VPLFC40-5R(A)□-1/8J□	
			ø4	VPLFC40-5R(A)□-4J□				ø5/32	VPLFC40-5R(A)□-5/32J□	
			ø6	VPLFC40-5R(A)□-6J□				ø1/4	VPLFC40-5R(A)□-1/4J□	
		10	ø3	VPLFC40-10R(A)□-3J□			10	ø1/8	VPLFC40-10R(A)□-1/8J□	
			ø4	VPLFC40-10R(A)□-4J□				ø5/32	VPLFC40-10R(A)□-5/32J□	
			ø6	VPLFC40-10R(A)□-6J□				ø1/4	VPLFC40-10R(A)□-1/4J□	
		15	ø3	VPLFC40-15R(A)□-3J□			15	ø1/8	VPLFC40-15R(A)□-1/8J□	
			ø4	VPLFC40-15R(A)□-4J□				ø5/32	VPLFC40-15R(A)□-5/32J□	
			ø6	VPLFC40-15R(A)□-6J□				ø1/4	VPLFC40-15R(A)□-1/4J□	
		20	ø3	VPLFC40-20R(A)□-3J□			20	ø1/8	VPLFC40-20R(A)□-1/8J□	
			ø4	VPLFC40-20R(A)□-4J□				ø5/32	VPLFC40-20R(A)□-5/32J□	
			ø6	VPLFC40-20R(A)□-6J□				ø1/4	VPLFC40-20R(A)□-1/4J□	
	ø50	5	ø3	VPLFC50-5R(A)□-3J□		ø50	5	ø1/8	VPLFC50-5R(A)□-1/8J□	
			ø4	VPLFC50-5R(A)□-4J□				ø5/32	VPLFC50-5R(A)□-5/32J□	
			ø6	VPLFC50-5R(A)□-6J□				ø1/4	VPLFC50-5R(A)□-1/4J□	
		10	ø3	VPLFC50-10R(A)□-3J□			10	ø1/8	VPLFC50-10R(A)□-1/8J□	
			ø4	VPLFC50-10R(A)□-4J□				ø5/32	VPLFC50-10R(A)□-5/32J□	
			ø6	VPLFC50-10R(A)□-6J□				ø1/4	VPLFC50-10R(A)□-1/4J□	
		15	ø3	VPLFC50-15R(A)□-3J□			15	ø1/8	VPLFC50-15R(A)□-1/8J□	
			ø4	VPLFC50-15R(A)□-4J□				ø5/32	VPLFC50-15R(A)□-5/32J□	
			ø6	VPLFC50-15R(A)□-6J□				ø1/4	VPLFC50-15R(A)□-1/4J□	
		20	ø3	VPLFC50-20R(A)□-3J□			20	ø1/8	VPLFC50-20R(A)□-1/8J□	
			ø4	VPLFC50-20R(A)□-4J□				ø5/32	VPLFC50-20R(A)□-5/32J□	
			ø6	VPLFC50-20R(A)□-6J□				ø1/4	VPLFC50-20R(A)□-1/4J□	

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Top port, Female thread, Low dust emission **VPLFC** Pad dia. ø0.7 mm to ø8 mm	ø0.7	2	M5×0.8	VPLFC0.7-2RM67-M5	T4
		5	M5×0.8	VPLFC0.7-5RM67-M59	
		10	M5×0.8	VPLFC0.7-10RM67-M59	
		15	M5×0.8	VPLFC0.7-15RM67-M59	
		20	M5×0.8	VPLFC0.7-20RM67-M59	
	ø1	2	M5×0.8	VPLFC1-2RM67-M5	
		5	M5×0.8	VPLFC1-5RM67-M59	
		10	M5×0.8	VPLFC1-10RM67-M59	
		15	M5×0.8	VPLFC1-15RM67-M59	
		20	M5×0.8	VPLFC1-20RM67-M59	
	ø1.5	2	M5×0.8	VPLFC1.5-2RM67-M5	
		5	M5×0.8	VPLFC1.5-5RM67-M59	
		10	M5×0.8	VPLFC1.5-10RM67-M59	
		15	M5×0.8	VPLFC1.5-15RM67-M59	
		20	M5×0.8	VPLFC1.5-20RM67-M59	
	ø2	2	M5×0.8	VPLFC2-2RM67-M5	
		5	M5×0.8	VPLFC2-5RM67-M59	
		10	M5×0.8	VPLFC2-10RM67-M59	
		15	M5×0.8	VPLFC2-15RM67-M59	
		20	M5×0.8	VPLFC2-20RM67-M59	
	ø3	2	M5×0.8	VPLFC3-2RM67-M5	
		5	M5×0.8	VPLFC3-5RM67-M59	
		10	M5×0.8	VPLFC3-10RM67-M59	
		15	M5×0.8	VPLFC3-15RM67-M59	
		20	M5×0.8	VPLFC3-20RM67-M59	
	ø4	2	M5×0.8	VPLFC4-2RM67-M5	
		5	M5×0.8	VPLFC4-5RM67-M59	
		10	M5×0.8	VPLFC4-10RM67-M59	
		15	M5×0.8	VPLFC4-15RM67-M59	
		20	M5×0.8	VPLFC4-20RM67-M59	
	ø6	2	M5×0.8	VPLFC6-2RM67-M5	T8
		5	M5×0.8	VPLFC6-5RM67-M59	
		10	M5×0.8	VPLFC6-10RM67-M59	
		15	M5×0.8	VPLFC6-15RM67-M59	
		20	M5×0.8	VPLFC6-20RM67-M59	
	ø8	2	M5×0.8	VPLFC8-2RM67-M5	
		5	M5×0.8	VPLFC8-5RM67-M59	
		10	M5×0.8	VPLFC8-10RM67-M59	
		15	M5×0.8	VPLFC8-15RM67-M59	
		20	M5×0.8	VPLFC8-20RM67-M59	

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Top port, Female thread, Low dust emission **VPLFC** Pad dia. ø10 mm to ø50 mm	ø10	2	M5×0.8	VPLFC10-2R67-M5	M4
		5	M5×0.8	VPLFC10-5R67-M59	
		10	M5×0.8	VPLFC10-10R67-M59	
		15	M5×0.8	VPLFC10-15R67-M59	
		20	M5×0.8	VPLFC10-20R67-M59	
	ø15	2	M5×0.8	VPLFC15-2R(A)67-M5	
		5	M5×0.8	VPLFC15-5R(A)67-M59	
		10	M5×0.8	VPLFC15-10R(A)67-M59	
		15	M5×0.8	VPLFC15-15R(A)67-M59	
		20	M5×0.8	VPLFC15-20R(A)67-M59	
	ø20	5	M6×1	VPLFC20-5R(A)67-M69	M6
		10	M6×1	VPLFC20-10R(A)67-M69	
		15	M6×1	VPLFC20-15R(A)67-M69	
		20	M6×1	VPLFC20-20R(A)67-M69	
	ø25	5	M6×1	VPLFC25-5R(A)67-M69	
		10	M6×1	VPLFC25-10R(A)67-M69	
		15	M6×1	VPLFC25-15R(A)67-M69	
		20	M6×1	VPLFC25-20R(A)67-M69	
	ø30	5	M6×1	VPLFC30-5R(A)67-M69	
		10	M6×1	VPLFC30-10R(A)67-M69	
		15	M6×1	VPLFC30-15R(A)67-M69	
		20	M6×1	VPLFC30-20R(A)67-M69	
	ø40	5	M6×1	VPLFC40-5R(A)67-M69	
		10	M6×1	VPLFC40-10R(A)67-M69	
		15	M6×1	VPLFC40-15R(A)67-M69	
		20	M6×1	VPLFC40-20R(A)67-M69	
	ø50	5	M6×1	VPLFC50-5R(A)67-M69	
		10	M6×1	VPLFC50-10R(A)67-M69	
		15	M6×1	VPLFC50-15R(A)67-M69	
		20	M6×1	VPLFC50-20R(A)67-M69	

Notes
*Deep type pad can be selected for the models with pad type code: R (A) in the model code. Please select "R" for general type and "A" for deep type pad.

Optional items ⇒ P.442
Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Packaging specifications
1 pc./bag

Options
7: Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
9: -SF1/4 ⇒ Spring load 1/4

Optional items ⇒ P.442
Surface treatment

Vacuum Pad Standard Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	⑬ -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	⑬ -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Mini **VPMD** Pad dia. 8mm or smaller Stroke 2mm Pad dia. 10mm or larger Stroke 4mm	ø0.7	ø3	VPMD0.7-2RM⑥⑦-3J	—	T4	ø0.7	ø1/8	VPMD0.7-2RM⑥⑦-1/8J⑬	○	T4
		ø4	VPMD0.7-2RM⑥⑦-4J⑬	○			ø5/32	VPMD0.7-2RM⑥⑦-5/32J⑬	○	
	ø1	ø3	VPMD1-2RM⑥⑦-3J	—		ø1	ø1/8	VPMD1-2RM⑥⑦-1/8J⑬	○	
		ø4	VPMD1-2RM⑥⑦-4J⑬	○			ø5/32	VPMD1-2RM⑥⑦-5/32J⑬	○	
	ø1.5	ø3	VPMD1.5-2RM⑥⑦-3J	—		ø1.5	ø1/8	VPMD1.5-2RM⑥⑦-1/8J⑬	○	
		ø4	VPMD1.5-2RM⑥⑦-4J⑬	○			ø5/32	VPMD1.5-2RM⑥⑦-5/32J⑬	○	
	ø2	ø3	VPMD2-2RM⑥⑦-3J	—		ø2	ø1/8	VPMD2-2RM⑥⑦-1/8J⑬	○	
		ø4	VPMD2-2RM⑥⑦-4J⑬	○			ø5/32	VPMD2-2RM⑥⑦-5/32J⑬	○	
	ø3	ø3	VPMD3-2RM⑥⑦-3J	—		ø3	ø1/8	VPMD3-2RM⑥⑦-1/8J⑬	○	
		ø4	VPMD3-2RM⑥⑦-4J⑬	○			ø5/32	VPMD3-2RM⑥⑦-5/32J⑬	○	
	ø4	ø3	VPMD4-2RM⑥⑦-3J	—		ø4	ø1/8	VPMD4-2RM⑥⑦-1/8J⑬	○	
		ø4	VPMD4-2RM⑥⑦-4J⑬	○			ø5/32	VPMD4-2RM⑥⑦-5/32J⑬	○	
	ø6	ø3	VPMD6-2R⑥⑦-3J	—	T8	ø6	ø1/8	VPMD6-2R⑥⑦-1/8J⑬	○	T8
		ø4	VPMD6-2R⑥⑦-4J⑬	○			ø5/32	VPMD6-2R⑥⑦-5/32J⑬	○	
	ø8	ø3	VPMD8-2R⑥⑦-3J	—		ø8	ø1/8	VPMD8-2R⑥⑦-1/8J⑬	○	
		ø4	VPMD8-2R⑥⑦-4J⑬	○			ø5/32	VPMD8-2R⑥⑦-5/32J⑬	○	
	ø10	ø3	VPMD10-4R⑥⑦-3J	—	M4	ø10	ø1/8	VPMD10-4R⑥⑦-1/8J	—	M4
		ø4	VPMD10-4R⑥⑦-4J⑬	○			ø5/32	VPMD10-4R⑥⑦-5/32J⑬	○	
		ø6	VPMD10-4R⑥⑦-6J⑬	○			ø1/4	VPMD10-4R⑥⑦-1/4J	—	
	ø15	ø3	VPMD15-4R(A)⑥⑦-3J	—		ø15	ø1/8	VPMD15-4R(A)⑥⑦-1/8J	—	
		ø4	VPMD15-4R(A)⑥⑦-4J⑬	○			ø5/32	VPMD15-4R(A)⑥⑦-5/32J⑬	○	
		ø6	VPMD15-4R(A)⑥⑦-6J⑬	○			ø1/4	VPMD15-4R(A)⑥⑦-1/4J	—	
	ø20	ø3	VPMD20-4R(A)⑥⑦-3J	—	M6	ø20	ø1/8	VPMD20-4R(A)⑥⑦-1/8J	—	M6
		ø4	VPMD20-4R(A)⑥⑦-4J⑬	○			ø5/32	VPMD20-4R(A)⑥⑦-5/32J⑬	○	
		ø6	VPMD20-4R(A)⑥⑦-6J⑬	○			ø1/4	VPMD20-4R(A)⑥⑦-1/4J	—	
	ø25	ø3	VPMD25-4R(A)⑥⑦-3J	—		ø25	ø1/8	VPMD25-4R(A)⑥⑦-1/8J	—	
		ø4	VPMD25-4R(A)⑥⑦-4J⑬	○			ø5/32	VPMD25-4R(A)⑥⑦-5/32J⑬	○	
		ø6	VPMD25-4R(A)⑥⑦-6J⑬	○			ø1/4	VPMD25-4R(A)⑥⑦-1/4J	—	
	ø30	ø3	VPMD30-4R(A)⑥⑦-3J	—		ø30	ø1/8	VPMD30-4R(A)⑥⑦-1/8J	—	
		ø4	VPMD30-4R(A)⑥⑦-4J⑬	○			ø5/32	VPMD30-4R(A)⑥⑦-5/32J⑬	○	
		ø6	VPMD30-4R(A)⑥⑦-6J⑬	○			ø1/4	VPMD30-4R(A)⑥⑦-1/4J	—	
	ø40	ø3	VPMD40-4R(A)⑥⑦-3J	—		ø40	ø1/8	VPMD40-4R(A)⑥⑦-1/8J	—	
		ø4	VPMD40-4R(A)⑥⑦-4J⑬	○			ø5/32	VPMD40-4R(A)⑥⑦-5/32J⑬	○	
		ø6	VPMD40-4R(A)⑥⑦-6J⑬	○			ø1/4	VPMD40-4R(A)⑥⑦-1/4J	—	
	ø50	ø3	VPMD50-4R(A)⑥⑦-3J	—		ø50	ø1/8	VPMD50-4R(A)⑥⑦-1/8J	—	
		ø4	VPMD50-4R(A)⑥⑦-4J⑬	○			ø5/32	VPMD50-4R(A)⑥⑦-5/32J⑬	○	
		ø6	VPMD50-4R(A)⑥⑦-6J⑬	○			ø1/4	VPMD50-4R(A)⑥⑦-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	⑬ -S3 -S3 spec.	Connection config. code
Spring type, Side port, Female thread, Mini **VPMD** Pad dia. 8mm or smaller Stroke 2mm Pad dia. 10mm or larger Stroke 4mm	ø0.7	M3×0.5	VPMD0.7-2RM⑥⑦-M3⑬	○	T4
	ø1	M3×0.5	VPMD1-2RM⑥⑦-M3⑬	○	
	ø1.5	M3×0.5	VPMD1.5-2RM⑥⑦-M3⑬	○	
	ø2	M3×0.5	VPMD2-2RM⑥⑦-M3⑬	○	
	ø3	M3×0.5	VPMD3-2RM⑥⑦-M3⑬	○	
	ø4	M3×0.5	VPMD4-2RM⑥⑦-M3⑬	○	
	ø6	M3×0.5	VPMD6-2R⑥⑦-M3⑬	○	T8
	ø8	M3×0.5	VPMD8-2R⑥⑦-M3⑬	○	
	ø10	M5×0.8	VPMD10-4R⑥⑦-M5⑬	○	M4
	ø15	M5×0.8	VPMD15-4R(A)⑥⑦-M5⑬	○	
	ø20	M5×0.8	VPMD20-4R(A)⑥⑦-M5⑬	○	M6
	ø25	M5×0.8	VPMD25-4R(A)⑥⑦-M5⑬	○	
	ø30	M5×0.8	VPMD30-4R(A)⑥⑦-M5⑬	○	
	ø40	M5×0.8	VPMD40-4R(A)⑥⑦-M5⑬	○	
	ø50	M5×0.8	VPMD50-4R(A)⑥⑦-M5⑬	○	

Notes

*1. Deep type pad can be selected for the models with pad type code: R (A) in the model code. Please select "R" for general type and "A" for deep type pad.

*2. Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options

⑦: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⑬: -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.442

Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Standard VPD Pad dia. ø1 mm to ø4 mm	ø1	3	ø3	VPD1-3R6-3J9	—	H3	ø1	3	ø1/8	VPD1-3R6-1/8J9	—	
			ø4	VPD1-3R6-4J9 13	○				ø5/32	VPD1-3R6-5/32J9 13	○	
			ø6	VPD1-3R6-6J9 13	○				ø1/4	VPD1-3R6-1/4J9	—	
		10	ø3	VPD1-10R6-3J9	—			10	ø1/8	VPD1-10R6-1/8J9	—	
			ø4	VPD1-10R6-4J9	—				ø5/32	VPD1-10R6-5/32J9	—	
			ø6	VPD1-10R6-6J9	—				ø1/4	VPD1-10R6-1/4J9	—	
		15	ø3	VPD1-15R6-3J9	—			15	ø1/8	VPD1-15R6-1/8J9	—	
			ø4	VPD1-15R6-4J9	—				ø5/32	VPD1-15R6-5/32J9	—	
			ø6	VPD1-15R6-6J9	—				ø1/4	VPD1-15R6-1/4J9	—	
		20	ø3	VPD1-20R6-3J9	—			20	ø1/8	VPD1-20R6-1/8J9	—	
			ø4	VPD1-20R6-4J9	—				ø5/32	VPD1-20R6-5/32J9	—	
			ø6	VPD1-20R6-6J9	—				ø1/4	VPD1-20R6-1/4J9	—	
	ø2	3	ø3	VPD2-3R6-3J9	—		ø2	3	ø1/8	VPD2-3R6-1/8J9	—	
			ø4	VPD2-3R6-4J9 13	○				ø5/32	VPD2-3R6-5/32J9 13	○	
			ø6	VPD2-3R6-6J9 13	○				ø1/4	VPD2-3R6-1/4J9	—	
		10	ø3	VPD2-10R6-3J9	—			10	ø1/8	VPD2-10R6-1/8J9	—	
			ø4	VPD2-10R6-4J9	—				ø5/32	VPD2-10R6-5/32J9	—	
			ø6	VPD2-10R6-6J9	—				ø1/4	VPD2-10R6-1/4J9	—	
		15	ø3	VPD2-15R6-3J9	—			15	ø1/8	VPD2-15R6-1/8J9	—	
			ø4	VPD2-15R6-4J9	—				ø5/32	VPD2-15R6-5/32J9	—	
			ø6	VPD2-15R6-6J9	—				ø1/4	VPD2-15R6-1/4J9	—	
		20	ø3	VPD2-20R6-3J9	—			20	ø1/8	VPD2-20R6-1/8J9	—	
			ø4	VPD2-20R6-4J9	—				ø5/32	VPD2-20R6-5/32J9	—	
			ø6	VPD2-20R6-6J9	—				ø1/4	VPD2-20R6-1/4J9	—	
	ø3	3	ø3	VPD3-3R6-3J9	—		ø3	3	ø1/8	VPD3-3R6-1/8J9	—	
			ø4	VPD3-3R6-4J9 13	○				ø5/32	VPD3-3R6-5/32J9 13	○	
			ø6	VPD3-3R6-6J9 13	○				ø1/4	VPD3-3R6-1/4J9	—	
		10	ø3	VPD3-10R6-3J9	—			10	ø1/8	VPD3-10R6-1/8J9	—	
			ø4	VPD3-10R6-4J9	—				ø5/32	VPD3-10R6-5/32J9	—	
			ø6	VPD3-10R6-6J9	—				ø1/4	VPD3-10R6-1/4J9	—	
		15	ø3	VPD3-15R6-3J9	—			15	ø1/8	VPD3-15R6-1/8J9	—	
			ø4	VPD3-15R6-4J9	—				ø5/32	VPD3-15R6-5/32J9	—	
			ø6	VPD3-15R6-6J9	—				ø1/4	VPD3-15R6-1/4J9	—	
		20	ø3	VPD3-20R6-3J9	—			20	ø1/8	VPD3-20R6-1/8J9	—	
			ø4	VPD3-20R6-4J9	—				ø5/32	VPD3-20R6-5/32J9	—	
			ø6	VPD3-20R6-6J9	—				ø1/4	VPD3-20R6-1/4J9	—	
	ø4	3	ø3	VPD4-3R6-3J9	—		ø4	3	ø1/8	VPD4-3R6-1/8J9	—	
			ø4	VPD4-3R6-4J9 13	○				ø5/32	VPD4-3R6-5/32J9 13	○	
			ø6	VPD4-3R6-6J9 13	○				ø1/4	VPD4-3R6-1/4J9	—	
		10	ø3	VPD4-10R6-3J9	—			10	ø1/8	VPD4-10R6-1/8J9	—	
			ø4	VPD4-10R6-4J9	—				ø5/32	VPD4-10R6-5/32J9	—	
			ø6	VPD4-10R6-6J9	—				ø1/4	VPD4-10R6-1/4J9	—	
		15	ø3	VPD4-15R6-3J9	—			15	ø1/8	VPD4-15R6-1/8J9	—	
			ø4	VPD4-15R6-4J9	—				ø5/32	VPD4-15R6-5/32J9	—	
			ø6	VPD4-15R6-6J9	—				ø1/4	VPD4-15R6-1/4J9	—	
		20	ø3	VPD4-20R6-3J9	—			20	ø1/8	VPD4-20R6-1/8J9	—	
			ø4	VPD4-20R6-4J9	—				ø5/32	VPD4-20R6-5/32J9	—	
			ø6	VPD4-20R6-6J9	—				ø1/4	VPD4-20R6-1/4J9	—	

Notes
*Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
9: -DC ⇒ Holder with dust catcher
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.442
Dust Catcher (VPD)

Vacuum Pad Standard Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Standard VPD Pad dia. ø6 mm to ø15 mm	ø6	3	ø3	VPD6-3R67-3J9	—	T8	ø6	3	ø1/8	VPD6-3R67-1/8J9	—	T8
			ø4	VPD6-3R67-4J913	○				ø5/32	VPD6-3R67-5/32J913	○	
			ø6	VPD6-3R67-6J913	○				ø1/4	VPD6-3R67-1/4J9	—	
		10	ø3	VPD6-10R67-3J9	—			10	ø1/8	VPD6-10R67-1/8J9	—	
			ø4	VPD6-10R67-4J9	—				ø5/32	VPD6-10R67-5/32J9	—	
			ø6	VPD6-10R67-6J9	—				ø1/4	VPD6-10R67-1/4J9	—	
		15	ø3	VPD6-15R67-3J9	—			15	ø1/8	VPD6-15R67-1/8J9	—	
			ø4	VPD6-15R67-4J9	—				ø5/32	VPD6-15R67-5/32J9	—	
			ø6	VPD6-15R67-6J9	—				ø1/4	VPD6-15R67-1/4J9	—	
		20	ø3	VPD6-20R67-3J9	—			20	ø1/8	VPD6-20R67-1/8J9	—	
			ø4	VPD6-20R67-4J9	—				ø5/32	VPD6-20R67-5/32J9	—	
			ø6	VPD6-20R67-6J9	—				ø1/4	VPD6-20R67-1/4J9	—	
	ø8	3	ø3	VPD8-3R67-3J9	—		ø8	3	ø1/8	VPD8-3R67-1/8J9	—	
			ø4	VPD8-3R67-4J913	○				ø5/32	VPD8-3R67-5/32J913	○	
			ø6	VPD8-3R67-6J913	○				ø1/4	VPD8-3R67-1/4J9	—	
		10	ø3	VPD8-10R67-3J9	—			10	ø1/8	VPD8-10R67-1/8J9	—	
			ø4	VPD8-10R67-4J9	—				ø5/32	VPD8-10R67-5/32J9	—	
			ø6	VPD8-10R67-6J9	—				ø1/4	VPD8-10R67-1/4J9	—	
		15	ø3	VPD8-15R67-3J9	—			15	ø1/8	VPD8-15R67-1/8J9	—	
			ø4	VPD8-15R67-4J9	—				ø5/32	VPD8-15R67-5/32J9	—	
			ø6	VPD8-15R67-6J9	—				ø1/4	VPD8-15R67-1/4J9	—	
		20	ø3	VPD8-20R67-3J9	—			20	ø1/8	VPD8-20R67-1/8J9	—	
			ø4	VPD8-20R67-4J9	—				ø5/32	VPD8-20R67-5/32J9	—	
			ø6	VPD8-20R67-6J9	—				ø1/4	VPD8-20R67-1/4J9	—	
	ø10	6	ø3	VPD10-6R67-3J9	—	M4	ø10	6	ø1/8	VPD10-6R67-1/8J9	—	M4
			ø4	VPD10-6R67-4J913	○				ø5/32	VPD10-6R67-5/32J913	○	
			ø6	VPD10-6R67-6J913	○				ø1/4	VPD10-6R67-1/4J9	—	
		10	ø3	VPD10-10R67-3J9	—			10	ø1/8	VPD10-10R67-1/8J9	—	
			ø4	VPD10-10R67-4J9	—				ø5/32	VPD10-10R67-5/32J9	—	
			ø6	VPD10-10R67-6J9	—				ø1/4	VPD10-10R67-1/4J9	—	
		15	ø3	VPD10-15R67-3J9	—			15	ø1/8	VPD10-15R67-1/8J9	—	
			ø4	VPD10-15R67-4J9	—				ø5/32	VPD10-15R67-5/32J9	—	
			ø6	VPD10-15R67-6J9	—				ø1/4	VPD10-15R67-1/4J9	—	
		20	ø3	VPD10-20R67-3J9	—			20	ø1/8	VPD10-20R67-1/8J9	—	
			ø4	VPD10-20R67-4J9	—				ø5/32	VPD10-20R67-5/32J9	—	
			ø6	VPD10-20R67-6J9	—				ø1/4	VPD10-20R67-1/4J9	—	
	ø15	6	ø3	VPD15-6R(A)67-3J9	—		ø15	6	ø1/8	VPD15-6R(A)67-1/8J9	—	
			ø4	VPD15-6R(A)67-4J913	○				ø5/32	VPD15-6R(A)67-5/32J913	○	
			ø6	VPD15-6R(A)67-6J913	○				ø1/4	VPD15-6R(A)67-1/4J9	—	
		10	ø3	VPD15-10R(A)67-3J9	—			10	ø1/8	VPD15-10R(A)67-1/8J9	—	
			ø4	VPD15-10R(A)67-4J9	—				ø5/32	VPD15-10R(A)67-5/32J9	—	
			ø6	VPD15-10R(A)67-6J9	—				ø1/4	VPD15-10R(A)67-1/4J9	—	
		15	ø3	VPD15-15R(A)67-3J9	—			15	ø1/8	VPD15-15R(A)67-1/8J9	—	
			ø4	VPD15-15R(A)67-4J9	—				ø5/32	VPD15-15R(A)67-5/32J9	—	
			ø6	VPD15-15R(A)67-6J9	—				ø1/4	VPD15-15R(A)67-1/4J9	—	
		20	ø3	VPD15-20R(A)67-3J9	—			20	ø1/8	VPD15-20R(A)67-1/8J9	—	
			ø4	VPD15-20R(A)67-4J9	—				ø5/32	VPD15-20R(A)67-5/32J9	—	
			ø6	VPD15-20R(A)67-6J9	—				ø1/4	VPD15-20R(A)67-1/4J9	—	

Notes

*1. Deep type pad can be selected for the models with pad type code: R (A) in the model code. Please select "R" for general type and "A" for deep type pad.

*2. Holders are also available in Push-in fitting type (limited to pad dia. 8 mm or smaller) for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./1 bag

Options

7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
9: -DC ⇒ Holder with dust catcher
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.442

Surface treatment
Dust Catcher (VPD)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Standard VPD Pad dia. ø20 mm to ø50 mm	ø20	6	ø3	VPD20-6R(A)67-3J9	—		ø20	6	ø1/8	VPD20-6R(A)67-1/8J9	—	
			ø4	VPD20-6R(A)67-4J913	○				ø5/32	VPD20-6R(A)67-5/32J913	○	
			ø6	VPD20-6R(A)67-6J913	○				ø1/4	VPD20-6R(A)67-1/4J9	—	
		10	ø3	VPD20-10R(A)67-3J9	—			10	ø1/8	VPD20-10R(A)67-1/8J9	—	
			ø4	VPD20-10R(A)67-4J9	—				ø5/32	VPD20-10R(A)67-5/32J9	—	
			ø6	VPD20-10R(A)67-6J9	—				ø1/4	VPD20-10R(A)67-1/4J9	—	
		15	ø3	VPD20-15R(A)67-3J9	—			15	ø1/8	VPD20-15R(A)67-1/8J9	—	
			ø4	VPD20-15R(A)67-4J9	—				ø5/32	VPD20-15R(A)67-5/32J9	—	
			ø6	VPD20-15R(A)67-6J9	—				ø1/4	VPD20-15R(A)67-1/4J9	—	
		20	ø3	VPD20-20R(A)67-3J9	—			20	ø1/8	VPD20-20R(A)67-1/8J9	—	
			ø4	VPD20-20R(A)67-4J9	—				ø5/32	VPD20-20R(A)67-5/32J9	—	
			ø6	VPD20-20R(A)67-6J9	—				ø1/4	VPD20-20R(A)67-1/4J9	—	
	ø25	6	ø3	VPD25-6R(A)67-3J9	—		ø25	6	ø1/8	VPD25-6R(A)67-1/8J9	—	
			ø4	VPD25-6R(A)67-4J913	○				ø5/32	VPD25-6R(A)67-5/32J913	○	
			ø6	VPD25-6R(A)67-6J913	○				ø1/4	VPD25-6R(A)67-1/4J9	—	
		10	ø3	VPD25-10R(A)67-3J9	—			10	ø1/8	VPD25-10R(A)67-1/8J9	—	
			ø4	VPD25-10R(A)67-4J9	—				ø5/32	VPD25-10R(A)67-5/32J9	—	
			ø6	VPD25-10R(A)67-6J9	—				ø1/4	VPD25-10R(A)67-1/4J9	—	
		15	ø3	VPD25-15R(A)67-3J9	—			15	ø1/8	VPD25-15R(A)67-1/8J9	—	
			ø4	VPD25-15R(A)67-4J9	—				ø5/32	VPD25-15R(A)67-5/32J9	—	
			ø6	VPD25-15R(A)67-6J9	—				ø1/4	VPD25-15R(A)67-1/4J9	—	
		20	ø3	VPD25-20R(A)67-3J9	—			20	ø1/8	VPD25-20R(A)67-1/8J9	—	
			ø4	VPD25-20R(A)67-4J9	—				ø5/32	VPD25-20R(A)67-5/32J9	—	
			ø6	VPD25-20R(A)67-6J9	—				ø1/4	VPD25-20R(A)67-1/4J9	—	
	ø30	6	ø3	VPD30-6R(A)67-3J9	—		ø30	6	ø1/8	VPD30-6R(A)67-1/8J9	—	
			ø4	VPD30-6R(A)67-4J913	○				ø5/32	VPD30-6R(A)67-5/32J913	○	
			ø6	VPD30-6R(A)67-6J913	○				ø1/4	VPD30-6R(A)67-1/4J9	—	
		10	ø3	VPD30-10R(A)67-3J9	—			10	ø1/8	VPD30-10R(A)67-1/8J9	—	
			ø4	VPD30-10R(A)67-4J9	—				ø5/32	VPD30-10R(A)67-5/32J9	—	
			ø6	VPD30-10R(A)67-6J9	—				ø1/4	VPD30-10R(A)67-1/4J9	—	
		15	ø3	VPD30-15R(A)67-3J9	—	M6		15	ø1/8	VPD30-15R(A)67-1/8J9	—	M6
			ø4	VPD30-15R(A)67-4J9	—				ø5/32	VPD30-15R(A)67-5/32J9	—	
			ø6	VPD30-15R(A)67-6J9	—				ø1/4	VPD30-15R(A)67-1/4J9	—	
		20	ø3	VPD30-20R(A)67-3J9	—			20	ø1/8	VPD30-20R(A)67-1/8J9	—	
			ø4	VPD30-20R(A)67-4J9	—				ø5/32	VPD30-20R(A)67-5/32J9	—	
			ø6	VPD30-20R(A)67-6J9	—				ø1/4	VPD30-20R(A)67-1/4J9	—	
	ø40	6	ø3	VPD40-6R(A)67-3J9	—		ø40	6	ø1/8	VPD40-6R(A)67-1/8J9	—	
			ø4	VPD40-6R(A)67-4J913	○				ø5/32	VPD40-6R(A)67-5/32J913	○	
			ø6	VPD40-6R(A)67-6J913	○				ø1/4	VPD40-6R(A)67-1/4J9	—	
		10	ø3	VPD40-10R(A)67-3J9	—			10	ø1/8	VPD40-10R(A)67-1/8J9	—	
			ø4	VPD40-10R(A)67-4J9	—				ø5/32	VPD40-10R(A)67-5/32J9	—	
			ø6	VPD40-10R(A)67-6J9	—				ø1/4	VPD40-10R(A)67-1/4J9	—	
		15	ø3	VPD40-15R(A)67-3J9	—			15	ø1/8	VPD40-15R(A)67-1/8J9	—	
			ø4	VPD40-15R(A)67-4J9	—				ø5/32	VPD40-15R(A)67-5/32J9	—	
			ø6	VPD40-15R(A)67-6J9	—				ø1/4	VPD40-15R(A)67-1/4J9	—	
		20	ø3	VPD40-20R(A)67-3J9	—			20	ø1/8	VPD40-20R(A)67-1/8J9	—	
			ø4	VPD40-20R(A)67-4J9	—				ø5/32	VPD40-20R(A)67-5/32J9	—	
			ø6	VPD40-20R(A)67-6J9	—				ø1/4	VPD40-20R(A)67-1/4J9	—	
	ø50	6	ø3	VPD50-6R(A)67-3J9	—		ø50	6	ø1/8	VPD50-6R(A)67-1/8J9	—	
			ø4	VPD50-6R(A)67-4J913	○				ø5/32	VPD50-6R(A)67-5/32J913	○	
			ø6	VPD50-6R(A)67-6J913	○				ø1/4	VPD50-6R(A)67-1/4J9	—	
		10	ø3	VPD50-10R(A)67-3J9	—			10	ø1/8	VPD50-10R(A)67-1/8J9	—	
			ø4	VPD50-10R(A)67-4J9	—				ø5/32	VPD50-10R(A)67-5/32J9	—	
			ø6	VPD50-10R(A)67-6J9	—				ø1/4	VPD50-10R(A)67-1/4J9	—	
		15	ø3	VPD50-15R(A)67-3J9	—			15	ø1/8	VPD50-15R(A)67-1/8J9	—	
			ø4	VPD50-15R(A)67-4J9	—				ø5/32	VPD50-15R(A)67-5/32J9	—	
			ø6	VPD50-15R(A)67-6J9	—				ø1/4	VPD50-15R(A)67-1/4J9	—	
		20	ø3	VPD50-20R(A)67-3J9	—			20	ø1/8	VPD50-20R(A)67-1/8J9	—	
			ø4	VPD50-20R(A)67-4J9	—				ø5/32	VPD50-20R(A)67-5/32J9	—	
			ø6	VPD50-20R(A)67-6J9	—				ø1/4	VPD50-20R(A)67-1/4J9	—	

Vacuum Pad Standard Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Standard VPD Pad dia. ø60 mm to ø200 mm	ø60	10	ø4	VPD60-10R(A)67-4J9 *2*3	—	M10
			ø6	VPD60-10R(A)67-6J9 *2*3	—	
			ø8	VPD60-10R(A)67-8J9 *2*3	—	
	ø80	10	ø4	VPD80-10R(A)67-4J9 *2*3	—	
			ø6	VPD80-10R(A)67-6J9 *2*3	—	
			ø8	VPD80-10R(A)67-8J9 *2*3	—	
	ø100	10	ø4	VPD100-10R(A)67-4J9 *2*3	—	
			ø6	VPD100-10R(A)67-6J9 *2*3	—	
			ø8	VPD100-10R(A)67-8J9 *2*3	—	
	ø150	20	ø6	VPD150-20R67-6J9 *3	—	M20
			ø8	VPD150-20R67-8J9 *3	—	
			ø10	VPD150-20R67-10J9 *3	—	
	ø200	20	ø6	VPD200-20R67-6J9 *3	—	
			ø8	VPD200-20R67-8J9 *3	—	
			ø10	VPD200-20R67-10J9 *3	—	

Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
ø60	10	ø1/8	VPD60-10R(A)67-1/8J9 *2*3	—	M10
		ø5/32	VPD60-10R(A)67-5/32J9 *2*3	—	
		ø3/16	VPD60-10R(A)67-3/16J9 *2*3	—	
		ø1/4	VPD60-10R(A)67-1/4J9 *2*3	—	
		ø5/16	VPD60-10R(A)67-5/16J9 *2*3	—	
		ø3/8	VPD60-10R(A)67-3/8J9 *2*3	—	
ø80	10	ø1/8	VPD80-10R(A)67-1/8J9 *2*3	—	
		ø5/32	VPD80-10R(A)67-5/32J9 *2*3	—	
		ø3/16	VPD80-10R(A)67-3/16J9 *2*3	—	
		ø1/4	VPD80-10R(A)67-1/4J9 *2*3	—	
		ø5/16	VPD80-10R(A)67-5/16J9 *2*3	—	
		ø3/8	VPD80-10R(A)67-3/8J9 *2*3	—	
ø100	10	ø1/8	VPD100-10R(A)6-1/8J9 *2*3	—	
		ø5/32	VPD100-10R(A)6-5/32J9 *2*3	—	
		ø3/16	VPD100-10R(A)6-3/16J9 *2*3	—	
		ø1/4	VPD100-10R(A)6-1/4J9 *2*3	—	
		ø5/16	VPD100-10R(A)6-5/16J9 *2*3	—	
		ø3/8	VPD100-10R(A)6-3/8J9 *2*3	—	
ø150	20	ø1/8	VPD150-20R6-1/8J9 *3	—	M20
		ø5/32	VPD150-20R6-5/32J9 *3	—	
		ø3/16	VPD150-20R6-3/16J9 *3	—	
		ø1/4	VPD150-20R6-1/4J9 *3	—	
		ø5/16	VPD150-20R6-5/16J9 *3	—	
		ø3/8	VPD150-20R6-3/8J9 *3	—	
		ø1/2	VPD150-20R6-1/2J9 *3	—	
ø200	20	ø1/8	VPD200-20R6-1/8J9 *3	—	
		ø5/32	VPD200-20R6-5/32J9 *3	—	
		ø3/16	VPD200-20R6-3/16J9 *3	—	
		ø1/4	VPD200-20R6-1/4J9 *3	—	
		ø5/16	VPD200-20R6-5/16J9 *3	—	
		ø3/8	VPD200-20R6-3/8J9 *3	—	
		ø1/2	VPD200-20R6-1/2J9 *3	—	

Notes

*1. Deep type pad can be selected for the models with pad type code: R (A) in the model code. Please select "R" for general type and "A" for deep type pad.
*2. Pad material code: SE of pad dia. 60 mm or larger are not available for Deep type pad.
*3. Food Sanitation Act-compliant NBR (G) is not available.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options

7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
9: -DC ⇒ Holder with dust catcher
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.442

Surface treatment
Dust Catcher (VPD)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type, Side port, Female thread, Standard

VPD

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Female thread, Standard	ø1	3	M5×0.8	VPD1-3R6-M5913	○	H3
		10		VPD1-10R6-M59	—	
		15		VPD1-15R6-M59	—	
		20		VPD1-20R6-M59	—	
	ø2	3	M5×0.8	VPD2-3R6-M5913	○	
		10		VPD2-10R6-M59	—	
		15		VPD2-15R6-M59	—	
		20		VPD2-20R6-M59	—	
	ø3	3	M5×0.8	VPD3-3R6-M5913	○	
		10		VPD3-10R6-M59	—	
		15		VPD3-15R6-M59	—	
		20		VPD3-20R6-M59	—	
	ø4	3	M5×0.8	VPD4-3R6-M5913	○	
		10		VPD4-10R6-M59	—	
		15		VPD4-15R6-M59	—	
		20		VPD4-20R6-M59	—	
	ø6	3	M5×0.8	VPD6-3R67-M5913	○	T8
		10		VPD6-10R67-M59	—	
		15		VPD6-15R67-M59	—	
		20		VPD6-20R67-M59	—	
	ø8	3	M5×0.8	VPD8-3R67-M5913	○	
		10		VPD8-10R67-M59	—	
		15		VPD8-15R67-M59	—	
		20		VPD8-20R67-M59	—	
	ø10	6	M6×1	VPD10-6R67-M6913	○	M4
		10		VPD10-10R67-M69	—	
		15		VPD10-15R67-M69	—	
		20		VPD10-20R67-M69	—	
	ø15	6	M6×1	VPD15-6R(A)67-M6913	○	
		10		VPD15-10R(A)67-M69	—	
		15		VPD15-15R(A)67-M69	—	
		20		VPD15-20R(A)67-M69	—	
	ø20	6	M6×1	VPD20-6R(A)67-M6913	○	M6
		10		VPD20-10R(A)67-M69	—	
		15		VPD20-15R(A)67-M69	—	
		20		VPD20-20R(A)67-M69	—	
	ø25	6	M6×1	VPD25-6R(A)67-M6913	○	
		10		VPD25-10R(A)67-M69	—	
		15		VPD25-15R(A)67-M69	—	
		20		VPD25-20R(A)67-M69	—	
	ø30	6	M6×1	VPD30-6R(A)67-M6913	○	
		10		VPD30-10R(A)67-M69	—	
		15		VPD30-15R(A)67-M69	—	
		20		VPD30-20R(A)67-M69	—	
	ø40	6	M6×1	VPD40-6R(A)67-M6913	○	
		10		VPD40-10R(A)67-M69	—	
		15		VPD40-15R(A)67-M69	—	
		20		VPD40-20R(A)67-M69	—	
	ø50	6	M6×1	VPD50-6R(A)67-M6913	○	
		10		VPD50-10R(A)67-M69	—	
		15		VPD50-15R(A)67-M69	—	
		20		VPD50-20R(A)67-M69	—	
	ø60	10	G1/8	VPD60-10R(A)67-G19*3	○	M10
	ø80	10	G1/8	VPD80-10R(A)67-G19*3	○	
	ø100	10	G1/8	VPD100-10R(A)67-G19*3	○	
	ø150	20	G1/4	VPD150-20R67-G29*3	○	M20
	ø200	20	G1/4	VPD200-20R67-G29*3	○	
	ø60	10	NPT1/8	VPD60-10R(A)67-N19*3	—	M10
	ø80	10	NPT1/8	VPD80-10R(A)67-N19*3	—	
	ø100	10	NPT1/8	VPD100-10R(A)67-N19*3	—	
	ø150	20	NPT1/4	VPD150-20R67-N29*3	—	M20
	ø200	20	NPT1/4	VPD200-20R67-N29*3	—	

Vacuum Pad Standard Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D (inch)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, No cover **VPOD** Pad dia. ø6 mm to ø15 mm	ø6	20	ø3	VPOD6-20R⑥⑦-3J	T8	ø6	20	ø1/8	VPOD6-20R⑥⑦-1/8J	T8
			ø4	VPOD6-20R⑥⑦-4J				ø5/32	VPOD6-20R⑥⑦-5/32J	
			ø6	VPOD6-20R⑥⑦-6J				ø1/4	VPOD6-20R⑥⑦-1/4J	
		30	ø3	VPOD6-30R⑥⑦-3J			30	ø1/8	VPOD6-30R⑥⑦-1/8J	
			ø4	VPOD6-30R⑥⑦-4J				ø5/32	VPOD6-30R⑥⑦-5/32J	
			ø6	VPOD6-30R⑥⑦-6J				ø1/4	VPOD6-30R⑥⑦-1/4J	
		40	ø3	VPOD6-40R⑥⑦-3J			40	ø1/8	VPOD6-40R⑥⑦-1/8J	
			ø4	VPOD6-40R⑥⑦-4J				ø5/32	VPOD6-40R⑥⑦-5/32J	
			ø6	VPOD6-40R⑥⑦-6J				ø1/4	VPOD6-40R⑥⑦-1/4J	
		50	ø3	VPOD6-50R⑥⑦-3J			50	ø1/8	VPOD6-50R⑥⑦-1/8J	
			ø4	VPOD6-50R⑥⑦-4J				ø5/32	VPOD6-50R⑥⑦-5/32J	
			ø6	VPOD6-50R⑥⑦-6J				ø1/4	VPOD6-50R⑥⑦-1/4J	
	ø8	20	ø3	VPOD8-20R⑥⑦-3J		ø8	20	ø1/8	VPOD8-20R⑥⑦-1/8J	
			ø4	VPOD8-20R⑥⑦-4J				ø5/32	VPOD8-20R⑥⑦-5/32J	
			ø6	VPOD8-20R⑥⑦-6J				ø1/4	VPOD8-20R⑥⑦-1/4J	
		30	ø3	VPOD8-30R⑥⑦-3J			30	ø1/8	VPOD8-30R⑥⑦-1/8J	
			ø4	VPOD8-30R⑥⑦-4J				ø5/32	VPOD8-30R⑥⑦-5/32J	
			ø6	VPOD8-30R⑥⑦-6J				ø1/4	VPOD8-30R⑥⑦-1/4J	
		40	ø3	VPOD8-40R⑥⑦-3J			40	ø1/8	VPOD8-40R⑥⑦-1/8J	
			ø4	VPOD8-40R⑥⑦-4J				ø5/32	VPOD8-40R⑥⑦-5/32J	
			ø6	VPOD8-40R⑥⑦-6J				ø1/4	VPOD8-40R⑥⑦-1/4J	
		50	ø3	VPOD8-50R⑥⑦-3J			50	ø1/8	VPOD8-50R⑥⑦-1/8J	
			ø4	VPOD8-50R⑥⑦-4J				ø5/32	VPOD8-50R⑥⑦-5/32J	
			ø6	VPOD8-50R⑥⑦-6J				ø1/4	VPOD8-50R⑥⑦-1/4J	
	ø10	20	ø3	VPOD10-20R⑥⑦-3J	M4	ø10	20	ø1/8	VPOD10-20R⑥⑦-1/8J	M4
			ø4	VPOD10-20R⑥⑦-4J				ø5/32	VPOD10-20R⑥⑦-5/32J	
			ø6	VPOD10-20R⑥⑦-6J				ø1/4	VPOD10-20R⑥⑦-1/4J	
		30	ø3	VPOD10-30R⑥⑦-3J			30	ø1/8	VPOD10-30R⑥⑦-1/8J	
			ø4	VPOD10-30R⑥⑦-4J				ø5/32	VPOD10-30R⑥⑦-5/32J	
			ø6	VPOD10-30R⑥⑦-6J				ø1/4	VPOD10-30R⑥⑦-1/4J	
		40	ø3	VPOD10-40R⑥⑦-3J			40	ø1/8	VPOD10-40R⑥⑦-1/8J	
			ø4	VPOD10-40R⑥⑦-4J				ø5/32	VPOD10-40R⑥⑦-5/32J	
			ø6	VPOD10-40R⑥⑦-6J				ø1/4	VPOD10-40R⑥⑦-1/4J	
		50	ø3	VPOD10-50R⑥⑦-3J			50	ø1/8	VPOD10-50R⑥⑦-1/8J	
			ø4	VPOD10-50R⑥⑦-4J				ø5/32	VPOD10-50R⑥⑦-5/32J	
			ø6	VPOD10-50R⑥⑦-6J				ø1/4	VPOD10-50R⑥⑦-1/4J	
	ø15	20	ø3	VPOD15-20R(A)⑥⑦-3J		ø15	20	ø1/8	VPOD15-20R(A)⑥⑦-1/8J	
			ø4	VPOD15-20R(A)⑥⑦-4J				ø5/32	VPOD15-20R(A)⑥⑦-5/32J	
			ø6	VPOD15-20R(A)⑥⑦-6J				ø1/4	VPOD15-20R(A)⑥⑦-1/4J	
		30	ø3	VPOD15-30R(A)⑥⑦-3J			30	ø1/8	VPOD15-30R(A)⑥⑦-1/8J	
			ø4	VPOD15-30R(A)⑥⑦-4J				ø5/32	VPOD15-30R(A)⑥⑦-5/32J	
			ø6	VPOD15-30R(A)⑥⑦-6J				ø1/4	VPOD15-30R(A)⑥⑦-1/4J	
		40	ø3	VPOD15-40R(A)⑥⑦-3J			40	ø1/8	VPOD15-40R(A)⑥⑦-1/8J	
			ø4	VPOD15-40R(A)⑥⑦-4J				ø5/32	VPOD15-40R(A)⑥⑦-5/32J	
			ø6	VPOD15-40R(A)⑥⑦-6J				ø1/4	VPOD15-40R(A)⑥⑦-1/4J	
		50	ø3	VPOD15-50R(A)⑥⑦-3J			50	ø1/8	VPOD15-50R(A)⑥⑦-1/8J	
			ø4	VPOD15-50R(A)⑥⑦-4J				ø5/32	VPOD15-50R(A)⑥⑦-5/32J	
			ø6	VPOD15-50R(A)⑥⑦-6J				ø1/4	VPOD15-50R(A)⑥⑦-1/4J	

Notes

*1. Deep type pad can be selected for the models with pad type code: R (A) in the model code. Please select "R" for general type and "A" for deep type pad.

*2. Barb fitting type holders are also available. Contact us for the details.

Packaging specifications

1 pc./bag

Options

⑦: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.442

Surface treatment

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, No cover VPOD Pad dia. ø20 mm to ø50 mm	ø20	20	ø3	VPOD20-20R(A)□-3J	M6	ø20	20	ø1/8	VPOD20-20R(A)□-1/8J	
			ø4	VPOD20-20R(A)□-4J				ø5/32	VPOD20-20R(A)□-5/32J	
			ø6	VPOD20-20R(A)□-6J				ø1/4	VPOD20-20R(A)□-1/4J	
		30	ø3	VPOD20-30R(A)□-3J			30	ø1/8	VPOD20-30R(A)□-1/8J	
			ø4	VPOD20-30R(A)□-4J				ø5/32	VPOD20-30R(A)□-5/32J	
			ø6	VPOD20-30R(A)□-6J				ø1/4	VPOD20-30R(A)□-1/4J	
		40	ø3	VPOD20-40R(A)□-3J			40	ø1/8	VPOD20-40R(A)□-1/8J	
			ø4	VPOD20-40R(A)□-4J				ø5/32	VPOD20-40R(A)□-5/32J	
			ø6	VPOD20-40R(A)□-6J				ø1/4	VPOD20-40R(A)□-1/4J	
		50	ø3	VPOD20-50R(A)□-3J			50	ø1/8	VPOD20-50R(A)□-1/8J	
			ø4	VPOD20-50R(A)□-4J				ø5/32	VPOD20-50R(A)□-5/32J	
			ø6	VPOD20-50R(A)□-6J				ø1/4	VPOD20-50R(A)□-1/4J	
	ø25	20	ø3	VPOD25-20R(A)□-3J		ø25	20	ø1/8	VPOD25-20R(A)□-1/8J	
			ø4	VPOD25-20R(A)□-4J				ø5/32	VPOD25-20R(A)□-5/32J	
			ø6	VPOD25-20R(A)□-6J				ø1/4	VPOD25-20R(A)□-1/4J	
		30	ø3	VPOD25-30R(A)□-3J			30	ø1/8	VPOD25-30R(A)□-1/8J	
			ø4	VPOD25-30R(A)□-4J				ø5/32	VPOD25-30R(A)□-5/32J	
			ø6	VPOD25-30R(A)□-6J				ø1/4	VPOD25-30R(A)□-1/4J	
		40	ø3	VPOD25-40R(A)□-3J			40	ø1/8	VPOD25-40R(A)□-1/8J	
			ø4	VPOD25-40R(A)□-4J				ø5/32	VPOD25-40R(A)□-5/32J	
			ø6	VPOD25-40R(A)□-6J				ø1/4	VPOD25-40R(A)□-1/4J	
		50	ø3	VPOD25-50R(A)□-3J			50	ø1/8	VPOD25-50R(A)□-1/8J	
			ø4	VPOD25-50R(A)□-4J				ø5/32	VPOD25-50R(A)□-5/32J	
			ø6	VPOD25-50R(A)□-6J				ø1/4	VPOD25-50R(A)□-1/4J	
	ø30	20	ø3	VPOD30-20R(A)□-3J		ø30	20	ø1/8	VPOD30-20R(A)□-1/8J	
			ø4	VPOD30-20R(A)□-4J				ø5/32	VPOD30-20R(A)□-5/32J	
			ø6	VPOD30-20R(A)□-6J				ø1/4	VPOD30-20R(A)□-1/4J	
		30	ø3	VPOD30-30R(A)□-3J			30	ø1/8	VPOD30-30R(A)□-1/8J	
			ø4	VPOD30-30R(A)□-4J				ø5/32	VPOD30-30R(A)□-5/32J	
			ø6	VPOD30-30R(A)□-6J				ø1/4	VPOD30-30R(A)□-1/4J	
		40	ø3	VPOD30-40R(A)□-3J			40	ø1/8	VPOD30-40R(A)□-1/8J	
			ø4	VPOD30-40R(A)□-4J				ø5/32	VPOD30-40R(A)□-5/32J	
			ø6	VPOD30-40R(A)□-6J				ø1/4	VPOD30-40R(A)□-1/4J	
		50	ø3	VPOD30-50R(A)□-3J			50	ø1/8	VPOD30-50R(A)□-1/8J	
			ø4	VPOD30-50R(A)□-4J				ø5/32	VPOD30-50R(A)□-5/32J	
			ø6	VPOD30-50R(A)□-6J				ø1/4	VPOD30-50R(A)□-1/4J	
	ø40	20	ø3	VPOD40-20R(A)□-3J		ø40	20	ø1/8	VPOD40-20R(A)□-1/8J	
			ø4	VPOD40-20R(A)□-4J				ø5/32	VPOD40-20R(A)□-5/32J	
			ø6	VPOD40-20R(A)□-6J				ø1/4	VPOD40-20R(A)□-1/4J	
		30	ø3	VPOD40-30R(A)□-3J			30	ø1/8	VPOD40-30R(A)□-1/8J	
			ø4	VPOD40-30R(A)□-4J				ø5/32	VPOD40-30R(A)□-5/32J	
			ø6	VPOD40-30R(A)□-6J				ø1/4	VPOD40-30R(A)□-1/4J	
		40	ø3	VPOD40-40R(A)□-3J			40	ø1/8	VPOD40-40R(A)□-1/8J	
			ø4	VPOD40-40R(A)□-4J				ø5/32	VPOD40-40R(A)□-5/32J	
			ø6	VPOD40-40R(A)□-6J				ø1/4	VPOD40-40R(A)□-1/4J	
		50	ø3	VPOD40-50R(A)□-3J			50	ø1/8	VPOD40-50R(A)□-1/8J	
			ø4	VPOD40-50R(A)□-4J				ø5/32	VPOD40-50R(A)□-5/32J	
			ø6	VPOD40-50R(A)□-6J				ø1/4	VPOD40-50R(A)□-1/4J	
	ø50	20	ø3	VPOD50-20R(A)□-3J		ø50	20	ø1/8	VPOD50-20R(A)□-1/8J	
			ø4	VPOD50-20R(A)□-4J				ø5/32	VPOD50-20R(A)□-5/32J	
			ø6	VPOD50-20R(A)□-6J				ø1/4	VPOD50-20R(A)□-1/4J	
		30	ø3	VPOD50-30R(A)□-3J			30	ø1/8	VPOD50-30R(A)□-1/8J	
			ø4	VPOD50-30R(A)□-4J				ø5/32	VPOD50-30R(A)□-5/32J	
			ø6	VPOD50-30R(A)□-6J				ø1/4	VPOD50-30R(A)□-1/4J	
		40	ø3	VPOD50-40R(A)□-3J			40	ø1/8	VPOD50-40R(A)□-1/8J	
			ø4	VPOD50-40R(A)□-4J				ø5/32	VPOD50-40R(A)□-5/32J	
			ø6	VPOD50-40R(A)□-6J				ø1/4	VPOD50-40R(A)□-1/4J	
		50	ø3	VPOD50-50R(A)□-3J			50	ø1/8	VPOD50-50R(A)□-1/8J	
			ø4	VPOD50-50R(A)□-4J				ø5/32	VPOD50-50R(A)□-5/32J	
			ø6	VPOD50-50R(A)□-6J				ø1/4	VPOD50-50R(A)□-1/4J	

CAD data is available at PISCO website.

Vacuum Pad Standard Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Side port, Female thread, No cover VPOD 	ø6	20	M6×1	VPOD6-20R[6][7]-M6	T8
		30		VPOD6-30R[6][7]-M6	
		40		VPOD6-40R[6][7]-M6	
		50		VPOD6-50R[6][7]-M6	
	ø8	20	M6×1	VPOD8-20R[6][7]-M6	
		30		VPOD8-30R[6][7]-M6	
		40		VPOD8-40R[6][7]-M6	
		50		VPOD8-50R[6][7]-M6	
	ø10	20	M6×1	VPOD10-20R[6][7]-M6	M4
		30		VPOD10-30R[6][7]-M6	
		40		VPOD10-40R[6][7]-M6	
		50		VPOD10-50R[6][7]-M6	
	ø15	20	M6×1	VPOD15-20R(A)[6][7]-M6	
		30		VPOD15-30R(A)[6][7]-M6	
		40		VPOD15-40R(A)[6][7]-M6	
		50		VPOD15-50R(A)[6][7]-M6	
	ø20	20	M6×1	VPOD20-20R(A)[6][7]-M6	M6
		30		VPOD20-30R(A)[6][7]-M6	
		40		VPOD20-40R(A)[6][7]-M6	
		50		VPOD20-50R(A)[6][7]-M6	
	ø25	20	M6×1	VPOD25-20R(A)[6][7]-M6	
		30		VPOD25-30R(A)[6][7]-M6	
		40		VPOD25-40R(A)[6][7]-M6	
		50		VPOD25-50R(A)[6][7]-M6	
	ø30	20	M6×1	VPOD30-20R(A)[6][7]-M6	
		30		VPOD30-30R(A)[6][7]-M6	
		40		VPOD30-40R(A)[6][7]-M6	
		50		VPOD30-50R(A)[6][7]-M6	
	ø40	20	M6×1	VPOD40-20R(A)[6][7]-M6	
		30		VPOD40-30R(A)[6][7]-M6	
		40		VPOD40-40R(A)[6][7]-M6	
		50		VPOD40-50R(A)[6][7]-M6	
	ø50	20	M6×1	VPOD50-20R(A)[6][7]-M6	
		30		VPOD50-30R(A)[6][7]-M6	
		40		VPOD50-40R(A)[6][7]-M6	
		50		VPOD50-50R(A)[6][7]-M6	

Notes

*Deep type pad can be selected for the models with pad type code: R (A) in the model code. Please select "R" for general type and "A" for deep type pad.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
[7]: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.442

Surface treatment

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type,
Side port,
Push-in fitting,
Low dust emission

VPLFD

Pad dia.
ø0.7 mm
to
ø4 mm

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, Low dust emission **VPLFD**	ø0.7	5	ø3	VPLFD0.7-5RM⑥⑦-3J	T4	ø0.7	5	ø1/8	VPLFD0.7-5RM⑥⑦-1/8J	T4
			ø4	VPLFD0.7-5RM⑥⑦-4J				ø5/32	VPLFD0.7-5RM⑥⑦-5/32J	
		10	ø3	VPLFD0.7-10RM⑥⑦-3J			10	ø1/8	VPLFD0.7-10RM⑥⑦-1/8J	
			ø4	VPLFD0.7-10RM⑥⑦-4J				ø5/32	VPLFD0.7-10RM⑥⑦-5/32J	
		15	ø3	VPLFD0.7-15RM⑥⑦-3J			15	ø1/8	VPLFD0.7-15RM⑥⑦-1/8J	
			ø4	VPLFD0.7-15RM⑥⑦-4J				ø5/32	VPLFD0.7-15RM⑥⑦-5/32J	
		20	ø3	VPLFD0.7-20RM⑥⑦-3J			20	ø1/8	VPLFD0.7-20RM⑥⑦-1/8J	
			ø4	VPLFD0.7-20RM⑥⑦-4J				ø5/32	VPLFD0.7-20RM⑥⑦-5/32J	
	ø1	5	ø3	VPLFD1-5RM⑥⑦-3J		ø1	5	ø1/8	VPLFD1-5RM⑥⑦-1/8J	
			ø4	VPLFD1-5RM⑥⑦-4J				ø5/32	VPLFD1-5RM⑥⑦-5/32J	
		10	ø3	VPLFD1-10RM⑥⑦-3J			10	ø1/8	VPLFD1-10RM⑥⑦-1/8J	
			ø4	VPLFD1-10RM⑥⑦-4J				ø5/32	VPLFD1-10RM⑥⑦-5/32J	
		15	ø3	VPLFD1-15RM⑥⑦-3J			15	ø1/8	VPLFD1-15RM⑥⑦-1/8J	
			ø4	VPLFD1-15RM⑥⑦-4J				ø5/32	VPLFD1-15RM⑥⑦-5/32J	
		20	ø3	VPLFD1-20RM⑥⑦-3J			20	ø1/8	VPLFD1-20RM⑥⑦-1/8J	
			ø4	VPLFD1-20RM⑥⑦-4J				ø5/32	VPLFD1-20RM⑥⑦-5/32J	
	ø1.5	5	ø3	VPLFD1.5-5RM⑥⑦-3J		ø1.5	5	ø1/8	VPLFD1.5-5RM⑥⑦-1/8J	
			ø4	VPLFD1.5-5RM⑥⑦-4J				ø5/32	VPLFD1.5-5RM⑥⑦-5/32J	
		10	ø3	VPLFD1.5-10RM⑥⑦-3J			10	ø1/8	VPLFD1.5-10RM⑥⑦-1/8J	
			ø4	VPLFD1.5-10RM⑥⑦-4J				ø5/32	VPLFD1.5-10RM⑥⑦-5/32J	
		15	ø3	VPLFD1.5-15RM⑥⑦-3J			15	ø1/8	VPLFD1.5-15RM⑥⑦-1/8J	
			ø4	VPLFD1.5-15RM⑥⑦-4J				ø5/32	VPLFD1.5-15RM⑥⑦-5/32J	
		20	ø3	VPLFD1.5-20RM⑥⑦-3J			20	ø1/8	VPLFD1.5-20RM⑥⑦-1/8J	
			ø4	VPLFD1.5-20RM⑥⑦-4J				ø5/32	VPLFD1.5-20RM⑥⑦-5/32J	
	ø2	5	ø3	VPLFD2-5RM⑥⑦-3J		ø2	5	ø1/8	VPLFD2-5RM⑥⑦-1/8J	
			ø4	VPLFD2-5RM⑥⑦-4J				ø5/32	VPLFD2-5RM⑥⑦-5/32J	
		10	ø3	VPLFD2-10RM⑥⑦-3J			10	ø1/8	VPLFD2-10RM⑥⑦-1/8J	
			ø4	VPLFD2-10RM⑥⑦-4J				ø5/32	VPLFD2-10RM⑥⑦-5/32J	
		15	ø3	VPLFD2-15RM⑥⑦-3J			15	ø1/8	VPLFD2-15RM⑥⑦-1/8J	
			ø4	VPLFD2-15RM⑥⑦-4J				ø5/32	VPLFD2-15RM⑥⑦-5/32J	
		20	ø3	VPLFD2-20RM⑥⑦-3J			20	ø1/8	VPLFD2-20RM⑥⑦-1/8J	
			ø4	VPLFD2-20RM⑥⑦-4J				ø5/32	VPLFD2-20RM⑥⑦-5/32J	
	ø3	5	ø3	VPLFD3-5RM⑥⑦-3J		ø3	5	ø1/8	VPLFD3-5RM⑥⑦-1/8J	
			ø4	VPLFD3-5RM⑥⑦-4J				ø5/32	VPLFD3-5RM⑥⑦-5/32J	
		10	ø3	VPLFD3-10RM⑥⑦-3J			10	ø1/8	VPLFD3-10RM⑥⑦-1/8J	
			ø4	VPLFD3-10RM⑥⑦-4J				ø5/32	VPLFD3-10RM⑥⑦-5/32J	
		15	ø3	VPLFD3-15RM⑥⑦-3J			15	ø1/8	VPLFD3-15RM⑥⑦-1/8J	
			ø4	VPLFD3-15RM⑥⑦-4J				ø5/32	VPLFD3-15RM⑥⑦-5/32J	
		20	ø3	VPLFD3-20RM⑥⑦-3J			20	ø1/8	VPLFD3-20RM⑥⑦-1/8J	
			ø4	VPLFD3-20RM⑥⑦-4J				ø5/32	VPLFD3-20RM⑥⑦-5/32J	
	ø4	5	ø3	VPLFD4-5RM⑥⑦-3J		ø4	5	ø1/8	VPLFD4-5RM⑥⑦-1/8J	
			ø4	VPLFD4-5RM⑥⑦-4J				ø5/32	VPLFD4-5RM⑥⑦-5/32J	
		10	ø3	VPLFD4-10RM⑥⑦-3J			10	ø1/8	VPLFD4-10RM⑥⑦-1/8J	
			ø4	VPLFD4-10RM⑥⑦-4J				ø5/32	VPLFD4-10RM⑥⑦-5/32J	
		15	ø3	VPLFD4-15RM⑥⑦-3J			15	ø1/8	VPLFD4-15RM⑥⑦-1/8J	
			ø4	VPLFD4-15RM⑥⑦-4J				ø5/32	VPLFD4-15RM⑥⑦-5/32J	
		20	ø3	VPLFD4-20RM⑥⑦-3J			20	ø1/8	VPLFD4-20RM⑥⑦-1/8J	
			ø4	VPLFD4-20RM⑥⑦-4J				ø5/32	VPLFD4-20RM⑥⑦-5/32J	

Notes
*Barb fitting type holders are also available. Contact us for the details.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (DLC. coating, and Fluoro-coating)

Optional items ⇒ P.442
Surface treatment

Vacuum Pad Standard Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, Low dust emission **VPLFD** Pad dia. ø6 mm to ø15 mm	ø6	5	ø3	VPLFD6-5R[6][7]-3J	T8	ø6	5	ø1/8	VPLFD6-5R[6][7]-1/8J	T8
			ø4	VPLFD6-5R[6][7]-4J				ø5/32	VPLFD6-5R[6][7]-5/32J	
		10	ø3	VPLFD6-10R[6][7]-3J			10	ø1/8	VPLFD6-10R[6][7]-1/8J	
			ø4	VPLFD6-10R[6][7]-4J				ø5/32	VPLFD6-10R[6][7]-5/32J	
		15	ø3	VPLFD6-15R[6][7]-3J			15	ø1/8	VPLFD6-15R[6][7]-1/8J	
			ø4	VPLFD6-15R[6][7]-4J				ø5/32	VPLFD6-15R[6][7]-5/32J	
		20	ø3	VPLFD6-20R[6][7]-3J			20	ø1/8	VPLFD6-20R[6][7]-1/8J	
			ø4	VPLFD6-20R[6][7]-4J				ø5/32	VPLFD6-20R[6][7]-5/32J	
	ø8	5	ø3	VPLFD8-5R[6][7]-3J		ø8	5	ø1/8	VPLFD8-5R[6][7]-1/8J	
			ø4	VPLFD8-5R[6][7]-4J				ø5/32	VPLFD8-5R[6][7]-5/32J	
		10	ø3	VPLFD8-10R[6][7]-3J			10	ø1/8	VPLFD8-10R[6][7]-1/8J	
			ø4	VPLFD8-10R[6][7]-4J				ø5/32	VPLFD8-10R[6][7]-5/32J	
		15	ø3	VPLFD8-15R[6][7]-3J			15	ø1/8	VPLFD8-15R[6][7]-1/8J	
			ø4	VPLFD8-15R[6][7]-4J				ø5/32	VPLFD8-15R[6][7]-5/32J	
		20	ø3	VPLFD8-20R[6][7]-3J			20	ø1/8	VPLFD8-20R[6][7]-1/8J	
			ø4	VPLFD8-20R[6][7]-4J				ø5/32	VPLFD8-20R[6][7]-5/32J	
	ø10	5	ø3	VPLFD10-5R[6][7]-3J	M4	ø10	5	ø1/8	VPLFD10-5R[6][7]-1/8J	M4
			ø4	VPLFD10-5R[6][7]-4J				ø5/32	VPLFD10-5R[6][7]-5/32J	
		10	ø3	VPLFD10-10R[6][7]-3J			10	ø1/8	VPLFD10-10R[6][7]-1/8J	
			ø4	VPLFD10-10R[6][7]-4J				ø5/32	VPLFD10-10R[6][7]-5/32J	
		15	ø3	VPLFD10-15R[6][7]-3J			15	ø1/8	VPLFD10-15R[6][7]-1/8J	
			ø4	VPLFD10-15R[6][7]-4J				ø5/32	VPLFD10-15R[6][7]-5/32J	
		20	ø3	VPLFD10-20R[6][7]-3J			20	ø1/8	VPLFD10-20R[6][7]-1/8J	
			ø4	VPLFD10-20R[6][7]-4J				ø5/32	VPLFD10-20R[6][7]-5/32J	
	ø15	5	ø3	VPLFD15-5R(A)[6][7]-3J		ø15	5	ø1/8	VPLFD15-5R(A)[6][7]-1/8J	
			ø4	VPLFD15-5R(A)[6][7]-4J				ø5/32	VPLFD15-5R(A)[6][7]-5/32J	
		10	ø3	VPLFD15-10R(A)[6][7]-3J			10	ø1/8	VPLFD15-10R(A)[6][7]-1/8J	
			ø4	VPLFD15-10R(A)[6][7]-4J				ø5/32	VPLFD15-10R(A)[6][7]-5/32J	
		15	ø3	VPLFD15-15R(A)[6][7]-3J			15	ø1/8	VPLFD15-15R(A)[6][7]-1/8J	
			ø4	VPLFD15-15R(A)[6][7]-4J				ø5/32	VPLFD15-15R(A)[6][7]-5/32J	
		20	ø3	VPLFD15-20R(A)[6][7]-3J			20	ø1/8	VPLFD15-20R(A)[6][7]-1/8J	
			ø4	VPLFD15-20R(A)[6][7]-4J				ø5/32	VPLFD15-20R(A)[6][7]-5/32J	

Notes

*1 Deep type pad can be selected for the models with pad type code: R (A) in the model code. Please select "R" for general type and "A" for deep type pad.

*2. Barb fitting type holders are also available. Contact us for the details.

Packaging specifications

1 pc./bag

Options

[7]: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.442

Surface treatment

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type,
Side port,
Push-in fitting,
Low dust emission

VPLFD

Pad dia.
ø20 mm
to
ø50 mm

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, Low dust emission **VPLFD**	ø20	5	ø3	VPLFD20-5R(A)□-3J		ø20	5	ø1/8	VPLFD20-5R(A)□-1/8J	
			ø4	VPLFD20-5R(A)□-4J				ø5/32	VPLFD20-5R(A)□-5/32J	
			ø6	VPLFD20-5R(A)□-6J				ø1/4	VPLFD20-5R(A)□-1/4J	
		10	ø3	VPLFD20-10R(A)□-3J			10	ø1/8	VPLFD20-10R(A)□-1/8J	
			ø4	VPLFD20-10R(A)□-4J				ø5/32	VPLFD20-10R(A)□-5/32J	
			ø6	VPLFD20-10R(A)□-6J				ø1/4	VPLFD20-10R(A)□-1/4J	
		15	ø3	VPLFD20-15R(A)□-3J			15	ø1/8	VPLFD20-15R(A)□-1/8J	
			ø4	VPLFD20-15R(A)□-4J				ø5/32	VPLFD20-15R(A)□-5/32J	
			ø6	VPLFD20-15R(A)□-6J				ø1/4	VPLFD20-15R(A)□-1/4J	
		20	ø3	VPLFD20-20R(A)□-3J			20	ø1/8	VPLFD20-20R(A)□-1/8J	
			ø4	VPLFD20-20R(A)□-4J				ø5/32	VPLFD20-20R(A)□-5/32J	
			ø6	VPLFD20-20R(A)□-6J				ø1/4	VPLFD20-20R(A)□-1/4J	
	ø25	5	ø3	VPLFD25-5R(A)□-3J		ø25	5	ø1/8	VPLFD25-5R(A)□-1/8J	
			ø4	VPLFD25-5R(A)□-4J				ø5/32	VPLFD25-5R(A)□-5/32J	
			ø6	VPLFD25-5R(A)□-6J				ø1/4	VPLFD25-5R(A)□-1/4J	
		10	ø3	VPLFD25-10R(A)□-3J			10	ø1/8	VPLFD25-10R(A)□-1/8J	
			ø4	VPLFD25-10R(A)□-4J				ø5/32	VPLFD25-10R(A)□-5/32J	
			ø6	VPLFD25-10R(A)□-6J				ø1/4	VPLFD25-10R(A)□-1/4J	
		15	ø3	VPLFD25-15R(A)□-3J			15	ø1/8	VPLFD25-15R(A)□-1/8J	
			ø4	VPLFD25-15R(A)□-4J				ø5/32	VPLFD25-15R(A)□-5/32J	
			ø6	VPLFD25-15R(A)□-6J				ø1/4	VPLFD25-15R(A)□-1/4J	
		20	ø3	VPLFD25-20R(A)□-3J			20	ø1/8	VPLFD25-20R(A)□-1/8J	
			ø4	VPLFD25-20R(A)□-4J				ø5/32	VPLFD25-20R(A)□-5/32J	
			ø6	VPLFD25-20R(A)□-6J				ø1/4	VPLFD25-20R(A)□-1/4J	
	ø30	5	ø3	VPLFD30-5R(A)□-3J	M6	ø30	5	ø1/8	VPLFD30-5R(A)□-1/8J	M6
			ø4	VPLFD30-5R(A)□-4J				ø5/32	VPLFD30-5R(A)□-5/32J	
			ø6	VPLFD30-5R(A)□-6J				ø1/4	VPLFD30-5R(A)□-1/4J	
		10	ø3	VPLFD30-10R(A)□-3J			10	ø1/8	VPLFD30-10R(A)□-1/8J	
			ø4	VPLFD30-10R(A)□-4J				ø5/32	VPLFD30-10R(A)□-5/32J	
			ø6	VPLFD30-10R(A)□-6J				ø1/4	VPLFD30-10R(A)□-1/4J	
		15	ø3	VPLFD30-15R(A)□-3J			15	ø1/8	VPLFD30-15R(A)□-1/8J	
			ø4	VPLFD30-15R(A)□-4J				ø5/32	VPLFD30-15R(A)□-5/32J	
			ø6	VPLFD30-15R(A)□-6J				ø1/4	VPLFD30-15R(A)□-1/4J	
		20	ø3	VPLFD30-20R(A)□-3J			20	ø1/8	VPLFD30-20R(A)□-1/8J	
			ø4	VPLFD30-20R(A)□-4J				ø5/32	VPLFD30-20R(A)□-5/32J	
			ø6	VPLFD30-20R(A)□-6J				ø1/4	VPLFD30-20R(A)□-1/4J	
	ø40	5	ø3	VPLFD40-5R(A)□-3J		ø40	5	ø1/8	VPLFD40-5R(A)□-1/8J	
			ø4	VPLFD40-5R(A)□-4J				ø5/32	VPLFD40-5R(A)□-5/32J	
			ø6	VPLFD40-5R(A)□-6J				ø1/4	VPLFD40-5R(A)□-1/4J	
		10	ø3	VPLFD40-10R(A)□-3J			10	ø1/8	VPLFD40-10R(A)□-1/8J	
			ø4	VPLFD40-10R(A)□-4J				ø5/32	VPLFD40-10R(A)□-5/32J	
			ø6	VPLFD40-10R(A)□-6J				ø1/4	VPLFD40-10R(A)□-1/4J	
		15	ø3	VPLFD40-15R(A)□-3J			15	ø1/8	VPLFD40-15R(A)□-1/8J	
			ø4	VPLFD40-15R(A)□-4J				ø5/32	VPLFD40-15R(A)□-5/32J	
			ø6	VPLFD40-15R(A)□-6J				ø1/4	VPLFD40-15R(A)□-1/4J	
		20	ø3	VPLFD40-20R(A)□-3J			20	ø1/8	VPLFD40-20R(A)□-1/8J	
			ø4	VPLFD40-20R(A)□-4J				ø5/32	VPLFD40-20R(A)□-5/32J	
			ø6	VPLFD40-20R(A)□-6J				ø1/4	VPLFD40-20R(A)□-1/4J	
	ø50	5	ø3	VPLFD50-5R(A)□-3J		ø50	5	ø1/8	VPLFD50-5R(A)□-1/8J	
			ø4	VPLFD50-5R(A)□-4J				ø5/32	VPLFD50-5R(A)□-5/32J	
			ø6	VPLFD50-5R(A)□-6J				ø1/4	VPLFD50-5R(A)□-1/4J	
		10	ø3	VPLFD50-10R(A)□-3J			10	ø1/8	VPLFD50-10R(A)□-1/8J	
			ø4	VPLFD50-10R(A)□-4J				ø5/32	VPLFD50-10R(A)□-5/32J	
			ø6	VPLFD50-10R(A)□-6J				ø1/4	VPLFD50-10R(A)□-1/4J	
		15	ø3	VPLFD50-15R(A)□-3J			15	ø1/8	VPLFD50-15R(A)□-1/8J	
			ø4	VPLFD50-15R(A)□-4J				ø5/32	VPLFD50-15R(A)□-5/32J	
			ø6	VPLFD50-15R(A)□-6J				ø1/4	VPLFD50-15R(A)□-1/4J	
		20	ø3	VPLFD50-20R(A)□-3J			20	ø1/8	VPLFD50-20R(A)□-1/8J	
			ø4	VPLFD50-20R(A)□-4J				ø5/32	VPLFD50-20R(A)□-5/32J	
			ø6	VPLFD50-20R(A)□-6J				ø1/4	VPLFD50-20R(A)□-1/4J	

Vacuum Pad Standard Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Side port, Female thread, Low dust emission VPLFD 	ø0.7	5	M5×0.8	VPLFD0.7-5RM⑥⑦-M5	
		10	M5×0.8	VPLFD0.7-10RM⑥⑦-M5	
		15	M5×0.8	VPLFD0.7-15RM⑥⑦-M5	
		20	M5×0.8	VPLFD0.7-20RM⑥⑦-M5	
	ø1	5	M5×0.8	VPLFD1-5RM⑥⑦-M5	
		10	M5×0.8	VPLFD1-10RM⑥⑦-M5	
		15	M5×0.8	VPLFD1-15RM⑥⑦-M5	
		20	M5×0.8	VPLFD1-20RM⑥⑦-M5	
	ø1.5	5	M5×0.8	VPLFD1.5-5RM⑥⑦-M5	
		10	M5×0.8	VPLFD1.5-10RM⑥⑦-M5	
		15	M5×0.8	VPLFD1.5-15RM⑥⑦-M5	
		20	M5×0.8	VPLFD1.5-20RM⑥⑦-M5	
	ø2	5	M5×0.8	VPLFD2-5RM⑥⑦-M5	T4
		10	M5×0.8	VPLFD2-10RM⑥⑦-M5	
		15	M5×0.8	VPLFD2-15RM⑥⑦-M5	
		20	M5×0.8	VPLFD2-20RM⑥⑦-M5	
	ø3	5	M5×0.8	VPLFD3-5RM⑥⑦-M5	
		10	M5×0.8	VPLFD3-10RM⑥⑦-M5	
		15	M5×0.8	VPLFD3-15RM⑥⑦-M5	
		20	M5×0.8	VPLFD3-20RM⑥⑦-M5	
	ø4	5	M5×0.8	VPLFD4-5RM⑥⑦-M5	
		10	M5×0.8	VPLFD4-10RM⑥⑦-M5	
		15	M5×0.8	VPLFD4-15RM⑥⑦-M5	
		20	M5×0.8	VPLFD4-20RM⑥⑦-M5	
	ø6	5	M5×0.8	VPLFD6-5R⑥⑦-M5	
		10	M5×0.8	VPLFD6-10R⑥⑦-M5	
		15	M5×0.8	VPLFD6-15R⑥⑦-M5	
		20	M5×0.8	VPLFD6-20R⑥⑦-M5	
	ø8	5	M5×0.8	VPLFD8-5R⑥⑦-M5	T8
		10	M5×0.8	VPLFD8-10R⑥⑦-M5	
		15	M5×0.8	VPLFD8-15R⑥⑦-M5	
		20	M5×0.8	VPLFD8-20R⑥⑦-M5	
	ø10	5	M5×0.8	VPLFD10-5R⑥⑦-M5	
		10	M5×0.8	VPLFD10-10R⑥⑦-M5	
		15	M5×0.8	VPLFD10-15R⑥⑦-M5	
		20	M5×0.8	VPLFD10-20R⑥⑦-M5	M4
	ø15	5	M5×0.8	VPLFD15-5R(A)⑥⑦-M5	
		10	M5×0.8	VPLFD15-10R(A)⑥⑦-M5	
		15	M5×0.8	VPLFD15-15R(A)⑥⑦-M5	
		20	M5×0.8	VPLFD15-20R(A)⑥⑦-M5	
	ø20	5	M6×1	VPLFD20-5R(A)⑥⑦-M6	
		10	M6×1	VPLFD20-10R(A)⑥⑦-M6	
		15	M6×1	VPLFD20-15R(A)⑥⑦-M6	
		20	M6×1	VPLFD20-20R(A)⑥⑦-M6	
	ø25	5	M6×1	VPLFD25-5R(A)⑥⑦-M6	
		10	M6×1	VPLFD25-10R(A)⑥⑦-M6	
		15	M6×1	VPLFD25-15R(A)⑥⑦-M6	
		20	M6×1	VPLFD25-20R(A)⑥⑦-M6	
	ø30	5	M6×1	VPLFD30-5R(A)⑥⑦-M6	
		10	M6×1	VPLFD30-10R(A)⑥⑦-M6	M6
		15	M6×1	VPLFD30-15R(A)⑥⑦-M6	
		20	M6×1	VPLFD30-20R(A)⑥⑦-M6	
	ø40	5	M6×1	VPLFD40-5R(A)⑥⑦-M6	
		10	M6×1	VPLFD40-10R(A)⑥⑦-M6	
		15	M6×1	VPLFD40-15R(A)⑥⑦-M6	
		20	M6×1	VPLFD40-20R(A)⑥⑦-M6	
	ø50	5	M6×1	VPLFD50-5R(A)⑥⑦-M6	
		10	M6×1	VPLFD50-10R(A)⑥⑦-M6	
		15	M6×1	VPLFD50-15R(A)⑥⑦-M6	
		20	M6×1	VPLFD50-20R(A)⑥⑦-M6	

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Female thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Direct mount, Mini **VPME**	ø0.7	M3×0.5	VPME0.7RM67-M313	○	T4
	ø1	M3×0.5	VPME1RM67-M313	○	
	ø1.5	M3×0.5	VPME1.5RM67-M313	○	
	ø2	M3×0.5	VPME2RM67-M313	○	
	ø3	M3×0.5	VPME3RM67-M313	○	
	ø4	M3×0.5	VPME4RM67-M313	○	
	ø6	M5×0.8	VPME6R67-M513	○	T8
	ø8	M5×0.8	VPME8R67-M513	○	

Holder type	Pad dia. (mm)	Female thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Direct mount, Standard **VPE**	ø1	M3×0.5	VPE1R6-M313	○	H3
	ø2	M3×0.5	VPE2R6-M313	○	
	ø3	M3×0.5	VPE3R6-M313	○	
	ø4	M3×0.5	VPE4R6-M313	○	
	ø6	M5×0.8	VPE6R67-M513	○	T8
	ø8	M5×0.8	VPE8R67-M513	○	

VPE holders are available with metric male/female threads, taper pipe threads, parallel pipe threads, and NPT threads. See Pad holder only (page 399) for variations.

*Pads with the same configuration code as the holder can be connected. [See the Pad rubber only (page 376)].

Applicable Screws
Metric male thread: M3, M5, M8, M10, M12, M14
Metric female thread: M5, M8
Taper pipe thread: R1/8, R1/4, R3/8, R1/2
Parallel pipe thread: G1/8, G1/4, G3/8, G1/2
NPT thread: NPT1/8, NPT1/4, NPT3/8, NPT1/2

Holder type	Pad dia. (mm)	Female thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Direct mount **VPF**	ø1	M10×1	VPF1R6913	○	H3
	ø2	M10×1	VPF2R6913	○	
	ø3	M10×1	VPF3R6913	○	
	ø4	M10×1	VPF4R6913	○	
	ø6	M10×1	VPF6R6713	○	T8
	ø8	M10×1	VPF8R6713	○	
	ø10	M14×1	VPF10R67913	○	M4
	ø15	M14×1	VPF15R(A)67913	○	
Pad dia. 8mm or smaller Stroke 3mm	ø20	M14×1	VPF20R(A)67913	○	M6
	ø25	M14×1	VPF25R(A)67913	○	
	ø30	M14×1	VPF30R(A)67913	○	
Pad dia. 10mm or larger Stroke 5.8mm	ø40	M14×1	VPF40R(A)67913	○	
	ø50	M14×1	VPF50R(A)67913	○	

Notes
*Deep type pad can be selected for the models with pad type code: R (A) in the model code.
Please select "R" for general type and "A" for deep type pad.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
9: -DC ⇒ Holder with dust catcher
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.442
Surface treatment
Dust Catcher (VPF)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Standard Type

Optional items (○: Available)

7 Pad surface treatment (Suction mark-free)

(Small)

Pad dia. (mm)	5 Surface treatment code		Connection config. code
	-ER	-FG	
	Reformed surface	Fluoro-coating	
ø0.7	○	○	T4
ø1	○	○	
ø1.5	○	○	
ø2	○	○	
ø3	○	○	
ø4	○	○	
Material	N, NE	S, SE	

(General, Deep)

Pad dia. (mm)	7 Surface treatment code					Connection config. code
	-NF	-SF	-DL	-ER	-FG	
	Fiber surface		DLC. coating	Reformed surface	Fluoro-coating	
	Nylon	Silk				
ø6	—	—	○	○	○	T8
ø8	—	—	○	○	○	
ø10	—	—	○	○	○	M4
ø15	●	●	●	●	●	
ø20	●	●	●	●	●	
ø25	●	●	●	●	●	
ø30	●	●	●	●	●	M6
ø40	●	●	●	●	●	
ø50	●	●	●	●	●	
ø60	●	●	—	●	●	
ø80	●	●	—	—	●	M10
ø100	—	—	—	—	●	
ø150	—	—	—	—	○	
ø200	—	—	—	—	○	M20
Material	S, F		S, F, SE	N, NE	S, SE	

*For ● in the table above, deep type of standard series is available.

Characteristics of surface treatment ▶ P.370

9 Dust Catcher: -DC

Optional	Connection config. code	-S3 spec.
Dust Catcher (-DC)	H3	○
	T8	○
Holder type	M4	○
VPSC VPC	M6	○
	M10	○
VPD VPF	M20	○

*1. VPSC holder is available only for configuration code: H3 and T8.
*2. Configuration code: M10 and M20 are not available for VPF holder.

Characteristics of Dust Catcher ▶ P.371

10 Fall Prevention Valve: -ECV

Optional	Connection config. code	Model code
Fall Prevention Valve (-ECV)	T4	ECVM3-FM3(*1) ECVM5-FM5(*2)
	H3	ECVM3-FM3(*3) ECVM5-FM5(*2)
	M4	ECVM4-FM4
	T8	ECVM5-FM5(*4)
	M6	ECVM6-FM6
	M10	ECVM10-FM10

*1. Limited to M3 threads of VPME holders.
*2. Limited to M5 threads of VPE holders.
*3. Limited to M3 threads of VPE holders.
*4. Limited to M5 threads of VPME and VPE holders.

Characteristics of Fall Prevention Valve ▶ P.722

11 Swivel/swing joint: -FH, -FHH, -CFH

Optional	Swivel angle	Connection config. code	Model code
Ball Swivel Joint (-FH)(-FHH)	30° (-FH)	M4	FH10
		M6	FH20
		M10	FH60
	15° (-FHH)	M4	FH10-15
		M6	FH20-15
		M10	FH60-15

Characteristics of Ball Swivel Joint ▶ P.724

Optional	Connection config. code	-S3 spec.	Model code
Flexible Swing Joint (-CFH)	M4	○	CFHM4-FM4
	T4 H3 T8	○	CFHM5-FM5(*2)
	M6	○	CFHM6-FM6

*1. When ordering a Flexible Swing Joint alone, please enter "-S3" at the end of the model code for -S3 specification.
*2. Limited to M5 threads of VPME (T8 only) and VPE holders.

Characteristics of Flexible Swing Joint ▶ P.725

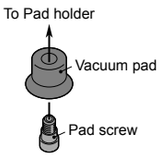
12 Filter: -F15, -F30

Optional	Filter area	Connection config. code	Model code
Pad Direct Mounting Filter (-F15)(-F30)	1.7cm² (-F15)	M4	VFF15-M4
		M6	VFF15-M6
	7cm² (-F30)	M6	VFF30-M6

Characteristics of Filter ▶ P.726

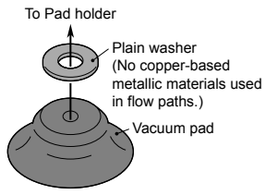
See the page 406 for the model designation including optional items.

Replacement parts (○: -S3 spec. is available)

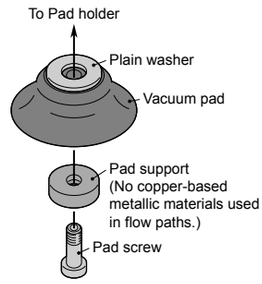


Pad screw Model code	13 : -S3	Applicable pad dia. (mm)	Connection config. code
VPM46-613	○	ø10, ø15	M4
VPM610-813	○	ø20, ø25	
VPM612-1013	○	ø30	M6
VPM610-1513	○	ø40, ø50	
VPM1018 *		ø60~ø100	M10
VPM2028 *		ø150, ø200	M20

*Pad screws marked with (*) do not contain copper-based metallic materials in flow paths.

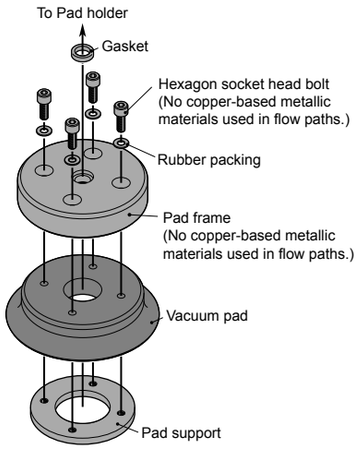


Plain washer Model code	Applicable pad dia. (mm)	Connection config. code
HW8.4×15.5×1.6	ø20~ø30	M6
HW8.5×22×1.6	ø40, ø50	
HW17×32×2.6	ø60	M10
HW10.5×22×1.6	ø80, ø100	
HW21×34×3	ø150, ø200	M20



Pad support Model code	Applicable pad dia. (mm)	Connection config. code
VPW40	ø40	M6
VPW50	ø50	
VPW60	ø60	M10

Connection config. code M10



*Be sure to replace a rubber packing when removing a Hexagon socket head bolt.

Gasket Model code	Applicable pad dia. (mm)
SG10	ø80, ø100

Pad frame Model code	Applicable pad dia. (mm)
VPH80R	ø80
VPH100R	ø100

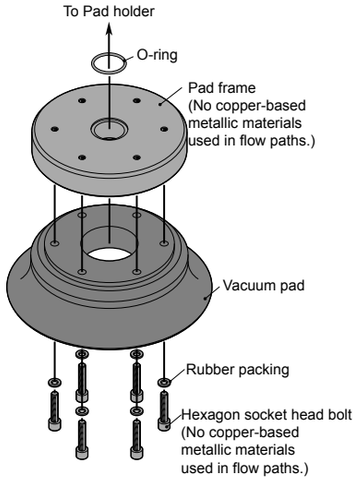
Hexagon socket head bolt Model code	Applicable pad dia. (mm)
VPH80CS-SET	ø80
VPH100CS-SET	ø100

Rubber packing Model code	13 : -S3	Applicable pad dia. (mm)
VPH80P13-SET	○	ø80
VPH100P13-SET	○	ø100

*Hexagon socket head bolt and Rubber packing: 4 pcs/set.

Pad support Model code	Applicable pad dia. (mm)
VPW80R	ø80
VPW100R	ø100

Connection config. code M20



*Be sure to replace a rubber packing when removing a Hexagon socket head bolt.

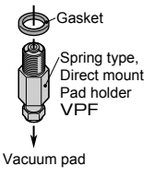
O-ring model code	13 : -S3	Applicable pad dia. (mm)
22×1.513	○	ø150, ø200

Pad frame Model code	Applicable pad dia. (mm)
VPH150R	ø150, ø200

Hexagon socket head bolt Model code	Applicable pad dia. (mm)
VPH150CS-SET	ø150
VPH200CS-SET	ø200

Rubber packing Model code	13 : -S3	Applicable pad dia. (mm)
VPH150P13-SET	○	ø150, ø200

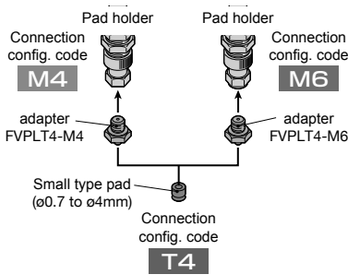
*Hexagon socket head bolt and Rubber packing: 6 pcs/set.

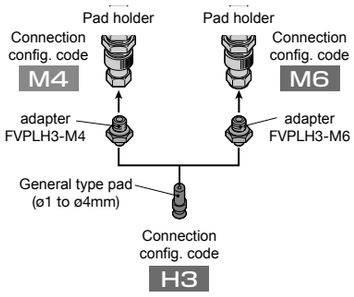


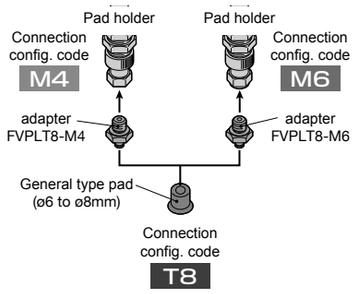
Gasket Model code	Applicable pad dia. (mm)	Connection config. code
SG10	ø1~ø8	H3 T8
VPFG10	ø10~ø50	M4 M6

Vacuum Pad Standard Type

Rearrangement parts (○: -S3 spec. is available)

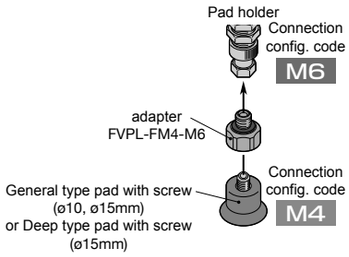






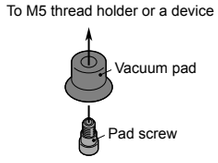
Model code of Adapter for pad connection type conversion	⓭ : -S3	Applicable pad dia. (mm)	Connection config. code Before → After
FVPLT4-M4⓭	○	ø0.7 to ø4 (Small)	T4 ▶ M4
FVPLT4-M6⓭	○		T4 ▶ M6
FVPLH3-M4⓭	○	ø1 to ø4 (General)	H3 ▶ M4
FVPLH3-M6⓭	○		H3 ▶ M6
FVPLT8-M4⓭	○	ø6 , ø8 (General)	T8 ▶ M4
FVPLT8-M6⓭	○		T8 ▶ M6

*1. These adapters are used to mount 0.7 to 8 mm dia. Standard pads on a holder with M4 or M6 configuration code.
*2. Gasket for adapter is equipped with an Adapter.



Model code of Adapter for pad connection type conversion	⓭ : -S3	Applicable pad dia. (mm)	Connection config. code Before → After
FVPL-FM4-M6⓭	○	ø10, ø15(General) ø15(Deep)	M4 ▶ M6

*1. These adapters are used to mount a pad & screw set with M4 configuration code on a pad holder with M6 configuration code.
*2. Gasket for adapter is equipped with an Adapter.



Pad screw Model code	⓭ : -S3	Applicable pad dia. (mm)
VPM56-7⓭	○	ø10, ø15
VPM510-8⓭	○	ø20, ø25
VPM512-9⓭	○	ø30
VPM510-13⓭	○	ø40, ø50

Vacuum Pad Soft Type

Vacuum pad for molded plastic parts etc.

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VP (1)	C (2)	40 (3)	-6 (4)	L (5)	N (6)	-ER (7)	-6J (8)	-DC (9)	-ECV (10)	-FH (11)	-F30 (12)	(13)
						Optional		Optional	Optional	Optional	Optional	Optional

(1) Vacuum Pad

(2) Holder type

Holder type		Fixed type		Spring type			
		Mini	Standard	Mini	Standard	No cover	Low dust emission
Code	Top port	MA	A	MC	C	OC	LFC
	Side port	MB	B	MD	D	OD	LFD
	Direct mount	–	E(*)	–	F	–	–
Connection config. code		M4 M6	M4 M6 T15 T40	M4 M6	M4 M6	M4 M6	M4 M6

Holder type		Lightweight	Low profile
		Spring type	Direct mount
Code	Top port	HC(*)	–
	Side port	HD(*)	HE(*)
	Dual side port	HDW(*)	HEW(*)
Connection config. code		T15 T40 M4 M6	T15 T40 M4 M6

*E, HC, HD, HDW, HE and HEW holders have a setting of configuration code M4, M6, T15 and T40, but only T15 and T40 are available for pad and holder set. Only M4 and M6 configuration code are available for holders except for (*).

(3) Pad dia.

Code	4	6	8	10	15	20	30	40
Pad dia. (mm)	ø4	ø6	ø8	ø10	ø15	ø20	ø30	ø40
Connection config. code	M4 T15					M6 T40		

(4) Stroke (No code entry for Holder type: MA, A, MB, B, E, F, HE and HEW)

Code	-2	-4	-5	-6	-9	-10	-15	-20	-25	-30	-40	-50
Stroke (mm)	2	4	5	6	9	10	15	20	25	30	40	50
Spring type holder code VPMC		●●										
VPC				●●		●●	●●	●●				
VPOC								●●		●●	●●	●●
VPLFC	●		●●			●●	●●	●●				
VPMD		●●										
VPD				●●		●●	●●	●●				
VPOD								●●		●●	●●	●●
VPLFD			●●			●●	●●	●●				
VPHC					●●	●●	●●	●●	●●	●●	●●	●●
VPHD			●●●●									
VPHDW			●●●●									

Connection config. code
●:M4
●:M6
●:T15
●:T40

(5) Pad type L: Soft

(6) Pad material

Code	N	S	FS	SE	NE
Rubber material	Nitrile	Silicone	Fluorosilicone	Conductive Silicone	Conductive NBR (Low resistance)

*1. The Conductive Silicone rubber (SE) is a silicon rubber capable of releasing static electricity. (Volume resistance: More than 200 Ω·cm and 10^5 Ω·cm or less)
*2. Nitrile rubber (N) and Conductive NBR (Low resistance, Volume resistance: 200 Ω·cm or less) (NE) are not suitable for use with ozone environment.

(7) Pad surface treatment for suction mark-free Optional

Code	No code	-NF	-SF	-DL	-ER	-FG
Surface treatment	None	Fiber surface: Nylon	Fiber surface: Silk	DLC. coating	Reformed surface	Fluoro-coating
Applicable pad material	—	Silicone (S)		Silicone (S), Conductive Silicone (SE)	Nitrile (N), Conductive NBR (Low resistance) (NE)	Silicone (S), Conductive Silicone (SE)
Applicable pad dia.	—	ø10 to ø40mm		ø4 to ø40mm	ø4 to ø40mm	ø4 to ø40mm

*Please refer to page 370 for the details of each pad surface type and treatment for Suction Mark-free.

(8) Vacuum port size and joint type (No code entry for Holder type: F) (○: Available)

Type	Push-in fitting								Barb fitting				Female thread	
	mm size (mm)					inch size (inch)			mm size (mm)			inch size (inch)	Metric thread	
Code	-180J	-2J	-3J	-4J	-6J	-1/8J	-5/32J	-1/4J	-3B	-4B*	-6B	-1/4B	-M5	-M6
Tube O.D.	ø1.8	ø2	ø3	ø4	ø6	ø1/8	ø5/32	ø1/4						
Tube I.D.									ø2	ø2.5	ø4	Polyurethane tube ø0.163 Nylon tube ø0.180		
Thread size													M5×0.8	M6×1
Holder type VPMA			○	○			○		○	○	○			
VPA			○	○	○	○	○	○		○	○	○		○
VPMB	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPB			○	○	○	○	○	○		○	○	○		○
VPMC	○	○	○	○		○	○		○	○	○	○		
VPC			○	○	○	○	○	○		○	○	○		○
VPOC			○	○	○	○	○	○		○	○	○		○
VPLFC			○	○	○	○	○	○	○	○	○		○	○
VPMD	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPD			○	○	○	○	○	○		○	○	○		○
VPOD			○	○	○	○	○	○		○	○	○		○
VPLFD			○	○	○	○	○	○	○	○	○		○	○
VPHC	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPHD	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPHDW	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPHE	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPHEW	○	○	○	○	○	○	○	○	○	○	○	○	○	

Push-in fitting Barb fitting Female thread

*The barb fitting of 5/32" size is common with 4 mm size. Please order with the code: -4B.
*Available port size varies depending on pad dia. See model code lists on the following pages.

Type	Male thread																Female thread	
	Metric thread				Taper pipe thread				Parallel pipe thread				NPT thread				Metric thread	
Code	-M8	-M10	-M12	-M14	-R1	-R2	-R3	-R4	-G1	-G2	-G3	-G4	-N1	-N2	-N3	-N4	-FM5	-FM8
Thread size	M8×1.25	M10×1.5	M12×1.75	M14×2	R1/8	R1/4	R3/8	R1/2	G1/8	G1/4	G3/8	G1/2	NPT1/8	NPT1/4	NPT3/8	NPT1/2	M5×0.8	M8×1.25
Holder type VPE	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

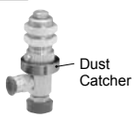
Direct mount

*Configuration code: M4 and T15 are not available for R4 and G4 thread size.

(9) Dust Catcher (Holder type: C, D and F only) Optional

Code	No code	-DC
Dust Catcher	None	Installed

*Note that the holder stroke becomes shorter when a dust catcher is installed. Please visit our website for details.



(9) Spring load (Holder type: LFC only)

Code	No code	-SF1/4
Load	Standard load	Low load (1/4 of standard load)

*"-SF1/4" is not selectable when 2 mm stroke is selected.

(10) Fall Prevention Valve (Not available for configuration code: T15 and T40.) Optional

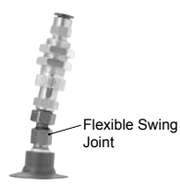
Code	No code	-ECV
Fall Prevention Valve	None	Installed
Applicable config. code	—	M4, M6

*1. -S3 spec. is not selectable when Fall Prevention Valve is selected.
*2. Fall prevention valve cannot be installed when selecting fiber surface type (-SF, -NF) for surface treatment.

(11) Swivel Joint for vacuum pad (Not available for configuration code: T15 and T40.) Optional

Code	No code	-FH	-FHH	-CFH
Option	None	Ball Swivel Joint (Swivel angle: 30°)	Ball Swivel Joint (Swivel angle: 15°)	Flexible Swing Joint (Swing angle: 8°)
Applicable config. code	—	M4, M6		

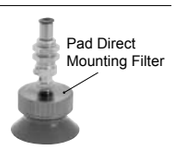
*-S3 spec. is not selectable when Ball Swivel Joint is selected.



(12) Filter (Not available for configuration code: T15 and T40.) Optional

Code	No code	-F15	-F30
Filter	None	Installed (Filter area 1.7 cm^2)	Installed (Filter area 7 cm^2)
Applicable config. code	—	M4, M6	M6

*1. -S3 spec. is not selectable when Filter is selected.
*2. "-F30" is recommended when much dust is expected at sucking work pieces.



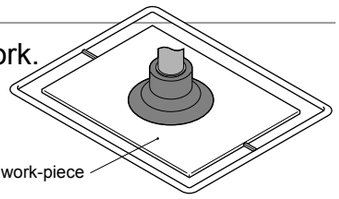
(13) -S3 spec. Optional

Code	No code	-S3
Metal material	Standard	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard	HNBR or FKM
Release ring color	Black	Dark blue

*1. -S3 spec. is not available for the following fittings and holders:
·Push-in fitting with dia. size of 1.8, 2, 3 mm and inch sizes except dia. 1/8" (some) and 5/32".
·Barb fitting with dia. of 1/4".
·Pad holder with stroke length 10 mm or longer (except for VPHC holders).
·VPLFC and VPLFD holders.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Vacuum Pad Soft Type

Characteristics



Pad dia. 8 types
ø4 to ø40mm
Pad material 5 types
Surface treatment 4 types

Best suitable for taking out molded parts or conveyance of fragile work.

5 pad holders suitable for taking out molded parts are available.

· Lightweight VPHC holder that is made of resin and aluminum.
· Lightweight VPHD and VPHDW holders with spring type without cover.
· VPHE and VPHEW holders with reduced height.
· VPHDW and VPHEW holders with dual side vacuum ports, suitable for piping connection of multiple vacuum pads.

Silicone (S) is Food Sanitation Act compliant.

(Holder is not compliant. Vacuum pad complies only at work-piece contact area.)
*See page 6 for the details of the Food Sanitation Act.

Low dust emission holders (VPLFC, VPLFD) with low noise and less wear from sliding are available to prevent dust generation.

VPLFC holder with top port has a separate shaft on the pad side and the vacuum port side, so there is no effect on the stroke caused by the tension of the tube.
Low load type is also available to suppress impact when contacting the work-piece.

Wide variations of fixed type direct mount holder (VPE) for various thread sizes.

Metric male threads, metric female threads, taper pipe threads, parallel pipe threads and NPT threads are available.
*Only a part of the combinations are shown on the model code list from the next page onward. Contact us for the details.

● Pad surface treatment for suction mark-free (Optional)

NEW Fluoro-coating type is added to the pad rubber surface treatment option to prevent tracing marks.

· Fiber surface type: Fiber (nylon or silk) on the pad surface prevents rubber material transfer by not directly touching the work-piece.
· DLC. coating type: Slippery special coating. Effective for sticking prevention of lightweight or thin work-piece.
· Reformed surface type: Reduces tracing marks by surface reforming of nitrile rubber with chemicals.
· Fluoro-coating type: Surface reforming by special treatment prevents sticking to work-pieces. Improved pad durability and wear resistance.

● Holder with dust catcher (Optional)

Collects wear debris generated by sliding spring type holders. Low-cost, simple holder with receiver tray added.

Applicable to VPC, VPD and VPF holders.

◀ Dust Catcher

● Accessories (Optional)

Fall Prevention Valve, Swivel (Ball Swivel Joint, Flexible Swing Joint) and Filter options are available.

● -S3 spec. (Optional)

No copper-based metallic materials used in flow paths.

The sealing rubber material of the fitting is HNBR or FKM, with good ozone resisntace.

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	⓭ -S3 -S3 spec.	Connection config. code	Pad dia.	Tube O.D. (inch)	Model code	⓭ -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Mini **VPMA**	ø4	ø3	VPMA4L⑥⑦-3J	—	M4	ø4	ø5/32	VPMA4L⑥⑦-5/32J ⓭	○	M4
		ø4	VPMA4L⑥⑦-4J⓭	○		ø6	ø5/32	VPMA6L⑥⑦-5/32J ⓭	○	
	ø6	ø3	VPMA6L⑥⑦-3J	—		ø8	ø5/32	VPMA8L⑥⑦-5/32J ⓭	○	
		ø4	VPMA6L⑥⑦-4J⓭	○		ø10	ø5/32	VPMA10L⑥⑦-5/32J ⓭	○	
	ø8	ø3	VPMA8L⑥⑦-3J	—		ø15	ø5/32	VPMA15L⑥⑦-5/32J ⓭	○	
		ø4	VPMA8L⑥⑦-4J⓭	○		ø20	ø5/32	VPMA20L⑥⑦-5/32J ⓭	○	M6
	ø10	ø3	VPMA10L⑥⑦-3J	—		ø30	ø5/32	VPMA30L⑥⑦-5/32J ⓭	○	
		ø4	VPMA10L⑥⑦-4J⓭	○		ø40	ø5/32	VPMA40L⑥⑦-5/32J ⓭	○	
	ø15	ø3	VPMA15L⑥⑦-3J	—						
		ø4	VPMA15L⑥⑦-4J⓭	○						
	ø20	ø4	VPMA20L⑥⑦-4J⓭	○	M6					
	ø30	ø4	VPMA30L⑥⑦-4J⓭	○						
	ø40	ø4	VPMA40L⑥⑦-4J⓭	○						

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	⓭ -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (mm)	Model code	⓭ -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Standard **VPA**	ø4	ø6	VPA4L⑥⑦-6J⓭	○	M4	ø4	ø1/4	VPA4L⑥⑦-1/4J	—	M4
	ø6	ø6	VPA6L⑥⑦-6J⓭	○		ø6	ø1/4	VPA6L⑥⑦-1/4J	—	
	ø8	ø6	VPA8L⑥⑦-6J⓭	○		ø8	ø1/4	VPA8L⑥⑦-1/4J	—	
	ø10	ø6	VPA10L⑥⑦-6J⓭	○		ø10	ø1/4	VPA10L⑥⑦-1/4J	—	
	ø15	ø6	VPA15L⑥⑦-6J⓭	○		ø15	ø1/4	VPA15L⑥⑦-1/4J	—	
	ø20	ø3	VPA20L⑥⑦-3J	—	M6	ø20	ø1/8	VPA20L⑥⑦-1/8J	—	M6
		ø4	VPA20L⑥⑦-4J⓭	○			ø5/32	VPA20L⑥⑦-5/32J ⓭	○	
		ø6	VPA20L⑥⑦-6J⓭	○			ø1/4	VPA20L⑥⑦-1/4J	—	
	ø30	ø3	VPA30L⑥⑦-3J	—		ø30	ø1/8	VPA30L⑥⑦-1/8J	—	
		ø4	VPA30L⑥⑦-4J⓭	○			ø5/32	VPA30L⑥⑦-5/32J ⓭	○	
		ø6	VPA30L⑥⑦-6J⓭	○			ø1/4	VPA30L⑥⑦-1/4J	—	
	ø40	ø3	VPA40L⑥⑦-3J	—		ø40	ø1/8	VPA40L⑥⑦-1/8J	—	
		ø4	VPA40L⑥⑦-4J⓭	○			ø5/32	VPA40L⑥⑦-5/32J ⓭	○	
		ø6	VPA40L⑥⑦-6J⓭	○			ø1/4	VPA40L⑥⑦-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	⓭ -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Female thread, Standard **VPA**	ø20	M6×1	VPA20L⑥⑦-M6⓭	○	M6
	ø30	M6×1	VPA30L⑥⑦-M6⓭	○	
	ø40	M6×1	VPA40L⑥⑦-M6⓭	○	

Notes
*Barb fitting type holders are also available. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./1 bag

Options
⑦: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⓭: **-S3** ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.480
Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Soft Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	⑬ -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	⑬ -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Push-in fitting, Mini VPMB	ø4	ø3	VPMB4L⑥⑦-3J	—	M4	ø4	ø1/8	VPMB4L⑥⑦-1/8J	—	M4
		ø4	VPMB4L⑥⑦-4J⑬	○			ø5/32	VPMB4L⑥⑦-5/32J⑬	○	
		ø6	VPMB4L⑥⑦-6J⑬	○			ø1/4	VPMB4L⑥⑦-1/4J	—	
	ø6	ø3	VPMB6L⑥⑦-3J	—		ø6	ø1/8	VPMB6L⑥⑦-1/8J	—	
		ø4	VPMB6L⑥⑦-4J⑬	○			ø5/32	VPMB6L⑥⑦-5/32J⑬	○	
		ø6	VPMB6L⑥⑦-6J⑬	○			ø1/4	VPMB6L⑥⑦-1/4J	—	
	ø8	ø3	VPMB8L⑥⑦-3J	—		ø8	ø1/8	VPMB8L⑥⑦-1/8J	—	
		ø4	VPMB8L⑥⑦-4J⑬	○			ø5/32	VPMB8L⑥⑦-5/32J⑬	○	
		ø6	VPMB8L⑥⑦-6J⑬	○			ø1/4	VPMB8L⑥⑦-1/4J	—	
	ø10	ø3	VPMB10L⑥⑦-3J	—		ø10	ø1/8	VPMB10L⑥⑦-1/8J	—	
		ø4	VPMB10L⑥⑦-4J⑬	○			ø5/32	VPMB10L⑥⑦-5/32J⑬	○	
		ø6	VPMB10L⑥⑦-6J⑬	○			ø1/4	VPMB10L⑥⑦-1/4J	—	
	ø15	ø3	VPMB15L⑥⑦-3J	—		ø15	ø1/8	VPMB15L⑥⑦-1/8J	—	
		ø4	VPMB15L⑥⑦-4J⑬	○			ø5/32	VPMB15L⑥⑦-5/32J⑬	○	
		ø6	VPMB15L⑥⑦-6J⑬	○			ø1/4	VPMB15L⑥⑦-1/4J	—	
	ø20	ø3	VPMB20L⑥⑦-3J	—	M6	ø20	ø1/8	VPMB20L⑥⑦-1/8J	—	M6
		ø4	VPMB20L⑥⑦-4J⑬	○			ø5/32	VPMB20L⑥⑦-5/32J⑬	○	
		ø6	VPMB20L⑥⑦-6J⑬	○			ø1/4	VPMB20L⑥⑦-1/4J	—	
	ø30	ø3	VPMB30L⑥⑦-3J	—		ø30	ø1/8	VPMB30L⑥⑦-1/8J	—	
		ø4	VPMB30L⑥⑦-4J⑬	○			ø5/32	VPMB30L⑥⑦-5/32J⑬	○	
		ø6	VPMB30L⑥⑦-6J⑬	○			ø1/4	VPMB30L⑥⑦-1/4J	—	
	ø40	ø3	VPMB40L⑥⑦-3J	—		ø40	ø1/8	VPMB40L⑥⑦-1/8J	—	
		ø4	VPMB40L⑥⑦-4J⑬	○			ø5/32	VPMB40L⑥⑦-5/32J⑬	○	
		ø6	VPMB40L⑥⑦-6J⑬	○			ø1/4	VPMB40L⑥⑦-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	⑬ -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Female thread, Mini VPMB	ø4	M5×0.8	VPMB4L⑥⑦-M5⑬	○	M4
	ø6	M5×0.8	VPMB6L⑥⑦-M5⑬	○	
	ø8	M5×0.8	VPMB8L⑥⑦-M5⑬	○	
	ø10	M5×0.8	VPMB10L⑥⑦-M5⑬	○	
	ø15	M5×0.8	VPMB15L⑥⑦-M5⑬	○	
	ø20	M5×0.8	VPMB20L⑥⑦-M5⑬	○	M6
	ø30	M5×0.8	VPMB30L⑥⑦-M5⑬	○	
	ø40	M5×0.8	VPMB40L⑥⑦-M5⑬	○	

Notes
*Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⑬: **-S3** ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.480
Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Push-in fitting, Standard **VPB**	ø4	ø3	VPB4L67-3J	—		ø4	ø1/8	VPB4L67-1/8J	—	
		ø4	VPB4L67-4J13	○			ø5/32	VPB4L67-5/32J13	○	
		ø6	VPB4L67-6J13	○			ø1/4	VPB4L67-1/4J	—	
	ø6	ø3	VPB6L67-3J	—		ø6	ø1/8	VPB6L67-1/8J	—	
		ø4	VPB6L67-4J13	○			ø5/32	VPB6L67-5/32J13	○	
		ø6	VPB6L67-6J13	○			ø1/4	VPB6L67-1/4J	—	
	ø8	ø3	VPB8L67-3J	—		ø8	ø1/8	VPB8L67-1/8J	—	
		ø4	VPB8L67-4J13	○	M4		ø5/32	VPB8L67-5/32J13	○	M4
		ø6	VPB8L67-6J13	○			ø1/4	VPB8L67-1/4J	—	
	ø10	ø3	VPB10L67-3J	—		ø10	ø1/8	VPB10L67-1/8J	—	
		ø4	VPB10L67-4J13	○			ø5/32	VPB10L67-5/32J13	○	
		ø6	VPB10L67-6J13	○			ø1/4	VPB10L67-1/4J	—	
	ø15	ø3	VPB15L67-3J	—		ø15	ø1/8	VPB15L67-1/8J	—	
		ø4	VPB15L67-4J13	○			ø5/32	VPB15L67-5/32J13	○	
		ø6	VPB15L67-6J13	○			ø1/4	VPB15L67-1/4J	—	
	ø20	ø3	VPB20L67-3J	—		ø20	ø1/8	VPB20L67-1/8J	—	
		ø4	VPB20L67-4J13	○			ø5/32	VPB20L67-5/32J13	○	
		ø6	VPB20L67-6J13	○			ø1/4	VPB20L67-1/4J	—	
	ø30	ø3	VPB30L67-3J	—		ø30	ø1/8	VPB30L67-1/8J	—	
		ø4	VPB30L67-4J13	○	M6		ø5/32	VPB30L67-5/32J13	○	M6
		ø6	VPB30L67-6J13	○			ø1/4	VPB30L67-1/4J	—	
	ø40	ø3	VPB40L67-3J	—		ø40	ø1/8	VPB40L67-1/8J	—	
		ø4	VPB40L67-4J13	○			ø5/32	VPB40L67-5/32J13	○	
		ø6	VPB40L67-6J13	○			ø1/4	VPB40L67-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Female thread, Standard **VPB**	ø4	M6×1	VPB4L67-M613	○	
	ø6	M6×1	VPB6L67-M613	○	
	ø8	M6×1	VPB8L67-M613	○	M4
	ø10	M6×1	VPB10L67-M613	○	
	ø15	M6×1	VPB15L67-M613	○	
	ø20	M6×1	VPB20L67-M613	○	
	ø30	M6×1	VPB30L67-M613	○	M6
	ø40	M6×1	VPB40L67-M613	○	

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Mini **VPMC** Stroke 4mm	ø4	ø3	VPMC4-4L67-3J	—		ø4	ø1/8	VPMC4-4L67-1/8J	—	
		ø4	VPMC4-4L67-4J13	○			ø5/32	VPMC4-4L67-5/32J13	○	
	ø6	ø3	VPMC6-4L67-3J	—		ø6	ø1/8	VPMC6-4L67-1/8J	—	
		ø4	VPMC6-4L67-4J13	○			ø5/32	VPMC6-4L67-5/32J13	○	
	ø8	ø3	VPMC8-4L67-3J	—		ø8	ø1/8	VPMC8-4L67-1/8J	—	
		ø4	VPMC8-4L67-4J13	○	M4		ø5/32	VPMC8-4L67-5/32J13	○	M4
	ø10	ø3	VPMC10-4L67-3J	—		ø10	ø1/8	VPMC10-4L67-1/8J	—	
		ø4	VPMC10-4L67-4J13	○			ø5/32	VPMC10-4L67-5/32J13	○	
	ø15	ø3	VPMC15-4L67-3J	—		ø15	ø1/8	VPMC15-4L67-1/8J	—	
		ø4	VPMC15-4L67-4J13	○			ø5/32	VPMC15-4L67-5/32J13	○	
	ø20	ø3	VPMC20-4L67-3J	—		ø20	ø1/8	VPMC20-4L67-1/8J	—	
		ø4	VPMC20-4L67-4J13	○			ø5/32	VPMC20-4L67-5/32J13	○	
	ø30	ø3	VPMC30-4L67-3J	—		ø30	ø1/8	VPMC30-4L67-1/8J	—	
		ø4	VPMC30-4L67-4J13	○	M6		ø5/32	VPMC30-4L67-5/32J13	○	M6
	ø40	ø3	VPMC40-4L67-3J	—		ø40	ø1/8	VPMC40-4L67-1/8J	—	
		ø4	VPMC40-4L67-4J13	○			ø5/32	VPMC40-4L67-5/32J13	○	

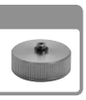
Notes
*Barb fitting type holders are also selectable. VPMC holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.480

Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter 

Vacuum Pad Soft Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type, Top port, Push-in fitting, Standard

VPC

Pad dia. ø4 mm to ø15 mm

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	[13] -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Standard	ø4	6	ø3	VPC4-6L[6][7]-3J[9]	—	M4
			ø4	VPC4-6L[6][7]-4J[9][13]	○	
			ø6	VPC4-6L[6][7]-6J[9][13]	○	
		10	ø3	VPC4-10L[6][7]-3J[9]	—	
			ø4	VPC4-10L[6][7]-4J[9]	—	
			ø6	VPC4-10L[6][7]-6J[9]	—	
		15	ø3	VPC4-15L[6][7]-3J[9]	—	
			ø4	VPC4-15L[6][7]-4J[9]	—	
			ø6	VPC4-15L[6][7]-6J[9]	—	
		20	ø3	VPC4-20L[6][7]-3J[9]	—	
			ø4	VPC4-20L[6][7]-4J[9]	—	
			ø6	VPC4-20L[6][7]-6J[9]	—	
	ø6	6	ø3	VPC6-6L[6][7]-3J[9]	—	
			ø4	VPC6-6L[6][7]-4J[9][13]	○	
			ø6	VPC6-6L[6][7]-6J[9][13]	○	
		10	ø3	VPC6-10L[6][7]-3J[9]	—	
			ø4	VPC6-10L[6][7]-4J[9]	—	
			ø6	VPC6-10L[6][7]-6J[9]	—	
		15	ø3	VPC6-15L[6][7]-3J[9]	—	
			ø4	VPC6-15L[6][7]-4J[9]	—	
			ø6	VPC6-15L[6][7]-6J[9]	—	
		20	ø3	VPC6-20L[6][7]-3J[9]	—	
			ø4	VPC6-20L[6][7]-4J[9]	—	
			ø6	VPC6-20L[6][7]-6J[9]	—	
	ø8	6	ø3	VPC8-6L[6][7]-3J[9]	—	
			ø4	VPC8-6L[6][7]-4J[9][13]	○	
			ø6	VPC8-6L[6][7]-6J[9][13]	○	
		10	ø3	VPC8-10L[6][7]-3J[9]	—	
			ø4	VPC8-10L[6][7]-4J[9]	—	
			ø6	VPC8-10L[6][7]-6J[9]	—	
		15	ø3	VPC8-15L[6][7]-3J[9]	—	
			ø4	VPC8-15L[6][7]-4J[9]	—	
			ø6	VPC8-15L[6][7]-6J[9]	—	
		20	ø3	VPC8-20L[6][7]-3J[9]	—	
			ø4	VPC8-20L[6][7]-4J[9]	—	
			ø6	VPC8-20L[6][7]-6J[9]	—	
	ø10	6	ø3	VPC10-6L[6][7]-3J[9]	—	
			ø4	VPC10-6L[6][7]-4J[9][13]	○	
			ø6	VPC10-6L[6][7]-6J[9][13]	○	
		10	ø3	VPC10-10L[6][7]-3J[9]	—	
			ø4	VPC10-10L[6][7]-4J[9]	—	
			ø6	VPC10-10L[6][7]-6J[9]	—	
		15	ø3	VPC10-15L[6][7]-3J[9]	—	
			ø4	VPC10-15L[6][7]-4J[9]	—	
			ø6	VPC10-15L[6][7]-6J[9]	—	
		20	ø3	VPC10-20L[6][7]-3J[9]	—	
			ø4	VPC10-20L[6][7]-4J[9]	—	
			ø6	VPC10-20L[6][7]-6J[9]	—	
	ø15	6	ø3	VPC15-6L[6][7]-3J[9]	—	
			ø4	VPC15-6L[6][7]-4J[9][13]	○	
			ø6	VPC15-6L[6][7]-6J[9][13]	○	
		10	ø3	VPC15-10L[6][7]-3J[9]	—	
			ø4	VPC15-10L[6][7]-4J[9]	—	
			ø6	VPC15-10L[6][7]-6J[9]	—	
		15	ø3	VPC15-15L[6][7]-3J[9]	—	
			ø4	VPC15-15L[6][7]-4J[9]	—	
			ø6	VPC15-15L[6][7]-6J[9]	—	
		20	ø3	VPC15-20L[6][7]-3J[9]	—	
			ø4	VPC15-20L[6][7]-4J[9]	—	
			ø6	VPC15-20L[6][7]-6J[9]	—	

Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	[13] -S3 -S3 spec.	Connection config. code
ø4	6	ø1/8	VPC4-6L[6][7]-1/8J[9]	—	M4
		ø5/32	VPC4-6L[6][7]-5/32J[9][13]	○	
		ø1/4	VPC4-6L[6][7]-1/4J[9]	—	
	10	ø1/8	VPC4-10L[6][7]-1/8J[9]	—	
		ø5/32	VPC4-10L[6][7]-5/32J[9]	—	
		ø1/4	VPC4-10L[6][7]-1/4J[9]	—	
	15	ø1/8	VPC4-15L[6][7]-1/8J[9]	—	
		ø5/32	VPC4-15L[6][7]-5/32J[9]	—	
		ø1/4	VPC4-15L[6][7]-1/4J[9]	—	
	20	ø1/8	VPC4-20L[6][7]-1/8J[9]	—	
		ø5/32	VPC4-20L[6][7]-5/32J[9]	—	
		ø1/4	VPC4-20L[6][7]-1/4J[9]	—	
ø6	6	ø1/8	VPC6-6L[6][7]-1/8J[9]	—	
		ø5/32	VPC6-6L[6][7]-5/32J[9][13]	○	
		ø1/4	VPC6-6L[6][7]-1/4J[9]	—	
	10	ø1/8	VPC6-10L[6][7]-1/8J[9]	—	
		ø5/32	VPC6-10L[6][7]-5/32J[9]	—	
		ø1/4	VPC6-10L[6][7]-1/4J[9]	—	
	15	ø1/8	VPC6-15L[6][7]-1/8J[9]	—	
		ø5/32	VPC6-15L[6][7]-5/32J[9]	—	
		ø1/4	VPC6-15L[6][7]-1/4J[9]	—	
	20	ø1/8	VPC6-20L[6][7]-1/8J[9]	—	
		ø5/32	VPC6-20L[6][7]-5/32J[9]	—	
		ø1/4	VPC6-20L[6][7]-1/4J[9]	—	
ø8	6	ø1/8	VPC8-6L[6][7]-1/8J[9]	—	
		ø5/32	VPC8-6L[6][7]-5/32J[9][13]	○	
		ø1/4	VPC8-6L[6][7]-1/4J[9]	—	
	10	ø1/8	VPC8-10L[6][7]-1/8J[9]	—	
		ø5/32	VPC8-10L[6][7]-5/32J[9]	—	
		ø1/4	VPC8-10L[6][7]-1/4J[9]	—	
	15	ø1/8	VPC8-15L[6][7]-1/8J[9]	—	
		ø5/32	VPC8-15L[6][7]-5/32J[9]	—	
		ø1/4	VPC8-15L[6][7]-1/4J[9]	—	
	20	ø1/8	VPC8-20L[6][7]-1/8J[9]	—	
		ø5/32	VPC8-20L[6][7]-5/32J[9]	—	
		ø1/4	VPC8-20L[6][7]-1/4J[9]	—	
ø10	6	ø1/8	VPC10-6L[6][7]-1/8J[9]	—	
		ø5/32	VPC10-6L[6][7]-5/32J[9][13]	○	
		ø1/4	VPC10-6L[6][7]-1/4J[9]	—	
	10	ø1/8	VPC10-10L[6][7]-1/8J[9]	—	
		ø5/32	VPC10-10L[6][7]-5/32J[9]	—	
		ø1/4	VPC10-10L[6][7]-1/4J[9]	—	
	15	ø1/8	VPC10-15L[6][7]-1/8J[9]	—	
		ø5/32	VPC10-15L[6][7]-5/32J[9]	—	
		ø1/4	VPC10-15L[6][7]-1/4J[9]	—	
	20	ø1/8	VPC10-20L[6][7]-1/8J[9]	—	
		ø5/32	VPC10-20L[6][7]-5/32J[9]	—	
		ø1/4	VPC10-20L[6][7]-1/4J[9]	—	
ø15	6	ø1/8	VPC15-6L[6][7]-1/8J[9]	—	
		ø5/32	VPC15-6L[6][7]-5/32J[9][13]	○	
		ø1/4	VPC15-6L[6][7]-1/4J[9]	—	
	10	ø1/8	VPC15-10L[6][7]-1/8J[9]	—	
		ø5/32	VPC15-10L[6][7]-5/32J[9]	—	
		ø1/4	VPC15-10L[6][7]-1/4J[9]	—	
	15	ø1/8	VPC15-15L[6][7]-1/8J[9]	—	
		ø5/32	VPC15-15L[6][7]-5/32J[9]	—	
		ø1/4	VPC15-15L[6][7]-1/4J[9]	—	
	20	ø1/8	VPC15-20L[6][7]-1/8J[9]	—	
		ø5/32	VPC15-20L[6][7]-5/32J[9]	—	
		ø1/4	VPC15-20L[6][7]-1/4J[9]	—	

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Standard VPC Pad dia. ø20 mm to ø40 mm	ø20	6	ø3	VPC20-6L67-3J9	—	M6	ø20	6	ø1/8	VPC20-6L67-1/8J9	—	M6
			ø4	VPC20-6L67-4J913	○				ø5/32	VPC20-6L67-5/32J913	○	
			ø6	VPC20-6L67-6J913	○				ø1/4	VPC20-6L67-1/4J9	—	
		10	ø3	VPC20-10L67-3J9	—			10	ø1/8	VPC20-10L67-1/8J9	—	
			ø4	VPC20-10L67-4J9	—				ø5/32	VPC20-10L67-5/32J9	—	
			ø6	VPC20-10L67-6J9	—				ø1/4	VPC20-10L67-1/4J9	—	
		15	ø3	VPC20-15L67-3J9	—			15	ø1/8	VPC20-15L67-1/8J9	—	
			ø4	VPC20-15L67-4J9	—				ø5/32	VPC20-15L67-5/32J9	—	
			ø6	VPC20-15L67-6J9	—				ø1/4	VPC20-15L67-1/4J9	—	
		20	ø3	VPC20-20L67-3J9	—			20	ø1/8	VPC20-20L67-1/8J9	—	
			ø4	VPC20-20L67-4J9	—				ø5/32	VPC20-20L67-5/32J9	—	
			ø6	VPC20-20L67-6J9	—				ø1/4	VPC20-20L67-1/4J9	—	
	ø30	6	ø3	VPC30-6L67-3J9	—		ø30	6	ø1/8	VPC30-6L67-1/8J9	—	
			ø4	VPC30-6L67-4J913	○				ø5/32	VPC30-6L67-5/32J913	○	
			ø6	VPC30-6L67-6J913	○				ø1/4	VPC30-6L67-1/4J9	—	
		10	ø3	VPC30-10L67-3J9	—			10	ø1/8	VPC30-10L67-1/8J9	—	
			ø4	VPC30-10L67-4J9	—				ø5/32	VPC30-10L67-5/32J9	—	
			ø6	VPC30-10L67-6J9	—				ø1/4	VPC30-10L67-1/4J9	—	
		15	ø3	VPC30-15L67-3J9	—			15	ø1/8	VPC30-15L67-1/8J9	—	
			ø4	VPC30-15L67-4J9	—				ø5/32	VPC30-15L67-5/32J9	—	
			ø6	VPC30-15L67-6J9	—				ø1/4	VPC30-15L67-1/4J9	—	
		20	ø3	VPC30-20L67-3J9	—			20	ø1/8	VPC30-20L67-1/8J9	—	
			ø4	VPC30-20L67-4J9	—				ø5/32	VPC30-20L67-5/32J9	—	
			ø6	VPC30-20L67-6J9	—				ø1/4	VPC30-20L67-1/4J9	—	
	ø40	6	ø3	VPC40-6L67-3J9	—		ø40	6	ø1/8	VPC40-6L67-1/8J9	—	
			ø4	VPC40-6L67-4J913	○				ø5/32	VPC40-6L67-5/32J913	○	
			ø6	VPC40-6L67-6J913	○				ø1/4	VPC40-6L67-1/4J9	—	
		10	ø3	VPC40-10L67-3J9	—			10	ø1/8	VPC40-10L67-1/8J9	—	
			ø4	VPC40-10L67-4J9	—				ø5/32	VPC40-10L67-5/32J9	—	
			ø6	VPC40-10L67-6J9	—				ø1/4	VPC40-10L67-1/4J9	—	
		15	ø3	VPC40-15L67-3J9	—			15	ø1/8	VPC40-15L67-1/8J9	—	
			ø4	VPC40-15L67-4J9	—				ø5/32	VPC40-15L67-5/32J9	—	
			ø6	VPC40-15L67-6J9	—				ø1/4	VPC40-15L67-1/4J9	—	
		20	ø3	VPC40-20L67-3J9	—			20	ø1/8	VPC40-20L67-1/8J9	—	
			ø4	VPC40-20L67-4J9	—				ø5/32	VPC40-20L67-5/32J9	—	
			ø6	VPC40-20L67-6J9	—				ø1/4	VPC40-20L67-1/4J9	—	

Notes
*Barb fitting type holders are also available. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
9: **-DC** ⇒ Holder with dust catcher
13: **-S3** ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.480
Surface treatment
Dust Catcher (VPC)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Soft Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Female thread, Standard VPC 	ø4	6	M6×1	VPC4-6L67-M6913	○	M4
		10		VPC4-10L67-M69	—	
		15		VPC4-15L67-M69	—	
		20		VPC4-20L67-M69	—	
	ø6	6	M6×1	VPC6-6L67-M6913	○	
		10		VPC6-10L67-M69	—	
		15		VPC6-15L67-M69	—	
		20		VPC6-20L67-M69	—	
	ø8	6	M6×1	VPC8-6L67-M6913	○	
		10		VPC8-10L67-M69	—	
		15		VPC8-15L67-M69	—	
		20		VPC8-20L67-M69	—	
	ø10	6	M6×1	VPC10-6L67-M6913	○	
		10		VPC10-10L67-M69	—	
		15		VPC10-15L67-M69	—	
		20		VPC10-20L67-M69	—	
	ø15	6	M6×1	VPC15-6L67-M6913	○	
		10		VPC15-10L67-M69	—	
		15		VPC15-15L67-M69	—	
		20		VPC15-20L67-M69	—	
	ø20	6	M6×1	VPC20-6L67-M6913	○	M6
		10		VPC20-10L67-M69	—	
		15		VPC20-15L67-M69	—	
		20		VPC20-20L67-M69	—	
	ø30	6	M6×1	VPC30-6L67-M6913	○	
		10		VPC30-10L67-M69	—	
		15		VPC30-15L67-M69	—	
		20		VPC30-20L67-M69	—	
	ø40	6	M6×1	VPC40-6L67-M6913	○	
		10		VPC40-10L67-M69	—	
		15		VPC40-15L67-M69	—	
		20		VPC40-20L67-M69	—	

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
9: **-DC** ⇒ Holder with dust catcher
13: **-S3** ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.480

Surface treatment
Dust Catcher (VPC)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, No cover VPOC Pad dia. ø4 mm to ø15 mm	ø4	20	ø3	VPOC4-20L⑥⑦-3J	M4	ø4	20	ø1/8	VPOC4-20L⑥⑦-1/8J	M4
			ø4	VPOC4-20L⑥⑦-4J				ø5/32	VPOC4-20L⑥⑦-5/32J	
			ø6	VPOC4-20L⑥⑦-6J				ø1/4	VPOC4-20L⑥⑦-1/4J	
		30	ø3	VPOC4-30L⑥⑦-3J			30	ø1/8	VPOC4-30L⑥⑦-1/8J	
			ø4	VPOC4-30L⑥⑦-4J				ø5/32	VPOC4-30L⑥⑦-5/32J	
			ø6	VPOC4-30L⑥⑦-6J				ø1/4	VPOC4-30L⑥⑦-1/4J	
		40	ø3	VPOC4-40L⑥⑦-3J			40	ø1/8	VPOC4-40L⑥⑦-1/8J	
			ø4	VPOC4-40L⑥⑦-4J				ø5/32	VPOC4-40L⑥⑦-5/32J	
			ø6	VPOC4-40L⑥⑦-6J				ø1/4	VPOC4-40L⑥⑦-1/4J	
		50	ø3	VPOC4-50L⑥⑦-3J			50	ø1/8	VPOC4-50L⑥⑦-1/8J	
			ø4	VPOC4-50L⑥⑦-4J				ø5/32	VPOC4-50L⑥⑦-5/32J	
			ø6	VPOC4-50L⑥⑦-6J				ø1/4	VPOC4-50L⑥⑦-1/4J	
	ø6	20	ø3	VPOC6-20L⑥⑦-3J		ø6	20	ø1/8	VPOC6-20L⑥⑦-1/8J	
			ø4	VPOC6-20L⑥⑦-4J				ø5/32	VPOC6-20L⑥⑦-5/32J	
			ø6	VPOC6-20L⑥⑦-6J				ø1/4	VPOC6-20L⑥⑦-1/4J	
		30	ø3	VPOC6-30L⑥⑦-3J			30	ø1/8	VPOC6-30L⑥⑦-1/8J	
			ø4	VPOC6-30L⑥⑦-4J				ø5/32	VPOC6-30L⑥⑦-5/32J	
			ø6	VPOC6-30L⑥⑦-6J				ø1/4	VPOC6-30L⑥⑦-1/4J	
		40	ø3	VPOC6-40L⑥⑦-3J			40	ø1/8	VPOC6-40L⑥⑦-1/8J	
			ø4	VPOC6-40L⑥⑦-4J				ø5/32	VPOC6-40L⑥⑦-5/32J	
			ø6	VPOC6-40L⑥⑦-6J				ø1/4	VPOC6-40L⑥⑦-1/4J	
		50	ø3	VPOC6-50L⑥⑦-3J			50	ø1/8	VPOC6-50L⑥⑦-1/8J	
			ø4	VPOC6-50L⑥⑦-4J				ø5/32	VPOC6-50L⑥⑦-5/32J	
			ø6	VPOC6-50L⑥⑦-6J				ø1/4	VPOC6-50L⑥⑦-1/4J	
	ø8	20	ø3	VPOC8-20L⑥⑦-3J		ø8	20	ø1/8	VPOC8-20L⑥⑦-1/8J	
			ø4	VPOC8-20L⑥⑦-4J				ø5/32	VPOC8-20L⑥⑦-5/32J	
			ø6	VPOC8-20L⑥⑦-6J				ø1/4	VPOC8-20L⑥⑦-1/4J	
		30	ø3	VPOC8-30L⑥⑦-3J			30	ø1/8	VPOC8-30L⑥⑦-1/8J	
			ø4	VPOC8-30L⑥⑦-4J				ø5/32	VPOC8-30L⑥⑦-5/32J	
			ø6	VPOC8-30L⑥⑦-6J				ø1/4	VPOC8-30L⑥⑦-1/4J	
		40	ø3	VPOC8-40L⑥⑦-3J			40	ø1/8	VPOC8-40L⑥⑦-1/8J	
			ø4	VPOC8-40L⑥⑦-4J				ø5/32	VPOC8-40L⑥⑦-5/32J	
			ø6	VPOC8-40L⑥⑦-6J				ø1/4	VPOC8-40L⑥⑦-1/4J	
		50	ø3	VPOC8-50L⑥⑦-3J			50	ø1/8	VPOC8-50L⑥⑦-1/8J	
			ø4	VPOC8-50L⑥⑦-4J				ø5/32	VPOC8-50L⑥⑦-5/32J	
			ø6	VPOC8-50L⑥⑦-6J				ø1/4	VPOC8-50L⑥⑦-1/4J	
	ø10	20	ø3	VPOC10-20L⑥⑦-3J		ø10	20	ø1/8	VPOC10-20L⑥⑦-1/8J	
			ø4	VPOC10-20L⑥⑦-4J				ø5/32	VPOC10-20L⑥⑦-5/32J	
			ø6	VPOC10-20L⑥⑦-6J				ø1/4	VPOC10-20L⑥⑦-1/4J	
		30	ø3	VPOC10-30L⑥⑦-3J			30	ø1/8	VPOC10-30L⑥⑦-1/8J	
			ø4	VPOC10-30L⑥⑦-4J				ø5/32	VPOC10-30L⑥⑦-5/32J	
			ø6	VPOC10-30L⑥⑦-6J				ø1/4	VPOC10-30L⑥⑦-1/4J	
		40	ø3	VPOC10-40L⑥⑦-3J			40	ø1/8	VPOC10-40L⑥⑦-1/8J	
			ø4	VPOC10-40L⑥⑦-4J				ø5/32	VPOC10-40L⑥⑦-5/32J	
			ø6	VPOC10-40L⑥⑦-6J				ø1/4	VPOC10-40L⑥⑦-1/4J	
		50	ø3	VPOC10-50L⑥⑦-3J			50	ø1/8	VPOC10-50L⑥⑦-1/8J	
			ø4	VPOC10-50L⑥⑦-4J				ø5/32	VPOC10-50L⑥⑦-5/32J	
			ø6	VPOC10-50L⑥⑦-6J				ø1/4	VPOC10-50L⑥⑦-1/4J	
	ø15	20	ø3	VPOC15-20L⑥⑦-3J		ø15	20	ø1/8	VPOC15-20L⑥⑦-1/8J	
			ø4	VPOC15-20L⑥⑦-4J				ø5/32	VPOC15-20L⑥⑦-5/32J	
			ø6	VPOC15-20L⑥⑦-6J				ø1/4	VPOC15-20L⑥⑦-1/4J	
		30	ø3	VPOC15-30L⑥⑦-3J			30	ø1/8	VPOC15-30L⑥⑦-1/8J	
			ø4	VPOC15-30L⑥⑦-4J				ø5/32	VPOC15-30L⑥⑦-5/32J	
			ø6	VPOC15-30L⑥⑦-6J				ø1/4	VPOC15-30L⑥⑦-1/4J	
		40	ø3	VPOC15-40L⑥⑦-3J			40	ø1/8	VPOC15-40L⑥⑦-1/8J	
			ø4	VPOC15-40L⑥⑦-4J				ø5/32	VPOC15-40L⑥⑦-5/32J	
			ø6	VPOC15-40L⑥⑦-6J				ø1/4	VPOC15-40L⑥⑦-1/4J	
		50	ø3	VPOC15-50L⑥⑦-3J			50	ø1/8	VPOC15-50L⑥⑦-1/8J	
			ø4	VPOC15-50L⑥⑦-4J				ø5/32	VPOC15-50L⑥⑦-5/32J	
			ø6	VPOC15-50L⑥⑦-6J				ø1/4	VPOC15-50L⑥⑦-1/4J	

Notes
*Barb fitting type holders are also available. Contact us for the details.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.480
Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Soft Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, No cover VPOC Pad dia. ø20 mm to ø40 mm	ø20	20	ø3	VPOC20-20L6[7]-3J	M6	ø20	20	ø1/8	VPOC20-20L6[7]-1/8J	M6
			ø4	VPOC20-20L6[7]-4J				ø5/32	VPOC20-20L6[7]-5/32J	
			ø6	VPOC20-20L6[7]-6J				ø1/4	VPOC20-20L6[7]-1/4J	
		30	ø3	VPOC20-30L6[7]-3J			30	ø1/8	VPOC20-30L6[7]-1/8J	
			ø4	VPOC20-30L6[7]-4J				ø5/32	VPOC20-30L6[7]-5/32J	
			ø6	VPOC20-30L6[7]-6J				ø1/4	VPOC20-30L6[7]-1/4J	
		40	ø3	VPOC20-40L6[7]-3J			40	ø1/8	VPOC20-40L6[7]-1/8J	
			ø4	VPOC20-40L6[7]-4J				ø5/32	VPOC20-40L6[7]-5/32J	
			ø6	VPOC20-40L6[7]-6J				ø1/4	VPOC20-40L6[7]-1/4J	
		50	ø3	VPOC20-50L6[7]-3J			50	ø1/8	VPOC20-50L6[7]-1/8J	
			ø4	VPOC20-50L6[7]-4J				ø5/32	VPOC20-50L6[7]-5/32J	
			ø6	VPOC20-50L6[7]-6J				ø1/4	VPOC20-50L6[7]-1/4J	
	ø30	20	ø3	VPOC30-20L6[7]-3J		ø30	20	ø1/8	VPOC30-20L6[7]-1/8J	
			ø4	VPOC30-20L6[7]-4J				ø5/32	VPOC30-20L6[7]-5/32J	
			ø6	VPOC30-20L6[7]-6J				ø1/4	VPOC30-20L6[7]-1/4J	
		30	ø3	VPOC30-30L6[7]-3J			30	ø1/8	VPOC30-30L6[7]-1/8J	
			ø4	VPOC30-30L6[7]-4J				ø5/32	VPOC30-30L6[7]-5/32J	
			ø6	VPOC30-30L6[7]-6J				ø1/4	VPOC30-30L6[7]-1/4J	
		40	ø3	VPOC30-40L6[7]-3J			40	ø1/8	VPOC30-40L6[7]-1/8J	
			ø4	VPOC30-40L6[7]-4J				ø5/32	VPOC30-40L6[7]-5/32J	
			ø6	VPOC30-40L6[7]-6J				ø1/4	VPOC30-40L6[7]-1/4J	
		50	ø3	VPOC30-50L6[7]-3J			50	ø1/8	VPOC30-50L6[7]-1/8J	
			ø4	VPOC30-50L6[7]-4J				ø5/32	VPOC30-50L6[7]-5/32J	
			ø6	VPOC30-50L6[7]-6J				ø1/4	VPOC30-50L6[7]-1/4J	
	ø40	20	ø3	VPOC40-20L6[7]-3J		ø40	20	ø1/8	VPOC40-20L6[7]-1/8J	
			ø4	VPOC40-20L6[7]-4J				ø5/32	VPOC40-20L6[7]-5/32J	
			ø6	VPOC40-20L6[7]-6J				ø1/4	VPOC40-20L6[7]-1/4J	
		30	ø3	VPOC40-30L6[7]-3J			30	ø1/8	VPOC40-30L6[7]-1/8J	
			ø4	VPOC40-30L6[7]-4J				ø5/32	VPOC40-30L6[7]-5/32J	
			ø6	VPOC40-30L6[7]-6J				ø1/4	VPOC40-30L6[7]-1/4J	
		40	ø3	VPOC40-40L6[7]-3J			40	ø1/8	VPOC40-40L6[7]-1/8J	
			ø4	VPOC40-40L6[7]-4J				ø5/32	VPOC40-40L6[7]-5/32J	
			ø6	VPOC40-40L6[7]-6J				ø1/4	VPOC40-40L6[7]-1/4J	
		50	ø3	VPOC40-50L6[7]-3J			50	ø1/8	VPOC40-50L6[7]-1/8J	
			ø4	VPOC40-50L6[7]-4J				ø5/32	VPOC40-50L6[7]-5/32J	
			ø6	VPOC40-50L6[7]-6J				ø1/4	VPOC40-50L6[7]-1/4J	

Notes
*Barb fitting type holders are also available. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
[7]: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.480

Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Top port, Female thread, No cover VPOC	ø4	20	M6×1	VPOC4-20L⑥⑦-M6	
		30		VPOC4-30L⑥⑦-M6	
		40		VPOC4-40L⑥⑦-M6	
		50		VPOC4-50L⑥⑦-M6	
	ø6	20	M6×1	VPOC6-20L⑥⑦-M6	
		30		VPOC6-30L⑥⑦-M6	
		40		VPOC6-40L⑥⑦-M6	
		50		VPOC6-50L⑥⑦-M6	
	ø8	20	M6×1	VPOC8-20L⑥⑦-M6	
		30		VPOC8-30L⑥⑦-M6	
		40		VPOC8-40L⑥⑦-M6	M4
		50		VPOC8-50L⑥⑦-M6	
	ø10	20	M6×1	VPOC10-20L⑥⑦-M6	
		30		VPOC10-30L⑥⑦-M6	
		40		VPOC10-40L⑥⑦-M6	
		50		VPOC10-50L⑥⑦-M6	
	ø15	20	M6×1	VPOC15-20L⑥⑦-M6	
		30		VPOC15-30L⑥⑦-M6	
		40		VPOC15-40L⑥⑦-M6	
		50		VPOC15-50L⑥⑦-M6	
	ø20	20	M6×1	VPOC20-20L⑥⑦-M6	
		30		VPOC20-30L⑥⑦-M6	
		40		VPOC20-40L⑥⑦-M6	
		50		VPOC20-50L⑥⑦-M6	
	ø30	20	M6×1	VPOC30-20L⑥⑦-M6	
		30		VPOC30-30L⑥⑦-M6	
		40		VPOC30-40L⑥⑦-M6	M6
		50		VPOC30-50L⑥⑦-M6	
	ø40	20	M6×1	VPOC40-20L⑥⑦-M6	
		30		VPOC40-30L⑥⑦-M6	
		40		VPOC40-40L⑥⑦-M6	
		50		VPOC40-50L⑥⑦-M6	

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.480

Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Soft Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type,
Top port,
Push-in fitting,
Low dust emission

VPLFC

Pad dia.
ø4 mm
to
ø15 mm

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, Low dust emission **VPLFC**	ø4	2	ø3	VPLFC4-2L⑥⑦-3J	M4	ø4	2	ø1/8	VPLFC4-2L⑥⑦-1/8J	M4
			ø4	VPLFC4-2L⑥⑦-4J				ø5/32	VPLFC4-2L⑥⑦-5/32J	
		5	ø3	VPLFC4-5L⑥⑦-3J⑨			5	ø1/8	VPLFC4-5L⑥⑦-1/8J⑨	
			ø4	VPLFC4-5L⑥⑦-4J⑨				ø5/32	VPLFC4-5L⑥⑦-5/32J⑨	
		10	ø3	VPLFC4-10L⑥⑦-3J⑨			10	ø1/8	VPLFC4-10L⑥⑦-1/8J⑨	
			ø4	VPLFC4-10L⑥⑦-4J⑨				ø5/32	VPLFC4-10L⑥⑦-5/32J⑨	
		15	ø3	VPLFC4-15L⑥⑦-3J⑨			15	ø1/8	VPLFC4-15L⑥⑦-1/8J⑨	
			ø4	VPLFC4-15L⑥⑦-4J⑨				ø5/32	VPLFC4-15L⑥⑦-5/32J⑨	
		20	ø3	VPLFC4-20L⑥⑦-3J⑨			20	ø1/8	VPLFC4-20L⑥⑦-1/8J⑨	
			ø4	VPLFC4-20L⑥⑦-4J⑨				ø5/32	VPLFC4-20L⑥⑦-5/32J⑨	
	ø6	2	ø3	VPLFC6-2L⑥⑦-3J		ø6	2	ø1/8	VPLFC6-2L⑥⑦-1/8J	
			ø4	VPLFC6-2L⑥⑦-4J				ø5/32	VPLFC6-2L⑥⑦-5/32J	
		5	ø3	VPLFC6-5L⑥⑦-3J⑨			5	ø1/8	VPLFC6-5L⑥⑦-1/8J⑨	
			ø4	VPLFC6-5L⑥⑦-4J⑨				ø5/32	VPLFC6-5L⑥⑦-5/32J⑨	
		10	ø3	VPLFC6-10L⑥⑦-3J⑨			10	ø1/8	VPLFC6-10L⑥⑦-1/8J⑨	
			ø4	VPLFC6-10L⑥⑦-4J⑨				ø5/32	VPLFC6-10L⑥⑦-5/32J⑨	
		15	ø3	VPLFC6-15L⑥⑦-3J⑨			15	ø1/8	VPLFC6-15L⑥⑦-1/8J⑨	
			ø4	VPLFC6-15L⑥⑦-4J⑨				ø5/32	VPLFC6-15L⑥⑦-5/32J⑨	
		20	ø3	VPLFC6-20L⑥⑦-3J⑨			20	ø1/8	VPLFC6-20L⑥⑦-1/8J⑨	
			ø4	VPLFC6-20L⑥⑦-4J⑨				ø5/32	VPLFC6-20L⑥⑦-5/32J⑨	
	ø8	2	ø3	VPLFC8-2L⑥⑦-3J		ø8	2	ø1/8	VPLFC8-2L⑥⑦-1/8J	
			ø4	VPLFC8-2L⑥⑦-4J				ø5/32	VPLFC8-2L⑥⑦-5/32J	
		5	ø3	VPLFC8-5L⑥⑦-3J⑨			5	ø1/8	VPLFC8-5L⑥⑦-1/8J⑨	
			ø4	VPLFC8-5L⑥⑦-4J⑨				ø5/32	VPLFC8-5L⑥⑦-5/32J⑨	
		10	ø3	VPLFC8-10L⑥⑦-3J⑨			10	ø1/8	VPLFC8-10L⑥⑦-1/8J⑨	
			ø4	VPLFC8-10L⑥⑦-4J⑨				ø5/32	VPLFC8-10L⑥⑦-5/32J⑨	
		15	ø3	VPLFC8-15L⑥⑦-3J⑨			15	ø1/8	VPLFC8-15L⑥⑦-1/8J⑨	
			ø4	VPLFC8-15L⑥⑦-4J⑨				ø5/32	VPLFC8-15L⑥⑦-5/32J⑨	
		20	ø3	VPLFC8-20L⑥⑦-3J⑨			20	ø1/8	VPLFC8-20L⑥⑦-1/8J⑨	
			ø4	VPLFC8-20L⑥⑦-4J⑨				ø5/32	VPLFC8-20L⑥⑦-5/32J⑨	
	ø10	2	ø3	VPLFC10-2L⑥⑦-3J		ø10	2	ø1/8	VPLFC10-2L⑥⑦-1/8J	
			ø4	VPLFC10-2L⑥⑦-4J				ø5/32	VPLFC10-2L⑥⑦-5/32J	
		5	ø3	VPLFC10-5L⑥⑦-3J⑨			5	ø1/8	VPLFC10-5L⑥⑦-1/8J⑨	
			ø4	VPLFC10-5L⑥⑦-4J⑨				ø5/32	VPLFC10-5L⑥⑦-5/32J⑨	
		10	ø3	VPLFC10-10L⑥⑦-3J⑨			10	ø1/8	VPLFC10-10L⑥⑦-1/8J⑨	
			ø4	VPLFC10-10L⑥⑦-4J⑨				ø5/32	VPLFC10-10L⑥⑦-5/32J⑨	
		15	ø3	VPLFC10-15L⑥⑦-3J⑨			15	ø1/8	VPLFC10-15L⑥⑦-1/8J⑨	
			ø4	VPLFC10-15L⑥⑦-4J⑨				ø5/32	VPLFC10-15L⑥⑦-5/32J⑨	
		20	ø3	VPLFC10-20L⑥⑦-3J⑨			20	ø1/8	VPLFC10-20L⑥⑦-1/8J⑨	
			ø4	VPLFC10-20L⑥⑦-4J⑨				ø5/32	VPLFC10-20L⑥⑦-5/32J⑨	
	ø15	2	ø3	VPLFC15-2L⑥⑦-3J		ø15	2	ø1/8	VPLFC15-2L⑥⑦-1/8J	
			ø4	VPLFC15-2L⑥⑦-4J				ø5/32	VPLFC15-2L⑥⑦-5/32J	
		5	ø3	VPLFC15-5L⑥⑦-3J⑨			5	ø1/8	VPLFC15-5L⑥⑦-1/8J⑨	
			ø4	VPLFC15-5L⑥⑦-4J⑨				ø5/32	VPLFC15-5L⑥⑦-5/32J⑨	
		10	ø3	VPLFC15-10L⑥⑦-3J⑨			10	ø1/8	VPLFC15-10L⑥⑦-1/8J⑨	
			ø4	VPLFC15-10L⑥⑦-4J⑨				ø5/32	VPLFC15-10L⑥⑦-5/32J⑨	
		15	ø3	VPLFC15-15L⑥⑦-3J⑨			15	ø1/8	VPLFC15-15L⑥⑦-1/8J⑨	
			ø4	VPLFC15-15L⑥⑦-4J⑨				ø5/32	VPLFC15-15L⑥⑦-5/32J⑨	
		20	ø3	VPLFC15-20L⑥⑦-3J⑨			20	ø1/8	VPLFC15-20L⑥⑦-1/8J⑨	
			ø4	VPLFC15-20L⑥⑦-4J⑨				ø5/32	VPLFC15-20L⑥⑦-5/32J⑨	

Notes
*Barb fitting type holders are also available. Contact us for the details.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⑨: -SF1/4 ⇒ Spring load 1/4

Optional items ⇒ P.480

Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type,
Top port,
Push-in fitting,
Low dust emission

VPLFC

Pad dia.
ø20 mm
to
ø40 mm

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, Low dust emission	ø20	5	ø3	VPLFC20-5L⑥⑦-3J⑨	M6
			ø4	VPLFC20-5L⑥⑦-4J⑨	
			ø6	VPLFC20-5L⑥⑦-6J⑨	
		10	ø3	VPLFC20-10L⑥⑦-3J⑨	
			ø4	VPLFC20-10L⑥⑦-4J⑨	
			ø6	VPLFC20-10L⑥⑦-6J⑨	
		15	ø3	VPLFC20-15L⑥⑦-3J⑨	
			ø4	VPLFC20-15L⑥⑦-4J⑨	
			ø6	VPLFC20-15L⑥⑦-6J⑨	
		20	ø3	VPLFC20-20L⑥⑦-3J⑨	
			ø4	VPLFC20-20L⑥⑦-4J⑨	
			ø6	VPLFC20-20L⑥⑦-6J⑨	
	ø30	5	ø3	VPLFC30-5L⑥⑦-3J⑨	
			ø4	VPLFC30-5L⑥⑦-4J⑨	
			ø6	VPLFC30-5L⑥⑦-6J⑨	
		10	ø3	VPLFC30-10L⑥⑦-3J⑨	
			ø4	VPLFC30-10L⑥⑦-4J⑨	
			ø6	VPLFC30-10L⑥⑦-6J⑨	
		15	ø3	VPLFC30-15L⑥⑦-3J⑨	
			ø4	VPLFC30-15L⑥⑦-4J⑨	
			ø6	VPLFC30-15L⑥⑦-6J⑨	
		20	ø3	VPLFC30-20L⑥⑦-3J⑨	
			ø4	VPLFC30-20L⑥⑦-4J⑨	
			ø6	VPLFC30-20L⑥⑦-6J⑨	
	ø40	5	ø3	VPLFC40-5L⑥⑦-3J⑨	
			ø4	VPLFC40-5L⑥⑦-4J⑨	
			ø6	VPLFC40-5L⑥⑦-6J⑨	
		10	ø3	VPLFC40-10L⑥⑦-3J⑨	
			ø4	VPLFC40-10L⑥⑦-4J⑨	
			ø6	VPLFC40-10L⑥⑦-6J⑨	
		15	ø3	VPLFC40-15L⑥⑦-3J⑨	
			ø4	VPLFC40-15L⑥⑦-4J⑨	
			ø6	VPLFC40-15L⑥⑦-6J⑨	
		20	ø3	VPLFC40-20L⑥⑦-3J⑨	
			ø4	VPLFC40-20L⑥⑦-4J⑨	
			ø6	VPLFC40-20L⑥⑦-6J⑨	

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, Low dust emission	ø20	5	ø1/8	VPLFC20-5L⑥⑦-1/8J⑨	M6
			ø5/32	VPLFC20-5L⑥⑦-5/32J⑨	
			ø1/4	VPLFC20-5L⑥⑦-1/4J⑨	
		10	ø1/8	VPLFC20-10L⑥⑦-1/8J⑨	
			ø5/32	VPLFC20-10L⑥⑦-5/32J⑨	
			ø1/4	VPLFC20-10L⑥⑦-1/4J⑨	
		15	ø1/8	VPLFC20-15L⑥⑦-1/8J⑨	
			ø5/32	VPLFC20-15L⑥⑦-5/32J⑨	
			ø1/4	VPLFC20-15L⑥⑦-1/4J⑨	
		20	ø1/8	VPLFC20-20L⑥⑦-1/8J⑨	
			ø5/32	VPLFC20-20L⑥⑦-5/32J⑨	
			ø1/4	VPLFC20-20L⑥⑦-1/4J⑨	
	ø30	5	ø1/8	VPLFC30-5L⑥⑦-1/8J⑨	
			ø5/32	VPLFC30-5L⑥⑦-5/32J⑨	
			ø1/4	VPLFC30-5L⑥⑦-1/4J⑨	
		10	ø1/8	VPLFC30-10L⑥⑦-1/8J⑨	
			ø5/32	VPLFC30-10L⑥⑦-5/32J⑨	
			ø1/4	VPLFC30-10L⑥⑦-1/4J⑨	
		15	ø1/8	VPLFC30-15L⑥⑦-1/8J⑨	
			ø5/32	VPLFC30-15L⑥⑦-5/32J⑨	
			ø1/4	VPLFC30-15L⑥⑦-1/4J⑨	
		20	ø1/8	VPLFC30-20L⑥⑦-1/8J⑨	
			ø5/32	VPLFC30-20L⑥⑦-5/32J⑨	
			ø1/4	VPLFC30-20L⑥⑦-1/4J⑨	
	ø40	5	ø1/8	VPLFC40-5L⑥⑦-1/8J⑨	
			ø5/32	VPLFC40-5L⑥⑦-5/32J⑨	
			ø1/4	VPLFC40-5L⑥⑦-1/4J⑨	
		10	ø1/8	VPLFC40-10L⑥⑦-1/8J⑨	
			ø5/32	VPLFC40-10L⑥⑦-5/32J⑨	
			ø1/4	VPLFC40-10L⑥⑦-1/4J⑨	
		15	ø1/8	VPLFC40-15L⑥⑦-1/8J⑨	
			ø5/32	VPLFC40-15L⑥⑦-5/32J⑨	
			ø1/4	VPLFC40-15L⑥⑦-1/4J⑨	
		20	ø1/8	VPLFC40-20L⑥⑦-1/8J⑨	
			ø5/32	VPLFC40-20L⑥⑦-5/32J⑨	
			ø1/4	VPLFC40-20L⑥⑦-1/4J⑨	

Notes
*Barb fitting type holders are also available. Contact us for the details.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⑨: -SF1/4 ⇒ Spring load 1/4

Optional items ⇒ P.480

Surface treatment

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

Vacuum Pad Soft Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Top port, Female thread, Low dust emission **VPLFC**	ø4	2	M5×0.8	VPLFC4-2L[6][7]-M5	M4
		5	M5×0.8	VPLFC4-5L[6][7]-M5[9]	
		10	M5×0.8	VPLFC4-10L[6][7]-M5[9]	
		15	M5×0.8	VPLFC4-15L[6][7]-M5[9]	
		20	M5×0.8	VPLFC4-20L[6][7]-M5[9]	
	ø6	2	M5×0.8	VPLFC6-2L[6][7]-M5	
		5	M5×0.8	VPLFC6-5L[6][7]-M5[9]	
		10	M5×0.8	VPLFC6-10L[6][7]-M5[9]	
		15	M5×0.8	VPLFC6-15L[6][7]-M5[9]	
		20	M5×0.8	VPLFC6-20L[6][7]-M5[9]	
	ø8	2	M5×0.8	VPLFC8-2L[6][7]-M5	
		5	M5×0.8	VPLFC8-5L[6][7]-M5[9]	
		10	M5×0.8	VPLFC8-10L[6][7]-M5[9]	
		15	M5×0.8	VPLFC8-15L[6][7]-M5[9]	
		20	M5×0.8	VPLFC8-20L[6][7]-M5[9]	
	ø10	2	M5×0.8	VPLFC10-2L[6][7]-M5	
		5	M5×0.8	VPLFC10-5L[6][7]-M5[9]	
		10	M5×0.8	VPLFC10-10L[6][7]-M5[9]	
		15	M5×0.8	VPLFC10-15L[6][7]-M5[9]	
		20	M5×0.8	VPLFC10-20L[6][7]-M5[9]	
	ø15	2	M5×0.8	VPLFC15-2L[6][7]-M5	
		5	M5×0.8	VPLFC15-5L[6][7]-M5[9]	
		10	M5×0.8	VPLFC15-10L[6][7]-M5[9]	
		15	M5×0.8	VPLFC15-15L[6][7]-M5[9]	
		20	M5×0.8	VPLFC15-20L[6][7]-M5[9]	
	ø20	5	M6×1	VPLFC20-5L[6][7]-M6[9]	M6
		10	M6×1	VPLFC20-10L[6][7]-M6[9]	
		15	M6×1	VPLFC20-15L[6][7]-M6[9]	
		20	M6×1	VPLFC20-20L[6][7]-M6[9]	
	ø30	5	M6×1	VPLFC30-5L[6][7]-M6[9]	
		10	M6×1	VPLFC30-10L[6][7]-M6[9]	
		15	M6×1	VPLFC30-15L[6][7]-M6[9]	
		20	M6×1	VPLFC30-20L[6][7]-M6[9]	
	ø40	5	M6×1	VPLFC40-5L[6][7]-M6[9]	
		10	M6×1	VPLFC40-10L[6][7]-M6[9]	
		15	M6×1	VPLFC40-15L[6][7]-M6[9]	
		20	M6×1	VPLFC40-20L[6][7]-M6[9]	

Package
Packaging specifications
1 pc./bag

Option
Options
[7]: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
[9]: -SF1/4 ⇒ Spring load 1/4

Optional items ⇒ P.480
Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	⑬ -S3 -S3 spec.	Connection config. code	Pad dia.	Tube O.D. (inch)	Model code	⑬ -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Mini VPMD Stroke 4mm	ø4	ø3	VPMD4-4L⑥⑦-3J	—		ø4	ø1/8	VPMD4-4L⑥⑦-1/8J	—	
		ø4	VPMD4-4L⑥⑦-4J⑬	○			ø5/32	VPMD4-4L⑥⑦-5/32J⑬	○	
		ø6	VPMD4-4L⑥⑦-6J⑬	○			ø1/4	VPMD4-4L⑥⑦-1/4J	—	
	ø6	ø3	VPMD6-4L⑥⑦-3J	—		ø6	ø1/8	VPMD6-4L⑥⑦-1/8J	—	
		ø4	VPMD6-4L⑥⑦-4J⑬	○			ø5/32	VPMD6-4L⑥⑦-5/32J⑬	○	
		ø6	VPMD6-4L⑥⑦-6J⑬	○			ø1/4	VPMD6-4L⑥⑦-1/4J	—	
	ø8	ø3	VPMD8-4L⑥⑦-3J	—		ø8	ø1/8	VPMD8-4L⑥⑦-1/8J	—	
		ø4	VPMD8-4L⑥⑦-4J⑬	○	M4		ø5/32	VPMD8-4L⑥⑦-5/32J⑬	○	M4
		ø6	VPMD8-4L⑥⑦-6J⑬	○			ø1/4	VPMD8-4L⑥⑦-1/4J	—	
	ø10	ø3	VPMD10-4L⑥⑦-3J	—		ø10	ø1/8	VPMD10-4L⑥⑦-1/8J	—	
		ø4	VPMD10-4L⑥⑦-4J⑬	○			ø5/32	VPMD10-4L⑥⑦-5/32J⑬	○	
		ø6	VPMD10-4L⑥⑦-6J⑬	○			ø1/4	VPMD10-4L⑥⑦-1/4J	—	
	ø15	ø3	VPMD15-4L⑥⑦-3J	—		ø15	ø1/8	VPMD15-4L⑥⑦-1/8J	—	
		ø4	VPMD15-4L⑥⑦-4J⑬	○			ø5/32	VPMD15-4L⑥⑦-5/32J⑬	○	
		ø6	VPMD15-4L⑥⑦-6J⑬	○			ø1/4	VPMD15-4L⑥⑦-1/4J	—	
	ø20	ø3	VPMD20-4L⑥⑦-3J	—		ø20	ø1/8	VPMD20-4L⑥⑦-1/8J	—	
		ø4	VPMD20-4L⑥⑦-4J⑬	○			ø5/32	VPMD20-4L⑥⑦-5/32J⑬	○	
		ø6	VPMD20-4L⑥⑦-6J⑬	○			ø1/4	VPMD20-4L⑥⑦-1/4J	—	
	ø30	ø3	VPMD30-4L⑥⑦-3J	—		ø30	ø1/8	VPMD30-4L⑥⑦-1/8J	—	
		ø4	VPMD30-4L⑥⑦-4J⑬	○	M6		ø5/32	VPMD30-4L⑥⑦-5/32J⑬	○	M6
		ø6	VPMD30-4L⑥⑦-6J⑬	○			ø1/4	VPMD30-4L⑥⑦-1/4J	—	
	ø40	ø3	VPMD40-4L⑥⑦-3J	—		ø40	ø1/8	VPMD40-4L⑥⑦-1/8J	—	
		ø4	VPMD40-4L⑥⑦-4J⑬	○			ø5/32	VPMD40-4L⑥⑦-5/32J⑬	○	
		ø6	VPMD40-4L⑥⑦-6J⑬	○			ø1/4	VPMD40-4L⑥⑦-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	⑬ -S3 -S3 spec.	Connection config. code
Spring type, Side port, Female thread, Mini VPMD Stroke 4mm	ø4	M5×0.8	VPMD4-4L⑥⑦-M5⑬	○	
	ø6	M5×0.8	VPMD6-4L⑥⑦-M5⑬	○	
	ø8	M5×0.8	VPMD8-4L⑥⑦-M5⑬	○	M4
	ø10	M5×0.8	VPMD10-4L⑥⑦-M5⑬	○	
	ø15	M5×0.8	VPMD15-4L⑥⑦-M5⑬	○	
	ø20	M5×0.8	VPMD20-4L⑥⑦-M5⑬	○	
	ø30	M5×0.8	VPMD30-4L⑥⑦-M5⑬	○	M6
	ø40	M5×0.8	VPMD40-4L⑥⑦-M5⑬	○	

Notes
*Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⑬: **-S3** ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.480
Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Soft Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	[13] -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Standard VPD Pad dia. ø4 mm to ø15 mm	ø4	6	ø3	VPD4-6L[6][7]-3J[9]	—	M4
			ø4	VPD4-6L[6][7]-4J[9][13]	○	
			ø6	VPD4-6L[6][7]-6J[9][13]	○	
		10	ø3	VPD4-10L[6][7]-3J[9]	—	
			ø4	VPD4-10L[6][7]-4J[9]	—	
			ø6	VPD4-10L[6][7]-6J[9]	—	
		15	ø3	VPD4-15L[6][7]-3J[9]	—	
			ø4	VPD4-15L[6][7]-4J[9]	—	
			ø6	VPD4-15L[6][7]-6J[9]	—	
		20	ø3	VPD4-20L[6][7]-3J[9]	—	
			ø4	VPD4-20L[6][7]-4J[9]	—	
			ø6	VPD4-20L[6][7]-6J[9]	—	
	ø6	6	ø3	VPD6-6L[6][7]-3J[9]	—	
			ø4	VPD6-6L[6][7]-4J[9][13]	○	
			ø6	VPD6-6L[6][7]-6J[9][13]	○	
		10	ø3	VPD6-10L[6][7]-3J[9]	—	
			ø4	VPD6-10L[6][7]-4J[9]	—	
			ø6	VPD6-10L[6][7]-6J[9]	—	
		15	ø3	VPD6-15L[6][7]-3J[9]	—	
			ø4	VPD6-15L[6][7]-4J[9]	—	
			ø6	VPD6-15L[6][7]-6J[9]	—	
		20	ø3	VPD6-20L[6][7]-3J[9]	—	
			ø4	VPD6-20L[6][7]-4J[9]	—	
			ø6	VPD6-20L[6][7]-6J[9]	—	
	ø8	6	ø3	VPD8-6L[6][7]-3J[9]	—	
			ø4	VPD8-6L[6][7]-4J[9][13]	○	
			ø6	VPD8-6L[6][7]-6J[9][13]	○	
		10	ø3	VPD8-10L[6][7]-3J[9]	—	
			ø4	VPD8-10L[6][7]-4J[9]	—	
			ø6	VPD8-10L[6][7]-6J[9]	—	
		15	ø3	VPD8-15L[6][7]-3J[9]	—	
			ø4	VPD8-15L[6][7]-4J[9]	—	
			ø6	VPD8-15L[6][7]-6J[9]	—	
		20	ø3	VPD8-20L[6][7]-3J[9]	—	
			ø4	VPD8-20L[6][7]-4J[9]	—	
			ø6	VPD8-20L[6][7]-6J[9]	—	
	ø10	6	ø3	VPD10-6L[6][7]-3J[9]	—	
			ø4	VPD10-6L[6][7]-4J[9][13]	○	
			ø6	VPD10-6L[6][7]-6J[9][13]	○	
		10	ø3	VPD10-10L[6][7]-3J[9]	—	
			ø4	VPD10-10L[6][7]-4J[9]	—	
			ø6	VPD10-10L[6][7]-6J[9]	—	
		15	ø3	VPD10-15L[6][7]-3J[9]	—	
			ø4	VPD10-15L[6][7]-4J[9]	—	
			ø6	VPD10-15L[6][7]-6J[9]	—	
		20	ø3	VPD10-20L[6][7]-3J[9]	—	
			ø4	VPD10-20L[6][7]-4J[9]	—	
			ø6	VPD10-20L[6][7]-6J[9]	—	
	ø15	6	ø3	VPD15-6L[6][7]-3J[9]	—	
			ø4	VPD15-6L[6][7]-4J[9][13]	○	
			ø6	VPD15-6L[6][7]-6J[9][13]	○	
		10	ø3	VPD15-10L[6][7]-3J[9]	—	
			ø4	VPD15-10L[6][7]-4J[9]	—	
			ø6	VPD15-10L[6][7]-6J[9]	—	
		15	ø3	VPD15-15L[6][7]-3J[9]	—	
			ø4	VPD15-15L[6][7]-4J[9]	—	
			ø6	VPD15-15L[6][7]-6J[9]	—	
		20	ø3	VPD15-20L[6][7]-3J[9]	—	
			ø4	VPD15-20L[6][7]-4J[9]	—	
			ø6	VPD15-20L[6][7]-6J[9]	—	

Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	[13] -S3 -S3 spec.	Connection config. code
ø4	6	ø1/8	VPD4-6L[6][7]-1/8J[9]	—	M4
		ø5/32	VPD4-6L[6][7]-5/32J[9][13]	○	
		ø1/4	VPD4-6L[6][7]-1/4J[9]	—	
	10	ø1/8	VPD4-10L[6][7]-1/8J[9]	—	
		ø5/32	VPD4-10L[6][7]-5/32J[9]	—	
		ø1/4	VPD4-10L[6][7]-1/4J[9]	—	
	15	ø1/8	VPD4-15L[6][7]-1/8J[9]	—	
		ø5/32	VPD4-15L[6][7]-5/32J[9]	—	
		ø1/4	VPD4-15L[6][7]-1/4J[9]	—	
	20	ø1/8	VPD4-20L[6][7]-1/8J[9]	—	
		ø5/32	VPD4-20L[6][7]-5/32J[9]	—	
		ø1/4	VPD4-20L[6][7]-1/4J[9]	—	
ø6	6	ø1/8	VPD6-6L[6][7]-1/8J[9]	—	
		ø5/32	VPD6-6L[6][7]-5/32J[9][13]	○	
		ø1/4	VPD6-6L[6][7]-1/4J[9]	—	
	10	ø1/8	VPD6-10L[6][7]-1/8J[9]	—	
		ø5/32	VPD6-10L[6][7]-5/32J[9]	—	
		ø1/4	VPD6-10L[6][7]-1/4J[9]	—	
	15	ø1/8	VPD6-15L[6][7]-1/8J[9]	—	
		ø5/32	VPD6-15L[6][7]-5/32J[9]	—	
		ø1/4	VPD6-15L[6][7]-1/4J[9]	—	
	20	ø1/8	VPD6-20L[6][7]-1/8J[9]	—	
		ø5/32	VPD6-20L[6][7]-5/32J[9]	—	
		ø1/4	VPD6-20L[6][7]-1/4J[9]	—	
ø8	6	ø1/8	VPD8-6L[6][7]-1/8J[9]	—	
		ø5/32	VPD8-6L[6][7]-5/32J[9][13]	○	
		ø1/4	VPD8-6L[6][7]-1/4J[9]	—	
	10	ø1/8	VPD8-10L[6][7]-1/8J[9]	—	
		ø5/32	VPD8-10L[6][7]-5/32J[9]	—	
		ø1/4	VPD8-10L[6][7]-1/4J[9]	—	
	15	ø1/8	VPD8-15L[6][7]-1/8J[9]	—	
		ø5/32	VPD8-15L[6][7]-5/32J[9]	—	
		ø1/4	VPD8-15L[6][7]-1/4J[9]	—	
	20	ø1/8	VPD8-20L[6][7]-1/8J[9]	—	
		ø5/32	VPD8-20L[6][7]-5/32J[9]	—	
		ø1/4	VPD8-20L[6][7]-1/4J[9]	—	
ø10	6	ø1/8	VPD10-6L[6][7]-1/8J[9]	—	
		ø5/32	VPD10-6L[6][7]-5/32J[9][13]	○	
		ø1/4	VPD10-6L[6][7]-1/4J[9]	—	
	10	ø1/8	VPD10-10L[6][7]-1/8J[9]	—	
		ø5/32	VPD10-10L[6][7]-5/32J[9]	—	
		ø1/4	VPD10-10L[6][7]-1/4J[9]	—	
	15	ø1/8	VPD10-15L[6][7]-1/8J[9]	—	
		ø5/32	VPD10-15L[6][7]-5/32J[9]	—	
		ø1/4	VPD10-15L[6][7]-1/4J[9]	—	
	20	ø1/8	VPD10-20L[6][7]-1/8J[9]	—	
		ø5/32	VPD10-20L[6][7]-5/32J[9]	—	
		ø1/4	VPD10-20L[6][7]-1/4J[9]	—	
ø15	6	ø1/8	VPD15-6L[6][7]-1/8J[9]	—	
		ø5/32	VPD15-6L[6][7]-5/32J[9][13]	○	
		ø1/4	VPD15-6L[6][7]-1/4J[9]	—	
	10	ø1/8	VPD15-10L[6][7]-1/8J[9]	—	
		ø5/32	VPD15-10L[6][7]-5/32J[9]	—	
		ø1/4	VPD15-10L[6][7]-1/4J[9]	—	
	15	ø1/8	VPD15-15L[6][7]-1/8J[9]	—	
		ø5/32	VPD15-15L[6][7]-5/32J[9]	—	
		ø1/4	VPD15-15L[6][7]-1/4J[9]	—	
	20	ø1/8	VPD15-20L[6][7]-1/8J[9]	—	
		ø5/32	VPD15-20L[6][7]-5/32J[9]	—	
		ø1/4	VPD15-20L[6][7]-1/4J[9]	—	

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Standard **VPD** Pad dia. ø20 mm to ø40 mm	ø20	6	ø3	VPD20-6L67-3J9	—	M6	ø20	6	ø1/8	VPD20-6L67-1/8J9	—	M6
			ø4	VPD20-6L67-4J913	○				ø5/32	VPD20-6L67-5/32J913	○	
			ø6	VPD20-6L67-6J913	○				ø1/4	VPD20-6L67-1/4J9	—	
		10	ø3	VPD20-10L67-3J9	—			10	ø1/8	VPD20-10L67-1/8J9	—	
			ø4	VPD20-10L67-4J9	—				ø5/32	VPD20-10L67-5/32J9	—	
			ø6	VPD20-10L67-6J9	—				ø1/4	VPD20-10L67-1/4J9	—	
		15	ø3	VPD20-15L67-3J9	—			15	ø1/8	VPD20-15L67-1/8J9	—	
			ø4	VPD20-15L67-4J9	—				ø5/32	VPD20-15L67-5/32J9	—	
			ø6	VPD20-15L67-6J9	—				ø1/4	VPD20-15L67-1/4J9	—	
		20	ø3	VPD20-20L67-3J9	—			20	ø1/8	VPD20-20L67-1/8J9	—	
			ø4	VPD20-20L67-4J9	—				ø5/32	VPD20-20L67-5/32J9	—	
			ø6	VPD20-20L67-6J9	—				ø1/4	VPD20-20L67-1/4J9	—	
	ø30	6	ø3	VPD30-6L67-3J9	—		ø30	6	ø1/8	VPD30-6L67-1/8J9	—	
			ø4	VPD30-6L67-4J913	○				ø5/32	VPD30-6L67-5/32J913	○	
			ø6	VPD30-6L67-6J913	○				ø1/4	VPD30-6L67-1/4J9	—	
		10	ø3	VPD30-10L67-3J9	—			10	ø1/8	VPD30-10L67-1/8J9	—	
			ø4	VPD30-10L67-4J9	—				ø5/32	VPD30-10L67-5/32J9	—	
			ø6	VPD30-10L67-6J9	—				ø1/4	VPD30-10L67-1/4J9	—	
		15	ø3	VPD30-15L67-3J9	—			15	ø1/8	VPD30-15L67-1/8J9	—	
			ø4	VPD30-15L67-4J9	—				ø5/32	VPD30-15L67-5/32J9	—	
			ø6	VPD30-15L67-6J9	—				ø1/4	VPD30-15L67-1/4J9	—	
		20	ø3	VPD30-20L67-3J9	—			20	ø1/8	VPD30-20L67-1/8J9	—	
			ø4	VPD30-20L67-4J9	—				ø5/32	VPD30-20L67-5/32J9	—	
			ø6	VPD30-20L67-6J9	—				ø1/4	VPD30-20L67-1/4J9	—	
	ø40	6	ø3	VPD40-6L67-3J9	—		ø40	6	ø1/8	VPD40-6L67-1/8J9	—	
			ø4	VPD40-6L67-4J913	○				ø5/32	VPD40-6L67-5/32J913	○	
			ø6	VPD40-6L67-6J913	○				ø1/4	VPD40-6L67-1/4J9	—	
		10	ø3	VPD40-10L67-3J9	—			10	ø1/8	VPD40-10L67-1/8J9	—	
			ø4	VPD40-10L67-4J9	—				ø5/32	VPD40-10L67-5/32J9	—	
			ø6	VPD40-10L67-6J9	—				ø1/4	VPD40-10L67-1/4J9	—	
		15	ø3	VPD40-15L67-3J9	—			15	ø1/8	VPD40-15L67-1/8J9	—	
			ø4	VPD40-15L67-4J9	—				ø5/32	VPD40-15L67-5/32J9	—	
			ø6	VPD40-15L67-6J9	—				ø1/4	VPD40-15L67-1/4J9	—	
		20	ø3	VPD40-20L67-3J9	—			20	ø1/8	VPD40-20L67-1/8J9	—	
			ø4	VPD40-20L67-4J9	—				ø5/32	VPD40-20L67-5/32J9	—	
			ø6	VPD40-20L67-6J9	—				ø1/4	VPD40-20L67-1/4J9	—	

Notes
*Barb fitting type holders are also available. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
9: **-DC** ⇒ Holder with dust catcher
13: **-S3** ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.480
Surface treatment
Dust Catcher (VPD)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Soft Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Female thread, Standard VPD 	ø4	6	M6×1	VPD4-6L67-M6913	○	M4
		10		VPD4-10L67-M69	—	
		15		VPD4-15L67-M69	—	
		20		VPD4-20L67-M69	—	
	ø6	6	M6×1	VPD6-6L67-M6913	○	
		10		VPD6-10L67-M69	—	
		15		VPD6-15L67-M69	—	
		20		VPD6-20L67-M69	—	
	ø8	6	M6×1	VPD8-6L67-M6913	○	
		10		VPD8-10L67-M69	—	
		15		VPD8-15L67-M69	—	
		20		VPD8-20L67-M69	—	
	ø10	6	M6×1	VPD10-6L67-M6913	○	
		10		VPD10-10L67-M69	—	
		15		VPD10-15L67-M69	—	
		20		VPD10-20L67-M69	—	
	ø15	6	M6×1	VPD15-6L67-M6913	○	
		10		VPD15-10L67-M69	—	
		15		VPD15-15L67-M69	—	
		20		VPD15-20L67-M69	—	
	ø20	6	M6×1	VPD20-6L67-M6913	○	M6
		10		VPD20-10L67-M69	—	
		15		VPD20-15L67-M69	—	
		20		VPD20-20L67-M69	—	
	ø30	6	M6×1	VPD30-6L67-M6913	○	
		10		VPD30-10L67-M69	—	
		15		VPD30-15L67-M69	—	
		20		VPD30-20L67-M69	—	
	ø40	6	M6×1	VPD40-6L67-M6913	○	
		10		VPD40-10L67-M69	—	
		15		VPD40-15L67-M69	—	
		20		VPD40-20L67-M69	—	

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
9: -DC ⇒ Holder with dust catcher
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.480

Surface treatment
Dust Catcher (VPD)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, No cover **VPOD** Pad dia. ø4 mm to ø15 mm	ø4	20	ø3	VPOD4-20L[6][7]-3J	M4	ø4	20	ø1/8	VPOD4-20L[6][7]-1/8J	M4
			ø4	VPOD4-20L[6][7]-4J				ø5/32	VPOD4-20L[6][7]-5/32J	
			ø6	VPOD4-20L[6][7]-6J				ø1/4	VPOD4-20L[6][7]-1/4J	
		30	ø3	VPOD4-30L[6][7]-3J			30	ø1/8	VPOD4-30L[6][7]-1/8J	
			ø4	VPOD4-30L[6][7]-4J				ø5/32	VPOD4-30L[6][7]-5/32J	
			ø6	VPOD4-30L[6][7]-6J				ø1/4	VPOD4-30L[6][7]-1/4J	
		40	ø3	VPOD4-40L[6][7]-3J			40	ø1/8	VPOD4-40L[6][7]-1/8J	
			ø4	VPOD4-40L[6][7]-4J				ø5/32	VPOD4-40L[6][7]-5/32J	
			ø6	VPOD4-40L[6][7]-6J				ø1/4	VPOD4-40L[6][7]-1/4J	
		50	ø3	VPOD4-50L[6][7]-3J			50	ø1/8	VPOD4-50L[6][7]-1/8J	
			ø4	VPOD4-50L[6][7]-4J				ø5/32	VPOD4-50L[6][7]-5/32J	
			ø6	VPOD4-50L[6][7]-6J				ø1/4	VPOD4-50L[6][7]-1/4J	
	ø6	20	ø3	VPOD6-20L[6][7]-3J		ø6	20	ø1/8	VPOD6-20L[6][7]-1/8J	
			ø4	VPOD6-20L[6][7]-4J				ø5/32	VPOD6-20L[6][7]-5/32J	
			ø6	VPOD6-20L[6][7]-6J				ø1/4	VPOD6-20L[6][7]-1/4J	
		30	ø3	VPOD6-30L[6][7]-3J			30	ø1/8	VPOD6-30L[6][7]-1/8J	
			ø4	VPOD6-30L[6][7]-4J				ø5/32	VPOD6-30L[6][7]-5/32J	
			ø6	VPOD6-30L[6][7]-6J				ø1/4	VPOD6-30L[6][7]-1/4J	
		40	ø3	VPOD6-40L[6][7]-3J			40	ø1/8	VPOD6-40L[6][7]-1/8J	
			ø4	VPOD6-40L[6][7]-4J				ø5/32	VPOD6-40L[6][7]-5/32J	
			ø6	VPOD6-40L[6][7]-6J				ø1/4	VPOD6-40L[6][7]-1/4J	
		50	ø3	VPOD6-50L[6][7]-3J			50	ø1/8	VPOD6-50L[6][7]-1/8J	
			ø4	VPOD6-50L[6][7]-4J				ø5/32	VPOD6-50L[6][7]-5/32J	
			ø6	VPOD6-50L[6][7]-6J				ø1/4	VPOD6-50L[6][7]-1/4J	
	ø8	20	ø3	VPOD8-20L[6][7]-3J		ø8	20	ø1/8	VPOD8-20L[6][7]-1/8J	
			ø4	VPOD8-20L[6][7]-4J				ø5/32	VPOD8-20L[6][7]-5/32J	
			ø6	VPOD8-20L[6][7]-6J				ø1/4	VPOD8-20L[6][7]-1/4J	
		30	ø3	VPOD8-30L[6][7]-3J			30	ø1/8	VPOD8-30L[6][7]-1/8J	
			ø4	VPOD8-30L[6][7]-4J				ø5/32	VPOD8-30L[6][7]-5/32J	
			ø6	VPOD8-30L[6][7]-6J				ø1/4	VPOD8-30L[6][7]-1/4J	
		40	ø3	VPOD8-40L[6][7]-3J			40	ø1/8	VPOD8-40L[6][7]-1/8J	
			ø4	VPOD8-40L[6][7]-4J				ø5/32	VPOD8-40L[6][7]-5/32J	
			ø6	VPOD8-40L[6][7]-6J				ø1/4	VPOD8-40L[6][7]-1/4J	
		50	ø3	VPOD8-50L[6][7]-3J			50	ø1/8	VPOD8-50L[6][7]-1/8J	
			ø4	VPOD8-50L[6][7]-4J				ø5/32	VPOD8-50L[6][7]-5/32J	
			ø6	VPOD8-50L[6][7]-6J				ø1/4	VPOD8-50L[6][7]-1/4J	
	ø10	20	ø3	VPOD10-20L[6][7]-3J		ø10	20	ø1/8	VPOD10-20L[6][7]-1/8J	
			ø4	VPOD10-20L[6][7]-4J				ø5/32	VPOD10-20L[6][7]-5/32J	
			ø6	VPOD10-20L[6][7]-6J				ø1/4	VPOD10-20L[6][7]-1/4J	
		30	ø3	VPOD10-30L[6][7]-3J			30	ø1/8	VPOD10-30L[6][7]-1/8J	
			ø4	VPOD10-30L[6][7]-4J				ø5/32	VPOD10-30L[6][7]-5/32J	
			ø6	VPOD10-30L[6][7]-6J				ø1/4	VPOD10-30L[6][7]-1/4J	
		40	ø3	VPOD10-40L[6][7]-3J			40	ø1/8	VPOD10-40L[6][7]-1/8J	
			ø4	VPOD10-40L[6][7]-4J				ø5/32	VPOD10-40L[6][7]-5/32J	
			ø6	VPOD10-40L[6][7]-6J				ø1/4	VPOD10-40L[6][7]-1/4J	
		50	ø3	VPOD10-50L[6][7]-3J			50	ø1/8	VPOD10-50L[6][7]-1/8J	
			ø4	VPOD10-50L[6][7]-4J				ø5/32	VPOD10-50L[6][7]-5/32J	
			ø6	VPOD10-50L[6][7]-6J				ø1/4	VPOD10-50L[6][7]-1/4J	
	ø15	20	ø3	VPOD15-20L[6][7]-3J		ø15	20	ø1/8	VPOD15-20L[6][7]-1/8J	
			ø4	VPOD15-20L[6][7]-4J				ø5/32	VPOD15-20L[6][7]-5/32J	
			ø6	VPOD15-20L[6][7]-6J				ø1/4	VPOD15-20L[6][7]-1/4J	
		30	ø3	VPOD15-30L[6][7]-3J			30	ø1/8	VPOD15-30L[6][7]-1/8J	
			ø4	VPOD15-30L[6][7]-4J				ø5/32	VPOD15-30L[6][7]-5/32J	
			ø6	VPOD15-30L[6][7]-6J				ø1/4	VPOD15-30L[6][7]-1/4J	
		40	ø3	VPOD15-40L[6][7]-3J			40	ø1/8	VPOD15-40L[6][7]-1/8J	
			ø4	VPOD15-40L[6][7]-4J				ø5/32	VPOD15-40L[6][7]-5/32J	
			ø6	VPOD15-40L[6][7]-6J				ø1/4	VPOD15-40L[6][7]-1/4J	
		50	ø3	VPOD15-50L[6][7]-3J			50	ø1/8	VPOD15-50L[6][7]-1/8J	
			ø4	VPOD15-50L[6][7]-4J				ø5/32	VPOD15-50L[6][7]-5/32J	
			ø6	VPOD15-50L[6][7]-6J				ø1/4	VPOD15-50L[6][7]-1/4J	

Notes
*Barb fitting type holders are also available. Contact us for the details.

Packaging specifications
1 pc./bag

Options
[7]: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.480

Surface treatment

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

Vacuum Pad Soft Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, No cover VPOD Pad dia. ø20 mm to ø40 mm	ø20	20	ø3	VPOD20-20L6 7-3J	M6	ø20	20	ø1/8	VPOD20-20L6 7-1/8J	M6
			ø4	VPOD20-20L6 7-4J				ø5/32	VPOD20-20L6 7-5/32J	
			ø6	VPOD20-20L6 7-6J				ø1/4	VPOD20-20L6 7-1/4J	
		30	ø3	VPOD20-30L6 7-3J			30	ø1/8	VPOD20-30L6 7-1/8J	
			ø4	VPOD20-30L6 7-4J				ø5/32	VPOD20-30L6 7-5/32J	
			ø6	VPOD20-30L6 7-6J				ø1/4	VPOD20-30L6 7-1/4J	
		40	ø3	VPOD20-40L6 7-3J			40	ø1/8	VPOD20-40L6 7-1/8J	
			ø4	VPOD20-40L6 7-4J				ø5/32	VPOD20-40L6 7-5/32J	
			ø6	VPOD20-40L6 7-6J				ø1/4	VPOD20-40L6 7-1/4J	
		50	ø3	VPOD20-50L6 7-3J			50	ø1/8	VPOD20-50L6 7-1/8J	
			ø4	VPOD20-50L6 7-4J				ø5/32	VPOD20-50L6 7-5/32J	
			ø6	VPOD20-50L6 7-6J				ø1/4	VPOD20-50L6 7-1/4J	
	ø30	20	ø3	VPOD30-20L6 7-3J		ø30	20	ø1/8	VPOD30-20L6 7-1/8J	
			ø4	VPOD30-20L6 7-4J				ø5/32	VPOD30-20L6 7-5/32J	
			ø6	VPOD30-20L6 7-6J				ø1/4	VPOD30-20L6 7-1/4J	
		30	ø3	VPOD30-30L6 7-3J			30	ø1/8	VPOD30-30L6 7-1/8J	
			ø4	VPOD30-30L6 7-4J				ø5/32	VPOD30-30L6 7-5/32J	
			ø6	VPOD30-30L6 7-6J				ø1/4	VPOD30-30L6 7-1/4J	
		40	ø3	VPOD30-40L6 7-3J			40	ø1/8	VPOD30-40L6 7-1/8J	
			ø4	VPOD30-40L6 7-4J				ø5/32	VPOD30-40L6 7-5/32J	
			ø6	VPOD30-40L6 7-6J				ø1/4	VPOD30-40L6 7-1/4J	
		50	ø3	VPOD30-50L6 7-3J			50	ø1/8	VPOD30-50L6 7-1/8J	
			ø4	VPOD30-50L6 7-4J				ø5/32	VPOD30-50L6 7-5/32J	
			ø6	VPOD30-50L6 7-6J				ø1/4	VPOD30-50L6 7-1/4J	
	ø40	20	ø3	VPOD40-20L6 7-3J		ø40	20	ø1/8	VPOD40-20L6 7-1/8J	
			ø4	VPOD40-20L6 7-4J				ø5/32	VPOD40-20L6 7-5/32J	
			ø6	VPOD40-20L6 7-6J				ø1/4	VPOD40-20L6 7-1/4J	
		30	ø3	VPOD40-30L6 7-3J			30	ø1/8	VPOD40-30L6 7-1/8J	
			ø4	VPOD40-30L6 7-4J				ø5/32	VPOD40-30L6 7-5/32J	
			ø6	VPOD40-30L6 7-6J				ø1/4	VPOD40-30L6 7-1/4J	
		40	ø3	VPOD40-40L6 7-3J			40	ø1/8	VPOD40-40L6 7-1/8J	
			ø4	VPOD40-40L6 7-4J				ø5/32	VPOD40-40L6 7-5/32J	
			ø6	VPOD40-40L6 7-6J				ø1/4	VPOD40-40L6 7-1/4J	
		50	ø3	VPOD40-50L6 7-3J			50	ø1/8	VPOD40-50L6 7-1/8J	
			ø4	VPOD40-50L6 7-4J				ø5/32	VPOD40-50L6 7-5/32J	
			ø6	VPOD40-50L6 7-6J				ø1/4	VPOD40-50L6 7-1/4J	

Notes
*Barb fitting type holders are also available. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.480

Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Side port, Female thread, No cover VPOD 	ø4	20	M6×1	VPOD4-20L⑥⑦-M6	
		30		VPOD4-30L⑥⑦-M6	
		40		VPOD4-40L⑥⑦-M6	
		50		VPOD4-50L⑥⑦-M6	
	ø6	20	M6×1	VPOD6-20L⑥⑦-M6	
		30		VPOD6-30L⑥⑦-M6	
		40		VPOD6-40L⑥⑦-M6	
		50		VPOD6-50L⑥⑦-M6	
	ø8	20	M6×1	VPOD8-20L⑥⑦-M6	
		30		VPOD8-30L⑥⑦-M6	
		40		VPOD8-40L⑥⑦-M6	M4
		50		VPOD8-50L⑥⑦-M6	
	ø10	20	M6×1	VPOD10-20L⑥⑦-M6	
		30		VPOD10-30L⑥⑦-M6	
		40		VPOD10-40L⑥⑦-M6	
		50		VPOD10-50L⑥⑦-M6	
	ø15	20	M6×1	VPOD15-20L⑥⑦-M6	
		30		VPOD15-30L⑥⑦-M6	
		40		VPOD15-40L⑥⑦-M6	
		50		VPOD15-50L⑥⑦-M6	
	ø20	20	M6×1	VPOD20-20L⑥⑦-M6	
		30		VPOD20-30L⑥⑦-M6	
		40		VPOD20-40L⑥⑦-M6	
		50		VPOD20-50L⑥⑦-M6	
	ø30	20	M6×1	VPOD30-20L⑥⑦-M6	
		30		VPOD30-30L⑥⑦-M6	
		40		VPOD30-40L⑥⑦-M6	M6
		50		VPOD30-50L⑥⑦-M6	
	ø40	20	M6×1	VPOD40-20L⑥⑦-M6	
		30		VPOD40-30L⑥⑦-M6	
		40		VPOD40-40L⑥⑦-M6	
		50		VPOD40-50L⑥⑦-M6	

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.480

Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Soft Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, Low dust emission **VPLFD** Pad dia. ø4 mm to ø15 mm	ø4	5	ø3	VPLFD4-5L⑥⑦-3J	M4	ø4	5	ø1/8	VPLFD4-5L⑥⑦-1/8J	M4
			ø4	VPLFD4-5L⑥⑦-4J				ø5/32	VPLFD4-5L⑥⑦-5/32J	
		10	ø3	VPLFD4-10L⑥⑦-3J			10	ø1/8	VPLFD4-10L⑥⑦-1/8J	
			ø4	VPLFD4-10L⑥⑦-4J				ø5/32	VPLFD4-10L⑥⑦-5/32J	
		15	ø3	VPLFD4-15L⑥⑦-3J			15	ø1/8	VPLFD4-15L⑥⑦-1/8J	
			ø4	VPLFD4-15L⑥⑦-4J				ø5/32	VPLFD4-15L⑥⑦-5/32J	
		20	ø3	VPLFD4-20L⑥⑦-3J			20	ø1/8	VPLFD4-20L⑥⑦-1/8J	
			ø4	VPLFD4-20L⑥⑦-4J				ø5/32	VPLFD4-20L⑥⑦-5/32J	
	ø6	5	ø3	VPLFD6-5L⑥⑦-3J		ø6	5	ø1/8	VPLFD6-5L⑥⑦-1/8J	
			ø4	VPLFD6-5L⑥⑦-4J				ø5/32	VPLFD6-5L⑥⑦-5/32J	
		10	ø3	VPLFD6-10L⑥⑦-3J			10	ø1/8	VPLFD6-10L⑥⑦-1/8J	
			ø4	VPLFD6-10L⑥⑦-4J				ø5/32	VPLFD6-10L⑥⑦-5/32J	
		15	ø3	VPLFD6-15L⑥⑦-3J			15	ø1/8	VPLFD6-15L⑥⑦-1/8J	
			ø4	VPLFD6-15L⑥⑦-4J				ø5/32	VPLFD6-15L⑥⑦-5/32J	
		20	ø3	VPLFD6-20L⑥⑦-3J			20	ø1/8	VPLFD6-20L⑥⑦-1/8J	
			ø4	VPLFD6-20L⑥⑦-4J				ø5/32	VPLFD6-20L⑥⑦-5/32J	
	ø8	5	ø3	VPLFD8-5L⑥⑦-3J		ø8	5	ø1/8	VPLFD8-5L⑥⑦-1/8J	
			ø4	VPLFD8-5L⑥⑦-4J				ø5/32	VPLFD8-5L⑥⑦-5/32J	
		10	ø3	VPLFD8-10L⑥⑦-3J			10	ø1/8	VPLFD8-10L⑥⑦-1/8J	
			ø4	VPLFD8-10L⑥⑦-4J				ø5/32	VPLFD8-10L⑥⑦-5/32J	
		15	ø3	VPLFD8-15L⑥⑦-3J			15	ø1/8	VPLFD8-15L⑥⑦-1/8J	
			ø4	VPLFD8-15L⑥⑦-4J				ø5/32	VPLFD8-15L⑥⑦-5/32J	
		20	ø3	VPLFD8-20L⑥⑦-3J			20	ø1/8	VPLFD8-20L⑥⑦-1/8J	
			ø4	VPLFD8-20L⑥⑦-4J				ø5/32	VPLFD8-20L⑥⑦-5/32J	
	ø10	5	ø3	VPLFD10-5L⑥⑦-3J		ø10	5	ø1/8	VPLFD10-5L⑥⑦-1/8J	
			ø4	VPLFD10-5L⑥⑦-4J				ø5/32	VPLFD10-5L⑥⑦-5/32J	
		10	ø3	VPLFD10-10L⑥⑦-3J			10	ø1/8	VPLFD10-10L⑥⑦-1/8J	
			ø4	VPLFD10-10L⑥⑦-4J				ø5/32	VPLFD10-10L⑥⑦-5/32J	
		15	ø3	VPLFD10-15L⑥⑦-3J			15	ø1/8	VPLFD10-15L⑥⑦-1/8J	
			ø4	VPLFD10-15L⑥⑦-4J				ø5/32	VPLFD10-15L⑥⑦-5/32J	
		20	ø3	VPLFD10-20L⑥⑦-3J			20	ø1/8	VPLFD10-20L⑥⑦-1/8J	
			ø4	VPLFD10-20L⑥⑦-4J				ø5/32	VPLFD10-20L⑥⑦-5/32J	
	ø15	5	ø3	VPLFD15-5L⑥⑦-3J		ø15	5	ø1/8	VPLFD15-5L⑥⑦-1/8J	
			ø4	VPLFD15-5L⑥⑦-4J				ø5/32	VPLFD15-5L⑥⑦-5/32J	
		10	ø3	VPLFD15-10L⑥⑦-3J			10	ø1/8	VPLFD15-10L⑥⑦-1/8J	
			ø4	VPLFD15-10L⑥⑦-4J				ø5/32	VPLFD15-10L⑥⑦-5/32J	
		15	ø3	VPLFD15-15L⑥⑦-3J			15	ø1/8	VPLFD15-15L⑥⑦-1/8J	
			ø4	VPLFD15-15L⑥⑦-4J				ø5/32	VPLFD15-15L⑥⑦-5/32J	
		20	ø3	VPLFD15-20L⑥⑦-3J			20	ø1/8	VPLFD15-20L⑥⑦-1/8J	
			ø4	VPLFD15-20L⑥⑦-4J				ø5/32	VPLFD15-20L⑥⑦-5/32J	

Notes
*Barb fitting type holders are also available. Contact us for the details.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.480

Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, Low dust emission **VPLFD** Pad dia. ø20 mm to ø40 mm	ø20	5	ø3	VPLFD20-5L[6][7]-3J	M6	ø20	5	ø1/8	VPLFD20-5L[6][7]-1/8J	M6
			ø4	VPLFD20-5L[6][7]-4J				ø5/32	VPLFD20-5L[6][7]-5/32J	
			ø6	VPLFD20-5L[6][7]-6J				ø1/4	VPLFD20-5L[6][7]-1/4J	
		10	ø3	VPLFD20-10L[6][7]-3J			10	ø1/8	VPLFD20-10L[6][7]-1/8J	
			ø4	VPLFD20-10L[6][7]-4J				ø5/32	VPLFD20-10L[6][7]-5/32J	
			ø6	VPLFD20-10L[6][7]-6J				ø1/4	VPLFD20-10L[6][7]-1/4J	
		15	ø3	VPLFD20-15L[6][7]-3J			15	ø1/8	VPLFD20-15L[6][7]-1/8J	
			ø4	VPLFD20-15L[6][7]-4J				ø5/32	VPLFD20-15L[6][7]-5/32J	
			ø6	VPLFD20-15L[6][7]-6J				ø1/4	VPLFD20-15L[6][7]-1/4J	
		20	ø3	VPLFD20-20L[6][7]-3J			20	ø1/8	VPLFD20-20L[6][7]-1/8J	
			ø4	VPLFD20-20L[6][7]-4J				ø5/32	VPLFD20-20L[6][7]-5/32J	
			ø6	VPLFD20-20L[6][7]-6J				ø1/4	VPLFD20-20L[6][7]-1/4J	
	ø30	5	ø3	VPLFD30-5L[6][7]-3J		ø30	5	ø1/8	VPLFD30-5L[6][7]-1/8J	
			ø4	VPLFD30-5L[6][7]-4J				ø5/32	VPLFD30-5L[6][7]-5/32J	
			ø6	VPLFD30-5L[6][7]-6J				ø1/4	VPLFD30-5L[6][7]-1/4J	
		10	ø3	VPLFD30-10L[6][7]-3J			10	ø1/8	VPLFD30-10L[6][7]-1/8J	
			ø4	VPLFD30-10L[6][7]-4J				ø5/32	VPLFD30-10L[6][7]-5/32J	
			ø6	VPLFD30-10L[6][7]-6J				ø1/4	VPLFD30-10L[6][7]-1/4J	
		15	ø3	VPLFD30-15L[6][7]-3J			15	ø1/8	VPLFD30-15L[6][7]-1/8J	
			ø4	VPLFD30-15L[6][7]-4J				ø5/32	VPLFD30-15L[6][7]-5/32J	
			ø6	VPLFD30-15L[6][7]-6J				ø1/4	VPLFD30-15L[6][7]-1/4J	
		20	ø3	VPLFD30-20L[6][7]-3J			20	ø1/8	VPLFD30-20L[6][7]-1/8J	
			ø4	VPLFD30-20L[6][7]-4J				ø5/32	VPLFD30-20L[6][7]-5/32J	
			ø6	VPLFD30-20L[6][7]-6J				ø1/4	VPLFD30-20L[6][7]-1/4J	
	ø40	5	ø3	VPLFD40-5L[6][7]-3J		ø40	5	ø1/8	VPLFD40-5L[6][7]-1/8J	
			ø4	VPLFD40-5L[6][7]-4J				ø5/32	VPLFD40-5L[6][7]-5/32J	
			ø6	VPLFD40-5L[6][7]-6J				ø1/4	VPLFD40-5L[6][7]-1/4J	
		10	ø3	VPLFD40-10L[6][7]-3J			10	ø1/8	VPLFD40-10L[6][7]-1/8J	
			ø4	VPLFD40-10L[6][7]-4J				ø5/32	VPLFD40-10L[6][7]-5/32J	
			ø6	VPLFD40-10L[6][7]-6J				ø1/4	VPLFD40-10L[6][7]-1/4J	
		15	ø3	VPLFD40-15L[6][7]-3J			15	ø1/8	VPLFD40-15L[6][7]-1/8J	
			ø4	VPLFD40-15L[6][7]-4J				ø5/32	VPLFD40-15L[6][7]-5/32J	
			ø6	VPLFD40-15L[6][7]-6J				ø1/4	VPLFD40-15L[6][7]-1/4J	
		20	ø3	VPLFD40-20L[6][7]-3J			20	ø1/8	VPLFD40-20L[6][7]-1/8J	
			ø4	VPLFD40-20L[6][7]-4J				ø5/32	VPLFD40-20L[6][7]-5/32J	
			ø6	VPLFD40-20L[6][7]-6J				ø1/4	VPLFD40-20L[6][7]-1/4J	

Notes
*Barb fitting type holders are also available. Contact us for the details.

Packaging specifications
1 pc./bag

Options
[7]: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.480

Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Soft Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Side port, Female thread, Low dust emission **VPLFD**	ø4	5	M5×0.8	VPLFD4-5L⑥⑦-M5	M4
		10	M5×0.8	VPLFD4-10L⑥⑦-M5	
		15	M5×0.8	VPLFD4-15L⑥⑦-M5	
		20	M5×0.8	VPLFD4-20L⑥⑦-M5	
	ø6	5	M5×0.8	VPLFD6-5L⑥⑦-M5	
		10	M5×0.8	VPLFD6-10L⑥⑦-M5	
		15	M5×0.8	VPLFD6-15L⑥⑦-M5	
		20	M5×0.8	VPLFD6-20L⑥⑦-M5	
	ø8	5	M5×0.8	VPLFD8-5L⑥⑦-M5	
		10	M5×0.8	VPLFD8-10L⑥⑦-M5	
		15	M5×0.8	VPLFD8-15L⑥⑦-M5	
		20	M5×0.8	VPLFD8-20L⑥⑦-M5	
	ø10	5	M5×0.8	VPLFD10-5L⑥⑦-M5	
		10	M5×0.8	VPLFD10-10L⑥⑦-M5	
		15	M5×0.8	VPLFD10-15L⑥⑦-M5	
		20	M5×0.8	VPLFD10-20L⑥⑦-M5	
	ø15	5	M5×0.8	VPLFD15-5L⑥⑦-M5	
		10	M5×0.8	VPLFD15-10L⑥⑦-M5	
		15	M5×0.8	VPLFD15-15L⑥⑦-M5	
		20	M5×0.8	VPLFD15-20L⑥⑦-M5	
	ø20	5	M6×1	VPLFD20-5L⑥⑦-M6	M6
		10	M6×1	VPLFD20-10L⑥⑦-M6	
		15	M6×1	VPLFD20-15L⑥⑦-M6	
		20	M6×1	VPLFD20-20L⑥⑦-M6	
	ø30	5	M6×1	VPLFD30-5L⑥⑦-M6	
		10	M6×1	VPLFD30-10L⑥⑦-M6	
		15	M6×1	VPLFD30-15L⑥⑦-M6	
		20	M6×1	VPLFD30-20L⑥⑦-M6	
	ø40	5	M6×1	VPLFD40-5L⑥⑦-M6	
		10	M6×1	VPLFD40-10L⑥⑦-M6	
		15	M6×1	VPLFD40-15L⑥⑦-M6	
		20	M6×1	VPLFD40-20L⑥⑦-M6	

Holder type	
Fixed type, Direct mount, Standard **VPE**	VPE holders are available with metric male/female threads, taper pipe threads, parallel pipe threads and NPT threads. See Pad holder only (page 399) for variations. *Pads with the same configuration code as the holder can be connected. [See Pad rubber only (page 377)]. Applicable Screws: Metric male thread: M8, M10, M12, M14 Metric female thread: M5, M8 Taper pipe thread: R1/8, R1/4, R3/8, R1/2 Parallel pipe thread: G1/8, G1/4, G3/8, G1/2 NPT thread: NPT1/8, NPT1/4, NPT3/8, NPT1/2

Holder type	Pad dia. (mm)	Female thread size	Model code	⑬ -S3 -S3 spec.	Connection config. code
Spring type, Direct mount **VPF** Stroke 5.8mm	ø4	M14×1	VPF4L⑥⑦⑨⑬	○	M4
	ø6	M14×1	VPF6L⑥⑦⑨⑬	○	
	ø8	M14×1	VPF8L⑥⑦⑨⑬	○	
	ø10	M14×1	VPF10L⑥⑦⑨⑬	○	
	ø15	M14×1	VPF15L⑥⑦⑨⑬	○	
	ø20	M14×1	VPF20L⑥⑦⑨⑬	○	M6
	ø30	M14×1	VPF30L⑥⑦⑨⑬	○	
	ø40	M14×1	VPF40L⑥⑦⑨⑬	○	

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⑨: -DC ⇒ Holder with dust catcher
⑬: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.480
Surface treatment
Dust Catcher (VPF)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Lightweight **VPHC** Pad dia. ø4 mm to ø6 mm	ø4	9	ø3	VPHC4-9L[6][7]-3J	—	T15	ø4	9	ø1/8	VPHC4-9L[6][7]-1/8J	—	T15
			ø4	VPHC4-9L[6][7]-4J[13]	○				ø5/32	VPHC4-9L[6][7]-5/32J[13]	○	
			ø6	VPHC4-9L[6][7]-6J[13]	○				ø1/4	VPHC4-9L[6][7]-1/4J	—	
		10	ø3	VPHC4-10L[6][7]-3J	—	M4		10	ø1/8	VPHC4-10L[6][7]-1/8J	—	M4
			ø4	VPHC4-10L[6][7]-4J[13]	○				ø5/32	VPHC4-10L[6][7]-5/32J[13]	○	
			ø6	VPHC4-10L[6][7]-6J[13]	○				ø1/4	VPHC4-10L[6][7]-1/4J	—	
		15	ø3	VPHC4-15L[6][7]-3J	—			15	ø1/8	VPHC4-15L[6][7]-1/8J	—	
			ø4	VPHC4-15L[6][7]-4J[13]	○				ø5/32	VPHC4-15L[6][7]-5/32J[13]	○	
			ø6	VPHC4-15L[6][7]-6J[13]	○				ø1/4	VPHC4-15L[6][7]-1/4J	—	
		20	ø3	VPHC4-20L[6][7]-3J	—			20	ø1/8	VPHC4-20L[6][7]-1/8J	—	
			ø4	VPHC4-20L[6][7]-4J[13]	○				ø5/32	VPHC4-20L[6][7]-5/32J[13]	○	
			ø6	VPHC4-20L[6][7]-6J[13]	○				ø1/4	VPHC4-20L[6][7]-1/4J	—	
		25	ø3	VPHC4-25L[6][7]-3J	—			25	ø1/8	VPHC4-25L[6][7]-1/8J	—	
			ø4	VPHC4-25L[6][7]-4J[13]	○				ø5/32	VPHC4-25L[6][7]-5/32J[13]	○	
			ø6	VPHC4-25L[6][7]-6J[13]	○				ø1/4	VPHC4-25L[6][7]-1/4J	—	
		30	ø3	VPHC4-30L[6][7]-3J	—			30	ø1/8	VPHC4-30L[6][7]-1/8J	—	
			ø4	VPHC4-30L[6][7]-4J[13]	○				ø5/32	VPHC4-30L[6][7]-5/32J[13]	○	
			ø6	VPHC4-30L[6][7]-6J[13]	○				ø1/4	VPHC4-30L[6][7]-1/4J	—	
		40	ø3	VPHC4-40L[6][7]-3J	—			40	ø1/8	VPHC4-40L[6][7]-1/8J	—	
			ø4	VPHC4-40L[6][7]-4J[13]	○				ø5/32	VPHC4-40L[6][7]-5/32J[13]	○	
			ø6	VPHC4-40L[6][7]-6J[13]	○				ø1/4	VPHC4-40L[6][7]-1/4J	—	
		50	ø3	VPHC4-50L[6][7]-3J	—			50	ø1/8	VPHC4-50L[6][7]-1/8J	—	
			ø4	VPHC4-50L[6][7]-4J[13]	○				ø5/32	VPHC4-50L[6][7]-5/32J[13]	○	
			ø6	VPHC4-50L[6][7]-6J[13]	○				ø1/4	VPHC4-50L[6][7]-1/4J	—	
	ø6	9	ø3	VPHC6-9L[6][7]-3J	—	T15	ø6	9	ø1/8	VPHC6-9L[6][7]-1/8J	—	T15
			ø4	VPHC6-9L[6][7]-4J[13]	○				ø5/32	VPHC6-9L[6][7]-5/32J[13]	○	
			ø6	VPHC6-9L[6][7]-6J[13]	○				ø1/4	VPHC6-9L[6][7]-1/4J	—	
		10	ø3	VPHC6-10L[6][7]-3J	—	M4		10	ø1/8	VPHC6-10L[6][7]-1/8J	—	M4
			ø4	VPHC6-10L[6][7]-4J[13]	○				ø5/32	VPHC6-10L[6][7]-5/32J[13]	○	
			ø6	VPHC6-10L[6][7]-6J[13]	○				ø1/4	VPHC6-10L[6][7]-1/4J	—	
		15	ø3	VPHC6-15L[6][7]-3J	—			15	ø1/8	VPHC6-15L[6][7]-1/8J	—	
			ø4	VPHC6-15L[6][7]-4J[13]	○				ø5/32	VPHC6-15L[6][7]-5/32J[13]	○	
			ø6	VPHC6-15L[6][7]-6J[13]	○				ø1/4	VPHC6-15L[6][7]-1/4J	—	
		20	ø3	VPHC6-20L[6][7]-3J	—			20	ø1/8	VPHC6-20L[6][7]-1/8J	—	
			ø4	VPHC6-20L[6][7]-4J[13]	○				ø5/32	VPHC6-20L[6][7]-5/32J[13]	○	
			ø6	VPHC6-20L[6][7]-6J[13]	○				ø1/4	VPHC6-20L[6][7]-1/4J	—	
		25	ø3	VPHC6-25L[6][7]-3J	—			25	ø1/8	VPHC6-25L[6][7]-1/8J	—	
			ø4	VPHC6-25L[6][7]-4J[13]	○				ø5/32	VPHC6-25L[6][7]-5/32J[13]	○	
			ø6	VPHC6-25L[6][7]-6J[13]	○				ø1/4	VPHC6-25L[6][7]-1/4J	—	
		30	ø3	VPHC6-30L[6][7]-3J	—			30	ø1/8	VPHC6-30L[6][7]-1/8J	—	
			ø4	VPHC6-30L[6][7]-4J[13]	○				ø5/32	VPHC6-30L[6][7]-5/32J[13]	○	
			ø6	VPHC6-30L[6][7]-6J[13]	○				ø1/4	VPHC6-30L[6][7]-1/4J	—	
		40	ø3	VPHC6-40L[6][7]-3J	—			40	ø1/8	VPHC6-40L[6][7]-1/8J	—	
			ø4	VPHC6-40L[6][7]-4J[13]	○				ø5/32	VPHC6-40L[6][7]-5/32J[13]	○	
			ø6	VPHC6-40L[6][7]-6J[13]	○				ø1/4	VPHC6-40L[6][7]-1/4J	—	
		50	ø3	VPHC6-50L[6][7]-3J	—			50	ø1/8	VPHC6-50L[6][7]-1/8J	—	
			ø4	VPHC6-50L[6][7]-4J[13]	○				ø5/32	VPHC6-50L[6][7]-5/32J[13]	○	
			ø6	VPHC6-50L[6][7]-6J[13]	○				ø1/4	VPHC6-50L[6][7]-1/4J	—	

Notes
*Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.480
Surface treatment
Fall Prevention Valve (*)
Swivel Joint for vacuum pad (*)
Filter (*)

*Not available for configuration code: T15.

Vacuum Pad Soft Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Lightweight VPHC Pad dia. ø8 mm to ø10 mm	ø8	9	ø3	VPHC8-9L6 7-3J	—	T15	ø8	9	ø1/8	VPHC8-9L6 7-1/8J	—	T15
			ø4	VPHC8-9L6 7-4J13	○				ø5/32	VPHC8-9L6 7-5/32J13	○	
			ø6	VPHC8-9L6 7-6J13	○				ø1/4	VPHC8-9L6 7-1/4J	—	
		10	ø3	VPHC8-10L6 7-3J	—	M4		10	ø1/8	VPHC8-10L6 7-1/8J	—	M4
			ø4	VPHC8-10L6 7-4J13	○				ø5/32	VPHC8-10L6 7-5/32 13	○	
			ø6	VPHC8-10L6 7-6J13	○				ø1/4	VPHC8-10L6 7-1/4J	—	
		15	ø3	VPHC8-15L6 7-3J	—			15	ø1/8	VPHC8-15L6 7-1/8J	—	
			ø4	VPHC8-15L6 7-4J13	○				ø5/32	VPHC8-15L6 7-5/32J13	○	
			ø6	VPHC8-15L6 7-6J13	○				ø1/4	VPHC8-15L6 7-1/4J	—	
		20	ø3	VPHC8-20L6 7-3J	—			20	ø1/8	VPHC8-20L6 7-1/8J	—	
			ø4	VPHC8-20L6 7-4J13	○				ø5/32	VPHC8-20L6 7-5/32J13	○	
			ø6	VPHC8-20L6 7-6J13	○				ø1/4	VPHC8-20L6 7-1/4J	—	
		25	ø3	VPHC8-25L6 7-3J	—			25	ø1/8	VPHC8-25L6 7-1/8J	—	
			ø4	VPHC8-25L6 7-4J13	○				ø5/32	VPHC8-25L6 7-5/32J13	○	
			ø6	VPHC8-25L6 7-6J13	○				ø1/4	VPHC8-25L6 7-1/4J	—	
		30	ø3	VPHC8-30L6 7-3J	—			30	ø1/8	VPHC8-30L6 7-1/8J	—	
			ø4	VPHC8-30L6 7-4J13	○				ø5/32	VPHC8-30L6 7-5/32J13	○	
			ø6	VPHC8-30L6 7-6J13	○				ø1/4	VPHC8-30L6 7-1/4J	—	
		40	ø3	VPHC8-40L6 7-3J	—			40	ø1/8	VPHC8-40L6 7-1/8J	—	
			ø4	VPHC8-40L6 7-4J13	○				ø5/32	VPHC8-40L6 7-5/32J13	○	
			ø6	VPHC8-40L6 7-6J13	○				ø1/4	VPHC8-40L6 7-1/4J	—	
		50	ø3	VPHC8-50L6 7-3J	—			50	ø1/8	VPHC8-50L6 7-1/8J	—	
			ø4	VPHC8-50L6 7-4J13	○				ø5/32	VPHC8-50L6 7-5/32J13	○	
			ø6	VPHC8-50L6 7-6J13	○				ø1/4	VPHC8-50L6 7-1/4J	—	
	ø10	9	ø3	VPHC10-9L6 7-3J	—	T15	ø10	9	ø1/8	VPHC10-9L6 7-1/8J	—	T15
			ø4	VPHC10-9L6 7-4J13	○				ø5/32	VPHC10-9L6 7-5/32J13	○	
			ø6	VPHC10-9L6 7-6J13	○				ø1/4	VPHC10-9L6 7-1/4J	—	
		10	ø3	VPHC10-10L6 7-3J	—	M4		10	ø1/8	VPHC10-10L6 7-1/8J	—	M4
			ø4	VPHC10-10L6 7-4J13	○				ø5/32	VPHC10-10L6 7-5/32J13	○	
			ø6	VPHC10-10L6 7-6J13	○				ø1/4	VPHC10-10L6 7-1/4J	—	
		15	ø3	VPHC10-15L6 7-3J	—			15	ø1/8	VPHC10-15L6 7-1/8J	—	
			ø4	VPHC10-15L6 7-4J13	○				ø5/32	VPHC10-15L6 7-5/32J13	○	
			ø6	VPHC10-15L6 7-6J13	○				ø1/4	VPHC10-15L6 7-1/4J	—	
		20	ø3	VPHC10-20L6 7-3J	—			20	ø1/8	VPHC10-20L6 7-1/8J	—	
			ø4	VPHC10-20L6 7-4J13	○				ø5/32	VPHC10-20L6 7-5/32J13	○	
			ø6	VPHC10-20L6 7-6J13	○				ø1/4	VPHC10-20L6 7-1/4J	—	
		25	ø3	VPHC10-25L6 7-3J	—			25	ø1/8	VPHC10-25L6 7-1/8J	—	
			ø4	VPHC10-25L6 7-4J13	○				ø5/32	VPHC10-25L6 7-5/32J13	○	
			ø6	VPHC10-25L6 7-6J13	○				ø1/4	VPHC10-25L6 7-1/4J	—	
		30	ø3	VPHC10-30L6 7-3J	—			30	ø1/8	VPHC10-30L6 7-1/8J	—	
			ø4	VPHC10-30L6 7-4J13	○				ø5/32	VPHC10-30L6 7-5/32J13	○	
			ø6	VPHC10-30L6 7-6J13	○				ø1/4	VPHC10-30L6 7-1/4J	—	
		40	ø3	VPHC10-40L6 7-3J	—			40	ø1/8	VPHC10-40L6 7-1/8J	—	
			ø4	VPHC10-40L6 7-4J13	○				ø5/32	VPHC10-40L6 7-5/32J13	○	
			ø6	VPHC10-40L6 7-6J13	○				ø1/4	VPHC10-40L6 7-1/4J	—	
		50	ø3	VPHC10-50L6 7-3J	—			50	ø1/8	VPHC10-50L6 7-1/8J	—	
			ø4	VPHC10-50L6 7-4J13	○				ø5/32	VPHC10-50L6 7-5/32J13	○	
			ø6	VPHC10-50L6 7-6J13	○				ø1/4	VPHC10-50L6 7-1/4J	—	

Notes
*Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.480
Surface treatment
Fall Prevention Valve (*)
Swivel Joint for vacuum pad (*)
Filter (*)

*Not available for configuration code: T15.

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Lightweight **VPHC** Pad dia. ø15 mm to ø20 mm	ø15	9	ø3	VPHC15-9L67-3J	—	T15	ø15	9	ø1/8	VPHC15-9L67-1/8J	—	T15
			ø4	VPHC15-9L67-4J13	○				ø5/32	VPHC15-9L67-5/32J13	○	
			ø6	VPHC15-9L67-6J13	○				ø1/4	VPHC15-9L67-1/4J	—	
		10	ø3	VPHC15-10L67-3J	—	M4		10	ø1/8	VPHC15-10L67-1/8J	—	M4
			ø4	VPHC15-10L67-4J13	○				ø5/32	VPHC15-10L67-5/32J13	○	
			ø6	VPHC15-10L67-6J13	○				ø1/4	VPHC15-10L67-1/4J	—	
		15	ø3	VPHC15-15L67-3J	—			15	ø1/8	VPHC15-15L67-1/8J	—	
			ø4	VPHC15-15L67-4J13	○				ø5/32	VPHC15-15L67-5/32J13	○	
			ø6	VPHC15-15L67-6J13	○				ø1/4	VPHC15-15L67-1/4J	—	
		20	ø3	VPHC15-20L67-3J	—			20	ø1/8	VPHC15-20L67-1/8J	—	
			ø4	VPHC15-20L67-4J13	○				ø5/32	VPHC15-20L67-5/32J13	○	
			ø6	VPHC15-20L67-6J13	○				ø1/4	VPHC15-20L67-1/4J	—	
		25	ø3	VPHC15-25L67-3J	—			25	ø1/8	VPHC15-25L67-1/8J	—	
			ø4	VPHC15-25L67-4J13	○				ø5/32	VPHC15-25L67-5/32J13	○	
			ø6	VPHC15-25L67-6J13	○				ø1/4	VPHC15-25L67-1/4J	—	
		30	ø3	VPHC15-30L67-3J	—			30	ø1/8	VPHC15-30L67-1/8J	—	
			ø4	VPHC15-30L67-4J13	○				ø5/32	VPHC15-30L67-5/32J13	○	
			ø6	VPHC15-30L67-6J13	○				ø1/4	VPHC15-30L67-1/4J	—	
		40	ø3	VPHC15-40L67-3J	—			40	ø1/8	VPHC15-40L67-1/8J	—	
			ø4	VPHC15-40L67-4J13	○				ø5/32	VPHC15-40L67-5/32J13	○	
			ø6	VPHC15-40L67-6J13	○				ø1/4	VPHC15-40L67-1/4J	—	
		50	ø3	VPHC15-50L67-3J	—			50	ø1/8	VPHC15-50L67-1/8J	—	
			ø4	VPHC15-50L67-4J13	○				ø5/32	VPHC15-50L67-5/32J13	○	
			ø6	VPHC15-50L67-6J13	○				ø1/4	VPHC15-50L67-1/4J	—	
	ø20	9	ø3	VPHC20-9L67-3J	—	T40	ø20	9	ø1/8	VPHC20-9L67-1/8J	—	T40
			ø4	VPHC20-9L67-4J13	○				ø5/32	VPHC20-9L67-5/32J13	○	
			ø6	VPHC20-9L67-6J13	○				ø1/4	VPHC20-9L67-1/4J	—	
		10	ø3	VPHC20-10L67-3J	—	M6		10	ø1/8	VPHC20-10L67-1/8J	—	M6
			ø4	VPHC20-10L67-4J13	○				ø5/32	VPHC20-10L67-5/32J13	○	
			ø6	VPHC20-10L67-6J13	○				ø1/4	VPHC20-10L67-1/4J	—	
		15	ø3	VPHC20-15L67-3J	—			15	ø1/8	VPHC20-15L67-1/8J	—	
			ø4	VPHC20-15L67-4J13	○				ø5/32	VPHC20-15L67-5/32J13	○	
			ø6	VPHC20-15L67-6J13	○				ø1/4	VPHC20-15L67-1/4J	—	
		20	ø3	VPHC20-20L67-3J	—			20	ø1/8	VPHC20-20L67-1/8J	—	
			ø4	VPHC20-20L67-4J13	○				ø5/32	VPHC20-20L67-5/32J13	○	
			ø6	VPHC20-20L67-6J13	○				ø1/4	VPHC20-20L67-1/4J	—	
		25	ø3	VPHC20-25L67-3J	—			25	ø1/8	VPHC20-25L67-1/8J	—	
			ø4	VPHC20-25L67-4J13	○				ø5/32	VPHC20-25L67-5/32J13	○	
			ø6	VPHC20-25L67-6J13	○				ø1/4	VPHC20-25L67-1/4J	—	
		30	ø3	VPHC20-30L67-3J	—			30	ø1/8	VPHC20-30L67-1/8J	—	
			ø4	VPHC20-30L67-4J13	○				ø5/32	VPHC20-30L67-5/32J13	○	
			ø6	VPHC20-30L67-6J13	○				ø1/4	VPHC20-30L67-1/4J	—	
		40	ø3	VPHC20-40L67-3J	—			40	ø1/8	VPHC20-40L67-1/8J	—	
			ø4	VPHC20-40L67-4J13	○				ø5/32	VPHC20-40L67-5/32J13	○	
			ø6	VPHC20-40L67-6J13	○				ø1/4	VPHC20-40L67-1/4J	—	
		50	ø3	VPHC20-50L67-3J	—			50	ø1/8	VPHC20-50L67-1/8J	—	
			ø4	VPHC20-50L67-4J13	○				ø5/32	VPHC20-50L67-5/32J13	○	
			ø6	VPHC20-50L67-6J13	○				ø1/4	VPHC20-50L67-1/4J	—	

Notes
*Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.480
Surface treatment
Fall Prevention Valve (*)
Swivel Joint for vacuum pad (*)
Filter (*)

*Not available for configuration code: T15 and T40.

Vacuum Pad Soft Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Lightweight **VPHC** Pad dia. ø30 mm to ø40 mm	ø30	9	ø3	VPHC30-9L67-3J	—		ø30	9	ø1/8	VPHC30-9L67-1/8J	—	
			ø4	VPHC30-9L67-4J13	○	T40			ø5/32	VPHC30-9L67-5/32J13	○	T40
			ø6	VPHC30-9L67-6J13	○				ø1/4	VPHC30-9L67-1/4J	—	
		10	ø3	VPHC30-10L67-3J	—			10	ø1/8	VPHC30-10L67-1/8J	—	
			ø4	VPHC30-10L67-4J13	○				ø5/32	VPHC30-10L67-5/32J13	○	
			ø6	VPHC30-10L67-6J13	○				ø1/4	VPHC30-10L67-1/4J	—	
		15	ø3	VPHC30-15L67-3J	—			15	ø1/8	VPHC30-15L67-1/8J	—	
			ø4	VPHC30-15L67-4J13	○				ø5/32	VPHC30-15L67-5/32J13	○	
			ø6	VPHC30-15L67-6J13	○				ø1/4	VPHC30-15L67-1/4J	—	
		20	ø3	VPHC30-20L67-3J	—			20	ø1/8	VPHC30-20L67-1/8J	—	
			ø4	VPHC30-20L67-4J13	○				ø5/32	VPHC30-20L67-5/32J13	○	
			ø6	VPHC30-20L67-6J13	○				ø1/4	VPHC30-20L67-1/4J	—	
		25	ø3	VPHC30-25L67-3J	—			25	ø1/8	VPHC30-25L67-1/8J	—	
			ø4	VPHC30-25L67-4J13	○	M6			ø5/32	VPHC30-25L67-5/32J13	○	M6
			ø6	VPHC30-25L67-6J13	○				ø1/4	VPHC30-25L67-1/4J	—	
		30	ø3	VPHC30-30L67-3J	—			30	ø1/8	VPHC30-30L67-1/8J	—	
			ø4	VPHC30-30L67-4J13	○				ø5/32	VPHC30-30L67-5/32J13	○	
			ø6	VPHC30-30L67-6J13	○				ø1/4	VPHC30-30L67-1/4J	—	
		40	ø3	VPHC30-40L67-3J	—			40	ø1/8	VPHC30-40L67-1/8J	—	
			ø4	VPHC30-40L67-4J13	○				ø5/32	VPHC30-40L67-5/32J13	○	
			ø6	VPHC30-40L67-6J13	○				ø1/4	VPHC30-40L67-1/4J	—	
		50	ø3	VPHC30-50L67-3J	—			50	ø1/8	VPHC30-50L67-1/8J	—	
			ø4	VPHC30-50L67-4J13	○				ø5/32	VPHC30-50L67-5/32J13	○	
			ø6	VPHC30-50L67-6J13	○				ø1/4	VPHC30-50L67-1/4J	—	
	ø40	9	ø3	VPHC40-9L67-3J	—		ø40	9	ø1/8	VPHC40-9L67-1/8J	—	
			ø4	VPHC40-9L67-4J13	○	T40			ø5/32	VPHC40-9L67-5/32J13	○	T40
			ø6	VPHC40-9L67-6J13	○				ø1/4	VPHC40-9L67-1/4J	—	
		10	ø3	VPHC40-10L67-3J	—			10	ø1/8	VPHC40-10L67-1/8J	—	
			ø4	VPHC40-10L67-4J13	○				ø5/32	VPHC40-10L67-5/32J13	○	
			ø6	VPHC40-10L67-6J13	○				ø1/4	VPHC40-10L67-1/4J	—	
		15	ø3	VPHC40-15L67-3J	—			15	ø1/8	VPHC40-15L67-1/8J	—	
			ø4	VPHC40-15L67-4J13	○				ø5/32	VPHC40-15L67-5/32J13	○	
			ø6	VPHC40-15L67-6J13	○				ø1/4	VPHC40-15L67-1/4J	—	
		20	ø3	VPHC40-20L67-3J	—			20	ø1/8	VPHC40-20L67-1/8J	—	
			ø4	VPHC40-20L67-4J13	○				ø5/32	VPHC40-20L67-5/32J13	○	
			ø6	VPHC40-20L67-6J13	○				ø1/4	VPHC40-20L67-1/4J	—	
		25	ø3	VPHC40-25L67-3J	—			25	ø1/8	VPHC40-25L67-1/8J	—	
			ø4	VPHC40-25L67-4J13	○	M6			ø5/32	VPHC40-25L67-5/32J13	○	M6
			ø6	VPHC40-25L67-6J13	○				ø1/4	VPHC40-25L67-1/4J	—	
		30	ø3	VPHC40-30L67-3J	—			30	ø1/8	VPHC40-30L67-1/8J	—	
			ø4	VPHC40-30L67-4J13	○				ø5/32	VPHC40-30L67-5/32J13	○	
			ø6	VPHC40-30L67-6J13	○				ø1/4	VPHC40-30L67-1/4J	—	
		40	ø3	VPHC40-40L67-3J	—			40	ø1/8	VPHC40-40L67-1/8J	—	
			ø4	VPHC40-40L67-4J13	○				ø5/32	VPHC40-40L67-5/32J13	○	
			ø6	VPHC40-40L67-6J13	○				ø1/4	VPHC40-40L67-1/4J	—	
		50	ø3	VPHC40-50L67-3J	—			50	ø1/8	VPHC40-50L67-1/8J	—	
			ø4	VPHC40-50L67-4J13	○				ø5/32	VPHC40-50L67-5/32J13	○	
			ø6	VPHC40-50L67-6J13	○				ø1/4	VPHC40-50L67-1/4J	—	

Notes
*Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.480
Surface treatment
Fall Prevention Valve (*)
Swivel Joint for vacuum pad (*)
Filter (*)

*Not available for configuration code: T15 and T40.

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Female thread, Lightweight VPHC 	ø4	9	M5×0.8	VPHC4-9L67-M513	○	T15
		10		VPHC4-10L67-M513	○	
		15		VPHC4-15L67-M513	○	
		20		VPHC4-20L67-M513	○	
		25		VPHC4-25L67-M513	○	M4
		30		VPHC4-30L67-M513	○	
		40		VPHC4-40L67-M513	○	
		50		VPHC4-50L67-M513	○	
	ø6	9	M5×0.8	VPHC6-9L67-M513	○	T15
		10		VPHC6-10L67-M513	○	
		15		VPHC6-15L67-M513	○	
		20		VPHC6-20L67-M513	○	
		25		VPHC6-25L67-M513	○	M4
		30		VPHC6-30L67-M513	○	
		40		VPHC6-40L67-M513	○	
		50		VPHC6-50L67-M513	○	
	ø8	9	M5×0.8	VPHC8-9L67-M513	○	T15
		10		VPHC8-10L67-M513	○	
		15		VPHC8-15L67-M513	○	
		20		VPHC8-20L67-M513	○	
		25		VPHC8-25L67-M513	○	M4
		30		VPHC8-30L67-M513	○	
		40		VPHC8-40L67-M513	○	
		50		VPHC8-50L67-M513	○	
	ø10	9	M5×0.8	VPHC10-9L67-M513	○	T15
		10		VPHC10-10L67-M513	○	
		15		VPHC10-15L67-M513	○	
		20		VPHC10-20L67-M513	○	
		25		VPHC10-25L67-M513	○	M4
		30		VPHC10-30L67-M513	○	
		40		VPHC10-40L67-M513	○	
		50		VPHC10-50L67-M513	○	
	ø15	9	M5×0.8	VPHC15-9L67-M513	○	T15
		10		VPHC15-10L67-M513	○	
		15		VPHC15-15L67-M513	○	
		20		VPHC15-20L67-M513	○	
		25		VPHC15-25L67-M513	○	M4
		30		VPHC15-30L67-M513	○	
		40		VPHC15-40L67-M513	○	
		50		VPHC15-50L67-M513	○	
	ø20	9	M5×0.8	VPHC20-9L67-M513	○	T40
		10		VPHC20-10L67-M513	○	
		15		VPHC20-15L67-M513	○	
		20		VPHC20-20L67-M513	○	
		25		VPHC20-25L67-M513	○	M6
		30		VPHC20-30L67-M513	○	
		40		VPHC20-40L67-M513	○	
		50		VPHC20-50L67-M513	○	
	ø30	9	M5×0.8	VPHC30-9L67-M513	○	T40
		10		VPHC30-10L67-M513	○	
		15		VPHC30-15L67-M513	○	
		20		VPHC30-20L67-M513	○	
		25		VPHC30-25L67-M513	○	M6
		30		VPHC30-30L67-M513	○	
		40		VPHC30-40L67-M513	○	
		50		VPHC30-50L67-M513	○	
	ø40	9	M5×0.8	VPHC40-9L67-M513	○	T40
		10		VPHC40-10L67-M513	○	
		15		VPHC40-15L67-M513	○	
		20		VPHC40-20L67-M513	○	
		25		VPHC40-25L67-M513	○	M6
		30		VPHC40-30L67-M513	○	
		40		VPHC40-40L67-M513	○	
		50		VPHC40-50L67-M513	○	

Vacuum Pad Soft Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, No cover, Lightweight VPHD Stroke 5mm	ø4	ø3	VPHD4-5L67-3J	—	T15	ø4	ø1/8	VPHD4-5L67-1/8J	—	
		ø4	VPHD4-5L67-4J13	○			ø5/32	VPHD4-5L67-5/32J13	○	
		ø6	VPHD4-5L67-6J13	○			ø1/4	VPHD4-5L67-1/4J	—	
	ø6	ø3	VPHD6-5L67-3J	—		ø6	ø1/8	VPHD6-5L67-1/8J	—	
		ø4	VPHD6-5L67-4J13	○			ø5/32	VPHD6-5L67-5/32J13	○	
		ø6	VPHD6-5L67-6J13	○			ø1/4	VPHD6-5L67-1/4J	—	
	ø8	ø3	VPHD8-5L67-3J	—		ø8	ø1/8	VPHD8-5L67-1/8J	—	
		ø4	VPHD8-5L67-4J13	○			ø5/32	VPHD8-5L67-5/32J13	○	
		ø6	VPHD8-5L67-6J13	○			ø1/4	VPHD8-5L67-1/4J	—	
	ø10	ø3	VPHD10-5L67-3J	—		ø10	ø1/8	VPHD10-5L67-1/8J	—	
		ø4	VPHD10-5L67-4J13	○			ø5/32	VPHD10-5L67-5/32J13	○	
		ø6	VPHD10-5L67-6J13	○			ø1/4	VPHD10-5L67-1/4J	—	
	ø15	ø3	VPHD15-5L67-3J	—		ø15	ø1/8	VPHD15-5L67-1/8J	—	
		ø4	VPHD15-5L67-4J13	○			ø5/32	VPHD15-5L67-5/32J13	○	
		ø6	VPHD15-5L67-6J13	○			ø1/4	VPHD15-5L67-1/4J	—	
	ø20	ø3	VPHD20-5L67-3J	—	T40	ø20	ø1/8	VPHD20-5L67-1/8J	—	T40
		ø4	VPHD20-5L67-4J13	○			ø5/32	VPHD20-5L67-5/32J13	○	
		ø6	VPHD20-5L67-6J13	○			ø1/4	VPHD20-5L67-1/4J	—	
	ø30	ø3	VPHD30-5L67-3J	—		ø30	ø1/8	VPHD30-5L67-1/8J	—	
		ø4	VPHD30-5L67-4J13	○			ø5/32	VPHD30-5L67-5/32J13	○	
		ø6	VPHD30-5L67-6J13	○			ø1/4	VPHD30-5L67-1/4J	—	
	ø40	ø3	VPHD40-5L67-3J	—		ø40	ø1/8	VPHD40-5L67-1/8J	—	
		ø4	VPHD40-5L67-4J13	○			ø5/32	VPHD40-5L67-5/32J13	○	
		ø6	VPHD40-5L67-6J13	○			ø1/4	VPHD40-5L67-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Female thread, No cover, Lightweight VPHD Stroke 5mm	ø4	M5×0.8	VPHD4-5L67-M513	○	T15
	ø6	M5×0.8	VPHD6-5L67-M513	○	
	ø8	M5×0.8	VPHD8-5L67-M513	○	
	ø10	M5×0.8	VPHD10-5L67-M513	○	
	ø15	M5×0.8	VPHD15-5L67-M513	○	
	ø20	M5×0.8	VPHD20-5L67-M513	○	T40
	ø30	M5×0.8	VPHD30-5L67-M513	○	
	ø40	M5×0.8	VPHD40-5L67-M513	○	

Notes
*Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.480
Surface treatment

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Dual side port, Push-in fitting, No cover, Lightweight **VPHDW** Stroke 5mm	ø4	ø3	VPHDW4-5L67-3J	—	T15
		ø4	VPHDW4-5L67-4J13	○	
		ø6	VPHDW4-5L67-6J13	○	
	ø6	ø3	VPHDW6-5L67-3J	—	
		ø4	VPHDW6-5L67-4J13	○	
		ø6	VPHDW6-5L67-6J13	○	
	ø8	ø3	VPHDW8-5L67-3J	—	
		ø4	VPHDW8-5L67-4J13	○	
		ø6	VPHDW8-5L67-6J13	○	
	ø10	ø3	VPHDW10-5L67-3J	—	
		ø4	VPHDW10-5L67-4J13	○	
		ø6	VPHDW10-5L67-6J13	○	
	ø15	ø3	VPHDW15-5L67-3J	—	
		ø4	VPHDW15-5L67-4J13	○	
		ø6	VPHDW15-5L67-6J13	○	
	ø20	ø3	VPHDW20-5L67-3J	—	T40
		ø4	VPHDW20-5L67-4J13	○	
		ø6	VPHDW20-5L67-6J13	○	
	ø30	ø3	VPHDW30-5L67-3J	—	
		ø4	VPHDW30-5L67-4J13	○	
		ø6	VPHDW30-5L67-6J13	○	
	ø40	ø3	VPHDW40-5L67-3J	—	
		ø4	VPHDW40-5L67-4J13	○	
		ø6	VPHDW40-5L67-6J13	○	

Pad dia. (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
ø4	ø1/8	VPHDW4-5L67-1/8J	—	T15
	ø5/32	VPHDW4-5L67-5/32J13	○	
	ø1/4	VPHDW4-5L67-1/4J	—	
ø6	ø1/8	VPHDW6-5L67-1/8J	—	
	ø5/32	VPHDW6-5L67-5/32J13	○	
	ø1/4	VPHDW6-5L67-1/4J	—	
ø8	ø1/8	VPHDW8-5L67-1/8J	—	
	ø5/32	VPHDW8-5L67-5/32J13	○	
	ø1/4	VPHDW8-5L67-1/4J	—	
ø10	ø1/8	VPHDW10-5L67-1/8J	—	
	ø5/32	VPHDW10-5L67-5/32J13	○	
	ø1/4	VPHDW10-5L67-1/4J	—	
ø15	ø1/8	VPHDW15-5L67-1/8J	—	
	ø5/32	VPHDW15-5L67-5/32J13	○	
	ø1/4	VPHDW15-5L67-1/4J	—	
ø20	ø1/8	VPHDW20-5L67-1/8J	—	T40
	ø5/32	VPHDW20-5L67-5/32J13	○	
	ø1/4	VPHDW20-5L67-1/4J	—	
ø30	ø1/8	VPHDW30-5L67-1/8J	—	
	ø5/32	VPHDW30-5L67-5/32J13	○	
	ø1/4	VPHDW30-5L67-1/4J	—	
ø40	ø1/8	VPHDW40-5L67-1/8J	—	
	ø5/32	VPHDW40-5L67-5/32J13	○	
	ø1/4	VPHDW40-5L67-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Dual side port, Female thread, No cover, Lightweight **VPHDW** Stroke 5mm	ø4	M5×0.8	VPHDW4-5L67-M513	○	T15
	ø6	M5×0.8	VPHDW6-5L67-M513	○	
	ø8	M5×0.8	VPHDW8-5L67-M513	○	
	ø10	M5×0.8	VPHDW10-5L67-M513	○	
	ø15	M5×0.8	VPHDW15-5L67-M513	○	
	ø20	M5×0.8	VPHDW20-5L67-M513	○	T40
	ø30	M5×0.8	VPHDW30-5L67-M513	○	
	ø40	M5×0.8	VPHDW40-5L67-M513	○	

Notes
*Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.480
Surface treatment

Vacuum Pad Soft Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	⑬ -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	⑬ -S3 -S3 spec.	Connection config. code
Fixed type, Direct mount, Side port, Push-in fitting, Low profile **VPHE**	ø4	ø3	VPHE4L⑥⑦-3J	—	T15	ø4	ø1/8	VPHE4L⑥⑦-1/8J	—	
		ø4	VPHE4L⑥⑦-4J⑬	○			ø5/32	VPHE4L⑥⑦-5/32J⑬	○	
		ø6	VPHE4L⑥⑦-6J⑬	○			ø1/4	VPHE4L⑥⑦-1/4J	—	
	ø6	ø3	VPHE6L⑥⑦-3J	—		ø6	ø1/8	VPHE6L⑥⑦-1/8J	—	
		ø4	VPHE6L⑥⑦-4J⑬	○			ø5/32	VPHE6L⑥⑦-5/32J⑬	○	
		ø6	VPHE6L⑥⑦-6J⑬	○			ø1/4	VPHE6L⑥⑦-1/4J	—	
	ø8	ø3	VPHE8L⑥⑦-3J	—		ø8	ø1/8	VPHE8L⑥⑦-1/8J	—	
		ø4	VPHE8L⑥⑦-4J⑬	○			ø5/32	VPHE8L⑥⑦-5/32J⑬	○	
		ø6	VPHE8L⑥⑦-6J⑬	○			ø1/4	VPHE8L⑥⑦-1/4J	—	
	ø10	ø3	VPHE10L⑥⑦-3J	—		ø10	ø1/8	VPHE10L⑥⑦-1/8J	—	
		ø4	VPHE10L⑥⑦-4J⑬	○			ø5/32	VPHE10L⑥⑦-5/32J⑬	○	
		ø6	VPHE10L⑥⑦-6J⑬	○			ø1/4	VPHE10L⑥⑦-1/4J	—	
	ø15	ø3	VPHE15L⑥⑦-3J	—		ø15	ø1/8	VPHE15L⑥⑦-1/8J	—	
		ø4	VPHE15L⑥⑦-4J⑬	○			ø5/32	VPHE15L⑥⑦-5/32J⑬	○	
		ø6	VPHE15L⑥⑦-6J⑬	○			ø1/4	VPHE15L⑥⑦-1/4J	—	
	ø20	ø3	VPHE20L⑥⑦-3J	—	T40	ø20	ø1/8	VPHE20L⑥⑦-1/8J	—	T40
		ø4	VPHE20L⑥⑦-4J⑬	○			ø5/32	VPHE20L⑥⑦-5/32J⑬	○	
		ø6	VPHE20L⑥⑦-6J⑬	○			ø1/4	VPHE20L⑥⑦-1/4J	—	
	ø30	ø3	VPHE30L⑥⑦-3J	—		ø30	ø1/8	VPHE30L⑥⑦-1/8J	—	
		ø4	VPHE30L⑥⑦-4J⑬	○			ø5/32	VPHE30L⑥⑦-5/32J⑬	○	
		ø6	VPHE30L⑥⑦-6J⑬	○			ø1/4	VPHE30L⑥⑦-1/4J	—	
	ø40	ø3	VPHE40L⑥⑦-3J	—		ø40	ø1/8	VPHE40L⑥⑦-1/8J	—	
		ø4	VPHE40L⑥⑦-4J⑬	○			ø5/32	VPHE40L⑥⑦-5/32J⑬	○	
		ø6	VPHE40L⑥⑦-6J⑬	○			ø1/4	VPHE40L⑥⑦-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	⑬ -S3 -S3 spec.	Connection config. code
Fixed type, Direct mount, Side port, Female thread, Low profile **VPHE**	ø4	M5×0.8	VPHE4L⑥⑦-M5⑬	○	T15
	ø6	M5×0.8	VPHE6L⑥⑦-M5⑬	○	
	ø8	M5×0.8	VPHE8L⑥⑦-M5⑬	○	
	ø10	M5×0.8	VPHE10L⑥⑦-M5⑬	○	
	ø15	M5×0.8	VPHE15L⑥⑦-M5⑬	○	
	ø20	M5×0.8	VPHE20L⑥⑦-M5⑬	○	T40
	ø30	M5×0.8	VPHE30L⑥⑦-M5⑬	○	
	ø40	M5×0.8	VPHE40L⑥⑦-M5⑬	○	

Notes
*Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⑬: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.480
Surface treatment

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Direct mount, Dual side port, Push-in fitting, Low profile **VPHEW**	ø4	ø3	VPHEW4L67-3J	—	T15	ø4	ø1/8	VPHEW4L67-1/8J	—	
		ø4	VPHEW4L67-4J13	○			ø5/32	VPHEW4L67-5/32J13	○	
		ø6	VPHEW4L67-6J13	○			ø1/4	VPHEW4L67-1/4J	—	
	ø6	ø3	VPHEW6L67-3J	—		ø6	ø1/8	VPHEW6L67-1/8J	—	
		ø4	VPHEW6L67-4J13	○			ø5/32	VPHEW6L67-5/32J13	○	
		ø6	VPHEW6L67-6J13	○			ø1/4	VPHEW6L67-1/4J	—	
	ø8	ø3	VPHEW8L67-3J	—		ø8	ø1/8	VPHEW8L67-1/8J	—	
		ø4	VPHEW8L67-4J13	○			ø5/32	VPHEW8L67-5/32J13	○	
		ø6	VPHEW8L67-6J13	○			ø1/4	VPHEW8L67-1/4J	—	
	ø10	ø3	VPHEW10L67-3J	—		ø10	ø1/8	VPHEW10L67-1/8J	—	
		ø4	VPHEW10L67-4J13	○			ø5/32	VPHEW10L67-5/32J13	○	
		ø6	VPHEW10L67-6J13	○			ø1/4	VPHEW10L67-1/4J	—	
	ø15	ø3	VPHEW15L67-3J	—		ø15	ø1/8	VPHEW15L67-1/8J	—	
		ø4	VPHEW15L67-4J13	○			ø5/32	VPHEW15L67-5/32J13	○	
		ø6	VPHEW15L67-6J13	○			ø1/4	VPHEW15L67-1/4J	—	
	ø20	ø3	VPHEW20L67-3J	—	T40	ø20	ø1/8	VPHEW20L67-1/8J	—	T40
		ø4	VPHEW20L67-4J13	○			ø5/32	VPHEW20L67-5/32J13	○	
		ø6	VPHEW20L67-6J13	○			ø1/4	VPHEW20L67-1/4J	—	
	ø30	ø3	VPHEW30L67-3J	—		ø30	ø1/8	VPHEW30L67-1/8J	—	
		ø4	VPHEW30L67-4J13	○			ø5/32	VPHEW30L67-5/32J13	○	
		ø6	VPHEW30L67-6J13	○			ø1/4	VPHEW30L67-1/4J	—	
	ø40	ø3	VPHEW40L67-3J	—		ø40	ø1/8	VPHEW40L67-1/8J	—	
		ø4	VPHEW40L67-4J13	○			ø5/32	VPHEW40L67-5/32J13	○	
		ø6	VPHEW40L67-6J13	○			ø1/4	VPHEW40L67-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Direct mount, Dual side port, Female thread, Low profile **VPHEW**	ø4	M5×0.8	VPHEW4L67-M513	○	T15
	ø6	M5×0.8	VPHEW6L67-M513	○	
	ø8	M5×0.8	VPHEW8L67-M513	○	
	ø10	M5×0.8	VPHEW10L67-M513	○	
	ø15	M5×0.8	VPHEW15L67-M513	○	
	ø20	M5×0.8	VPHEW20L67-M513	○	T40
	ø30	M5×0.8	VPHEW30L67-M513	○	
	ø40	M5×0.8	VPHEW40L67-M513	○	

Notes
*Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.480
Surface treatment

Vacuum Pad Soft Type

Optional items (○: Available)

7 Pad surface treatment (Suction mark-free)

Pad dia. (mm)	7 Surface treatment code					Connection config. code
	-NF	-SF	-DL	-ER	-FG	
	Fiber surface		DLC. coating	Reformed surface	Fluoro-coating	
	Nylon	Silk				
ø4	—	—	○	○	○	M4 T15
ø6	—	—	○	○	○	
ø8	—	—	○	○	○	
ø10	○	○	○	○	○	
ø15	○	○	○	○	○	
ø20	○	○	○	○	○	M6 T40
ø30	○	○	○	○	○	
ø40	○	○	○	○	○	
Material	S		S, SE	N, NE	S, SE	

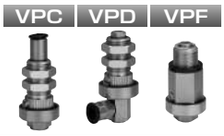
Characteristics of surface treatment ► P.370

9 Dust Catcher: -DC

Optional	Connection config. code	-S3 spec.
Dust Catcher (-DC)	M4	○
	M6	○

Holder type

VPC VPD VPF



Characteristics of Dust Catcher ► P.371

10 Fall Prevention Valve: -ECV

Optional	Connection config. code	Model code
Fall Prevention Valve (-ECV)	M4	ECVM4-FM4
	M6	ECVM6-FM6

Characteristics of Fall Prevention Valve ► P.722

11 Swivel Joint: -FH, -FHH, -CFH

Optional	Swivel angle	Connection config. code	Model code
Ball Swivel Joint (-FH)(-FHH)	30° (-FH)	M4	FH10
		M6	FH20
	15° (-FHH)	M4	FH10-15
		M6	FH20-15

Characteristics of Ball Swivel Joint ► P.724

Optional	Connection config. code	-S3 spec.	Model code
Flexible Swing Joint (-CFH)	M4	○	CFHM4-FM4
	M6	○	CFHM6-FM6

* When ordering a Flexible Swing Joint alone, please enter "-S3" at the end of the model code for -S3 specification.

Characteristics of Flexible Swing Joint ► P.725

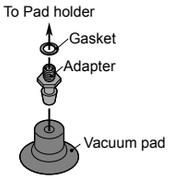
12 Filter: -F15, -F30

Optional	Filter area	Connection config. code	Model code
Pad Direct Mounting Filter (-F15)(-F30)	1.7cm² (-F15)	M4	VFF15-M4
		M6	VFF15-M6
	7cm² (-F30)	M6	VFF30-M6

Characteristics of Filter ► P.726

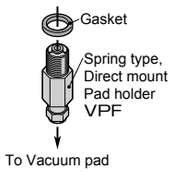
See the page 446 for the model designation including optional items.

Replacement parts (○: -S3 spec. is available)



Adapter for soft pad Model code	13 : -S3	Applicable pad dia. (mm)	Applicable pad holder
FVPL15-M413	○	ø4 to ø15	Connection config. code M4
FVPL40-M613	○	ø20 to ø40	Connection config. code M6

These adapters are necessary for mounting soft pad to pad holders of M4 or M6 configuration code.

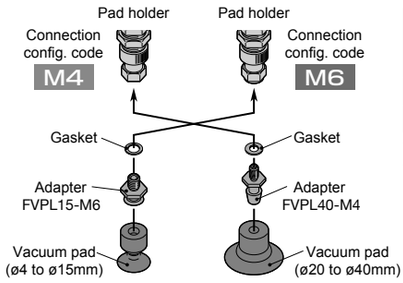


Gasket for adapter (*) Model code	Applicable adapter	Connection config. code
GAS-M4	FVPL15-M4、FVPL40-M4	M4
GAS-M6 (Fall prevention)	FVPL40-M6、FVPL15-M6	M6
-S3 spec.		
GAS-M5-SUS	FVPL15-M4-S3、FVPL40-M4-SUS	M4
GAS-M6-SUS	FVPL40-M6-S3、FVPL15-M6-SUS	M6

*Gasket for adapter is equipped with an Adapter. The model code above is for Gasket alone.

Gasket Model code	Applicable pad dia. (mm)	Connection config. code
VPFG10	All sizes	M4 M6

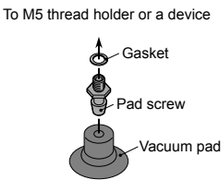
Rearrangement parts



Adapter for soft pad Model code	13 : -S3	Applicable pad dia. (mm)	Applicable pad holder
FVPL15-M613	○	ø4 to ø15	Connection config. code M6
FVPL40-M413	○	ø20 to ø40	Connection config. code M4

These adapters can be used to mount soft pad: dia. 20 to 40 mm to pad holders with configuration code: M4, or soft pad: dia. 4 to 15 mm to pad holders with configuration code: M6.

*Gasket for adapter is equipped with an Adapter. When the gasket alone is necessary, refer to "Model code of Gasket for adapter" above.



M5 thread adapter Model code	13 : -S3	Applicable pad dia. (mm)
FVPL15-M513	○	ø4 to ø15
FVPL40-M513	○	ø20 to ø40

*Gasket for adapter is equipped with an Adapter.

Vacuum Pad Soft Bellows Type

Vacuum pad for inclined molded plastic parts etc. (Bellows convolution: 1)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VP (1)	C (2)	10 (3)	-6 (4)	LB (5)	N (6)	-ER (7)	-6J (8)	-DC (9)	-ECV (10)	-FH (11)	-F15 (12)	(13)
						Optional		Optional	Optional	Optional	Optional	Optional

(1) Vacuum Pad

(2) Holder type

Holder type		Fixed type		Spring type			
		Mini	Standard	Mini	Standard	No cover	Low dust emission
Code	Top port	MA	A	MC	C	OC	LFC
	Side port	MB	B	MD	D	OD	LFD
	Direct mount	–	E(*)	–	F	–	–
Connection config. code		M4 M6	M4 M6 T15 T40	M4 M6	M4 M6	M4 M6	M4 M6

Holder type		Lightweight	Low profile
		Spring type	Direct mount
Code	Top port	HC(*)	–
	Side port	HD(*)	HE(*)
	Dual side port	HDW(*)	HEW(*)
Connection config. code		T15 T40 M4 M6	T15 T40 M4 M6

*E, HC, HD, HDW, HE and HEW holders have a setting of configuration code M4, M6, T15 and T40, but only T15 and T40 are available for pad and holder set. Only M4 and M6 configuration code are available for holders except for (*).

(3) Pad dia.

Code	6	8	10	15	20
Pad dia. (mm)	ø6	ø8	ø10	ø15	ø20
Connection config. code	M4 T15				M6 T40

(4) Stroke (No code entry for Holder type: MA, A, MB, B, E, F, HE and HEW)

Code	-2	-4	-5	-6	-9	-10	-15	-20	-25	-30	-40	-50
Stroke (mm)	2	4	5	6	9	10	15	20	25	30	40	50
Spring type holder code: VPMC		●●										
VPC				●●		●●	●●	●●				
VPOC								●●		●●	●●	●●
VPLFC	●		●●			●●	●●	●●				
VPMD		●●										
VPD				●●		●●	●●	●●				
VPOD								●●		●●	●●	●●
VPLFD			●●			●●	●●	●●				
VPHC					●●	●●	●●	●●	●●	●●	●●	●●
VPHD			●●●●									
VPHDW			●●●●									

Connection config. code
●: M4
●: M6
●: T15
●: T40

(5) Pad type LB: Soft Bellows

(6) Pad material

Code	N	S	U	SE	NE	HN	EP
Rubber material	Nitrile	Silicone	Urethane	Conductive Silicone	Conductive NBR (Low resistance)	HNBR	EPDM

*1. The Conductive Silicone rubber (SE) is a silicon rubber capable of releasing static electricity. (Volume resistance: More than 200 Ω·cm and 10^5 Ω·cm or less)
*2. Nitrile rubber (N) and Conductive NBR (Low resistance type, Volume resistance: 200 Ω·cm or less) (NE) are not suitable for use with ozone environment.

(7) Pad surface treatment for suction mark-free Optional

Code	No code	-NF	-SF	-DL	-ER	-FG
Surface treatment	None	Fiber surface		DLC. coating	Reformed surface	Fluoro-coating
		Nylon	Silk			
Applicable pad material	—	Silicone (S)		Silicone (S), Conductive Silicone (SE)	Nitrile (N), Conductive NBR (Low resistance) (NE)	Silicone (S), Conductive Silicone (SE)
Applicable pad dia.	—	ø10 to ø20mm		ø6 to ø20mm	ø6 to ø20mm	ø6 to ø20mm

*Please refer to page 370 for the details of each pad surface type and treatment for Suction Mark-free.

(8) Vacuum port size and joint type (No code entry for Holder type: F) (○: Available)

Type	Push-in fitting								Barb fitting				Female thread	
	mm size (mm)					inch size (inch)			mm size (mm)			inch size (inch)	Metric thread	
Code	-180J	-2J	-3J	-4J	-6J	-1/8J	-5/32J	-1/4J	-3B	-4B*	-6B	-1/4B	-M5	-M6
Tube O.D.	ø1.8	ø2	ø3	ø4	ø6	ø1/8	ø5/32	ø1/4						
Tube I.D.									ø2	ø2.5	ø4	Polyurethane tube ø0.163 Nylon tube ø0.180		
Thread size													M5×0.8	M6×1
Holder type VPMA			○	○			○		○	○	○			
VPA			○	○	○	○	○	○		○	○	○		○
VPMB	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPB			○	○	○	○	○	○		○	○	○		○
VPMC	○	○	○	○		○	○		○	○	○	○		
VPC			○	○	○	○	○	○		○	○	○		○
VPOC			○	○	○	○	○	○		○	○	○		○
VPLFC			○	○	○	○	○	○	○	○	○		○	○
VPMD	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPD			○	○	○	○	○	○		○	○	○		○
VPOD			○	○	○	○	○	○		○	○	○		○
VPLFD			○	○	○	○	○	○	○	○	○		○	○
VPHC	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPHD	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPHDW	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPHE	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPHEW	○	○	○	○	○	○	○	○	○	○	○	○	○	

Push-in fitting Barb fitting Female thread

*Available port size varies depending on pad dia. See model code lists on the following pages.
*The barb fitting of 5/32" is common with 4 mm size. Please order with the code: -4B.

Type	Male thread																Female thread	
	Metric thread				Taper pipe thread				Parallel pipe thread				NPT thread				Metric thread	
Code	-M8	-M10	-M12	-M14	-R1	-R2	-R3	-R4	-G1	-G2	-G3	-G4	-N1	-N2	-N3	-N4	-FM5	-FM8
Thread size	M8×1.25	M10×1.5	M12×1.75	M14×2	R1/8	R1/4	R3/8	R1/2	G1/8	G1/4	G3/8	G1/2	NPT1/8	NPT1/4	NPT3/8	NPT1/2	M5×0.8	M8×1.25
Holder type VPE	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

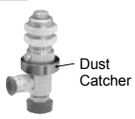
Direct mount

*Configuration code: M4 and T15 are not available for R4 and G4 thread size.

(9) Dust Catcher (Holder type: C, D and F only) Optional

Code	No code	-DC
Dust Catcher	None	Installed

*Note that the holder stroke becomes shorter when a dust catcher is installed. Please visit our website for details.



(9) Spring load (Holder type: LFC only)

Code	No code	-SF1/4
Load	Standard load	Low load (1/4 of standard load)

*"-SF1/4" is not selectable when 2 mm stroke is selected.

(10) Fall Prevention Valve (Not available for configuration code: T15 and T40.) Optional

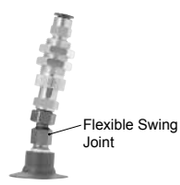
Code	No code	-ECV
Fall Prevention Valve	None	Installed
Applicable config. code	—	M4, M6

*1. -S3 spec. is not selectable when Fall Prevention Valve is selected.
*2. Fall prevention valve cannot be installed when selecting fiber surface type (-SF, -NF) for surface treatment.

(11) Swivel Joint for vacuum pad (Not available for configuration code: T15 and T40.) Optional

Code	No code	-FH	-FHH	-CFH
Option	None	Ball Swivel Joint (Swivel angle: 30°)	Ball Swivel Joint (Swivel angle: 15°)	Flexible Swing Joint (Swing angle: 8°)
Applicable config. code	—	M4, M6		

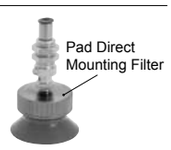
*-S3 spec. is not selectable when Ball Swivel Joint is selected.



(12) Filter (Not available for configuration code: T15 and T40.) Optional

Code	No code	-F15	-F30
Filter	None	Installed (Filter area 1.7 cm^2)	Installed (Filter area 7 cm^2)
Applicable config. code	—	M4, M6	M6

*1. -S3 spec. is not selectable when Filter is selected.
*2. "-F30" is recommended when much dust is expected at sucking work pieces.



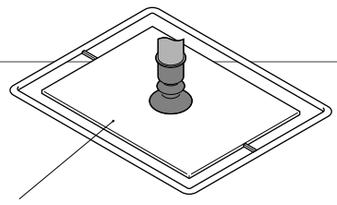
(13) -S3 spec. Optional

Code	No code	-S3
Metal material	Standard	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard	HNBR or FKM
Release ring color	Black	Dark blue

*1. -S3 spec. is not available for the following fittings and holders:
·Push-in fitting with dia. size of 1.8, 2, 3 mm and inch sizes except dia. 1/8" (some) and 5/32".
·Barb fitting with dia. of 1/4".
·Pad holder with stroke length 10 mm or longer (except for VPHC holders).
·VPLFC and VPLFD holders.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Vacuum Pad Soft Bellows Type

Characteristics


Fragile work-piece

Pad dia. 5 types
ø6 to ø20mm
Pad material 7 types
Surface treatment 4 types

Elastic bellows part reduces the load applied on fragile or inclined work-piece.

5 pad holders suitable for taking out molded parts are available.

· Lightweight VPHC holder that is made of resin and aluminum.
· Lightweight VPHD and VPHDW holders with spring type without cover.
· VPHE and VPHEW holders with reduced height.
· VPHDW and VPHEW holders with dual side vacuum ports, suitable for piping connection of multiple vacuum pads.

Silicone (S) is Food Sanitation Act compliant.

(Holder is not compliant. Vacuum pad complies only at work-piece contact area.)
*See page 6 for the details of the Food Sanitation Act.

Low dust emission holders (VPLFC, VPLFD) with low noise and less wear from sliding are available to prevent dust generation.

VPLFC holder with top port has a separate shaft on the pad side and the vacuum port side, so there is no effect on the stroke caused by the tension of the tube.
Low load type is also available to suppress impact when contacting the work-piece.

Wide variations of fixed type direct mount holder (VPE) for various thread sizes.

Metric male threads, metric female threads, taper pipe threads, parallel pipe threads and NPT threads are available.
*Only a part of the combinations are shown on the model code list from the next page onward. Contact us for the details.

● Pad surface treatment for suction mark-free (Optional)

NEW Fluoro-coating type is added to the pad rubber surface treatment option to prevent tracing marks.

· Fiber surface type: Fiber (nylon or silk) on the pad surface prevents rubber material transfer by not directly touching the work-piece.
· DLC. coating type: Slippery special coating. Effective for sticking prevention of lightweight or thin work-piece.
· Reformed surface type: Reduces tracing marks by surface reforming of nitrile rubber with chemicals.
· Fluoro-coating type: Surface reforming by special treatment prevents sticking to work-pieces and bellows. Improved pad durability and wear resistance.

● Holder with dust catcher (Optional)

Collects wear debris generated by sliding spring type holders. Low-cost, simple holder with receiver tray added.

Applicable to VPC, VPD and VPF holders.

◄ Dust Catcher

● Accessories (Optional)

Fall Prevention Valve, Swivel (Ball Swivel Joint, Flexible Swing Joint) and Filter options are available.

● -S3 spec. (Optional)

No copper-based metallic materials used in flow paths.

The sealing rubber material of the fitting is HNBR or FKM, with good ozone resisntace.

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia.	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Mini **VPMA**	ø6	ø3	VPMA6LB67-3J	—	M4	ø6	ø5/32	VPMA6LB67-5/32J13	○	M4
		ø4	VPMA6LB67-4J13	○		ø8	ø5/32	VPMA8LB67-5/32J13	○	
	ø8	ø3	VPMA8LB67-3J	—		ø10	ø5/32	VPMA10LB67-5/32J13	○	
		ø4	VPMA8LB67-4J13	○		ø15	ø5/32	VPMA15LB67-5/32J13	○	
	ø10	ø3	VPMA10LB67-3J	—		ø20	ø5/32	VPMA20LB67-5/32J13	○	M6
		ø4	VPMA10LB67-4J13	○						
	ø15	ø3	VPMA15LB67-3J	—						
		ø4	VPMA15LB67-4J13	○						
	ø20	ø4	VPMA20LB67-4J13	○	M6					

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Standard **VPA**	ø6	ø6	VPA6LB67-6J13	○	M4	ø6	ø1/4	VPA6LB67-1/4J	—	M4
	ø8	ø6	VPA8LB67-6J13	○		ø8	ø1/4	VPA8LB67-1/4J	—	
	ø10	ø6	VPA10LB67-6J13	○		ø10	ø1/4	VPA10LB67-1/4J	—	
	ø15	ø6	VPA15LB67-6J13	○		ø15	ø1/4	VPA15LB67-1/4J	—	
	ø20	ø3	VPA20LB67-3J	—	M6	ø20	ø1/8	VPA20LB67-1/8J	—	M6
		ø4	VPA20LB67-4J13	○			ø5/32	VPA20LB67-5/32J13	○	
		ø6	VPA20LB67-6J13	○			ø1/4	VPA20LB67-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Female thread, Standard **VPA**	ø20	M6×1	VPA20LB67-M613	○	M6

Notes
*Barb fitting type holders are also selectable. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.506

Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Soft Bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Push-in fitting, Mini VPMB	ø6	ø3	VPMB6LB67-3J	—	M4
		ø4	VPMB6LB67-4J13	○	
		ø6	VPMB6LB67-6J13	○	
	ø8	ø3	VPMB8LB67-3J	—	
		ø4	VPMB8LB67-4J13	○	
		ø6	VPMB8LB67-6J13	○	
	ø10	ø3	VPMB10LB67-3J	—	
		ø4	VPMB10LB67-4J13	○	
		ø6	VPMB10LB67-6J13	○	
	ø15	ø3	VPMB15LB67-3J	—	
		ø4	VPMB15LB67-4J13	○	
		ø6	VPMB15LB67-6J13	○	
	ø20	ø3	VPMB20LB67-3J	—	M6
		ø4	VPMB20LB67-4J13	○	
		ø6	VPMB20LB67-6J13	○	

Holder type	Pad dia. (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
	ø6	ø1/8	VPMB6LB67-1/8J	—	M4
		ø5/32	VPMB6LB67-5/32J13	○	
		ø1/4	VPMB6LB67-1/4J	—	
	ø8	ø1/8	VPMB8LB67-1/8J	—	
		ø5/32	VPMB8LB67-5/32J13	○	
		ø1/4	VPMB8LB67-1/4J	—	
	ø10	ø1/8	VPMB10LB67-1/8J	—	
		ø5/32	VPMB10LB67-5/32J13	○	
		ø1/4	VPMB10LB67-1/4J	—	
	ø15	ø1/8	VPMB15LB67-1/8J	—	
		ø5/32	VPMB15LB67-5/32J13	○	
		ø1/4	VPMB15LB67-1/4J	—	
	ø20	ø1/8	VPMB20LB67-1/8J	—	M6
		ø5/32	VPMB20LB67-5/32J13	○	
		ø1/4	VPMB20LB67-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Female thread, Mini VPMB	ø6	M5×0.8	VPMB6LB67-M513	○	M4
	ø8	M5×0.8	VPMB8LB67-M513	○	
	ø10	M5×0.8	VPMB10LB67-M513	○	
	ø15	M5×0.8	VPMB15LB67-M513	○	
	ø20	M5×0.8	VPMB20LB67-M513	○	M6

Notes

*Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options

7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
13: **-S3** ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.506

Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Push-in fitting, Standard **VPB**	ø6	ø3	VPB6LB67-3J	—	M4	ø6	ø1/8	VPB6LB67-1/8J	—	M4
		ø4	VPB6LB67-4J13	○			ø5/32	VPB6LB67-5/32J13	○	
		ø6	VPB6LB67-6J13	○			ø1/4	VPB6LB67-1/4J	—	
	ø8	ø3	VPB8LB67-3J	—		ø8	ø1/8	VPB8LB67-1/8J	—	
		ø4	VPB8LB67-4J13	○			ø5/32	VPB8LB67-5/32J13	○	
		ø6	VPB8LB67-6J13	○			ø1/4	VPB8LB67-1/4J	—	
	ø10	ø3	VPB10LB67-3J	—		ø10	ø1/8	VPB10LB67-1/8J	—	
		ø4	VPB10LB67-4J13	○			ø5/32	VPB10LB67-5/32J13	○	
		ø6	VPB10LB67-6J13	○			ø1/4	VPB10LB67-1/4J	—	
	ø15	ø3	VPB15LB67-3J	—		ø15	ø1/8	VPB15LB67-1/8J	—	
		ø4	VPB15LB67-4J13	○			ø5/32	VPB15LB67-5/32J13	○	
		ø6	VPB15LB67-6J13	○			ø1/4	VPB15LB67-1/4J	—	
	ø20	ø3	VPB20LB67-3J	—	M6	ø20	ø1/8	VPB20LB67-1/8J	—	M6
		ø4	VPB20LB67-4J13	○			ø5/32	VPB20LB67-5/32J13	○	
		ø6	VPB20LB67-6J13	○			ø1/4	VPB20LB67-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Female thread, Standard **VPB**	ø6	M6×1	VPB6LB67-M613	○	M4
	ø8	M6×1	VPB8LB67-M613	○	
	ø10	M6×1	VPB10LB67-M613	○	
	ø15	M6×1	VPB15LB67-M613	○	
	ø20	M6×1	VPB20LB67-M613	○	M6

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Mini **VPMC** Stroke 4mm	ø6	ø3	VPMC6-4LB67-3J	—	M4	ø6	ø1/8	VPMC6-4LB67-1/8J	—	M4
		ø4	VPMC6-4LB67-4J13	○			ø5/32	VPMC6-4LB67-5/32J13	○	
	ø8	ø3	VPMC8-4LB67-3J	—		ø8	ø1/8	VPMC8-4LB67-1/8J	—	
		ø4	VPMC8-4LB67-4J13	○			ø5/32	VPMC8-4LB67-5/32J13	○	
	ø10	ø3	VPMC10-4LB67-3J	—		ø10	ø1/8	VPMC10-4LB67-1/8J	—	
		ø4	VPMC10-4LB67-4J13	○			ø5/32	VPMC10-4LB67-5/32J13	○	
	ø15	ø3	VPMC15-4LB67-3J	—		ø15	ø1/8	VPMC15-4LB67-1/8J	—	
		ø4	VPMC15-4LB67-4J13	○			ø5/32	VPMC15-4LB67-5/32J13	○	
	ø20	ø3	VPMC20-4LB67-3J	—	M6	ø20	ø1/8	VPMC20-4LB67-1/8J	—	M6
		ø4	VPMC20-4LB67-4J13	○			ø5/32	VPMC20-4LB67-5/32J13	○	

Notes
*Barb fitting type holders are also selectable. VPMC holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.506
Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Soft Bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	⑬ -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	⑬ -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Standard VPC 	ø6	6	ø3	VPC6-6LB⑥⑦-3J⑨	—		ø6	6	ø1/8	VPC6-6LB⑥⑦-1/8J⑨	—	
			ø4	VPC6-6LB⑥⑦-4J⑨⑬	○				ø5/32	VPC6-6LB⑥⑦-5/32J⑨⑬	○	
			ø6	VPC6-6LB⑥⑦-6J⑨⑬	○				ø1/4	VPC6-6LB⑥⑦-1/4J⑨	—	
		10	ø3	VPC6-10LB⑥⑦-3J⑨	—			10	ø1/8	VPC6-10LB⑥⑦-1/8J⑨	—	
			ø4	VPC6-10LB⑥⑦-4J⑨	—				ø5/32	VPC6-10LB⑥⑦-5/32J⑨	—	
			ø6	VPC6-10LB⑥⑦-6J⑨	—				ø1/4	VPC6-10LB⑥⑦-1/4J⑨	—	
		15	ø3	VPC6-15LB⑥⑦-3J⑨	—			15	ø1/8	VPC6-15LB⑥⑦-1/8J⑨	—	
			ø4	VPC6-15LB⑥⑦-4J⑨	—				ø5/32	VPC6-15LB⑥⑦-5/32J⑨	—	
			ø6	VPC6-15LB⑥⑦-6J⑨	—				ø1/4	VPC6-15LB⑥⑦-1/4J⑨	—	
		20	ø3	VPC6-20LB⑥⑦-3J⑨	—			20	ø1/8	VPC6-20LB⑥⑦-1/8J⑨	—	
			ø4	VPC6-20LB⑥⑦-4J⑨	—				ø5/32	VPC6-20LB⑥⑦-5/32J⑨	—	
			ø6	VPC6-20LB⑥⑦-6J⑨	—				ø1/4	VPC6-20LB⑥⑦-1/4J⑨	—	
	ø8	6	ø3	VPC8-6LB⑥⑦-3J⑨	—		ø8	6	ø1/8	VPC8-6LB⑥⑦-1/8J⑨	—	
			ø4	VPC8-6LB⑥⑦-4J⑨⑬	○				ø5/32	VPC8-6LB⑥⑦-5/32J⑨⑬	○	
			ø6	VPC8-6LB⑥⑦-6J⑨⑬	○				ø1/4	VPC8-6LB⑥⑦-1/4J⑨	—	
		10	ø3	VPC8-10LB⑥⑦-3J⑨	—			10	ø1/8	VPC8-10LB⑥⑦-1/8J⑨	—	
			ø4	VPC8-10LB⑥⑦-4J⑨	—				ø5/32	VPC8-10LB⑥⑦-5/32J⑨	—	
			ø6	VPC8-10LB⑥⑦-6J⑨	—				ø1/4	VPC8-10LB⑥⑦-1/4J⑨	—	
		15	ø3	VPC8-15LB⑥⑦-3J⑨	—			15	ø1/8	VPC8-15LB⑥⑦-1/8J⑨	—	
			ø4	VPC8-15LB⑥⑦-4J⑨	—				ø5/32	VPC8-15LB⑥⑦-5/32J⑨	—	
			ø6	VPC8-15LB⑥⑦-6J⑨	—				ø1/4	VPC8-15LB⑥⑦-1/4J⑨	—	
		20	ø3	VPC8-20LB⑥⑦-3J⑨	—			20	ø1/8	VPC8-20LB⑥⑦-1/8J⑨	—	
			ø4	VPC8-20LB⑥⑦-4J⑨	—				ø5/32	VPC8-20LB⑥⑦-5/32J⑨	—	
			ø6	VPC8-20LB⑥⑦-6J⑨	—	M4			ø1/4	VPC8-20LB⑥⑦-1/4J⑨	—	M4
	ø10	6	ø3	VPC10-6LB⑥⑦-3J⑨	—		ø10	6	ø1/8	VPC10-6LB⑥⑦-1/8J⑨	—	
			ø4	VPC10-6LB⑥⑦-4J⑨⑬	○				ø5/32	VPC10-6LB⑥⑦-5/32J⑨⑬	○	
			ø6	VPC10-6LB⑥⑦-6J⑨⑬	○				ø1/4	VPC10-6LB⑥⑦-1/4J⑨	—	
		10	ø3	VPC10-10LB⑥⑦-3J⑨	—			10	ø1/8	VPC10-10LB⑥⑦-1/8J⑨	—	
			ø4	VPC10-10LB⑥⑦-4J⑨	—				ø5/32	VPC10-10LB⑥⑦-5/32J⑨	—	
			ø6	VPC10-10LB⑥⑦-6J⑨	—				ø1/4	VPC10-10LB⑥⑦-1/4J⑨	—	
		15	ø3	VPC10-15LB⑥⑦-3J⑨	—			15	ø1/8	VPC10-15LB⑥⑦-1/8J⑨	—	
			ø4	VPC10-15LB⑥⑦-4J⑨	—				ø5/32	VPC10-15LB⑥⑦-5/32J⑨	—	
			ø6	VPC10-15LB⑥⑦-6J⑨	—				ø1/4	VPC10-15LB⑥⑦-1/4J⑨	—	
		20	ø3	VPC10-20LB⑥⑦-3J⑨	—			20	ø1/8	VPC10-20LB⑥⑦-1/8J⑨	—	
			ø4	VPC10-20LB⑥⑦-4J⑨	—				ø5/32	VPC10-20LB⑥⑦-5/32J⑨	—	
			ø6	VPC10-20LB⑥⑦-6J⑨	—				ø1/4	VPC10-20LB⑥⑦-1/4J⑨	—	
	ø15	6	ø3	VPC15-6LB⑥⑦-3J⑨	—		ø15	6	ø1/8	VPC15-6LB⑥⑦-1/8J⑨	—	
			ø4	VPC15-6LB⑥⑦-4J⑨⑬	○				ø5/32	VPC15-6LB⑥⑦-5/32J⑨⑬	○	
			ø6	VPC15-6LB⑥⑦-6J⑨⑬	○				ø1/4	VPC15-6LB⑥⑦-1/4J⑨	—	
		10	ø3	VPC15-10LB⑥⑦-3J⑨	—			10	ø1/8	VPC15-10LB⑥⑦-1/8J⑨	—	
			ø4	VPC15-10LB⑥⑦-4J⑨	—				ø5/32	VPC15-10LB⑥⑦-5/32J⑨	—	
			ø6	VPC15-10LB⑥⑦-6J⑨	—				ø1/4	VPC15-10LB⑥⑦-1/4J⑨	—	
		15	ø3	VPC15-15LB⑥⑦-3J⑨	—			15	ø1/8	VPC15-15LB⑥⑦-1/8J⑨	—	
			ø4	VPC15-15LB⑥⑦-4J⑨	—				ø5/32	VPC15-15LB⑥⑦-5/32J⑨	—	
			ø6	VPC15-15LB⑥⑦-6J⑨	—				ø1/4	VPC15-15LB⑥⑦-1/4J⑨	—	
		20	ø3	VPC15-20LB⑥⑦-3J⑨	—			20	ø1/8	VPC15-20LB⑥⑦-1/8J⑨	—	
			ø4	VPC15-20LB⑥⑦-4J⑨	—				ø5/32	VPC15-20LB⑥⑦-5/32J⑨	—	
			ø6	VPC15-20LB⑥⑦-6J⑨	—				ø1/4	VPC15-20LB⑥⑦-1/4J⑨	—	
	ø20	6	ø3	VPC20-6LB⑥⑦-3J⑨	—		ø20	6	ø1/8	VPC20-6LB⑥⑦-1/8J⑨	—	
			ø4	VPC20-6LB⑥⑦-4J⑨⑬	○				ø5/32	VPC20-6LB⑥⑦-5/32J⑨⑬	○	
			ø6	VPC20-6LB⑥⑦-6J⑨⑬	○				ø1/4	VPC20-6LB⑥⑦-1/4J⑨	—	
		10	ø3	VPC20-10LB⑥⑦-3J⑨	—			10	ø1/8	VPC20-10LB⑥⑦-1/8J⑨	—	
			ø4	VPC20-10LB⑥⑦-4J⑨	—				ø5/32	VPC20-10LB⑥⑦-5/32J⑨	—	
			ø6	VPC20-10LB⑥⑦-6J⑨	—				ø1/4	VPC20-10LB⑥⑦-1/4J⑨	—	
		15	ø3	VPC20-15LB⑥⑦-3J⑨	—			15	ø1/8	VPC20-15LB⑥⑦-1/8J⑨	—	
			ø4	VPC20-15LB⑥⑦-4J⑨	—				ø5/32	VPC20-15LB⑥⑦-5/32J⑨	—	
			ø6	VPC20-15LB⑥⑦-6J⑨	—				ø1/4	VPC20-15LB⑥⑦-1/4J⑨	—	
		20	ø3	VPC20-20LB⑥⑦-3J⑨	—			20	ø1/8	VPC20-20LB⑥⑦-1/8J⑨	—	
			ø4	VPC20-20LB⑥⑦-4J⑨	—				ø5/32	VPC20-20LB⑥⑦-5/32J⑨	—	
			ø6	VPC20-20LB⑥⑦-6J⑨	—	M6			ø1/4	VPC20-20LB⑥⑦-1/4J⑨	—	M6

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Female thread, Standard VPC 	ø6	6	M6×1	VPC6-6LB67-M6913	○	M4
		10		VPC6-10LB67-M69	—	
		15		VPC6-15LB67-M69	—	
		20		VPC6-20LB67-M69	—	
	ø8	6	M6×1	VPC8-6LB67-M6913	○	
		10		VPC8-10LB67-M69	—	
		15		VPC8-15LB67-M69	—	
		20		VPC8-20LB67-M69	—	
	ø10	6	M6×1	VPC10-6LB67-M6913	○	
		10		VPC10-10LB67-M69	—	
		15		VPC10-15LB67-M69	—	
		20		VPC10-20LB67-M69	—	
	ø15	6	M6×1	VPC15-6LB67-M6913	○	
		10		VPC15-10LB67-M69	—	
		15		VPC15-15LB67-M69	—	
		20		VPC15-20LB67-M69	—	
	ø20	6	M6×1	VPC20-6LB67-M6913	○	M6
		10		VPC20-10LB67-M69	—	
		15		VPC20-15LB67-M69	—	
		20		VPC20-20LB67-M69	—	

Notes
*Barb fitting type holders are also selectable. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
9: -DC ⇒ Holder with dust catcher
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.506

Surface treatment
Dust Catcher (VPC)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Soft Bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, No cover VPOC 	ø6	20	ø3	VPOC6-20LB□-3J		ø6	20	ø1/8	VPOC6-20LB□-1/8J	
			ø4	VPOC6-20LB□-4J				ø5/32	VPOC6-20LB□-5/32J	
			ø6	VPOC6-20LB□-6J				ø1/4	VPOC6-20LB□-1/4J	
		30	ø3	VPOC6-30LB□-3J			30	ø1/8	VPOC6-30LB□-1/8J	
			ø4	VPOC6-30LB□-4J				ø5/32	VPOC6-30LB□-5/32J	
			ø6	VPOC6-30LB□-6J				ø1/4	VPOC6-30LB□-1/4J	
		40	ø3	VPOC6-40LB□-3J			40	ø1/8	VPOC6-40LB□-1/8J	
			ø4	VPOC6-40LB□-4J				ø5/32	VPOC6-40LB□-5/32J	
			ø6	VPOC6-40LB□-6J				ø1/4	VPOC6-40LB□-1/4J	
		50	ø3	VPOC6-50LB□-3J			50	ø1/8	VPOC6-50LB□-1/8J	
			ø4	VPOC6-50LB□-4J				ø5/32	VPOC6-50LB□-5/32J	
			ø6	VPOC6-50LB□-6J				ø1/4	VPOC6-50LB□-1/4J	
	ø8	20	ø3	VPOC8-20LB□-3J		ø8	20	ø1/8	VPOC8-20LB□-1/8J	
			ø4	VPOC8-20LB□-4J				ø5/32	VPOC8-20LB□-5/32J	
			ø6	VPOC8-20LB□-6J				ø1/4	VPOC8-20LB□-1/4J	
		30	ø3	VPOC8-30LB□-3J			30	ø1/8	VPOC8-30LB□-1/8J	
			ø4	VPOC8-30LB□-4J				ø5/32	VPOC8-30LB□-5/32J	
			ø6	VPOC8-30LB□-6J				ø1/4	VPOC8-30LB□-1/4J	
		40	ø3	VPOC8-40LB□-3J			40	ø1/8	VPOC8-40LB□-1/8J	
			ø4	VPOC8-40LB□-4J				ø5/32	VPOC8-40LB□-5/32J	
			ø6	VPOC8-40LB□-6J				ø1/4	VPOC8-40LB□-1/4J	
		50	ø3	VPOC8-50LB□-3J			50	ø1/8	VPOC8-50LB□-1/8J	
			ø4	VPOC8-50LB□-4J				ø5/32	VPOC8-50LB□-5/32J	
			ø6	VPOC8-50LB□-6J	M4			ø1/4	VPOC8-50LB□-1/4J	M4
	ø10	20	ø3	VPOC10-20LB□-3J		ø10	20	ø1/8	VPOC10-20LB□-1/8J	
			ø4	VPOC10-20LB□-4J				ø5/32	VPOC10-20LB□-5/32J	
			ø6	VPOC10-20LB□-6J				ø1/4	VPOC10-20LB□-1/4J	
		30	ø3	VPOC10-30LB□-3J			30	ø1/8	VPOC10-30LB□-1/8J	
			ø4	VPOC10-30LB□-4J				ø5/32	VPOC10-30LB□-5/32J	
			ø6	VPOC10-30LB□-6J				ø1/4	VPOC10-30LB□-1/4J	
		40	ø3	VPOC10-40LB□-3J			40	ø1/8	VPOC10-40LB□-1/8J	
			ø4	VPOC10-40LB□-4J				ø5/32	VPOC10-40LB□-5/32J	
			ø6	VPOC10-40LB□-6J				ø1/4	VPOC10-40LB□-1/4J	
		50	ø3	VPOC10-50LB□-3J			50	ø1/8	VPOC10-50LB□-1/8J	
			ø4	VPOC10-50LB□-4J				ø5/32	VPOC10-50LB□-5/32J	
			ø6	VPOC10-50LB□-6J				ø1/4	VPOC10-50LB□-1/4J	
	ø15	20	ø3	VPOC15-20LB□-3J		ø15	20	ø1/8	VPOC15-20LB□-1/8J	
			ø4	VPOC15-20LB□-4J				ø5/32	VPOC15-20LB□-5/32J	
			ø6	VPOC15-20LB□-6J				ø1/4	VPOC15-20LB□-1/4J	
		30	ø3	VPOC15-30LB□-3J			30	ø1/8	VPOC15-30LB□-1/8J	
			ø4	VPOC15-30LB□-4J				ø5/32	VPOC15-30LB□-5/32J	
			ø6	VPOC15-30LB□-6J				ø1/4	VPOC15-30LB□-1/4J	
		40	ø3	VPOC15-40LB□-3J			40	ø1/8	VPOC15-40LB□-1/8J	
			ø4	VPOC15-40LB□-4J				ø5/32	VPOC15-40LB□-5/32J	
			ø6	VPOC15-40LB□-6J				ø1/4	VPOC15-40LB□-1/4J	
		50	ø3	VPOC15-50LB□-3J			50	ø1/8	VPOC15-50LB□-1/8J	
			ø4	VPOC15-50LB□-4J				ø5/32	VPOC15-50LB□-5/32J	
			ø6	VPOC15-50LB□-6J				ø1/4	VPOC15-50LB□-1/4J	
	ø20	20	ø3	VPOC20-20LB□-3J		ø20	20	ø1/8	VPOC20-20LB□-1/8J	
			ø4	VPOC20-20LB□-4J				ø5/32	VPOC20-20LB□-5/32J	
			ø6	VPOC20-20LB□-6J				ø1/4	VPOC20-20LB□-1/4J	
		30	ø3	VPOC20-30LB□-3J			30	ø1/8	VPOC20-30LB□-1/8J	
			ø4	VPOC20-30LB□-4J				ø5/32	VPOC20-30LB□-5/32J	
			ø6	VPOC20-30LB□-6J	M6			ø1/4	VPOC20-30LB□-1/4J	M6
		40	ø3	VPOC20-40LB□-3J			40	ø1/8	VPOC20-40LB□-1/8J	
			ø4	VPOC20-40LB□-4J				ø5/32	VPOC20-40LB□-5/32J	
			ø6	VPOC20-40LB□-6J				ø1/4	VPOC20-40LB□-1/4J	
		50	ø3	VPOC20-50LB□-3J			50	ø1/8	VPOC20-50LB□-1/8J	
			ø4	VPOC20-50LB□-4J				ø5/32	VPOC20-50LB□-5/32J	
			ø6	VPOC20-50LB□-6J				ø1/4	VPOC20-50LB□-1/4J	

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Top port, Female thread, No cover VPOC	ø6	20	M6×1	VPOC6-20LB⑥⑦-M6	M4
		30	M6×1	VPOC6-30LB⑥⑦-M6	
		40	M6×1	VPOC6-40LB⑥⑦-M6	
		50	M6×1	VPOC6-50LB⑥⑦-M6	
	ø8	20	M6×1	VPOC8-20LB⑥⑦-M6	
		30	M6×1	VPOC8-30LB⑥⑦-M6	
		40	M6×1	VPOC8-40LB⑥⑦-M6	
		50	M6×1	VPOC8-50LB⑥⑦-M6	
	ø10	20	M6×1	VPOC10-20LB⑥⑦-M6	
		30	M6×1	VPOC10-30LB⑥⑦-M6	
		40	M6×1	VPOC10-40LB⑥⑦-M6	
		50	M6×1	VPOC10-50LB⑥⑦-M6	
	ø15	20	M6×1	VPOC15-20LB⑥⑦-M6	
		30	M6×1	VPOC15-30LB⑥⑦-M6	
		40	M6×1	VPOC15-40LB⑥⑦-M6	
		50	M6×1	VPOC15-50LB⑥⑦-M6	
	ø20	20	M6×1	VPOC20-20LB⑥⑦-M6	M6
		30	M6×1	VPOC20-30LB⑥⑦-M6	
		40	M6×1	VPOC20-40LB⑥⑦-M6	
		50	M6×1	VPOC20-50LB⑥⑦-M6	

Notes
*Barb fitting type holders are also selectable. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.506

Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Soft Bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, Low dust emission VPLFC 	ø6	2	ø3	VPLFC6-2LB⑥⑦-3J	M4	ø6	2	ø1/8	VPLFC6-2LB⑥⑦-1/8J	M4
			ø4	VPLFC6-2LB⑥⑦-4J				ø5/32	VPLFC6-2LB⑥⑦-5/32J	
		5	ø3	VPLFC6-5LB⑥⑦-3J⑨			5	ø1/8	VPLFC6-5LB⑥⑦-1/8J⑨	
			ø4	VPLFC6-5LB⑥⑦-4J⑨				ø5/32	VPLFC6-5LB⑥⑦-5/32J⑨	
		10	ø3	VPLFC6-10LB⑥⑦-3J⑨			10	ø1/8	VPLFC6-10LB⑥⑦-1/8J⑨	
			ø4	VPLFC6-10LB⑥⑦-4J⑨				ø5/32	VPLFC6-10LB⑥⑦-5/32J⑨	
		15	ø3	VPLFC6-15LB⑥⑦-3J⑨			15	ø1/8	VPLFC6-15LB⑥⑦-1/8J⑨	
			ø4	VPLFC6-15LB⑥⑦-4J⑨				ø5/32	VPLFC6-15LB⑥⑦-5/32J⑨	
		20	ø3	VPLFC6-20LB⑥⑦-3J⑨			20	ø1/8	VPLFC6-20LB⑥⑦-1/8J⑨	
			ø4	VPLFC6-20LB⑥⑦-4J⑨				ø5/32	VPLFC6-20LB⑥⑦-5/32J⑨	
	ø8	2	ø3	VPLFC8-2LB⑥⑦-3J		ø8	2	ø1/8	VPLFC8-2LB⑥⑦-1/8J	
			ø4	VPLFC8-2LB⑥⑦-4J				ø5/32	VPLFC8-2LB⑥⑦-5/32J	
		5	ø3	VPLFC8-5LB⑥⑦-3J⑨			5	ø1/8	VPLFC8-5LB⑥⑦-1/8J⑨	
			ø4	VPLFC8-5LB⑥⑦-4J⑨				ø5/32	VPLFC8-5LB⑥⑦-5/32J⑨	
		10	ø3	VPLFC8-10LB⑥⑦-3J⑨			10	ø1/8	VPLFC8-10LB⑥⑦-1/8J⑨	
			ø4	VPLFC8-10LB⑥⑦-4J⑨				ø5/32	VPLFC8-10LB⑥⑦-5/32J⑨	
		15	ø3	VPLFC8-15LB⑥⑦-3J⑨			15	ø1/8	VPLFC8-15LB⑥⑦-1/8J⑨	
			ø4	VPLFC8-15LB⑥⑦-4J⑨				ø5/32	VPLFC8-15LB⑥⑦-5/32J⑨	
		20	ø3	VPLFC8-20LB⑥⑦-3J⑨			20	ø1/8	VPLFC8-20LB⑥⑦-1/8J⑨	
			ø4	VPLFC8-20LB⑥⑦-4J⑨				ø5/32	VPLFC8-20LB⑥⑦-5/32J⑨	
	ø10	2	ø3	VPLFC10-2LB⑥⑦-3J		ø10	2	ø1/8	VPLFC10-2LB⑥⑦-1/8J	
			ø4	VPLFC10-2LB⑥⑦-4J				ø5/32	VPLFC10-2LB⑥⑦-5/32J	
		5	ø3	VPLFC10-5LB⑥⑦-3J⑨			5	ø1/8	VPLFC10-5LB⑥⑦-1/8J⑨	
			ø4	VPLFC10-5LB⑥⑦-4J⑨				ø5/32	VPLFC10-5LB⑥⑦-5/32J⑨	
		10	ø3	VPLFC10-10LB⑥⑦-3J⑨			10	ø1/8	VPLFC10-10LB⑥⑦-1/8J⑨	
			ø4	VPLFC10-10LB⑥⑦-4J⑨				ø5/32	VPLFC10-10LB⑥⑦-5/32J⑨	
		15	ø3	VPLFC10-15LB⑥⑦-3J⑨			15	ø1/8	VPLFC10-15LB⑥⑦-1/8J⑨	
			ø4	VPLFC10-15LB⑥⑦-4J⑨				ø5/32	VPLFC10-15LB⑥⑦-5/32J⑨	
		20	ø3	VPLFC10-20LB⑥⑦-3J⑨			20	ø1/8	VPLFC10-20LB⑥⑦-1/8J⑨	
			ø4	VPLFC10-20LB⑥⑦-4J⑨				ø5/32	VPLFC10-20LB⑥⑦-5/32J⑨	
	ø15	2	ø3	VPLFC15-2LB⑥⑦-3J		ø15	2	ø1/8	VPLFC15-2LB⑥⑦-1/8J	
			ø4	VPLFC15-2LB⑥⑦-4J				ø5/32	VPLFC15-2LB⑥⑦-5/32J	
		5	ø3	VPLFC15-5LB⑥⑦-3J⑨			5	ø1/8	VPLFC15-5LB⑥⑦-1/8J⑨	
			ø4	VPLFC15-5LB⑥⑦-4J⑨				ø5/32	VPLFC15-5LB⑥⑦-5/32J⑨	
		10	ø3	VPLFC15-10LB⑥⑦-3J⑨			10	ø1/8	VPLFC15-10LB⑥⑦-1/8J⑨	
			ø4	VPLFC15-10LB⑥⑦-4J⑨				ø5/32	VPLFC15-10LB⑥⑦-5/32J⑨	
		15	ø3	VPLFC15-15LB⑥⑦-3J⑨			15	ø1/8	VPLFC15-15LB⑥⑦-1/8J⑨	
			ø4	VPLFC15-15LB⑥⑦-4J⑨				ø5/32	VPLFC15-15LB⑥⑦-5/32J⑨	
		20	ø3	VPLFC15-20LB⑥⑦-3J⑨			20	ø1/8	VPLFC15-20LB⑥⑦-1/8J⑨	
			ø4	VPLFC15-20LB⑥⑦-4J⑨				ø5/32	VPLFC15-20LB⑥⑦-5/32J⑨	
	ø20	5	ø3	VPLFC20-5LB⑥⑦-3J⑨	M6	ø20	5	ø1/8	VPLFC20-5LB⑥⑦-1/8J⑨	M6
			ø4	VPLFC20-5LB⑥⑦-4J⑨				ø5/32	VPLFC20-5LB⑥⑦-5/32J⑨	
			ø6	VPLFC20-5LB⑥⑦-6J⑨				ø1/4	VPLFC20-5LB⑥⑦-1/4J⑨	
		10	ø3	VPLFC20-10LB⑥⑦-3J⑨			10	ø1/8	VPLFC20-10LB⑥⑦-1/8J⑨	
			ø4	VPLFC20-10LB⑥⑦-4J⑨				ø5/32	VPLFC20-10LB⑥⑦-5/32J⑨	
			ø6	VPLFC20-10LB⑥⑦-6J⑨				ø1/4	VPLFC20-10LB⑥⑦-1/4J⑨	
		15	ø3	VPLFC20-15LB⑥⑦-3J⑨			15	ø1/8	VPLFC20-15LB⑥⑦-1/8J⑨	
			ø4	VPLFC20-15LB⑥⑦-4J⑨				ø5/32	VPLFC20-15LB⑥⑦-5/32J⑨	
			ø6	VPLFC20-15LB⑥⑦-6J⑨				ø1/4	VPLFC20-15LB⑥⑦-1/4J⑨	
		20	ø3	VPLFC20-20LB⑥⑦-3J⑨			20	ø1/8	VPLFC20-20LB⑥⑦-1/8J⑨	
			ø4	VPLFC20-20LB⑥⑦-4J⑨				ø5/32	VPLFC20-20LB⑥⑦-5/32J⑨	
			ø6	VPLFC20-20LB⑥⑦-6J⑨				ø1/4	VPLFC20-20LB⑥⑦-1/4J⑨	

Notes
*Barb fitting type holders are also selectable. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⑨: -SF1/4 ⇒ Spring load 1/4

Optional items ⇒ P.506

Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Top port, Female thread, Low dust emission **VPLFC**	ø6	2	M5×0.8	VPLFC6-2LB⑥⑦-M5	M4
		5	M5×0.8	VPLFC6-5LB⑥⑦-M5⑨	
		10	M5×0.8	VPLFC6-10LB⑥⑦-M5⑨	
		15	M5×0.8	VPLFC6-15LB⑥⑦-M5⑨	
		20	M5×0.8	VPLFC6-20LB⑥⑦-M5⑨	
	ø8	2	M5×0.8	VPLFC8-2LB⑥⑦-M5	
		5	M5×0.8	VPLFC8-5LB⑥⑦-M5⑨	
		10	M5×0.8	VPLFC8-10LB⑥⑦-M5⑨	
		15	M5×0.8	VPLFC8-15LB⑥⑦-M5⑨	
		20	M5×0.8	VPLFC8-20LB⑥⑦-M5⑨	
	ø10	2	M5×0.8	VPLFC10-2LB⑥⑦-M5	
		5	M5×0.8	VPLFC10-5LB⑥⑦-M5⑨	
		10	M5×0.8	VPLFC10-10LB⑥⑦-M5⑨	
		15	M5×0.8	VPLFC10-15LB⑥⑦-M5⑨	
		20	M5×0.8	VPLFC10-20LB⑥⑦-M5⑨	
	ø15	2	M5×0.8	VPLFC15-2LB⑥⑦-M5	
		5	M5×0.8	VPLFC15-5LB⑥⑦-M5⑨	
		10	M5×0.8	VPLFC15-10LB⑥⑦-M5⑨	
		15	M5×0.8	VPLFC15-15LB⑥⑦-M5⑨	
		20	M5×0.8	VPLFC15-20LB⑥⑦-M5⑨	
	ø20	5	M6×1	VPLFC20-5LB⑥⑦-M6⑨	M6
		10	M6×1	VPLFC20-10LB⑥⑦-M6⑨	
		15	M6×1	VPLFC20-15LB⑥⑦-M6⑨	
		20	M6×1	VPLFC20-20LB⑥⑦-M6⑨	

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	⑬ -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	⑬ -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Mini **VPMD** Stroke 4mm	ø6	ø3	VPMD6-4LB⑥⑦-3J	—	M4	ø6	ø1/8	VPMD6-4LB⑥⑦-1/8J	—	M4
		ø4	VPMD6-4LB⑥⑦-4J⑬	○			ø5/32	VPMD6-4LB⑥⑦-5/32J⑬	○	
		ø6	VPMD6-4LB⑥⑦-6J⑬	○			ø1/4	VPMD6-4LB⑥⑦-1/4J	—	
	ø8	ø3	VPMD8-4LB⑥⑦-3J	—		ø8	ø1/8	VPMD8-4LB⑥⑦-1/8J	—	
		ø4	VPMD8-4LB⑥⑦-4J⑬	○			ø5/32	VPMD8-4LB⑥⑦-5/32J⑬	○	
		ø6	VPMD8-4LB⑥⑦-6J⑬	○			ø1/4	VPMD8-4LB⑥⑦-1/4J	—	
	ø10	ø3	VPMD10-4LB⑥⑦-3J	—		ø10	ø1/8	VPMD10-4LB⑥⑦-1/8J	—	
		ø4	VPMD10-4LB⑥⑦-4J⑬	○			ø5/32	VPMD10-4LB⑥⑦-5/32J⑬	○	
		ø6	VPMD10-4LB⑥⑦-6J⑬	○			ø1/4	VPMD10-4LB⑥⑦-1/4J	—	
	ø15	ø3	VPMD15-4LB⑥⑦-3J	—		ø15	ø1/8	VPMD15-4LB⑥⑦-1/8J	—	
		ø4	VPMD15-4LB⑥⑦-4J⑬	○			ø5/32	VPMD15-4LB⑥⑦-5/32J⑬	○	
		ø6	VPMD15-4LB⑥⑦-6J⑬	○			ø1/4	VPMD15-4LB⑥⑦-1/4J	—	
	ø20	ø3	VPMD20-4LB⑥⑦-3J	—	M6	ø20	ø1/8	VPMD20-4LB⑥⑦-1/8J	—	M6
		ø4	VPMD20-4LB⑥⑦-4J⑬	○			ø5/32	VPMD20-4LB⑥⑦-5/32J⑬	○	
		ø6	VPMD20-4LB⑥⑦-6J⑬	○			ø1/4	VPMD20-4LB⑥⑦-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	⑬ -S3 -S3 spec.	Connection config. code
Spring type, Side port, Female thread, Mini **VPMD** Stroke 4mm	ø6	M5×0.8	VPMD6-4LB⑥⑦-M5⑬	○	M4
	ø8	M5×0.8	VPMD8-4LB⑥⑦-M5⑬	○	
	ø10	M5×0.8	VPMD10-4LB⑥⑦-M5⑬	○	
	ø15	M5×0.8	VPMD15-4LB⑥⑦-M5⑬	○	
	ø20	M5×0.8	VPMD20-4LB⑥⑦-M5⑬	○	M6

Notes
*Barb fitting type holders are also selectable. VPMD holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⑨: -SF1/4 ⇒ Spring load 1/4
⑬: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.506

Vacuum Pad Soft Bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	⑬ -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Standard VPD 	ø6	6	ø3	VPD6-6LB⑥⑦-3J⑨	—	M4
			ø4	VPD6-6LB⑥⑦-4J⑨⑬	○	
			ø6	VPD6-6LB⑥⑦-6J⑨⑬	○	
		10	ø3	VPD6-10LB⑥⑦-3J⑨	—	
			ø4	VPD6-10LB⑥⑦-4J⑨	—	
			ø6	VPD6-10LB⑥⑦-6J⑨	—	
		15	ø3	VPD6-15LB⑥⑦-3J⑨	—	
			ø4	VPD6-15LB⑥⑦-4J⑨	—	
			ø6	VPD6-15LB⑥⑦-6J⑨	—	
		20	ø3	VPD6-20LB⑥⑦-3J⑨	—	
			ø4	VPD6-20LB⑥⑦-4J⑨	—	
			ø6	VPD6-20LB⑥⑦-6J⑨	—	
	ø8	6	ø3	VPD8-6LB⑥⑦-3J⑨	—	
			ø4	VPD8-6LB⑥⑦-4J⑨⑬	○	
			ø6	VPD8-6LB⑥⑦-6J⑨⑬	○	
		10	ø3	VPD8-10LB⑥⑦-3J⑨	—	
			ø4	VPD8-10LB⑥⑦-4J⑨	—	
			ø6	VPD8-10LB⑥⑦-6J⑨	—	
		15	ø3	VPD8-15LB⑥⑦-3J⑨	—	
			ø4	VPD8-15LB⑥⑦-4J⑨	—	
			ø6	VPD8-15LB⑥⑦-6J⑨	—	
		20	ø3	VPD8-20LB⑥⑦-3J⑨	—	
			ø4	VPD8-20LB⑥⑦-4J⑨	—	
			ø6	VPD8-20LB⑥⑦-6J⑨	—	
	ø10	6	ø3	VPD10-6LB⑥⑦-3J⑨	—	
			ø4	VPD10-6LB⑥⑦-4J⑨⑬	○	
			ø6	VPD10-6LB⑥⑦-6J⑨⑬	○	
		10	ø3	VPD10-10LB⑥⑦-3J⑨	—	
			ø4	VPD10-10LB⑥⑦-4J⑨	—	
			ø6	VPD10-10LB⑥⑦-6J⑨	—	
		15	ø3	VPD10-15LB⑥⑦-3J⑨	—	
			ø4	VPD10-15LB⑥⑦-4J⑨	—	
			ø6	VPD10-15LB⑥⑦-6J⑨	—	
		20	ø3	VPD10-20LB⑥⑦-3J⑨	—	
			ø4	VPD10-20LB⑥⑦-4J⑨	—	
			ø6	VPD10-20LB⑥⑦-6J⑨	—	
	ø15	6	ø3	VPD15-6LB⑥⑦-3J⑨	—	
			ø4	VPD15-6LB⑥⑦-4J⑨⑬	○	
			ø6	VPD15-6LB⑥⑦-6J⑨⑬	○	
		10	ø3	VPD15-10LB⑥⑦-3J⑨	—	
			ø4	VPD15-10LB⑥⑦-4J⑨	—	
			ø6	VPD15-10LB⑥⑦-6J⑨	—	
		15	ø3	VPD15-15LB⑥⑦-3J⑨	—	
			ø4	VPD15-15LB⑥⑦-4J⑨	—	
			ø6	VPD15-15LB⑥⑦-6J⑨	—	
		20	ø3	VPD15-20LB⑥⑦-3J⑨	—	
			ø4	VPD15-20LB⑥⑦-4J⑨	—	
			ø6	VPD15-20LB⑥⑦-6J⑨	—	
	ø20	6	ø3	VPD20-6LB⑥⑦-3J⑨	—	M6
			ø4	VPD20-6LB⑥⑦-4J⑨⑬	○	
			ø6	VPD20-6LB⑥⑦-6J⑨⑬	○	
		10	ø3	VPD20-10LB⑥⑦-3J⑨	—	
			ø4	VPD20-10LB⑥⑦-4J⑨	—	
			ø6	VPD20-10LB⑥⑦-6J⑨	—	
		15	ø3	VPD20-15LB⑥⑦-3J⑨	—	
			ø4	VPD20-15LB⑥⑦-4J⑨	—	
			ø6	VPD20-15LB⑥⑦-6J⑨	—	
		20	ø3	VPD20-20LB⑥⑦-3J⑨	—	
			ø4	VPD20-20LB⑥⑦-4J⑨	—	
			ø6	VPD20-20LB⑥⑦-6J⑨	—	

Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	⑬ -S3 -S3 spec.	Connection config. code
ø6	6	ø1/8	VPD6-6LB⑥⑦-1/8J⑨	—	M4
		ø5/32	VPD6-6LB⑥⑦-5/32J⑨⑬	○	
		ø1/4	VPD6-6LB⑥⑦-1/4J⑨	—	
	10	ø1/8	VPD6-10LB⑥⑦-1/8J⑨	—	
		ø5/32	VPD6-10LB⑥⑦-5/32J⑨	—	
		ø1/4	VPD6-10LB⑥⑦-1/4J⑨	—	
	15	ø1/8	VPD6-15LB⑥⑦-1/8J⑨	—	
		ø5/32	VPD6-15LB⑥⑦-5/32J⑨	—	
		ø1/4	VPD6-15LB⑥⑦-1/4J⑨	—	
	20	ø1/8	VPD6-20LB⑥⑦-1/8J⑨	—	
		ø5/32	VPD6-20LB⑥⑦-5/32J⑨	—	
		ø1/4	VPD6-20LB⑥⑦-1/4J⑨	—	
ø8	6	ø1/8	VPD8-6LB⑥⑦-1/8J⑨	—	
		ø5/32	VPD8-6LB⑥⑦-5/32J⑨⑬	○	
		ø1/4	VPD8-6LB⑥⑦-1/4J⑨	—	
	10	ø1/8	VPD8-10LB⑥⑦-1/8J⑨	—	
		ø5/32	VPD8-10LB⑥⑦-5/32J⑨	—	
		ø1/4	VPD8-10LB⑥⑦-1/4J⑨	—	
	15	ø1/8	VPD8-15LB⑥⑦-1/8J⑨	—	
		ø5/32	VPD8-15LB⑥⑦-5/32J⑨	—	
		ø1/4	VPD8-15LB⑥⑦-1/4J⑨	—	
	20	ø1/8	VPD8-20LB⑥⑦-1/8J⑨	—	
		ø5/32	VPD8-20LB⑥⑦-5/32J⑨	—	
		ø1/4	VPD8-20LB⑥⑦-1/4J⑨	—	
ø10	6	ø1/8	VPD10-6LB⑥⑦-1/8J⑨	—	
		ø5/32	VPD10-6LB⑥⑦-5/32J⑨⑬	○	
		ø1/4	VPD10-6LB⑥⑦-1/4J⑨	—	
	10	ø1/8	VPD10-10LB⑥⑦-1/8J⑨	—	
		ø5/32	VPD10-10LB⑥⑦-5/32J⑨	—	
		ø1/4	VPD10-10LB⑥⑦-1/4J⑨	—	
	15	ø1/8	VPD10-15LB⑥⑦-1/8J⑨	—	
		ø5/32	VPD10-15LB⑥⑦-5/32J⑨	—	
		ø1/4	VPD10-15LB⑥⑦-1/4J⑨	—	
	20	ø1/8	VPD10-20LB⑥⑦-1/8J⑨	—	
		ø5/32	VPD10-20LB⑥⑦-5/32J⑨	—	
		ø1/4	VPD10-20LB⑥⑦-1/4J⑨	—	
ø15	6	ø1/8	VPD15-6LB⑥⑦-1/8J⑨	—	
		ø5/32	VPD15-6LB⑥⑦-5/32J⑨⑬	○	
		ø1/4	VPD15-6LB⑥⑦-1/4J⑨	—	
	10	ø1/8	VPD15-10LB⑥⑦-1/8J⑨	—	
		ø5/32	VPD15-10LB⑥⑦-5/32J⑨	—	
		ø1/4	VPD15-10LB⑥⑦-1/4J⑨	—	
	15	ø1/8	VPD15-15LB⑥⑦-1/8J⑨	—	
		ø5/32	VPD15-15LB⑥⑦-5/32J⑨	—	
		ø1/4	VPD15-15LB⑥⑦-1/4J⑨	—	
	20	ø1/8	VPD15-20LB⑥⑦-1/8J⑨	—	
		ø5/32	VPD15-20LB⑥⑦-5/32J⑨	—	
		ø1/4	VPD15-20LB⑥⑦-1/4J⑨	—	
ø20	6	ø1/8	VPD20-6LB⑥⑦-1/8J⑨	—	M6
		ø5/32	VPD20-6LB⑥⑦-5/32J⑨⑬	○	
		ø1/4	VPD20-6LB⑥⑦-1/4J⑨	—	
	10	ø1/8	VPD20-10LB⑥⑦-1/8J⑨	—	
		ø5/32	VPD20-10LB⑥⑦-5/32J⑨	—	
		ø1/4	VPD20-10LB⑥⑦-1/4J⑨	—	
	15	ø1/8	VPD20-15LB⑥⑦-1/8J⑨	—	
		ø5/32	VPD20-15LB⑥⑦-5/32J⑨	—	
		ø1/4	VPD20-15LB⑥⑦-1/4J⑨	—	
	20	ø1/8	VPD20-20LB⑥⑦-1/8J⑨	—	
		ø5/32	VPD20-20LB⑥⑦-5/32J⑨	—	
		ø1/4	VPD20-20LB⑥⑦-1/4J⑨	—	

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Female thread, Standard VPD 	ø6	6	M6×1	VPD6-6LB67-M6913	○	M4
		10		VPD6-10LB67-M69	—	
		15		VPD6-15LB67-M69	—	
		20		VPD6-20LB67-M69	—	
	ø8	6	M6×1	VPD8-6LB67-M6913	○	
		10		VPD8-10LB67-M69	—	
		15		VPD8-15LB67-M69	—	
		20		VPD8-20LB67-M69	—	
	ø10	6	M6×1	VPD10-6LB67-M6913	○	
		10		VPD10-10LB67-M69	—	
		15		VPD10-15LB67-M69	—	
		20		VPD10-20LB67-M69	—	
	ø15	6	M6×1	VPD15-6LB67-M6913	○	
		10		VPD15-10LB67-M69	—	
		15		VPD15-15LB67-M69	—	
		20		VPD15-20LB67-M69	—	
	ø20	6	M6×1	VPD20-6LB67-M6913	○	M6
		10		VPD20-10LB67-M69	—	
		15		VPD20-15LB67-M69	—	
		20		VPD20-20LB67-M69	—	

Notes
*Barb fitting type holders are also selectable. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
9: -DC ⇒ Holder with dust catcher
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.506
Surface treatment
Dust Catcher (VPD)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Soft Bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, No cover VPOD 	ø6	20	ø3	VPOD6-20LB□-3J		ø6	20	ø1/8	VPOD6-20LB□-1/8J	
			ø4	VPOD6-20LB□-4J				ø5/32	VPOD6-20LB□-5/32J	
			ø6	VPOD6-20LB□-6J				ø1/4	VPOD6-20LB□-1/4J	
		30	ø3	VPOD6-30LB□-3J			30	ø1/8	VPOD6-30LB□-1/8J	
			ø4	VPOD6-30LB□-4J				ø5/32	VPOD6-30LB□-5/32J	
			ø6	VPOD6-30LB□-6J				ø1/4	VPOD6-30LB□-1/4J	
		40	ø3	VPOD6-40LB□-3J			40	ø1/8	VPOD6-40LB□-1/8J	
			ø4	VPOD6-40LB□-4J				ø5/32	VPOD6-40LB□-5/32J	
			ø6	VPOD6-40LB□-6J				ø1/4	VPOD6-40LB□-1/4J	
		50	ø3	VPOD6-50LB□-3J			50	ø1/8	VPOD6-50LB□-1/8J	
			ø4	VPOD6-50LB□-4J				ø5/32	VPOD6-50LB□-5/32J	
			ø6	VPOD6-50LB□-6J				ø1/4	VPOD6-50LB□-1/4J	
	ø8	20	ø3	VPOD8-20LB□-3J		ø8	20	ø1/8	VPOD8-20LB□-1/8J	
			ø4	VPOD8-20LB□-4J				ø5/32	VPOD8-20LB□-5/32J	
			ø6	VPOD8-20LB□-6J				ø1/4	VPOD8-20LB□-1/4J	
		30	ø3	VPOD8-30LB□-3J			30	ø1/8	VPOD8-30LB□-1/8J	
			ø4	VPOD8-30LB□-4J				ø5/32	VPOD8-30LB□-5/32J	
			ø6	VPOD8-30LB□-6J				ø1/4	VPOD8-30LB□-1/4J	
		40	ø3	VPOD8-40LB□-3J			40	ø1/8	VPOD8-40LB□-1/8J	
			ø4	VPOD8-40LB□-4J				ø5/32	VPOD8-40LB□-5/32J	
			ø6	VPOD8-40LB□-6J				ø1/4	VPOD8-40LB□-1/4J	
		50	ø3	VPOD8-50LB□-3J			50	ø1/8	VPOD8-50LB□-1/8J	
			ø4	VPOD8-50LB□-4J				ø5/32	VPOD8-50LB□-5/32J	
			ø6	VPOD8-50LB□-6J	M4			ø1/4	VPOD8-50LB□-1/4J	M4
	ø10	20	ø3	VPOD10-20LB□-3J		ø10	20	ø1/8	VPOD10-20LB□-1/8J	
			ø4	VPOD10-20LB□-4J				ø5/32	VPOD10-20LB□-5/32J	
			ø6	VPOD10-20LB□-6J				ø1/4	VPOD10-20LB□-1/4J	
		30	ø3	VPOD10-30LB□-3J			30	ø1/8	VPOD10-30LB□-1/8J	
			ø4	VPOD10-30LB□-4J				ø5/32	VPOD10-30LB□-5/32J	
			ø6	VPOD10-30LB□-6J				ø1/4	VPOD10-30LB□-1/4J	
		40	ø3	VPOD10-40LB□-3J			40	ø1/8	VPOD10-40LB□-1/8J	
			ø4	VPOD10-40LB□-4J				ø5/32	VPOD10-40LB□-5/32J	
			ø6	VPOD10-40LB□-6J				ø1/4	VPOD10-40LB□-1/4J	
		50	ø3	VPOD10-50LB□-3J			50	ø1/8	VPOD10-50LB□-1/8J	
			ø4	VPOD10-50LB□-4J				ø5/32	VPOD10-50LB□-5/32J	
			ø6	VPOD10-50LB□-6J				ø1/4	VPOD10-50LB□-1/4J	
	ø15	20	ø3	VPOD15-20LB□-3J		ø15	20	ø1/8	VPOD15-20LB□-1/8J	
			ø4	VPOD15-20LB□-4J				ø5/32	VPOD15-20LB□-5/32J	
			ø6	VPOD15-20LB□-6J				ø1/4	VPOD15-20LB□-1/4J	
		30	ø3	VPOD15-30LB□-3J			30	ø1/8	VPOD15-30LB□-1/8J	
			ø4	VPOD15-30LB□-4J				ø5/32	VPOD15-30LB□-5/32J	
			ø6	VPOD15-30LB□-6J				ø1/4	VPOD15-30LB□-1/4J	
		40	ø3	VPOD15-40LB□-3J			40	ø1/8	VPOD15-40LB□-1/8J	
			ø4	VPOD15-40LB□-4J				ø5/32	VPOD15-40LB□-5/32J	
			ø6	VPOD15-40LB□-6J				ø1/4	VPOD15-40LB□-1/4J	
		50	ø3	VPOD15-50LB□-3J			50	ø1/8	VPOD15-50LB□-1/8J	
			ø4	VPOD15-50LB□-4J				ø5/32	VPOD15-50LB□-5/32J	
			ø6	VPOD15-50LB□-6J				ø1/4	VPOD15-50LB□-1/4J	
	ø20	20	ø3	VPOD20-20LB□-3J		ø20	20	ø1/8	VPOD20-20LB□-1/8J	
			ø4	VPOD20-20LB□-4J				ø5/32	VPOD20-20LB□-5/32J	
			ø6	VPOD20-20LB□-6J				ø1/4	VPOD20-20LB□-1/4J	
		30	ø3	VPOD20-30LB□-3J			30	ø1/8	VPOD20-30LB□-1/8J	
			ø4	VPOD20-30LB□-4J				ø5/32	VPOD20-30LB□-5/32J	
			ø6	VPOD20-30LB□-6J				ø1/4	VPOD20-30LB□-1/4J	
		40	ø3	VPOD20-40LB□-3J	M6		40	ø1/8	VPOD20-40LB□-1/8J	M6
			ø4	VPOD20-40LB□-4J				ø5/32	VPOD20-40LB□-5/32J	
			ø6	VPOD20-40LB□-6J				ø1/4	VPOD20-40LB□-1/4J	
		50	ø3	VPOD20-50LB□-3J			50	ø1/8	VPOD20-50LB□-1/8J	
			ø4	VPOD20-50LB□-4J				ø5/32	VPOD20-50LB□-5/32J	
			ø6	VPOD20-50LB□-6J				ø1/4	VPOD20-50LB□-1/4J	

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Side port, Female thread, No cover VPOD	ø6	20	M6×1	VPOD6-20LB67-M6	M4
		30	M6×1	VPOD6-30LB67-M6	
		40	M6×1	VPOD6-40LB67-M6	
		50	M6×1	VPOD6-50LB67-M6	
	ø8	20	M6×1	VPOD8-20LB67-M6	
		30	M6×1	VPOD8-30LB67-M6	
		40	M6×1	VPOD8-40LB67-M6	
		50	M6×1	VPOD8-50LB67-M6	
	ø10	20	M6×1	VPOD10-20LB67-M6	
		30	M6×1	VPOD10-30LB67-M6	
		40	M6×1	VPOD10-40LB67-M6	
		50	M6×1	VPOD10-50LB67-M6	
	ø15	20	M6×1	VPOD15-20LB67-M6	
		30	M6×1	VPOD15-30LB67-M6	
		40	M6×1	VPOD15-40LB67-M6	
		50	M6×1	VPOD15-50LB67-M6	
	ø20	20	M6×1	VPOD20-20LB67-M6	M6
		30	M6×1	VPOD20-30LB67-M6	
		40	M6×1	VPOD20-40LB67-M6	
		50	M6×1	VPOD20-50LB67-M6	

Notes
*Barb fitting type holders are also selectable. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.506

Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Soft Bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, Low dust emission VPLFD	ø6	5	ø3	VPLFD6-5LB⑥⑦-3J		ø6	5	ø1/8	VPLFD6-5LB⑥⑦-1/8J	
			ø4	VPLFD6-5LB⑥⑦-4J				ø5/32	VPLFD6-5LB⑥⑦-5/32J	
		10	ø3	VPLFD6-10LB⑥⑦-3J			10	ø1/8	VPLFD6-10LB⑥⑦-1/8J	
			ø4	VPLFD6-10LB⑥⑦-4J				ø5/32	VPLFD6-10LB⑥⑦-5/32J	
		15	ø3	VPLFD6-15LB⑥⑦-3J			15	ø1/8	VPLFD6-15LB⑥⑦-1/8J	
			ø4	VPLFD6-15LB⑥⑦-4J				ø5/32	VPLFD6-15LB⑥⑦-5/32J	
		20	ø3	VPLFD6-20LB⑥⑦-3J			20	ø1/8	VPLFD6-20LB⑥⑦-1/8J	
			ø4	VPLFD6-20LB⑥⑦-4J				ø5/32	VPLFD6-20LB⑥⑦-5/32J	
	ø8	5	ø3	VPLFD8-5LB⑥⑦-3J		ø8	5	ø1/8	VPLFD8-5LB⑥⑦-1/8J	
			ø4	VPLFD8-5LB⑥⑦-4J				ø5/32	VPLFD8-5LB⑥⑦-5/32J	
		10	ø3	VPLFD8-10LB⑥⑦-3J			10	ø1/8	VPLFD8-10LB⑥⑦-1/8J	
			ø4	VPLFD8-10LB⑥⑦-4J				ø5/32	VPLFD8-10LB⑥⑦-5/32J	
		15	ø3	VPLFD8-15LB⑥⑦-3J			15	ø1/8	VPLFD8-15LB⑥⑦-1/8J	
			ø4	VPLFD8-15LB⑥⑦-4J				ø5/32	VPLFD8-15LB⑥⑦-5/32J	
		20	ø3	VPLFD8-20LB⑥⑦-3J			20	ø1/8	VPLFD8-20LB⑥⑦-1/8J	
			ø4	VPLFD8-20LB⑥⑦-4J	M4			ø5/32	VPLFD8-20LB⑥⑦-5/32J	M4
	ø10	5	ø3	VPLFD10-5LB⑥⑦-3J		ø10	5	ø1/8	VPLFD10-5LB⑥⑦-1/8J	
			ø4	VPLFD10-5LB⑥⑦-4J				ø5/32	VPLFD10-5LB⑥⑦-5/32J	
		10	ø3	VPLFD10-10LB⑥⑦-3J			10	ø1/8	VPLFD10-10LB⑥⑦-1/8J	
			ø4	VPLFD10-10LB⑥⑦-4J				ø5/32	VPLFD10-10LB⑥⑦-5/32J	
		15	ø3	VPLFD10-15LB⑥⑦-3J			15	ø1/8	VPLFD10-15LB⑥⑦-1/8J	
			ø4	VPLFD10-15LB⑥⑦-4J				ø5/32	VPLFD10-15LB⑥⑦-5/32J	
		20	ø3	VPLFD10-20LB⑥⑦-3J			20	ø1/8	VPLFD10-20LB⑥⑦-1/8J	
			ø4	VPLFD10-20LB⑥⑦-4J				ø5/32	VPLFD10-20LB⑥⑦-5/32J	
	ø15	5	ø3	VPLFD15-5LB⑥⑦-3J		ø15	5	ø1/8	VPLFD15-5LB⑥⑦-1/8J	
			ø4	VPLFD15-5LB⑥⑦-4J				ø5/32	VPLFD15-5LB⑥⑦-5/32J	
		10	ø3	VPLFD15-10LB⑥⑦-3J			10	ø1/8	VPLFD15-10LB⑥⑦-1/8J	
			ø4	VPLFD15-10LB⑥⑦-4J				ø5/32	VPLFD15-10LB⑥⑦-5/32J	
		15	ø3	VPLFD15-15LB⑥⑦-3J			15	ø1/8	VPLFD15-15LB⑥⑦-1/8J	
			ø4	VPLFD15-15LB⑥⑦-4J				ø5/32	VPLFD15-15LB⑥⑦-5/32J	
		20	ø3	VPLFD15-20LB⑥⑦-3J			20	ø1/8	VPLFD15-20LB⑥⑦-1/8J	
			ø4	VPLFD15-20LB⑥⑦-4J				ø5/32	VPLFD15-20LB⑥⑦-5/32J	
	ø20	5	ø3	VPLFD20-5LB⑥⑦-3J		ø20	5	ø1/8	VPLFD20-5LB⑥⑦-1/8J	
			ø4	VPLFD20-5LB⑥⑦-4J				ø5/32	VPLFD20-5LB⑥⑦-5/32J	
			ø6	VPLFD20-5LB⑥⑦-6J				ø1/4	VPLFD20-5LB⑥⑦-1/4J	
		10	ø3	VPLFD20-10LB⑥⑦-3J			10	ø1/8	VPLFD20-10LB⑥⑦-1/8J	
			ø4	VPLFD20-10LB⑥⑦-4J				ø5/32	VPLFD20-10LB⑥⑦-5/32J	
			ø6	VPLFD20-10LB⑥⑦-6J				ø1/4	VPLFD20-10LB⑥⑦-1/4J	
		15	ø3	VPLFD20-15LB⑥⑦-3J	M6		15	ø1/8	VPLFD20-15LB⑥⑦-1/8J	M6
			ø4	VPLFD20-15LB⑥⑦-4J				ø5/32	VPLFD20-15LB⑥⑦-5/32J	
			ø6	VPLFD20-15LB⑥⑦-6J				ø1/4	VPLFD20-15LB⑥⑦-1/4J	
		20	ø3	VPLFD20-20LB⑥⑦-3J			20	ø1/8	VPLFD20-20LB⑥⑦-1/8J	
			ø4	VPLFD20-20LB⑥⑦-4J				ø5/32	VPLFD20-20LB⑥⑦-5/32J	
			ø6	VPLFD20-20LB⑥⑦-6J				ø1/4	VPLFD20-20LB⑥⑦-1/4J	

Notes
*Barb fitting type holders are also selectable. Contact us for the details.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.506

Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Side port, Female thread, Low dust emission VPLFD 	ø6	5	M5×0.8	VPLFD6-5LB⑥⑦-M5	M4
		10	M5×0.8	VPLFD6-10LB⑥⑦-M5	
		15	M5×0.8	VPLFD6-15LB⑥⑦-M5	
		20	M5×0.8	VPLFD6-20LB⑥⑦-M5	
	ø8	5	M5×0.8	VPLFD8-5LB⑥⑦-M5	
		10	M5×0.8	VPLFD8-10LB⑥⑦-M5	
		15	M5×0.8	VPLFD8-15LB⑥⑦-M5	
		20	M5×0.8	VPLFD8-20LB⑥⑦-M5	
	ø10	5	M5×0.8	VPLFD10-5LB⑥⑦-M5	
		10	M5×0.8	VPLFD10-10LB⑥⑦-M5	
		15	M5×0.8	VPLFD10-15LB⑥⑦-M5	
		20	M5×0.8	VPLFD10-20LB⑥⑦-M5	
	ø15	5	M5×0.8	VPLFD15-5LB⑥⑦-M5	
		10	M5×0.8	VPLFD15-10LB⑥⑦-M5	
		15	M5×0.8	VPLFD15-15LB⑥⑦-M5	
		20	M5×0.8	VPLFD15-20LB⑥⑦-M5	
	ø20	5	M6×1	VPLFD20-5LB⑥⑦-M6	M6
		10	M6×1	VPLFD20-10LB⑥⑦-M6	
		15	M6×1	VPLFD20-15LB⑥⑦-M6	
		20	M6×1	VPLFD20-20LB⑥⑦-M6	

Holder type	
Fixed type, Direct mount, Standard VPE 	VPE holders are available with metric male/female threads, taper pipe threads, parallel pipe threads and NPT threads. See Pad holder only (page 399) for variations. *Pads with the same configuration code as the holder can be connected. [See Pad rubber only (page 377)]. Applicable Screws: Metric male thread: M8, M10, M12, M14 Metric female thread: M5, M8 Taper pipe thread: R1/8, R1/4, R3/8, R1/2 Parallel pipe thread: G1/8, G1/4, G3/8, G1/2 NPT thread: NPT1/8, NPT1/4, NPT3/8, NPT1/2

Holder type	Pad dia. (mm)	Female thread size	Model code	⑬ -S3 -S3 spec.	Connection config. code
Spring type, Direct mount VPF Stroke 5.8mm	ø6	M14×1	VPF6LB⑥⑦⑨⑬	○	M4
	ø8	M14×1	VPF8LB⑥⑦⑨⑬	○	
	ø10	M14×1	VPF10LB⑥⑦⑨⑬	○	
	ø15	M14×1	VPF15LB⑥⑦⑨⑬	○	
	ø20	M14×1	VPF20LB⑥⑦⑨⑬	○	M6

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⑨: -DC ⇒ Holder with dust catcher
⑬: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.506
Surface treatment
Dust Catcher (VPF)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Soft Bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	⑬ -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	⑬ -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Lightweight VPHC Pad dia. ø6 mm to ø8 mm	ø6	9	ø3	VPHC6-9LB⑥⑦-3J	—	T15	ø6	9	ø1/8	VPHC6-9LB⑥⑦-1/8J	—	T15
			ø4	VPHC6-9LB⑥⑦-4J⑬	○				ø5/32	VPHC6-9LB⑥⑦-5/32J⑬	○	
			ø6	VPHC6-9LB⑥⑦-6J⑬	○				ø1/4	VPHC6-9LB⑥⑦-1/4J	—	
		10	ø3	VPHC6-10LB⑥⑦-3J	—	M4		10	ø1/8	VPHC6-10LB⑥⑦-1/8J	—	M4
			ø4	VPHC6-10LB⑥⑦-4J⑬	○				ø5/32	VPHC6-10LB⑥⑦-5/32J⑬	○	
			ø6	VPHC6-10LB⑥⑦-6J⑬	○				ø1/4	VPHC6-10LB⑥⑦-1/4J	—	
		15	ø3	VPHC6-15LB⑥⑦-3J	—			15	ø1/8	VPHC6-15LB⑥⑦-1/8J	—	
			ø4	VPHC6-15LB⑥⑦-4J⑬	○				ø5/32	VPHC6-15LB⑥⑦-5/32J⑬	○	
			ø6	VPHC6-15LB⑥⑦-6J⑬	○				ø1/4	VPHC6-15LB⑥⑦-1/4J	—	
		20	ø3	VPHC6-20LB⑥⑦-3J	—			20	ø1/8	VPHC6-20LB⑥⑦-1/8J	—	
			ø4	VPHC6-20LB⑥⑦-4J⑬	○				ø5/32	VPHC6-20LB⑥⑦-5/32J⑬	○	
			ø6	VPHC6-20LB⑥⑦-6J⑬	○				ø1/4	VPHC6-20LB⑥⑦-1/4J	—	
		25	ø3	VPHC6-25LB⑥⑦-3J	—			25	ø1/8	VPHC6-25LB⑥⑦-1/8J	—	
			ø4	VPHC6-25LB⑥⑦-4J⑬	○				ø5/32	VPHC6-25LB⑥⑦-5/32J⑬	○	
			ø6	VPHC6-25LB⑥⑦-6J⑬	○				ø1/4	VPHC6-25LB⑥⑦-1/4J	—	
		30	ø3	VPHC6-30LB⑥⑦-3J	—			30	ø1/8	VPHC6-30LB⑥⑦-1/8J	—	
			ø4	VPHC6-30LB⑥⑦-4J⑬	○				ø5/32	VPHC6-30LB⑥⑦-5/32J⑬	○	
			ø6	VPHC6-30LB⑥⑦-6J⑬	○				ø1/4	VPHC6-30LB⑥⑦-1/4J	—	
		40	ø3	VPHC6-40LB⑥⑦-3J	—			40	ø1/8	VPHC6-40LB⑥⑦-1/8J	—	
			ø4	VPHC6-40LB⑥⑦-4J⑬	○				ø5/32	VPHC6-40LB⑥⑦-5/32J⑬	○	
			ø6	VPHC6-40LB⑥⑦-6J⑬	○				ø1/4	VPHC6-40LB⑥⑦-1/4J	—	
		50	ø3	VPHC6-50LB⑥⑦-3J	—			50	ø1/8	VPHC6-50LB⑥⑦-1/8J	—	
			ø4	VPHC6-50LB⑥⑦-4J⑬	○				ø5/32	VPHC6-50LB⑥⑦-5/32J⑬	○	
			ø6	VPHC6-50LB⑥⑦-6J⑬	○				ø1/4	VPHC6-50LB⑥⑦-1/4J	—	
	ø8	9	ø3	VPHC8-9LB⑥⑦-3J	—	T15	ø8	9	ø1/8	VPHC8-9LB⑥⑦-1/8J	—	T15
			ø4	VPHC8-9LB⑥⑦-4J⑬	○				ø5/32	VPHC8-9LB⑥⑦-5/32J⑬	○	
			ø6	VPHC8-9LB⑥⑦-6J⑬	○				ø1/4	VPHC8-9LB⑥⑦-1/4J	—	
		10	ø3	VPHC8-10LB⑥⑦-3J	—	M4		10	ø1/8	VPHC8-10LB⑥⑦-1/8J	—	M4
			ø4	VPHC8-10LB⑥⑦-4J⑬	○				ø5/32	VPHC8-10LB⑥⑦-5/32J⑬	○	
			ø6	VPHC8-10LB⑥⑦-6J⑬	○				ø1/4	VPHC8-10LB⑥⑦-1/4J	—	
		15	ø3	VPHC8-15LB⑥⑦-3J	—			15	ø1/8	VPHC8-15LB⑥⑦-1/8J	—	
			ø4	VPHC8-15LB⑥⑦-4J⑬	○				ø5/32	VPHC8-15LB⑥⑦-5/32J⑬	○	
			ø6	VPHC8-15LB⑥⑦-6J⑬	○				ø1/4	VPHC8-15LB⑥⑦-1/4J	—	
		20	ø3	VPHC8-20LB⑥⑦-3J	—			20	ø1/8	VPHC8-20LB⑥⑦-1/8J	—	
			ø4	VPHC8-20LB⑥⑦-4J⑬	○				ø5/32	VPHC8-20LB⑥⑦-5/32J⑬	○	
			ø6	VPHC8-20LB⑥⑦-6J⑬	○				ø1/4	VPHC8-20LB⑥⑦-1/4J	—	
		25	ø3	VPHC8-25LB⑥⑦-3J	—			25	ø1/8	VPHC8-25LB⑥⑦-1/8J	—	
			ø4	VPHC8-25LB⑥⑦-4J⑬	○				ø5/32	VPHC8-25LB⑥⑦-5/32J⑬	○	
			ø6	VPHC8-25LB⑥⑦-6J⑬	○				ø1/4	VPHC8-25LB⑥⑦-1/4J	—	
		30	ø3	VPHC8-30LB⑥⑦-3J	—			30	ø1/8	VPHC8-30LB⑥⑦-1/8J	—	
			ø4	VPHC8-30LB⑥⑦-4J⑬	○				ø5/32	VPHC8-30LB⑥⑦-5/32J⑬	○	
			ø6	VPHC8-30LB⑥⑦-6J⑬	○				ø1/4	VPHC8-30LB⑥⑦-1/4J	—	
		40	ø3	VPHC8-40LB⑥⑦-3J	—			40	ø1/8	VPHC8-40LB⑥⑦-1/8J	—	
			ø4	VPHC8-40LB⑥⑦-4J⑬	○				ø5/32	VPHC8-40LB⑥⑦-5/32J⑬	○	
			ø6	VPHC8-40LB⑥⑦-6J⑬	○				ø1/4	VPHC8-40LB⑥⑦-1/4J	—	
		50	ø3	VPHC8-50LB⑥⑦-3J	—			50	ø1/8	VPHC8-50LB⑥⑦-1/8J	—	
			ø4	VPHC8-50LB⑥⑦-4J⑬	○				ø5/32	VPHC8-50LB⑥⑦-5/32J⑬	○	
			ø6	VPHC8-50LB⑥⑦-6J⑬	○				ø1/4	VPHC8-50LB⑥⑦-1/4J	—	

Notes
*Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
⑬: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.506

Surface treatment
Fall Prevention Valve (*)
Swivel Joint for vacuum pad (*)
Filter (*)

*Not available for configuration code: T15.

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Lightweight VPHC Pad dia. ø10 mm to ø15 mm	ø10	9	ø3	VPHC10-9LB□-3J	—		ø10	9	ø1/8	VPHC10-9LB□-1/8J	—	
			ø4	VPHC10-9LB□-4J13	○	T15			ø5/32	VPHC10-9LB□-5/32J13	○	T15
			ø6	VPHC10-9LB□-6J13	○				ø1/4	VPHC10-9LB□-1/4J	—	
		10	ø3	VPHC10-10LB□-3J	—			10	ø1/8	VPHC10-10LB□-1/8J	—	
			ø4	VPHC10-10LB□-4J13	○				ø5/32	VPHC10-10LB□-5/32J13	○	
			ø6	VPHC10-10LB□-6J13	○				ø1/4	VPHC10-10LB□-1/4J	—	
		15	ø3	VPHC10-15LB□-3J	—			15	ø1/8	VPHC10-15LB□-1/8J	—	
			ø4	VPHC10-15LB□-4J13	○				ø5/32	VPHC10-15LB□-5/32J13	○	
			ø6	VPHC10-15LB□-6J13	○				ø1/4	VPHC10-15LB□-1/4J	—	
		20	ø3	VPHC10-20LB□-3J	—			20	ø1/8	VPHC10-20LB□-1/8J	—	
			ø4	VPHC10-20LB□-4J13	○				ø5/32	VPHC10-20LB□-5/32J13	○	
			ø6	VPHC10-20LB□-6J13	○				ø1/4	VPHC10-20LB□-1/4J	—	
		25	ø3	VPHC10-25LB□-3J	—			25	ø1/8	VPHC10-25LB□-1/8J	—	
			ø4	VPHC10-25LB□-4J13	○	M4			ø5/32	VPHC10-25LB□-5/32J13	○	M4
			ø6	VPHC10-25LB□-6J13	○				ø1/4	VPHC10-25LB□-1/4J	—	
		30	ø3	VPHC10-30LB□-3J	—			30	ø1/8	VPHC10-30LB□-1/8J	—	
			ø4	VPHC10-30LB□-4J13	○				ø5/32	VPHC10-30LB□-5/32J13	○	
			ø6	VPHC10-30LB□-6J13	○				ø1/4	VPHC10-30LB□-1/4J	—	
		40	ø3	VPHC10-40LB□-3J	—			40	ø1/8	VPHC10-40LB□-1/8J	—	
			ø4	VPHC10-40LB□-4J13	○				ø5/32	VPHC10-40LB□-5/32J13	○	
			ø6	VPHC10-40LB□-6J13	○				ø1/4	VPHC10-40LB□-1/4J	—	
		50	ø3	VPHC10-50LB□-3J	—			50	ø1/8	VPHC10-50LB□-1/8J	—	
			ø4	VPHC10-50LB□-4J13	○				ø5/32	VPHC10-50LB□-5/32J13	○	
			ø6	VPHC10-50LB□-6J13	○				ø1/4	VPHC10-50LB□-1/4J	—	
	ø15	9	ø3	VPHC15-9LB□-3J	—		ø15	9	ø1/8	VPHC15-9LB□-1/8J	—	
			ø4	VPHC15-9LB□-4J13	○	T15			ø5/32	VPHC15-9LB□-5/32J13	○	T15
			ø6	VPHC15-9LB□-6J13	○				ø1/4	VPHC15-9LB□-1/4J	—	
		10	ø3	VPHC15-10LB□-3J	—			10	ø1/8	VPHC15-10LB□-1/8J	—	
			ø4	VPHC15-10LB□-4J13	○				ø5/32	VPHC15-10LB□-5/32J13	○	
			ø6	VPHC15-10LB□-6J13	○				ø1/4	VPHC15-10LB□-1/4J	—	
		15	ø3	VPHC15-15LB□-3J	—			15	ø1/8	VPHC15-15LB□-1/8J	—	
			ø4	VPHC15-15LB□-4J13	○				ø5/32	VPHC15-15LB□-5/32J13	○	
			ø6	VPHC15-15LB□-6J13	○				ø1/4	VPHC15-15LB□-1/4J	—	
		20	ø3	VPHC15-20LB□-3J	—			20	ø1/8	VPHC15-20LB□-1/8J	—	
			ø4	VPHC15-20LB□-4J13	○				ø5/32	VPHC15-20LB□-5/32J13	○	
			ø6	VPHC15-20LB□-6J13	○				ø1/4	VPHC15-20LB□-1/4J	—	
		25	ø3	VPHC15-25LB□-3J	—			25	ø1/8	VPHC15-25LB□-1/8J	—	
			ø4	VPHC15-25LB□-4J13	○	M4			ø5/32	VPHC15-25LB□-5/32J13	○	M4
			ø6	VPHC15-25LB□-6J13	○				ø1/4	VPHC15-25LB□-1/4J	—	
		30	ø3	VPHC15-30LB□-3J	—			30	ø1/8	VPHC15-30LB□-1/8J	—	
			ø4	VPHC15-30LB□-4J13	○				ø5/32	VPHC15-30LB□-5/32J13	○	
			ø6	VPHC15-30LB□-6J13	○				ø1/4	VPHC15-30LB□-1/4J	—	
		40	ø3	VPHC15-40LB□-3J	—			40	ø1/8	VPHC15-40LB□-1/8J	—	
			ø4	VPHC15-40LB□-4J13	○				ø5/32	VPHC15-40LB□-5/32J13	○	
			ø6	VPHC15-40LB□-6J13	○				ø1/4	VPHC15-40LB□-1/4J	—	
		50	ø3	VPHC15-50LB□-3J	—			50	ø1/8	VPHC15-50LB□-1/8J	—	
			ø4	VPHC15-50LB□-4J13	○				ø5/32	VPHC15-50LB□-5/32J13	○	
			ø6	VPHC15-50LB□-6J13	○				ø1/4	VPHC15-50LB□-1/4J	—	

Notes
*Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.506
Surface treatment
Fall Prevention Valve (*)
Swivel Joint for vacuum pad (*)
Filter (*)

*Not available for configuration code: T15.

Vacuum Pad Soft Bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Lightweight VPHC Pad dia. ø20 mm	ø20	9	ø3	VPHC20-9LB67-3J	—		ø20	9	ø1/8	VPHC20-9LB67-1/8J	—	
			ø4	VPHC20-9LB67-4J13	○	T40			ø5/32	VPHC20-9LB67-5/32J13	○	T40
			ø6	VPHC20-9LB67-6J13	○				ø1/4	VPHC20-9LB67-1/4J	—	
		10	ø3	VPHC20-10LB67-3J	—			10	ø1/8	VPHC20-10LB67-1/8J	—	
			ø4	VPHC20-10LB67-4J13	○				ø5/32	VPHC20-10LB67-5/32J13	○	
			ø6	VPHC20-10LB67-6J13	○				ø1/4	VPHC20-10LB67-1/4J	—	
		15	ø3	VPHC20-15LB67-3J	—			15	ø1/8	VPHC20-15LB67-1/8J	—	
			ø4	VPHC20-15LB67-4J13	○				ø5/32	VPHC20-15LB67-5/32J13	○	
			ø6	VPHC20-15LB67-6J13	○				ø1/4	VPHC20-15LB67-1/4J	—	
		20	ø3	VPHC20-20LB67-3J	—			20	ø1/8	VPHC20-20LB67-1/8J	—	
			ø4	VPHC20-20LB67-4J13	○				ø5/32	VPHC20-20LB67-5/32J13	○	
			ø6	VPHC20-20LB67-6J13	○				ø1/4	VPHC20-20LB67-1/4J	—	
		25	ø3	VPHC20-25LB67-3J	—			25	ø1/8	VPHC20-25LB67-1/8J	—	
			ø4	VPHC20-25LB67-4J13	○	M6			ø5/32	VPHC20-25LB67-5/32J13	○	M6
			ø6	VPHC20-25LB67-6J13	○				ø1/4	VPHC20-25LB67-1/4J	—	
		30	ø3	VPHC20-30LB67-3J	—			30	ø1/8	VPHC20-30LB67-1/8J	—	
			ø4	VPHC20-30LB67-4J13	○				ø5/32	VPHC20-30LB67-5/32J13	○	
			ø6	VPHC20-30LB67-6J13	○				ø1/4	VPHC20-30LB67-1/4J	—	
		40	ø3	VPHC20-40LB67-3J	—			40	ø1/8	VPHC20-40LB67-1/8J	—	
			ø4	VPHC20-40LB67-4J13	○				ø5/32	VPHC20-40LB67-5/32J13	○	
			ø6	VPHC20-40LB67-6J13	○				ø1/4	VPHC20-40LB67-1/4J	—	
		50	ø3	VPHC20-50LB67-3J	—			50	ø1/8	VPHC20-50LB67-1/8J	—	
			ø4	VPHC20-50LB67-4J13	○				ø5/32	VPHC20-50LB67-5/32J13	○	
			ø6	VPHC20-50LB67-6J13	○				ø1/4	VPHC20-50LB67-1/4J	—	

Notes

*Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications

1 pc./bag

Options

7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)

13: -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.

*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.506

Surface treatment

Fall Prevention Valve (*)

Swivel Joint for vacuum pad (*)

Filter (*)

*Not available for configuration code: T40.

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Female thread, Lightweight VPHC	ø6	9	M5×0.8	VPHC6-9LB67-M513	○	T15
		10		VPHC6-10LB67-M513	○	
		15		VPHC6-15LB67-M513	○	
		20		VPHC6-20LB67-M513	○	
		25		VPHC6-25LB67-M513	○	M4
		30		VPHC6-30LB67-M513	○	
		40		VPHC6-40LB67-M513	○	
		50		VPHC6-50LB67-M513	○	
	ø8	9	M5×0.8	VPHC8-9LB67-M513	○	T15
		10		VPHC8-10LB67-M513	○	
		15		VPHC8-15LB67-M513	○	
		20		VPHC8-20LB67-M513	○	
		25		VPHC8-25LB67-M513	○	M4
		30		VPHC8-30LB67-M513	○	
		40		VPHC8-40LB67-M513	○	
		50		VPHC8-50LB67-M513	○	
	ø10	9	M5×0.8	VPHC10-9LB67-M513	○	T15
		10		VPHC10-10LB67-M513	○	
		15		VPHC10-15LB67-M513	○	
		20		VPHC10-20LB67-M513	○	
		25		VPHC10-25LB67-M513	○	M4
		30		VPHC10-30LB67-M513	○	
		40		VPHC10-40LB67-M513	○	
		50		VPHC10-50LB67-M513	○	
	ø15	9	M5×0.8	VPHC15-9LB67-M513	○	T15
		10		VPHC15-10LB67-M513	○	
		15		VPHC15-15LB67-M513	○	
		20		VPHC15-20LB67-M513	○	
		25		VPHC15-25LB67-M513	○	M4
		30		VPHC15-30LB67-M513	○	
		40		VPHC15-40LB67-M513	○	
		50		VPHC15-50LB67-M513	○	
	ø20	9	M5×0.8	VPHC20-9LB67-M513	○	T40
		10		VPHC20-10LB67-M513	○	
		15		VPHC20-15LB67-M513	○	
		20		VPHC20-20LB67-M513	○	
		25		VPHC20-25LB67-M513	○	M6
		30		VPHC20-30LB67-M513	○	
		40		VPHC20-40LB67-M513	○	
		50		VPHC20-50LB67-M513	○	

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.506
Surface treatment
Fall Prevention Valve (*)
Swivel Joint for vacuum pad (*)
Filter (*)

*Not available for configuration code: T15 and T40.

Vacuum Pad Soft Bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, No cover, Lightweight **VPHD** Stroke 5mm	ø6	ø3	VPHD6-5LB67-3J	—	T15	ø6	ø1/8	VPHD6-5LB67-1/8J	—	T15
		ø4	VPHD6-5LB67-4J13	○			ø5/32	VPHD6-5LB67-5/32J13	○	
		ø6	VPHD6-5LB67-6J13	○			ø1/4	VPHD6-5LB67-1/4J	—	
	ø8	ø3	VPHD8-5LB67-3J	—		ø8	ø1/8	VPHD8-5LB67-1/8J	—	
		ø4	VPHD8-5LB67-4J13	○			ø5/32	VPHD8-5LB67-5/32J13	○	
		ø6	VPHD8-5LB67-6J13	○			ø1/4	VPHD8-5LB67-1/4J	—	
	ø10	ø3	VPHD10-5LB67-3J	—		ø10	ø1/8	VPHD10-5LB67-1/8J	—	
		ø4	VPHD10-5LB67-4J13	○			ø5/32	VPHD10-5LB67-5/32J13	○	
		ø6	VPHD10-5LB67-6J13	○			ø1/4	VPHD10-5LB67-1/4J	—	
	ø15	ø3	VPHD15-5LB67-3J	—		ø15	ø1/8	VPHD15-5LB67-1/8J	—	
		ø4	VPHD15-5LB67-4J13	○			ø5/32	VPHD15-5LB67-5/32J13	○	
		ø6	VPHD15-5LB67-6J13	○			ø1/4	VPHD15-5LB67-1/4J	—	
	ø20	ø3	VPHD20-5LB67-3J	—	T40	ø20	ø1/8	VPHD20-5LB67-1/8J	—	T40
		ø4	VPHD20-5LB67-4J13	○			ø5/32	VPHD20-5LB67-5/32J13	○	
		ø6	VPHD20-5LB67-6J13	○			ø1/4	VPHD20-5LB67-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Female thread, No cover, Lightweight **VPHD** Stroke 5mm	ø6	M5×0.8	VPHD6-5LB67-M513	○	T15
	ø8	M5×0.8	VPHD8-5LB67-M513	○	
	ø10	M5×0.8	VPHD10-5LB67-M513	○	
	ø15	M5×0.8	VPHD15-5LB67-M513	○	
	ø20	M5×0.8	VPHD20-5LB67-M513	○	T40

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Dual side port, Push-in fitting, No cover, Lightweight **VPHDW** Stroke 5mm	ø6	ø3	VPHDW6-5LB67-3J	—	T15	ø6	ø1/8	VPHDW6-5LB67-1/8J	—	T15
		ø4	VPHDW6-5LB67-4J13	○			ø5/32	VPHDW6-5LB67-5/32J13	○	
		ø6	VPHDW6-5LB67-6J13	○			ø1/4	VPHDW6-5LB67-1/4J	—	
	ø8	ø3	VPHDW8-5LB67-3J	—		ø8	ø1/8	VPHDW8-5LB67-1/8J	—	
		ø4	VPHDW8-5LB67-4J13	○			ø5/32	VPHDW8-5LB67-5/32J13	○	
		ø6	VPHDW8-5LB67-6J13	○			ø1/4	VPHDW8-5LB67-1/4J	—	
	ø10	ø3	VPHDW10-5LB67-3J	—		ø10	ø1/8	VPHDW10-5LB67-1/8J	—	
		ø4	VPHDW10-5LB67-4J13	○			ø5/32	VPHDW10-5LB67-5/32J13	○	
		ø6	VPHDW10-5LB67-6J13	○			ø1/4	VPHDW10-5LB67-1/4J	—	
	ø15	ø3	VPHDW15-5LB67-3J	—		ø15	ø1/8	VPHDW15-5LB67-1/8J	—	
		ø4	VPHDW15-5LB67-4J13	○			ø5/32	VPHDW15-5LB67-5/32J13	○	
		ø6	VPHDW15-5LB67-6J13	○			ø1/4	VPHDW15-5LB67-1/4J	—	
	ø20	ø3	VPHDW20-5LB67-3J	—	T40	ø20	ø1/8	VPHDW20-5LB67-1/8J	—	T40
		ø4	VPHDW20-5LB67-4J13	○			ø5/32	VPHDW20-5LB67-5/32J13	○	
		ø6	VPHDW20-5LB67-6J13	○			ø1/4	VPHDW20-5LB67-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Dual side port, Female thread, No cover, Lightweight **VPHDW** Stroke 5mm	ø6	M5×0.8	VPHDW6-5LB67-M513	○	T15
	ø8	M5×0.8	VPHDW8-5LB67-M513	○	
	ø10	M5×0.8	VPHDW10-5LB67-M513	○	
	ø15	M5×0.8	VPHDW15-5LB67-M513	○	
	ø20	M5×0.8	VPHDW20-5LB67-M513	○	T40

Notes
*Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Direct mount, Side port, Push-in fitting, Low profile **VPHE**	ø6	ø3	VPHE6LB67-3J	—	T15
		ø4	VPHE6LB67-4J13	○	
		ø6	VPHE6LB67-6J13	○	
	ø8	ø3	VPHE8LB67-3J	—	
		ø4	VPHE8LB67-4J13	○	
		ø6	VPHE8LB67-6J13	○	
	ø10	ø3	VPHE10LB67-3J	—	
		ø4	VPHE10LB67-4J13	○	
		ø6	VPHE10LB67-6J13	○	
	ø15	ø3	VPHE15LB67-3J	—	
		ø4	VPHE15LB67-4J13	○	
		ø6	VPHE15LB67-6J13	○	
	ø20	ø3	VPHE20LB67-3J	—	T40
		ø4	VPHE20LB67-4J13	○	
		ø6	VPHE20LB67-6J13	○	

Holder type	Pad dia. (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Direct mount, Side port, Push-in fitting, Low profile **VPHE**	ø6	ø1/8	VPHE6LB67-1/8J	—	T15
		ø5/32	VPHE6LB67-5/32J13	○	
		ø1/4	VPHE6LB67-1/4J	—	
	ø8	ø1/8	VPHE8LB67-1/8J	—	
		ø5/32	VPHE8LB67-5/32J13	○	
		ø1/4	VPHE8LB67-1/4J	—	
	ø10	ø1/8	VPHE10LB67-1/8J	—	
		ø5/32	VPHE10LB67-5/32J13	○	
		ø1/4	VPHE10LB67-1/4J	—	
	ø15	ø1/8	VPHE15LB67-1/8J	—	
		ø5/32	VPHE15LB67-5/32J13	○	
		ø1/4	VPHE15LB67-1/4J	—	
	ø20	ø1/8	VPHE20LB67-1/8J	—	T40
		ø5/32	VPHE20LB67-5/32J13	○	
		ø1/4	VPHE20LB67-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Direct mount, Side port, Female thread, Low profile **VPHE**	ø6	M5×0.8	VPHE6LB67-M513	○	T15
	ø8	M5×0.8	VPHE8LB67-M513	○	
	ø10	M5×0.8	VPHE10LB67-M513	○	
	ø15	M5×0.8	VPHE15LB67-M513	○	
	ø20	M5×0.8	VPHE20LB67-M513	○	T40

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Direct mount, Dual side port, Push-in fitting, Low profile **VPHEW**	ø6	ø3	VPHEW6LB67-3J	—	T15
		ø4	VPHEW6LB67-4J13	○	
		ø6	VPHEW6LB67-6J13	○	
	ø8	ø3	VPHEW8LB67-3J	—	
		ø4	VPHEW8LB67-4J13	○	
		ø6	VPHEW8LB67-6J13	○	
	ø10	ø3	VPHEW10LB67-3J	—	
		ø4	VPHEW10LB67-4J13	○	
		ø6	VPHEW10LB67-6J13	○	
	ø15	ø3	VPHEW15LB67-3J	—	
		ø4	VPHEW15LB67-4J13	○	
		ø6	VPHEW15LB67-6J13	○	
	ø20	ø3	VPHEW20LB67-3J	—	T40
		ø4	VPHEW20LB67-4J13	○	
		ø6	VPHEW20LB67-6J13	○	

Holder type	Pad dia. (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Direct mount, Dual side port, Push-in fitting, Low profile **VPHEW**	ø6	ø1/8	VPHEW6LB67-1/8J	—	T15
		ø5/32	VPHEW6LB67-5/32J13	○	
		ø1/4	VPHEW6LB67-1/4J	—	
	ø8	ø1/8	VPHEW8LB67-1/8J	—	
		ø5/32	VPHEW8LB67-5/32J13	○	
		ø1/4	VPHEW8LB67-1/4J	—	
	ø10	ø1/8	VPHEW10LB67-1/8J	—	
		ø5/32	VPHEW10LB67-5/32J13	○	
		ø1/4	VPHEW10LB67-1/4J	—	
	ø15	ø1/8	VPHEW15LB67-1/8J	—	
		ø5/32	VPHEW15LB67-5/32J13	○	
		ø1/4	VPHEW15LB67-1/4J	—	
	ø20	ø1/8	VPHEW20LB67-1/8J	—	T40
		ø5/32	VPHEW20LB67-5/32J13	○	
		ø1/4	VPHEW20LB67-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Direct mount, Dual side port, Female thread, Low profile **VPHEW**	ø6	M5×0.8	VPHEW6LB67-M513	○	T15
	ø8	M5×0.8	VPHEW8LB67-M513	○	
	ø10	M5×0.8	VPHEW10LB67-M513	○	
	ø15	M5×0.8	VPHEW15LB67-M513	○	
	ø20	M5×0.8	VPHEW20LB67-M513	○	T40

Option Options

7: Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)

13: -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.

*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.506

Surface treatment

Vacuum Pad Soft Bellows Type

Optional items (○: Available)

7 Pad surface treatment (Suction mark-free)

Pad dia. (mm)	7 Surface treatment code					Connection config. code
	-NF	-SF	-DL	-ER	-FG	
	Fiber surface		DLC. coating	Reformed surface	Fluoro-coating	
	Nylon	Silk				
ø6	—	—	○	○	○	
ø8	—	—	○	○	○	M4
ø10	○	○	○	○	○	T15
ø15	○	○	○	○	○	
ø20	○	○	○	○	○	M6 T40
Material	S		S, SE	N, NE	S, SE	

Characteristics of surface treatment ► P.370

9 Dust Catcher: -DC

Optional	Connection config. code	-S3 spec.
Dust Catcher (-DC)	M4	○
	M6	○

Holder type

VPC | VPD | VPF

Characteristics of Dust Catcher ► P.371

10 Fall Prevention Valve: -ECV

Optional	Connection config. code	Model code
Fall Prevention Valve (-ECV)	M4	ECVM4-FM4
	M6	ECVM6-FM6

Characteristics of Fall Prevention Valve ► P.722

11 Swivel Joint: -FH, -FHH, -CFH

Optional	Swivel angle	Connection config. code	Model code
Ball Swivel Joint (-FH)(-FHH)	30° (-FH)	M4	FH10
		M6	FH20
	15° (-FHH)	M4	FH10-15
		M6	FH20-15

Characteristics of Ball Swivel Joint ► P.724

Optional	Connection config. code	-S3 spec.	Model code
Flexible Swing Joint (-CFH)	M4	○	CFHM4-FM4
	M6	○	CFHM6-FM6

*When ordering a Flexible Swing Joint alone, please enter "-S3" at the end of the model code for -S3 specification.

Characteristics of Flexible Swing Joint ► P.725

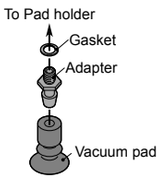
12 Filter: -F15, -F30

Optional	Filter area	Connection config. code	Model code
Pad Direct Mounting Filter (-F15)(-F30)	1.7cm² (-F15)	M4	VFF15-M4
		M6	VFF15-M6
	7cm² (-F30)	M6	VFF30-M6

Characteristics of Filter ► P.726

See the page 406 for the model designation including optional items.

Replacement parts (○: -S3 spec. is available)

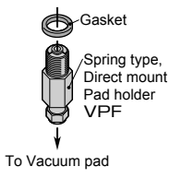


Adapter for soft pad Model code	13 : -S3	Applicable pad dia. (mm)	Applicable pad holder
FVPL15-M413	○	ø6 to ø15	Connection config. code M4
FVPL40-M613	○	ø20	Connection config. code M6

These adapters are necessary for mounting soft bellows pad to pad holders of M4 or M6 configuration code.

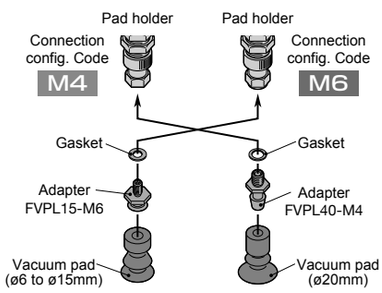
Gasket for adapter (*) Model code	Applicable adapter	Connection config. code
GAS-M4	FVPL15-M4, FVPL40-M4	M4
GAS-M6 (Fall prevention)	FVPL40-M6, FVPL15-M6	M6
-S3 spec.		
GAS-M5-SUS	FVPL15-M4-S3, FVPL40-M4-SUS	M4
GAS-M6-SUS	FVPL40-M6-S3, FVPL15-M6-SUS	M6

*Gasket for adapter is equipped with an Adapter. The model code above is for Gasket alone.



Gasket Model code	Applicable pad dia. (mm)	Connection config. code
VPFG10	All sizes	M4 M6

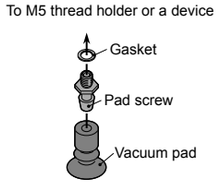
Rearrangement parts



Adapter for soft pad Model code	13 : -S3	Applicable pad dia. (mm)	Applicable pad holder
FVPL15-M613	○	ø6 to ø15	Connection config. code M6
FVPL40-M413	○	ø20	Connection config. code M4

These adapters can be used to mount soft bellows pad: dia. 20 mm to pad holders with configuration code: M4, or soft bellows pad: dia. 6 to 15 mm to pad holders with configuration code: M6.

*Gasket for adapter is equipped with an Adapter. When the gasket alone is necessary, refer to "Model code of Gasket for adapter" above.



M5 thread adapter Model code	13 : -S3	Applicable pad dia. (mm)
FVPL15-M513	○	ø6 to ø15
FVPL40-M513	○	ø20

*Gasket for adapter is equipped with an Adapter.

Vacuum Pad Skidproof Type

Vacuum pad for oil-coated components, such as press parts.

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VP (1)	C (2)	10 (3)	-6 (4)	K (5)	NH (6)	-6J (7)	-DC (8)	-ECV (9)	-FH (10)	-F15 (11)	(12)
							Optional	Optional	Optional	Optional	Optional

(1) Vacuum Pad

(2) Holder type

Holder type		Fixed type		Spring type			
		Mini	Standard	Mini	Standard	No cover	Low dust emission
Code	Top port	MA	A	MC	C	OC	LFC
	Side port	MB	B	MD	D	OD	LFD
	Direct mount	-	E	-	F	-	-
Connection config. code		M4 M6	M4 M6	M4 M6	M4 M6	M4 M6	M4 M6

Holder type		Lightweight	Low profile
		Spring type	Direct mount
Code	Top port	HC	-
	Side port	HD	HE
	Dual side port	HDW	HEW
Connection config. code		M4 M6	M4 M6

(3) Pad dia.

Code	10	20	30	40	50
Pad dia. (mm)	ø10	ø20	ø30	ø40	ø50
Connection config. code	M4	M6			

(4) Stroke (No code entry for Holder type: MA, A, MB, B, E, F, HE and HEW)

Code	-2	-4	-5	-6	-10	-15	-20	-25	-30	-40	-50
Stroke (mm)	2	4	5	6	10	15	20	25	30	40	50
Spring type holder code VPMC		●●									
VPC				●●	●●	●●	●●				
VPOC							●●		●●	●●	●●
VPLFC	●		●●		●●	●●	●●				
VPMD		●●									
VPD				●●	●●	●●	●●				
VPOD							●●		●●	●●	●●
VPLFD			●●		●●	●●	●●				
VPHC					●●	●●	●●	●●	●●	●●	●●
VPHD			●●								
VPHDW			●●								

Connection config. code
●: M4
●: M6

(5) Pad type K: Skidproof

(6) Pad material

Code	NH	S	U	F	NE
Rubber material	Oil-proof NBR	Silicone	Urethane	Fluoro	Conductive NBR (Low resistance)

*Oil-proof NBR (NH) and Conductive NBR (Low resistance type, Volume resistance: 200Ω·cm or less) (NE) are not suitable for use with ozone environment.

(7) Vacuum port size and joint type (No code entry for Holder type: F) (○: Available)

Type	Push-in fitting								Barb fitting				Female thread	
	mm size (mm)					inch size (inch)			mm size (mm)			inch size (inch)	Metric thread	
Code	-180J	-2J	-3J	-4J	-6J	-1/8J	-5/32J	-1/4J	-3B	-4B*	-6B	-1/4B	-M5	-M6
Tube O.D.	ø1.8	ø2	ø3	ø4	ø6	ø1/8	ø5/32	ø1/4						
Tube I.D.									ø2	ø2.5	ø4	Polyurethane tube ø0.163 Nylon tube ø0.180		
Thread size													M5×0.8	M6×1
Holder type VPMA			○	○			○		○	○	○			
VPA			○	○	○	○	○	○		○	○	○		○
VPMB	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPB			○	○	○	○	○	○		○	○	○		○
VPMC	○	○	○	○		○	○		○	○	○	○		
VPC			○	○	○	○	○	○		○	○	○		○
VPOC			○	○	○	○	○	○		○	○	○		○
VPLFC			○	○	○	○	○	○	○	○	○		○	○
VPMD	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPD			○	○	○	○	○	○		○	○	○		○
VPOD			○	○	○	○	○	○		○	○	○		○
VPLFD			○	○	○	○	○	○	○	○	○		○	○
VPHC	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPHD	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPHDW	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPHE	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPHEW	○	○	○	○	○	○	○	○	○	○	○	○	○	

Push-in fitting

Barb fitting

Female thread

*The barb fitting of 5/32" size is common with 4 mm size. Please order with the code: -4B.
*Available port size varies depending on pad dia. See model code lists on the following pages.

Type	Male thread																Female thread	
	Metric thread				Taper pipe thread				Parallel pipe thread				NPT thread				Metric thread	
Code	-M8	-M10	-M12	-M14	-R1	-R2	-R3	-R4	-G1	-G2	-G3	-G4	-N1	-N2	-N3	-N4	-FM5	-FM8
Thread size	M8×1.25	M10×1.5	M12×1.75	M14×2	R1/8	R1/4	R3/8	R1/2	G1/8	G1/4	G3/8	G1/2	NPT1/8	NPT1/4	NPT3/8	NPT1/2	M5×0.8	M8×1.25
Holder type VPE	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

Direct mount

*Configuration code: M4 is not available for R4 and G4 thread size.

(8) Dust Catcher (Holder type: C, D and F only) Optional

Code	No code	-DC
Dust Catcher	None	Installed

*Note that the holder stroke becomes shorter when a dust catcher is installed. Please visit our website for details.

(8) Spring load (Holder type: LFC only)

Code	No code	-SF1/4
Load	Standard load	Low load (1/4 of standard load)

*"-SF1/4" is not selectable when 2 mm stroke is selected.

(9) Fall Prevention Valve Optional

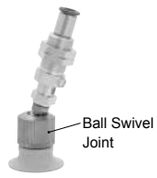
Code	No code	-ECV
Fall Prevention Valve	None	Installed

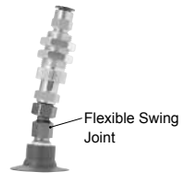
*-S3 spec. is not selectable when Fall Prevention Valve is selected.

(10) Swivel Joint for vacuum pad Optional

Code	No code	-FH	-FHH	-CFH
Option	None	Ball Swivel Joint (Swivel angle: 30°)	Ball Swivel Joint (Swivel angle: 15°)	Flexible Swing Joint (Swing angle: 8°)

*-S3 spec. is not selectable when Ball Swivel Joint is selected.





(11) Filter Optional

Code	No code	-F15	-F30
Filter	None	Installed (Filter area 1.7 cm^2)	Installed (Filter area 7 cm^2)
Applicable config. code	—	M4, M6	M6

*1. -S3 spec. is not selectable when Filter is selected.
*2. "-F30" is recommended when much dust is expected at sucking work pieces.

(12) -S3 spec. Optional

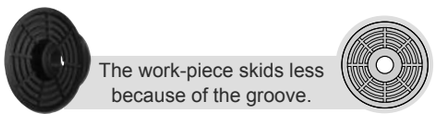
Code	No code	-S3
Metal material	Standard	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard	HNBR or FKM
Release ring color	Black	Dark blue

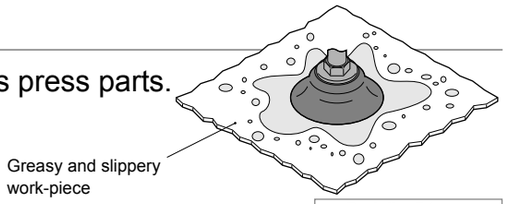
*1. -S3 spec. is not available for the following fittings and holders:
·Push-in fitting with dia. size of 1.8, 2, 3 mm and inch sizes except dia. 1/8" (some) and 5/32".
·Barb fitting with dia. of 1/4".
·Pad holder with stroke length 10 mm or longer (except for VPHC holders).
·VPLFC and VPLFD holders.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Vacuum Pad Skidproof Type

Characteristics

Optimal for transporting oil-coated components, such as press parts.





Pad dia. 5 types
ø10 to ø50mm
Pad material 5 types

Silicone (S) is Food-safe Act compliant.

(Holder is not compliant. Vacuum pad complies only at work-piece contact area.)
*See page 6 for the details of the Food-safe Act.

Wide variations of Pad holders.

The following combinations of holder and pad rubber are also available although it is not listed on the model code list from the next page. Contact us for the details.
· Lightweight VPHC holder that is made of resin and aluminum.
· Lightweight VPHD and VPHDW holders with spring type without cover.
· VPHE and VPHEW holders with reduced height.
· VPHDW and VPHEW holders with dual side vacuum ports, suitable for piping connection of multiple vacuum pads.

Low dust emission holders (VPLFC, VPLFD) with low noise and less wear from sliding are available to prevent dust generation.

VPLFC holder with top port has a separate shaft on the pad side and the vacuum port side, so there is no effect on the stroke caused by the tension of the tube.
Low load type is also available to suppress impact when contacting the work-piece.

Wide variations of fixed type direct mount holder (VPE) for various thread sizes.

Metric male threads, metric female threads, taper pipe threads, parallel pipe threads and NPT threads are available.
*Only a part of the combinations are shown on the model code list from the next page onward. Contact us for the details.

● Holder with dust catcher (Optional)

Collects wear debris generated by sliding spring type holders. Low-cost, simple holder with receiver tray added.

Applicable to VPC, VPD and VPF holders.

◀ Dust Catcher

● Accessories (Optional)

Fall Prevention Valve, Swivel (Ball Swivel Joint, Flexible Swing Joint) and Filter options are available.

● -S3 spec. (Optional)

No copper-based metallic materials used in flow paths.

The sealing rubber material of the fitting is HNBR or FKM, with good ozone resisntace.

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	12 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	12 -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Mini VPMA	ø10	ø3	VPMA10K6-3J	—	M4	ø10	ø5/32	VPMA10K6-5/32J12	○	M4
		ø4	VPMA10K6-4J12	○		ø20	ø5/32	VPMA20K6-5/32J12	○	M6
	ø20	ø4	VPMA20K6-4J12	○	M6	ø30	ø5/32	VPMA30K6-5/32J12	○	
	ø30	ø4	VPMA30K6-4J12	○		ø40	ø5/32	VPMA40K6-5/32J12	○	
	ø40	ø4	VPMA40K6-4J12	○		ø50	ø5/32	VPMA50K6-5/32J12	○	
	ø50	ø4	VPMA50K6-4J12	○						

Notes
*Barb fitting type holders are also available. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
12: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.525
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	12 -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Standard **VPA**	ø10	ø6	VPA10K6-6J12	○	M4
	ø20	ø3	VPA20K6-3J	—	M6
		ø4	VPA20K6-4J12	○	
		ø6	VPA20K6-6J12	○	
	ø30	ø3	VPA30K6-3J	—	
		ø4	VPA30K6-4J12	○	
		ø6	VPA30K6-6J12	○	
	ø40	ø3	VPA40K6-3J	—	
		ø4	VPA40K6-4J12	○	
		ø6	VPA40K6-6J12	○	
	ø50	ø3	VPA50K6-3J	—	
		ø4	VPA50K6-4J12	○	
		ø6	VPA50K6-6J12	○	

Holder type	Pad dia. (mm)	Tube O.D. (inch)	Model code	12 -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Standard **VPA**	ø10	ø1/4	VPA10K6-1/4J	—	M4
	ø20	ø1/8	VPA20K6-1/8J	—	M6
		ø5/32	VPA20K6-5/32J12	○	
		ø1/4	VPA20K6-1/4J	—	
	ø30	ø1/8	VPA30K6-1/8J	—	
		ø5/32	VPA30K6-5/32J12	○	
		ø1/4	VPA30K6-1/4J	—	
	ø40	ø1/8	VPA40K6-1/8J	—	
		ø5/32	VPA40K6-5/32J12	○	
		ø1/4	VPA40K6-1/4J	—	
	ø50	ø1/8	VPA50K6-1/8J	—	
		ø5/32	VPA50K6-5/32J12	○	
		ø1/4	VPA50K6-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	12 -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Female thread, Standard **VPA**	ø20	M6×1	VPA20K6-M612	○	M6
	ø30	M6×1	VPA30K6-M612	○	
	ø40	M6×1	VPA40K6-M612	○	
	ø50	M6×1	VPA50K6-M612	○	

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	12 -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Push-in fitting, Mini **VPMB**	ø10	ø3	VPMB10K6-3J	—	M4
		ø4	VPMB10K6-4J12	○	
		ø6	VPMB10K6-6J12	○	
	ø20	ø3	VPMB20K6-3J	—	M6
		ø4	VPMB20K6-4J12	○	
		ø6	VPMB20K6-6J12	○	
	ø30	ø3	VPMB30K6-3J	—	
		ø4	VPMB30K6-4J12	○	
		ø6	VPMB30K6-6J12	○	
	ø40	ø3	VPMB40K6-3J	—	
		ø4	VPMB40K6-4J12	○	
		ø6	VPMB40K6-6J12	○	
	ø50	ø3	VPMB50K6-3J	—	
		ø4	VPMB50K6-4J12	○	
		ø6	VPMB50K6-6J12	○	

Holder type	Pad dia. (mm)	Tube O.D. (inch)	Model code	12 -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Push-in fitting, Mini **VPMB**	ø10	ø1/8	VPMB10K6-1/8J	—	M4
		ø5/32	VPMB10K6-5/32J12	○	
		ø1/4	VPMB10K6-1/4J	—	
	ø20	ø1/8	VPMB20K6-1/8J	—	M6
		ø5/32	VPMB20K6-5/32J12	○	
		ø1/4	VPMB20K6-1/4J	—	
	ø30	ø1/8	VPMB30K6-1/8J	—	
		ø5/32	VPMB30K6-5/32J12	○	
		ø1/4	VPMB30K6-1/4J	—	
	ø40	ø1/8	VPMB40K6-1/8J	—	
		ø5/32	VPMB40K6-5/32J12	○	
		ø1/4	VPMB40K6-1/4J	—	
	ø50	ø1/8	VPMB50K6-1/8J	—	
		ø5/32	VPMB50K6-5/32J12	○	
		ø1/4	VPMB50K6-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	12 -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Female thread, Mini **VPMB**	ø10	M5×0.8	VPMB10K6-M512	○	M4
	ø20	M5×0.8	VPMB20K6-M512	○	M6
	ø30	M5×0.8	VPMB30K6-M512	○	
	ø40	M5×0.8	VPMB40K6-M512	○	
	ø50	M5×0.8	VPMB50K6-M512	○	

Notes
*Barb fitting type holders are also selectable. VPMB holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
12: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.525
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Skidproof Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	12 -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Push-in fitting, Standard	ø10	ø3	VPB10K6-3J	—	M4
		ø4	VPB10K6-4J12	○	
		ø6	VPB10K6-6J12	○	
	ø20	ø3	VPB20K6-3J	—	M6
		ø4	VPB20K6-4J12	○	
		ø6	VPB20K6-6J12	○	
	ø30	ø3	VPB30K6-3J	—	
		ø4	VPB30K6-4J12	○	
		ø6	VPB30K6-6J12	○	
	ø40	ø3	VPB40K6-3J	—	
		ø4	VPB40K6-4J12	○	
		ø6	VPB40K6-6J12	○	
	ø50	ø3	VPB50K6-3J	—	
		ø4	VPB50K6-4J12	○	
		ø6	VPB50K6-6J12	○	

VPB

Pad dia. (mm)	Tube O.D. (inch)	Model code	12 -S3 -S3 spec.	Connection config. code
ø10	ø1/8	VPB10K6-1/8J	—	M4
	ø5/32	VPB10K6-5/32J12	○	
	ø1/4	VPB10K6-1/4J	—	
ø20	ø1/8	VPB20K6-1/8J	—	M6
	ø5/32	VPB20K6-5/32J12	○	
	ø1/4	VPB20K6-1/4J	—	
ø30	ø1/8	VPB30K6-1/8J	—	
	ø5/32	VPB30K6-5/32J12	○	
	ø1/4	VPB30K6-1/4J	—	
ø40	ø1/8	VPB40K6-1/8J	—	
	ø5/32	VPB40K6-5/32J12	○	
	ø1/4	VPB40K6-1/4J	—	
ø50	ø1/8	VPB50K6-1/8J	—	
	ø5/32	VPB50K6-5/32J12	○	
	ø1/4	VPB50K6-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	12 -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Female thread, Standard	ø10	M6×1	VPB10K6-M612	○	M4
	ø20	M6×1	VPB20K6-M612	○	M6
	ø30	M6×1	VPB30K6-M612	○	
	ø40	M6×1	VPB40K6-M612	○	
	ø50	M6×1	VPB50K6-M612	○	

VPB

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	12 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Mini	ø10	ø3	VPMC10-4K6-3J	—	M4
		ø4	VPMC10-4K6-4J12	○	
	ø20	ø3	VPMC20-4K6-3J	—	M6
		ø4	VPMC20-4K6-4J12	○	
	ø30	ø3	VPMC30-4K6-3J	—	
		ø4	VPMC30-4K6-4J12	○	
	ø40	ø3	VPMC40-4K6-3J	—	
		ø4	VPMC40-4K6-4J12	○	
	ø50	ø3	VPMC50-4K6-3J	—	
		ø4	VPMC50-4K6-4J12	○	

VPMC

Stroke 4mm

Pad dia. (mm)	Tube O.D. (inch)	Model code	12 -S3 -S3 spec.	Connection config. code
ø10	ø1/8	VPMC10-4K6-1/8J	—	M4
	ø5/32	VPMC10-4K6-5/32J12	○	
ø20	ø1/8	VPMC20-4K6-1/8J	—	M6
	ø5/32	VPMC20-4K6-5/32J12	○	
ø30	ø1/8	VPMC30-4K6-1/8J	—	
	ø5/32	VPMC30-4K6-5/32J12	○	
ø40	ø1/8	VPMC40-4K6-1/8J	—	
	ø5/32	VPMC40-4K6-5/32J12	○	
ø50	ø1/8	VPMC50-4K6-1/8J	—	
	ø5/32	VPMC50-4K6-5/32J12	○	

Notes

*Barb fitting type holders are also selectable. VPMC holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options

12: -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.525

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	12 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	12 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Standard VPC 	ø10	6	ø3	VPC10-6K6-3J8	—	M4	ø10	6	ø1/8	VPC10-6K6-1/8J8	—	M4
			ø4	VPC10-6K6-4J812	○				ø5/32	VPC10-6K6-5/32J812	○	
			ø6	VPC10-6K6-6J812	○				ø1/4	VPC10-6K6-1/4J8	—	
		10	ø3	VPC10-10K6-3J8	—			10	ø1/8	VPC10-10K6-1/8J8	—	
			ø4	VPC10-10K6-4J8	—				ø5/32	VPC10-10K6-5/32J8	—	
			ø6	VPC10-10K6-6J8	—				ø1/4	VPC10-10K6-1/4J8	—	
		15	ø3	VPC10-15K6-3J8	—			15	ø1/8	VPC10-15K6-1/8J8	—	
			ø4	VPC10-15K6-4J8	—				ø5/32	VPC10-15K6-5/32J8	—	
			ø6	VPC10-15K6-6J8	—				ø1/4	VPC10-15K6-1/4J8	—	
		20	ø3	VPC10-20K6-3J8	—			20	ø1/8	VPC10-20K6-1/8J8	—	
			ø4	VPC10-20K6-4J8	—				ø5/32	VPC10-20K6-5/32J8	—	
			ø6	VPC10-20K6-6J8	—				ø1/4	VPC10-20K6-1/4J8	—	
	ø20	6	ø3	VPC20-6K6-3J8	—		ø20	6	ø1/8	VPC20-6K6-1/8J8	—	
			ø4	VPC20-6K6-4J812	○				ø5/32	VPC20-6K6-5/32J812	○	
			ø6	VPC20-6K6-6J812	○				ø1/4	VPC20-6K6-1/4J8	—	
		10	ø3	VPC20-10K6-3J8	—			10	ø1/8	VPC20-10K6-1/8J8	—	
			ø4	VPC20-10K6-4J8	—				ø5/32	VPC20-10K6-5/32J8	—	
			ø6	VPC20-10K6-6J8	—				ø1/4	VPC20-10K6-1/4J8	—	
		15	ø3	VPC20-15K6-3J8	—			15	ø1/8	VPC20-15K6-1/8J8	—	
			ø4	VPC20-15K6-4J8	—				ø5/32	VPC20-15K6-5/32J8	—	
			ø6	VPC20-15K6-6J8	—				ø1/4	VPC20-15K6-1/4J8	—	
		20	ø3	VPC20-20K6-3J8	—			20	ø1/8	VPC20-20K6-1/8J8	—	
			ø4	VPC20-20K6-4J8	—				ø5/32	VPC20-20K6-5/32J8	—	
			ø6	VPC20-20K6-6J8	—				ø1/4	VPC20-20K6-1/4J8	—	
	ø30	6	ø3	VPC30-6K6-3J8	—		ø30	6	ø1/8	VPC30-6K6-1/8J8	—	
			ø4	VPC30-6K6-4J812	○				ø5/32	VPC30-6K6-5/32J812	○	
			ø6	VPC30-6K6-6J812	○				ø1/4	VPC30-6K6-1/4J8	—	
		10	ø3	VPC30-10K6-3J8	—			10	ø1/8	VPC30-10K6-1/8J8	—	
			ø4	VPC30-10K6-4J8	—				ø5/32	VPC30-10K6-5/32J8	—	
			ø6	VPC30-10K6-6J8	—				ø1/4	VPC30-10K6-1/4J8	—	
		15	ø3	VPC30-15K6-3J8	—			15	ø1/8	VPC30-15K6-1/8J8	—	
			ø4	VPC30-15K6-4J8	—				ø5/32	VPC30-15K6-5/32J8	—	
			ø6	VPC30-15K6-6J8	—				ø1/4	VPC30-15K6-1/4J8	—	
		20	ø3	VPC30-20K6-3J8	—			20	ø1/8	VPC30-20K6-1/8J8	—	
			ø4	VPC30-20K6-4J8	—				ø5/32	VPC30-20K6-5/32J8	—	
			ø6	VPC30-20K6-6J8	—				ø1/4	VPC30-20K6-1/4J8	—	
	ø40	6	ø3	VPC40-6K6-3J8	—	M6	ø40	6	ø1/8	VPC40-6K6-1/8J8	—	M6
			ø4	VPC40-6K6-4J812	○				ø5/32	VPC40-6K6-5/32J812	○	
			ø6	VPC40-6K6-6J812	○				ø1/4	VPC40-6K6-1/4J8	—	
		10	ø3	VPC40-10K6-3J8	—			10	ø1/8	VPC40-10K6-1/8J8	—	
			ø4	VPC40-10K6-4J8	—				ø5/32	VPC40-10K6-5/32J8	—	
			ø6	VPC40-10K6-6J8	—				ø1/4	VPC40-10K6-1/4J8	—	
		15	ø3	VPC40-15K6-3J8	—			15	ø1/8	VPC40-15K6-1/8J8	—	
			ø4	VPC40-15K6-4J8	—				ø5/32	VPC40-15K6-5/32J8	—	
			ø6	VPC40-15K6-6J8	—				ø1/4	VPC40-15K6-1/4J8	—	
		20	ø3	VPC40-20K6-3J8	—			20	ø1/8	VPC40-20K6-1/8J8	—	
			ø4	VPC40-20K6-4J8	—				ø5/32	VPC40-20K6-5/32J8	—	
			ø6	VPC40-20K6-6J8	—				ø1/4	VPC40-20K6-1/4J8	—	
	ø50	6	ø3	VPC50-6K6-3J8	—		ø50	6	ø1/8	VPC50-6K6-1/8J8	—	
			ø4	VPC50-6K6-4J812	○				ø5/32	VPC50-6K6-5/32J812	○	
			ø6	VPC50-6K6-6J812	○				ø1/4	VPC50-6K6-1/4J8	—	
		10	ø3	VPC50-10K6-3J8	—			10	ø1/8	VPC50-10K6-1/8J8	—	
			ø4	VPC50-10K6-4J8	—				ø5/32	VPC50-10K6-5/32J8	—	
			ø6	VPC50-10K6-6J8	—				ø1/4	VPC50-10K6-1/4J8	—	
		15	ø3	VPC50-15K6-3J8	—			15	ø1/8	VPC50-15K6-1/8J8	—	
			ø4	VPC50-15K6-4J8	—				ø5/32	VPC50-15K6-5/32J8	—	
			ø6	VPC50-15K6-6J8	—				ø1/4	VPC50-15K6-1/4J8	—	
		20	ø3	VPC50-20K6-3J8	—			20	ø1/8	VPC50-20K6-1/8J8	—	
			ø4	VPC50-20K6-4J8	—				ø5/32	VPC50-20K6-5/32J8	—	
			ø6	VPC50-20K6-6J8	—				ø1/4	VPC50-20K6-1/4J8	—	

Notes
*Barb fitting type holders are also available. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
8: -DC ⇒ Holder with dust catcher
12: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.525
Dust Catcher (VPC)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Skidproof Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code (mm size)	12 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Female thread, Standard	ø10	6	M6×1	VPC10-6K6-M6812	○	M4
		10		VPC10-10K6-M68	—	
		15		VPC10-15K6-M68	—	
		20		VPC10-20K6-M68	—	
VPC	ø20	6	M6×1	VPC20-6K6-M6812	○	M6
		10		VPC20-10K6-M68	—	
		15		VPC20-15K6-M68	—	
		20		VPC20-20K6-M68	—	
	ø30	6	M6×1	VPC30-6K6-M6812	○	
		10		VPC30-10K6-M68	—	
		15		VPC30-15K6-M68	—	
		20		VPC30-20K6-M68	—	
	ø40	6	M6×1	VPC40-6K6-M6812	○	
		10		VPC40-10K6-M68	—	
		15		VPC40-15K6-M68	—	
		20		VPC40-20K6-M68	—	
	ø50	6	M6×1	VPC50-6K6-M6812	○	
		10		VPC50-10K6-M68	—	
		15		VPC50-15K6-M68	—	
		20		VPC50-20K6-M68	—	

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
8: -DC ⇒ Holder with dust catcher
12: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.525

Dust Catcher (VPC)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, No cover VPOC	ø10	20	ø3	VPOC10-20K6-3J	M4	ø10	20	ø1/8	VPOC10-20K6-1/8J	M4
			ø4	VPOC10-20K6-4J				ø5/32	VPOC10-20K6-5/32J	
			ø6	VPOC10-20K6-6J				ø1/4	VPOC10-20K6-1/4J	
		30	ø3	VPOC10-30K6-3J			30	ø1/8	VPOC10-30K6-1/8J	
			ø4	VPOC10-30K6-4J				ø5/32	VPOC10-30K6-5/32J	
			ø6	VPOC10-30K6-6J				ø1/4	VPOC10-30K6-1/4J	
		40	ø3	VPOC10-40K6-3J			40	ø1/8	VPOC10-40K6-1/8J	
			ø4	VPOC10-40K6-4J				ø5/32	VPOC10-40K6-5/32J	
			ø6	VPOC10-40K6-6J				ø1/4	VPOC10-40K6-1/4J	
		50	ø3	VPOC10-50K6-3J			50	ø1/8	VPOC10-50K6-1/8J	
			ø4	VPOC10-50K6-4J				ø5/32	VPOC10-50K6-5/32J	
			ø6	VPOC10-50K6-6J				ø1/4	VPOC10-50K6-1/4J	
	ø20	20	ø3	VPOC20-20K6-3J		ø20	20	ø1/8	VPOC20-20K6-1/8J	
			ø4	VPOC20-20K6-4J				ø5/32	VPOC20-20K6-5/32J	
			ø6	VPOC20-20K6-6J				ø1/4	VPOC20-20K6-1/4J	
		30	ø3	VPOC20-30K6-3J			30	ø1/8	VPOC20-30K6-1/8J	
			ø4	VPOC20-30K6-4J				ø5/32	VPOC20-30K6-5/32J	
			ø6	VPOC20-30K6-6J				ø1/4	VPOC20-30K6-1/4J	
		40	ø3	VPOC20-40K6-3J			40	ø1/8	VPOC20-40K6-1/8J	
			ø4	VPOC20-40K6-4J				ø5/32	VPOC20-40K6-5/32J	
			ø6	VPOC20-40K6-6J				ø1/4	VPOC20-40K6-1/4J	
		50	ø3	VPOC20-50K6-3J			50	ø1/8	VPOC20-50K6-1/8J	
			ø4	VPOC20-50K6-4J				ø5/32	VPOC20-50K6-5/32J	
			ø6	VPOC20-50K6-6J				ø1/4	VPOC20-50K6-1/4J	
	ø30	20	ø3	VPOC30-20K6-3J		ø30	20	ø1/8	VPOC30-20K6-1/8J	
			ø4	VPOC30-20K6-4J				ø5/32	VPOC30-20K6-5/32J	
			ø6	VPOC30-20K6-6J				ø1/4	VPOC30-20K6-1/4J	
		30	ø3	VPOC30-30K6-3J			30	ø1/8	VPOC30-30K6-1/8J	
			ø4	VPOC30-30K6-4J				ø5/32	VPOC30-30K6-5/32J	
			ø6	VPOC30-30K6-6J				ø1/4	VPOC30-30K6-1/4J	
		40	ø3	VPOC30-40K6-3J			40	ø1/8	VPOC30-40K6-1/8J	
			ø4	VPOC30-40K6-4J				ø5/32	VPOC30-40K6-5/32J	
			ø6	VPOC30-40K6-6J				ø1/4	VPOC30-40K6-1/4J	
		50	ø3	VPOC30-50K6-3J			50	ø1/8	VPOC30-50K6-1/8J	
			ø4	VPOC30-50K6-4J				ø5/32	VPOC30-50K6-5/32J	
			ø6	VPOC30-50K6-6J	M6			ø1/4	VPOC30-50K6-1/4J	M6
	ø40	20	ø3	VPOC40-20K6-3J		ø40	20	ø1/8	VPOC40-20K6-1/8J	
			ø4	VPOC40-20K6-4J				ø5/32	VPOC40-20K6-5/32J	
			ø6	VPOC40-20K6-6J				ø1/4	VPOC40-20K6-1/4J	
		30	ø3	VPOC40-30K6-3J			30	ø1/8	VPOC40-30K6-1/8J	
			ø4	VPOC40-30K6-4J				ø5/32	VPOC40-30K6-5/32J	
			ø6	VPOC40-30K6-6J				ø1/4	VPOC40-30K6-1/4J	
		40	ø3	VPOC40-40K6-3J			40	ø1/8	VPOC40-40K6-1/8J	
			ø4	VPOC40-40K6-4J				ø5/32	VPOC40-40K6-5/32J	
			ø6	VPOC40-40K6-6J				ø1/4	VPOC40-40K6-1/4J	
		50	ø3	VPOC40-50K6-3J			50	ø1/8	VPOC40-50K6-1/8J	
			ø4	VPOC40-50K6-4J				ø5/32	VPOC40-50K6-5/32J	
			ø6	VPOC40-50K6-6J				ø1/4	VPOC40-50K6-1/4J	
	ø50	20	ø3	VPOC50-20K6-3J		ø50	20	ø1/8	VPOC50-20K6-1/8J	
			ø4	VPOC50-20K6-4J				ø5/32	VPOC50-20K6-5/32J	
			ø6	VPOC50-20K6-6J				ø1/4	VPOC50-20K6-1/4J	
		30	ø3	VPOC50-30K6-3J			30	ø1/8	VPOC50-30K6-1/8J	
			ø4	VPOC50-30K6-4J				ø5/32	VPOC50-30K6-5/32J	
			ø6	VPOC50-30K6-6J				ø1/4	VPOC50-30K6-1/4J	
		40	ø3	VPOC50-40K6-3J			40	ø1/8	VPOC50-40K6-1/8J	
			ø4	VPOC50-40K6-4J				ø5/32	VPOC50-40K6-5/32J	
			ø6	VPOC50-40K6-6J				ø1/4	VPOC50-40K6-1/4J	
		50	ø3	VPOC50-50K6-3J			50	ø1/8	VPOC50-50K6-1/8J	
			ø4	VPOC50-50K6-4J				ø5/32	VPOC50-50K6-5/32J	
			ø6	VPOC50-50K6-6J				ø1/4	VPOC50-50K6-1/4J	

Notes
*Barb fitting type holders are also available. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Optional items
⇒ P.525

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

Vacuum Pad Skidproof Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Top port, Female thread, No cover	ø10	20	M6×1	VPOC10-20K6-M6	M4
		30		VPOC10-30K6-M6	
		40		VPOC10-40K6-M6	
		50		VPOC10-50K6-M6	
VPOC	ø20	20	M6×1	VPOC20-20K6-M6	M6
		30		VPOC20-30K6-M6	
		40		VPOC20-40K6-M6	
		50		VPOC20-50K6-M6	
	ø30	20	M6×1	VPOC30-20K6-M6	
		30		VPOC30-30K6-M6	
		40		VPOC30-40K6-M6	
		50		VPOC30-50K6-M6	
	ø40	20	M6×1	VPOC40-20K6-M6	
		30		VPOC40-30K6-M6	
		40		VPOC40-40K6-M6	
		50		VPOC40-50K6-M6	
	ø50	20	M6×1	VPOC50-20K6-M6	
		30		VPOC50-30K6-M6	
		40		VPOC50-40K6-M6	
		50		VPOC50-50K6-M6	

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Optional items
⇒ P.525

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type,
Top port,
Push-in fitting,
Low dust emission

VPLFC

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, Low dust emission **VPLFC**	ø10	2	ø3	VPLFC10-2K6-3J	M4	ø10	2	ø1/8	VPLFC10-2K6-1/8J	M4
			ø4	VPLFC10-2K6-4J				ø5/32	VPLFC10-2K6-5/32J	
		5	ø3	VPLFC10-5K6-3J8			5	ø1/8	VPLFC10-5K6-1/8J8	
			ø4	VPLFC10-5K6-4J8				ø5/32	VPLFC10-5K6-5/32J8	
		10	ø3	VPLFC10-10K6-3J8			10	ø1/8	VPLFC10-10K6-1/8J8	
			ø4	VPLFC10-10K6-4J8				ø5/32	VPLFC10-10K6-5/32J8	
		15	ø3	VPLFC10-15K6-3J8			15	ø1/8	VPLFC10-15K6-1/8J8	
			ø4	VPLFC10-15K6-4J8				ø5/32	VPLFC10-15K6-5/32J8	
		20	ø3	VPLFC10-20K6-3J8			20	ø1/8	VPLFC10-20K6-1/8J8	
			ø4	VPLFC10-20K6-4J8				ø5/32	VPLFC10-20K6-5/32J8	
	ø20	5	ø3	VPLFC20-5K6-3J8		ø20	5	ø1/8	VPLFC20-5K6-1/8J8	
			ø4	VPLFC20-5K6-4J8				ø5/32	VPLFC20-5K6-5/32J8	
			ø6	VPLFC20-5K6-6J8				ø1/4	VPLFC20-5K6-1/4J8	
		10	ø3	VPLFC20-10K6-3J8			10	ø1/8	VPLFC20-10K6-1/8J8	
			ø4	VPLFC20-10K6-4J8				ø5/32	VPLFC20-10K6-5/32J8	
			ø6	VPLFC20-10K6-6J8				ø1/4	VPLFC20-10K6-1/4J8	
		15	ø3	VPLFC20-15K6-3J8			15	ø1/8	VPLFC20-15K6-1/8J8	
			ø4	VPLFC20-15K6-4J8				ø5/32	VPLFC20-15K6-5/32J8	
			ø6	VPLFC20-15K6-6J8				ø1/4	VPLFC20-15K6-1/4J8	
		20	ø3	VPLFC20-20K6-3J8			20	ø1/8	VPLFC20-20K6-1/8J8	
			ø4	VPLFC20-20K6-4J8				ø5/32	VPLFC20-20K6-5/32J8	
			ø6	VPLFC20-20K6-6J8				ø1/4	VPLFC20-20K6-1/4J8	
	ø30	5	ø3	VPLFC30-5K6-3J8		ø30	5	ø1/8	VPLFC30-5K6-1/8J8	
			ø4	VPLFC30-5K6-4J8				ø5/32	VPLFC30-5K6-5/32J8	
			ø6	VPLFC30-5K6-6J8				ø1/4	VPLFC30-5K6-1/4J8	
		10	ø3	VPLFC30-10K6-3J8			10	ø1/8	VPLFC30-10K6-1/8J8	
			ø4	VPLFC30-10K6-4J8				ø5/32	VPLFC30-10K6-5/32J8	
			ø6	VPLFC30-10K6-6J8				ø1/4	VPLFC30-10K6-1/4J8	
		15	ø3	VPLFC30-15K6-3J8			15	ø1/8	VPLFC30-15K6-1/8J8	
			ø4	VPLFC30-15K6-4J8				ø5/32	VPLFC30-15K6-5/32J8	
			ø6	VPLFC30-15K6-6J8				ø1/4	VPLFC30-15K6-1/4J8	
		20	ø3	VPLFC30-20K6-3J8			20	ø1/8	VPLFC30-20K6-1/8J8	
			ø4	VPLFC30-20K6-4J8				ø5/32	VPLFC30-20K6-5/32J8	
			ø6	VPLFC30-20K6-6J8	M6			ø1/4	VPLFC30-20K6-1/4J8	M6
	ø40	5	ø3	VPLFC40-5K6-3J8		ø40	5	ø1/8	VPLFC40-5K6-1/8J8	
			ø4	VPLFC40-5K6-4J8				ø5/32	VPLFC40-5K6-5/32J8	
			ø6	VPLFC40-5K6-6J8				ø1/4	VPLFC40-5K6-1/4J8	
		10	ø3	VPLFC40-10K6-3J8			10	ø1/8	VPLFC40-10K6-1/8J8	
			ø4	VPLFC40-10K6-4J8				ø5/32	VPLFC40-10K6-5/32J8	
			ø6	VPLFC40-10K6-6J8				ø1/4	VPLFC40-10K6-1/4J8	
		15	ø3	VPLFC40-15K6-3J8			15	ø1/8	VPLFC40-15K6-1/8J8	
			ø4	VPLFC40-15K6-4J8				ø5/32	VPLFC40-15K6-5/32J8	
			ø6	VPLFC40-15K6-6J8				ø1/4	VPLFC40-15K6-1/4J8	
		20	ø3	VPLFC40-20K6-3J8			20	ø1/8	VPLFC40-20K6-1/8J8	
			ø4	VPLFC40-20K6-4J8				ø5/32	VPLFC40-20K6-5/32J8	
			ø6	VPLFC40-20K6-6J8				ø1/4	VPLFC40-20K6-1/4J8	
	ø50	5	ø3	VPLFC50-5K6-3J8		ø50	5	ø1/8	VPLFC50-5K6-1/8J8	
			ø4	VPLFC50-5K6-4J8				ø5/32	VPLFC50-5K6-5/32J8	
			ø6	VPLFC50-5K6-6J8				ø1/4	VPLFC50-5K6-1/4J8	
		10	ø3	VPLFC50-10K6-3J8			10	ø1/8	VPLFC50-10K6-1/8J8	
			ø4	VPLFC50-10K6-4J8				ø5/32	VPLFC50-10K6-5/32J8	
			ø6	VPLFC50-10K6-6J8				ø1/4	VPLFC50-10K6-1/4J8	
		15	ø3	VPLFC50-15K6-3J8			15	ø1/8	VPLFC50-15K6-1/8J8	
			ø4	VPLFC50-15K6-4J8				ø5/32	VPLFC50-15K6-5/32J8	
			ø6	VPLFC50-15K6-6J8				ø1/4	VPLFC50-15K6-1/4J8	
		20	ø3	VPLFC50-20K6-3J8			20	ø1/8	VPLFC50-20K6-1/8J8	
			ø4	VPLFC50-20K6-4J8				ø5/32	VPLFC50-20K6-5/32J8	
			ø6	VPLFC50-20K6-6J8				ø1/4	VPLFC50-20K6-1/4J8	

Notes
*Barb fitting type holders are also available. Contact us for the details.

Packaging specifications
1 pc./bag

Options
8: -SF1/4 ⇒ Spring load 1/4

Optional items ⇒ P.525

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

Vacuum Pad Skidproof Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Top port, Female thread, Low dust emission **VPLFC**	ø10	2	M5×0.8	VPLFC10-2K⑥-M5	M4
		5	M5×0.8	VPLFC10-5K⑥-M5⑧	
		10	M5×0.8	VPLFC10-10K⑥-M5⑧	
		15	M5×0.8	VPLFC10-15K⑥-M5⑧	
		20	M5×0.8	VPLFC10-20K⑥-M5⑧	
	ø20	5	M6×1	VPLFC20-5K⑥-M6⑧	M6
		10	M6×1	VPLFC20-10K⑥-M6⑧	
		15	M6×1	VPLFC20-15K⑥-M6⑧	
		20	M6×1	VPLFC20-20K⑥-M6⑧	
	ø30	5	M6×1	VPLFC30-5K⑥-M6⑧	
		10	M6×1	VPLFC30-10K⑥-M6⑧	
		15	M6×1	VPLFC30-15K⑥-M6⑧	
		20	M6×1	VPLFC30-20K⑥-M6⑧	
	ø40	5	M6×1	VPLFC40-5K⑥-M6⑧	
		10	M6×1	VPLFC40-10K⑥-M6⑧	
		15	M6×1	VPLFC40-15K⑥-M6⑧	
		20	M6×1	VPLFC40-20K⑥-M6⑧	
	ø50	5	M6×1	VPLFC50-5K⑥-M6⑧	
		10	M6×1	VPLFC50-10K⑥-M6⑧	
		15	M6×1	VPLFC50-15K⑥-M6⑧	
		20	M6×1	VPLFC50-20K⑥-M6⑧	

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	⑫ -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	⑫ -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Mini **VPMD** Stroke 4mm	ø10	ø3	VPMD10-4K⑥-3J	—	M4	ø10	ø1/8	VPMD10-4K⑥-1/8J	—	M4
		ø4	VPMD10-4K⑥-4J⑫	○			ø5/32	VPMD10-4K⑥-5/32J⑫	○	
		ø6	VPMD10-4K⑥-6J⑫	○			ø1/4	VPMD10-4K⑥-1/4J	—	
	ø20	ø3	VPMD20-4K⑥-3J	—	M6	ø20	ø1/8	VPMD20-4K⑥-1/8J	—	M6
		ø4	VPMD20-4K⑥-4J⑫	○			ø5/32	VPMD20-4K⑥-5/32J⑫	○	
		ø6	VPMD20-4K⑥-6J⑫	○			ø1/4	VPMD20-4K⑥-1/4J	—	
	ø30	ø3	VPMD30-4K⑥-3J	—		ø30	ø1/8	VPMD30-4K⑥-1/8J	—	
		ø4	VPMD30-4K⑥-4J⑫	○			ø5/32	VPMD30-4K⑥-5/32J⑫	○	
		ø6	VPMD30-4K⑥-6J⑫	○			ø1/4	VPMD30-4K⑥-1/4J	—	
	ø40	ø3	VPMD40-4K⑥-3J	—		ø40	ø1/8	VPMD40-4K⑥-1/8J	—	
		ø4	VPMD40-4K⑥-4J⑫	○			ø5/32	VPMD40-4K⑥-5/32J⑫	○	
		ø6	VPMD40-4K⑥-6J⑫	○			ø1/4	VPMD40-4K⑥-1/4J	—	
	ø50	ø3	VPMD50-4K⑥-3J	—		ø50	ø1/8	VPMD50-4K⑥-1/8J	—	
		ø4	VPMD50-4K⑥-4J⑫	○			ø5/32	VPMD50-4K⑥-5/32J⑫	○	
		ø6	VPMD50-4K⑥-6J⑫	○			ø1/4	VPMD50-4K⑥-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	⑫ -S3 -S3 spec.	Connection config. code
Spring type, Side port, Female thread, Mini **VPMD** Stroke 4mm	ø10	M5×0.8	VPMD10-4K⑥-M5⑫	○	M4
	ø20	M5×0.8	VPMD20-4K⑥-M5⑫	○	M6
	ø30	M5×0.8	VPMD30-4K⑥-M5⑫	○	
	ø40	M5×0.8	VPMD40-4K⑥-M5⑫	○	
	ø50	M5×0.8	VPMD50-4K⑥-M5⑫	○	

Notes
*VPMC holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
⑧: -SF1/4 ⇒ Spring load 1/4
⑫: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.525

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	12 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	12 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Standard VPD	ø10	6	ø3	VPD10-6K6-3J8	—	M4	ø10	6	ø1/8	VPD10-6K6-1/8J8	—	M4
			ø4	VPD10-6K6-4J812	○				ø5/32	VPD10-6K6-5/32J812	○	
			ø6	VPD10-6K6-6J812	○				ø1/4	VPD10-6K6-1/4J8	—	
		10	ø3	VPD10-10K6-3J8	—			10	ø1/8	VPD10-10K6-1/8J8	—	
			ø4	VPD10-10K6-4J8	—				ø5/32	VPD10-10K6-5/32J8	—	
			ø6	VPD10-10K6-6J8	—				ø1/4	VPD10-10K6-1/4J8	—	
		15	ø3	VPD10-15K6-3J8	—			15	ø1/8	VPD10-15K6-1/8J8	—	
			ø4	VPD10-15K6-4J8	—				ø5/32	VPD10-15K6-5/32J8	—	
			ø6	VPD10-15K6-6J8	—				ø1/4	VPD10-15K6-1/4J8	—	
		20	ø3	VPD10-20K6-3J8	—			20	ø1/8	VPD10-20K6-1/8J8	—	
			ø4	VPD10-20K6-4J8	—				ø5/32	VPD10-20K6-5/32J8	—	
			ø6	VPD10-20K6-6J8	—				ø1/4	VPD10-20K6-1/4J8	—	
	ø20	6	ø3	VPD20-6K6-3J8	—	M6	ø20	6	ø1/8	VPD20-6K6-1/8J8	—	M6
			ø4	VPD20-6K6-4J812	○				ø5/32	VPD20-6K6-5/32J812	○	
			ø6	VPD20-6K6-6J812	○				ø1/4	VPD20-6K6-1/4J8	—	
		10	ø3	VPD20-10K6-3J8	—			10	ø1/8	VPD20-10K6-1/8J8	—	
			ø4	VPD20-10K6-4J8	—				ø5/32	VPD20-10K6-5/32J8	—	
			ø6	VPD20-10K6-6J8	—				ø1/4	VPD20-10K6-1/4J8	—	
		15	ø3	VPD20-15K6-3J8	—			15	ø1/8	VPD20-15K6-1/8J8	—	
			ø4	VPD20-15K6-4J8	—				ø5/32	VPD20-15K6-5/32J8	—	
			ø6	VPD20-15K6-6J8	—				ø1/4	VPD20-15K6-1/4J8	—	
		20	ø3	VPD20-20K6-3J8	—			20	ø1/8	VPD20-20K6-1/8J8	—	
			ø4	VPD20-20K6-4J8	—				ø5/32	VPD20-20K6-5/32J8	—	
			ø6	VPD20-20K6-6J8	—				ø1/4	VPD20-20K6-1/4J8	—	
	ø30	6	ø3	VPD30-6K6-3J8	—		ø30	6	ø1/8	VPD30-6K6-1/8J8	—	
			ø4	VPD30-6K6-4J812	○				ø5/32	VPD30-6K6-5/32J812	○	
			ø6	VPD30-6K6-6J812	○				ø1/4	VPD30-6K6-1/4J8	—	
		10	ø3	VPD30-10K6-3J8	—			10	ø1/8	VPD30-10K6-1/8J8	—	
			ø4	VPD30-10K6-4J8	—				ø5/32	VPD30-10K6-5/32J8	—	
			ø6	VPD30-10K6-6J8	—				ø1/4	VPD30-10K6-1/4J8	—	
		15	ø3	VPD30-15K6-3J8	—			15	ø1/8	VPD30-15K6-1/8J8	—	
			ø4	VPD30-15K6-4J8	—				ø5/32	VPD30-15K6-5/32J8	—	
			ø6	VPD30-15K6-6J8	—				ø1/4	VPD30-15K6-1/4J8	—	
		20	ø3	VPD30-20K6-3J8	—			20	ø1/8	VPD30-20K6-1/8J8	—	
			ø4	VPD30-20K6-4J8	—				ø5/32	VPD30-20K6-5/32J8	—	
			ø6	VPD30-20K6-6J8	—				ø1/4	VPD30-20K6-1/4J8	—	
	ø40	6	ø3	VPD40-6K6-3J8	—		ø40	6	ø1/8	VPD40-6K6-1/8J8	—	
			ø4	VPD40-6K6-4J812	○				ø5/32	VPD40-6K6-5/32J812	○	
			ø6	VPD40-6K6-6J812	○				ø1/4	VPD40-6K6-1/4J8	—	
		10	ø3	VPD40-10K6-3J8	—			10	ø1/8	VPD40-10K6-1/8J8	—	
			ø4	VPD40-10K6-4J8	—				ø5/32	VPD40-10K6-5/32J8	—	
			ø6	VPD40-10K6-6J8	—				ø1/4	VPD40-10K6-1/4J8	—	
		15	ø3	VPD40-15K6-3J8	—			15	ø1/8	VPD40-15K6-1/8J8	—	
			ø4	VPD40-15K6-4J8	—				ø5/32	VPD40-15K6-5/32J8	—	
			ø6	VPD40-15K6-6J8	—				ø1/4	VPD40-15K6-1/4J8	—	
		20	ø3	VPD40-20K6-3J8	—			20	ø1/8	VPD40-20K6-1/8J8	—	
			ø4	VPD40-20K6-4J8	—				ø5/32	VPD40-20K6-5/32J8	—	
			ø6	VPD40-20K6-6J8	—				ø1/4	VPD40-20K6-1/4J8	—	
	ø50	6	ø3	VPD50-6K6-3J8	—		ø50	6	ø1/8	VPD50-6K6-1/8J8	—	
			ø4	VPD50-6K6-4J812	○				ø5/32	VPD50-6K6-5/32J812	○	
			ø6	VPD50-6K6-6J812	○				ø1/4	VPD50-6K6-1/4J8	—	
		10	ø3	VPD50-10K6-3J8	—			10	ø1/8	VPD50-10K6-1/8J8	—	
			ø4	VPD50-10K6-4J8	—				ø5/32	VPD50-10K6-5/32J8	—	
			ø6	VPD50-10K6-6J8	—				ø1/4	VPD50-10K6-1/4J8	—	
		15	ø3	VPD50-15K6-3J8	—			15	ø1/8	VPD50-15K6-1/8J8	—	
			ø4	VPD50-15K6-4J8	—				ø5/32	VPD50-15K6-5/32J8	—	
			ø6	VPD50-15K6-6J8	—				ø1/4	VPD50-15K6-1/4J8	—	
		20	ø3	VPD50-20K6-3J8	—			20	ø1/8	VPD50-20K6-1/8J8	—	
			ø4	VPD50-20K6-4J8	—				ø5/32	VPD50-20K6-5/32J8	—	
			ø6	VPD50-20K6-6J8	—				ø1/4	VPD50-20K6-1/4J8	—	

Notes
*Barb fitting type holders are also available. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
8: -DC ⇒ Holder with dust catcher
12: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.525
Dust Catcher (VPD)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Skidproof Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	12 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Female thread, Standard	ø10	6	M6×1	VPD10-6K6-M6812	○	M4
		10		VPD10-10K6-M68	—	
		15		VPD10-15K6-M68	—	
		20		VPD10-20K6-M68	—	
VPD	ø20	6	M6×1	VPD20-6K6-M6812	○	M6
		10		VPD20-10K6-M68	—	
		15		VPD20-15K6-M68	—	
		20		VPD20-20K6-M68	—	
	ø30	6	M6×1	VPD30-6K6-M6812	○	
		10		VPD30-10K6-M68	—	
		15		VPD30-15K6-M68	—	
		20		VPD30-20K6-M68	—	
	ø40	6	M6×1	VPD40-6K6-M6812	○	
		10		VPD40-10K6-M68	—	
		15		VPD40-15K6-M68	—	
		20		VPD40-20K6-M68	—	
	ø50	6	M6×1	VPD50-6K6-M6812	○	
		10		VPD50-10K6-M68	—	
		15		VPD50-15K6-M68	—	
		20		VPD50-20K6-M68	—	

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
8: -DC ⇒ Holder with dust catcher
12: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.525

Dust Catcher (VPD)

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, No cover VPOD	ø10	20	ø3	VPOD10-20K⑥-3J	M4	ø10	20	ø1/8	VPOD10-20K⑥-1/8J	M4
			ø4	VPOD10-20K⑥-4J				ø5/32	VPOD10-20K⑥-5/32J	
			ø6	VPOD10-20K⑥-6J				ø1/4	VPOD10-20K⑥-1/4J	
		30	ø3	VPOD10-30K⑥-3J			30	ø1/8	VPOD10-30K⑥-1/8J	
			ø4	VPOD10-30K⑥-4J				ø5/32	VPOD10-30K⑥-5/32J	
			ø6	VPOD10-30K⑥-6J				ø1/4	VPOD10-30K⑥-1/4J	
		40	ø3	VPOD10-40K⑥-3J			40	ø1/8	VPOD10-40K⑥-1/8J	
			ø4	VPOD10-40K⑥-4J				ø5/32	VPOD10-40K⑥-5/32J	
			ø6	VPOD10-40K⑥-6J				ø1/4	VPOD10-40K⑥-1/4J	
		50	ø3	VPOD10-50K⑥-3J			50	ø1/8	VPOD10-50K⑥-1/8J	
			ø4	VPOD10-50K⑥-4J				ø5/32	VPOD10-50K⑥-5/32J	
			ø6	VPOD10-50K⑥-6J				ø1/4	VPOD10-50K⑥-1/4J	
	ø20	20	ø3	VPOD20-20K⑥-3J		ø20	20	ø1/8	VPOD20-20K⑥-1/8J	
			ø4	VPOD20-20K⑥-4J				ø5/32	VPOD20-20K⑥-5/32J	
			ø6	VPOD20-20K⑥-6J				ø1/4	VPOD20-20K⑥-1/4J	
		30	ø3	VPOD20-30K⑥-3J			30	ø1/8	VPOD20-30K⑥-1/8J	
			ø4	VPOD20-30K⑥-4J				ø5/32	VPOD20-30K⑥-5/32J	
			ø6	VPOD20-30K⑥-6J				ø1/4	VPOD20-30K⑥-1/4J	
		40	ø3	VPOD20-40K⑥-3J			40	ø1/8	VPOD20-40K⑥-1/8J	
			ø4	VPOD20-40K⑥-4J				ø5/32	VPOD20-40K⑥-5/32J	
			ø6	VPOD20-40K⑥-6J				ø1/4	VPOD20-40K⑥-1/4J	
		50	ø3	VPOD20-50K⑥-3J			50	ø1/8	VPOD20-50K⑥-1/8J	
			ø4	VPOD20-50K⑥-4J				ø5/32	VPOD20-50K⑥-5/32J	
			ø6	VPOD20-50K⑥-6J				ø1/4	VPOD20-50K⑥-1/4J	
	ø30	20	ø3	VPOD30-20K⑥-3J		ø30	20	ø1/8	VPOD30-20K⑥-1/8J	
			ø4	VPOD30-20K⑥-4J				ø5/32	VPOD30-20K⑥-5/32J	
			ø6	VPOD30-20K⑥-6J				ø1/4	VPOD30-20K⑥-1/4J	
		30	ø3	VPOD30-30K⑥-3J			30	ø1/8	VPOD30-30K⑥-1/8J	
			ø4	VPOD30-30K⑥-4J				ø5/32	VPOD30-30K⑥-5/32J	
			ø6	VPOD30-30K⑥-6J				ø1/4	VPOD30-30K⑥-1/4J	
		40	ø3	VPOD30-40K⑥-3J			40	ø1/8	VPOD30-40K⑥-1/8J	
			ø4	VPOD30-40K⑥-4J				ø5/32	VPOD30-40K⑥-5/32J	
			ø6	VPOD30-40K⑥-6J				ø1/4	VPOD30-40K⑥-1/4J	
		50	ø3	VPOD30-50K⑥-3J			50	ø1/8	VPOD30-50K⑥-1/8J	
			ø4	VPOD30-50K⑥-4J				ø5/32	VPOD30-50K⑥-5/32J	
			ø6	VPOD30-50K⑥-6J	M6			ø1/4	VPOD30-50K⑥-1/4J	M6
	ø40	20	ø3	VPOD40-20K⑥-3J		ø40	20	ø1/8	VPOD40-20K⑥-1/8J	
			ø4	VPOD40-20K⑥-4J				ø5/32	VPOD40-20K⑥-5/32J	
			ø6	VPOD40-20K⑥-6J				ø1/4	VPOD40-20K⑥-1/4J	
		30	ø3	VPOD40-30K⑥-3J			30	ø1/8	VPOD40-30K⑥-1/8J	
			ø4	VPOD40-30K⑥-4J				ø5/32	VPOD40-30K⑥-5/32J	
			ø6	VPOD40-30K⑥-6J				ø1/4	VPOD40-30K⑥-1/4J	
		40	ø3	VPOD40-40K⑥-3J			40	ø1/8	VPOD40-40K⑥-1/8J	
			ø4	VPOD40-40K⑥-4J				ø5/32	VPOD40-40K⑥-5/32J	
			ø6	VPOD40-40K⑥-6J				ø1/4	VPOD40-40K⑥-1/4J	
		50	ø3	VPOD40-50K⑥-3J			50	ø1/8	VPOD40-50K⑥-1/8J	
			ø4	VPOD40-50K⑥-4J				ø5/32	VPOD40-50K⑥-5/32J	
			ø6	VPOD40-50K⑥-6J				ø1/4	VPOD40-50K⑥-1/4J	
	ø50	20	ø3	VPOD50-20K⑥-3J		ø50	20	ø1/8	VPOD50-20K⑥-1/8J	
			ø4	VPOD50-20K⑥-4J				ø5/32	VPOD50-20K⑥-5/32J	
			ø6	VPOD50-20K⑥-6J				ø1/4	VPOD50-20K⑥-1/4J	
		30	ø3	VPOD50-30K⑥-3J			30	ø1/8	VPOD50-30K⑥-1/8J	
			ø4	VPOD50-30K⑥-4J				ø5/32	VPOD50-30K⑥-5/32J	
			ø6	VPOD50-30K⑥-6J				ø1/4	VPOD50-30K⑥-1/4J	
		40	ø3	VPOD50-40K⑥-3J			40	ø1/8	VPOD50-40K⑥-1/8J	
			ø4	VPOD50-40K⑥-4J				ø5/32	VPOD50-40K⑥-5/32J	
			ø6	VPOD50-40K⑥-6J				ø1/4	VPOD50-40K⑥-1/4J	
		50	ø3	VPOD50-50K⑥-3J			50	ø1/8	VPOD50-50K⑥-1/8J	
			ø4	VPOD50-50K⑥-4J				ø5/32	VPOD50-50K⑥-5/32J	
			ø6	VPOD50-50K⑥-6J				ø1/4	VPOD50-50K⑥-1/4J	

Notes
*Barb fitting type holders are also available. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Optional items
⇒ P.525

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

Vacuum Pad Skidproof Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Side port, Female thread, No cover	ø10	20	M6×1	VPOD10-20K6-M6	M4
		30		VPOD10-30K6-M6	
		40		VPOD10-40K6-M6	
		50		VPOD10-50K6-M6	
VPOD	ø20	20	M6×1	VPOD20-20K6-M6	M6
		30		VPOD20-30K6-M6	
		40		VPOD20-40K6-M6	
		50		VPOD20-50K6-M6	
	ø30	20	M6×1	VPOD30-20K6-M6	
		30		VPOD30-30K6-M6	
		40		VPOD30-40K6-M6	
		50		VPOD30-50K6-M6	
	ø40	20	M6×1	VPOD40-20K6-M6	
		30		VPOD40-30K6-M6	
		40		VPOD40-40K6-M6	
		50		VPOD40-50K6-M6	
	ø50	20	M6×1	VPOD50-20K6-M6	
		30		VPOD50-30K6-M6	
		40		VPOD50-40K6-M6	
		50		VPOD50-50K6-M6	

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Optional items
⇒ P.525

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type,
Side port,
Push-in fitting,
Low dust emission

VPLFD

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
	ø10	5	ø3	VPLFD10-5K⑥-3J	M4	ø10	5	ø1/8	VPLFD10-5K⑥-1/8J	M4
			ø4	VPLFD10-5K⑥-4J				ø5/32	VPLFD10-5K⑥-5/32J	
		10	ø3	VPLFD10-10K⑥-3J			10	ø1/8	VPLFD10-10K⑥-1/8J	
			ø4	VPLFD10-10K⑥-4J				ø5/32	VPLFD10-10K⑥-5/32J	
		15	ø3	VPLFD10-15K⑥-3J			15	ø1/8	VPLFD10-15K⑥-1/8J	
			ø4	VPLFD10-15K⑥-4J				ø5/32	VPLFD10-15K⑥-5/32J	
		20	ø3	VPLFD10-20K⑥-3J			20	ø1/8	VPLFD10-20K⑥-1/8J	
			ø4	VPLFD10-20K⑥-4J				ø5/32	VPLFD10-20K⑥-5/32J	
	ø20	5	ø3	VPLFD20-5K⑥-3J	M6	ø20	5	ø1/8	VPLFD20-5K⑥-1/8J	M6
			ø4	VPLFD20-5K⑥-4J				ø5/32	VPLFD20-5K⑥-5/32J	
			ø6	VPLFD20-5K⑥-6J				ø1/4	VPLFD20-5K⑥-1/4J	
		10	ø3	VPLFD20-10K⑥-3J			10	ø1/8	VPLFD20-10K⑥-1/8J	
			ø4	VPLFD20-10K⑥-4J				ø5/32	VPLFD20-10K⑥-5/32J	
			ø6	VPLFD20-10K⑥-6J				ø1/4	VPLFD20-10K⑥-1/4J	
		15	ø3	VPLFD20-15K⑥-3J			15	ø1/8	VPLFD20-15K⑥-1/8J	
			ø4	VPLFD20-15K⑥-4J				ø5/32	VPLFD20-15K⑥-5/32J	
			ø6	VPLFD20-15K⑥-6J				ø1/4	VPLFD20-15K⑥-1/4J	
		20	ø3	VPLFD20-20K⑥-3J			20	ø1/8	VPLFD20-20K⑥-1/8J	
			ø4	VPLFD20-20K⑥-4J				ø5/32	VPLFD20-20K⑥-5/32J	
			ø6	VPLFD20-20K⑥-6J				ø1/4	VPLFD20-20K⑥-1/4J	
	ø30	5	ø3	VPLFD30-5K⑥-3J		ø30	5	ø1/8	VPLFD30-5K⑥-1/8J	
			ø4	VPLFD30-5K⑥-4J				ø5/32	VPLFD30-5K⑥-5/32J	
			ø6	VPLFD30-5K⑥-6J				ø1/4	VPLFD30-5K⑥-1/4J	
		10	ø3	VPLFD30-10K⑥-3J			10	ø1/8	VPLFD30-10K⑥-1/8J	
			ø4	VPLFD30-10K⑥-4J				ø5/32	VPLFD30-10K⑥-5/32J	
			ø6	VPLFD30-10K⑥-6J				ø1/4	VPLFD30-10K⑥-1/4J	
		15	ø3	VPLFD30-15K⑥-3J			15	ø1/8	VPLFD30-15K⑥-1/8J	
			ø4	VPLFD30-15K⑥-4J				ø5/32	VPLFD30-15K⑥-5/32J	
			ø6	VPLFD30-15K⑥-6J				ø1/4	VPLFD30-15K⑥-1/4J	
		20	ø3	VPLFD30-20K⑥-3J			20	ø1/8	VPLFD30-20K⑥-1/8J	
			ø4	VPLFD30-20K⑥-4J				ø5/32	VPLFD30-20K⑥-5/32J	
			ø6	VPLFD30-20K⑥-6J				ø1/4	VPLFD30-20K⑥-1/4J	
	ø40	5	ø3	VPLFD40-5K⑥-3J		ø40	5	ø1/8	VPLFD40-5K⑥-1/8J	
			ø4	VPLFD40-5K⑥-4J				ø5/32	VPLFD40-5K⑥-5/32J	
			ø6	VPLFD40-5K⑥-6J				ø1/4	VPLFD40-5K⑥-1/4J	
		10	ø3	VPLFD40-10K⑥-3J			10	ø1/8	VPLFD40-10K⑥-1/8J	
			ø4	VPLFD40-10K⑥-4J				ø5/32	VPLFD40-10K⑥-5/32J	
			ø6	VPLFD40-10K⑥-6J				ø1/4	VPLFD40-10K⑥-1/4J	
		15	ø3	VPLFD40-15K⑥-3J			15	ø1/8	VPLFD40-15K⑥-1/8J	
			ø4	VPLFD40-15K⑥-4J				ø5/32	VPLFD40-15K⑥-5/32J	
			ø6	VPLFD40-15K⑥-6J				ø1/4	VPLFD40-15K⑥-1/4J	
		20	ø3	VPLFD40-20K⑥-3J			20	ø1/8	VPLFD40-20K⑥-1/8J	
			ø4	VPLFD40-20K⑥-4J				ø5/32	VPLFD40-20K⑥-5/32J	
			ø6	VPLFD40-20K⑥-6J				ø1/4	VPLFD40-20K⑥-1/4J	
	ø50	5	ø3	VPLFD50-5K⑥-3J		ø50	5	ø1/8	VPLFD50-5K⑥-1/8J	
			ø4	VPLFD50-5K⑥-4J				ø5/32	VPLFD50-5K⑥-5/32J	
			ø6	VPLFD50-5K⑥-6J				ø1/4	VPLFD50-5K⑥-1/4J	
		10	ø3	VPLFD50-10K⑥-3J			10	ø1/8	VPLFD50-10K⑥-1/8J	
			ø4	VPLFD50-10K⑥-4J				ø5/32	VPLFD50-10K⑥-5/32J	
			ø6	VPLFD50-10K⑥-6J				ø1/4	VPLFD50-10K⑥-1/4J	
		15	ø3	VPLFD50-15K⑥-3J			15	ø1/8	VPLFD50-15K⑥-1/8J	
			ø4	VPLFD50-15K⑥-4J				ø5/32	VPLFD50-15K⑥-5/32J	
			ø6	VPLFD50-15K⑥-6J				ø1/4	VPLFD50-15K⑥-1/4J	
		20	ø3	VPLFD50-20K⑥-3J			20	ø1/8	VPLFD50-20K⑥-1/8J	
			ø4	VPLFD50-20K⑥-4J				ø5/32	VPLFD50-20K⑥-5/32J	
			ø6	VPLFD50-20K⑥-6J				ø1/4	VPLFD50-20K⑥-1/4J	

Notes
*Barb fitting type holders are also available. Contact us for the details.

Packaging specifications
1 pc./bag

Optional items
⇒ P.525

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

Vacuum Pad Skidproof Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Side port, Female thread, Low dust emission **VPLFD** 	ø10	5	M5×0.8	VPLFD10-5K⑥-M5	M4
		10	M5×0.8	VPLFD10-10K⑥-M5	
		15	M5×0.8	VPLFD10-15K⑥-M5	
		20	M5×0.8	VPLFD10-20K⑥-M5	
	ø20	5	M6×1	VPLFD20-5K⑥-M6	M6
		10	M6×1	VPLFD20-10K⑥-M6	
		15	M6×1	VPLFD20-15K⑥-M6	
		20	M6×1	VPLFD20-20K⑥-M6	
	ø30	5	M6×1	VPLFD30-5K⑥-M6	
		10	M6×1	VPLFD30-10K⑥-M6	
		15	M6×1	VPLFD30-15K⑥-M6	
		20	M6×1	VPLFD30-20K⑥-M6	
	ø40	5	M6×1	VPLFD40-5K⑥-M6	
		10	M6×1	VPLFD40-10K⑥-M6	
		15	M6×1	VPLFD40-15K⑥-M6	
		20	M6×1	VPLFD40-20K⑥-M6	
	ø50	5	M6×1	VPLFD50-5K⑥-M6	
		10	M6×1	VPLFD50-10K⑥-M6	
		15	M6×1	VPLFD50-15K⑥-M6	
		20	M6×1	VPLFD50-20K⑥-M6	

Holder type	
Fixed type, Direct mount, Standard **VPE** 	VPE holders are available with metric male/female threads, taper pipe threads, parallel pipe threads and NPT threads. See Pad holder only (page 399) for variations. *Pads with the same configuration code as the holder can be connected. [See Pad rubber only (page 377)]. Applicable Screws: Metric male thread: M8, M10, M12, M14 Metric female thread: M5, M8 Taper pipe thread: R1/8, R1/4, R3/8, R1/2 Parallel pipe thread: G1/8, G1/4, G3/8, G1/2 NPT thread: NPT1/8, NPT1/4, NPT3/8, NPT1/2

Holder type	Pad dia. (mm)	Female thread size	Model code	⑫ -S3 -S3 spec.	Connection config. code
Spring type, Direct mount **VPF** Stroke 5.8mm 	ø10	M14×1	VPF10K⑥⑧⑫	○	M4
	ø20	M14×1	VPF20K⑥⑧⑫	○	M6
	ø30	M14×1	VPF30K⑥⑧⑫	○	
	ø40	M14×1	VPF40K⑥⑧⑫	○	
	ø50	M14×1	VPF50K⑥⑧⑫	○	

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
⑧: -DC ⇒ Holder with dust catcher
⑫: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.525
Dust Catcher (VPF)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Optional items (○: -S3 spec. is available)

8 Dust Catcher: -DC

Optional	Connection config. code	-S3 spec.
Dust Catcher (-DC)	M4	○
	M6	○

Holder type

VPC VPD VPF

9 Fall Prevention Valve: -ECV

Optional	Connection config. code	Model code
Fall Prevention Valve (-ECV)	M4	ECVM4-FM4
	M6	ECVM6-FM6

Characteristics of Dust Catcher ► P.371

Characteristics of Fall Prevention Valve ► P.722

10 Swivel Joint: -FH, -FHH, -CFH

Optional	Swivel angle	Connection config. code	Model code
Ball Swivel Joint (-FH) (-FHH)	30° (-FH)	M4	FH10
		M6	FH20
	15° (-FHH)	M4	FH10-15
		M6	FH20-15

Optional	Connection config. code	-S3 spec.	Model code (*)
Flexible Swing Joint (-CFH)	M4	○	CFHM4-FM4
	M6	○	CFHM6-FM6

*When ordering a Flexible Swing Joint alone, please enter "-S3" at the end of the model code for -S3 specification.

11 Filter: F15, -F30

Optional	Filter area	Connection config. code	Model code
Pad Direct Mounting Filter (-F15)(-F30)	1.7cm² (-F15)	M4	VFF15-M4
		M6	VFF15-M6
	7cm² (-F30)	M6	VFF30-M6

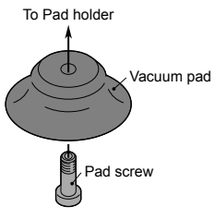
Characteristics of Ball Swivel Joint ► P.724

Characteristics of Flexible Swing Joint ► P.725

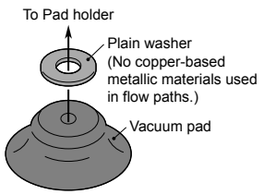
Characteristics of Filter ► P.726

See the page 508 for the model designation including optional items.

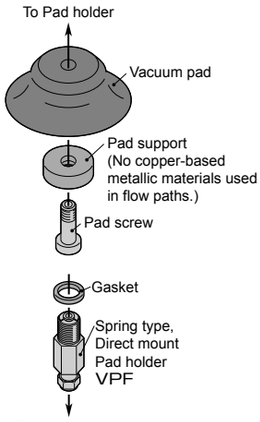
Replacement parts



Pad screw Model code	12 -S3 -S3 spec.	Applicable pad dia. (mm)	Connection config. code
VPM46-612	○	ø10	M4
VPM610-812	○	ø20	
VPM612-1012	○	ø30	M6
VPM610-1512	○	ø40, ø50	



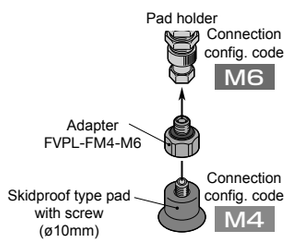
Plain washer Model code	Applicable pad dia. (mm)	Connection config. code
HW8.4×15.5×1.6	ø20, ø30	M6
HW8.5×22×1.6	ø40, ø50	



Pad support Model code	Applicable pad dia. (mm)	Connection config. code
VPW40	ø40	M6
VPW50	ø50	

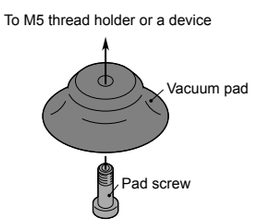
Gasket Model code	Applicable pad dia. (mm)	Connection config. code
VPFG10	ø10~ø50	M4 M6

Rearrangement parts



Model code of Adapter for pad connection type conversion	12 -S3 -S3 spec.	Applicable pad dia. (mm)	Connection config. code Before → After
FVPL-FM4-M612	○	ø10	M4 ► M6

*1. This adapter is used to mount pad & screw set with M4 configuration code on a holder with M6 configuration code.
*2. Gasket for adapter is equipped with an Adapter.



Pad screw Model code	12 -S3 -S3 spec.	Applicable pad dia. (mm)
VPM56-712	○	ø10
VPM510-812	○	ø20
VPM512-912	○	ø30
VPM510-1312	○	ø40, ø50

Vacuum Pad Bellows Type

Vacuum pad for work-piece with smooth and deformable surface. (Bellows convolution: 1)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VP (1)	C (2)	10 (3)	-6 (4)	B (5)	N (6)	-ER (7)	-6J (8)	(9)	-DC (10)	-ECV (11)	-FH (12)	-F15 (13)	(14)
						Optional		Optional	Optional	Optional	Optional	Optional	Optional

(1) Vacuum Pad

(2) Holder type

Holder type		Fixed type		Spring type				
		Mini	Standard	Mini	Slim	Standard	No cover	Low dust emission
Code	Top port	MA	A	MC	SC	C	OC	LFC
	Side port	MB	B	MD	–	D	OD	LFD
	Direct mount	ME(*1)	E	–	–	F(*2)	–	–
Connection config. Code		T8 M4 M6	H3 T8 M4 M6 M10	T8 M4 M6	H3 T8	H3 T8 M4 M6 M10	T8 M4 M6	T8 M4 M6

*1. ME holder is available only for configuration code: T8.
*2. Configuration code: M10 is not available for F holder.

Holder type		Lightweight	Low profile
		Spring type	Direct mount
Code	Top port	HC(*3)	–
	Side port	HD	HE
	Dual side port	HDW	HEW
Connection config. Code		T8 M4 M6	T8 M4 M6

*3. Configuration code: T8 is not available for HC holder.

(3) Pad dia.

Code	2	4	6	8	10	15	20	25	30	40	50	60	80	100
Pad dia.(mm)	ø2	ø4	ø6	ø8	ø10	ø15	ø20	ø25	ø30	ø40	ø50	ø60	ø80	ø100
Connection config. Code	H3		T8		M4		M6					M10		

(4) Stroke (No code entry for Holder type: MA, A, MB, B, ME, E, F, HE and HEW)

Code	-2	-3	-4	-5	-6	-10	-15	-20	-25	-30	-40	-50
Stroke(mm)	2	3	4	5	6	10	15	20	25	30	40	50
Spring type holder code: VPMC	●		●●									
VPSC		●●										
VPC		●●			●●	●●●●●	●●●●	●●●●				
VPOC								●●●		●●●	●●●	●●●
VPLFC	●●			●●●		●●●	●●●	●●●				
VPMD	●		●●									
VPD		●●			●●	●●●●●	●●●●	●●●●				
VPOD								●●●		●●●	●●●	●●●
VPLFD				●●●		●●●	●●●	●●●				
VPHC						●●	●●	●●	●●	●●	●●	●●
VPHD				●●●								
VPHDW				●●●								

Connection config. Code
●:H3
●:T8
●:M4
●:M6
●:M10

(5) Pad type B : Bellows

(6) Pad material

Code	N	S	YS2	YS4	U	F	SE	NE	HN	EP
Rubber material	Nitrile	Silicone	Extra soft silicone Hardness20°	Extra soft silicone Hardness40°	Urethane	Fluoro	Conductive Silicone	Conductive NBR (Low resistance)	HNBR	EPDM

*1. The Conductive Silicone rubber (SE) is a silicon rubber capable of releasing static electricity. (Volume resistance: More than 200 Ω·cm and 10^5 Ω·cm or less)
*2. Nitrile rubber (N) and Conductive NBR (Low resistance, Volume resistance: 200 Ω·cm or less) (NE) are not suitable for use with ozone environment.
*3. For extra soft silicone, hardness 20° type is available only for pad dia. 20 to 50 mm, and hardness 40° type is available only for pad dia. 15 to 50 mm.
*4. Pad dia. 2 mm is available only for Nitrile and Silicone rubber, and pad dia. 4 mm is available only for Nitrile, Silicone and Conductive silicone rubber.
*5. Extra soft silicone is compliant with Food Sanitation Act and FDA.

(7) Pad surface treatment for suction mark-free Optional

Code	No code	-NF	-SF	-DL	-ER	-FG
Surface treatment	None	Fiber surface Nylon	Fiber surface Silk	DLC. coating	Reformed surface	Fluoro-coating
Applicable pad material	—	Silicone(S), Fluoro(F)		Silicone(S), Fluoro(F), Conductive Silicone(SE)	Nitrile(N), Conductive NBR (Low resistance) (NE)	Silicone(S), Conductive Silicone(SE), Extra soft silicone: Hardness 20°(YS2), Extra soft silicone: Hardness 40°(YS4)
Applicable pad dia.	—	ø15 to ø80㎜		ø6 to ø50㎜	ø6 to ø60㎜	ø6 to ø100㎜

* Please refer to page 370 for the details of each pad surface type and treatment for Suction Mark-free.

(8) Vacuum port size and joint type (No code entry for Holder type: F) (○: Available)

Type		Push-in fitting												Barb fitting				Female thread				
		mm size (mm)						inch size (inch)						mm size (mm)			inch size (inch)	Metric thread			Parallel pipe thread	NPT thread
Code		-180J	-2J	-3J	-4J	-6J	-8J	-1/8J	-5/32J	-3/16J	-1/4J	-5/16J	-3/8J	-3B	-4B *	-6B	-1/4B	-M3	-M5	-M6	-G1	-N1
Tube O.D.		ø1.8	ø2	ø3	ø4	ø6	ø8	ø1/8	ø5/32	ø3/16	ø1/4	ø5/16	ø3/8									
Tube I.D.														ø2	ø2.5	ø4	Polyurethane tube ø0.163 Nylon tube ø0.180					
Thread size																		M3x0.5	M5x0.8	M6x1	G1/8	NPT1/8
Holder type	VPMA	○	○	○	○				○					○	○	○						
	VPA			○	○	○	○	○	○	○	○	○	○		○	○	○			○	○	○
	VPMB	○	○	○	○	○		○	○		○			○	○	○	○	○	○			
	VPB	○	○	○	○	○	○	○	○	○	○	○		○	○	○	○	○	○	○	○	○
	VPMC	○	○	○	○			○	○					○	○	○	○					
	VPSC	○	○	○	○			○	○					○	○	○		○				
	VPC	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		○	○	○	○
	VPOC			○	○	○		○	○		○				○	○	○			○		
	VPLFC			○	○	○		○	○		○			○	○	○			○	○		
	VPMD	○	○	○	○	○		○	○		○			○	○	○	○	○	○			
	VPD	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		○	○	○	○
	VPOD			○	○	○		○	○		○				○	○	○			○		
	VPLFD			○	○	○		○	○		○			○	○	○			○	○		
	VPHC	○	○	○	○	○		○	○		○			○	○	○	○		○			
	VPHD	○	○	○	○	○		○	○		○			○	○	○	○		○			
	VPHDW	○	○	○	○	○		○	○		○			○	○	○	○		○			
	VPHE	○	○	○	○	○		○	○		○			○	○	○	○		○			
	VPHEW	○	○	○	○	○		○	○		○			○	○	○	○		○			

*The barb fitting 5/32" is common with 4 mm size. Please order with the code: -4B.

Type		Male thread																		Female thread	
		Metric thread						Taper pipe thread				Parallel pipe thread				NPT thread				Metric thread	
Code		-M3	-M5	-M8	-M10	-M12	-M14	-R1	-R2	-R3	-R4	-G1	-G2	-G3	-G4	-N1	-N2	-N3	-N4	-FM5	-FM8
Thread size		M3x0.5	M5x0.8	M8x1.25	M10x1.5	M12x1.75	M14x2	R1/8	R1/4	R3/8	R1/2	G1/8	G1/4	G3/8	G1/2	NPT1/8	NPT1/4	NPT3/8	NPT1/2	M5x0.8	M8x1.25
Holder type	VPME		○																		
	VPE	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

(9) Make-free resin attachment material Optional

Code	No code	-QK	-QM	-QKE
Resin material	None	PEEK	POM	Conductive PEEK (Volume resistance: 10^5 to 10^6 Ω·cm)

*1. Selectable for pad dia. 10 to 30 mm.
*2. Resin attachment cannot be installed when selecting surface treatment.
*3. Resin attachment cannot be installed when selecting extra soft silicone for pad material.

(10) Dust Catcher (Holder type: SC, C, D and F only) Optional

Code	No code	-DC
Dust Catcher	None	Installed

* Note that the holder stroke becomes shorter when a dust catcher is installed. Please visit our website for details.

(10) Spring load (Holder type: LFC only)

Code	No code	-SF1/4
Load	Standard load	Low load (1/4 of standard load)

*"-SF1/4" is not selectable when 2 mm stroke is selected.

(11) Fall Prevention Valve Optional

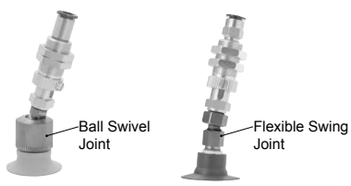
Code	No code	-ECV
Fall Prevention Valve	None	Installed
Applicable connection type	—	Configuration code : M4, M6, M10
		M3, M5 thread size of VPME, VPE holder

*1. -S3 spec. is not selectable when Fall Prevention Valve is selected.
*2. Fall prevention valve cannot be installed when selecting fiber surface type (-SF, -NF) for surface treatment.

(12) Swivel Joint for vacuum pad Optional

Code	No code	-FH	-FHH	-CFH
Option	None	Ball Swivel Joint (Swivel angle: 30°)	Ball Swivel Joint (Swivel angle: 15°)	Flexible Swing Joint (Swing angle: 8°)
Applicable connection type	—	Configuration : M4, M6, M10		Configuration code : M4, M6
				M5 thread size of VPME, VPE holder

*-S3 spec. is not selectable when Ball Swivel Joint is selected.



(13) Filter Optional

Code	No code	-F15	-F30
Filter	None	Installed (Filter area 1.7 cm^2)	Installed (Filter area 7 cm^2)
Applicable config. code	—	M4, M6	M6

*1. -S3 spec. is not selectable when Filter is selected.
*2. "-F30" is recommended when much dust is expected at sucking work pieces.

(14) -S3 spec. Optional

Code	No code	-S3
Metal material	Standard	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard	HNBR or FKM
Release ring color	Black	Dark blue

*1. -S3 spec. is not available for the following fittings and holders:
· Push-in fitting with dia. size of 1.8, 2, 3 mm and inch sizes except dia. 1/8" (some) and 5/32".
· Barb fitting with dia. of 1/4".
· Pad holder with stroke length 10 mm or longer (except for pad dia. 60 mm or larger and VPHC holders).
· VPLFC and VPLFD holders.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Vacuum Pad Bellows Type

Mark-free attachment

Model Designation of Mark-free resin attachment alone (Example)

VP (1) | 15 (2) | BQ (3) | K (4) | –AT (5)

(1) Vacuum Pad

(2) Pad dia.

Code	10	15	20	25	30
Pad dia.(mm)	ø10	ø15	ø20	ø25	ø30

(3) Mark-free resin attachment for Bellows pad

(4) Resin material

Code	K	M	KE
Material	PEEK	POM	Conductive PEEK (Volume resistance: 10^5 to 10^6 Ω·cm)

(5) Resin attachment alone

Model Designation of Bellows pad + Mark-free resin attachment (Example)

VP (1) | 15 (2) | B (3) | N (4) | –QK (5)

(1) Vacuum Pad

(2) Pad dia.

Code	10	15	20	25	30
Pad dia.(mm)	ø10	ø15	ø20	ø25	ø30

(3) Pad type

(4) Pad material *Please select from " (6) : Pad material" on page 526.

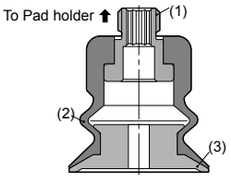
(5) Make-free resin attachment material

Code	–QK	–QM	–QKE
Material	PEEK	POM	Conductive PEEK (Volume resistance: 10^5 to 10^6 Ω·cm)

Specification of Resin attachment

Fluid medium	Air
Operating vacuum pressure	-100 to 0 kPa

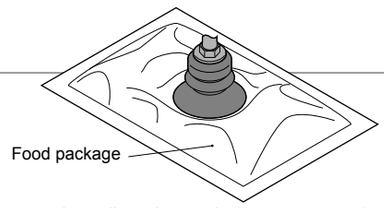
Resin attachment structure



No,	Parts	Material	
		Standard spec.	-S3 spec.
(1)	Pad screw	Nickel-plated brass	Special stainless steel (Austenite or ferritic)*
(2)	Pad rubber	Follow pad rubber material selection.	
(3)	Resin attachment	PEEK, POM, Conductive PEEK	

*The corrosive resistance is equivalent to SUS303.

Characteristics



Pad dia. 14 types
ø2 to ø100mm
Pad material 10 types
Surface treatment 4 types

Best suitable for retort packaging or bags for packaged foods.

Bellows part follows the work-piece with curved surface.

Silicone (S) is Food Sanitation Act compliant.(Holder is not compliant. Vacuum pad complies only at work-piece contact area.)

*See page 6 for the details of the Food Sanitation Act.

Extra soft silicone pad for food industry which is compliant with Food Sanitation Act and FDA is available. (Holder is not compliant. Vacuum pad complies only at work-piece contact area.)

Hardness 20° type Hardness 40° type

Two types of lip hardness are available: 20° and 40°. Pad size range from dia. 15 (dia. 20 mm for hardness 20° type) to 50 mm.
*See page 6 for the details of the Food Sanitation Act and FDA.

Wide variations of Pad holders.

The following combinations of holder and pad rubber are also available although they are not listed on the model code list from the next page onward. Contact us for the details.
・Lightweight VPHC holder that is made of resin and aluminum.
・Lightweight VPHD and VPHDW holders with spring type without cover.
・VPHE and VPHEW holders with reduced height.
・VPHDW and VPHEW holders with dual side vacuum ports, suitable for piping connection of multiple vacuum pads.

Low dust emission holders (VPLFC, VPLFD) with low noise and less wear from sliding are available to prevent dust generation.

VPLFC holder with top port has a separate shaft on the pad side and the vacuum port side, so there is no effect on the stroke caused by the tension of the tube.
Low load type is also available to suppress impact when contacting the work-piece.

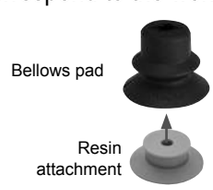
Wide variations of fixed type direct mount holder (VPE) for various thread sizes.

Metric male threads, metric female threads, taper pipe threads, parallel pipe threads and NPT threads are available.
* Only a part of the combinations are shown on the model code list from the next page onward. Contact us for the details.

● Mark-free resin attachment (Optional)

Just fitting the dedicated resin attachment into PISCO bellows Vacuum pad, it can correspond to the work-piece which residual tracing marks of rubber pad are not desired.

・Ideal for application such as glass transfer, painting process, or molding parts unloader.
・Pad dia.: 10 mm to 30 mm (5 types). Material: PEEK, POM, Conductive PEEK (3 types).
・Since the resin attachment is fit into PISCO bellows vacuum pad, it can correspond to the inclined position of work.



● Pad surface treatment for suction mark-free (Optional)

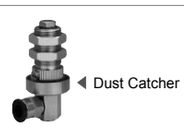
NEW Fluoro-coating type is added to the pad rubber surface treatment option to prevent tracing marks.

・Fiber surface type: Fiber (nylon or silk) on the pad surface prevents rubber material transfer by not directly touching the work-piece.
・DLC. coating type: Slippery special coating. Effective for sticking prevention of lightweight or thin work-piece.
・Reformed surface type: Reduces tracing marks by surface reforming of nitrile rubber with chemicals.
・Fluoro-coating type: Surface reforming by special treatment prevents sticking to work-pieces and bellows. Improved pad durability and wear resistance.

● Holder with dust catcher (Optional)

Collects wear debris generated by sliding spring type holders. Low-cost, simple holder with receiver tray added.

Applicable to VPSC, VPC, VPD and VPF holders.



● Accessories (Optional)

Fall Prevention Valve, Swivel (Ball Swivel Joint, Flexible Swing Joint) and Filter options are available.

● -S3 spec.(Optional)

No copper-based metallic materials used in flow paths.

The sealing rubber material of the fitting is HNBR or FKM, with good ozone resisntace.

Vacuum Pad Bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Fixed type, Top port, Push-in fitting, Mini VPMA

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	14 : -S3 -S3 spec.	Connection config. Code
Fixed type, Top port, Push-in fitting, Mini VPMA	ø6	ø3	VPMA6B67-3J *4	—	T8
	ø8	ø3	VPMA8B67-3J *4	—	
	ø10	ø3	VPMA10B67-3J9 *5	—	M4
		ø4	VPMA10B67-4J914 *5	○	
	ø15	ø3	VPMA15B67-3J9 *6	—	
		ø4	VPMA15B67-4J914 *6	○	
	ø20	ø4	VPMA20B67-4J914	○	M6
	ø25	ø4	VPMA25B67-4J914	○	
	ø30	ø4	VPMA30B67-4J914	○	
	ø40	ø4	VPMA40B67-4J14	○	
	ø50	ø4	VPMA50B67-4J14	○	

Pad dia. (mm)	Tube O.D. (inch)	Model code	14 : -S3 -S3 spec.	Connection config. Code
ø10	ø5/32	VPMA10B67-5/32J9145	○	M4
ø15	ø5/32	VPMA15B67-5/32J9145	○	
ø20	ø5/32	VPMA20B67-5/32J914	○	M6
ø25	ø5/32	VPMA25B67-5/32J914	○	
ø30	ø5/32	VPMA30B67-5/32J914	○	
ø40	ø5/32	VPMA40B67-5/32J14	○	
ø50	ø5/32	VPMA50B67-5/32J14	○	

Fixed type, Top port, Push-in fitting, Standard VPA

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	14 : -S3 -S3 spec.	Connection config. Code
Fixed type, Top port, Push-in fitting, Standard VPA	ø2	ø4	VPA2B6-4J14 *2	○	H3
	ø4	ø4	VPA4B6-4J14 *3	○	
	ø6	ø4	VPA6B67-4J14 *4	○	T8
		ø6	VPA6B67-6J14 *4		
	ø8	ø4	VPA8B67-4J14 *4	○	
		ø6	VPA8B67-6J14 *4		
	ø10	ø6	VPA10B67-6J914 *5	○	M4
	ø15	ø6	VPA15B67-6J914 *6	○	
	ø20	ø3	VPA20B67-3J9	—	M6
		ø4	VPA20B67-4J914	○	
		ø6	VPA20B67-6J914	○	
	ø25	ø3	VPA25B67-3J9	—	
		ø4	VPA25B67-4J914	○	
		ø6	VPA25B67-6J914	○	
	ø30	ø3	VPA30B67-3J9	—	
		ø4	VPA30B67-4J914	○	
		ø6	VPA30B67-6J914	○	
	ø40	ø3	VPA40B67-3J	—	
		ø4	VPA40B67-4J14	○	
		ø6	VPA40B67-6J14	○	
	ø50	ø3	VPA50B67-3J	—	
		ø4	VPA50B67-4J14	○	
		ø6	VPA50B67-6J14	○	
	ø60	ø4	VPA60B67-4J *4	—	M10
		ø6	VPA60B67-6J *4		
		ø8	VPA60B67-8J *4		
	ø80	ø4	VPA80B67-4J *4	—	
		ø6	VPA80B67-6J *4		
		ø8	VPA80B67-8J *4		
	ø100	ø4	VPA100B67-4J *4	—	
		ø6	VPA100B67-6J *4		
		ø8	VPA100B67-8J *4		

Pad dia. (mm)	Tube O.D. (inch)	Model code	14 : -S3 -S3 spec.	Connection config. Code
ø2	ø5/32	VPA2B6-5/32J14 *2	○	H3
ø4	ø5/32	VPA4B6-5/32J14 *3	○	
ø6	ø5/32	VPA6B67-5/32J14 *4	○	T8
	ø1/4	VPA6B67-1/4J *4	—	
ø8	ø5/32	VPA8B67-5/32J14 *4	○	
	ø1/4	VPA8B67-1/4J *4	—	
ø10	ø1/4	VPA10B67-1/4J9 *5	—	M4
ø15	ø1/4	VPA15B67-1/4J9 *6	—	
ø20	ø1/8	VPA20B67-1/8J9	—	M6
	ø5/32	VPA20B67-5/32J914	○	
	ø1/4	VPA20B67-1/4J9	—	
ø25	ø1/8	VPA25B67-1/8J9	—	
	ø5/32	VPA25B67-5/32J914	○	
	ø1/4	VPA25B67-1/4J9	—	
ø30	ø1/8	VPA30B67-1/8J9	—	
	ø5/32	VPA30B67-5/32J914	○	
	ø1/4	VPA30B67-1/4J9	—	
ø40	ø1/8	VPA40B67-1/8J	—	
	ø5/32	VPA40B67-5/32J14	○	
	ø1/4	VPA40B67-1/4J	—	
ø50	ø1/8	VPA50B67-1/8J	—	
	ø5/32	VPA50B67-5/32J14	○	
	ø1/4	VPA50B67-1/4J	—	
ø60	ø1/8	VPA60B67-1/8J *4	—	M10
	ø5/32	VPA60B67-5/32J *4	—	
	ø3/16	VPA60B67-3/16J *4	—	
	ø1/4	VPA60B67-1/4J *4	—	
	ø5/16	VPA60B67-5/16J *4	—	
	ø3/8	VPA60B67-3/8J *4	—	
ø80	ø1/8	VPA80B67-1/8J *4	—	
	ø5/32	VPA80B67-5/32J *4	—	
	ø3/16	VPA80B67-3/16J *4	—	
	ø1/4	VPA80B67-1/4J *4	—	
	ø5/16	VPA80B67-5/16J *4	—	
	ø3/8	VPA80B67-3/8J *4	—	
ø100	ø1/8	VPA100B67-1/8J *4	—	
	ø5/32	VPA100B67-5/32J *4	—	
	ø3/16	VPA100B67-3/16J *4	—	
	ø1/4	VPA100B67-1/4J *4	—	
	ø5/16	VPA100B67-5/16J *4	—	
	ø3/8	VPA100B67-3/8J *4	—	

Fixed type, Top port, Female thread, Standard VPA

Holder type	Pad dia. (mm)	Male thread size	Model code	14 : -S3 -S3 spec.	Connection config. Code
Fixed type, Top port, Female thread, Standard VPA	ø20	M6×1	VPA20B67-M6914	○	M6
	ø25	M6×1	VPA25B67-M6914	○	
	ø30	M6×1	VPA30B67-M6914	○	
	ø40	M6×1	VPA40B67-M614	○	
	ø50	M6×1	VPA50B67-M614	○	
	ø60	G1/8	VPA60B67-G114 *4	○	M10
	ø80	G1/8	VPA80B67-G114 *4	○	
	ø100	G1/8	VPA100B67-G114 *4	○	
	ø60	NPT1/8	VPA60B67-N1 *4	—	
	ø80	NPT1/8	VPA80B67-N1 *4	—	
	ø100	NPT1/8	VPA100B67-N1 *4	—	

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	14 : -S3 -S3 spec.	Connection config. Code	Pad dia. (mm)	Tube O.D. (inch)	Model code	14 : -S3 -S3 spec.	Connection config. Code
Fixed type, Side port, Push-in fitting, Mini VPMB	ø6	ø3	VPMB6B67-3J *4	—	T8	ø6	ø1/8	VPMB6B67-1/8J14 *4	○	T8
		ø4	VPMB6B67-4J14 *4	○			ø5/32	VPMB6B67-5/32J14 *4	○	
	ø8	ø3	VPMB8B67-3J *4	—		ø8	ø1/8	VPMB8B67-1/8J14 *4	○	
		ø4	VPMB8B67-4J14 *4	○			ø5/32	VPMB8B67-5/32J14 *4	○	
	ø10	ø3	VPMB10B67-3J9 *5	—	M4	ø10	ø1/8	VPMB10B67-1/8J9 *5	—	M4
		ø4	VPMB10B67-4J914 *5	○			ø5/32	VPMB10B67-5/32J914 *5	○	
		ø6	VPMB10B67-6J914 *5	○			ø1/4	VPMB10B67-1/4J9 *5	—	
	ø15	ø3	VPMB15B67-3J9 *6	—		ø15	ø1/8	VPMB15B67-1/8J9 *6	—	
		ø4	VPMB15B67-4J914 *6	○			ø5/32	VPMB15B67-5/32J914 *6	○	
		ø6	VPMB15B67-6J914 *6	○			ø1/4	VPMB15B67-1/4J9 *6	—	
	ø20	ø3	VPMB20B67-3J9	—	M6	ø20	ø1/8	VPMB20B67-1/8J9	—	M6
		ø4	VPMB20B67-4J914	○			ø5/32	VPMB20B67-5/32J914	○	
		ø6	VPMB20B67-6J914	○			ø1/4	VPMB20B67-1/4J9	—	
	ø25	ø3	VPMB25B67-3J9	—		ø25	ø1/8	VPMB25B67-1/8J9	—	
		ø4	VPMB25B67-4J914	○			ø5/32	VPMB25B67-5/32J914	○	
		ø6	VPMB25B67-6J914	○			ø1/4	VPMB25B67-1/4J9	—	
	ø30	ø3	VPMB30B67-3J9	—		ø30	ø1/8	VPMB30B67-1/8J9	—	
		ø4	VPMB30B67-4J914	○			ø5/32	VPMB30B67-5/32J914	○	
		ø6	VPMB30B67-6J914	○			ø1/4	VPMB30B67-1/4J9	—	
	ø40	ø3	VPMB40B67-3J	—		ø40	ø1/8	VPMB40B67-1/8J	—	
		ø4	VPMB40B67-4J14	○			ø5/32	VPMB40B67-5/32J14	○	
		ø6	VPMB40B67-6J14	○			ø1/4	VPMB40B67-1/4J	—	
	ø50	ø3	VPMB50B67-3J	—		ø50	ø1/8	VPMB50B67-1/8J	—	
		ø4	VPMB50B67-4J14	○			ø5/32	VPMB50B67-5/32J14	○	
		ø6	VPMB50B67-6J14	○			ø1/4	VPMB50B67-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	14 : -S3 -S3 spec.	Connection config. Code
Fixed type, Side port, Female thread, Mini VPMB	ø6	M3×0.5	VPMB6B67-M3M14 *4	○	T8
	ø8	M3×0.5	VPMB8B67-M3M14 *4	○	
	ø10	M5×0.8	VPMB10B67-M5914 *5	○	M4
	ø15	M5×0.8	VPMB15B67-M5914 *6	○	
	ø20	M5×0.8	VPMB20B67-M5914	○	M6
	ø25	M5×0.8	VPMB25B67-M5914	○	
	ø30	M5×0.8	VPMB30B67-M5914	○	
	ø40	M5×0.8	VPMB40B67-M514	○	
	ø50	M5×0.8	VPMB50B67-M514	○	

Notes

*1. Barb fitting type holders are also selectable. VPMA and VPMB holders are also available in Push-in fitting type (limited to pad dia. 8 mm or smaller for VPMA holders) for tube O.D. of 1.8 mm and 2 mm. Contact us for the details.

*2. Pad rubber material is available only for Nitrile (N) and Silicone (S).

*3. Pad rubber material is available only for Nitrile (N), Silicone (S) and Conductive Silicone (SE).

*4. Extra soft silicone (YS2/YS4) is not available.

*5. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.

*6. Extra soft silicone hardness 20° type (YS2) is available only when Fluoro-coating treatment is selected.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options

7 : Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)

9 : Resin attachment

14 : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.

*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.556

Surface treatment

Resin attachment

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

Vacuum Pad Bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	14 : -S3 -S3 spec.	Connection config. Code
Fixed type, Side port, Push-in fitting, Standard VPB	ø2	ø3	VPB2B6-3J *2	—	H3
		ø4	VPB2B6-4J14 *2	○	
	ø4	ø3	VPB4B6-3J *3	—	
		ø4	VPB4B6-4J14 *3	○	
	ø6	ø3	VPB6B67-3J *4	—	T8
		ø4	VPB6B67-4J14 *4	○	
		ø6	VPB6B67-6J14 *4	○	
	ø8	ø3	VPB8B67-3J *4	—	
		ø4	VPB8B67-4J14 *4	○	
		ø6	VPB8B67-6J14 *4	○	
	ø10	ø3	VPB10B67-3J9 *5	—	M4
		ø4	VPB10B67-4J914 *5	○	
		ø6	VPB10B67-6J914 *5	○	
	ø15	ø3	VPB15B67-3J9 *6	—	
		ø4	VPB15B67-4J914 *6	○	
		ø6	VPB15B67-6J914 *6	○	
	ø20	ø3	VPB20B67-3J9	—	M6
		ø4	VPB20B67-4J914	○	
		ø6	VPB20B67-6J914	○	
	ø25	ø3	VPB25B67-3J9	—	
		ø4	VPB25B67-4J914	○	
		ø6	VPB25B67-6J914	○	
	ø30	ø3	VPB30B67-3J9	—	
		ø4	VPB30B67-4J914	○	
		ø6	VPB30B67-6J914	○	
	ø40	ø3	VPB40B67-3J	—	
		ø4	VPB40B67-4J14	○	
		ø6	VPB40B67-6J14	○	
	ø50	ø3	VPB50B67-3J	—	
		ø4	VPB50B67-4J14	○	
		ø6	VPB50B67-6J14	○	
	ø60	ø4	VPB60B67-4J *4	—	M10
		ø6	VPB60B67-6J *4		
		ø8	VPB60B67-8J *4		
	ø80	ø4	VPB80B67-4J *4	—	
		ø6	VPB80B67-6J *4		
		ø8	VPB80B67-8J *4		
	ø100	ø4	VPB100B67-4J *4	—	
		ø6	VPB100B67-6J *4		
		ø8	VPB100B67-8J *4		

Holder type	Pad dia. (mm)	Male thread size	Model code	14 : -S3 -S3 spec.	Connection config. Code
Fixed type, Side port, Female thread, Standard VPB	ø2	M3×0.5	VPB2B6-M314 *2	○	H3
	ø4	M3×0.5	VPB4B6-M314 *3	○	
	ø6	M5×0.8	VPB6B67-M514 *4	○	T8
	ø8	M5×0.8	VPB8B67-M514 *4	○	
	ø10	M6×1	VPB10B67-M6914 *5	○	M4
	ø15	M6×1	VPB15B67-M6914 *6	○	
	ø20	M6×1	VPB20B67-M6914	○	M6
	ø25	M6×1	VPB25B67-M6914	○	
	ø30	M6×1	VPB30B67-M6914	○	
	ø40	M6×1	VPB40B67-M614	○	
	ø50	M6×1	VPB50B67-M614	○	
	ø60	G1/8	VPB60B67-G114 *4	○	M10
	ø80	G1/8	VPB80B67-G114 *4	○	
	ø100	G1/8	VPB100B67-G114 *4	○	
	ø60	NPT1/8	VPB60B67-N1 *4	—	
	ø80	NPT1/8	VPB80B67-N1 *4	—	
	ø100	NPT1/8	VPB100B67-N1 *4	—	

Pad dia. (mm)	Tube O.D. (inch)	Model code	14 : -S3 -S3 spec.	Connection config. Code
ø2	ø1/8	VPB2B6-1/8J14 *2	○	H3
	ø5/32	VPB2B6-5/32J14 *2	○	
ø4	ø1/8	VPB4B6-1/8J14 *3	○	
	ø5/32	VPB4B6-5/32J14 *3	○	
ø6	ø1/8	VPB6B67-1/8J *4	—	T8
	ø5/32	VPB6B67-5/32J14 *4	○	
	ø1/4	VPB6B67-1/4J *4	—	
ø8	ø1/8	VPB8B67-1/8J *4	—	
	ø5/32	VPB8B67-5/32J14 *4	○	
	ø1/4	VPB8B67-1/4J *4	—	
ø10	ø1/8	VPB10B67-1/8J9 *5	—	M4
	ø5/32	VPB10B67-5/32J914 *5	○	
	ø1/4	VPB10B67-1/4J9 *5	—	
ø15	ø1/8	VPB15B67-1/8J9 *6	—	
	ø5/32	VPB15B67-5/32J914 *6	○	
	ø1/4	VPB15B67-1/4J9 *6	—	
ø20	ø1/8	VPB20B67-1/8J9	—	M6
	ø5/32	VPB20B67-5/32J914	○	
	ø1/4	VPB20B67-1/4J9	—	
ø25	ø1/8	VPB25B67-1/8J9	—	
	ø5/32	VPB25B67-5/32J914	○	
	ø1/4	VPB25B67-1/4J9	—	
ø30	ø1/8	VPB30B67-1/8J9	—	
	ø5/32	VPB30B67-5/32J914	○	
	ø1/4	VPB30B67-1/4J9	—	
ø40	ø1/8	VPB40B67-1/8J	—	
	ø5/32	VPB40B67-5/32J14	○	
	ø1/4	VPB40B67-1/4J	—	
ø50	ø1/8	VPB50B67-1/8J	—	
	ø5/32	VPB50B67-5/32J14	○	
	ø1/4	VPB50B67-1/4J	—	
ø60	ø1/8	VPB60B67-1/8J *4	—	M10
	ø5/32	VPB60B67-5/32J *4	—	
	ø3/16	VPB60B67-3/16J *4	—	
	ø1/4	VPB60B67-1/4J *4	—	
	ø5/16	VPB60B67-5/16J *4	—	
ø80	ø1/8	VPB80B67-1/8J *4	—	
	ø5/32	VPB80B67-5/32J *4	—	
	ø3/16	VPB80B67-3/16J *4	—	
	ø1/4	VPB80B67-1/4J *4	—	
	ø5/16	VPB80B67-5/16J *4	—	
ø100	ø1/8	VPB100B67-1/8J *4	—	
	ø5/32	VPB100B67-5/32J *4	—	
	ø3/16	VPB100B67-3/16J *4	—	
	ø1/4	VPB100B67-1/4J *4	—	
	ø5/16	VPB100B67-5/16J *4	—	

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	14 : -S3 -S3 spec.	Connection config. Code
Spring type, Top port, Push-in fitting, Mini **VPMC** Pad dia. ø8mm or smaller Stroke 2mm Pad dia. ø10 mm or larger Stroke 4mm	ø6	ø3	VPMC6-2B67-3J *4	—	T8
	ø8	ø3	VPMC8-2B67-3J *4	—	
	ø10	ø3	VPMC10-4B67-3J9 *5	—	M4
		ø4	VPMC10-4B67-4J914 *5	○	
	ø15	ø3	VPMC15-4B67-3J9 *6	—	
		ø4	VPMC15-4B67-4J914 *6	○	
	ø20	ø3	VPMC20-4B67-3J9	—	M6
		ø4	VPMC20-4B67-4J914	○	
	ø25	ø3	VPMC25-4B67-3J9	—	
		ø4	VPMC25-4B67-4J914	○	
	ø30	ø3	VPMC30-4B67-3J9	—	
		ø4	VPMC30-4B67-4J914	○	
	ø40	ø3	VPMC40-4B67-3J	—	
		ø4	VPMC40-4B67-4J14	○	
	ø50	ø3	VPMC50-4B67-3J	—	
		ø4	VPMC50-4B67-4J14	○	

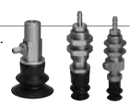
Holder type	Pad dia. (mm)	Tube O.D. (inch)	Model code	14 : -S3 -S3 spec.	Connection config. Code
Spring type, Top port, Push-in fitting, Mini **VPMC**	ø10	ø1/8	VPMC10-4B67-1/8J9 *5	—	M4
		ø5/32	VPMC10-4B67-5/32J914 *5	○	
	ø15	ø1/8	VPMC15-4B67-1/8J9 *6	—	
		ø5/32	VPMC15-4B67-5/32J914 *6	○	
	ø20	ø1/8	VPMC20-4B67-1/8J9	—	M6
		ø5/32	VPMC20-4B67-5/32J914	○	
	ø25	ø1/8	VPMC25-4B67-1/8J9	—	
		ø5/32	VPMC25-4B67-5/32J914	○	
	ø30	ø1/8	VPMC30-4B67-1/8J9	—	
		ø5/32	VPMC30-4B67-5/32J914	○	
	ø40	ø1/8	VPMC40-4B67-1/8J	—	
		ø5/32	VPMC40-4B67-5/32J14	○	
	ø50	ø1/8	VPMC50-4B67-1/8J	—	
		ø5/32	VPMC50-4B67-5/32J14	○	

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	14 : -S3 -S3 spec.	Connection config. Code
Spring type, Top port, Push-in fitting, Slim **VPSC** Stroke 3mm	ø2	ø3	VPSC2-3B6-3J10 *2	—	H3
		ø4	VPSC2-3B6-4J1014 *2	○	
	ø4	ø3	VPSC4-3B6-3J10 *3	—	
		ø4	VPSC4-3B6-4J1014 *3	○	
	ø6	ø3	VPSC6-3B67-3J10 *4	—	T8
		ø4	VPSC6-3B67-4J1014 *4	○	
	ø8	ø3	VPSC8-3B67-3J10 *4	—	
		ø4	VPSC8-3B67-4J1014 *4	○	

Holder type	Pad dia. (mm)	Tube O.D. (inch)	Model code	14 : -S3 -S3 spec.	Connection config. Code
Spring type, Top port, Push-in fitting, Slim **VPSC**	ø2	ø1/8	VPSC2-3B6-1/8J1014 *2	○	H3
		ø5/32	VPSC2-3B6-5/32J1014 *2	○	
	ø4	ø1/8	VPSC4-3B6-1/8J1014 *3	○	
		ø5/32	VPSC4-3B6-5/32J1014 *3	○	
	ø6	ø1/8	VPSC6-3B67-1/8J1014 *4	○	T8
		ø5/32	VPSC6-3B67-5/32J1014 *4	○	
	ø8	ø1/8	VPSC8-3B67-1/8J1014 *4	○	
		ø5/32	VPSC8-3B67-5/32J1014 *4	○	

Holder type	Pad dia. (mm)	Male thread size	Model code	14 : -S3 -S3 spec.	Connection config. Code
Spring type, Top port, Female thread, Slim **VPSC** Stroke 3mm	ø2	M3×0.5	VPSC2-3B6-M31014 *2	○	H3
	ø4	M3×0.5	VPSC4-3B6-M31014 *3	○	
	ø6	M3×0.5	VPSC6-3B67-M31014 *4	○	T8
	ø8	M3×0.5	VPSC8-3B67-M31014 *4	○	

Notes



*1. Holders are also available in Push-in fitting type (limited to pad dia. 8 mm or smaller for VPB holders) for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.
*2. Pad rubber material is available only for Nitrile (N) and Silicone (S).
*3. Pad rubber material is available only for Nitrile (N), Silicone (S) and Conductive Silicone (SE).
*4. Extra soft silicone (YS2/YS4) is not available.
*5. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.
*6. Extra soft silicone hardness 20° type (YS2) is available only when Fluoro-coating treatment is selected.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
7 : Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
9 : Resin attachment
10 : -DC ⇒ Holder with dust catcher
14 : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.556
Surface treatment
Resin attachment
Dust Catcher (VPSC)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	14 : -S3 -S3 spec.	Connection config. Code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	14 : -S3 -S3 spec.	Connection config. Code
Spring type, Top port, Push-in fitting, Standard VPC Pad dia. ø2 mm to ø8 mm	ø2	3	ø3	VPC2-3B6-3J10 *2	—	H3	ø2	3	ø1/8	VPC2-3B6-1/8J10 *2	—	H3
			ø4	VPC2-3B6-4J1014 *2	○				ø5/32	VPC2-3B6-5/32J1014 *2	○	
			ø6	VPC2-3B6-6J1014 *2	○				ø1/4	VPC2-3B6-1/4J10 *2	—	
		10	ø3	VPC2-10B6-3J10 *2	—			10	ø1/8	VPC2-10B6-1/8J10 *2	—	
			ø4	VPC2-10B6-4J10 *2					ø5/32	VPC2-10B6-5/32J10 *2	—	
			ø6	VPC2-10B6-6J10 *2					ø1/4	VPC2-10B6-1/4J10 *2	—	
		15	ø3	VPC2-15B6-3J10 *2	—			15	ø1/8	VPC2-15B6-1/8J10 *2	—	
			ø4	VPC2-15B6-4J10 *2					ø5/32	VPC2-15B6-5/32J10 *2	—	
			ø6	VPC2-15B6-6J10 *2					ø1/4	VPC2-15B6-1/4J10 *2	—	
		20	ø3	VPC2-20B6-3J10 *2	—			20	ø1/8	VPC2-20B6-1/8J10 *2	—	
			ø4	VPC2-20B6-4J10 *2					ø5/32	VPC2-20B6-5/32J10 *2	—	
			ø6	VPC2-20B6-6J10 *2					ø1/4	VPC2-20B6-1/4J10 *2	—	
	ø4	3	ø3	VPC4-3B6-3J10 *3	—		ø4	3	ø1/8	VPC4-3B6-1/8J10 *3	—	
			ø4	VPC4-3B6-4J1014 *3	○				ø5/32	VPC4-3B6-5/32J1014 *3	○	
			ø6	VPC4-3B6-6J1014 *3	○				ø1/4	VPC4-3B6-1/4J10 *3	—	
		10	ø3	VPC4-10B6-3J10 *3	—			10	ø1/8	VPC4-10B6-1/8J10 *3	—	
			ø4	VPC4-10B6-4J10 *3					ø5/32	VPC4-10B6-5/32J10 *3	—	
			ø6	VPC4-10B6-6J10 *3					ø1/4	VPC4-10B6-1/4J10 *3	—	
		15	ø3	VPC4-15B6-3J10 *3	—			15	ø1/8	VPC4-15B6-1/8J10 *3	—	
			ø4	VPC4-15B6-4J10 *3					ø5/32	VPC4-15B6-5/32J10 *3	—	
			ø6	VPC4-15B6-6J10 *3					ø1/4	VPC4-15B6-1/4J10 *3	—	
		20	ø3	VPC4-20B6-3J10 *3	—			20	ø1/8	VPC4-20B6-1/8J10 *3	—	
			ø4	VPC4-20B6-4J10 *3					ø5/32	VPC4-20B6-5/32J10 *3	—	
			ø6	VPC4-20B6-6J10 *3					ø1/4	VPC4-20B6-1/4J10 *3	—	
	ø6	3	ø3	VPC6-3B67-3J10 *4	—	T8	ø6	3	ø1/8	VPC6-3B67-1/8J10 *4	—	T8
			ø4	VPC6-3B67-4J1014 *4	○				ø5/32	VPC6-3B67-5/32J1014 *4	○	
			ø6	VPC6-3B67-6J1014 *4	○				ø1/4	VPC6-3B67-1/4J10 *4	—	
		10	ø3	VPC6-10B67-3J10 *4	—			10	ø1/8	VPC6-10B67-1/8J10 *4	—	
			ø4	VPC6-10B67-4J10 *4					ø5/32	VPC6-10B67-5/32J10 *4	—	
			ø6	VPC6-10B67-6J10 *4					ø1/4	VPC6-10B67-1/4J10 *4	—	
		15	ø3	VPC6-15B67-3J10 *4	—			15	ø1/8	VPC6-15B67-1/8J10 *4	—	
			ø4	VPC6-15B67-4J10 *4					ø5/32	VPC6-15B67-5/32J10 *4	—	
			ø6	VPC6-15B67-6J10 *4					ø1/4	VPC6-15B67-1/4J10 *4	—	
		20	ø3	VPC6-20B67-3J10 *4	—			20	ø1/8	VPC6-20B67-1/8J10 *4	—	
			ø4	VPC6-20B67-4J10 *4					ø5/32	VPC6-20B67-5/32J10 *4	—	
			ø6	VPC6-20B67-6J10 *4					ø1/4	VPC6-20B67-1/4J10 *4	—	
	ø8	3	ø3	VPC8-3B67-3J10 *4	—		ø8	3	ø1/8	VPC8-3B67-1/8J10 *4	—	
			ø4	VPC8-3B67-4J1014 *4	○				ø5/32	VPC8-3B67-5/32J1014 *4	○	
			ø6	VPC8-3B67-6J1014 *4	○				ø1/4	VPC8-3B67-1/4J10 *4	—	
		10	ø3	VPC8-10B67-3J10 *4	—			10	ø1/8	VPC8-10B67-1/8J10 *4	—	
			ø4	VPC8-10B67-4J10 *4					ø5/32	VPC8-10B67-5/32J10 *4	—	
			ø6	VPC8-10B67-6J10 *4					ø1/4	VPC8-10B67-1/4J10 *4	—	
		15	ø3	VPC8-15B67-3J10 *4	—			15	ø1/8	VPC8-15B67-1/8J10 *4	—	
			ø4	VPC8-15B67-4J10 *4					ø5/32	VPC8-15B67-5/32J10 *4	—	
			ø6	VPC8-15B67-6J10 *4					ø1/4	VPC8-15B67-1/4J10 *4	—	
		20	ø3	VPC8-20B67-3J10 *4	—			20	ø1/8	VPC8-20B67-1/8J10 *4	—	
			ø4	VPC8-20B67-4J10 *4					ø5/32	VPC8-20B67-5/32J10 *4	—	
			ø6	VPC8-20B67-6J10 *4					ø1/4	VPC8-20B67-1/4J10 *4	—	

Notes

*1. Holders are also available in Push-in fitting type (limited to pad dia. 8 mm or smaller) for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.
*2. Pad rubber material is available only for Nitrile (N) and Silicone (S).
*3. Pad rubber material is available only for Nitrile (N), Silicone (S) and Conductive Silicone (SE).
*4. Extra soft silicone (YS2/YS4) is not available.
*5. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.
*6. Extra soft silicone hardness 20° type (YS2) is available only when Fluoro-coating treatment is selected.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
7 : Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
9 : Resin attachment
10 : -DC ⇒ Holder with dust catcher
14 : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.556
Surface treatment
Resin attachment
Dust Catcher (VPC)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	14 : -S3 -S3 spec.	Connection config. Code
Spring type, Top port, Push-in fitting, Standard VPC Pad dia. ø10 mm to ø30 mm	ø10	6	ø3	VPC10-6B67-3J910 *5	—	M4
			ø4	VPC10-6B67-4J91014 *5	○	
			ø6	VPC10-6B67-6J91014 *5	○	
		10	ø3	VPC10-10B67-3J910 *5	—	
			ø4	VPC10-10B67-4J910 *5		
			ø6	VPC10-10B67-6J910 *5		
		15	ø3	VPC10-15B67-3J910 *5	—	
			ø4	VPC10-15B67-4J910 *5		
			ø6	VPC10-15B67-6J910 *5		
		20	ø3	VPC10-20B67-3J910 *5	—	
			ø4	VPC10-20B67-4J910 *5		
			ø6	VPC10-20B67-6J910 *5		
	ø15	6	ø3	VPC15-6B67-3J910 *6	—	
			ø4	VPC15-6B67-4J91014 *6	○	
			ø6	VPC15-6B67-6J91014 *6	○	
		10	ø3	VPC15-10B67-3J910 *6	—	
			ø4	VPC15-10B67-4J910 *6		
			ø6	VPC15-10B67-6J910 *6		
		15	ø3	VPC15-15B67-3J910 *6	—	
			ø4	VPC15-15B67-4J910 *6		
			ø6	VPC15-15B67-6J910 *6		
		20	ø3	VPC15-20B67-3J910 *6	—	
			ø4	VPC15-20B67-4J910 *6		
			ø6	VPC15-20B67-6J910 *6		
	ø20	6	ø3	VPC20-6B67-3J910	—	
			ø4	VPC20-6B67-4J91014	○	
			ø6	VPC20-6B67-6J91014	○	
		10	ø3	VPC20-10B67-3J910	—	
			ø4	VPC20-10B67-4J910		
			ø6	VPC20-10B67-6J910		
		15	ø3	VPC20-15B67-3J910	—	
			ø4	VPC20-15B67-4J910		
			ø6	VPC20-15B67-6J910		
		20	ø3	VPC20-20B67-3J910	—	
			ø4	VPC20-20B67-4J910		
			ø6	VPC20-20B67-6J910		
	ø25	6	ø3	VPC25-6B67-3J910	—	M6
			ø4	VPC25-6B67-4J91014	○	
			ø6	VPC25-6B67-6J91014	○	
		10	ø3	VPC25-10B67-3J910	—	
			ø4	VPC25-10B67-4J910		
			ø6	VPC25-10B67-6J910		
		15	ø3	VPC25-15B673J910	—	
			ø4	VPC25-15B67-4J910		
			ø6	VPC25-15B67-6J910		
		20	ø3	VPC25-20B67-3J910	—	
			ø4	VPC25-20B67-4J910		
			ø6	VPC25-20B67-6J910		
	ø30	6	ø3	VPC30-6B67-3J910	—	
			ø4	VPC30-6B67-4J91014	○	
			ø6	VPC30-6B67-6J91014	○	
		10	ø3	VPC30-10B67-3J910	—	
			ø4	VPC30-10B67-4J910		
			ø6	VPC30-10B67-6J910		
		15	ø3	VPC30-15B67-3J910	—	
			ø4	VPC30-15B67-4J910		
			ø6	VPC30-15B67-6J910		
		20	ø3	VPC30-20B67-3J910	—	
			ø4	VPC30-20B67-4J910		
			ø6	VPC30-20B67-6J910		

Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	14 : -S3 -S3 spec.	Connection config. Code
ø10	6	ø1/8	VPC10-6B67-1/4J910 *5	—	M4
		ø5/32	VPC10-6B67-5/32J91014 *5	○	
		ø1/4	VPC10-6B67-1/4J910 *5	—	
	10	ø1/8	VPC10-10B67-1/8J910 *5	—	
		ø5/32	VPC10-10B67-5/32J910 *5	—	
		ø1/4	VPC10-10B67-1/4J910 *5	—	
	15	ø1/8	VPC10-15B67-1/8J910 *5	—	
		ø5/32	VPC10-15B67-5/32J910 *5	—	
		ø1/4	VPC10-15B67-1/4J910 *5	—	
	20	ø1/8	VPC10-20B67-1/8J910 *5	—	
		ø5/32	VPC10-20B67-5/32J910 *5	—	
		ø1/4	VPC10-20B67-1/4J910 *5	—	
ø15	6	ø1/8	VPC15-6B67-1/4J910 *6	—	
		ø5/32	VPC15-6B67-5/32J91014 *6	○	
		ø1/4	VPC15-6B67-1/4J910 *6	—	
	10	ø1/8	VPC15-10B67-1/8J910 *6	—	
		ø5/32	VPC15-10B67-5/32J910 *6	—	
		ø1/4	VPC15-10B67-1/4J910 *6	—	
	15	ø1/8	VPC15-15B67-1/8J910 *6	—	
		ø5/32	VPC15-15B67-5/32J910 *6	—	
		ø1/4	VPC15-15B67-1/4J910 *6	—	
	20	ø1/8	VPC15-20B67-1/8J910 *6	—	
		ø5/32	VPC15-20B67-5/32J910 *6	—	
		ø1/4	VPC15-20B67-1/4J910 *6	—	
ø20	6	ø1/8	VPC20-6B67-1/8J910	—	
		ø5/32	VPC20-6B67-5/32J91014	○	
		ø1/4	VPC20-6B67-1/4J910	—	
	10	ø1/8	VPC20-10B67-1/8J910	—	
		ø5/32	VPC20-10B67-5/32J910	—	
		ø1/4	VPC20-10B67-1/4J910	—	
	15	ø1/8	VPC20-15B67-1/8J910	—	
		ø5/32	VPC20-15B67-5/32J910	—	
		ø1/4	VPC20-15B67-1/4J910	—	
	20	ø1/8	VPC20-20B67-1/8J910	—	
		ø5/32	VPC20-20B67-5/32J910	—	
		ø1/4	VPC20-20B67-1/4J910	—	
ø25	6	ø1/8	VPC25-6B67-1/8J910	—	M6
		ø5/32	VPC25-6B67-5/32J91014	○	
		ø1/4	VPC25-6B67-1/4J910	—	
	10	ø1/8	VPC25-10B67-1/8J910	—	
		ø5/32	VPC25-10B67-5/32J910	—	
		ø1/4	VPC25-10B67-1/4J910	—	
	15	ø1/8	VPC25-15B67-1/8J910	—	
		ø5/32	VPC25-15B67-5/32J910	—	
		ø1/4	VPC25-15B67-1/4J910	—	
	20	ø1/8	VPC25-20B67-1/8J910	—	
		ø5/32	VPC25-20B67-5/32J910	—	
		ø1/4	VPC25-20B67-1/4J910	—	
ø30	6	ø1/8	VPC30-6B67-1/8J910	—	
		ø5/32	VPC30-6B67-5/32J91014	○	
		ø1/4	VPC30-6B67-1/4J910	—	
	10	ø1/8	VPC30-10B67-1/8J910	—	
		ø5/32	VPC30-10B67-5/32J910	—	
		ø1/4	VPC30-10B67-1/4J910	—	
	15	ø1/8	VPC30-15B67-1/8J910	—	
		ø5/32	VPC30-15B67-5/32J910	—	
		ø1/4	VPC30-15B67-1/4J910	—	
	20	ø1/8	VPC30-20B67-1/8J910	—	
		ø5/32	VPC30-20B67-5/32J910	—	
		ø1/4	VPC30-20B67-1/4J910	—	

Vacuum Pad Bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	⑭ : -S3 -S3 spec.	Connection config. Code
Spring type, Top port, Push-in fitting, Standard VPC Pad dia. ø40 mm to ø100 mm	ø40	6	ø3	VPC40-6B⑥⑦-3J⑩	—	M6
			ø4	VPC40-6B⑥⑦-4J⑩⑭	○	
			ø6	VPC40-6B⑥⑦-6J⑩⑭	○	
		10	ø3	VPC40-10B⑥⑦-3J⑩	—	
			ø4	VPC40-10B⑥⑦-4J⑩		
			ø6	VPC40-10B⑥⑦-6J⑩		
		15	ø3	VPC40-15B⑥⑦-3J⑩	—	
			ø4	VPC40-15B⑥⑦-4J⑩		
			ø6	VPC40-15B⑥⑦-6J⑩		
		20	ø3	VPC40-20B⑥⑦-3J⑩	—	
			ø4	VPC40-20B⑥⑦-4J⑩		
			ø6	VPC40-20B⑥⑦-6J⑩		
	ø50	6	ø3	VPC50-6B⑥⑦-3J⑩	—	
			ø4	VPC50-6B⑥⑦-4J⑩⑭	○	
			ø6	VPC50-6B⑥⑦-6J⑩⑭	○	
		10	ø3	VPC50-10B⑥⑦-3J⑩	—	
			ø4	VPC50-10B⑥⑦-4J⑩		
			ø6	VPC50-10B⑥⑦-6J⑩		
		15	ø3	VPC50-15B⑥⑦-3J⑩	—	
			ø4	VPC50-15B⑥⑦-4J⑩		
			ø6	VPC50-15B⑥⑦-6J⑩		
		20	ø3	VPC50-20B⑥⑦-3J⑩	—	
			ø4	VPC50-20B⑥⑦-4J⑩		
			ø6	VPC50-20B⑥⑦-6J⑩		
	ø60	10	ø4	VPC60-10B⑥⑦-4J⑩ *2	—	M10
			ø6	VPC60-10B⑥⑦-6J⑩ *2		
			ø8	VPC60-10B⑥⑦-8J⑩ *2		
	ø80	10	ø4	VPC80-10B⑥⑦-4J⑩ *2	—	
			ø6	VPC80-10B⑥⑦-6J⑩ *2		
			ø8	VPC80-10B⑥⑦-8J⑩ *2		
	ø100	10	ø4	VPC100-10B⑥⑦-4J⑩ *2	—	
			ø6	VPC100-10B⑥⑦-6J⑩ *2		
			ø8	VPC100-10B⑥⑦-8J⑩ *2		

Pad dia.	Stroke (mm)	Tube O.D. (inch)	Model code	⑭ : -S3 -S3 spec.	Connection config. Code
ø40	6	ø1/8	VPC40-6B⑥⑦-1/8J⑩	—	M6
		ø5/32	VPC40-6B⑥⑦-5/32J⑩⑭	○	
		ø1/4	VPC40-6B⑥⑦-1/4J⑩	—	
	10	ø1/8	VPC40-10B⑥⑦-1/8J⑩	—	
		ø5/32	VPC40-10B⑥⑦-5/32J⑩	—	
		ø1/4	VPC40-10B⑥⑦-1/4J⑩	—	
	15	ø1/8	VPC40-15B⑥⑦-1/8J⑩	—	
		ø5/32	VPC40-15B⑥⑦-5/32J⑩	—	
		ø1/4	VPC40-15B⑥⑦-1/4J⑩	—	
	20	ø1/8	VPC40-20B⑥⑦-1/8J⑩	—	
		ø5/32	VPC40-20B⑥⑦-5/32J⑩	—	
		ø1/4	VPC40-20B⑥⑦-1/4J⑩	—	
ø50	6	ø1/8	VPC50-6B⑥⑦-1/8J⑩	—	
		ø5/32	VPC50-6B⑥⑦-5/32J⑩⑭	○	
		ø1/4	VPC50-6B⑥⑦-1/4J⑩	—	
	10	ø1/8	VPC50-10B⑥⑦-1/8J⑩	—	
		ø5/32	VPC50-10B⑥⑦-5/32J⑩	—	
		ø1/4	VPC50-10B⑥⑦-1/4J⑩	—	
	15	ø1/8	VPC50-15B⑥⑦-1/8J⑩	—	
		ø5/32	VPC50-15B⑥⑦-5/32J⑩	—	
		ø1/4	VPC50-15B⑥⑦-1/4J⑩	—	
	20	ø1/8	VPC50-20B⑥⑦-1/8J⑩	—	
		ø5/32	VPC50-20B⑥⑦-5/32J⑩	—	
		ø1/4	VPC50-20B⑥⑦-1/4J⑩	—	
ø60	10	ø1/8	VPC60-10B⑥⑦-1/8J⑩ *2	—	M10
		ø5/32	VPC60-10B⑥⑦-5/32J⑩ *2	—	
		ø3/16	VPC60-10B⑥⑦-3/16J⑩ *2	—	
		ø1/4	VPC60-10B⑥⑦-1/4J⑩ *2	—	
		ø5/16	VPC60-10B⑥⑦-5/16J⑩ *2	—	
		ø3/8	VPC60-10B⑥⑦-3/8J ⑩ *2	—	
ø80	10	ø1/8	VPC80-10B⑥⑦-1/8J ⑩ *2	—	
		ø5/32	VPC80-10B⑥⑦-5/32J ⑩ *2	—	
		ø3/16	VPC80-10B⑥⑦-3/16J ⑩ *2	—	
		ø1/4	VPC80-10B⑥⑦-1/4J ⑩ *2	—	
		ø5/16	VPC80-10B⑥⑦-5/16J ⑩ *2	—	
		ø3/8	VPC80-10B⑥⑦-3/8J ⑩ *2	—	
ø100	10	ø1/8	VPC100-10B⑥⑦-1/8J ⑩ *2	—	
		ø5/32	VPC100-10B⑥⑦-5/32J ⑩ *2	—	
		ø3/16	VPC100-10B⑥⑦-3/16J ⑩ *2	—	
		ø1/4	VPC100-10B⑥⑦-1/4J ⑩ *2	—	
		ø5/16	VPC100-10B⑥⑦-5/16J ⑩ *2	—	
		ø3/8	VPC100-10B⑥⑦-3/8J ⑩ *2	—	

Notes
*1. Barb fitting type holders are also selectable. Contact us for the details.
*2. Extra soft silicone (YS2/YS4) is not available.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
⑦ : Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⑨ : Resin attachment
⑩ : -DC ⇒ Holder with dust catcher
⑭ : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.556
Surface treatment
Dust Catcher (VPC)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	⑭ : -S3 -S3 spec.	Connection config. Code
Spring type, Top port, Female thread, Standard VPC	ø2	3	M5×0.8	VPC2-3B⑥-M5⑩⑭ *1	○	H3
		10		VPC2-10B⑥-M5⑩ *1	—	
		15		VPC2-15B⑥-M5⑩ *1	—	
		20		VPC2-20B⑥-M5⑩ *1	—	
	ø4	3	M5×0.8	VPC4-3B⑥-M5⑩⑭ *2	○	
		10		VPC4-10B⑥-M5⑩ *2	—	
		15		VPC4-15B⑥-M5⑩ *2	—	
		20		VPC4-20B⑥-M5⑩ *2	—	
	ø6	3	M5×0.8	VPC6-3B⑥⑦-M5⑩⑭ *3	○	T8
		10		VPC6-10B⑥⑦-M5⑩ *3	—	
		15		VPC6-15B⑥⑦-M5⑩ *3	—	
		20		VPC6-20B⑥⑦-M5⑩ *3	—	
	ø8	3	M5×0.8	VPC8-3B⑥⑦-M5⑩⑭ *3	○	
		10		VPC8-10B⑥⑦-M5⑩ *3	—	
		15		VPC8-15B⑥⑦-M5⑩ *3	—	
		20		VPC8-20B⑥⑦-M5⑩ *3	—	
	ø10	6	M6×1	VPC10-6B⑥⑦-M6⑨⑩⑭ *4	○	M4
		10		VPC10-10B⑥⑦-M6⑨⑩ *4	—	
		15		VPC10-15B⑥⑦-M6⑨⑩ *4	—	
		20		VPC10-20B⑥⑦-M6⑨⑩ *4	—	
	ø15	6	M6×1	VPC15-6B⑥⑦-M6⑨⑩⑭ *5	○	
		10		VPC15-10B⑥⑦-M6⑨⑩ *5	—	
		15		VPC15-15B⑥⑦-M6⑨⑩ *5	—	
		20		VPC15-20B⑥⑦-M6⑨⑩ *5	—	
	ø20	6	M6×1	VPC20-6B⑥⑦-M6⑨⑩⑭	○	M6
		10		VPC20-10B⑥⑦-M6⑨⑩	—	
		15		VPC20-15B⑥⑦-M6⑨⑩	—	
		20		VPC20-20B⑥⑦-M6⑨⑩	—	
	ø25	6	M6×1	VPC25-6B⑥⑦-M6⑨⑩⑭	○	
		10		VPC25-10B⑥⑦-M6⑨⑩	—	
		15		VPC25-15B⑥⑦-M6⑨⑩	—	
		20		VPC25-20B⑥⑦-M6⑨⑩	—	
	ø30	6	M6×1	VPC30-6B⑥⑦-M6⑨⑩⑭	○	
		10		VPC30-10B⑥⑦-M6⑨⑩	—	
		15		VPC30-15B⑥⑦-M6⑨⑩	—	
		20		VPC30-20B⑥⑦-M6⑨⑩	—	
	ø40	6	M6×1	VPC40-6B⑥⑦-M6⑩⑭	○	
		10		VPC40-10B⑥⑦-M6⑩	—	
		15		VPC40-15B⑥⑦-M6⑩	—	
		20		VPC40-20B⑥⑦-M6⑩	—	
	ø50	6	M6×1	VPC50-6B⑥⑦-M6⑩⑭	○	
		10		VPC50-10B⑥⑦-M6⑩	—	
		15		VPC50-15B⑥⑦-M6⑩	—	
		20		VPC50-20B⑥⑦-M6⑩	—	
	ø60	10	G1/8	VPC60-10B⑥⑦-G1⑩⑭ *3	○	M10
	ø80	10	G1/8	VPC80-10B⑥⑦-G1⑩⑭ *3	○	
	ø100	10	G1/8	VPC100-10B⑥⑦-G1⑩⑭ *3	○	

Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	⑭ : -S3 -S3 spec.	Connection config. Code
ø60	10	NPT1/8	VPC60-10B⑥⑦-N1⑩ *3	—	M10
ø80	10	NPT1/8	VPC80-10B⑥⑦-N1⑩ *3	—	
ø100	10	NPT1/8	VPC100-10B⑥⑦-N1⑩ *3	—	

Notes

*1. Pad rubber material is available only for Nitrile (N) and Silicone (S).
*2. Pad rubber material is available only for Nitrile (N), Silicone (S) and Conductive Silicone (SE).
*3. Extra soft silicone (YS2/YS4) is not available.
*4. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.
*5. Extra soft silicone hardness 20° type (YS2) is available only when Fluoro-coating treatment is selected.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options

⑦ : Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⑨ : Resin attachment
⑩ : -DC ⇒ Holder with dust catcher
⑭ : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.556
Surface treatment
Resin attachment
Dust Catcher (VPC)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. Code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. Code
Spring type, Top port, Push-in fitting, No cover VPOC Pad dia. ø6 mm to ø15 mm	ø6	20	ø3	VPOC6-20B[6][7]-3J *2	T8	ø6	20	ø1/8	VPOC6-20B[6][7]-1/8J *2	T8
			ø4	VPOC6-20B[6][7]-4J *2				ø5/32	VPOC6-20B[6][7]-5/32J *2	
			ø6	VPOC6-20B[6][7]-6J *2				ø1/4	VPOC6-20B[6][7]-1/4J *2	
		30	ø3	VPOC6-30B[6][7]-3J *2			30	ø1/8	VPOC6-30B[6][7]-1/8J *2	
			ø4	VPOC6-30B[6][7]-4J *2				ø5/32	VPOC6-30B[6][7]-5/32J *2	
			ø6	VPOC6-30B[6][7]-6J *2				ø1/4	VPOC6-30B[6][7]-1/4J *2	
		40	ø3	VPOC6-40B[6][7]-3J *2			40	ø1/8	VPOC6-40B[6][7]-1/8J *2	
			ø4	VPOC6-40B[6][7]-4J *2				ø5/32	VPOC6-40B[6][7]-5/32J *2	
			ø6	VPOC6-40B[6][7]-6J *2				ø1/4	VPOC6-40B[6][7]-1/4J *2	
		50	ø3	VPOC6-50B[6][7]-3J *2			50	ø1/8	VPOC6-50B[6][7]-1/8J *2	
			ø4	VPOC6-50B[6][7]-4J *2				ø5/32	VPOC6-50B[6][7]-5/32J *2	
			ø6	VPOC6-50B[6][7]-6J *2				ø1/4	VPOC6-50B[6][7]-1/4J *2	
	ø8	20	ø3	VPOC8-20B[6][7]-3J *2		ø8	20	ø1/8	VPOC8-20B[6][7]-1/8J *2	
			ø4	VPOC8-20B[6][7]-4J *2				ø5/32	VPOC8-20B[6][7]-5/32J *2	
			ø6	VPOC8-20B[6][7]-6J *2				ø1/4	VPOC8-20B[6][7]-1/4J *2	
		30	ø3	VPOC8-30B[6][7]-3J *2			30	ø1/8	VPOC8-30B[6][7]-1/8J *2	
			ø4	VPOC8-30B[6][7]-4J *2				ø5/32	VPOC8-30B[6][7]-5/32J *2	
			ø6	VPOC8-30B[6][7]-6J *2				ø1/4	VPOC8-30B[6][7]-1/4J *2	
		40	ø3	VPOC8-40B[6][7]-3J *2			40	ø1/8	VPOC8-40B[6][7]-1/8J *2	
			ø4	VPOC8-40B[6][7]-4J *2				ø5/32	VPOC8-40B[6][7]-5/32J *2	
			ø6	VPOC8-40B[6][7]-6J *2				ø1/4	VPOC8-40B[6][7]-1/4J *2	
		50	ø3	VPOC8-50B[6][7]-3J *2			50	ø1/8	VPOC8-50B[6][7]-1/8J *2	
			ø4	VPOC8-50B[6][7]-4J *2				ø5/32	VPOC8-50B[6][7]-5/32J *2	
			ø6	VPOC8-50B[6][7]-6J *2				ø1/4	VPOC8-50B[6][7]-1/4J *2	
	ø10	20	ø3	VPOC10-20B[6][7]-3J[9] *3	M4	ø10	20	ø1/8	VPOC10-20B[6][7]-1/8J[9] *3	M4
			ø4	VPOC10-20B[6][7]-4J[9] *3				ø5/32	VPOC10-20B[6][7]-5/32J[9] *3	
			ø6	VPOC10-20B[6][7]-6J[9] *3				ø1/4	VPOC10-20B[6][7]-1/4J[9] *3	
		30	ø3	VPOC10-30B[6][7]-3J[9] *3			30	ø1/8	VPOC10-30B[6][7]-1/8J[9] *3	
			ø4	VPOC10-30B[6][7]-4J[9] *3				ø5/32	VPOC10-30B[6][7]-5/32J[9] *3	
			ø6	VPOC10-30B[6][7]-6J[9] *3				ø1/4	VPOC10-30B[6][7]-1/4J[9] *3	
		40	ø3	VPOC10-40B[6][7]-3J[9] *3			40	ø1/8	VPOC10-40B[6][7]-1/8J[9] *3	
			ø4	VPOC10-40B[6][7]-4J[9] *3				ø5/32	VPOC10-40B[6][7]-5/32J[9] *3	
			ø6	VPOC10-40B[6][7]-6J[9] *3				ø1/4	VPOC10-40B[6][7]-1/4J[9] *3	
		50	ø3	VPOC10-50B[6][7]-3J[9] *3			50	ø1/8	VPOC10-50B[6][7]-1/8J[9] *3	
			ø4	VPOC10-50B[6][7]-4J[9] *3				ø5/32	VPOC10-50B[6][7]-5/32J[9] *3	
			ø6	VPOC10-50B[6][7]-6J[9] *3				ø1/4	VPOC10-50B[6][7]-1/4J[9] *3	
	ø15	20	ø3	VPOC15-20B[6][7]-3J[9] *4		ø15	20	ø1/8	VPOC15-20B[6][7]-1/8J[9] *4	
			ø4	VPOC15-20B[6][7]-4J[9] *4				ø5/32	VPOC15-20B[6][7]-5/32J[9] *4	
			ø6	VPOC15-20B[6][7]-6J[9] *4				ø1/4	VPOC15-20B[6][7]-1/4J[9] *4	
		30	ø3	VPOC15-30B[6][7]-3J[9] *4			30	ø1/8	VPOC15-30B[6][7]-1/8J[9] *4	
			ø4	VPOC15-30B[6][7]-4J[9] *4				ø5/32	VPOC15-30B[6][7]-5/32J[9] *4	
			ø6	VPOC15-30B[6][7]-6J[9] *4				ø1/4	VPOC15-30B[6][7]-1/4J[9] *4	
		40	ø3	VPOC15-40B[6][7]-3J[9] *4			40	ø1/8	VPOC15-40B[6][7]-1/8J[9] *4	
			ø4	VPOC15-40B[6][7]-4J[9] *4				ø5/32	VPOC15-40B[6][7]-5/32J[9] *4	
			ø6	VPOC15-40B[6][7]-6J[9] *4				ø1/4	VPOC15-40B[6][7]-1/4J[9] *4	
		50	ø3	VPOC15-50B[6][7]-3J[9] *4			50	ø1/8	VPOC15-50B[6][7]-1/8J[9] *4	
			ø4	VPOC15-50B[6][7]-4J[9] *4				ø5/32	VPOC15-50B[6][7]-5/32J[9] *4	
			ø6	VPOC15-50B[6][7]-6J[9] *4				ø1/4	VPOC15-50B[6][7]-1/4J[9] *4	

Notes
*1. Barb fitting type holders are also selectable. Contact us for the details.
*2. Extra soft silicone (YS2/YS4) is not available.
*3. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.
*4. Extra soft silicone hardness 20° type (YS2) is available only when Fluoro-coating treatment is selected.

Packaging specifications
1 pc. /bag

Options
[7] : Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
[9] : Resin attachment

Optional items ⇒ P.556
Surface treatment
Resin attachment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type, Top port, Push-in fitting, No cover

VPOC

Pad dia. ø20 mm to ø50 mm

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. Code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. Code
Spring type, Top port, Push-in fitting, No cover VPOC	ø20	20	ø3	VPOC20-20B□□-3J□	M6	ø20	20	ø1/8	VPOC20-20B□□-1/8J□	M6
			ø4	VPOC20-20B□□-4J□				ø5/32	VPOC20-20B□□-5/32J□	
			ø6	VPOC20-20B□□-6J□				ø1/4	VPOC20-20B□□-1/4J□	
		30	ø3	VPOC20-30B□□-3J□			30	ø1/8	VPOC20-30B□□-1/8J□	
			ø4	VPOC20-30B□□-4J□				ø5/32	VPOC20-30B□□-5/32J□	
			ø6	VPOC20-30B□□-6J□				ø1/4	VPOC20-30B□□-1/4J□	
		40	ø3	VPOC20-40B□□-3J□			40	ø1/8	VPOC20-40B□□-1/8J□	
			ø4	VPOC20-40B□□-4J□				ø5/32	VPOC20-40B□□-5/32J□	
			ø6	VPOC20-40B□□-6J□				ø1/4	VPOC20-40B□□-1/4J□	
		50	ø3	VPOC20-50B□□-3J□			50	ø1/8	VPOC20-50B□□-1/8J□	
			ø4	VPOC20-50B□□-4J□				ø5/32	VPOC20-50B□□-5/32J□	
			ø6	VPOC20-50B□□-6J□				ø1/4	VPOC20-50B□□-1/4J□	
	ø25	20	ø3	VPOC25-20B□□-3J□		ø25	20	ø1/8	VPOC25-20B□□-1/8J□	
			ø4	VPOC25-20B□□-4J□				ø5/32	VPOC25-20B□□-5/32J□	
			ø6	VPOC25-20B□□-6J□				ø1/4	VPOC25-20B□□-1/4J□	
		30	ø3	VPOC25-30B□□-3J□			30	ø1/8	VPOC25-30B□□-1/8J□	
			ø4	VPOC25-30B□□-4J□				ø5/32	VPOC25-30B□□-5/32J□	
			ø6	VPOC25-30B□□-6J□				ø1/4	VPOC25-30B□□-1/4J□	
		40	ø3	VPOC25-40B□□-3J□			40	ø1/8	VPOC25-40B□□-1/8J□	
			ø4	VPOC25-40B□□-4J□				ø5/32	VPOC25-40B□□-5/32J□	
			ø6	VPOC25-40B□□-6J□				ø1/4	VPOC25-40B□□-1/4J□	
		50	ø3	VPOC25-50B□□-3J□			50	ø1/8	VPOC25-50B□□-1/8J□	
			ø4	VPOC25-50B□□-4J□				ø5/32	VPOC25-50B□□-5/32J□	
			ø6	VPOC25-50B□□-6J□				ø1/4	VPOC25-50B□□-1/4J□	
	ø30	20	ø3	VPOC30-20B□□-3J□		ø30	20	ø1/8	VPOC30-20B□□-1/8J□	
			ø4	VPOC30-20B□□-4J□				ø5/32	VPOC30-20B□□-5/32J□	
			ø6	VPOC30-20B□□-6J□				ø1/4	VPOC30-20B□□-1/4J□	
		30	ø3	VPOC30-30B□□-3J□			30	ø1/8	VPOC30-30B□□-1/8J□	
			ø4	VPOC30-30B□□-4J□				ø5/32	VPOC30-30B□□-5/32J□	
			ø6	VPOC30-30B□□-6J□				ø1/4	VPOC30-30B□□-1/4J□	
		40	ø3	VPOC30-40B□□-3J□			40	ø1/8	VPOC30-40B□□-1/8J□	
			ø4	VPOC30-40B□□-4J□				ø5/32	VPOC30-40B□□-5/32J□	
			ø6	VPOC30-40B□□-6J□				ø1/4	VPOC30-40B□□-1/4J□	
		50	ø3	VPOC30-50B□□-3J□			50	ø1/8	VPOC30-50B□□-1/8J□	
			ø4	VPOC30-50B□□-4J□				ø5/32	VPOC30-50B□□-5/32J□	
			ø6	VPOC30-50B□□-6J□				ø1/4	VPOC30-50B□□-1/4J□	
	ø40	20	ø3	VPOC40-20B□□-3J		ø40	20	ø1/8	VPOC40-20B□□-1/8J	
			ø4	VPOC40-20B□□-4J				ø5/32	VPOC40-20B□□-5/32J	
			ø6	VPOC40-20B□□-6J				ø1/4	VPOC40-20B□□-1/4J	
		30	ø3	VPOC40-30B□□-3J			30	ø1/8	VPOC40-30B□□-1/8J	
			ø4	VPOC40-30B□□-4J				ø5/32	VPOC40-30B□□-5/32J	
			ø6	VPOC40-30B□□-6J				ø1/4	VPOC40-30B□□-1/4J	
		40	ø3	VPOC40-40B□□-3J			40	ø1/8	VPOC40-40B□□-1/8J	
			ø4	VPOC40-40B□□-4J				ø5/32	VPOC40-40B□□-5/32J	
			ø6	VPOC40-40B□□-6J				ø1/4	VPOC40-40B□□-1/4J	
		50	ø3	VPOC40-50B□□-3J			50	ø1/8	VPOC40-50B□□-1/8J	
			ø4	VPOC40-50B□□-4J				ø5/32	VPOC40-50B□□-5/32J	
			ø6	VPOC40-50B□□-6J				ø1/4	VPOC40-50B□□-1/4J	
	ø50	20	ø3	VPOC50-20B□□-3J		ø50	20	ø1/8	VPOC50-20B□□-1/8J	
			ø4	VPOC50-20B□□-4J				ø5/32	VPOC50-20B□□-5/32J	
			ø6	VPOC50-20B□□-6J				ø1/4	VPOC50-20B□□-1/4J	
		30	ø3	VPOC50-30B□□-3J			30	ø1/8	VPOC50-30B□□-1/8J	
			ø4	VPOC50-30B□□-4J				ø5/32	VPOC50-30B□□-5/32J	
			ø6	VPOC50-30B□□-6J				ø1/4	VPOC50-30B□□-1/4J	
		40	ø3	VPOC50-40B□□-3J			40	ø1/8	VPOC50-40B□□-1/8J	
			ø4	VPOC50-40B□□-4J				ø5/32	VPOC50-40B□□-5/32J	
			ø6	VPOC50-40B□□-6J				ø1/4	VPOC50-40B□□-1/4J	
		50	ø3	VPOC50-50B□□-3J			50	ø1/8	VPOC50-50B□□-1/8J	
			ø4	VPOC50-50B□□-4J				ø5/32	VPOC50-50B□□-5/32J	
			ø6	VPOC50-50B□□-6J				ø1/4	VPOC50-50B□□-1/4J	

Vacuum Pad Bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. Code
Spring type, Top port, Female thread, No cover VPOC	ø6	20	M6×1	VPOC6-20B6 7-M6 *1	T8
		30		VPOC6-30B6 7-M6 *1	
		40		VPOC6-40B6 7-M6 *1	
		50		VPOC6-50B6 7-M6 *1	
	ø8	20	M6×1	VPOC8-20B6 7-M6 *1	
		30		VPOC8-30B6 7-M6 *1	
		40		VPOC8-40B6 7-M6 *1	
		50		VPOC8-50B6 7-M6 *1	
	ø10	20	M6×1	VPOC10-20B6 7-M6 9 *2	M4
		30		VPOC10-30B6 7-M6 9 *2	
		40		VPOC10-40B6 7-M6 9 *2	
		50		VPOC10-50B6 7-M6 9 *2	
	ø15	20	M6×1	VPOC15-20B6 7-M6 9 *3	
		30		VPOC15-30B6 7-M6 9 *3	
		40		VPOC15-40B6 7-M6 9 *3	
		50		VPOC15-50B6 7-M6 9 *3	
	ø20	20	M6×1	VPOC20-20B6 7-M6 9	M6
		30		VPOC20-30B6 7-M6 9	
		40		VPOC20-40B6 7-M6 9	
		50		VPOC20-50B6 7-M6 9	
	ø25	20	M6×1	VPOC25-20B6 7-M6 9	
		30		VPOC25-30B6 7-M6 9	
		40		VPOC25-40B6 7-M6 9	
		50		VPOC25-50B6 7-M6 9	
	ø30	20	M6×1	VPOC30-20B6 7-M6 9	
		30		VPOC30-30B6 7-M6 9	
		40		VPOC30-40B6 7-M6 9	
		50		VPOC30-50B6 7-M6 9	
	ø40	20	M6×1	VPOC40-20B6 7-M6	
		30		VPOC40-30B6 7-M6	
		40		VPOC40-40B6 7-M6	
		50		VPOC40-50B6 7-M6	
	ø50	20	M6×1	VPOC50-20B6 7-M6	
		30		VPOC50-30B6 7-M6	
		40		VPOC50-40B6 7-M6	
		50		VPOC50-50B6 7-M6	

Notes
*1. Extra soft silicone (YS2/YS4) is not available.
*2. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.
*3. Extra soft silicone hardness 20° type (YS2) is available only when Fluoro-coating treatment is selected.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
7 : Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
9 : Resin attachment

Optional items ⇒ P.556

Surface treatment
Resin attachment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type,
Top port,
Push-in fitting,
Low dust emission
VPLFC

Pad dia.
ø6 mm
to
ø15 mm

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. Code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. Code
	ø6	2	ø3	VPLFC6-2B⑥⑦-3J*2	T8	ø6	2	ø1/8	VPLFC6-2B⑥⑦-1/8J *2	T8
			ø4	VPLFC6-2B⑥⑦-4J*2				ø5/32	VPLFC6-2B⑥⑦-5/32J *2	
		5	ø3	VPLFC6-5B⑥⑦-3J⑩ *2			5	ø1/8	VPLFC6-5B⑥⑦-1/8J ⑩ *2	
			ø4	VPLFC6-5B⑥⑦-4J⑩ *2				ø5/32	VPLFC6-5B⑥⑦-5/32J ⑩ *2	
		10	ø3	VPLFC6-10B⑥⑦-3J⑩ *2			10	ø1/8	VPLFC6-10B⑥⑦-1/8J ⑩ *2	
			ø4	VPLFC6-10B⑥⑦-4J⑩ *2				ø5/32	VPLFC6-10B⑥⑦-5/32J ⑩ *2	
		15	ø3	VPLFC6-15B⑥⑦-3J⑩ *2			15	ø1/8	VPLFC6-15B⑥⑦-1/8J ⑩ *2	
			ø4	VPLFC6-15B⑥⑦-4J⑩ *2				ø5/32	VPLFC6-15B⑥⑦-5/32J ⑩ *2	
		20	ø3	VPLFC6-20B⑥⑦-3J⑩ *2			20	ø1/8	VPLFC6-20B⑥⑦-1/8J ⑩ *2	
			ø4	VPLFC6-20B⑥⑦-4J⑩ *2				ø5/32	VPLFC6-20B⑥⑦-5/32J ⑩ *2	
	ø8	2	ø3	VPLFC8-2B⑥⑦-3J*2		ø8	2	ø1/8	VPLFC8-2B⑥⑦-1/8J *2	
			ø4	VPLFC8-2B⑥⑦-4J*2				ø5/32	VPLFC8-2B⑥⑦-5/32J *2	
		5	ø3	VPLFC8-5B⑥⑦-3J⑩ *2			5	ø1/8	VPLFC8-5B⑥⑦-1/8J ⑩ *2	
			ø4	VPLFC8-5B⑥⑦-4J⑩ *2				ø5/32	VPLFC8-5B⑥⑦-5/32J ⑩ *2	
		10	ø3	VPLFC8-10B⑥⑦-3J⑩ *2			10	ø1/8	VPLFC8-10B⑥⑦-1/8J ⑩ *2	
			ø4	VPLFC8-10B⑥⑦-4J⑩ *2				ø5/32	VPLFC8-10B⑥⑦-5/32J ⑩ *2	
		15	ø3	VPLFC8-15B⑥⑦-3J⑩ *2			15	ø1/8	VPLFC8-15B⑥⑦-1/8J ⑩ *2	
			ø4	VPLFC8-15B⑥⑦-4J⑩ *2				ø5/32	VPLFC8-15B⑥⑦-5/32J ⑩ *2	
		20	ø3	VPLFC8-20B⑥⑦-3J⑩ *2			20	ø1/8	VPLFC8-20B⑥⑦-1/8J ⑩ *2	
			ø4	VPLFC8-20B⑥⑦-4J⑩ *2				ø5/32	VPLFC8-20B⑥⑦-5/32J ⑩ *2	
	ø10	2	ø3	VPLFC10-2B⑥⑦-3J⑨*3	M4	ø10	2	ø1/8	VPLFC10-2B⑥⑦-1/8J⑨*3	M4
			ø4	VPLFC10-2B⑥⑦-4J⑨*3				ø5/32	VPLFC10-2B⑥⑦-5/32J⑨*3	
		5	ø3	VPLFC10-5B⑥⑦-3J⑨⑩*3			5	ø1/8	VPLFC10-5B⑥⑦-1/8J⑨⑩*3	
			ø4	VPLFC10-5B⑥⑦-4J⑨⑩*3				ø5/32	VPLFC10-5B⑥⑦-5/32J⑨⑩*3	
		10	ø3	VPLFC10-10B⑥⑦-3J⑨⑩*3			10	ø1/8	VPLFC10-10B⑥⑦-1/8J⑨⑩*3	
			ø4	VPLFC10-10B⑥⑦-4J⑨⑩*3				ø5/32	VPLFC10-10B⑥⑦-5/32J⑨⑩*3	
		15	ø3	VPLFC10-15B⑥⑦-3J⑨⑩*3			15	ø1/8	VPLFC10-15B⑥⑦-1/8J⑨⑩*3	
			ø4	VPLFC10-15B⑥⑦-4J⑨⑩*3				ø5/32	VPLFC10-15B⑥⑦-5/32J⑨⑩*3	
		20	ø3	VPLFC10-20B⑥⑦-3J⑨⑩*3			20	ø1/8	VPLFC10-20B⑥⑦-1/8J⑨⑩*3	
			ø4	VPLFC10-20B⑥⑦-4J⑨⑩*3				ø5/32	VPLFC10-20B⑥⑦-5/32J⑨⑩*3	
	ø15	2	ø3	VPLFC15-2B⑥⑦-3J⑨*4		ø15	2	ø1/8	VPLFC15-2B⑥⑦-1/8J⑨*4	
			ø4	VPLFC15-2B⑥⑦-4J⑨*4				ø5/32	VPLFC15-2B⑥⑦-5/32J⑨*4	
		5	ø3	VPLFC15-5B⑥⑦-3J⑨⑩*4			5	ø1/8	VPLFC15-5B⑥⑦-1/8J⑨⑩*4	
			ø4	VPLFC15-5B⑥⑦-4J⑨⑩*4				ø5/32	VPLFC15-5B⑥⑦-5/32J⑨⑩*4	
		10	ø3	VPLFC15-10B⑥⑦-3J⑨⑩*4			10	ø1/8	VPLFC15-10B⑥⑦-1/8J⑨⑩*4	
			ø4	VPLFC15-10B⑥⑦-4J⑨⑩*4				ø5/32	VPLFC15-10B⑥⑦-5/32J⑨⑩*4	
		15	ø3	VPLFC15-15B⑥⑦-3J⑨⑩*4			15	ø1/8	VPLFC15-15B⑥⑦-1/8J⑨⑩*4	
			ø4	VPLFC15-15B⑥⑦-4J⑨⑩*4				ø5/32	VPLFC15-15B⑥⑦-5/32J⑨⑩*4	
		20	ø3	VPLFC15-20B⑥⑦-3J⑨⑩*4			20	ø1/8	VPLFC15-20B⑥⑦-1/8J⑨⑩*4	
			ø4	VPLFC15-20B⑥⑦-4J⑨⑩*4				ø5/32	VPLFC15-20B⑥⑦-5/32J⑨⑩*4	

Notes
*1. Barb fitting type holders are also selectable. Contact us for the details.
*2. Extra soft silicone (YS2/YS4) is not available.
*3. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.
*4. Extra soft silicone hardness 20° type (YS2) is available only when Fluoro-coating treatment is selected.

Packaging specifications
1 pc. /bag

Options
⑦ : Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⑨ : Resin attachment
⑩ : -SF1/4 ⇒ Spring load 1/4

Optional items ⇒ P.556
Surface treatment
Resin attachment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type,
Top port,
Push-in fitting,
Low dust emission

VPLFC

Pad dia.
ø20 mm
to
ø50 mm

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. Code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. Code
	ø20	5	ø3	VPLFC20-5B⑥⑦-3J⑨⑩		ø20	5	ø1/8	VPLFC20-5B⑥⑦-1/8J⑨⑩	
			ø4	VPLFC20-5B⑥⑦-4J⑨⑩				ø5/32	VPLFC20-5B⑥⑦-5/32J⑨⑩	
			ø6	VPLFC20-5B⑥⑦-6J⑨⑩				ø1/4	VPLFC20-5B⑥⑦-1/4J⑨⑩	
		10	ø3	VPLFC20-10B⑥⑦-3J⑨⑩			10	ø1/8	VPLFC20-10B⑥⑦-1/8J⑨⑩	
			ø4	VPLFC20-10B⑥⑦-4J⑨⑩				ø5/32	VPLFC20-10B⑥⑦-5/32J⑨⑩	
			ø6	VPLFC20-10B⑥⑦-6J⑨⑩				ø1/4	VPLFC20-10B⑥⑦-1/4J⑨⑩	
		15	ø3	VPLFC20-15B⑥⑦-3J⑨⑩			15	ø1/8	VPLFC20-15B⑥⑦-1/8J⑨⑩	
			ø4	VPLFC20-15B⑥⑦-4J⑨⑩				ø5/32	VPLFC20-15B⑥⑦-5/32J⑨⑩	
			ø6	VPLFC20-15B⑥⑦-6J⑨⑩				ø1/4	VPLFC20-15B⑥⑦-1/4J⑨⑩	
		20	ø3	VPLFC20-20B⑥⑦-3J⑨⑩			20	ø1/8	VPLFC20-20B⑥⑦-1/8J⑨⑩	
			ø4	VPLFC20-20B⑥⑦-4J⑨⑩				ø5/32	VPLFC20-20B⑥⑦-5/32J⑨⑩	
			ø6	VPLFC20-20B⑥⑦-6J⑨⑩				ø1/4	VPLFC20-20B⑥⑦-1/4J⑨⑩	
	ø25	5	ø3	VPLFC25-5B⑥⑦-3J⑨⑩		ø25	5	ø1/8	VPLFC25-5B⑥⑦-1/8J⑨⑩	
			ø4	VPLFC25-5B⑥⑦-4J⑨⑩				ø5/32	VPLFC25-5B⑥⑦-5/32J⑨⑩	
			ø6	VPLFC25-5B⑥⑦-6J⑨⑩				ø1/4	VPLFC25-5B⑥⑦-1/4J⑨⑩	
		10	ø3	VPLFC25-10B⑥⑦-3J⑨⑩			10	ø1/8	VPLFC25-10B⑥⑦-1/8J⑨⑩	
			ø4	VPLFC25-10B⑥⑦-4J⑨⑩				ø5/32	VPLFC25-10B⑥⑦-5/32J⑨⑩	
			ø6	VPLFC25-10B⑥⑦-6J⑨⑩				ø1/4	VPLFC25-10B⑥⑦-1/4J⑨⑩	
		15	ø3	VPLFC25-15B⑥⑦-3J⑨⑩			15	ø1/8	VPLFC25-15B⑥⑦-1/8J⑨⑩	
			ø4	VPLFC25-15B⑥⑦-4J⑨⑩				ø5/32	VPLFC25-15B⑥⑦-5/32J⑨⑩	
			ø6	VPLFC25-15B⑥⑦-6J⑨⑩				ø1/4	VPLFC25-15B⑥⑦-1/4J⑨⑩	
		20	ø3	VPLFC25-20B⑥⑦-3J⑨⑩			20	ø1/8	VPLFC25-20B⑥⑦-1/8J⑨⑩	
			ø4	VPLFC25-20B⑥⑦-4J⑨⑩				ø5/32	VPLFC25-20B⑥⑦-5/32J⑨⑩	
			ø6	VPLFC25-20B⑥⑦-6J⑨⑩				ø1/4	VPLFC25-20B⑥⑦-1/4J⑨⑩	
	ø30	5	ø3	VPLFC30-5B⑥⑦-3J⑨⑩	M6	ø30	5	ø1/8	VPLFC30-5B⑥⑦-1/8J⑨⑩	M6
			ø4	VPLFC30-5B⑥⑦-4J⑨⑩				ø5/32	VPLFC30-5B⑥⑦-5/32J⑨⑩	
			ø6	VPLFC30-5B⑥⑦-6J⑨⑩				ø1/4	VPLFC30-5B⑥⑦-1/4J⑨⑩	
		10	ø3	VPLFC30-10B⑥⑦-3J⑨⑩			10	ø1/8	VPLFC30-10B⑥⑦-1/8J⑨⑩	
			ø4	VPLFC30-10B⑥⑦-4J⑨⑩				ø5/32	VPLFC30-10B⑥⑦-5/32J⑨⑩	
			ø6	VPLFC30-10B⑥⑦-6J⑨⑩				ø1/4	VPLFC30-10B⑥⑦-1/4J⑨⑩	
		15	ø3	VPLFC30-15B⑥⑦-3J⑨⑩			15	ø1/8	VPLFC30-15B⑥⑦-1/8J⑨⑩	
			ø4	VPLFC30-15B⑥⑦-4J⑨⑩				ø5/32	VPLFC30-15B⑥⑦-5/32J⑨⑩	
			ø6	VPLFC30-15B⑥⑦-6J⑨⑩				ø1/4	VPLFC30-15B⑥⑦-1/4J⑨⑩	
		20	ø3	VPLFC30-20B⑥⑦-3J⑨⑩			20	ø1/8	VPLFC30-20B⑥⑦-1/8J⑨⑩	
			ø4	VPLFC30-20B⑥⑦-4J⑨⑩				ø5/32	VPLFC30-20B⑥⑦-5/32J⑨⑩	
			ø6	VPLFC30-20B⑥⑦-6J⑨⑩				ø1/4	VPLFC30-20B⑥⑦-1/4J⑨⑩	
	ø40	5	ø3	VPLFC40-5B⑥⑦-3J⑩		ø40	5	ø1/8	VPLFC40-5B⑥⑦-1/8J⑩	
			ø4	VPLFC40-5B⑥⑦-4J⑩				ø5/32	VPLFC40-5B⑥⑦-5/32J⑩	
			ø6	VPLFC40-5B⑥⑦-6J⑩				ø1/4	VPLFC40-5B⑥⑦-1/4J⑩	
		10	ø3	VPLFC40-10B⑥⑦-3J⑩			10	ø1/8	VPLFC40-10B⑥⑦-1/8J⑩	
			ø4	VPLFC40-10B⑥⑦-4J⑩				ø5/32	VPLFC40-10B⑥⑦-5/32J⑩	
			ø6	VPLFC40-10B⑥⑦-6J⑩				ø1/4	VPLFC40-10B⑥⑦-1/4J⑩	
		15	ø3	VPLFC40-15B⑥⑦-3J⑩			15	ø1/8	VPLFC40-15B⑥⑦-1/8J⑩	
			ø4	VPLFC40-15B⑥⑦-4J⑩				ø5/32	VPLFC40-15B⑥⑦-5/32J⑩	
			ø6	VPLFC40-15B⑥⑦-6J⑩				ø1/4	VPLFC40-15B⑥⑦-1/4J⑩	
		20	ø3	VPLFC40-20B⑥⑦-3J⑩			20	ø1/8	VPLFC40-20B⑥⑦-1/8J⑩	
			ø4	VPLFC40-20B⑥⑦-4J⑩				ø5/32	VPLFC40-20B⑥⑦-5/32J⑩	
			ø6	VPLFC40-20B⑥⑦-6J⑩				ø1/4	VPLFC40-20B⑥⑦-1/4J⑩	
	ø50	5	ø3	VPLFC50-5B⑥⑦-3J⑩		ø50	5	ø1/8	VPLFC50-5B⑥⑦-1/8J⑩	
			ø4	VPLFC50-5B⑥⑦-4J⑩				ø5/32	VPLFC50-5B⑥⑦-5/32J⑩	
			ø6	VPLFC50-5B⑥⑦-6J⑩				ø1/4	VPLFC50-5B⑥⑦-1/4J⑩	
		10	ø3	VPLFC50-10B⑥⑦-3J⑩			10	ø1/8	VPLFC50-10B⑥⑦-1/8J⑩	
			ø4	VPLFC50-10B⑥⑦-4J⑩				ø5/32	VPLFC50-10B⑥⑦-5/32J⑩	
			ø6	VPLFC50-10B⑥⑦-6J⑩				ø1/4	VPLFC50-10B⑥⑦-1/4J⑩	
		15	ø3	VPLFC50-15B⑥⑦-3J⑩			15	ø1/8	VPLFC50-15B⑥⑦-1/8J⑩	
			ø4	VPLFC50-15B⑥⑦-4J⑩				ø5/32	VPLFC50-15B⑥⑦-5/32J⑩	
			ø6	VPLFC50-15B⑥⑦-6J⑩				ø1/4	VPLFC50-15B⑥⑦-1/4J⑩	
		20	ø3	VPLFC50-20B⑥⑦-3J⑩			20	ø1/8	VPLFC50-20B⑥⑦-1/8J⑩	
			ø4	VPLFC50-20B⑥⑦-4J⑩				ø5/32	VPLFC50-20B⑥⑦-5/32J⑩	
			ø6	VPLFC50-20B⑥⑦-6J⑩				ø1/4	VPLFC50-20B⑥⑦-1/4J⑩	

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. Code
Spring type, Top port, Female thread, Low dust emission **VPLFC**	ø6	2	M5×0.8	VPLFC6-2B⑥⑦-M5*2	T8
		5	M5×0.8	VPLFC6-5B⑥⑦-M5⑩*2	
		10	M5×0.8	VPLFC6-10B⑥⑦-M5⑩*2	
		15	M5×0.8	VPLFC6-15B⑥⑦-M5⑩*2	
		20	M5×0.8	VPLFC6-20B⑥⑦-M5⑩*2	
	ø8	2	M5×0.8	VPLFC8-2B⑥⑦-M5*2	
		5	M5×0.8	VPLFC8-5B⑥⑦-M5⑩*2	
		10	M5×0.8	VPLFC8-10B⑥⑦-M5⑩*2	
		15	M5×0.8	VPLFC8-15B⑥⑦-M5⑩*2	
		20	M5×0.8	VPLFC8-20B⑥⑦-M5⑩*2	
	ø10	2	M5×0.8	VPLFC10-2B⑥⑦-M5⑨*3	M4
		5	M5×0.8	VPLFC10-5B⑥⑦-M5⑨⑩*3	
		10	M5×0.8	VPLFC10-10B⑥⑦-M5⑨⑩*3	
		15	M5×0.8	VPLFC10-15B⑥⑦-M5⑨⑩*3	
		20	M5×0.8	VPLFC10-20B⑥⑦-M5⑨⑩*3	
	ø15	2	M5×0.8	VPLFC15-2B⑥⑦-M5⑨*4	
		5	M5×0.8	VPLFC15-5B⑥⑦-M5⑨⑩*4	
		10	M5×0.8	VPLFC15-10B⑥⑦-M5⑨⑩*4	
		15	M5×0.8	VPLFC15-15B⑥⑦-M5⑨⑩*4	
		20	M5×0.8	VPLFC15-20B⑥⑦-M5⑨⑩*4	
	ø20	5	M6×1	VPLFC20-5B⑥⑦-M6⑨⑩	M6
		10	M6×1	VPLFC20-10B⑥⑦-M6⑨⑩	
		15	M6×1	VPLFC20-15B⑥⑦-M6⑨⑩	
		20	M6×1	VPLFC20-20B⑥⑦-M6⑨⑩	
	ø25	5	M6×1	VPLFC25-5B⑥⑦-M6⑨⑩	
		10	M6×1	VPLFC25-10B⑥⑦-M6⑨⑩	
		15	M6×1	VPLFC25-15B⑥⑦-M6⑨⑩	
		20	M6×1	VPLFC25-20B⑥⑦-M6⑨⑩	
	ø30	5	M6×1	VPLFC30-5B⑥⑦-M6⑨⑩	
		10	M6×1	VPLFC30-10B⑥⑦-M6⑨⑩	
		15	M6×1	VPLFC30-15B⑥⑦-M6⑨⑩	
		20	M6×1	VPLFC30-20B⑥⑦-M6⑨⑩	
	ø40	5	M6×1	VPLFC40-5B⑥⑦-M6⑩	
		10	M6×1	VPLFC40-10B⑥⑦-M6⑩	
		15	M6×1	VPLFC40-15B⑥⑦-M6⑩	
		20	M6×1	VPLFC40-20B⑥⑦-M6⑩	
	ø50	5	M6×1	VPLFC50-5B⑥⑦-M6⑩	
		10	M6×1	VPLFC50-10B⑥⑦-M6⑩	
		15	M6×1	VPLFC50-15B⑥⑦-M6⑩	
		20	M6×1	VPLFC50-20B⑥⑦-M6⑩	

Notes

*1. Barb fitting type holders are also selectable. Contact us for the details.
*2. Extra soft silicone (YS2/YS4) is not available.
*3. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.
*4. Extra soft silicone hardness 20° type (YS2) is available only when Fluoro-coating treatment is selected.

Packaging specifications

1 pc. /bag

Options

⑦ : Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⑨ : Resin attachment
⑩ : -SF1/4 ⇒ Spring load 1/4

Optional items ⇒ P.556

Surface treatment
Resin attachment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	⑭ : -S3 -S3 spec.	Connection config. Code	Pad dia. (mm)	Tube O.D. (inch)	Model code	⑭ : -S3 -S3 spec.	Connection config. Code
Spring type, Side port, Push-in fitting, Mini **VPMD** Pad dia. ø 8mm or smaller Stroke 2mm Pad dia. ø 10mm or larger Stroke 4mm	ø6	ø3	VPMD6-2B⑥⑦-3J *2	—	T8	ø6	ø1/8	VPMD6-2B⑥⑦-1/8J⑭ *2	○	T8
		ø4	VPMD6-2B⑥⑦-4J⑭ *2	○			ø5/32	VPMD6-2B⑥⑦-5/32J⑭ *2	○	
	ø8	ø3	VPMD8-2B⑥⑦-3J *2	—		ø8	ø1/8	VPMD8-2B⑥⑦-1/8J⑭ *2	○	
		ø4	VPMD8-2B⑥⑦-4J⑭ *2	○			ø5/32	VPMD8-2B⑥⑦-5/32J⑭ *2	○	
	ø10	ø3	VPMD10-4B⑥⑦-3J⑨ *3	—	M4	ø10	ø1/8	VPMD10-4B⑥⑦-1/8J⑨ *3	—	M4
		ø4	VPMD10-4B⑥⑦-4J⑨⑭ *3	○			ø5/32	VPMD10-4B⑥⑦-5/32J⑨⑭ *3	○	
		ø6	VPMD10-4B⑥⑦-6J⑨⑭ *3	○			ø1/4	VPMD10-4B⑥⑦-1/4J⑨ *3	—	
	ø15	ø3	VPMD15-4B⑥⑦-3J⑨ *4	—		ø15	ø1/8	VPMD15-4B⑥⑦-1/8J⑨ *4	—	
		ø4	VPMD15-4B⑥⑦-4J⑨⑭ *4	○			ø5/32	VPMD15-4B⑥⑦-5/32J⑨⑭ *4	○	
		ø6	VPMD15-4B⑥⑦-6J⑨⑭ *4	○			ø1/4	VPMD15-4B⑥⑦-1/4J⑨ *4	—	
	ø20	ø3	VPMD20-4B⑥⑦-3J⑨	—	M6	ø20	ø1/8	VPMD20-4B⑥⑦-1/8J⑨	—	M6
		ø4	VPMD20-4B⑥⑦-4J⑨⑭	○			ø5/32	VPMD20-4B⑥⑦-5/32J⑨⑭	○	
		ø6	VPMD20-4B⑥⑦-6J⑨⑭	○			ø1/4	VPMD20-4B⑥⑦-1/4J⑨	—	
	ø25	ø3	VPMD25-4B⑥⑦-3J⑨	—		ø25	ø1/8	VPMD25-4B⑥⑦-1/8J⑨	—	
		ø4	VPMD25-4B⑥⑦-4J⑨⑭	○			ø5/32	VPMD25-4B⑥⑦-5/32J⑨⑭	○	
		ø6	VPMD25-4B⑥⑦-6J⑨⑭	○			ø1/4	VPMD25-4B⑥⑦-1/4J⑨	—	
	ø30	ø3	VPMD30-4B⑥⑦-3J⑨	—		ø30	ø1/8	VPMD30-4B⑥⑦-1/8J⑨	—	
		ø4	VPMD30-4B⑥⑦-4J⑨⑭	○			ø5/32	VPMD30-4B⑥⑦-5/32J⑨⑭	○	
		ø6	VPMD30-4B⑥⑦-6J⑨⑭	○			ø1/4	VPMD30-4B⑥⑦-1/4J⑨	—	
	ø40	ø3	VPMD40-4B⑥⑦-3J	—		ø40	ø1/8	VPMD40-4B⑥⑦-1/8J	—	
		ø4	VPMD40-4B⑥⑦-4J⑭	○			ø5/32	VPMD40-4B⑥⑦-5/32J⑭	○	
		ø6	VPMD40-4B⑥⑦-6J⑭	○			ø1/4	VPMD40-4B⑥⑦-1/4J	—	
	ø50	ø3	VPMD50-4B⑥⑦-3J	—		ø50	ø1/8	VPMD50-4B⑥⑦-1/8J	—	
		ø4	VPMD50-4B⑥⑦-4J⑭	○			ø5/32	VPMD50-4B⑥⑦-5/32J⑭	○	
		ø6	VPMD50-4B⑥⑦-6J⑭	○			ø1/4	VPMD50-4B⑥⑦-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	⑭ : -S3 -S3 spec.	Connection config. Code
Spring type, Side port, Female thread, Mini **VPMD** Pad dia. ø 8mm or smaller Stroke 2mm Pad dia. ø 10mm or larger Stroke 4mm	ø6	M3×0.5	VPMD6-2B⑥⑦-M3⑭ *2	○	T8
	ø8	M3×0.5	VPMD8-2B⑥⑦-M3⑭ *2	○	
	ø10	M5×0.8	VPMD10-4B⑥⑦-M5⑨⑭ *3	○	M4
	ø15	M5×0.8	VPMD15-4B⑥⑦-M5⑨⑭ *4	○	
	ø20	M5×0.8	VPMD20-4B⑥⑦-M5⑨⑭	○	M6
	ø25	M5×0.8	VPMD25-4B⑥⑦-M5⑨⑭	○	
	ø30	M5×0.8	VPMD30-4B⑥⑦-M5⑨⑭	○	
	ø40	M5×0.8	VPMD40-4B⑥⑦-M5⑭	○	
	ø50	M5×0.8	VPMD50-4B⑥⑦-M5⑭	○	

Notes

*1. Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.
*2. Extra soft silicone (YS2/YS4) is not available.
*3. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.
*4. Extra soft silicone hardness 20° type (YS2) is available only when Fluoro-coating treatment is selected.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
⑦ : Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⑨ : Resin attachment
⑭ : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.556

Surface treatment
Resin attachment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	14 : -S3 -S3 spec.	Connection config. Code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	14 : -S3 -S3 spec.	Connection config. Code
Spring type, Side port, Push-in fitting, Standard VPD Pad dia. ø2 mm to ø8 mm	ø2	3	ø3	VPD2-3B6-3J10 *2	—	H3	ø2	3	ø1/8	VPD2-3B6-1/8J10 *2	—	H3
			ø4	VPD2-3B6-4J1014 *2	○				ø5/32	VPD2-3B6-5/32J1014 *2	○	
			ø6	VPD2-3B6-6J1014 *2	○				ø1/4	VPD2-3B6-1/4J10 *2	—	
		10	ø3	VPD2-10B6-3J10 *2	—			10	ø1/8	VPD2-10B6-1/8J10 *2	—	
			ø4	VPD2-10B6-4J10 *2					ø5/32	VPD2-10B6-5/32J10 *2		
			ø6	VPD2-10B6-6J10 *2					ø1/4	VPD2-10B6-1/4J10 *2		
		15	ø3	VPD2-15B6-3J10 *2	—			15	ø1/8	VPD2-15B6-1/8J10 *2	—	
			ø4	VPD2-15B6-4J10 *2					ø5/32	VPD2-15B6-5/32J10 *2		
			ø6	VPD2-15B6-6J10 *2					ø1/4	VPD2-15B6-1/4J10 *2		
		20	ø3	VPD2-20B6-3J10 *2	—			20	ø1/8	VPD2-20B6-1/8J10 *2	—	
			ø4	VPD2-20B6-4J10 *2					ø5/32	VPD2-20B6-5/32J10 *2		
			ø6	VPD2-20B6-6J10 *2					ø1/4	VPD2-20B6-1/4J10 *2		
	ø4	3	ø3	VPD4-3B6-3J10 *3	—		ø4	3	ø1/8	VPD4-3B6-1/8J10 *3	—	
			ø4	VPD4-3B6-4J1014 *3	○				ø5/32	VPD4-3B6-5/32J1014 *3	○	
			ø6	VPD4-3B6-6J1014 *3	○				ø1/4	VPD4-3B6-1/4J10 *3	—	
		10	ø3	VPD4-10B6-3J10 *3	—			10	ø1/8	VPD4-10B6-1/8J10 *3	—	
			ø4	VPD4-10B6-4J10 *3					ø5/32	VPD4-10B6-5/32J10 *3		
			ø6	VPD4-10B6-6J10 *3					ø1/4	VPD4-10B6-1/4J10 *3		
		15	ø3	VPD4-15B6-3J10 *3	—			15	ø1/8	VPD4-15B6-1/8J10 *3	—	
			ø4	VPD4-15B6-4J10 *3					ø5/32	VPD4-15B6-5/32J10 *3		
			ø6	VPD4-15B6-6J10 *3					ø1/4	VPD4-15B6-1/4J10 *3		
		20	ø3	VPD4-20B6-3J10 *3	—			20	ø1/8	VPD4-20B6-1/8J10 *3	—	
			ø4	VPD4-20B6-4J10 *3					ø5/32	VPD4-20B6-5/32J10 *3		
			ø6	VPD4-20B6-6J10 *3					ø1/4	VPD4-20B6-1/4J10 *3		
	ø6	3	ø3	VPD6-3B67-3J10 *4	—	T8	ø6	3	ø1/8	VPD6-3B67-1/8J10 *4	—	T8
			ø4	VPD6-3B67-4J1014 *4	○				ø5/32	VPD6-3B67-5/32J1014 *4	○	
			ø6	VPD6-3B67-6J1014 *4	○				ø1/4	VPD6-3B67-1/4J10 *4	—	
		10	ø3	VPD6-10B67-3J10 *4	—			10	ø1/8	VPD6-10B67-1/8J10 *4	—	
			ø4	VPD6-10B67-4J10 *4					ø5/32	VPD6-10B67-5/32J10 *4		
			ø6	VPD6-10B67-6J10 *4					ø1/4	VPD6-10B67-1/4J10 *4		
		15	ø3	VPD6-15B67-3J10 *4	—			15	ø1/8	VPD6-15B67-1/8J10 *4	—	
			ø4	VPD6-15B67-4J10 *4					ø5/32	VPD6-15B67-5/32J10 *4		
			ø6	VPD6-15B67-6J10 *4					ø1/4	VPD6-15B67-1/4J10 *4		
		20	ø3	VPD6-20B67-3J10 *4	—			20	ø1/8	VPD6-20B67-1/8J10 *4	—	
			ø4	VPD6-20B67-4J10 *4					ø5/32	VPD6-20B67-5/32J10 *4		
			ø6	VPD6-20B67-6J10 *4					ø1/4	VPD6-20B67-1/4J10 *4		
	ø8	3	ø3	VPD8-3B67-3J10 *4	—		ø8	3	ø1/8	VPD8-3B67-1/8J10 *4	—	
			ø4	VPD8-3B67-4J1014 *4	○				ø5/32	VPD8-3B67-5/32J1014 *4	○	
			ø6	VPD8-3B67-6J1014 *4	○				ø1/4	VPD8-3B67-1/4J10 *4	—	
		10	ø3	VPD8-10B67-3J10 *4	—			10	ø1/8	VPD8-10B67-1/8J10 *4	—	
			ø4	VPD8-10B67-4J10 *4					ø5/32	VPD8-10B67-5/32J10 *4		
			ø6	VPD8-10B67-6J10 *4					ø1/4	VPD8-10B67-1/4J10 *4		
		15	ø3	VPD8-15B67-3J10 *4	—			15	ø1/8	VPD8-15B67-1/8J10 *4	—	
			ø4	VPD8-15B67-4J10 *4					ø5/32	VPD8-15B67-5/32J10 *4		
			ø6	VPD8-15B67-6J10 *4					ø1/4	VPD8-15B67-1/4J10 *4		
		20	ø3	VPD8-20B67-3J10 *4	—			20	ø1/8	VPD8-20B67-1/8J10 *4	—	
			ø4	VPD8-20B67-4J10 *4					ø5/32	VPD8-20B67-5/32J10 *4		
			ø6	VPD8-20B67-6J10 *4					ø1/4	VPD8-20B67-1/4J10 *4		

Notes
*1. Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.
*2. Pad rubber material is available only for Nitrile (N) and Silicone (S).
*3. Pad rubber material is available only for Nitrile (N), Silicone (S) and Conductive Silicone (SE).
*4. Extra soft silicone (YS2/YS4) is not available.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
7 : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
9 : Resin attachment
10 : -DC ⇒ Holder with dust catcher
14 : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.556
Surface treatment
Dust Catcher (VPD)

Vacuum Pad Bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	⑭ : -S3 -S3 spec.	Connection config. Code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	⑭ : -S3 -S3 spec.	Connection config. Code
Spring type, Side port, Push-in fitting, Standard VPD Pad dia. ø10 mm to ø25 mm	ø10	6	ø3	VPD10-6B⑥⑦-3J⑨⑩ *2	—	M4	ø10	6	ø1/8	VPD10-6B⑥⑦-1/8J⑨⑩ *2	—	M4
			ø4	VPD10-6B⑥⑦-4J⑨⑩⑭ *2	○				ø5/32	VPD10-6B⑥⑦-5/32J⑨⑩⑭ *2	○	
			ø6	VPD10-6B⑥⑦-6J⑨⑩⑭ *2	○				ø1/4	VPD10-6B⑥⑦-1/4J⑨⑩ *2	—	
		10	ø3	VPD10-10B⑥⑦-3J⑨⑩ *2	—			10	ø1/8	VPD10-10B⑥⑦-1/8J⑨⑩ *2	—	
			ø4	VPD10-10B⑥⑦-4J⑨⑩ *2					ø5/32	VPD10-10B⑥⑦-5/32J⑨⑩ *2		
			ø6	VPD10-10B⑥⑦-6J⑨⑩ *2					ø1/4	VPD10-10B⑥⑦-1/4J⑨⑩ *2		
		15	ø3	VPD10-15B⑥⑦-3J⑨⑩ *2	—			15	ø1/8	VPD10-15B⑥⑦-1/8J⑨⑩ *2	—	
			ø4	VPD10-15B⑥⑦-4J⑨⑩ *2					ø5/32	VPD10-15B⑥⑦-5/32J⑨⑩ *2		
			ø6	VPD10-15B⑥⑦-6J⑨⑩ *2					ø1/4	VPD10-15B⑥⑦-1/4J⑨⑩ *2		
		20	ø3	VPD10-20B⑥⑦-3J⑨⑩ *2	—			20	ø1/8	VPD10-20B⑥⑦-1/8J⑨⑩ *2	—	
			ø4	VPD10-20B⑥⑦-4J⑨⑩ *2					ø5/32	VPD10-20B⑥⑦-5/32J⑨⑩ *2		
			ø6	VPD10-20B⑥⑦-6J⑨⑩ *2					ø1/4	VPD10-20B⑥⑦-1/4J⑨⑩ *2		
	ø15	6	ø3	VPD15-6B⑥⑦-3J⑨⑩ *3	—		ø15	6	ø1/8	VPD15-6B⑥⑦-1/8J⑨⑩ *3	—	
			ø4	VPD15-6B⑥⑦-4J⑨⑩⑭ *3	○				ø5/32	VPD15-6B⑥⑦-5/32J⑨⑩⑭ *3	○	
			ø6	VPD15-6B⑥⑦-6J⑨⑩⑭ *3	○				ø1/4	VPD15-6B⑥⑦-1/4J⑨⑩ *3	—	
		10	ø3	VPD15-10B⑥⑦-3J⑨⑩ *3	—			10	ø1/8	VPD15-10B⑥⑦-1/8J⑨⑩ *3	—	
			ø4	VPD15-10B⑥⑦-4J⑨⑩ *3					ø5/32	VPD15-10B⑥⑦-5/32J⑨⑩ *3		
			ø6	VPD15-10B⑥⑦-6J⑨⑩ *3					ø1/4	VPD15-10B⑥⑦-1/4J⑨⑩ *3		
		15	ø3	VPD15-15B⑥⑦-3J⑨⑩ *3	—			15	ø1/8	VPD15-15B⑥⑦-1/8J⑨⑩ *3	—	
			ø4	VPD15-15B⑥⑦-4J⑨⑩ *3					ø5/32	VPD15-15B⑥⑦-5/32J⑨⑩ *3		
			ø6	VPD15-15B⑥⑦-6J⑨⑩ *3					ø1/4	VPD15-15B⑥⑦-1/4J⑨⑩ *3		
		20	ø3	VPD15-20B⑥⑦-3J⑨⑩ *3	—			20	ø1/8	VPD15-20B⑥⑦-1/8J⑨⑩ *3	—	
			ø4	VPD15-20B⑥⑦-4J⑨⑩ *3					ø5/32	VPD15-20B⑥⑦-5/32J⑨⑩ *3		
			ø6	VPD15-20B⑥⑦-6J⑨⑩ *3					ø1/4	VPD15-20B⑥⑦-1/4J⑨⑩ *3		
	ø20	6	ø3	VPD20-6B⑥⑦-3J⑨⑩	—	M6	ø20	6	ø1/8	VPD20-6B⑥⑦-1/8J⑨⑩	—	M6
			ø4	VPD20-6B⑥⑦-4J⑨⑩⑭	○				ø5/32	VPD20-6B⑥⑦-5/32J⑨⑩⑭	○	
			ø6	VPD20-6B⑥⑦-6J⑨⑩⑭	○				ø1/4	VPD20-6B⑥⑦-1/4J⑨⑩	—	
		10	ø3	VPD20-10B⑥⑦-3J⑨⑩	—			10	ø1/8	VPD20-10B⑥⑦-1/8J⑨⑩	—	
			ø4	VPD20-10B⑥⑦-4J⑨⑩					ø5/32	VPD20-10B⑥⑦-5/32J⑨⑩		
			ø6	VPD20-10B⑥⑦-6J⑨⑩					ø1/4	VPD20-10B⑥⑦-1/4J⑨⑩		
		15	ø3	VPD20-15B⑥⑦-3J⑨⑩	—			15	ø1/8	VPD20-15B⑥⑦-1/8J⑨⑩	—	
			ø4	VPD20-15B⑥⑦-4J⑨⑩					ø5/32	VPD20-15B⑥⑦-5/32J⑨⑩		
			ø6	VPD20-15B⑥⑦-6J⑨⑩					ø1/4	VPD20-15B⑥⑦-1/4J⑨⑩		
		20	ø3	VPD20-20B⑥⑦-3J⑨⑩	—			20	ø1/8	VPD20-20B⑥⑦-1/8J⑨⑩	—	
			ø4	VPD20-20B⑥⑦-4J⑨⑩					ø5/32	VPD20-20B⑥⑦-5/32J⑨⑩		
			ø6	VPD20-20B⑥⑦-6J⑨⑩					ø1/4	VPD20-20B⑥⑦-1/4J⑨⑩		
	ø25	6	ø3	VPD25-6B⑥⑦-3J⑨⑩	—		ø25	6	ø1/8	VPD25-6B⑥⑦-1/8J⑨⑩	—	
			ø4	VPD25-6B⑥⑦-4J⑨⑩⑭	○				ø5/32	VPD25-6B⑥⑦-5/32J⑨⑩⑭	○	
			ø6	VPD25-6B⑥⑦-6J⑨⑩⑭	○				ø1/4	VPD25-6B⑥⑦-1/4J⑨⑩	—	
		10	ø3	VPD25-10B⑥⑦-3J⑨⑩	—			10	ø1/8	VPD25-10B⑥⑦-1/8J⑨⑩	—	
			ø4	VPD25-10B⑥⑦-4J⑨⑩					ø5/32	VPD25-10B⑥⑦-5/32J⑨⑩		
			ø6	VPD25-10B⑥⑦-6J⑨⑩					ø1/4	VPD25-10B⑥⑦-1/4J⑨⑩		
		15	ø3	VPD25-15B⑥⑦-3J⑨⑩	—			15	ø1/8	VPD25-15B⑥⑦-1/8J⑨⑩	—	
			ø4	VPD25-15B⑥⑦-4J⑨⑩					ø5/32	VPD25-15B⑥⑦-5/32J⑨⑩		
			ø6	VPD25-15B⑥⑦-6J⑨⑩					ø1/4	VPD25-15B⑥⑦-1/4J⑨⑩		
		20	ø3	VPD25-20B⑥⑦-3J⑨⑩	—			20	ø1/8	VPD25-20B⑥⑦-1/8J⑨⑩	—	
			ø4	VPD25-20B⑥⑦-4J⑨⑩					ø5/32	VPD25-20B⑥⑦-5/32J⑨⑩		
			ø6	VPD25-20B⑥⑦-6J⑨⑩					ø1/4	VPD25-20B⑥⑦-1/4J⑨⑩		

Notes

*1. Barb fitting type holders are also selectable. Contact us for the details.
*2. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.
*3. Extra soft silicone hardness 20° type (YS2) is available only when Fluoro-coating treatment is selected.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options

⑦ : Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⑨ : Resin attachment
⑩ : -DC ⇒ Holder with dust catcher
⑭ : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.556

Surface treatment
Resin attachment
Dust Catcher (VPD)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	⑭ : -S3 -S3 spec.	Connection config. Code
Spring type, Side port, Push-in fitting, Standard VPD Pad dia. ø30 mm to ø100 mm	ø30	6	ø3	VPD30-6B⑥⑦-3J⑨⑩	—	M6
			ø4	VPD30-6B⑥⑦-4J⑨⑩⑭	○	
			ø6	VPD30-6B⑥⑦-6J⑨⑩⑭	○	
		10	ø3	VPD30-10B⑥⑦-3J⑨⑩	—	
			ø4	VPD30-10B⑥⑦-4J⑨⑩		
			ø6	VPD30-10B⑥⑦-6J⑨⑩		
		15	ø3	VPD30-15B⑥⑦-3J⑨⑩	—	
			ø4	VPD30-15B⑥⑦-4J⑨⑩		
			ø6	VPD30-15B⑥⑦-6J⑨⑩		
		20	ø3	VPD30-20B⑥⑦-3J⑨⑩	—	
			ø4	VPD30-20B⑥⑦-4J⑨⑩		
			ø6	VPD30-20B⑥⑦-6J⑨⑩		
	ø40	6	ø3	VPD40-6B⑥⑦-3J⑩	—	
			ø4	VPD40-6B⑥⑦-4J⑩⑭	○	
			ø6	VPD40-6B⑥⑦-6J⑩⑭	○	
		10	ø3	VPD40-10B⑥⑦-3J⑩	—	
			ø4	VPD40-10B⑥⑦-4J⑩		
			ø6	VPD40-10B⑥⑦-6J⑩		
		15	ø3	VPD40-15B⑥⑦-3J⑩	—	
			ø4	VPD40-15B⑥⑦-4J⑩		
			ø6	VPD40-15B⑥⑦-6J⑩		
		20	ø3	VPD40-20B⑥⑦-3J⑩	—	
			ø4	VPD40-20B⑥⑦-4J⑩		
			ø6	VPD40-20B⑥⑦-6J⑩		
	ø50	6	ø3	VPD50-6B⑥⑦-3J⑩	—	
			ø4	VPD50-6B⑥⑦-4J⑩⑭	○	
			ø6	VPD50-6B⑥⑦-6J⑩⑭	○	
		10	ø3	VPD50-10B⑥⑦-3J⑩	—	
			ø4	VPD50-10B⑥⑦-4J⑩		
			ø6	VPD50-10B⑥⑦-6J⑩		
		15	ø3	VPD50-15B⑥⑦-3J⑩	—	
			ø4	VPD50-15B⑥⑦-4J⑩		
			ø6	VPD50-15B⑥⑦-6J⑩		
		20	ø3	VPD50-20B⑥⑦-3J⑩	—	
			ø4	VPD50-20B⑥⑦-4J⑩		
			ø6	VPD50-20B⑥⑦-6J⑩		
	ø60	10	ø4	VPD60-10B⑥⑦-4J⑩ *2	—	M10
			ø6	VPD60-10B⑥⑦-6J⑩ *2		
			ø8	VPD60-10B⑥⑦-8J⑩ *2		
	ø80	10	ø4	VPD80-10B⑥⑦-4J⑩ *2	—	
			ø6	VPD80-10B⑥⑦-6J⑩ *2		
			ø8	VPD80-10B⑥⑦-8J⑩ *2		
	ø100	10	ø4	VPD100-10B⑥⑦-4J⑩ *2	—	
			ø6	VPD100-10B⑥⑦-6J⑩ *2		
			ø8	VPD100-10B⑥⑦-8J⑩ *2		

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	⑭ : -S3 -S3 spec.	Connection config. Code
	ø30	6	ø1/8	VPD30-6B⑥⑦-1/8J⑨⑩	—	M6
			ø5/32	VPD30-6B⑥⑦-5/32J⑨⑩⑭	○	
			ø1/4	VPD30-6B⑥⑦-1/4J⑨⑩	—	
		10	ø1/8	VPD30-10B⑥⑦-1/8J⑨⑩	—	
			ø5/32	VPD30-10B⑥⑦-5/32J⑨⑩		
			ø1/4	VPD30-10B⑥⑦-1/4J⑨⑩		
		15	ø1/8	VPD30-15B⑥⑦-1/8J⑨⑩	—	
			ø5/32	VPD30-15B⑥⑦-5/32J⑨⑩		
			ø1/4	VPD30-15B⑥⑦-1/4J⑨⑩		
		20	ø1/8	VPD30-20B⑥⑦-1/8J⑨⑩	—	
			ø5/32	VPD30-20B⑥⑦-5/32J⑨⑩		
			ø1/4	VPD30-20B⑥⑦-1/4J⑨⑩		
	ø40	6	ø1/8	VPD40-6B⑥⑦-1/8J⑩	—	
			ø5/32	VPD40-6B⑥⑦-5/32J⑩⑭	○	
			ø1/4	VPD40-6B⑥⑦-1/4J⑩	—	
		10	ø1/8	VPD40-10B⑥⑦-1/8J⑩	—	
			ø5/32	VPD40-10B⑥⑦-5/32J⑩		
			ø1/4	VPD40-10B⑥⑦-1/4J⑩		
		15	ø1/8	VPD40-15B⑥⑦-1/8J⑩	—	
			ø5/32	VPD40-15B⑥⑦-5/32J⑩		
			ø1/4	VPD40-15B⑥⑦-1/4J⑩		
		20	ø1/8	VPD40-20B⑥⑦-1/8J⑩	—	
			ø5/32	VPD40-20B⑥⑦-5/32J⑩		
			ø1/4	VPD40-20B⑥⑦-1/4J⑩		
	ø50	6	ø1/8	VPD50-6B⑥⑦-1/8J⑩	—	
			ø5/32	VPD50-6B⑥⑦-5/32J⑩⑭	○	
			ø1/4	VPD50-6B⑥⑦-1/4J⑩	—	
		10	ø1/8	VPD50-10B⑥⑦-1/8J⑩	—	
			ø5/32	VPD50-10B⑥⑦-5/32J⑩		
			ø1/4	VPD50-10B⑥⑦-1/4J⑩		
		15	ø1/8	VPD50-15B⑥⑦-1/8J⑩	—	
			ø5/32	VPD50-15B⑥⑦-5/32J⑩		
			ø1/4	VPD50-15B⑥⑦-1/4J⑩		
		20	ø1/8	VPD50-20B⑥⑦-1/8J⑩	—	
			ø5/32	VPD50-20B⑥⑦-5/32J⑩		
			ø1/4	VPD50-20B⑥⑦-1/4J⑩		
	ø60	10	ø1/8	VPD60-10B⑥⑦-1/8J⑩ *2	—	M10
			ø5/32	VPD60-10B⑥⑦-5/32J⑩ *2		
			ø3/16	VPD60-10B⑥⑦-3/16J⑩ *2		
			ø1/4	VPD60-10B⑥⑦-1/4J⑩ *2		
			ø5/16	VPD60-10B⑥⑦-5/16J⑩ *2		
			ø3/8	VPD60-10B⑥⑦-3/8J⑩ *2		
	ø80	10	ø1/8	VPD80-10B⑥⑦-1/8J⑩ *2	—	
			ø5/32	VPD80-10B⑥⑦-5/32J⑩ *2		
			ø3/16	VPD80-10B⑥⑦-3/16J⑩ *2		
			ø1/4	VPD80-10B⑥⑦-1/4J⑩ *2		
			ø5/16	VPD80-10B⑥⑦-5/16J⑩ *2	——	
			ø3/8	VPD80-10B⑥⑦-3/8J⑩ *2		
	ø100	10	ø1/8	VPD100-10B⑥⑦-1/8J⑩ *2	—	
			ø5/32	VPD100-10B⑥⑦-5/32J⑩ *2		
			ø3/16	VPD100-10B⑥⑦-3/16J⑩ *2		
			ø1/4	VPD100-10B⑥⑦-1/4J⑩ *2	—	
			ø5/16	VPD100-10B⑥⑦-5/16J⑩ *2	—	
			ø3/8	VPD100-10B⑥⑦-3/8J⑩ *2	—	

Notes
*1. Barb fitting type holders are also selectable. Contact us for the details.
*2. Extra soft silicone (YS2/YS4) is not available.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
⑦ : Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⑨ : Resin attachment
⑩ : -DC ⇒ Holder with dust catcher
⑭ : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.556
Surface treatment
Resin attachment
Dust Catcher (VPD)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	⑭ : -S3 -S3 spec.	Connection config. Code
Spring type, Side port, Female thread, Standard VPD	ø2	3	M5×0.8	VPD2-3B⑥-M5⑩⑭ *1	○	H3
		10		VPD2-10B⑥-M5⑩ *1	—	
		15		VPD2-15B⑥-M5⑩ *1	—	
		20		VPD2-20B⑥-M5⑩ *1	—	
	ø4	3	M5×0.8	VPD4-3B⑥-M5⑩⑭ *2	○	
		10		VPD4-10B⑥-M5⑩ *2	—	
		15		VPD4-15B⑥-M5⑩ *2	—	
		20		VPD4-20B⑥-M5⑩ *2	—	
	ø6	3	M5×0.8	VPD6-3B⑥⑦-M5⑩⑭ *3	○	T8
		10		VPD6-10B⑥⑦-M5⑩ *3	—	
		15		VPD6-15B⑥⑦-M5⑩ *3	—	
		20		VPD6-20B⑥⑦-M5⑩ *3	—	
	ø8	3	M5×0.8	VPD8-3B⑥⑦-M5⑩⑭ *3	○	
		10		VPD8-10B⑥⑦-M5⑩ *3	—	
		15		VPD8-15B⑥⑦-M5⑩ *3	—	
		20		VPD8-20B⑥⑦-M5⑩ *3	—	
	ø10	6	M6×1	VPD10-6B⑥⑦-M6⑨⑩⑭ *4	○	M4
		10		VPD10-10B⑥⑦-M6⑨⑩ *4	—	
		15		VPD10-15B⑥⑦-M6⑨⑩ *4	—	
		20		VPD10-20B⑥⑦-M6⑨⑩ *4	—	
	ø15	6	M6×1	VPD15-6B⑥⑦-M6⑨⑩⑭ *5	○	
		10		VPD15-10B⑥⑦-M6⑨⑩ *5	—	
		15		VPD15-15B⑥⑦-M6⑨⑩ *5	—	
		20		VPD15-20B⑥⑦-M6⑨⑩ *5	—	
	ø20	6	M6×1	VPD20-6B⑥⑦-M6⑨⑩⑭	○	M6
		10		VPD20-10B⑥⑦-M6⑨⑩	—	
		15		VPD20-15B⑥⑦-M6⑨⑩	—	
		20		VPD20-20B⑥⑦-M6⑨⑩	—	
	ø25	6	M6×1	VPD25-6B⑥⑦-M6⑨⑩⑭	○	
		10		VPD25-10B⑥⑦-M6⑨⑩	—	
		15		VPD25-15B⑥⑦-M6⑨⑩	—	
		20		VPD25-20B⑥⑦-M6⑨⑩	—	
	ø30	6	M6×1	VPD30-6B⑥⑦-M6⑨⑩⑭	○	
		10		VPD30-10B⑥⑦-M6⑨⑩	—	
		15		VPD30-15B⑥⑦-M6⑨⑩	—	
		20		VPD30-20B⑥⑦-M6⑨⑩	—	
	ø40	6	M6×1	VPD40-6B⑥⑦-M6⑩⑭	○	
		10		VPD40-10B⑥⑦-M6⑩	—	
		15		VPD40-15B⑥⑦-M6⑩	—	
		20		VPD40-20B⑥⑦-M6⑩	—	
	ø50	6	M6×1	VPD50-6B⑥⑦-M6⑩⑭	○	
		10		VPD50-10B⑥⑦-M6⑩	—	
		15		VPD50-15B⑥⑦-M6⑩	—	
		20		VPD50-20B⑥⑦-M6⑩	—	
	ø60	10	G1/8	VPD60-10B⑥⑦-G1⑩⑭ *3	○	M10
	ø80	10	G1/8	VPD80-10B⑥⑦-G1⑩⑭ *3	○	
	ø100	10	G1/8	VPD100-10B⑥⑦-G1⑩⑭ *3	○	

Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	⑭ : -S3 -S3 spec.	Connection config. Code
ø60	10	NPT1/8	VPD60-10B⑥⑦-N1⑩ *3	—	M10
ø80	10	NPT1/8	VPD80-10B⑥⑦-N1⑩ *3	—	
ø100	10	NPT1/8	VPD100-10B⑥⑦-N1⑩ *3	—	

Notes
*1. Pad rubber material is available only for Nitrile (N) and Silicone (S).
*2. Pad rubber material is available only for Nitrile (N), Silicone (S) and Conductive Silicone (SE).
*3. Extra soft silicone (YS2/YS4) is not available.
*4. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.
*5. Extra soft silicone hardness 20° type (YS2) is available only when Fluoro-coating treatment is selected.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
⑦ : Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⑨ : Resin attachment
⑩ : -DC ⇒ Holder with dust catcher
⑭ : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.556
Surface treatment
Resin attachment
Dust Catcher (VPD)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type, Side port, Push-in fitting, No cover

VPOD

Pad dia. ø6 mm to ø15 mm

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. Code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. Code
Spring type, Side port, Push-in fitting, No cover VPOD	ø6	20	ø3	VPOD6-20B⑥⑦-3J *2	T8	ø6	20	ø1/8	VPOD6-20B⑥⑦-1/8J *2	T8
			ø4	VPOD6-20B⑥⑦-4J *2				ø5/32	VPOD6-20B⑥⑦-5/32J *2	
			ø6	VPOD6-20B⑥⑦-6J *2				ø1/4	VPOD6-20B⑥⑦-1/4J *2	
		30	ø3	VPOD6-30B⑥⑦-3J *2			30	ø1/8	VPOD6-30B⑥⑦-1/8J *2	
			ø4	VPOD6-30B⑥⑦-4J *2				ø5/32	VPOD6-30B⑥⑦-5/32J *2	
			ø6	VPOD6-30B⑥⑦-6J *2				ø1/4	VPOD6-30B⑥⑦-1/4J *2	
		40	ø3	VPOD6-40B⑥⑦-3J *2			40	ø1/8	VPOD6-40B⑥⑦-1/8J *2	
			ø4	VPOD6-40B⑥⑦-4J *2				ø5/32	VPOD6-40B⑥⑦-5/32J *2	
			ø6	VPOD6-40B⑥⑦-6J *2				ø1/4	VPOD6-40B⑥⑦-1/4J *2	
		50	ø3	VPOD6-50B⑥⑦-3J *2			50	ø1/8	VPOD6-50B⑥⑦-1/8J *2	
			ø4	VPOD6-50B⑥⑦-4J *2				ø5/32	VPOD6-50B⑥⑦-5/32J *2	
			ø6	VPOD6-50B⑥⑦-6J *2				ø1/4	VPOD6-50B⑥⑦-1/4J *2	
	ø8	20	ø3	VPOD8-20B⑥⑦-3J *2		ø8	20	ø1/8	VPOD8-20B⑥⑦-1/8J *2	
			ø4	VPOD8-20B⑥⑦-4J *2				ø5/32	VPOD8-20B⑥⑦-5/32J *2	
			ø6	VPOD8-20B⑥⑦-6J *2				ø1/4	VPOD8-20B⑥⑦-1/4J *2	
		30	ø3	VPOD8-30B⑥⑦-3J *2			30	ø1/8	VPOD8-30B⑥⑦-1/8J *2	
			ø4	VPOD8-30B⑥⑦-4J *2				ø5/32	VPOD8-30B⑥⑦-5/32J *2	
			ø6	VPOD8-30B⑥⑦-6J *2				ø1/4	VPOD8-30B⑥⑦-1/4J *2	
		40	ø3	VPOD8-40B⑥⑦-3J *2			40	ø1/8	VPOD8-40B⑥⑦-1/8J *2	
			ø4	VPOD8-40B⑥⑦-4J *2				ø5/32	VPOD8-40B⑥⑦-5/32J *2	
			ø6	VPOD8-40B⑥⑦-6J *2				ø1/4	VPOD8-40B⑥⑦-1/4J *2	
		50	ø3	VPOD8-50B⑥⑦-3J *2			50	ø1/8	VPOD8-50B⑥⑦-1/8J *2	
			ø4	VPOD8-50B⑥⑦-4J *2				ø5/32	VPOD8-50B⑥⑦-5/32J *2	
			ø6	VPOD8-50B⑥⑦-6J *2				ø1/4	VPOD8-50B⑥⑦-1/4J *2	
	ø10	20	ø3	VPOD10-20B⑥⑦-3J⑨ *3	M4	ø10	20	ø1/8	VPOD10-20B⑥⑦-1/8J⑨ *3	M4
			ø4	VPOD10-20B⑥⑦-4J⑨ *3				ø5/32	VPOD10-20B⑥⑦-5/32J⑨ *3	
			ø6	VPOD10-20B⑥⑦-6J⑨ *3				ø1/4	VPOD10-20B⑥⑦-1/4J⑨ *3	
		30	ø3	VPOD10-30B⑥⑦-3J⑨ *3			30	ø1/8	VPOD10-30B⑥⑦-1/8J⑨ *3	
			ø4	VPOD10-30B⑥⑦-4J⑨ *3				ø5/32	VPOD10-30B⑥⑦-5/32J⑨ *3	
			ø6	VPOD10-30B⑥⑦-6J⑨ *3				ø1/4	VPOD10-30B⑥⑦-1/4J⑨ *3	
		40	ø3	VPOD10-40B⑥⑦-3J⑨ *3			40	ø1/8	VPOD10-40B⑥⑦-1/8J⑨ *3	
			ø4	VPOD10-40B⑥⑦-4J⑨ *3				ø5/32	VPOD10-40B⑥⑦-5/32J⑨ *3	
			ø6	VPOD10-40B⑥⑦-6J⑨ *3				ø1/4	VPOD10-40B⑥⑦-1/4J⑨ *3	
		50	ø3	VPOD10-50B⑥⑦-3J⑨ *3			50	ø1/8	VPOD10-50B⑥⑦-1/8J⑨ *3	
			ø4	VPOD10-50B⑥⑦-4J⑨ *3				ø5/32	VPOD10-50B⑥⑦-5/32J⑨ *3	
			ø6	VPOD10-50B⑥⑦-6J⑨ *3				ø1/4	VPOD10-50B⑥⑦-1/4J⑨ *3	
	ø15	20	ø3	VPOD15-20B⑥⑦-3J⑨ *4		ø15	20	ø1/8	VPOD15-20B⑥⑦-1/8J⑨ *4	
			ø4	VPOD15-20B⑥⑦-4J⑨ *4				ø5/32	VPOD15-20B⑥⑦-5/32J⑨ *4	
			ø6	VPOD15-20B⑥⑦-6J⑨ *4				ø1/4	VPOD15-20B⑥⑦-1/4J⑨ *4	
		30	ø3	VPOD15-30B⑥⑦-3J⑨ *4			30	ø1/8	VPOD15-30B⑥⑦-1/8J⑨ *4	
			ø4	VPOD15-30B⑥⑦-4J⑨ *4				ø5/32	VPOD15-30B⑥⑦-5/32J⑨ *4	
			ø6	VPOD15-30B⑥⑦-6J⑨ *4				ø1/4	VPOD15-30B⑥⑦-1/4J⑨ *4	
		40	ø3	VPOD15-40B⑥⑦-3J⑨ *4			40	ø1/8	VPOD15-40B⑥⑦-1/8J⑨ *4	
			ø4	VPOD15-40B⑥⑦-4J⑨ *4				ø5/32	VPOD15-40B⑥⑦-5/32J⑨ *4	
			ø6	VPOD15-40B⑥⑦-6J⑨ *4				ø1/4	VPOD15-40B⑥⑦-1/4J⑨ *4	
		50	ø3	VPOD15-50B⑥⑦-3J⑨ *4			50	ø1/8	VPOD15-50B⑥⑦-1/8J⑨ *4	
			ø4	VPOD15-50B⑥⑦-4J⑨ *4				ø5/32	VPOD15-50B⑥⑦-5/32J⑨ *4	
			ø6	VPOD15-50B⑥⑦-6J⑨ *4				ø1/4	VPOD15-50B⑥⑦-1/4J⑨ *4	

Notes
*1. Barb fitting type holders are also selectable. Contact us for the details.
*2. Extra soft silicone (YS2/YS4) is not available.
*3. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.
*4. Extra soft silicone hardness 20° type (YS2) is available only when Fluoro-coating treatment is selected.

Packaging specifications
1 pc. /bag

Options
⑦ : Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⑨ : Resin attachment

Optional items ⇒ P.556

Surface treatment
Resin attachment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. Code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. Code
Spring type, Side port, Push-in fitting, No cover **VPOD** Pad dia. ø20 mm to ø50 mm	ø20	20	ø3	VPOD20-20B6[7]-3J[9]	M6	ø20	20	ø1/8	VPOD20-20B6[7]-1/8J[9]	M6
			ø4	VPOD20-20B6[7]-4J[9]				ø5/32	VPOD20-20B6[7]-5/32J[9]	
			ø6	VPOD20-20B6[7]-6J[9]				ø1/4	VPOD20-20B6[7]-1/4J[9]	
		30	ø3	VPOD20-30B6[7]-3J[9]			30	ø1/8	VPOD20-30B6[7]-1/8J[9]	
			ø4	VPOD20-30B6[7]-4J[9]				ø5/32	VPOD20-30B6[7]-5/32J[9]	
			ø6	VPOD20-30B6[7]-6J[9]				ø1/4	VPOD20-30B6[7]-1/4J[9]	
		40	ø3	VPOD20-40B6[7]-3J[9]			40	ø1/8	VPOD20-40B6[7]-1/8J[9]	
			ø4	VPOD20-40B6[7]-4J[9]				ø5/32	VPOD20-40B6[7]-5/32J[9]	
			ø6	VPOD20-40B6[7]-6J[9]				ø1/4	VPOD20-40B6[7]-1/4J[9]	
		50	ø3	VPOD20-50B6[7]-3J[9]			50	ø1/8	VPOD20-50B6[7]-1/8J[9]	
			ø4	VPOD20-50B6[7]-4J[9]				ø5/32	VPOD20-50B6[7]-5/32J[9]	
			ø6	VPOD20-50B6[7]-6J[9]				ø1/4	VPOD20-50B6[7]-1/4J[9]	
	ø25	20	ø3	VPOD25-20B6[7]-3J[9]		ø25	20	ø1/8	VPOD25-20B6[7]-1/8J[9]	
			ø4	VPOD25-20B6[7]-4J[9]				ø5/32	VPOD25-20B6[7]-5/32J[9]	
			ø6	VPOD25-20B6[7]-6J[9]				ø1/4	VPOD25-20B6[7]-1/4J[9]	
		30	ø3	VPOD25-30B6[7]-3J[9]			30	ø1/8	VPOD25-30B6[7]-1/8J[9]	
			ø4	VPOD25-30B6[7]-4J[9]				ø5/32	VPOD25-30B6[7]-5/32J[9]	
			ø6	VPOD25-30B6[7]-6J[9]				ø1/4	VPOD25-30B6[7]-1/4J[9]	
		40	ø3	VPOD25-40B6[7]-3J[9]			40	ø1/8	VPOD25-40B6[7]-1/8J[9]	
			ø4	VPOD25-40B6[7]-4J[9]				ø5/32	VPOD25-40B6[7]-5/32J[9]	
			ø6	VPOD25-40B6[7]-6J[9]				ø1/4	VPOD25-40B6[7]-1/4J[9]	
		50	ø3	VPOD25-50B6[7]-3J[9]			50	ø1/8	VPOD25-50B6[7]-1/8J[9]	
			ø4	VPOD25-50B6[7]-4J[9]				ø5/32	VPOD25-50B6[7]-5/32J[9]	
			ø6	VPOD25-50B6[7]-6J[9]				ø1/4	VPOD25-50B6[7]-1/4J[9]	
	ø30	20	ø3	VPOD30-20B6[7]-3J[9]		ø30	20	ø1/8	VPOD30-20B6[7]-1/8J[9]	
			ø4	VPOD30-20B6[7]-4J[9]				ø5/32	VPOD30-20B6[7]-5/32J[9]	
			ø6	VPOD30-20B6[7]-6J[9]				ø1/4	VPOD30-20B6[7]-1/4J[9]	
		30	ø3	VPOD30-30B6[7]-3J[9]			30	ø1/8	VPOD30-30B6[7]-1/8J[9]	
			ø4	VPOD30-30B6[7]-4J[9]				ø5/32	VPOD30-30B6[7]-5/32J[9]	
			ø6	VPOD30-30B6[7]-6J[9]				ø1/4	VPOD30-30B6[7]-1/4J[9]	
		40	ø3	VPOD30-40B6[7]-3J[9]			40	ø1/8	VPOD30-40B6[7]-1/8J[9]	
			ø4	VPOD30-40B6[7]-4J[9]				ø5/32	VPOD30-40B6[7]-5/32J[9]	
			ø6	VPOD30-40B6[7]-6J[9]				ø1/4	VPOD30-40B6[7]-1/4J[9]	
		50	ø3	VPOD30-50B6[7]-3J[9]			50	ø1/8	VPOD30-50B6[7]-1/8J[9]	
			ø4	VPOD30-50B6[7]-4J[9]				ø5/32	VPOD30-50B6[7]-5/32J[9]	
			ø6	VPOD30-50B6[7]-6J[9]				ø1/4	VPOD30-50B6[7]-1/4J[9]	
	ø40	20	ø3	VPOD40-20B6[7]-3J		ø40	20	ø1/8	VPOD40-20B6[7]-1/8J	
			ø4	VPOD40-20B6[7]-4J				ø5/32	VPOD40-20B6[7]-5/32J	
			ø6	VPOD40-20B6[7]-6J				ø1/4	VPOD40-20B6[7]-1/4J	
		30	ø3	VPOD40-30B6[7]-3J			30	ø1/8	VPOD40-30B6[7]-1/8J	
			ø4	VPOD40-30B6[7]-4J				ø5/32	VPOD40-30B6[7]-5/32J	
			ø6	VPOD40-30B6[7]-6J				ø1/4	VPOD40-30B6[7]-1/4J	
		40	ø3	VPOD40-40B6[7]-3J			40	ø1/8	VPOD40-40B6[7]-1/8J	
			ø4	VPOD40-40B6[7]-4J				ø5/32	VPOD40-40B6[7]-5/32J	
			ø6	VPOD40-40B6[7]-6J				ø1/4	VPOD40-40B6[7]-1/4J	
		50	ø3	VPOD40-50B6[7]-3J			50	ø1/8	VPOD40-50B6[7]-1/8J	
			ø4	VPOD40-50B6[7]-4J				ø5/32	VPOD40-50B6[7]-5/32J	
			ø6	VPOD40-50B6[7]-6J				ø1/4	VPOD40-50B6[7]-1/4J	
	ø50	20	ø3	VPOD50-20B6[7]-3J		ø50	20	ø1/8	VPOD50-20B6[7]-1/8J	
			ø4	VPOD50-20B6[7]-4J				ø5/32	VPOD50-20B6[7]-5/32J	
			ø6	VPOD50-20B6[7]-6J				ø1/4	VPOD50-20B6[7]-1/4J	
		30	ø3	VPOD50-30B6[7]-3J			30	ø1/8	VPOD50-30B6[7]-1/8J	
			ø4	VPOD50-30B6[7]-4J				ø5/32	VPOD50-30B6[7]-5/32J	
			ø6	VPOD50-30B6[7]-6J				ø1/4	VPOD50-30B6[7]-1/4J	
		40	ø3	VPOD50-40B6[7]-3J			40	ø1/8	VPOD50-40B6[7]-1/8J	
			ø4	VPOD50-40B6[7]-4J				ø5/32	VPOD50-40B6[7]-5/32J	
			ø6	VPOD50-40B6[7]-6J				ø1/4	VPOD50-40B6[7]-1/4J	
		50	ø3	VPOD50-50B6[7]-3J			50	ø1/8	VPOD50-50B6[7]-1/8J	
			ø4	VPOD50-50B6[7]-4J				ø5/32	VPOD50-50B6[7]-5/32J	
			ø6	VPOD50-50B6[7]-6J				ø1/4	VPOD50-50B6[7]-1/4J	

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type, Side port, Female thread, No cover

VPOD

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. Code
Spring type, Side port, Female thread, No cover VPOD	ø6	20	M6×1	VPOD6-20B[6][7]-M6 *2	T8
		30		VPOD6-30B[6][7]-M6 *2	
		40		VPOD6-40B[6][7]-M6 *2	
		50		VPOD6-50B[6][7]-M6 *2	
	ø8	20	M6×1	VPOD8-20B[6][7]-M6 *2	
		30		VPOD8-30B[6][7]-M6 *2	
		40		VPOD8-40B[6][7]-M6 *2	
		50		VPOD8-50B[6][7]-M6 *2	
	ø10	20	M6×1	VPOD10-20B[6][7]-M6[9] *3	M4
		30		VPOD10-30B[6][7]-M6[9] *3	
		40		VPOD10-40B[6][7]-M6[9] *3	
		50		VPOD10-50B[6][7]-M6[9] *3	
	ø15	20	M6×1	VPOD15-20B[6][7]-M6[9] *4	
		30		VPOD15-30B[6][7]-M6[9] *4	
		40		VPOD15-40B[6][7]-M6[9] *4	
		50		VPOD15-50B[6][7]-M6[9] *4	
	ø20	20	M6×1	VPOD20-20B[6][7]-M6[9]	M6
		30		VPOD20-30B[6][7]-M6[9]	
		40		VPOD20-40B[6][7]-M6[9]	
		50		VPOD20-50B[6][7]-M6[9]	
	ø25	20	M6×1	VPOD25-20B[6][7]-M6[9]	
		30		VPOD25-30B[6][7]-M6[9]	
		40		VPOD25-40B[6][7]-M6[9]	
		50		VPOD25-50B[6][7]-M6[9]	
	ø30	20	M6×1	VPOD30-20B[6][7]-M6[9]	
		30		VPOD30-30B[6][7]-M6[9]	
		40		VPOD30-40B[6][7]-M6[9]	
		50		VPOD30-50B[6][7]-M6[9]	
	ø40	20	M6×1	VPOD40-20B[6][7]-M6	
		30		VPOD40-30B[6][7]-M6	
		40		VPOD40-40B[6][7]-M6	
		50		VPOD40-50B[6][7]-M6	
	ø50	20	M6×1	VPOD50-20B[6][7]-M6	
		30		VPOD50-30B[6][7]-M6	
		40		VPOD50-40B[6][7]-M6	
		50		VPOD50-50B[6][7]-M6	

Notes
*1. Barb fitting type holders are also selectable. Contact us for the details.
*2. Extra soft silicone (YS2/YS4) is not available.
*3. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.
*4. Extra soft silicone hardness 20° type (YS2) is available only when Fluoro-coating treatment is selected.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
[7] : Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
[9] : Resin attachment

Optional items ⇒ P.556

Surface treatment
Resin attachment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. Code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. Code
Spring type, Side port, Push-in fitting, Low dust emission **VPLFD** Pad dia. ø6 mm to ø15 mm	ø6	5	ø3	VPLFD6-5B[6][7]-3J *2	T8	ø6	5	ø1/8	VPLFD6-5B[6][7]-1/8J *2	T8
			ø4	VPLFD6-5B[6][7]-4J *2				ø5/32	VPLFD6-5B[6][7]-5/32J *2	
		10	ø3	VPLFD6-10B[6][7]-3J *2			10	ø1/8	VPLFD6-10B[6][7]-1/8J *2	
			ø4	VPLFD6-10B[6][7]-4J *2				ø5/32	VPLFD6-10B[6][7]-5/32J *2	
		15	ø3	VPLFD6-15B[6][7]-3J *2			15	ø1/8	VPLFD6-15B[6][7]-1/8J *2	
			ø4	VPLFD6-15B[6][7]-4J *2				ø5/32	VPLFD6-15B[6][7]-5/32J *2	
		20	ø3	VPLFD6-20B[6][7]-3J *2			20	ø1/8	VPLFD6-20B[6][7]-1/8J *2	
			ø4	VPLFD6-20B[6][7]-4J *2				ø5/32	VPLFD6-20B[6][7]-5/32J *2	
	ø8	5	ø3	VPLFD8-5B[6][7]-3J *2		ø8	5	ø1/8	VPLFD8-5B[6][7]-1/8J *2	
			ø4	VPLFD8-5B[6][7]-4J *2				ø5/32	VPLFD8-5B[6][7]-5/32J *2	
		10	ø3	VPLFD8-10B[6][7]-3J *2			10	ø1/8	VPLFD8-10B[6][7]-1/8J *2	
			ø4	VPLFD8-10B[6][7]-4J *2				ø5/32	VPLFD8-10B[6][7]-5/32J *2	
		15	ø3	VPLFD8-15B[6][7]-3J *2			15	ø1/8	VPLFD8-15B[6][7]-1/8J *2	
			ø4	VPLFD8-15B[6][7]-4J *2				ø5/32	VPLFD8-15B[6][7]-5/32J *2	
		20	ø3	VPLFD8-20B[6][7]-3J *2			20	ø1/8	VPLFD8-20B[6][7]-1/8J *2	
			ø4	VPLFD8-20B[6][7]-4J *2				ø5/32	VPLFD8-20B[6][7]-5/32J *2	
	ø10	5	ø3	VPLFD10-5B[6][7]-3J[9] *3	M4	ø10	5	ø1/8	VPLFD10-5B[6][7]-1/8J[9] *3	M4
			ø4	VPLFD10-5B[6][7]-4J[9] *3				ø5/32	VPLFD10-5B[6][7]-5/32J[9] *3	
		10	ø3	VPLFD10-10B[6][7]-3J[9] *3			10	ø1/8	VPLFD10-10B[6][7]-1/8J[9] *3	
			ø4	VPLFD10-10B[6][7]-4J[9] *3				ø5/32	VPLFD10-10B[6][7]-5/32J[9] *3	
		15	ø3	VPLFD10-15B[6][7]-3J[9] *3			15	ø1/8	VPLFD10-15B[6][7]-1/8J[9] *3	
			ø4	VPLFD10-15B[6][7]-4J[9] *3				ø5/32	VPLFD10-15B[6][7]-5/32J[9] *3	
		20	ø3	VPLFD10-20B[6][7]-3J[9] *3			20	ø1/8	VPLFD10-20B[6][7]-1/8J[9] *3	
			ø4	VPLFD10-20B[6][7]-4J[9] *3				ø5/32	VPLFD10-20B[6][7]-5/32J[9] *3	
	ø15	5	ø3	VPLFD15-5B[6][7]-3J[9] *4		ø15	5	ø1/8	VPLFD15-5B[6][7]-1/8J[9] *4	
			ø4	VPLFD15-5B[6][7]-4J[9] *4				ø5/32	VPLFD15-5B[6][7]-5/32J[9] *4	
		10	ø3	VPLFD15-10B[6][7]-3J[9] *4			10	ø1/8	VPLFD15-10B[6][7]-1/8J[9] *4	
			ø4	VPLFD15-10B[6][7]-4J[9] *4				ø5/32	VPLFD15-10B[6][7]-5/32J[9] *4	
		15	ø3	VPLFD15-15B[6][7]-3J[9] *4			15	ø1/8	VPLFD15-15B[6][7]-1/8J[9] *4	
			ø4	VPLFD15-15B[6][7]-4J[9] *4				ø5/32	VPLFD15-15B[6][7]-5/32J[9] *4	
		20	ø3	VPLFD15-20B[6][7]-3J[9] *4			20	ø1/8	VPLFD15-20B[6][7]-1/8J[9] *4	
			ø4	VPLFD15-20B[6][7]-4J[9] *4				ø5/32	VPLFD15-20B[6][7]-5/32J[9] *4	

Notes

*1. Barb fitting type holders are also selectable. Contact us for the details.
*2. Extra soft silicone (YS2/YS4) is not available.
*3. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.
*4. Extra soft silicone hardness 20° type (YS2) is available only when Fluoro-coating treatment is selected.

Packaging specifications

1 pc. /bag

Options

[7] : Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
[9] : Resin attachment

Optional items ⇒ P.556

Surface treatment
Resin attachment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. Code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. Code
Spring type, Side port, Push-in fitting, Low dust emission **VPLFD** Pad dia. ø20 mm to ø50 mm	ø20	5	ø3	VPLFD20-5B[6][7]-3J[9]	M6	ø20	5	ø1/8	VPLFD20-5B[6][7]-1/8J[9]	M6
			ø4	VPLFD20-5B[6][7]-4J[9]				ø5/32	VPLFD20-5B[6][7]-5/32J[9]	
			ø6	VPLFD20-5B[6][7]-6J[9]				ø1/4	VPLFD20-5B[6][7]-1/4J[9]	
		10	ø3	VPLFD20-10B[6][7]-3J[9]			10	ø1/8	VPLFD20-10B[6][7]-1/8J[9]	
			ø4	VPLFD20-10B[6][7]-4J[9]				ø5/32	VPLFD20-10B[6][7]-5/32J[9]	
			ø6	VPLFD20-10B[6][7]-6J[9]				ø1/4	VPLFD20-10B[6][7]-1/4J[9]	
		15	ø3	VPLFD20-15B[6][7]-3J[9]			15	ø1/8	VPLFD20-15B[6][7]-1/8J[9]	
			ø4	VPLFD20-15B[6][7]-4J[9]				ø5/32	VPLFD20-15B[6][7]-5/32J[9]	
			ø6	VPLFD20-15B[6][7]-6J[9]				ø1/4	VPLFD20-15B[6][7]-1/4J[9]	
		20	ø3	VPLFD20-20B[6][7]-3J[9]			20	ø1/8	VPLFD20-20B[6][7]-1/8J[9]	
			ø4	VPLFD20-20B[6][7]-4J[9]				ø5/32	VPLFD20-20B[6][7]-5/32J[9]	
			ø6	VPLFD20-20B[6][7]-6J[9]				ø1/4	VPLFD20-20B[6][7]-1/4J[9]	
	ø25	5	ø3	VPLFD25-5B[6][7]-3J[9]		ø25	5	ø1/8	VPLFD25-5B[6][7]-1/8J[9]	
			ø4	VPLFD25-5B[6][7]-4J[9]				ø5/32	VPLFD25-5B[6][7]-5/32J[9]	
			ø6	VPLFD25-5B[6][7]-6J[9]				ø1/4	VPLFD25-5B[6][7]-1/4J[9]	
		10	ø3	VPLFD25-10B[6][7]-3J[9]			10	ø1/8	VPLFD25-10B[6][7]-1/8J[9]	
			ø4	VPLFD25-10B[6][7]-4J[9]				ø5/32	VPLFD25-10B[6][7]-5/32J[9]	
			ø6	VPLFD25-10B[6][7]-6J[9]				ø1/4	VPLFD25-10B[6][7]-1/4J[9]	
		15	ø3	VPLFD25-15B[6][7]-3J[9]			15	ø1/8	VPLFD25-15B[6][7]-1/8J[9]	
			ø4	VPLFD25-15B[6][7]-4J[9]				ø5/32	VPLFD25-15B[6][7]-5/32J[9]	
			ø6	VPLFD25-15B[6][7]-6J[9]				ø1/4	VPLFD25-15B[6][7]-1/4J[9]	
		20	ø3	VPLFD25-20B[6][7]-3J[9]			20	ø1/8	VPLFD25-20B[6][7]-1/8J[9]	
			ø4	VPLFD25-20B[6][7]-4J[9]				ø5/32	VPLFD25-20B[6][7]-5/32J[9]	
			ø6	VPLFD25-20B[6][7]-6J[9]				ø1/4	VPLFD25-20B[6][7]-1/4J[9]	
	ø30	5	ø3	VPLFD30-5B[6][7]-3J[9]		ø30	5	ø1/8	VPLFD30-5B[6][7]-1/8J[9]	
			ø4	VPLFD30-5B[6][7]-4J[9]				ø5/32	VPLFD30-5B[6][7]-5/32J[9]	
			ø6	VPLFD30-5B[6][7]-6J[9]				ø1/4	VPLFD30-5B[6][7]-1/4J[9]	
		10	ø3	VPLFD30-10B[6][7]-3J[9]			10	ø1/8	VPLFD30-10B[6][7]-1/8J[9]	
			ø4	VPLFD30-10B[6][7]-4J[9]				ø5/32	VPLFD30-10B[6][7]-5/32J[9]	
			ø6	VPLFD30-10B[6][7]-6J[9]				ø1/4	VPLFD30-10B[6][7]-1/4J[9]	
		15	ø3	VPLFD30-15B[6][7]-3J[9]			15	ø1/8	VPLFD30-15B[6][7]-1/8J[9]	
			ø4	VPLFD30-15B[6][7]-4J[9]				ø5/32	VPLFD30-15B[6][7]-5/32J[9]	
			ø6	VPLFD30-15B[6][7]-6J[9]				ø1/4	VPLFD30-15B[6][7]-1/4J[9]	
		20	ø3	VPLFD30-20B[6][7]-3J[9]			20	ø1/8	VPLFD30-20B[6][7]-1/8J[9]	
			ø4	VPLFD30-20B[6][7]-4J[9]				ø5/32	VPLFD30-20B[6][7]-5/32J[9]	
			ø6	VPLFD30-20B[6][7]-6J[9]				ø1/4	VPLFD30-20B[6][7]-1/4J[9]	
	ø40	5	ø3	VPLFD40-5B[6][7]-3J		ø40	5	ø1/8	VPLFD40-5B[6][7]-1/8J	
			ø4	VPLFD40-5B[6][7]-4J				ø5/32	VPLFD40-5B[6][7]-5/32J	
			ø6	VPLFD40-5B[6][7]-6J				ø1/4	VPLFD40-5B[6][7]-1/4J	
		10	ø3	VPLFD40-10B[6][7]-3J			10	ø1/8	VPLFD40-10B[6][7]-1/8J	
			ø4	VPLFD40-10B[6][7]-4J				ø5/32	VPLFD40-10B[6][7]-5/32J	
			ø6	VPLFD40-10B[6][7]-6J				ø1/4	VPLFD40-10B[6][7]-1/4J	
		15	ø3	VPLFD40-15B[6][7]-3J			15	ø1/8	VPLFD40-15B[6][7]-1/8J	
			ø4	VPLFD40-15B[6][7]-4J				ø5/32	VPLFD40-15B[6][7]-5/32J	
			ø6	VPLFD40-15B[6][7]-6J				ø1/4	VPLFD40-15B[6][7]-1/4J	
		20	ø3	VPLFD40-20B[6][7]-3J			20	ø1/8	VPLFD40-20B[6][7]-1/8J	
			ø4	VPLFD40-20B[6][7]-4J				ø5/32	VPLFD40-20B[6][7]-5/32J	
			ø6	VPLFD40-20B[6][7]-6J				ø1/4	VPLFD40-20B[6][7]-1/4J	
	ø50	5	ø3	VPLFD50-5B[6][7]-3J		ø50	5	ø1/8	VPLFD50-5B[6][7]-1/8J	
			ø4	VPLFD50-5B[6][7]-4J				ø5/32	VPLFD50-5B[6][7]-5/32J	
			ø6	VPLFD50-5B[6][7]-6J				ø1/4	VPLFD50-5B[6][7]-1/4J	
		10	ø3	VPLFD50-10B[6][7]-3J			10	ø1/8	VPLFD50-10B[6][7]-1/8J	
			ø4	VPLFD50-10B[6][7]-4J				ø5/32	VPLFD50-10B[6][7]-5/32J	
			ø6	VPLFD50-10B[6][7]-6J				ø1/4	VPLFD50-10B[6][7]-1/4J	
		15	ø3	VPLFD50-15B[6][7]-3J			15	ø1/8	VPLFD50-15B[6][7]-1/8J	
			ø4	VPLFD50-15B[6][7]-4J				ø5/32	VPLFD50-15B[6][7]-5/32J	
			ø6	VPLFD50-15B[6][7]-6J				ø1/4	VPLFD50-15B[6][7]-1/4J	
		20	ø3	VPLFD50-20B[6][7]-3J			20	ø1/8	VPLFD50-20B[6][7]-1/8J	
			ø4	VPLFD50-20B[6][7]-4J				ø5/32	VPLFD50-20B[6][7]-5/32J	
			ø6	VPLFD50-20B[6][7]-6J				ø1/4	VPLFD50-20B[6][7]-1/4J	

Vacuum Pad Bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

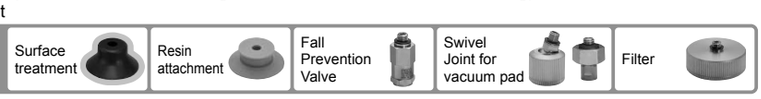
Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. Code
Spring type, Side port, Female thread, Low dust emission **VPLFD**	ø6	5	M5×0.8	VPLFD6-5B⑥⑦-M5 *1	T8
		10	M5×0.8	VPLFD6-10B⑥⑦-M5 *1	
		15	M5×0.8	VPLFD6-15B⑥⑦-M5 *1	
		20	M5×0.8	VPLFD6-20B⑥⑦-M5 *1	
	ø8	5	M5×0.8	VPLFD8-5B⑥⑦-M5 *1	
		10	M5×0.8	VPLFD8-10B⑥⑦-M5 *1	
		15	M5×0.8	VPLFD8-15B⑥⑦-M5 *1	
		20	M5×0.8	VPLFD8-20B⑥⑦-M5 *1	
	ø10	5	M5×0.8	VPLFD10-5B⑥⑦-M5⑨ *2	M4
		10	M5×0.8	VPLFD10-10B⑥⑦-M5⑨ *2	
		15	M5×0.8	VPLFD10-15B⑥⑦-M5⑨ *2	
		20	M5×0.8	VPLFD10-20B⑥⑦-M5⑨ *2	
	ø15	5	M5×0.8	VPLFD15-5B⑥⑦-M5⑨ *3	
		10	M5×0.8	VPLFD15-10B⑥⑦-M5⑨ *3	
		15	M5×0.8	VPLFD15-15B⑥⑦-M5⑨ *3	
		20	M5×0.8	VPLFD15-20B⑥⑦-M5⑨ *3	
	ø20	5	M6×1	VPLFD20-5B⑥⑦-M6⑨	M6
		10	M6×1	VPLFD20-10B⑥⑦-M6⑨	
		15	M6×1	VPLFD20-15B⑥⑦-M6⑨	
		20	M6×1	VPLFD20-20B⑥⑦-M6⑨	
	ø25	5	M6×1	VPLFD25-5B⑥⑦-M6⑨	
		10	M6×1	VPLFD25-10B⑥⑦-M6⑨	
		15	M6×1	VPLFD25-15B⑥⑦-M6⑨	
		20	M6×1	VPLFD25-20B⑥⑦-M6⑨	
	ø30	5	M6×1	VPLFD30-5B⑥⑦-M6⑨	
		10	M6×1	VPLFD30-10B⑥⑦-M6⑨	
		15	M6×1	VPLFD30-15B⑥⑦-M6⑨	
		20	M6×1	VPLFD30-20B⑥⑦-M6⑨	
	ø40	5	M6×1	VPLFD40-5B⑥⑦-M6	
		10	M6×1	VPLFD40-10B⑥⑦-M6	
		15	M6×1	VPLFD40-15B⑥⑦-M6	
		20	M6×1	VPLFD40-20B⑥⑦-M6	
	ø50	5	M6×1	VPLFD50-5B⑥⑦-M6	
		10	M6×1	VPLFD50-10B⑥⑦-M6	
		15	M6×1	VPLFD50-15B⑥⑦-M6	
		20	M6×1	VPLFD50-20B⑥⑦-M6	

Notes
*1. Extra soft silicone (YS2/YS4) is not available.
*2. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.
*3. Extra soft silicone hardness 20° type (YS2) is available only when Fluoro-coating treatment is selected.

Packaging specifications
1 pc. /bag

Options
⑦ : Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
⑨ : Resin attachment

Optional items ⇒ P.556



RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Female thread size	Model code	14 : -S3 -S3 spec.	Connection config. Code
Fixed type, Direct mount, Mini VPME	ø6	M5×0.8	VPME6B 6 7 -M5 14 *3	○	T8
	ø8	M5×0.8	VPME8B 6 7 -M5 14 *3	○	

Holder type	Pad dia. (mm)	Female thread size	Model code	14 : -S3 -S3 spec.	Connection config. Code
Fixed type, Direct mount, Standard VPE	ø2	M3×0.5	VPE2B 6 -M3 14 *1	○	H3
	ø4	M3×0.5	VPE4B 6 -M3 14 *2	○	
	ø6	M5×0.8	VPE6B 6 7 -M5 14 *3	○	T8
	ø8	M5×0.8	VPE8B 6 7 -M5 14 *3	○	

VPE holders are available with metric male/female threads, taper pipe threads, parallel pipe threads and NPT threads. See Pad holder only (page 399) for variations. *Pads with the same configuration code as the holder can be connected. [See Pad rubber only (page 378)].

Applicable Screws
Metric male thread：M3, M5, M8, M10, M12, M14
Metric female thread：M5, M8
Taper pipe thread：R1/8, R1/4, R3/8, R1/2
Parallel pipe thread：G1/8, G1/4, G3/8, G1/2
NPT thread：NPT1/8, NPT1/4, NPT3/8,NPT1/2

Holder type	Pad dia. (mm)	Female thread size	Model code	14 : -S3 -S3 spec.	Connection config. Code
Spring type, Direct mount VPF Pad dia. ø8mm or smaller Stroke 3mm Pad dia. ø10mm or larger Stroke 5.8mm	ø2	M10×1	VPF2B 6 10 14 *1	○	H3
	ø4	M10×1	VPF4B 6 10 14 *2	○	
	ø6	M10×1	VPF6B 6 7 10 14 *3	○	T8
	ø8	M10×1	VPF8B 6 7 10 14 *3	○	
	ø10	M14×1	VPF10B 6 7 9 10 14 *4	○	M4
	ø15	M14×1	VPF15B 6 7 9 10 14 *5	○	
	ø20	M14×1	VPF20B 6 7 9 10 14	○	M6
	ø25	M14×1	VPF25B 6 7 9 10 14	○	
	ø30	M14×1	VPF30B 6 7 9 10 14	○	
	ø40	M14×1	VPF40B 6 7 10 14	○	
	ø50	M14×1	VPF50B 6 7 10 14	○	

Notes
*1. Pad rubber material is available only for Nitrile (N) and Silicone (S).
*2. Pad rubber material is available only for Nitrile (N), Silicone (S) and Conductive Silicone (SE).
*3. Extra soft silicone (YS2/YS4) is not available.
*4. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.
*5. Extra soft silicone hardness 20° type (YS2) is available only when Fluoro-coating treatment is selected.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
7 : Surface treatment (Fiber surface, DLC. coating, Reformed surface, and Fluoro-coating)
9 : Resin attachment
10 : -DC ⇒ Holder with dust catcher
14 : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.556
Surface treatment
Resin attachment
Dust Catcher (VPF)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Bellows Type

Optional items (○: Available)

7 Pad surface treatment (Suction mark-free)

Pad dia. (mm)	7 Surface treatment code						Connection config. Code
	-NF	-SF	-DL	-ER	-FG		
	Fiber surface		DLC. coating	Reformed surface	Fluoro-coating		
	Nylon	Silk			(S, SE)	(YS2, YS4)	
ø6	—	—	○	○	○	—	T8
ø8	—	—	○	○	○	—	
ø10	—	—	○	○	○	(*)	M4
ø15	○	○	○	○	○	○ (*)	
ø20	○	○	○	○	○	○	
ø25	○	○	○	○	○	○	
ø30	○	○	○	○	○	○	M6
ø40	○	○	○	○	○	○	
ø50	○	○	○	○	○	○	
ø60	○	○	—	○	○	—	
ø80	○	○	—	—	○	—	M10
ø100	—	—	—	—	○	—	
Material	S, F		S, F, SE	N, NE	S, SE, YS2, YS4		

*For Extra soft silicone pads, dia. 10 mm or 15 mm of 20° hardness type (YS2) and dia. 10 mm of 40° hardness type (YS4) can be selected only when Fluoro-coating treatment is selected.

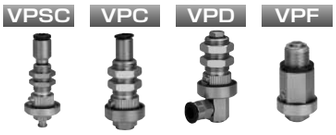
Characteristics of surface treatment ▶P.370

9 Resin attachment : -QK,-QM,-QKE

Optional	Pad dia. (mm)	9 Resin material code			Connection config. Code
		-QK	-QM	-QKE	
		PEEK	POM	Conductive PEEK	
PEEK POM Conductive PEEK	ø10	○	○	○	M4
	ø15	○	○	○	
	ø20	○	○	○	M6
	ø25	○	○	○	
	ø30	○	○	○	

Characteristics of Resin attachment ▶P.529

10 Dust Catcher : -DC

Optional	Connection config. Code	-S3 spec.
Dust Catcher(-DC)	H3	○
Holder type	T8	○
VPSC VPC VPD VPF 	M4	○
	M6	○
	M10	○

*1. VPSC holder is available only for configuration code: H3 and T8.
*2. Configuration code: M10 is not available for VPF holder.

Characteristics of Dust Catcher ▶P.371

11 Fall Prevention Valve-ECV

Optional	Connection config. Code	Model code
Fall Prevention Valve (-ECV)	H3	ECVM3-FM3 *1 ECVM5-FM5 *2
	M4	ECVM4-FM4
	T8	ECVM5-FM5 *3
	M6	ECVM6-FM6
	M10	ECVM10-FM10

*1. Limited to M3 threads of VPE holders.
*2. Limited to M5 threads of VPE holders.
*3. Limited to M5 threads of VPME and VPE holders.

Characteristics of Fall Prevention Valve ▶P.722

12 Swivel Joint for vacuum pad : -FH, -FHH, -CFH

Optional	Swivel angle	Connection config. Code	Model code
Ball Swivel Joint (-FH) (-FHH)	30° (-FH)	M4	FH10
		M6	FH20
		M10	FH60
	15° (-FHH)	M4	FH10-15
		M6	FH20-15
		M10	FH60-15

Characteristics of Ball Swivel Joint ▶P.724

Optional	Connection config. Code	-S3 spec.	Model code (*1)
Flexible Swing Joint (-CFH)	M4	○	CFHM4-FM4
	H3 T8	○	CFHM5-FM5(*2)
	M6	○	CFHM6-FM6

*1. When ordering a Flexible Swing Joint alone, please enter "-S3" at the end of the model code for -S3 specification.
*2. Limited to M5 threads of VPME and VPE holders.

Characteristics of Flexible Swing Joint ▶P.725

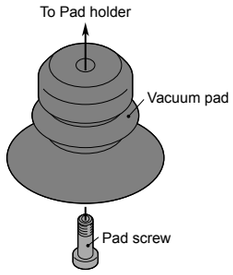
13 Filter : -F15, -F30

Optional	Filter area	Connection config. Code	Model code
Pad Direct Mounting Filter (-F15) (-F30)	1.7㎠ (-F15)	M4	VFF15-M4
		M6	VFF15-M6
	7㎠ (-F30)	M6	VFF30-M6

Characteristics of Filter ▶P.726

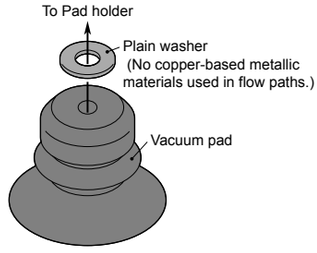
See the page 526 for the model designation including optional items.

Replacement parts (○: -S3 spec. is available)

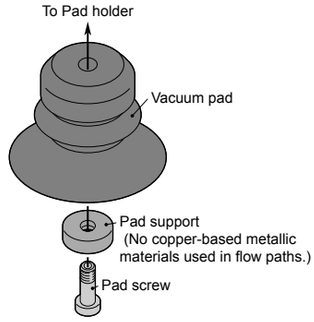


Pad screw Model code	14 : -S3 -S3 spec.	Applicable pad dia. (mm)	Connection config. Code
VPM46-614	○	ø10, ø15	M4
VPM610-814	○	ø20, ø25	M6
VPM612-1014	○	ø30	
VPM610-1514	○	ø40, ø50	
VPM1018 *		ø60 to ø100	M10

* Pad screws marked with (*) do not contain copper-based metallic materials in flow paths.

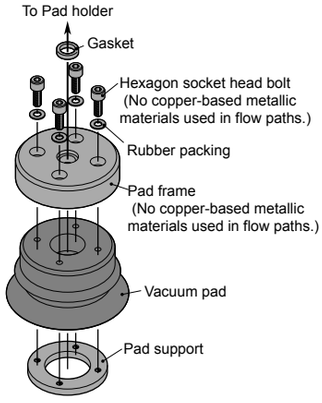


Plain washer Model code	Applicable pad dia. (mm)	Connection config. Code
HW8.4×15.5×1.6	ø20 to ø30	M6
HW8.5×22×1.6	ø40, ø50	
HW17×32×2.6	ø60	M10
HW10.5×22×1.6	ø80, ø100	



Pad support Model code	Applicable pad dia. (mm)	Connection config. Code
VPW40	ø40	M6
VPW50	ø50	
VPW60	ø60	M10

Connection config. Code M10



* Be sure to replace a rubber packing when removing a Hexagon socket head bolt.

Gasket Model code	Applicable pad dia. (mm)
SG10	ø80, ø100

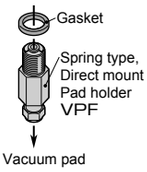
Hexagon socket head bolt Model code	Applicable pad dia. (mm)
VPH80CS-SET	ø80
VPH100CS-SET	ø100

Rubber packing Model code	14 : -S3 -S3 spec.	Applicable pad dia. (mm)
VPH80P14-SET	○	ø80
VPH100P14-SET	○	ø100

* Hexagon socket head bolt and Rubber packing : 4 pcs/set.

Pad frame Model code	Applicable pad dia. (mm)
VPH80R	ø80
VPH100R	ø100

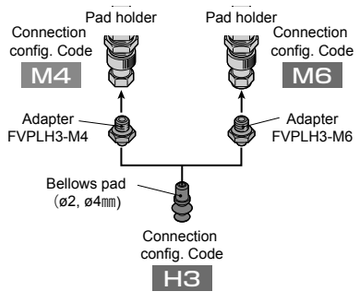
Pad support Model code	Applicable pad dia. (mm)
VPW80R	ø80
VPW100R	ø100

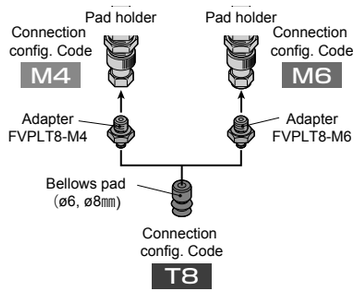


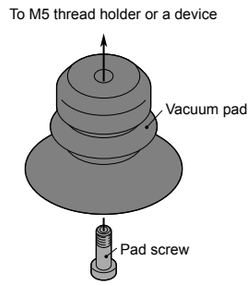
Gasket Model code	Applicable pad dia. (mm)	Connection config. Code
SG10	ø2 to ø8	H3 T8
VPFG10	ø10 to ø50	M4 M6

Vacuum Pad Bellows Type

Rearrangement parts (○: -S3 spec. is available)



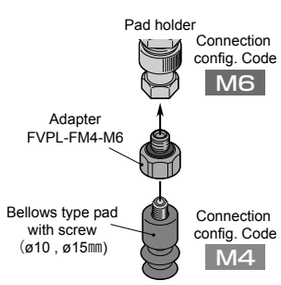




Model code of Adapter for pad connection type conversion	⓮ : -S3 -S3 spec.	Applicable pad dia. (mm)	Connection config. Code Before → After
FVPLH3-M4⓮	○	ø2, ø4	H3 → M4
FVPLH3-M6⓮	○		H3 → M6
FVPLT8-M4⓮	○	ø6 , ø8	T8 → M4
FVPLT8-M6⓮	○		T8 → M6

*1. These adapters are used to mount 2 to 4 mm dia. Bellows pads on a holder with M4 or M6 configuration code.
*2. Gasket for adapter is equipped with an Adapter.

Pad screw Model code	⓮ : -S3 -S3 spec.	Applicable pad dia. (mm)
VPM56-7⓮	○	ø10, ø15
VPM510-8⓮	○	ø20, ø25
VPM512-9⓮	○	ø30
VPM510-13⓮	○	ø40, ø50



Model code of Adapter for pad connection type conversion	⓮ : -S3 -S3 spec.	Applicable pad dia. (mm)	Connection config. Code Before → After
FVPL-FM4-M6⓮	○	ø10, ø15	M4 → M6

*1. This adapter is used to mount a pad & screw set with M4 configuration code on a pad holder with M6 configuration code.
*2. Gasket for adapter is equipped with an Adapter.

Vacuum Pad Multi-bellows Type

Vacuum pad for bag-like article conveyance. (Bellows convolution: 4)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VP (1)	C (2)	10 (3)	-6 (4)	W (5)	N (6)	-ER (7)	-6J (8)	-DC (9)	-ECV (10)	-FH (11)	-F15 (12)	(13)
						Optional		Optional	Optional	Optional	Optional	Optional

(1) Vacuum Pad

(2) Holder type

Holder type		Fixed type		Spring type				
		Mini	Standard	Mini	Slim	Standard	No cover	Low dust emission
Code	Top port	MA	A	MC	SC	C	OC	LFC
	Side port	MB	B	MD	–	D	OD	LFD
	Direct mount	ME(*1)	E	–	–	F	–	–
Connection config. code		T8 / M4 M6	T8 / M4 M6	T8 / M4 M6	T8	T8 / M4 M6	T8 / M4 M6	T8 / M4 M6

*1. ME holder is available only for configuration code: T8.

Holder type		Lightweight	Low profile
		Spring type	Direct mount
Code	Top port	HC(*2)	–
	Side port	HD	HE
	Dual side port	HDW	HEW
Connection config. code		T8 / M4 M6	T8 / M4 M6

*2. Configuration code: T8 is not available for HC holder.

(3) Pad dia.

Code	6	8	10	20	30	40	50
Pad dia. (mm)	ø6	ø8	ø10	ø20	ø30	ø40	ø50
Connection config. code	T8		M4	M6			

(4) Stroke (No code entry for Holder type: MA, A, MB, B, ME, E, F, HE and HEW)

Code	-2	-3	-4	-5	-6	-10	-15	-20	-25	-30	-40	-50
Stroke (mm)	2	3	4	5	6	10	15	20	25	30	40	50
Spring type holder code: VPMC	●		●●									
VPSC		●										
VPC		●			●●	●●●	●●●	●●●				
VPOC								●●●		●●●	●●●	●●●
VPLFC	●●			●●●		●●●	●●●	●●●				
VPMD	●		●●									
VPD		●			●●	●●●	●●●	●●●				
VPOD								●●●		●●●	●●●	●●●
VPLFD				●●●		●●●	●●●	●●●				
VPHC						●●	●●	●●	●●	●●	●●	●●
VPHD				●●●								
VPHDW				●●●								

Connection config. code
●:T8
●:M4
●:M6

(5) Pad type W : Multi-bellows

(6) Pad material

Code	N	S	YS2	YS4	U	F	NE	G	HN	EP
Rubber material	Nitrile	Silicone	Extra soft silicone Hardness 20°	Extra soft silicone Hardness 40°	Urethane	Fluoro	Conductive NBR (Low resistance)	Food Sanit. Act compliant NBR	HNBR	EPDM

*1. Nitrile rubber (N), Conductive NBR (Low resistance, Volume resistance: 200Ω•cm or less) (NE), and Food Sanit. Act compliant NBR (G) are not suitable for use with ozone environment.
*2. Extra soft silicone is not available for pad dia. 10 mm or smaller.
*3. Urethane is not available for pad dia. 6 mm and 8 mm.
*4. Extra soft silicone is compliant with Food Sanitation Act and FDA.

(7) Pad surface treatment for suction mark-free Optional

Code	No code	-DL	-ER	-FG
Surface treatment	None	DLC. coating	Reformed surface	Fluoro-coating
Applicable pad material	—	Silicone(S), Fluoro(F)	Nitrile(N), Conductive NBR (Low resistance)(NE)	Silicone(S), Extra soft silicone: Hardness 20°(YS2), Extra soft silicone: Hardness 40°(YS4)
Applicable pad dia.	—	ø10, ø20mm	ø6 to ø50mm	ø6 to ø50mm

*Please refer to page 370 for the details of each pad surface type and treatment for Suction Mark-free.

(8) Vacuum port size and joint type (No code entry for Holder type: F) (○ : Available)

Push-in fitting

Barb fitting

Female thread

Type	Push-in fitting								Barb fitting				Female thread		
	mm size (mm)					inch size (inch)			mm size (mm)			inch size (inch)	Metric thread		
Code	-180J	-2J	-3J	-4J	-6J	-1/8J	-5/32J	-1/4J	-3B	-4B*	-6B	-1/4B	-M3	-M5	-M6
Tube O.D.	ø1.8	ø2	ø3	ø4	ø6	ø1/2	ø1/3	ø1/4							
Tube I.D.									ø2	ø2.5	ø4	Polyurethane tube ø0.163 Nylon tube ø0.180			
Thread size													M3×0.5	M5×0.8	M6×1
Holder type VPMA	○	○	○	○			○		○	○	○				
VPA			○	○	○	○	○	○		○	○	○			○
VPMB	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPB	○	○	○	○	○	○	○	○	○	○	○	○		○	○
VPMC	○	○	○	○		○	○		○	○	○	○			
VPSC	○	○	○	○		○	○		○	○	○		○		
VPC	○	○	○	○	○	○	○	○	○	○	○	○		○	○
VPOC			○	○	○	○	○	○		○	○	○			○
VPLFC			○	○	○	○	○	○	○	○	○			○	○
VPMD	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPD	○	○	○	○	○	○	○	○	○	○	○	○		○	○
VPOD			○	○	○	○	○	○		○	○	○			○
VPLFD			○	○	○	○	○	○	○	○	○	○		○	○
VPHC	○	○	○	○	○	○	○	○	○	○	○	○		○	
VPHD	○	○	○	○	○	○	○	○	○	○	○	○		○	
VPHDW	○	○	○	○	○	○	○	○	○	○	○	○		○	
VPHE	○	○	○	○	○	○	○	○	○	○	○	○		○	
VPHEW	○	○	○	○	○	○	○	○	○	○	○	○		○	

*The barb fitting of 5/32" size is common with 4 mm size. Please order with the code: -4B.

Direct mount

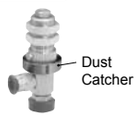
Type	Male thread														Female thread	
	Metric thread					Taper pipe thread				Parallel pipe thread				NPT thread				Metric thread	
Code	-M5	-M8	-M10	-M12	-M14	-R1	-R2	-R3	-R4	-G1	-G2	-G3	-G4	-N1	-N2	-N3	-N4	-FM5	-FM8
Thread size	M5×0.8	M8×1.25	M10×1.5	M12×1.75	M14×2	R1/8	R1/4	R3/8	R1/2	G1/8	G1/4	G3/8	G1/2	NPT1/8	NPT1/4	NPT3/8	NPT1/2	M5×0.8	M8×1.25
Holder type VPME	○																		
VPE	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

*Available port size varies depending on pad dia. See model code lists on the following pages.

(9) Dust Catcher (Holder type: SC, C, D and F only) Optional

Code	No code	-DC
Dust Catcher	None	Installed

*Note that the holder stroke becomes shorter when a dust catcher is installed. Please visit our website for details.



(9) Spring load (Holder type: LFC only)

Code	No code	-SF1/4
Load	Standard load	Low load (1/4 of standard load)

*"-SF1/4" is not selectable when 2 mm stroke is selected.

(10) Fall Prevention Valve Optional

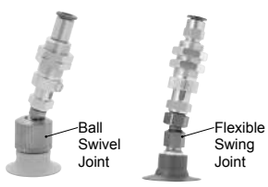
Code	No code	-ECV
Fall Prevention Valve	None	Installed
Applicable connection type	—	Configuration code: M4, M6 M5 thread size of VPME, VPE holder

*-S3 spec. is not selectable when Fall Prevention Valve is selected.

(11) Swivel Joint for vacuum pad Optional

Code	No code	-FH	-FHH	-CFH
Option	None	Ball Swivel Joint (Swivel angle: 30°)	Ball Swivel Joint (Swivel angle: 15°)	Flexible Swing Joint (Swing angle: 8°)
Applicable connection type	—	Configuration code: M4, M6		Configuration code: M4, M6 M5 thread size of VPME, VPE holder

*-S3 spec. is not selectable when Ball Swivel Joint is selected.



(12) Filter Optional

Code	No code	-F15	-F30
Filter	None	Installed (Filter area 1.7cm^2)	Installed (Filter area 7cm^2)
Applicable config. code	—	M4, M6	M6

*1. -S3 spec. is not selectable when Filter is selected.
*2. "-F30" is recommended when much dust is expected at sucking work pieces.

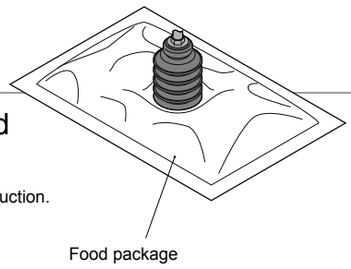
(13) -S3 spec. Optional

Code	No code	-S3
Metal material	Standard	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard	HNBR or FKM
Release ring color	Black	Dark blue

*1. -S3 spec. is not available for the following fittings and holders:
· Push-in fitting with dia. size of 1.8, 2, 3 mm and inch sizes except dia. 1/8" (some) and 5/32".
· Barb fitting with dia. of 1/4".
· Pad holder with stroke length 10 mm or longer (except for VPHC holders).
· VPLFC and VPLFD holders.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Vacuum Pad Multi-bellows Type

Characteristics



Food package

Pad dia. 7 types
ø6 to ø50mm
Pad material 10 types
Surface treatment 3 types

Best suitable for retort packaging or bags for packaged foods.

4 convolution bellows follow the work-piece with curved surface. Elastic bellows ensure the suction.

Food Sanit. Act compliant NBR (G) and Silicone (S) are Food Sanitation Act compliant.

(Holder is not compliant. Vacuum pad complies only at work-piece contact area.)

*See page 6 for the details of the Food Sanitation Act.

Extra soft silicone pad for food industry which is compliant with Food Sanitation Act and FDA is available.

(Holder is not compliant. Vacuum pad complies only at work-piece contact area.)

Two types of lip hardness are available: 20° and 40°. Pad size range from dia. 20 to 50 mm.
*See page 6 for the details of the Food Sanitation Act and FDA.

Hardness 20° type

Hardness 40° type

Wide variations of Pad holders.

The following combinations of holder and pad rubber are also available although they are not listed on the model code list from the next page onward. Contact us for the details.

- Lightweight VPHC holder that is made of resin and aluminum.
- Lightweight VPHD and VPHDW holders with spring type without cover.
- VPHE and VPHEW holders with reduced height.
- VPHDW and VPHEW holders with dual side vacuum ports, suitable for piping connection of multiple vacuum pads.

Low dust emission holders (VPLFC, VPLFD) with low noise and less wear from sliding are available to prevent dust generation.

VPLFC holder with top port has a separate shaft on the pad side and the vacuum port side, so there is no effect on the stroke caused by the tension of the tube.
Low load type is also available to suppress impact when contacting the work-piece.

Wide variations of fixed type direct mount holder (VPE) for various thread sizes.

Metric male threads, metric female threads, taper pipe threads, parallel pipe threads and NPT threads are available.
*Only a part of the combinations are shown on the model code list from the next page onward. Contact us for the details.

● Pad surface treatment for suction mark-free (Optional)

NEW Fluoro-coating type is added to the pad rubber surface treatment option to prevent tracing marks.

- DLC. coating type: Slippery special coating. Effective for sticking prevention of lightweight or thin work-piece.
- Reformed surface type: Reduces tracing marks by surface reforming of nitrile rubber with chemicals.
- Fluoro-coating type: Surface reforming by special treatment prevents sticking to work-pieces and bellows. Improved pad durability and wear resistance.

● Holder with dust catcher (Optional)

Collects wear debris generated by sliding spring type holders. Low-cost, simple holder with receiver tray added.

Applicable to VPSC, VPC, VPD and VPF holders.

◀ Dust Catcher

● Accessories (Optional)

Fall Prevention Valve, Swivel (Ball Swivel Joint, Flexible Swing Joint) and Filter options are available.

● -S3 spec. (Optional)

No copper-based metallic materials used in flow paths.

The sealing rubber material of the fitting is HNBR or FKM, with good ozone resisntace.

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	13 : -S3 -S3 spec	Connection config.code	Pad dia. (mm)	Tube O.D. (inch)	Model code	13 : -S3 -S3 spec	Connection config.code
Fixed type, Top port, Push-in fitting, Mini VPMA	ø6	ø3	VPMA6W67-3J*2	—	T8	ø10	ø5/32	VPMA10W67-5/32J13*3	○	M4
	ø8	ø3	VPMA8W67-3J*2	—		ø20	ø5/32	VPMA20W67-5/32J13	○	M6
	ø10	ø3	VPMA10W67-3J*3	—	M4	ø30	ø5/32	VPMA30W67-5/32J13	○	
		ø4	VPMA10W67-4J13*3	○		ø40	ø5/32	VPMA40W67-5/32J13	○	
	ø20	ø4	VPMA20W67-4J13	○	M6	ø50	ø5/32	VPMA50W67-5/32J13	○	
	ø30	ø4	VPMA30W67-4J13	○						
	ø40	ø4	VPMA40W67-4J13	○						
	ø50	ø4	VPMA50W67-4J13	○						

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	13 : -S3 -S3 spec	Connection config.code	Pad dia. (mm)	Tube O.D. (inch)	Model code	13 : -S3 -S3 spec	Connection config.code
Fixed type, Top port, Push-in fitting, Standard VPA	ø6	ø4	VPA6W67-4J13*2	○	T8	ø6	ø5/32	VPA6W67-5/32J13*2	○	T8
		ø6	VPA6W67-6J13*2	○			ø1/4	VPA6W67-1/4J*2	—	
	ø8	ø4	VPA8W67-4J13*2	○		ø8	ø5/32	VPA8W67-5/32J13*2	○	
		ø6	VPA8W67-6J13*2	○			ø1/4	VPA8W67-1/4J*2	—	
	ø10	ø6	VPA10W67-6J13*3	○	M4	ø10	ø1/4	VPA10W67-1/4J*3	—	M4
	ø20	ø3	VPA20W67-3J	—	M6	ø20	ø1/8	VPA20W67-1/8J	—	M6
		ø4	VPA20W67-4J13	○			ø5/32	VPA20W67-5/32J13	○	
		ø6	VPA20W67-6J13	○			ø1/4	VPA20W67-1/4J	—	
	ø30	ø3	VPA30W67-3J	—		ø30	ø1/8	VPA30W67-1/8J	—	
		ø4	VPA30W67-4J13	○			ø5/32	VPA30W67-5/32J13	○	
		ø6	VPA30W67-6J13	○			ø1/4	VPA30W67-1/4J	—	
	ø40	ø3	VPA40W67-3J	—		ø40	ø1/8	VPA40W67-1/8J	—	
		ø4	VPA40W67-4J13	○			ø5/32	VPA40W67-5/32J13	○	
		ø6	VPA40W67-6J13	○			ø1/4	VPA40W67-1/4J	—	
	ø50	ø3	VPA50W67-3J	—		ø50	ø1/8	VPA50W67-1/8J	—	
		ø4	VPA50W67-4J13	○			ø5/32	VPA50W67-5/32J13	○	
		ø6	VPA50W67-6J13	○			ø1/4	VPA50W67-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	13 : -S3 -S3 spec	Connection config.code
Fixed type, Top port, Female thread, Standard VPA	ø20	M6×1	VPA20W67-M613	○	M6
	ø30	M6×1	VPA30W67-M613	○	
	ø40	M6×1	VPA40W67-M613	○	
	ø50	M6×1	VPA50W67-M613	○	

Notes
*1. Barb fitting type holders are also selectable. VPMA holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm (limited to pad dia. 8 mm or smaller). Contact us for the details.
*2. Extra soft silicone (YS2/YS4) and Urethane (U) are not available.
*3. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
7 : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
13 : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.584
Surface treatment
Fall Prevention Valve
Swivel Joint
Filter

Vacuum Pad Multi-bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	13 : -S3 -S3 spec	Connection config.code	Pad dia. (mm)	Tube O.D. (inch)	Model code	13 : -S3 -S3 spec	Connection config.code
Fixed type, Side port, Push-in fitting, Mini VPMB	ø6	ø3	VPMB6W67-3J*2	—	T8	ø6	ø1/8	VPMB6W67-1/8J13*2	○	T8
		ø4	VPMB6W67-4J13*2	○			ø5/32	VPMB6W67-5/32J13*2	○	
	ø8	ø3	VPMB8W67-3J*2	—		ø8	ø1/8	VPMB8W67-1/8J13*2	○	
		ø4	VPMB8W67-4J13*2	○			ø5/32	VPMB8W67-5/32J13*2	○	
	ø10	ø3	VPMB10W67-3J*3	—	M4	ø10	ø1/8	VPMB10W67-1/8J*3	—	M4
		ø4	VPMB10W67-4J13*3	○			ø5/32	VPMB10W67-5/32J13*3	○	
		ø6	VPMB10W67-6J13*3	○			ø1/4	VPMB10W67-1/4J*3	—	
	ø20	ø3	VPMB20W67-3J	—	M6	ø20	ø1/8	VPMB20W67-1/8J	—	M6
		ø4	VPMB20W67-4J13	○			ø5/32	VPMB20W67-5/32J13	○	
		ø6	VPMB20W67-6J13	○			ø1/4	VPMB20W67-1/4J	—	
	ø30	ø3	VPMB30W67-3J	—		ø30	ø1/8	VPMB30W67-5/16J	—	
		ø4	VPMB30W67-4J13	○			ø5/32	VPMB30W67-5/32J13	○	
		ø6	VPMB30W67-6J13	○			ø1/4	VPMB30W67-1/4J	—	
	ø40	ø3	VPMB40W67-3J	—		ø40	ø1/8	VPMB40W67-1/8J	—	
		ø4	VPMB40W67-4J13	○			ø5/32	VPMB40W67-5/32J13	○	
		ø6	VPMB40W67-6J13	○			ø1/4	VPMB40W67-1/4J	—	
	ø50	ø3	VPMB50W67-3J	—		ø50	ø1/8	VPMB50W67-1/8J	—	
		ø4	VPMB50W67-4J13	○			ø5/32	VPMB50W67-5/32J13	○	
		ø6	VPMB50W67-6J13	○			ø1/4	VPMB50W67-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	13 : -S3 -S3 spec	Connection config.code
Fixed type, Side port, Female thread, Mini VPMB	ø6	M3×0.5	VPMB6W67-M313*2	○	T8
	ø8	M3×0.5	VPMB8W67-M313*2	○	
	ø10	M5×0.8	VPMB10W67-M513*3	○	M4
	ø20	M5×0.8	VPMB20W67-M513	○	
	ø30	M5×0.8	VPMB30W67-M513	○	
	ø40	M5×0.8	VPMB40W67-M513	○	M6
	ø50	M5×0.8	VPMB50W67-M513	○	

Notes

*1. Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

*2. Extra soft silicone (YS2/YS4) and Urethane (U) are not available.

*3. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.

CAD data is available at PISCO website.

Packaging specifications

1 pc. /bag

Options

7 : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)

13 : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.

*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.584

Surface treatment

Fall Prevention Valve

Swivel Joint

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	⑬ : -S3 -S3 spec	Connection config.code	Pad dia. (mm)	Tube O.D. (inch)	Model code	⑬ : -S3 -S3 spec	Connection config.code
Fixed type, Side port, Push-in fitting, Standard VPB	ø6	ø3	VPB6W⑥⑦-3J*2	—	T8	ø6	ø1/8	VPB6W⑥⑦-1/8J*2	—	T8
		ø4	VPB6W⑥⑦-4J⑬*2	○			ø5/32	VPB6W⑥⑦-5/32J⑬*2	○	
		ø6	VPB6W⑥⑦-6J⑬*2	○			ø1/4	VPB6W⑥⑦-1/4J*2	—	
	ø8	ø3	VPB8W⑥⑦-3J*2	—		ø8	ø1/8	VPB8W⑥⑦-1/8J*2	—	
		ø4	VPB8W⑥⑦-4J⑬*2	○			ø5/32	VPB8W⑥⑦-5/32J⑬*2	○	
		ø6	VPB8W⑥⑦-6J⑬*2	○			ø1/4	VPB8W⑥⑦-1/4J*2	—	
	ø10	ø3	VPB10W⑥⑦-3J*3	—	M4	ø10	ø1/8	VPB10W⑥⑦-1/8J*3	—	M4
		ø4	VPB10W⑥⑦-4J⑬*3	○			ø5/32	VPB10W⑥⑦-5/32J⑬*3	○	
		ø6	VPB10W⑥⑦-6J⑬*3	○			ø1/4	VPB10W⑥⑦-1/4J*3	—	
	ø20	ø3	VPB20W⑥⑦-3J	—	M6	ø20	ø1/8	VPB20W⑥⑦-1/8J	—	M6
		ø4	VPB20W⑥⑦-4J⑬	○			ø5/32	VPB20W⑥⑦-5/32J⑬	○	
		ø6	VPB20W⑥⑦-6J⑬	○			ø1/4	VPB20W⑥⑦-1/4J	—	
	ø30	ø3	VPB30W⑥⑦-3J	—		ø30	ø1/8	VPB30W⑥⑦-1/8J	—	
		ø4	VPB30W⑥⑦-4J⑬	○			ø5/32	VPB30W⑥⑦-5/32J⑬	○	
		ø6	VPB30W⑥⑦-6J⑬	○			ø1/4	VPB30W⑥⑦-1/4J	—	
	ø40	ø3	VPB40W⑥⑦-3J	—		ø40	ø1/8	VPB40W⑥⑦-1/8J	—	
		ø4	VPB40W⑥⑦-4J⑬	○			ø5/32	VPB40W⑥⑦-5/32J⑬	○	
		ø6	VPB40W⑥⑦-6J⑬	○			ø1/4	VPB40W⑥⑦-1/4J	—	
	ø50	ø3	VPB50W⑥⑦-3J	—		ø50	ø1/8	VPB50W⑥⑦-1/8J	—	
		ø4	VPB50W⑥⑦-4J⑬	○			ø5/32	VPB50W⑥⑦-5/32J⑬	○	
		ø6	VPB50W⑥⑦-6J⑬	○			ø1/4	VPB50W⑥⑦-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	⑬ : -S3 -S3 spec	Connection config.code
Fixed type, Side port, Female thread, Standard VPB	ø6	M5×0.8	VPB6W⑥⑦-M5⑬*2	○	T8
	ø8	M5×0.8	VPB8W⑥⑦-M5⑬*2	○	
	ø10	M6×1	VPB10W⑥⑦-M6⑬*3	○	M4
	ø20	M6×1	VPB20W⑥⑦-M6⑬	○	M6
	ø30	M6×1	VPB30W⑥⑦-M6⑬	○	
	ø40	M6×1	VPB40W⑥⑦-M6⑬	○	
	ø50	M6×1	VPB50W⑥⑦-M6⑬	○	

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	⑬ : -S3 -S3 spec	Connection config.code	Pad dia. (mm)	Tube O.D. (inch)	Model code	⑬ : -S3 -S3 spec	Connection config.code
Spring type, Top port, Push-in fitting, Mini VPMC Pad dia.ø8mm or smaller Stroke 2mm Pad dia.ø10mm or larger Stroke 4mm	ø6	ø3	VPMC6-2W⑥⑦-3J*2	—	T8	ø10	ø1/8	VPMC10-4W⑥⑦-1/8J*3	—	M4
	ø8	ø3	VPMC8-2W⑥⑦-3J*2	—			ø5/32	VPMC10-4W⑥⑦-5/32J⑬*3	○	
	ø10	ø3	VPMC10-4W⑥⑦-3J*3	—	M4	ø20	ø1/8	VPMC20-4W⑥⑦-1/8J	—	M6
		ø4	VPMC10-4W⑥⑦-4J⑬*3	○			ø5/32	VPMC20-4W⑥⑦-5/32J⑬	○	
	ø20	ø3	VPMC20-4W⑥⑦-3J	—	M6	ø30	ø1/8	VPMC30-4W⑥⑦-1/8J	—	
		ø4	VPMC20-4W⑥⑦-4J⑬	○			ø5/32	VPMC30-4W⑥⑦-5/32J⑬	○	
	ø30	ø3	VPMC30-4W⑥⑦-3J	—		ø40	ø1/8	VPMC40-4W⑥⑦-1/8J	—	
		ø4	VPMC30-4W⑥⑦-4J⑬	○			ø5/32	VPMC40-4W⑥⑦-5/32J⑬	○	
	ø40	ø3	VPMC40-4W⑥⑦-3J	—		ø50	ø1/8	VPMC50-4W⑥⑦-1/8J	—	
		ø4	VPMC40-4W⑥⑦-4J⑬	○			ø5/32	VPMC50-4W⑥⑦-5/32J⑬	○	
	ø50	ø3	VPMC50-4W⑥⑦-3J	—						
		ø4	VPMC50-4W⑥⑦-4J⑬	○						

Notes

*1. Holders are also available in Push-in fitting type (limited to pad dia. 8 mm or smaller for VPB holders) for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

*2. Extra soft silicone (YS2/YS4) and Urethane (U) are not available.

*3. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options

⑦ : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)

⑬ : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.

*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.584

Surface treatment

Fall Prevention Valve

Swivel Joint

Filter

Vacuum Pad Multi-bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	⓭ : -S3 -S3 spec	Connection config.code	Pad dia. (mm)	Tube O.D. (inch)	Model code	⓭ : -S3 -S3 spec	Connection config.code
Spring type, Top port, Push-in fitting, Slim VPSC Stroke 3mm	ø6	ø3	VPSC6-3W⑥⑦-3J⑨*2	—	T8	ø6	ø1/8	VPSC6-3W⑥⑦-1/8J⑨⑬*2	○	T8
		ø4	VPSC6-3W⑥⑦-4J⑨⑬*2	○			ø5/32	VPSC6-3W⑥⑦-5/32J⑨⑬*2	○	
	ø8	ø3	VPSC8-3W⑥⑦-3J⑨*2	—		ø8	ø1/8	VPSC8-3W⑥⑦-1/8J⑨⑬*2	○	
		ø4	VPSC8-3W⑥⑦-4J⑨⑬*2	○			ø5/32	VPSC8-3W⑥⑦-5/32J⑨⑬*2	○	

Holder type	Pad dia. (mm)	Male thread size	Model code	⓭ : -S3 -S3 spec	Connection config.code
Spring type, Top port, Female thread, Slim VPSC Stroke 3mm	ø6	M3×0.5	VPSC6-3W⑥⑦-M3⑨⑬*2	○	T8
	ø8	M3×0.5	VPSC8-3W⑥⑦-M3⑨⑬*2	○	

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	⓭ : -S3 -S3 spec	Connection config.code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	⓭ : -S3 -S3 spec	Connection config.code
Spring type, Top port, Push-in fitting, Standard VPC Pad dia. ø6 mm to ø10 mm	ø6	3	ø3	VPC6-3W⑥⑦-3J⑨*2	—	T8	ø6	3	ø1/8	VPC6-3W⑥⑦-1/8J⑨*2	—	T8
			ø4	VPC6-3W⑥⑦-4J⑨⑬*2	○				ø5/32	VPC6-3W⑥⑦-5/32J⑨⑬*2	○	
			ø6	VPC6-3W⑥⑦-6J⑨⑬*2	○				ø1/4	VPC6-3W⑥⑦-1/4J⑨*2	—	
		10	ø3	VPC6-10W⑥⑦-3J⑨*2	—			10	ø1/8	VPC6-10W⑥⑦-1/8J⑨*2	—	
			ø4	VPC6-10W⑥⑦-4J⑨*2	—				ø5/32	VPC6-10W⑥⑦-5/32J⑨*2	—	
			ø6	VPC6-10W⑥⑦-6J⑨*2	—				ø1/4	VPC6-10W⑥⑦-1/4J⑨*2	—	
		15	ø3	VPC6-15W⑥⑦-3J⑨*2	—			15	ø1/8	VPC6-15W⑥⑦-1/8J⑨*2	—	
			ø4	VPC6-15W⑥⑦-4J⑨*2	—				ø5/32	VPC6-15W⑥⑦-5/32J⑨*2	—	
			ø6	VPC6-15W⑥⑦-6J⑨*2	—				ø1/4	VPC6-15W⑥⑦-1/4J⑨*2	—	
		20	ø3	VPC6-20W⑥⑦-3J⑨*2	—			20	ø1/8	VPC6-20W⑥⑦-1/8J⑨*2	—	
			ø4	VPC6-20W⑥⑦-4J⑨*2	—				ø5/32	VPC6-20W⑥⑦-5/32J⑨*2	—	
			ø6	VPC6-20W⑥⑦-6J⑨*2	—				ø1/4	VPC6-20W⑥⑦-1/4J⑨*2	—	
	ø8	3	ø3	VPC8-3W⑥⑦-3J⑨*2	—		ø8	3	ø1/8	VPC8-3W⑥⑦-1/8J⑨*2	—	
			ø4	VPC8-3W⑥⑦-4J⑨⑬*2	○				ø5/32	VPC8-3W⑥⑦-5/32J⑨⑬*2	○	
			ø6	VPC8-3W⑥⑦-6J⑨⑬*2	○				ø1/4	VPC8-3W⑥⑦-1/4J⑨*2	—	
		10	ø3	VPC8-10W⑥⑦-3J⑨*2	—			10	ø1/8	VPC8-10W⑥⑦-1/8J⑨*2	—	
			ø4	VPC8-10W⑥⑦-4J⑨*2	—				ø5/32	VPC8-10W⑥⑦5/32J⑨*2	—	
			ø6	VPC8-10W⑥⑦-6J⑨*2	—				ø1/4	VPC8-10W⑥⑦-1/4J⑨*2	—	
		15	ø3	VPC8-15W⑥⑦-3J⑨*2	—			15	ø1/8	VPC8-15W⑥⑦-1/8J⑨*2	—	
			ø4	VPC8-15W⑥⑦-4J⑨*2	—				ø5/32	VPC8-15W⑥⑦-5/32J⑨*2	—	
			ø6	VPC8-15W⑥⑦-6J⑨*2	—				ø1/4	VPC8-15W⑥⑦-1/4J⑨*2	—	
		20	ø3	VPC8-20W⑥⑦-3J⑨*2	—			20	ø1/8	VPC8-20W⑥⑦-1/8J⑨*2	—	
			ø4	VPC8-20W⑥⑦-4J⑨*2	—				ø5/32	VPC8-20W⑥⑦-5/32J⑨*2	—	
			ø6	VPC8-20W⑥⑦-6J⑨*2	—				ø1/4	VPC8-20W⑥⑦-1/4J⑨*2	—	
	ø10	6	ø3	VPC10-6W⑥⑦-3J⑨*3	—	M4	ø10	6	ø1/8	VPC10-6W⑥⑦-1/8J⑨*3	—	M4
			ø4	VPC10-6W⑥⑦-4J⑨⑬*3	○				ø5/32	VPC10-6W⑥⑦-5/32J⑨⑬*3	○	
			ø6	VPC10-6W⑥⑦-6J⑨⑬*3	○				ø1/4	VPC10-6W⑥⑦-1/4J⑨*3	—	
		10	ø3	VPC10-10W⑥⑦-3J⑨*3	—			10	ø1/8	VPC10-10W⑥⑦-1/8J⑨*3	—	
			ø4	VPC10-10W⑥⑦-4J⑨*3	—				ø5/32	VPC10-10W⑥⑦-5/32J⑨*3	—	
			ø6	VPC10-10W⑥⑦-6J⑨*3	—				ø1/4	VPC10-10W⑥⑦-1/4J⑨*3	—	
		15	ø3	VPC10-15W⑥⑦-3J⑨*3	—			15	ø1/8	VPC10-15W⑥⑦-1/8J⑨*3	—	
			ø4	VPC10-15W⑥⑦-4J⑨*3	—				ø5/32	VPC10-15W⑥⑦-5/32J⑨*3	—	
			ø6	VPC10-15W⑥⑦-6J⑨*3	—				ø1/4	VPC10-15W⑥⑦-1/4J⑨*3	—	
		20	ø3	VPC10-20W⑥⑦-3J⑨*3	—			20	ø1/8	VPC10-20W⑥⑦-1/8J⑨*3	—	
			ø4	VPC10-20W⑥⑦-4J⑨*3	—				ø5/32	VPC10-20W⑥⑦-5/32J⑨*3	—	
			ø6	VPC10-20W⑥⑦-6J⑨*3	—				ø1/4	VPC10-20W⑥⑦-1/4J⑨*3	—	

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	13 : -S3 -S3 spec	Connection config.code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	13 : -S3 -S3 spec	Connection config.code
Spring type, Top port, Push-in fitting, Standard VPC Pad dia. ø20 mm to ø50 mm	ø20	6	ø3	VPC20-6W67-3J9	—		ø20	6	ø1/8	VPC20-6W67-1/8J9	—	
			ø4	VPC20-6W67-4J913	○				ø5/32	VPC20-6W67-5/32J913	○	
			ø6	VPC20-6W67-6J913	○				ø1/4	VPC20-6W67-1/4J9	—	
		10	ø3	VPC20-10W67-3J9	—			10	ø1/8	VPC20-10W67-1/8J9	—	
			ø4	VPC20-10W67-4J9	—				ø5/32	VPC20-10W67-5/32J9	—	
			ø6	VPC20-10W67-6J9	—				ø1/4	VPC20-10W67-1/4J9	—	
		15	ø3	VPC20-15W67-3J9	—			15	ø1/8	VPC20-15W67-1/8J9	—	
			ø4	VPC20-15W67-4J9	—				ø5/32	VPC20-15W67-5/32J9	—	
			ø6	VPC20-15W67-6J9	—				ø1/4	VPC20-15W67-1/4J9	—	
		20	ø3	VPC20-20W67-3J9	—			20	ø1/8	VPC20-20W67-1/8J9	—	
			ø4	VPC20-20W67-4J9	—				ø5/32	VPC20-20W67-5/32J9	—	
			ø6	VPC20-20W67-6J9	—				ø1/4	VPC20-20W67-1/4J9	—	
	ø30	6	ø3	VPC30-6W67-3J9	—		ø30	6	ø1/8	VPC30-6W67-1/8J9	—	
			ø4	VPC30-6W67-4J913	○				ø5/32	VPC30-6W67-5/32J913	○	
			ø6	VPC30-6W67-6J913	○				ø1/4	VPC30-6W67-1/4J9	—	
		10	ø3	VPC30-10W67-3J9	—			10	ø1/8	VPC30-10W67-1/8J9	—	
			ø4	VPC30-10W67-4J9	—				ø5/32	VPC30-10W67-5/32J9	—	
			ø6	VPC30-10W67-6J9	—				ø1/4	VPC30-10W67-1/4J9	—	
		15	ø3	VPC30-15W67-3J9	—			15	ø1/8	VPC30-15W67-1/8J9	—	
			ø4	VPC30-15W67-4J9	—				ø5/32	VPC30-15W67-5/32J9	—	
			ø6	VPC30-15W67-6J9	—				ø1/4	VPC30-15W67-1/4J9	—	
		20	ø3	VPC30-20W67-3J9	—			20	ø1/8	VPC30-20W67-1/8J9	—	
			ø4	VPC30-20W67-4J9	—				ø5/32	VPC30-20W67-5/32J9	—	
			ø6	VPC30-20W67-6J9	—	M6			ø1/4	VPC30-20W67-1/4J9	—	M6
	ø40	6	ø3	VPC40-6W67-3J9	—		ø40	6	ø1/8	VPC40-6W67-1/8J9	—	
			ø4	VPC40-6W67-4J913	○				ø5/32	VPC40-6W67-5/32J913	○	
			ø6	VPC40-6W67-6J913	○				ø1/4	VPC40-6W67-1/4J9	—	
		10	ø3	VPC40-10W67-3J9	—			10	ø1/8	VPC40-10W67-1/8J9	—	
			ø4	VPC40-10W67-4J9	—				ø5/32	VPC40-10W67-5/32J9	—	
			ø6	VPC40-10W67-6J9	—				ø1/4	VPC40-10W67-1/4J9	—	
		15	ø3	VPC40-15W67-3J9	—			15	ø1/8	VPC40-15W67-1/8J9	—	
			ø4	VPC40-15W67-4J9	—				ø5/32	VPC40-15W67-5/32J9	—	
			ø6	VPC40-15W67-6J9	—				ø1/4	VPC40-15W67-1/4J9	—	
		20	ø3	VPC40-20W67-3J9	—			20	ø1/8	VPC40-20W67-1/8J9	—	
			ø4	VPC40-20W67-4J9	—				ø5/32	VPC40-20W67-5/32J9	—	
			ø6	VPC40-20W67-6J9	—				ø1/4	VPC40-20W67-1/4J9	—	
	ø50	6	ø3	VPC50-6W67-3J9	—		ø50	6	ø1/8	VPC50-6W67-1/8J9	—	
			ø4	VPC50-6W67-4J913	○				ø5/32	VPC50-6W67-5/32J913	○	
			ø6	VPC50-6W67-6J913	○				ø1/4	VPC50-6W67-1/4J9	—	
		10	ø3	VPC50-10W67-3J9	—			10	ø1/8	VPC50-10W67-1/8J9	—	
			ø4	VPC50-10W67-4J9	—				ø5/32	VPC50-10W67-5/32J9	—	
			ø6	VPC50-10W67-6J9	—				ø1/4	VPC50-10W67-1/4J9	—	
		15	ø3	VPC50-15W67-3J9	—			15	ø1/8	VPC50-15W67-1/8J9	—	
			ø4	VPC50-15W67-4J9	—				ø5/32	VPC50-15W67-5/32J9	—	
			ø6	VPC50-15W67-6J9	—				ø1/4	VPC50-15W67-1/4J9	—	
		20	ø3	VPC50-20W67-3J9	—			20	ø1/8	VPC50-20W67-1/8J9	—	
			ø4	VPC50-20W67-4J9	—				ø5/32	VPC50-20W67-5/32J9	—	
			ø6	VPC50-20W67-6J9	—				ø1/4	VPC50-20W67-1/4J9	—	

Notes
*1. Holders are also available in Push-in fitting type (limited to pad dia. 8 mm or smaller for VPC holders) for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.
*2. Extra soft silicone (YS2/YS4) and Urethane (U) are not available.
*3. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
7 : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
9 : -DC ⇒ Holder with dust catcher
13 : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.584
Surface treatment
Dust Catcher (VPSC, VPC)
Fall Prevention Valve
Swivel Joint
Filter

Vacuum Pad Multi-bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	[13] : -S3 -S3 spec	Connection config.code
Spring type, Top port, Female thread, Standard VPC	ø6	3	M5×0.8	VPC6-3W[6][7]-M5[9][13]*1	○	T8
		10		VPC6-10W[6][7]-M5[9]*1	—	
		15		VPC6-15W[6][7]-M5[9]*1	—	
		20		VPC6-20W[6][7]-M5[9]*1	—	
	ø8	3	M5×0.8	VPC8-3W[6][7]-M5[9][13]*1	○	
		10		VPC8-10W[6][7]-M5[9]*1	—	
		15		VPC8-15W[6][7]-M5[9]*1	—	
		20		VPC8-20W[6][7]-M5[9]*1	—	
	ø10	6	M6×1	VPC10-6W[6][7]-M6[9][13]*2	○	M4
		10		VPC10-10W[6][7]-M6[9]*2	—	
		15		VPC10-15W[6][7]-M6[9]*2	—	
		20		VPC10-20W[6][7]-M6[9]*2	—	
	ø20	6	M6×1	VPC20-6W[6][7]-M6[9][13]	○	M6
		10		VPC20-10W[6][7]-M6[9]	—	
		15		VPC20-15W[6][7]-M6[9]	—	
		20		VPC20-20W[6][7]-M6[9]	—	
	ø30	6	M6×1	VPC30-6W[6][7]-M6[9][13]	○	
		10		VPC30-10W[6][7]-M6[9]	—	
		15		VPC30-15W[6][7]-M6[9]	—	
		20		VPC30-20W[6][7]-M6[9]	—	
	ø40	6	M6×1	VPC40-6W[6][7]-M6[9][13]	○	
		10		VPC40-10W[6][7]-M6[9]	—	
		15		VPC40-15W[6][7]-M6[9]	—	
		20		VPC40-20W[6][7]-M6[9]	—	
	ø50	6	M6×1	VPC50-6W[6][7]-M6[9][13]	○	
		10		VPC50-10W[6][7]-M6[9]	—	
		15		VPC50-15W[6][7]-M6[9]	—	
		20		VPC50-20W[6][7]-M6[9]	—	

Notes
*1. Extra soft silicone (YS2/YS4) and Urethane (U) are not available.
*2. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.

CAD data is available
at PISCO website.

Packaging specifications
1 pc. /bag

Options
[7] : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
[9] : -DC ⇒ Holder with dust catcher
[13] : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.584
Surface treatment
Dust Catcher (VPC)
Fall Prevention Valve
Swivel Joint
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config.code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config.code
Spring type, Top port, Push-in fitting, No cover **VPOC** Pad dia. ø6 mm to ø10 mm	ø6	20	ø3	VPOC6-20W⑥⑦-3J*2	T8	ø6	20	ø1/8	VPOC6-20W⑥⑦-1/8J*2	T8
			ø4	VPOC6-20W⑥⑦-4J*2				ø5/32	VPOC6-20W⑥⑦-5/32J*2	
			ø6	VPOC6-20W⑥⑦-6J*2				ø1/4	VPOC6-20W⑥⑦-1/4J*2	
		30	ø3	VPOC6-30W⑥⑦-3J*2			30	ø1/8	VPOC6-30W⑥⑦-1/8J*2	
			ø4	VPOC6-30W⑥⑦-4J*2				ø5/32	VPOC6-30W⑥⑦-5/32J*2	
			ø6	VPOC6-30W⑥⑦-6J*2				ø1/4	VPOC6-30W⑥⑦-1/4J*2	
		40	ø3	VPOC6-40W⑥⑦-3J*2			40	ø1/8	VPOC6-40W⑥⑦-1/8J*2	
			ø4	VPOC6-40W⑥⑦-4J*2				ø5/32	VPOC6-40W⑥⑦-5/32J*2	
			ø6	VPOC6-40W⑥⑦-6J*2				ø1/4	VPOC6-40W⑥⑦-1/4J*2	
		50	ø3	VPOC6-50W⑥⑦-3J*2			50	ø1/8	VPOC6-50W⑥⑦-1/8J*2	
			ø4	VPOC6-50W⑥⑦-4J*2				ø5/32	VPOC6-50W⑥⑦-5/32J*2	
			ø6	VPOC6-50W⑥⑦-6J*2				ø1/4	VPOC6-50W⑥⑦-1/4J*2	
	ø8	20	ø3	VPOC8-20W⑥⑦-3J*2		ø8	20	ø1/8	VPOC8-20W⑥⑦-1/8J*2	
			ø4	VPOC8-20W⑥⑦-4J*2				ø5/32	VPOC8-20W⑥⑦-5/32J*2	
			ø6	VPOC8-20W⑥⑦-6J*2				ø1/4	VPOC8-20W⑥⑦-1/4J*2	
		30	ø3	VPOC8-30W⑥⑦-3J*2			30	ø1/8	VPOC8-30W⑥⑦-1/8J*2	
			ø4	VPOC8-30W⑥⑦-4J*2				ø5/32	VPOC8-30W⑥⑦-5/32J*2	
			ø6	VPOC8-30W⑥⑦-6J*2				ø1/4	VPOC8-30W⑥⑦-1/4J*2	
		40	ø3	VPOC8-40W⑥⑦-3J*2			40	ø1/8	VPOC8-40W⑥⑦-1/8J*2	
			ø4	VPOC8-40W⑥⑦-4J*2				ø5/32	VPOC8-40W⑥⑦-5/32J*2	
			ø6	VPOC8-40W⑥⑦-6J*2				ø1/4	VPOC8-40W⑥⑦-1/4J*2	
		50	ø3	VPOC8-50W⑥⑦-3J*2			50	ø1/8	VPOC8-50W⑥⑦-1/8J*2	
			ø4	VPOC8-50W⑥⑦-4J*2				ø5/32	VPOC8-50W⑥⑦-5/32J*2	
			ø6	VPOC8-50W⑥⑦-6J*2				ø1/4	VPOC8-50W⑥⑦-1/4J*2	
	ø10	20	ø3	VPOC10-20W⑥⑦-3J*3	M4	ø10	20	ø1/8	VPOC10-20W⑥⑦-1/8J*3	M4
			ø4	VPOC10-20W⑥⑦-4J*3				ø5/32	VPOC10-20W⑥⑦-5/32J*3	
			ø6	VPOC10-20W⑥⑦-6J*3				ø1/4	VPOC10-20W⑥⑦-1/4J*3	
		30	ø3	VPOC10-30W⑥⑦-3J*3			30	ø1/8	VPOC10-30W⑥⑦-1/8J*3	
			ø4	VPOC10-30W⑥⑦-4J*3				ø5/32	VPOC10-30W⑥⑦-5/32J*3	
			ø6	VPOC10-30W⑥⑦-6J*3				ø1/4	VPOC10-30W⑥⑦-1/4J*3	
		40	ø3	VPOC10-40W⑥⑦-3J*3			40	ø1/8	VPOC10-40W⑥⑦-1/8J*3	
			ø4	VPOC10-40W⑥⑦-4J*3				ø5/32	VPOC10-40W⑥⑦-5/32J*3	
			ø6	VPOC10-40W⑥⑦-6J*3				ø1/4	VPOC10-40W⑥⑦-1/4J*3	
		50	ø3	VPOC10-50W⑥⑦-3J*3			50	ø1/8	VPOC10-50W⑥⑦-1/8J*3	
			ø4	VPOC10-50W⑥⑦-4J*3				ø5/32	VPOC10-50W⑥⑦-5/32J*3	
			ø6	VPOC10-50W⑥⑦-6J*3				ø1/4	VPOC10-50W⑥⑦-1/4J*3	

Notes
*1. Barb fitting type holders are also selectable. Contact us for the details.
*2. Extra soft silicone (YS2/YS4) and Urethane (U) are not available.
*3. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.

Packaging specifications
1 pc. /bag

Options
⑦ : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.584
Surface treatment
Fall Prevention Valve
Swivel Joint
Filter

Vacuum Pad Multi-bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type,
Top port,
Push-in fitting,
No cover

VPOC

Pad dia.
ø20 mm
to
ø50 mm

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config.code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config.code
Spring type, Top port, Push-in fitting, No cover VPOC	ø20	20	ø3	VPOC20-20W⑥⑦-3J	M6	ø20	20	ø1/8	VPOC20-20W⑥⑦-1/8J	M6
			ø4	VPOC20-20W⑥⑦-4J				ø5/32	VPOC20-20W⑥⑦-5/32J	
			ø6	VPOC20-20W⑥⑦-6J				ø1/4	VPOC20-20W⑥⑦-1/4J	
		30	ø3	VPOC20-30W⑥⑦-3J			30	ø1/8	VPOC20-30W⑥⑦-1/8J	
			ø4	VPOC20-30W⑥⑦-4J				ø5/32	VPOC20-30W⑥⑦-5/32J	
			ø6	VPOC20-30W⑥⑦-6J				ø1/4	VPOC20-30W⑥⑦-1/4J	
		40	ø3	VPOC20-40W⑥⑦-3J			40	ø1/8	VPOC20-40W⑥⑦-1/8J	
			ø4	VPOC20-40W⑥⑦-4J				ø5/32	VPOC20-40W⑥⑦-5/32J	
			ø6	VPOC20-40W⑥⑦-6J				ø1/4	VPOC20-40W⑥⑦-1/4J	
		50	ø3	VPOC20-50W⑥⑦-3J			50	ø1/8	VPOC20-50W⑥⑦-1/8J	
			ø4	VPOC20-50W⑥⑦-4J				ø5/32	VPOC20-50W⑥⑦-5/32J	
			ø6	VPOC20-50W⑥⑦-6J				ø1/4	VPOC20-50W⑥⑦-1/4J	
	ø30	20	ø3	VPOC30-20W⑥⑦-3J		ø30	20	ø1/8	VPOC30-20W⑥⑦-1/8J	
			ø4	VPOC30-20W⑥⑦-4J				ø5/32	VPOC30-20W⑥⑦-5/32J	
			ø6	VPOC30-20W⑥⑦-6J				ø1/4	VPOC30-20W⑥⑦-1/4J	
		30	ø3	VPOC30-30W⑥⑦-3J			30	ø1/8	VPOC30-30W⑥⑦-1/8J	
			ø4	VPOC30-30W⑥⑦-4J				ø5/32	VPOC30-30W⑥⑦-5/32J	
			ø6	VPOC30-30W⑥⑦-6J				ø1/4	VPOC30-30W⑥⑦-1/4J	
		40	ø3	VPOC30-40W⑥⑦-3J			40	ø1/8	VPOC30-40W⑥⑦-1/8J	
			ø4	VPOC30-40W⑥⑦-4J				ø5/32	VPOC30-40W⑥⑦-5/32J	
			ø6	VPOC30-40W⑥⑦-6J				ø1/4	VPOC30-40W⑥⑦-1/4J	
		50	ø3	VPOC30-50W⑥⑦-3J			50	ø1/8	VPOC30-50W⑥⑦-1/8J	
			ø4	VPOC30-50W⑥⑦-4J				ø5/32	VPOC30-50W⑥⑦-5/32J	
			ø6	VPOC30-50W⑥⑦-6J				ø1/4	VPOC30-50W⑥⑦-1/4J	
	ø40	20	ø3	VPOC40-20W⑥⑦-3J		ø40	20	ø1/8	VPOC40-20W⑥⑦-1/8J	
			ø4	VPOC40-20W⑥⑦-4J				ø5/32	VPOC40-20W⑥⑦-5/32J	
			ø6	VPOC40-20W⑥⑦-6J				ø1/4	VPOC40-20W⑥⑦-1/4J	
		30	ø3	VPOC40-30W⑥⑦-3J			30	ø1/8	VPOC40-30W⑥⑦-1/8J	
			ø4	VPOC40-30W⑥⑦-4J				ø5/32	VPOC40-30W⑥⑦-5/32J	
			ø6	VPOC40-30W⑥⑦-6J				ø1/4	VPOC40-30W⑥⑦-1/4J	
		40	ø3	VPOC40-40W⑥⑦-3J			40	ø1/8	VPOC40-40W⑥⑦-1/8J	
			ø4	VPOC40-40W⑥⑦-4J				ø5/32	VPOC40-40W⑥⑦-5/32J	
			ø6	VPOC40-40W⑥⑦-6J				ø1/4	VPOC40-40W⑥⑦-1/4J	
		50	ø3	VPOC40-50W⑥⑦-3J			50	ø1/8	VPOC40-50W⑥⑦-1/8J	
			ø4	VPOC40-50W⑥⑦-4J				ø5/32	VPOC40-50W⑥⑦-5/32J	
			ø6	VPOC40-50W⑥⑦-6J				ø1/4	VPOC40-50W⑥⑦-1/4J	
	ø50	20	ø3	VPOC50-20W⑥⑦-3J		ø50	20	ø1/8	VPOC50-20W⑥⑦-1/8J	
			ø4	VPOC50-20W⑥⑦-4J				ø5/32	VPOC50-20W⑥⑦-5/32J	
			ø6	VPOC50-20W⑥⑦-6J				ø1/4	VPOC50-20W⑥⑦-1/4J	
		30	ø3	VPOC50-30W⑥⑦-3J			30	ø1/8	VPOC50-30W⑥⑦-1/8J	
			ø4	VPOC50-30W⑥⑦-4J				ø5/32	VPOC50-30W⑥⑦-5/32J	
			ø6	VPOC50-30W⑥⑦-6J				ø1/4	VPOC50-30W⑥⑦-1/4J	
		40	ø3	VPOC50-40W⑥⑦-3J			40	ø1/8	VPOC50-40W⑥⑦-1/8J	
			ø4	VPOC50-40W⑥⑦-4J				ø5/32	VPOC50-40W⑥⑦-5/32J	
			ø6	VPOC50-40W⑥⑦-6J				ø1/4	VPOC50-40W⑥⑦-1/4J	
		50	ø3	VPOC50-50W⑥⑦-3J			50	ø1/8	VPOC50-50W⑥⑦-1/8J	
			ø4	VPOC50-50W⑥⑦-4J				ø5/32	VPOC50-50W⑥⑦-5/32J	
			ø6	VPOC50-50W⑥⑦-6J				ø1/4	VPOC50-50W⑥⑦-1/4J	

Notes
*Barb fitting type holders are also selectable. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
⑦ : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.584
Surface treatment
Fall Prevention Valve
Swivel Joint
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

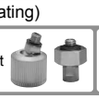
Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config.code
Spring type, Top port, Female thread, No cover **VPOC**	ø6	20	M6×1	VPOC6-20W⑥⑦-M6*1	T8
		30		VPOC6-30W⑥⑦-M6*1	
		40		VPOC6-40W⑥⑦-M6*1	
		50		VPOC6-50W⑥⑦-M6*1	
	ø8	20	M6×1	VPOC8-20W⑥⑦-M6*1	
		30		VPOC8-30W⑥⑦-M6*1	
		40		VPOC8-40W⑥⑦-M6*1	
		50		VPOC8-50W⑥⑦-M6*1	
	ø10	20	M6×1	VPOC10-20W⑥⑦-M6*2	M4
		30		VPOC10-30W⑥⑦-M6*2	
		40		VPOC10-40W⑥⑦-M6*2	
		50		VPOC10-50W⑥⑦-M6*2	
	ø20	20	M6×1	VPOC20-20W⑥⑦-M6	M6
		30		VPOC20-30W⑥⑦-M6	
		40		VPOC20-40W⑥⑦-M6	
		50		VPOC20-50W⑥⑦-M6	
	ø30	20	M6×1	VPOC30-20W⑥⑦-M6	
		30		VPOC30-30W⑥⑦-M6	
		40		VPOC30-40W⑥⑦-M6	
		50		VPOC30-50W⑥⑦-M6	
	ø40	20	M6×1	VPOC40-20W⑥⑦-M6	
		30		VPOC40-30W⑥⑦-M6	
		40		VPOC40-40W⑥⑦-M6	
		50		VPOC40-50W⑥⑦-M6	
	ø50	20	M6×1	VPOC50-20W⑥⑦-M6	
		30		VPOC50-30W⑥⑦-M6	
		40		VPOC50-40W⑥⑦-M6	
		50		VPOC50-50W⑥⑦-M6	

Notes
*1. Extra soft silicone (YS2/YS4) and Urethane (U) are not available.
*2. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
⑦ : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.584
Surface treatment
Fall Prevention Valve
Swivel Joint 
Filter

Vacuum Pad Multi-bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config.code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config.code
Spring type, Top port, Push-in fitting, Low dust emission **VPLFC** Pad dia. ø6 mm to ø10 mm	ø6	2	ø3	VPLFC6-2W⑥⑦-3J*2	T8	ø6	2	ø1/8	VPLFC6-2W⑥⑦-1/8J*2	T8
			ø4	VPLFC6-2W⑥⑦-4J*2				ø5/32	VPLFC6-2W⑥⑦-5/32J*2	
		5	ø3	VPLFC6-5W⑥⑦-3J⑨*2			5	ø1/8	VPLFC6-5W⑥⑦-1/8J⑨*2	
			ø4	VPLFC6-5W⑥⑦-4J⑨*2				ø5/32	VPLFC6-5W⑥⑦-5/32J⑨*2	
		10	ø3	VPLFC6-10W⑥⑦-3J⑨*2			10	ø1/8	VPLFC6-10W⑥⑦-1/8J⑨*2	
			ø4	VPLFC6-10W⑥⑦-4J⑨*2				ø5/32	VPLFC6-10W⑥⑦-5/32J⑨*2	
		15	ø3	VPLFC6-15W⑥⑦-3J⑨*2			15	ø1/8	VPLFC6-15W⑥⑦-1/8J⑨*2	
			ø4	VPLFC6-15W⑥⑦-4J⑨*2				ø5/32	VPLFC6-15W⑥⑦-5/32J⑨*2	
		20	ø3	VPLFC6-20W⑥⑦-3J⑨*2			20	ø1/8	VPLFC6-20W⑥⑦-1/8J⑨*2	
			ø4	VPLFC6-20W⑥⑦-4J⑨*2				ø5/32	VPLFC6-20W⑥⑦-5/32J⑨*2	
	ø8	2	ø3	VPLFC8-2W⑥⑦-3J*2		ø8	2	ø1/8	VPLFC8-2W⑥⑦-1/8J*2	
			ø4	VPLFC8-2W⑥⑦-4J*2				ø5/32	VPLFC8-2W⑥⑦-5/32J*2	
		5	ø3	VPLFC8-5W⑥⑦-3J⑨*2			5	ø1/8	VPLFC8-5W⑥⑦-1/8J⑨*2	
			ø4	VPLFC8-5W⑥⑦-4J⑨*2				ø5/32	VPLFC8-5W⑥⑦-5/32J⑨*2	
		10	ø3	VPLFC8-10W⑥⑦-3J⑨*2			10	ø1/8	VPLFC8-10W⑥⑦-1/8J⑨*2	
			ø4	VPLFC8-10W⑥⑦-4J⑨*2				ø5/32	VPLFC8-10W⑥⑦-5/32J⑨*2	
		15	ø3	VPLFC8-15W⑥⑦-3J⑨*2			15	ø1/8	VPLFC8-15W⑥⑦-1/8J⑨*2	
			ø4	VPLFC8-15W⑥⑦-4J⑨*2				ø5/32	VPLFC8-15W⑥⑦-5/32J⑨*2	
		20	ø3	VPLFC8-20W⑥⑦-3J⑨*2			20	ø1/8	VPLFC8-20W⑥⑦-1/8J⑨*2	
			ø4	VPLFC8-20W⑥⑦-4J⑨*2				ø5/32	VPLFC8-20W⑥⑦-5/32J⑨*2	
	ø10	2	ø3	VPLFC10-2W⑥⑦-3J*3	M4	ø10	2	ø1/8	VPLFC10-2W⑥⑦-1/8J*3	M4
			ø4	VPLFC10-2W⑥⑦-4J*3				ø5/32	VPLFC10-2W⑥⑦-5/32J*3	
		5	ø3	VPLFC10-5W⑥⑦-3J⑨*3			5	ø1/8	VPLFC10-5W⑥⑦-1/8J⑨*3	
			ø4	VPLFC10-5W⑥⑦-4J⑨*3				ø5/32	VPLFC10-5W⑥⑦-5/32J⑨*3	
		10	ø3	VPLFC10-10W⑥⑦-3J⑨*3			10	ø1/8	VPLFC10-10W⑥⑦-1/8J⑨*3	
			ø4	VPLFC10-10W⑥⑦-4J⑨*3				ø5/32	VPLFC10-10W⑥⑦-5/32J⑨*3	
		15	ø3	VPLFC10-15W⑥⑦-3J⑨*3			15	ø1/8	VPLFC10-15W⑥⑦-1/8J⑨*3	
			ø4	VPLFC10-15W⑥⑦-4J⑨*3				ø5/32	VPLFC10-15W⑥⑦-5/32J⑨*3	
		20	ø3	VPLFC10-20W⑥⑦-3J⑨*3			20	ø1/8	VPLFC10-20W⑥⑦-1/8J⑨*3	
			ø4	VPLFC10-20W⑥⑦-4J⑨*3				ø5/32	VPLFC10-20W⑥⑦-5/32J⑨*3	

Notes

*1. Barb fitting type holders are also selectable. Contact us for the details.
*2. Extra soft silicone (YS2/YS4) and Urethane (U) are not available.
*3. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.

Packaging specifications

1 pc. /bag

Options

⑦ : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
⑨ : -SF1/4 ⇒ Spring load 1/4

Optional items ⇒ P.584

Surface treatment

Fall Prevention Valve

Swivel Joint

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config.code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config.code
Spring type, Top port, Push-in fitting, Low dust emission **VPLFC** Pad dia. ø20 mm to ø50 mm	ø20	5	ø3	VPLFC20-5W[6][7]-3J[9]		ø20	5	ø1/8	VPLFC20-5W[6][7]-1/8J[9]	
			ø4	VPLFC20-5W[6][7]-4J[9]				ø5/32	VPLFC20-5W[6][7]-5/32J[9]	
			ø6	VPLFC20-5W[6][7]-6J[9]				ø1/4	VPLFC20-5W[6][7]-1/4J[9]	
		10	ø3	VPLFC20-10W[6][7]-3J[9]			10	ø1/8	VPLFC20-10W[6][7]-1/8J[9]	
			ø4	VPLFC20-10W[6][7]-4J[9]				ø5/32	VPLFC20-10W[6][7]-5/32J[9]	
			ø6	VPLFC20-10W[6][7]-6J[9]				ø1/4	VPLFC20-10W[6][7]-1/4J[9]	
		15	ø3	VPLFC20-15W[6][7]-3J[9]			15	ø1/8	VPLFC20-15W[6][7]-1/8J[9]	
			ø4	VPLFC20-15W[6][7]-4J[9]				ø5/32	VPLFC20-15W[6][7]-5/32J[9]	
			ø6	VPLFC20-15W[6][7]-6J[9]				ø1/4	VPLFC20-15W[6][7]-1/4J[9]	
		20	ø3	VPLFC20-20W[6][7]-3J[9]			20	ø1/8	VPLFC20-20W[6][7]-1/8J[9]	
			ø4	VPLFC20-20W[6][7]-4J[9]				ø5/32	VPLFC20-20W[6][7]-5/32J[9]	
			ø6	VPLFC20-20W[6][7]-6J[9]				ø1/4	VPLFC20-20W[6][7]-1/4J[9]	
	ø30	5	ø3	VPLFC30-5W[6][7]-3J[9]		ø30	5	ø1/8	VPLFC30-5W[6][7]-1/8J[9]	
			ø4	VPLFC30-5W[6][7]-4J[9]				ø5/32	VPLFC30-5W[6][7]-5/32J[9]	
			ø6	VPLFC30-5W[6][7]-6J[9]				ø1/4	VPLFC30-5W[6][7]-1/4J[9]	
		10	ø3	VPLFC30-10W[6][7]-3J[9]			10	ø1/8	VPLFC30-10W[6][7]-1/8J[9]	
			ø4	VPLFC30-10W[6][7]-4J[9]				ø5/32	VPLFC30-10W[6][7]-5/32J[9]	
			ø6	VPLFC30-10W[6][7]-6J[9]				ø1/4	VPLFC30-10W[6][7]-1/4J[9]	
		15	ø3	VPLFC30-15W[6][7]-3J[9]			15	ø1/8	VPLFC30-15W[6][7]-1/8J[9]	
			ø4	VPLFC30-15W[6][7]-4J[9]				ø5/32	VPLFC30-15W[6][7]-5/32J[9]	
			ø6	VPLFC30-15W[6][7]-6J[9]				ø1/4	VPLFC30-15W[6][7]-1/4J[9]	
		20	ø3	VPLFC30-20W[6][7]-3J[9]			20	ø1/8	VPLFC30-20W[6][7]-1/8J[9]	
			ø4	VPLFC30-20W[6][7]-4J[9]				ø5/32	VPLFC30-20W[6][7]-5/32J[9]	
			ø6	VPLFC30-20W[6][7]-6J[9]	M6			ø1/4	VPLFC30-20W[6][7]-1/4J[9]	M6
	ø40	5	ø3	VPLFC40-5W[6][7]-3J[9]		ø40	5	ø1/8	VPLFC40-5W[6][7]-1/8J[9]	
			ø4	VPLFC40-5W[6][7]-4J[9]				ø5/32	VPLFC40-5W[6][7]-5/32J[9]	
			ø6	VPLFC40-5W[6][7]-6J[9]				ø1/4	VPLFC40-5W[6][7]-1/4J[9]	
		10	ø3	VPLFC40-10W[6][7]-3J[9]			10	ø1/8	VPLFC40-10W[6][7]-1/8J[9]	
			ø4	VPLFC40-10W[6][7]-4J[9]				ø5/32	VPLFC40-10W[6][7]-5/32J[9]	
			ø6	VPLFC40-10W[6][7]-6J[9]				ø1/4	VPLFC40-10W[6][7]-1/4J[9]	
		15	ø3	VPLFC40-15W[6][7]-3J[9]			15	ø1/8	VPLFC40-15W[6][7]-1/8J[9]	
			ø4	VPLFC40-15W[6][7]-4J[9]				ø5/32	VPLFC40-15W[6][7]-5/32J[9]	
			ø6	VPLFC40-15W[6][7]-6J[9]				ø1/4	VPLFC40-15W[6][7]-1/4J[9]	
		20	ø3	VPLFC40-20W[6][7]-3J[9]			20	ø1/8	VPLFC40-20W[6][7]-1/8J[9]	
			ø4	VPLFC40-20W[6][7]-4J[9]				ø5/32	VPLFC40-20W[6][7]-5/32J[9]	
			ø6	VPLFC40-20W[6][7]-6J[9]				ø1/4	VPLFC40-20W[6][7]-1/4J[9]	
	ø50	5	ø3	VPLFC50-5W[6][7]-3J[9]		ø50	5	ø1/8	VPLFC50-5W[6][7]-1/8J[9]	
			ø4	VPLFC50-5W[6][7]-4J[9]				ø5/32	VPLFC50-5W[6][7]-5/32J[9]	
			ø6	VPLFC50-5W[6][7]-6J[9]				ø1/4	VPLFC50-5W[6][7]-1/4J[9]	
		10	ø3	VPLFC50-10W[6][7]-3J[9]			10	ø1/8	VPLFC50-10W[6][7]-1/8J[9]	
			ø4	VPLFC50-10W[6][7]-4J[9]				ø5/32	VPLFC50-10W[6][7]-5/32J[9]	
			ø6	VPLFC50-10W[6][7]-6J[9]				ø1/4	VPLFC50-10W[6][7]-1/4J[9]	
		15	ø3	VPLFC50-15W[6][7]-3J[9]			15	ø1/8	VPLFC50-15W[6][7]-1/8J[9]	
			ø4	VPLFC50-15W[6][7]-4J[9]				ø5/32	VPLFC50-15W[6][7]-5/32J[9]	
			ø6	VPLFC50-15W[6][7]-6J[9]				ø1/4	VPLFC50-15W[6][7]-1/4J[9]	
		20	ø3	VPLFC50-20W[6][7]-3J[9]			20	ø1/8	VPLFC50-20W[6][7]-1/8J[9]	
			ø4	VPLFC50-20W[6][7]-4J[9]				ø5/32	VPLFC50-20W[6][7]-5/32J[9]	
			ø6	VPLFC50-20W[6][7]-6J[9]				ø1/4	VPLFC50-20W[6][7]-1/4J[9]	

Notes
*Barb fitting type holders are also selectable. Contact us for the details.

Packaging specifications
1 pc. /bag

Options
[7] : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
[9] : -SF1/4 ⇒ Spring load 1/4

Optional items ⇒ P.584
Surface treatment
Fall Prevention Valve
Swivel Joint
Filter

Vacuum Pad Multi-bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config.code
Spring type, Top port, Female thread, Low dust emission VPLFC 	ø6	2	M5×0.8	VPLFC6-2W⑥⑦-M5*1	T8
		5	M5×0.8	VPLFC6-5W⑥⑦-M5⑨*1	
		10	M5×0.8	VPLFC6-10W⑥⑦-M5⑨*1	
		15	M5×0.8	VPLFC6-15W⑥⑦-M5⑨*1	
		20	M5×0.8	VPLFC6-20W⑥⑦-M5⑨*1	
	ø8	2	M5×0.8	VPLFC8-2W⑥⑦-M5*1	
		5	M5×0.8	VPLFC8-5W⑥⑦-M5⑨*1	
		10	M5×0.8	VPLFC8-10W⑥⑦-M5⑨*1	
		15	M5×0.8	VPLFC8-15W⑥⑦-M5⑨*1	
		20	M5×0.8	VPLFC8-20W⑥⑦-M5⑨*1	
	ø10	2	M5×0.8	VPLFC10-2W⑥⑦-M5*2	M4
		5	M5×0.8	VPLFC10-5W⑥⑦-M5⑨*2	
		10	M5×0.8	VPLFC10-10W⑥⑦-M5⑨*2	
		15	M5×0.8	VPLFC10-15W⑥⑦-M5⑨*2	
		20	M5×0.8	VPLFC10-20W⑥⑦-M5⑨*2	
	ø20	5	M6×1	VPLFC20-5W⑥⑦-M6⑨	M6
		10	M6×1	VPLFC20-10W⑥⑦-M6⑨	
		15	M6×1	VPLFC20-15W⑥⑦-M6⑨	
		20	M6×1	VPLFC20-20W⑥⑦-M6⑨	
	ø30	5	M6×1	VPLFC30-5W⑥⑦-M6⑨	
		10	M6×1	VPLFC30-10W⑥⑦-M6⑨	
		15	M6×1	VPLFC30-15W⑥⑦-M6⑨	
		20	M6×1	VPLFC30-20W⑥⑦-M6⑨	
	ø40	5	M6×1	VPLFC40-5W⑥⑦-M6⑨	
		10	M6×1	VPLFC40-10W⑥⑦-M6⑨	
		15	M6×1	VPLFC40-15W⑥⑦-M6⑨	
		20	M6×1	VPLFC40-20W⑥⑦-M6⑨	
	ø50	5	M6×1	VPLFC50-5W⑥⑦-M6⑨	
		10	M6×1	VPLFC50-10W⑥⑦-M6⑨	
		15	M6×1	VPLFC50-15W⑥⑦-M6⑨	
		20	M6×1	VPLFC50-20W⑥⑦-M6⑨	

Notes
*1. Extra soft silicone (YS2/YS4) and Urethane (U) are not available.
*2. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.

Packaging specifications
1 pc. /bag

Options
⑦ : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
⑨ : -SF1/4 ⇒ Spring load 1/4

Optional items ⇒ P.584
Surface treatment
Fall Prevention Valve
Swivel Joint
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	13 : -S3 -S3 spec.	Connection config.code	Pad dia. (mm)	Tube O.D. (inch)	Model code	13 : -S3 -S3 spec	Connection config.code
Spring type, Side port, Push-in fitting, Mini VPMD Pad dia.ø8mm or smaller Stroke 2mm Pad dia.ø10mm or larger Stroke 4mm	ø6	ø3	VPMD6-2W67-3J*2	—	T8	ø6	ø1/8	VPMD6-2W67-1/8J13*2	○	T8
		ø4	VPMD6-2W67-4J13*2	○			ø5/32	VPMD6-2W67-5/32J13*2	○	
	ø8	ø3	VPMD8-2W67-3J*2	—		ø8	ø1/8	VPMD8-2W67-1/8J13*2	○	
		ø4	VPMD8-2W67-4J13*2	○			ø5/32	VPMD8-2W67-5/32J13*2	○	
	ø10	ø3	VPMD10-4W67-3J*3	—	M4	ø10	ø1/8	VPMD10-4W67-1/8J*3	—	M4
		ø4	VPMD10-4W67-4J13*3	○			ø5/32	VPMD10-4W67-5/32J13*3	○	
		ø6	VPMD10-4W67-6J13*3	○			ø1/4	VPMD10-4W67-1/4J*3	—	
	ø20	ø3	VPMD20-4W67-3J	—	M6	ø20	ø1/8	VPMD20-4W67-1/8J	—	M6
		ø4	VPMD20-4W67-4J13	○			ø5/32	VPMD20-4W67-5/32J13	○	
		ø6	VPMD20-4W67-6J13	○			ø1/4	VPMD20-4W67-1/4J	—	
	ø30	ø3	VPMD30-4W67-3J	—		ø30	ø1/8	VPMD30-4W67-1/8J	—	
		ø4	VPMD30-4W67-4J13	○			ø5/32	VPMD30-4W67-5/32J13	○	
		ø6	VPMD30-4W67-6J13	○			ø1/4	VPMD30-4W67-1/4J	—	
	ø40	ø3	VPMD40-4W67-3J	—		ø40	ø1/8	VPMD40-4W67-1/8J	—	
		ø4	VPMD40-4W67-4J13	○			ø5/32	VPMD40-4W67-5/32J13	○	
		ø6	VPMD40-4W67-6J13	○			ø1/4	VPMD40-4W67-1/4J	—	
	ø50	ø3	VPMD50-4W67-3J	—		ø50	ø1/8	VPMD50-4W67-1/8J	—	
		ø4	VPMD50-4W67-4J13	○			ø5/32	VPMD50-4W67-5/32J13	○	
		ø6	VPMD50-4W67-6J13	○			ø1/4	VPMD50-4W67-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	13 : -S3 -S3 spec.	Connection config.code
Spring type, Side port, Female thread, Mini VPMD Pad dia. ø8mm or smaller Stroke 2mm ø10mm or larger Stroke 4mm	ø6	M3×0.5	VPMD6-2W67-M313*2	○	T8
	ø8	M3×0.5	VPMD8-2W67-M313*2	○	
	ø10	M5×0.8	VPMD10-4W67-M513*3	○	M4
	ø20	M5×0.8	VPMD20-4W67-M513	○	M6
	ø30	M5×0.8	VPMD30-4W67-M513	○	
	ø40	M5×0.8	VPMD40-4W67-M513	○	
	ø50	M5×0.8	VPMD50-4W67-M513	○	

Notes

*1. Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

*2. Extra soft silicone (YS2/YS4) and Urethane (U) are not available.

*3. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.

CAD data is available at PISCO website.

Packaging specifications

1 pc. /bag

Options

7 : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)

13 : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.

*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.584

Surface treatment

Fall Prevention Valve

Swivel Joint

Filter

Vacuum Pad Multi-bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	⑬ : -S3 -S3 spec	Connection config.code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	⑬ : -S3 -S3 spec	Connection config.code
Spring type, Side port, Push-in fitting, Standard VPD Pad dia. ø6 mm to ø10 mm	ø6	3	ø3	VPD6-3W⑥⑦-3J⑨*2	—	T8	ø6	3	ø1/8	VPD6-3W⑥⑦-1/8J⑨*2	—	T8
			ø4	VPD6-3W⑥⑦-4J⑨⑬*2	○				ø5/32	VPD6-3W⑥⑦-5/32J⑨⑬*2	○	
			ø6	VPD6-3W⑥⑦-6J⑨⑬*2	○				ø1/4	VPD6-3W⑥⑦-1/4J⑨*2	—	
		10	ø3	VPD6-10W⑥⑦-3J⑨*2	—			10	ø1/8	VPD6-10W⑥⑦-1/8J⑨*2	—	
			ø4	VPD6-10W⑥⑦-4J⑨*2	—				ø5/32	VPD6-10W⑥⑦-5/32J⑨*2	—	
			ø6	VPD6-10W⑥⑦-6J⑨*2	—				ø1/4	VPD6-10W⑥⑦-1/4J⑨*2	—	
		15	ø3	VPD6-15W⑥⑦-3J⑨*2	—			15	ø1/8	VPD6-15W⑥⑦-1/8J⑨*2	—	
			ø4	VPD6-15W⑥⑦-4J⑨*2	—				ø5/32	VPD6-15W⑥⑦-5/32J⑨*2	—	
			ø6	VPD6-15W⑥⑦-6J⑨*2	—				ø1/4	VPD6-15W⑥⑦-1/4J⑨*2	—	
		20	ø3	VPD6-20W⑥⑦-3J⑨*2	—			20	ø1/8	VPD6-20W⑥⑦-1/8J⑨*2	—	
			ø4	VPD6-20W⑥⑦-4J⑨*2	—				ø5/32	VPD6-20W⑥⑦-5/32J⑨*2	—	
			ø6	VPD6-20W⑥⑦-6J⑨*2	—				ø1/4	VPD6-20W⑥⑦-1/4J⑨*2	—	
	ø8	3	ø3	VPD8-3W⑥⑦-3J⑨*2	—		ø8	3	ø1/8	VPD8-3W⑥⑦-1/8J⑨*2	—	
			ø4	VPD8-3W⑥⑦-4J⑨⑬*2	○				ø5/32	VPD8-3W⑥⑦-5/32J⑨⑬*2	○	
			ø6	VPD8-3W⑥⑦-6J⑨⑬*2	○				ø1/4	VPD8-3W⑥⑦-1/4J⑨*2	—	
		10	ø3	VPD8-10W⑥⑦-3J⑨*2	—			10	ø1/8	VPD8-10W⑥⑦-1/8J⑨*2	—	
			ø4	VPD8-10W⑥⑦-4J⑨*2	—				ø5/32	VPD8-10W⑥⑦-5/32J⑨*2	—	
			ø6	VPD8-10W⑥⑦-6J⑨*2	—				ø1/4	VPD8-10W⑥⑦-1/4J⑨*2	—	
		15	ø3	VPD8-15W⑥⑦-3J⑨*2	—			15	ø1/8	VPD8-15W⑥⑦-1/8J⑨*2	—	
			ø4	VPD8-15W⑥⑦-4J⑨*2	—				ø5/32	VPD8-15W⑥⑦-5/32J⑨*2	—	
			ø6	VPD8-15W⑥⑦-6J⑨*2	—				ø1/4	VPD8-15W⑥⑦-1/4J⑨*2	—	
		20	ø3	VPD8-20W⑥⑦-3J⑨*2	—			20	ø1/8	VPD8-20W⑥⑦-1/8J⑨*2	—	
			ø4	VPD8-20W⑥⑦-4J⑨*2	—				ø5/32	VPD8-20W⑥⑦-5/32J⑨*2	—	
			ø6	VPD8-20W⑥⑦-6J⑨*2	—				ø1/4	VPD8-20W⑥⑦-1/4J⑨*2	—	
	ø10	6	ø3	VPD10-6W⑥⑦-3J⑨*3	—	M4	ø10	6	ø1/8	VPD10-6W⑥⑦-1/8J⑨*3	—	M4
			ø4	VPD10-6W⑥⑦-4J⑨⑬*3	○				ø5/32	VPD10-6W⑥⑦-5/32J⑨⑬*3	○	
			ø6	VPD10-6W⑥⑦-6J⑨⑬*3	○				ø1/4	VPD10-6W⑥⑦-1/4J⑨*3	—	
		10	ø3	VPD10-10W⑥⑦-3J⑨*3	—			10	ø1/8	VPD10-10W⑥⑦-1/8J⑨*3	—	
			ø4	VPD10-10W⑥⑦-4J⑨*3	—				ø5/32	VPD10-10W⑥⑦-5/32J⑨*3	—	
			ø6	VPD10-10W⑥⑦-6J⑨*3	—				ø1/4	VPD10-10W⑥⑦-1/4J⑨*3	—	
		15	ø3	VPD10-15W⑥⑦-3J⑨*3	—			15	ø1/8	VPD10-15W⑥⑦-1/8J⑨*3	—	
			ø4	VPD10-15W⑥⑦-4J⑨*3	—				ø5/32	VPD10-15W⑥⑦-5/32J⑨*3	—	
			ø6	VPD10-15W⑥⑦-6J⑨*3	—				ø1/4	VPD10-15W⑥⑦-1/4J⑨*3	—	
		20	ø3	VPD10-20W⑥⑦-3J⑨*3	—			20	ø1/8	VPD10-20W⑥⑦-1/8J⑨*3	—	
			ø4	VPD10-20W⑥⑦-4J⑨*3	—				ø5/32	VPD10-20W⑥⑦-5/32J⑨*3	—	
			ø6	VPD10-20W⑥⑦-6J⑨*3	—				ø1/4	VPD10-20W⑥⑦-1/4J⑨*3	—	

Notes

*1. Holders are also available in Push-in fitting type (limited to pad dia. 8 mm or smaller) for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.
*2. Extra soft silicone (YS2/YS4) and Urethane (U) are not available.
*3. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options

⑦ : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
⑨ : -DC ⇒ Holder with dust catcher
⑬ : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.584
Surface treatment
Dust Catcher (VPD)
Fall Prevention Valve
Swivel Joint
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	⑬ : -S3 -S3 spec	Connection config.code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	⑬ : -S3 -S3 spec	Connection config.code
Spring type, Side port, Push-in fitting, Standard **VPD** Pad dia. ø20 mm to ø50 mm	ø20	6	ø3	VPD20-6W⑥⑦-3J⑨	—	M6	ø20	6	ø1/8	VPD20-6W⑥⑦-1/8J⑨	—	M6
			ø4	VPD20-6W⑥⑦-4J⑨⑬	○				ø5/32	VPD20-6W⑥⑦-5/32J⑨⑬	○	
			ø6	VPD20-6W⑥⑦-6J⑨⑬	○				ø1/4	VPD20-6W⑥⑦-1/4J⑨	—	
		10	ø3	VPD20-10W⑥⑦-3J⑨	—			10	ø1/8	VPD20-10W⑥⑦-1/8J⑨	—	
			ø4	VPD20-10W⑥⑦-4J⑨	—				ø5/32	VPD20-10W⑥⑦-5/32J⑨	—	
			ø6	VPD20-10W⑥⑦-6J⑨	—				ø1/4	VPD20-10W⑥⑦-1/4J⑨	—	
		15	ø3	VPD20-15W⑥⑦-3J⑨	—			15	ø1/8	VPD20-15W⑥⑦-1/8J⑨	—	
			ø4	VPD20-15W⑥⑦-4J⑨	—				ø5/32	VPD20-15W⑥⑦-5/32J⑨	—	
			ø6	VPD20-15W⑥⑦-6J⑨	—				ø1/4	VPD20-15W⑥⑦-1/4J⑨	—	
		20	ø3	VPD20-20W⑥⑦-3J⑨	—			20	ø1/8	VPD20-20W⑥⑦-1/8J⑨	—	
			ø4	VPD20-20W⑥⑦-4J⑨	—				ø5/32	VPD20-20W⑥⑦-5/32J⑨	—	
			ø6	VPD20-20W⑥⑦-6J⑨	—				ø1/4	VPD20-20W⑥⑦-1/4J⑨	—	
	ø30	6	ø3	VPD30-6W⑥⑦-3J⑨	—		ø30	6	ø1/8	VPD30-6W⑥⑦-1/8J⑨	—	
			ø4	VPD30-6W⑥⑦-4J⑨⑬	○				ø5/32	VPD30-6W⑥⑦-5/32J⑨⑬	○	
			ø6	VPD30-6W⑥⑦-6J⑨⑬	○				ø1/4	VPD30-6W⑥⑦-1/4J⑨	—	
		10	ø3	VPD30-10W⑥⑦-3J⑨	—			10	ø1/8	VPD30-10W⑥⑦-1/8J⑨	—	
			ø4	VPD30-10W⑥⑦-4J⑨	—				ø5/32	VPD30-10W⑥⑦-5/32J⑨	—	
			ø6	VPD30-10W⑥⑦-6J⑨	—				ø1/4	VPD30-10W⑥⑦-1/4J⑨	—	
		15	ø3	VPD30-15W⑥⑦-3J⑨	—			15	ø1/8	VPD30-15W⑥⑦-1/8J⑨	—	
			ø4	VPD30-15W⑥⑦-4J⑨	—				ø5/32	VPD30-15W⑥⑦-5/32J⑨	—	
			ø6	VPD30-15W⑥⑦-6J⑨	—				ø1/4	VPD30-15W⑥⑦-1/4J⑨	—	
		20	ø3	VPD30-20W⑥⑦-3J⑨	—			20	ø1/8	VPD30-20W⑥⑦-1/8J⑨	—	
			ø4	VPD30-20W⑥⑦-4J⑨	—				ø5/32	VPD30-20W⑥⑦-5/32J⑨	—	
			ø6	VPD30-20W⑥⑦-6J⑨	—				ø1/4	VPD30-20W⑥⑦-1/4J⑨	—	
	ø40	6	ø3	VPD40-6W⑥⑦-3J⑨	—		ø40	6	ø1/8	VPD40-6W⑥⑦-1/8J⑨	—	
			ø4	VPD40-6W⑥⑦-4J⑨⑬	○				ø5/32	VPD40-6W⑥⑦-5/32J⑨⑬	○	
			ø6	VPD40-6W⑥⑦-6J⑨⑬	○				ø1/4	VPD40-6W⑥⑦-1/4J⑨	—	
		10	ø3	VPD40-10W⑥⑦-3J⑨	—			10	ø1/8	VPD40-10W⑥⑦-1/8J⑨	—	
			ø4	VPD40-10W⑥⑦-4J⑨	—				ø5/32	VPD40-10W⑥⑦-5/32J⑨	—	
			ø6	VPD40-10W⑥⑦-6J⑨	—				ø1/4	VPD40-10W⑥⑦-1/4J⑨	—	
		15	ø3	VPD40-15W⑥⑦-3J⑨	—			15	ø1/8	VPD40-15W⑥⑦-1/8J⑨	—	
			ø4	VPD40-15W⑥⑦-4J⑨	—				ø5/32	VPD40-15W⑥⑦-5/32J⑨	—	
			ø6	VPD40-15W⑥⑦-6J⑨	—				ø1/4	VPD40-15W⑥⑦-1/4J⑨	—	
		20	ø3	VPD40-20W⑥⑦-3J⑨	—			20	ø1/8	VPD40-20W⑥⑦-1/8J⑨	—	
			ø4	VPD40-20W⑥⑦-4J⑨	—				ø5/32	VPD40-20W⑥⑦-5/32J⑨	—	
			ø6	VPD40-20W⑥⑦-6J⑨	—				ø1/4	VPD40-20W⑥⑦-1/4J⑨	—	
	ø50	6	ø3	VPD50-6W⑥⑦-3J⑨	—		ø50	6	ø1/8	VPD50-6W⑥⑦-1/8J⑨	—	
			ø4	VPD50-6W⑥⑦-4J⑨⑬	○				ø5/32	VPD50-6W⑥⑦-5/32J⑨⑬	○	
			ø6	VPD50-6W⑥⑦-6J⑨⑬	○				ø1/4	VPD50-6W⑥⑦-1/4J⑨	—	
		10	ø3	VPD50-10W⑥⑦-3J⑨	—			10	ø1/8	VPD50-10W⑥⑦-1/8J⑨	—	
			ø4	VPD50-10W⑥⑦-4J⑨	—				ø5/32	VPD50-10W⑥⑦-5/32J⑨	—	
			ø6	VPD50-10W⑥⑦-6J⑨	—				ø1/4	VPD50-10W⑥⑦-1/4J⑨	—	
		15	ø3	VPD50-15W⑥⑦-3J⑨	—			15	ø1/8	VPD50-15W⑥⑦-1/8J⑨	—	
			ø4	VPD50-15W⑥⑦-4J⑨	—				ø5/32	VPD50-15W⑥⑦-5/32J⑨	—	
			ø6	VPD50-15W⑥⑦-6J⑨	—				ø1/4	VPD50-15W⑥⑦-1/4J⑨	—	
		20	ø3	VPD50-20W⑥⑦-3J⑨	—			20	ø1/8	VPD50-20W⑥⑦-1/8J⑨	—	
			ø4	VPD50-20W⑥⑦-4J⑨	—				ø5/32	VPD50-20W⑥⑦-5/32J⑨	—	
			ø6	VPD50-20W⑥⑦-6J⑨	—				ø1/4	VPD50-20W⑥⑦-1/4J⑨	—	

Notes
*Barb fitting type holders are also selectable. Contact us for the details.

CAD data is available at PISCO website.

Options
⑦ : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
⑨ : -DC ⇒ Holder with dust catcher
⑬ : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Packaging specifications
1 pc. /bag

Optional items ⇒ P.584
Surface treatment
Dust Catcher (VPD)
Fall Prevention Valve
Swivel Joint
Filter

Vacuum Pad Multi-bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	13 : -S3 -S3 spec	Connection config.code
Spring type, Side port, Female thread, Standard VPD	ø6	3	M5×0.8	VPD6-3W67-M5913*1	○	T8
		10		VPD6-10W67-M59*1	—	
		15		VPD6-15W67-M59*1	—	
		20		VPD6-20W67-M59*1	—	
	ø8	3	M5×0.8	VPD8-3W67-M5913*1	○	
		10		VPD8-10W67-M59*1	—	
		15		VPD8-15W67-M59*1	—	
		20		VPD8-20W67-M59*1	—	
	ø10	6	M6×1	VPD10-6W67-M6913*2	○	M4
		10		VPD10-10W67-M69*2	—	
		15		VPD10-15W67-M69*2	—	
		20		VPD10-20W67-M69*2	—	
	ø20	6	M6×1	VPD20-6W67-M6913	○	M6
		10		VPD20-10W67-M69	—	
		15		VPD20-15W67-M69	—	
		20		VPD20-20W67-M69	—	
	ø30	6	M6×1	VPD30-6W67-M6913	○	
		10		VPD30-10W67-M69	—	
		15		VPD30-15W67-M69	—	
		20		VPD30-20W67-M69	—	
	ø40	6	M6×1	VPD40-6W67-M6913	○	
		10		VPD40-10W67-M69	—	
		15		VPD40-15W67-M69	—	
		20		VPD40-20W67-M69	—	
	ø50	6	M6×1	VPD50-6W67-M6913	○	
		10		VPD50-10W67-M69	—	
		15		VPD50-15W67-M69	—	
		20		VPD50-20W67-M69	—	

Notes

*1. Extra soft silicone (YS2/YS4) and Urethane (U) are not available.
*2. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options

7 : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
9 : -DC ⇒ Holder with dust catcher
13 : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.584

Surface treatment
Dust Catcher (VPD)
Fall Prevention Valve
Swivel Joint
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config.code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config.code
Spring type, Side port, Push-in fitting, No cover VPOD Pad dia. ø6 mm to ø10 mm	ø6	20	ø3	VPOD6-20W⑥⑦-3J*2	T8	ø6	20	ø1/8	VPOD6-20W⑥⑦-1/8J*2	T8
			ø4	VPOD6-20W⑥⑦-4J*2				ø5/32	VPOD6-20W⑥⑦-5/32J*2	
			ø6	VPOD6-20W⑥⑦-6J*2				ø1/4	VPOD6-20W⑥⑦-1/4J*2	
		30	ø3	VPOD6-30W⑥⑦-3J*2			30	ø1/8	VPOD6-30W⑥⑦-1/8J*2	
			ø4	VPOD6-30W⑥⑦-4J*2				ø5/32	VPOD6-30W⑥⑦-5/32J*2	
			ø6	VPOD6-30W⑥⑦-6J*2				ø1/4	VPOD6-30W⑥⑦-1/4J*2	
		40	ø3	VPOD6-40W⑥⑦-3J*2			40	ø1/8	VPOD6-40W⑥⑦-1/8J*2	
			ø4	VPOD6-40W⑥⑦-4J*2				ø5/32	VPOD6-40W⑥⑦-5/32J*2	
			ø6	VPOD6-40W⑥⑦-6J*2				ø1/4	VPOD6-40W⑥⑦-1/4J*2	
		50	ø3	VPOD6-50W⑥⑦-3J*2			50	ø1/8	VPOD6-50W⑥⑦-1/8J*2	
			ø4	VPOD6-50W⑥⑦-4J*2				ø5/32	VPOD6-50W⑥⑦-5/32J*2	
			ø6	VPOD6-50W⑥⑦-6J*2				ø1/4	VPOD6-50W⑥⑦-1/4J*2	
	ø8	20	ø3	VPOD8-20W⑥⑦-3J*2		ø8	20	ø1/8	VPOD8-20W⑥⑦-1/8J*2	
			ø4	VPOD8-20W⑥⑦-4J*2				ø5/32	VPOD8-20W⑥⑦-5/32J*2	
			ø6	VPOD8-20W⑥⑦-6J*2				ø1/4	VPOD8-20W⑥⑦-1/4J*2	
		30	ø3	VPOD8-30W⑥⑦-3J*2			30	ø1/8	VPOD8-30W⑥⑦-1/8J*2	
			ø4	VPOD8-30W⑥⑦-4J*2				ø5/32	VPOD8-30W⑥⑦-5/32J*2	
			ø6	VPOD8-30W⑥⑦-6J*2				ø1/4	VPOD8-30W⑥⑦-1/4J*2	
		40	ø3	VPOD8-40W⑥⑦-3J*2			40	ø1/8	VPOD8-40W⑥⑦-1/8J*2	
			ø4	VPOD8-40W⑥⑦-4J*2				ø5/32	VPOD8-40W⑥⑦-5/32J*2	
			ø6	VPOD8-40W⑥⑦-6J*2				ø1/4	VPOD8-40W⑥⑦-1/4J*2	
		50	ø3	VPOD8-50W⑥⑦-3J*2			50	ø1/8	VPOD8-50W⑥⑦-1/8J*2	
			ø4	VPOD8-50W⑥⑦-4J*2				ø5/32	VPOD8-50W⑥⑦-5/32J*2	
			ø6	VPOD8-50W⑥⑦-6J*2				ø1/4	VPOD8-50W⑥⑦-1/4J*2	
	ø10	20	ø3	VPOD10-20W⑥⑦-3J*3	M4	ø10	20	ø1/8	VPOD10-20W⑥⑦-1/8J*3	M4
			ø4	VPOD10-20W⑥⑦-4J*3				ø5/32	VPOD10-20W⑥⑦-5/32J*3	
			ø6	VPOD10-20W⑥⑦-6J*3				ø1/4	VPOD10-20W⑥⑦-1/4J*3	
		30	ø3	VPOD10-30W⑥⑦-3J*3			30	ø1/8	VPOD10-30W⑥⑦-1/8J*3	
			ø4	VPOD10-30W⑥⑦-4J*3				ø5/32	VPOD10-30W⑥⑦-5/32J*3	
			ø6	VPOD10-30W⑥⑦-6J*3				ø1/4	VPOD10-30W⑥⑦-1/4J*3	
		40	ø3	VPOD10-40W⑥⑦-3J*3			40	ø1/8	VPOD10-40W⑥⑦-1/8J*3	
			ø4	VPOD10-40W⑥⑦-4J*3				ø5/32	VPOD10-40W⑥⑦-5/32J*3	
			ø6	VPOD10-40W⑥⑦-6J*3				ø1/4	VPOD10-40W⑥⑦-1/4J*3	
		50	ø3	VPOD10-50W⑥⑦-3J*3			50	ø1/8	VPOD10-50W⑥⑦-1/8J*3	
			ø4	VPOD10-50W⑥⑦-4J*3				ø5/32	VPOD10-50W⑥⑦-5/32J*3	
			ø6	VPOD10-50W⑥⑦-6J*3				ø1/4	VPOD10-50W⑥⑦-1/4J*3	

Notes
*1. Barb fitting type holders are also selectable. Contact us for the details.
*2. Extra soft silicone (YS2/YS4) and Urethane (U) are not available.
*3. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.

Packaging specifications
1 pc. /bag

Options
⑦ : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.584
Surface treatment
Fall Prevention Valve
Swivel Joint
Filter

Vacuum Pad Multi-bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config.code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config.code
Spring type, Side port, Push-in fitting, No cover VPOD Pad dia. ø20 mm to ø50 mm	ø20	20	ø3	VPOD20-20W6[7]-3J	M6	ø20	20	ø1/8	VPOD20-20W6[7]-1/8J	M6
			ø4	VPOD20-20W6[7]-4J				ø5/32	VPOD20-20W6[7]-5/32J	
			ø6	VPOD20-20W6[7]-6J				ø1/4	VPOD20-20W6[7]-1/4J	
		30	ø3	VPOD20-30W6[7]-3J			30	ø1/8	VPOD20-30W6[7]-1/8J	
			ø4	VPOD20-30W6[7]-4J				ø5/32	VPOD20-30W6[7]-5/32J	
			ø6	VPOD20-30W6[7]-6J				ø1/4	VPOD20-30W6[7]-1/4J	
		40	ø3	VPOD20-40W6[7]-3J			40	ø1/8	VPOD20-40W6[7]-1/8J	
			ø4	VPOD20-40W6[7]-4J				ø5/32	VPOD20-40W6[7]-5/32J	
			ø6	VPOD20-40W6[7]-6J				ø1/4	VPOD20-40W6[7]-1/4J	
		50	ø3	VPOD20-50W6[7]-3J			50	ø1/8	VPOD20-50W6[7]-1/8J	
			ø4	VPOD20-50W6[7]-4J				ø5/32	VPOD20-50W6[7]-5/32J	
			ø6	VPOD20-50W6[7]-6J				ø1/4	VPOD20-50W6[7]-1/4J	
	ø30	20	ø3	VPOD30-20W6[7]-3J		ø30	20	ø1/8	VPOD30-20W6[7]-1/8J	
			ø4	VPOD30-20W6[7]-4J				ø5/32	VPOD30-20W6[7]-5/32J	
			ø6	VPOD30-20W6[7]-6J				ø1/4	VPOD30-20W6[7]-1/4J	
		30	ø3	VPOD30-30W6[7]-3J			30	ø1/8	VPOD30-30W6[7]-1/8J	
			ø4	VPOD30-30W6[7]-4J				ø5/32	VPOD30-30W6[7]-5/32J	
			ø6	VPOD30-30W6[7]-6J				ø1/4	VPOD30-30W6[7]-1/4J	
		40	ø3	VPOD30-40W6[7]-3J			40	ø1/8	VPOD30-40W6[7]-1/8J	
			ø4	VPOD30-40W6[7]-4J				ø5/32	VPOD30-40W6[7]-5/32J	
			ø6	VPOD30-40W6[7]-6J				ø1/4	VPOD30-40W6[7]-1/4J	
		50	ø3	VPOD30-50W6[7]-3J			50	ø1/8	VPOD30-50W6[7]-1/8J	
			ø4	VPOD30-50W6[7]-4J				ø5/32	VPOD30-50W6[7]-5/32J	
			ø6	VPOD30-50W6[7]-6J				ø1/4	VPOD30-50W6[7]-1/4J	
	ø40	20	ø3	VPOD40-20W6[7]-3J		ø40	20	ø1/8	VPOD40-20W6[7]-1/8J	
			ø4	VPOD40-20W6[7]-4J				ø5/32	VPOD40-20W6[7]-5/32J	
			ø6	VPOD40-20W6[7]-6J				ø1/4	VPOD40-20W6[7]-1/4J	
		30	ø3	VPOD40-30W6[7]-3J			30	ø1/8	VPOD40-30W6[7]-1/8J	
			ø4	VPOD40-30W6[7]-4J				ø5/32	VPOD40-30W6[7]-5/32J	
			ø6	VPOD40-30W6[7]-6J				ø1/4	VPOD40-30W6[7]-1/4J	
		40	ø3	VPOD40-40W6[7]-3J			40	ø1/8	VPOD40-40W6[7]-1/8J	
			ø4	VPOD40-40W6[7]-4J				ø5/32	VPOD40-40W6[7]-5/32J	
			ø6	VPOD40-40W6[7]-6J				ø1/4	VPOD40-40W6[7]-1/4J	
		50	ø3	VPOD40-50W6[7]-3J			50	ø1/8	VPOD40-50W6[7]-1/8J	
			ø4	VPOD40-50W6[7]-4J				ø5/32	VPOD40-50W6[7]-5/32J	
			ø6	VPOD40-50W6[7]-6J				ø1/4	VPOD40-50W6[7]-1/4J	
	ø50	20	ø3	VPOD50-20W6[7]-3J		ø50	20	ø1/8	VPOD50-20W6[7]-1/8J	
			ø4	VPOD50-20W6[7]-4J				ø5/32	VPOD50-20W6[7]-5/32J	
			ø6	VPOD50-20W6[7]-6J				ø1/4	VPOD50-20W6[7]-1/4J	
		30	ø3	VPOD50-30W6[7]-3J			30	ø1/8	VPOD50-30W6[7]-1/8J	
			ø4	VPOD50-30W6[7]-4J				ø5/32	VPOD50-30W6[7]-5/32J	
			ø6	VPOD50-30W6[7]-6J				ø1/4	VPOD50-30W6[7]-1/4J	
		40	ø3	VPOD50-40W6[7]-3J			40	ø1/8	VPOD50-40W6[7]-1/8J	
			ø4	VPOD50-40W6[7]-4J				ø5/32	VPOD50-40W6[7]-5/32J	
			ø6	VPOD50-40W6[7]-6J				ø1/4	VPOD50-40W6[7]-1/4J	
		50	ø3	VPOD50-50W6[7]-3J			50	ø1/8	VPOD50-50W6[7]-1/8J	
			ø4	VPOD50-50W6[7]-4J				ø5/32	VPOD50-50W6[7]-5/32J	
			ø6	VPOD50-50W6[7]-6J				ø1/4	VPOD50-50W6[7]-1/4J	

Notes
*1. Barb fitting type holders are also selectable. Contact us for the details.
*2. Extra soft silicone (YS2/YS4) and Urethane (U) are not available.
*3. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
7 : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.584
Surface treatment
Fall Prevention Valve
Swivel Joint
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config.code
Spring type, Side port, Female thread, No cover **VPOD**	ø6	20	M6×1	VPOD6-20W⑥⑦-M6*2	T8
		30		VPOD6-30W⑥⑦-M6*2	
		40		VPOD6-40W⑥⑦-M6*2	
		50		VPOD6-50W⑥⑦-M6*2	
	ø8	20	M6×1	VPOD8-20W⑥⑦-M6*2	
		30		VPOD8-30W⑥⑦-M6*2	
		40		VPOD8-40W⑥⑦-M6*2	
		50		VPOD8-50W⑥⑦-M6*2	
	ø10	20	M6×1	VPOD10-20W⑥⑦-M6*3	M4
		30		VPOD10-30W⑥⑦-M6*3	
		40		VPOD10-40W⑥⑦-M6*3	
		50		VPOD10-50W⑥⑦-M6*3	
	ø20	20	M6×1	VPOD20-20W⑥⑦-M6	M6
		30		VPOD20-30W⑥⑦-M6	
		40		VPOD20-40W⑥⑦-M6	
		50		VPOD20-50W⑥⑦-M6	
	ø30	20	M6×1	VPOD30-20W⑥⑦-M6	
		30		VPOD30-30W⑥⑦-M6	
		40		VPOD30-40W⑥⑦-M6	
		50		VPOD30-50W⑥⑦-M6	
	ø40	20	M6×1	VPOD40-20W⑥⑦-M6	
		30		VPOD40-30W⑥⑦-M6	
		40		VPOD40-40W⑥⑦-M6	
		50		VPOD40-50W⑥⑦-M6	
	ø50	20	M6×1	VPOD50-20W⑥⑦-M6	
		30		VPOD50-30W⑥⑦-M6	
		40		VPOD50-40W⑥⑦-M6	
		50		VPOD50-50W⑥⑦-M6	

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config.code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config.code
Spring type, Side port, Push-in fitting, Low dust emission **VPLFD**	ø6	5	ø3	VPLFD6-5W⑥⑦-3J*2	T8	ø6	5	ø1/8	VPLFD6-5W⑥⑦-1/8J*2	T8
			ø4	VPLFD6-5W⑥⑦-4J*2				ø5/32	VPLFD6-5W⑥⑦-5/32J*2	
		10	ø3	VPLFD6-10W⑥⑦-3J*2			10	ø1/8	VPLFD6-10W⑥⑦-1/8J*2	
			ø4	VPLFD6-10W⑥⑦-4J*2				ø5/32	VPLFD6-10W⑥⑦-5/32J*2	
		15	ø3	VPLFD6-15W⑥⑦-3J*2			15	ø1/8	VPLFD6-15W⑥⑦-1/8J*2	
			ø4	VPLFD6-15W⑥⑦-4J*2				ø5/32	VPLFD6-15W⑥⑦-5/32J*2	
		20	ø3	VPLFD6-20W⑥⑦-3J*2			20	ø1/8	VPLFD6-20W⑥⑦-1/8J*2	
			ø4	VPLFD6-20W⑥⑦-4J*2				ø5/32	VPLFD6-20W⑥⑦-5/32J*2	
	ø8	5	ø3	VPLFD8-5W⑥⑦-3J*2		ø8	5	ø1/8	VPLFD8-5W⑥⑦-1/8J*2	
			ø4	VPLFD8-5W⑥⑦-4J*2				ø5/32	VPLFD8-5W⑥⑦-5/32J*2	
		10	ø3	VPLFD8-10W⑥⑦-3J*2			10	ø1/8	VPLFD8-10W⑥⑦-1/8J*2	
			ø4	VPLFD8-10W⑥⑦-4J*2				ø5/32	VPLFD8-10W⑥⑦-5/32J*2	
		15	ø3	VPLFD8-15W⑥⑦-3J*2			15	ø1/8	VPLFD8-15W⑥⑦-1/8J*2	
			ø4	VPLFD8-15W⑥⑦-4J*2				ø5/32	VPLFD8-15W⑥⑦-5/32J*2	
		20	ø3	VPLFD8-20W⑥⑦-3J*2			20	ø1/8	VPLFD8-20W⑥⑦-1/8J*2	
			ø4	VPLFD8-20W⑥⑦-4J*2				ø5/32	VPLFD8-20W⑥⑦-5/32J*2	
	ø10	5	ø3	VPLFD10-5W⑥⑦-3J*3	M4	ø10	5	ø1/8	VPLFD10-5W⑥⑦-1/8J*3	M4
			ø4	VPLFD10-5W⑥⑦-4J*3				ø5/32	VPLFD10-5W⑥⑦-5/32J*3	
		10	ø3	VPLFD10-10W⑥⑦-3J*3			10	ø1/8	VPLFD10-10W⑥⑦-1/8J*3	
			ø4	VPLFD10-10W⑥⑦-4J*3				ø5/32	VPLFD10-10W⑥⑦-5/32J*3	
		15	ø3	VPLFD10-15W⑥⑦-3J*3			15	ø1/8	VPLFD10-15W⑥⑦-1/8J*3	
			ø4	VPLFD10-15W⑥⑦-4J*3				ø5/32	VPLFD10-15W⑥⑦-5/32J*3	
		20	ø3	VPLFD10-20W⑥⑦-3J*3			20	ø1/8	VPLFD10-20W⑥⑦-1/8J*3	
			ø4	VPLFD10-20W⑥⑦-4J*3				ø5/32	VPLFD10-20W⑥⑦-5/32J*3	

Vacuum Pad Multi-bellows Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config.code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config.code
Spring type, Side port, Push-in fitting, Low dust emission **VPLFD** 	ø20	5	ø3	VPLFD20-5W⑥⑦-3J	M6	ø20	5	ø1/8	VPLFD20-5W⑥⑦-1/8J	M6
			ø4	VPLFD20-5W⑥⑦-4J				ø5/32	VPLFD20-5W⑥⑦-5/32J	
			ø6	VPLFD20-5W⑥⑦-6J				ø1/4	VPLFD20-5W⑥⑦-1/4J	
		10	ø3	VPLFD20-10W⑥⑦-3J			10	ø1/8	VPLFD20-10W⑥⑦-1/8J	
			ø4	VPLFD20-10W⑥⑦-4J				ø5/32	VPLFD20-10W⑥⑦-5/32J	
			ø6	VPLFD20-10W⑥⑦-6J				ø1/4	VPLFD20-10W⑥⑦-1/4J	
		15	ø3	VPLFD20-15W⑥⑦-3J			15	ø1/8	VPLFD20-15W⑥⑦-1/8J	
			ø4	VPLFD20-15W⑥⑦-4J				ø5/32	VPLFD20-15W⑥⑦-5/32J	
			ø6	VPLFD20-15W⑥⑦-6J				ø1/4	VPLFD20-15W⑥⑦-1/4J	
		20	ø3	VPLFD20-20W⑥⑦-3J			20	ø1/8	VPLFD20-20W⑥⑦-1/8J	
			ø4	VPLFD20-20W⑥⑦-4J				ø5/32	VPLFD20-20W⑥⑦-5/32J	
			ø6	VPLFD20-20W⑥⑦-6J				ø1/4	VPLFD20-20W⑥⑦-1/4J	
	ø30	5	ø3	VPLFD30-5W⑥⑦-3J		ø30	5	ø1/8	VPLFD30-5W⑥⑦-1/8J	
			ø4	VPLFD30-5W⑥⑦-4J				ø5/32	VPLFD30-5W⑥⑦-5/32J	
			ø6	VPLFD30-5W⑥⑦-6J				ø1/4	VPLFD30-5W⑥⑦-1/4J	
		10	ø3	VPLFD30-10W⑥⑦-3J			10	ø1/8	VPLFD30-10W⑥⑦-1/8J	
			ø4	VPLFD30-10W⑥⑦-4J				ø5/32	VPLFD30-10W⑥⑦-5/32J	
			ø6	VPLFD30-10W⑥⑦-6J				ø1/4	VPLFD30-10W⑥⑦-1/4J	
		15	ø3	VPLFD30-15W⑥⑦-3J			15	ø1/8	VPLFD30-15W⑥⑦-1/8J	
			ø4	VPLFD30-15W⑥⑦-4J				ø5/32	VPLFD30-15W⑥⑦-5/32J	
			ø6	VPLFD30-15W⑥⑦-6J				ø1/4	VPLFD30-15W⑥⑦-1/4J	
		20	ø3	VPLFD30-20W⑥⑦-3J			20	ø1/8	VPLFD30-20W⑥⑦-1/8J	
			ø4	VPLFD30-20W⑥⑦-4J				ø5/32	VPLFD30-20W⑥⑦-5/32J	
			ø6	VPLFD30-20W⑥⑦-6J				ø1/4	VPLFD30-20W⑥⑦-1/4J	
	ø40	5	ø3	VPLFD40-5W⑥⑦-3J		ø40	5	ø1/8	VPLFD40-5W⑥⑦-1/8J	
			ø4	VPLFD40-5W⑥⑦-4J				ø5/32	VPLFD40-5W⑥⑦-5/32J	
			ø6	VPLFD40-5W⑥⑦-6J				ø1/4	VPLFD40-5W⑥⑦-1/4J	
		10	ø3	VPLFD40-10W⑥⑦-3J			10	ø1/8	VPLFD40-10W⑥⑦-1/8J	
			ø4	VPLFD40-10W⑥⑦-4J				ø5/32	VPLFD40-10W⑥⑦-5/32J	
			ø6	VPLFD40-10W⑥⑦-6J				ø1/4	VPLFD40-10W⑥⑦-1/4J	
		15	ø3	VPLFD40-15W⑥⑦-3J			15	ø1/8	VPLFD40-15W⑥⑦-1/8J	
			ø4	VPLFD40-15W⑥⑦-4J				ø5/32	VPLFD40-15W⑥⑦-5/32J	
			ø6	VPLFD40-15W⑥⑦-6J				ø1/4	VPLFD40-15W⑥⑦-1/4J	
		20	ø3	VPLFD40-20W⑥⑦-3J			20	ø1/8	VPLFD40-20W⑥⑦-1/8J	
			ø4	VPLFD40-20W⑥⑦-4J				ø5/32	VPLFD40-20W⑥⑦-5/32J	
			ø6	VPLFD40-20W⑥⑦-6J				ø1/4	VPLFD40-20W⑥⑦-1/4J	
	ø50	5	ø3	VPLFD50-5W⑥⑦-3J		ø50	5	ø1/8	VPLFD50-5W⑥⑦-1/8J	
			ø4	VPLFD50-5W⑥⑦-4J				ø5/32	VPLFD50-5W⑥⑦-5/32J	
			ø6	VPLFD50-5W⑥⑦-6J				ø1/4	VPLFD50-5W⑥⑦-1/4J	
		10	ø3	VPLFD50-10W⑥⑦-3J			10	ø1/8	VPLFD50-10W⑥⑦-1/8J	
			ø4	VPLFD50-10W⑥⑦-4J				ø5/32	VPLFD50-10W⑥⑦-5/32J	
			ø6	VPLFD50-10W⑥⑦-6J				ø1/4	VPLFD50-10W⑥⑦-1/4J	
		15	ø3	VPLFD50-15W⑥⑦-3J			15	ø1/8	VPLFD50-15W⑥⑦-1/8J	
			ø4	VPLFD50-15W⑥⑦-4J				ø5/32	VPLFD50-15W⑥⑦-5/32J	
			ø6	VPLFD50-15W⑥⑦-6J				ø1/4	VPLFD50-15W⑥⑦-1/4J	
		20	ø3	VPLFD50-20W⑥⑦-3J			20	ø1/8	VPLFD50-20W⑥⑦-1/8J	
			ø4	VPLFD50-20W⑥⑦-4J				ø5/32	VPLFD50-20W⑥⑦-5/32J	
			ø6	VPLFD50-20W⑥⑦-6J				ø1/4	VPLFD50-20W⑥⑦-1/4J	

Notes

*1. VPLFD holders are also selectable in barb fitting type. Contact us for the details.
*2. Extra soft silicone (YS2/YS4) and Urethane (U) are not available.
*3. Extra soft silicone (YS2/YS4) is available only when Fluoro-coating treatment is selected.

Packaging specifications

1 pc. /bag

Options

⑦ : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
⑨ : -DC ⇒ Holder with dust catcher
⑬ : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.584

Surface treatment
Dust Catcher (VPF)
Fall Prevention Valve
Swivel Joint
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config.code
Spring type, Side port, Female thread, Low dust emission VPLFD 	ø6	5	M5×0.8	VPLFD6-5W⑥⑦-M5*2	T8
		10	M5×0.8	VPLFD6-10W⑥⑦-M5*2	
		15	M5×0.8	VPLFD6-15W⑥⑦-M5*2	
		20	M5×0.8	VPLFD6-20W⑥⑦-M5*2	
	ø8	5	M5×0.8	VPLFD8-5W⑥⑦-M5*2	
		10	M5×0.8	VPLFD8-10W⑥⑦-M5*2	
		15	M5×0.8	VPLFD8-15W⑥⑦-M5*2	
		20	M5×0.8	VPLFD8-20W⑥⑦-M5*2	
	ø10	5	M5×0.8	VPLFD10-5W⑥⑦-M5*3	M4
		10	M5×0.8	VPLFD10-10W⑥⑦-M5*3	
		15	M5×0.8	VPLFD10-15W⑥⑦-M5*3	
		20	M5×0.8	VPLFD10-20W⑥⑦-M5*3	
	ø20	5	M6×1	VPLFD20-5W⑥⑦-M6	M6
		10	M6×1	VPLFD20-10W⑥⑦-M6	
		15	M6×1	VPLFD20-15W⑥⑦-M6	
		20	M6×1	VPLFD20-20W⑥⑦-M6	
	ø30	5	M6×1	VPLFD30-5W⑥⑦-M6	
		10	M6×1	VPLFD30-10W⑥⑦-M6	
		15	M6×1	VPLFD30-15W⑥⑦-M6	
		20	M6×1	VPLFD30-20W⑥⑦-M6	
	ø40	5	M6×1	VPLFD40-5W⑥⑦-M6	
		10	M6×1	VPLFD40-10W⑥⑦-M6	
		15	M6×1	VPLFD40-15W⑥⑦-M6	
		20	M6×1	VPLFD40-20W⑥⑦-M6	
	ø50	5	M6×1	VPLFD50-5W⑥⑦-M6	
		10	M6×1	VPLFD50-10W⑥⑦-M6	
		15	M6×1	VPLFD50-15W⑥⑦-M6	
		20	M6×1	VPLFD50-20W⑥⑦-M6	

Holder type	Pad dia. (mm)	Female thread size	Model code	⑬ : -S3 -S3 spec	Connection config.code
Fixed type, Direct mount, Standard VPE 	ø6	M5×0.8	VPE6W⑥⑦-M5⑬*2	○	T8
	ø8	M5×0.8	VPE8W⑥⑦-M5⑬*2	○	

VPE holders are available with metric male/female threads, taper pipe threads, parallel pipe threads and NPT threads. See Pad holder only (page 399) for variations.

*Pads with the same configuration code as the holder can be connected. [See Pad rubber only (page 380)].

Applicable Screws

Metric male thread: M5, M8, M10, M12, M14
Metric female thread: M5, M8
Taper pipe thread: R1/8, R1/4, R3/8, R1/2
Parallel pipe thread: G1/8, G1/4, G3/8, G1/2
NPT thread: NPT1/4, NPT3/8, NPT1/2

Holder type	Pad dia. (mm)	Female thread size	Model code	⑬ : -S3 -S3 spec	Connection config.code
Spring type, Direct mount VPF Stroke 5.8mm	ø6	M10×1	VPF6W⑥⑦⑨⑬*2	○	T8
	ø8	M10×1	VPF8W⑥⑦⑨⑬*2	○	
	ø10	M14×1	VPF10W⑥⑦⑨⑬*3	○	M4
	ø20	M14×1	VPF20W⑥⑦⑨⑬	○	M6
	ø30	M14×1	VPF30W⑥⑦⑨⑬	○	
	ø40	M14×1	VPF40W⑥⑦⑨⑬	○	
	ø50	M14×1	VPF50W⑥⑦⑨⑬	○	

Holder type	Pad dia. (mm)	Female thread size	Model code	⑬ : -S3 -S3 spec	Connection config.code
Fixed type, Direct mount, Mini VPME 	ø6	M5×0.8	VPME6W⑥⑦-M5⑬*2	○	T8
	ø8	M5×0.8	VPME8W⑥⑦-M5⑬*2	○	

Vacuum Pad Multi-bellows Type

Optional items (○: Available)

7 Pad surface treatment (Suction mark-free)

Pad dia. (mm)	7 Surface treatment code				Connection config.code
	-DL	-ER	-FG		
	DLC. coating	Reformed surface	Fluoro-coating (S)	Fluoro-coating (YS2, YS4)	
ø6	—	○	○	—	T8
ø8	—	○	○	—	
ø10	○	○	○	(*)	M4
ø20	○	○	○	○	
ø30	—	○	○	○	
ø40	—	○	○	○	M6
ø50	—	○	○	○	
Material	S, F	N, NE	S, YS2, YS4		

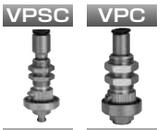
*For Extra soft silicone pads, dia. 10 mm can be selected only when Fluoro-coating treatment is selected.

Characteristics of surface treatment ▶P.370

9 Dust Catcher: -DC

Optional	Connection config.code	-S3 spec.
Dust Catcher (-DC)	T8	○
	M4	○
Holder type	M6	○

VPSC VPC



*VPSC holder is available only for configuration code: T8.

VPD VPF

Characteristics of Dust Catcher ▶P.371

10 Fall Prevention Valve: -ECV

Optional	Connection config.code	Model code
Fall Prevention Valve (-ECV)	M4	ECVM4-FM4
	T8	ECVM5-FM5(*)
	M6	ECVM6-FM6

*Limited to M5 threads of VPME and VPE holders.

Characteristics of Fall Prevention Valve ▶P.722

11 Swivel Joint: -FH, -FHH, -CFH

Optional	Swivel angle	Connection config.code	Model code
Ball Swivel Joint (-FH) (-FHH)	30° (-FH)	M4	FH10
		M6	FH20
	15° (-FHH)	M4	FH10-15
		M6	FH20-15

Characteristics of Ball Swivel Joint ▶P.724

Optional	Connection config.code	-S3 spec.	Model code (*1)
Flexible Swing Joint (-CFH)	M4	○	CFHM4-FM4
	T8	○	CFHM5-FM5(*2)
	M6	○	CFHM6-FM6

*1. When ordering a Flexible Swing Joint alone, please enter "-S3" at the end of the model code for -S3 specification.
*2. Limited to M5 threads of VPME and VPE holders.

Characteristics of Flexible Swing Joint ▶P.725

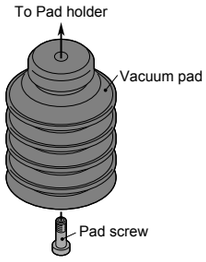
12 Filter: -F15, -F30

Optional	Filter area	Connection config.code	Model code
Pad Direct Mounting Filter (-F15) (-F30)	1.7cm² (-F15)	M4	VFF15-M4
		M6	VFF15-M6
	7cm² (-F30)	M6	VFF30-M6

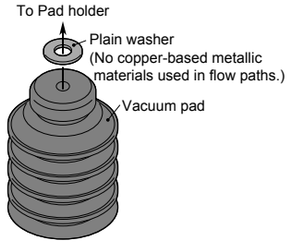
Characteristics of Filter ▶P.726

See the page 560 for the model designation including optional items.

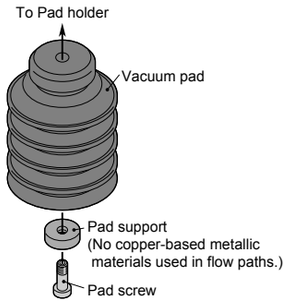
Replacement parts (○: -S3 spec. is available)



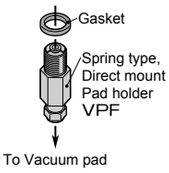
Pad screw Model code	13 : -S3 -S3 spec	Applicable pad dia. (mm)	Connection config. code
VPM46-613	○	ø10	M4
VPM610-813	○	ø20	
VPM612-1013	○	ø30	M6
VPM610-1513	○	ø40, ø50	



Plain washer Model code	Applicable pad dia. (mm)	Connection config. code
HW8.4×15.5×1.6	ø20, ø30	M6
HW8.5×22×1.6	ø40, ø50	

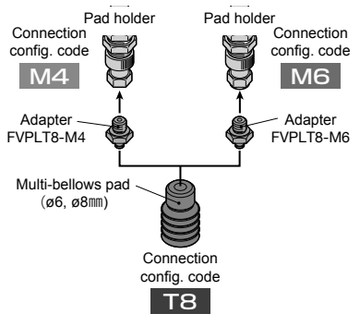


Pad support Model code	Applicable pad dia. (mm)	Connection config. code
VPW40	ø40	M6
VPW50	ø50	



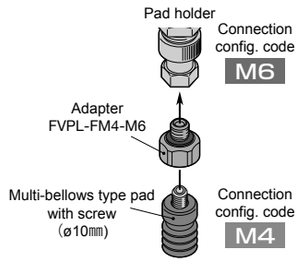
Gasket Model code	Applicable pad dia. (mm)	Connection config. code
VPFG10	ø10 to ø50	M4 M6

Rearrangement parts (○: -S3 spec. is available)



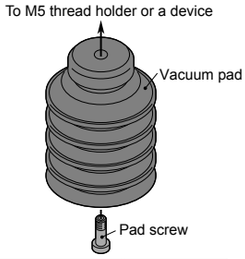
Model code of Adapter for pad connection type conversion	13 : -S3 -S3 spec	Applicable pad dia. (mm)	Connection config. code Before → After
FVPLT8-M413	○	ø6 , ø8	T8 ▶ M4
FVPLT8-M613	○		T8 ▶ M6

*1. These adapters are used to mount 6 to 8 mm dia. Multi-bellows pads on a holder with M4 or M6 configuration code.
*2. Gasket for adapter is equipped with an Adapter.



Model code of Adapter for pad connection type conversion	13 : -S3 -S3 spec	Applicable pad dia. (mm)	Connection config. code Before → After
FVPL-FM4-M613	○	ø10	M4 ▶ M6

*1. This adapter is used to mount a pad & screw set with M4 configuration code on a pad holder with M6 configuration code.
*2. Gasket for adapter is equipped with an Adapter.



Pad screw Model code	13 : -S3 -S3 spec	Applicable pad dia. (mm)
VPM56-713	○	ø10
VPM510-813	○	ø20
VPM512-913	○	ø30
VPM510-1313	○	ø40, ø50

Vacuum Pad for Packaging Bag

Vacuum pad for bag-like article conveyance. (Bellows convolution: 3 or 5)

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VP	A	30	PB	S	2	5	-FG	-	6J	-	FS
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(9)		(10)

(1) Vacuum Pad

(2) Holder type

Code	A	E
Type	Fixed type, Top port	Fixed type, Direct mount
Connection config. code	PB8 PB15	PB8 PB15

(3) Pad dia.

Code	20	25	30	40	50
Pad dia. (mm)	ø20	ø25	ø30	ø40	ø50
Connection config. code	PB8		PB15		

(4) Pad type
PB: For packaging bag

(5) Pad material
S: Silicone

(6) Lip hardness

Code	2	4
Hardness	20°	40°
Lip color	Pink	Blue

(7) No. of convolutions

Code	3	5
No. of convolutions	3	5

(8) Pad surface treatment for suction mark-free Optional

Code	No code	-FG
Surface treatment	None	Fluoro-coating
Applicable pad dia.	—	All sizes

*Please refer to page 370 for the details of each pad surface type and treatment for Suction Mark-free.

(9) Vacuum port size and joint type

Push-in fitting

■ Holder type: VPA (○: Available)

Fitting type	Push-in fitting				
Code	4J	6J	8J	10J	12J
Pad dia. (mm)	ø4	ø6	ø8	ø10	ø12
Connection config. code PB8	○	○	○		
Connection config. code PB15		○	○	○	○

Direct mount

■ Holder type: VPE (○: Available)

Thread type	Metric male thread				Parallel pipe male thread			
Code	M5	M6	M8	M14	G1	G2	G3	G4
Thread size	M5×0.8	M6×1	M8×1	M14×1	G1/8A	G1/4A	G3/8A	G1/2A
Connection config. code PB8	○	○	○		○			
Connection config. code PB15	○	○	○	○	○	○	○	○

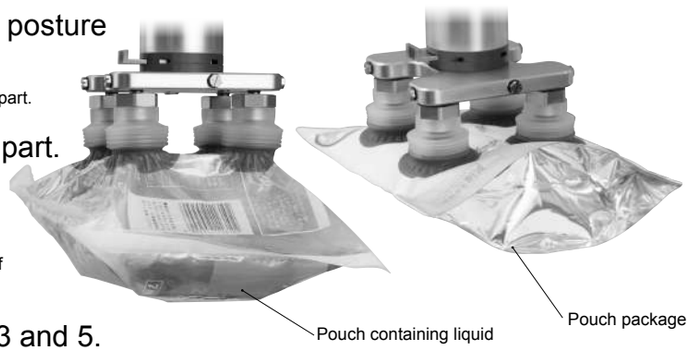
(10) Over-suction preventing adapter

Code	FS	MS	FF	MF
Type	Spherical type		Plane type	
Stainless steel mesh	None	Installed	None	Installed

Characteristics

Realizes followability to work-piece and posture stabilization during conveyance.

Soft material is used for lip part, and hard material is used for bellows part.



Two selections of rubber hardness for lip part. Suitable for bag-like work-piece.

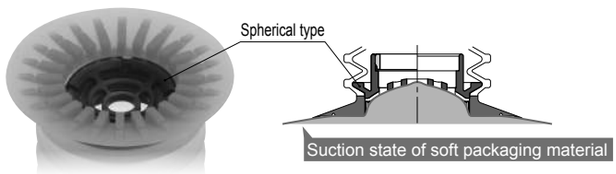
Extra soft material (rubber hardness 20°, pink) is for deformable packaging bags.
Soft material (rubber hardness 40°, blue) is for packaging bag made of thick vinyl or sheet.

Two selections for bellows convolutions: 3 and 5.

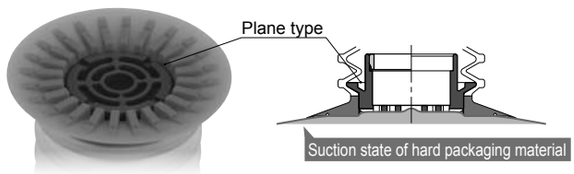
3 convolutions type is suitable for space-saving or high speed conveyance by connecting to EOAT (shorter by approx. 25.3% in height, compared to 5 convolutions type). 5 convolutions type is suitable for liquid packagings which easily deform.

Two types of Over-suction preventing adapter: Spherical/Plane type

■ Spherical type is for soft packaging material.



■ Plane type is for hard packaging material.



Stainless steel mesh can be selected for over-suction preventing adapter.

Prevents suction of foreign objects to prevent trouble in vacuum systems.

Spherical type　Plane type　Back side

Food Sanitation Act and FDA compliant. (Holder is not compliant. Vacuum pad complies only at work-piece contact area.)

*See page 6 for details of the Food Sanitation Act and FDA.

Pad remover is available for convenient removal of the vacuum pad from the pad holder.

● Pad surface treatment for suction mark-free (Optional)

NEW Fluoro-coating type, which is effective in improving pad durability and wear resistance, is added. Prevents sticking to work-pieces and bellows.

Vacuum Pad for Packaging Bag

RoHS2 (2011/65/EU+EU2015/863) compliant

Lip hardness: 20°

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	Connection config. code
Fixed type, Top port, Push-in fitting, For packaging bag pad **VPA**	ø20	ø4	VPA20PBS2[7][8]-4J-[10]	PB8
		ø6	VPA20PBS2[7][8]-6J-[10]	
		ø8	VPA20PBS2[7][8]-8J-[10]	
	ø25	ø4	VPA25PBS2[7][8]-4J-[10]	
		ø6	VPA25PBS2[7][8]-6J-[10]	
		ø8	VPA25PBS2[7][8]-8J-[10]	
	ø30	ø6	VPA30PBS2[7][8]-6J-[10]	PB15
		ø8	VPA30PBS2[7][8]-8J-[10]	
		ø10	VPA30PBS2[7][8]-10J-[10]	
		ø12	VPA30PBS2[7][8]-12J-[10]	
	ø40	ø6	VPA40PBS2[7][8]-6J-[10]	
		ø8	VPA40PBS2[7][8]-8J-[10]	
		ø10	VPA40PBS2[7][8]-10J-[10]	
		ø12	VPA40PBS2[7][8]-12J-[10]	
	ø50	ø6	VPA50PBS2[7]-[8]6J-[10]	
		ø8	VPA50PBS2[7][8]-8J-[10]	
		ø10	VPA50PBS2[7][8]-10J-[10]	
		ø12	VPA50PBS2[7][8]-12J-[10]	

Holder type	Pad dia. (mm)	Female thread size	Model code	Connection config. code
Fixed type, Direct mount, For packaging bag pad **VPE**	ø20	M5×0.8	VPE20PBS2[7][8]-M5-[10]	PB8
		M6×1	VPE20PBS2[7][8]-M6-[10]	
		M8×1	VPE20PBS2[7][8]-M8-[10]	
		G1/8	VPE20PBS2[7][8]-G1-[10]	
	ø25	M5×0.8	VPE25PBS2[7][8]-M5-[10]	
		M6×1	VPE25PBS2[7][8]-M6-[10]	
		M8×1	VPE25PBS2[7][8]-M8-[10]	
		G1/8	VPE25PBS2[7][8]-G1-[10]	
	ø30	M5×0.8	VPE30PBS2[7][8]-M5-[10]	PB15
		M6×1	VPE30PBS2[7][8]-M6-[10]	
		M8×1	VPE30PBS2[7][8]-M8-[10]	
		M14×1	VPE30PBS2[7][8]-M14-[10]	
		G1/8	VPE30PBS2[7][8]-G1-[10]	
		G1/4	VPE30PBS2[7][8]-G2-[10]	
		G3/8	VPE30PBS2[7][8]-G3-[10]	
		G1/2	VPE30PBS2[7][8]-G4-[10]	
	ø40	M5×0.8	VPE40PBS2[7][8]-M5-[10]	
		M6×1	VPE40PBS2[7][8]-M6-[10]	
		M8×1	VPE40PBS2[7][8]-M8-[10]	
		M14×1	VPE40PBS2[7][8]-M14-[10]	
		G1/8	VPE40PBS2[7][8]-G1-[10]	
		G1/4	VPE40PBS2[7][8]-G2-[10]	
		G3/8	VPE40PBS2[7][8]-G3-[10]	
		G1/2	VPE40PBS2[7][8]-G4-[10]	
	ø50	M5×0.8	VPE50PBS2[7][8]-M5-[10]	
		M6×1	VPE50PBS2[7][8]-M6-[10]	
		M8×1	VPE50PBS2[7][8]-M8-[10]	
		M14×1	VPE50PBS2[7][8]-M14-[10]	
		G1/8	VPE50PBS2[7][8]-G1-[10]	
		G1/4	VPE50PBS2[7][8]-G2-[10]	
		G3/8	VPE50PBS2[7][8]-G3-[10]	
		G1/2	VPE50PBS2[7][8]-G4-[10]	

Lip hardness: 40°

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	Connection config. code
Fixed type, Top port, Push-in fitting, For packaging bag pad **VPA**	ø20	ø4	VPA20PBS4[7][8]-4J-[10]	PB8
		ø6	VPA20PBS4[7][8]-6J-[10]	
		ø8	VPA20PBS4[7][8]-8J-[10]	
	ø25	ø4	VPA25PBS4[7][8]-4J-[10]	
		ø6	VPA25PBS4[7][8]-6J-[10]	
		ø8	VPA25PBS4[7][8]-8J-[10]	
	ø30	ø6	VPA30PBS4[7][8]-6J-[10]	PB15
		ø8	VPA30PBS4[7][8]-8J-[10]	
		ø10	VPA30PBS4[7][8]-10J-[10]	
		ø12	VPA30PBS4[7][8]-12J-[10]	
	ø40	ø6	VPA40PBS4[7][8]-6J-[10]	
		ø8	VPA40PBS4[7][8]-8J-[10]	
		ø10	VPA40PBS4[7][8]-10J-[10]	
		ø12	VPA40PBS4[7][8]-12J-[10]	
	ø50	ø6	VPA50PBS4[7][8]-6J-[10]	
		ø8	VPA50PBS4[7][8]-8J-[10]	
		ø10	VPA50PBS4[7][8]-10J-[10]	
		ø12	VPA50PBS4[7][8]-12J-[10]	

Holder type	Pad dia. (mm)	Female thread size	Model code	Connection config. code
Fixed type, Direct mount, For packaging bag pad **VPE**	ø20	M5×0.8	VPE20PBS4[7][8]-M5-[10]	PB8
		M6×1	VPE20PBS4[7][8]-M6-[10]	
		M8×1	VPE20PBS4[7][8]-M8-[10]	
		G1/8	VPE20PBS4[7][8]-G1-[10]	
	ø25	M5×0.8	VPE25PBS4[7][8]-M5-[10]	
		M6×1	VPE25PBS4[7][8]-M6-[10]	
		M8×1	VPE25PBS4[7][8]-M8-[10]	
		G1/8	VPE25PBS4[7][8]-G1-[10]	
	ø30	M5×0.8	VPE30PBS4[7][8]-M5-[10]	PB15
		M6×1	VPE30PBS4[7][8]-M6-[10]	
		M8×1	VPE30PBS4[7][8]-M8-[10]	
		M14×1	VPE30PBS4[7][8]-M14-[10]	
		G1/8	VPE30PBS4[7][8]-G1-[10]	
		G1/4	VPE30PBS4[7][8]-G2-[10]	
		G3/8	VPE30PBS4[7][8]-G3-[10]	
		G1/2	VPE30PBS4[7][8]-G4-[10]	
	ø40	M5×0.8	VPE40PBS4[7][8]-M5-[10]	
		M6×1	VPE40PBS4[7][8]-M6-[10]	
		M8×1	VPE40PBS4[7][8]-M8-[10]	
		M14×1	VPE40PBS4[7][8]-M14-[10]	
		G1/8	VPE40PBS4[7][8]-G1-[10]	
		G1/4	VPE40PBS4[7][8]-G2-[10]	
		G3/8	VPE40PBS4[7][8]-G3-[10]	
		G1/2	VPE40PBS4[7][8]-G4-[10]	
	ø50	M5×0.8	VPE50PBS4[7][8]-M5-[10]	
		M6×1	VPE50PBS4[7][8]-M6-[10]	
		M8×1	VPE50PBS4[7][8]-M8-[10]	
		M14×1	VPE50PBS4[7][8]-M14-[10]	
		G1/8	VPE50PBS4[7][8]-G1-[10]	
		G1/4	VPE50PBS4[7][8]-G2-[10]	
		G3/8	VPE50PBS4[7][8]-G3-[10]	
		G1/2	VPE50PBS4[7][8]-G4-[10]	

Notes
*For [7] in model code list, please select a code for bellows convolutions, for [10], please select a code for over-suction preventing adapter.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
[8] : Surface treatment (Fluoro-coating)

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Model code
Pad remover VPOJ	VPOJ-PB0815

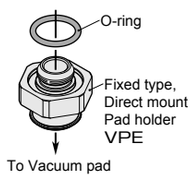
Optional items (○: Available)

8 Pad surface treatment (Suction mark-free)

Pad dia. (mm)	8 Surface treatment code -FG Fluoro-coating (3 cnvl.)	(5 cnvl.)	Connection config. code
ø20	○	○	PB8
ø25	○	○	
ø30	○	○	PB15
ø40	○	○	
ø50	○	○	

Characteristics of surface treatment ► P.370

Replacement parts



O-ring Model code	Holder thread size
9×2 (VMQ)	M8×1
15×2 (VMQ)	M14×1
10×2 (VMQ)	G1/8A
14×2 (VMQ)	G1/4A
17×2 (VMQ)	G3/8A
21×2 (VMQ)	G1/2A

Vacuum Pad Metal Detectable Type

Vacuum pad for food manufacturing process which contamination of foreign objects are not desired.

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VP	C	10	-6	BE	MSF3	-6J	-DC	-ECV	-FH	-F15	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
							Optional	Optional	Optional	Optional	Optional

(1) Vacuum Pad

(2) Holder type

Holder type		Fixed type				Spring type					
		Mini		Standard		Mini		Standard		No cover	Low dust emission
Code	Top port	MA		A		MC		C		OC	LFC
	Side port	MB		B		MD		D		OD	LFD
	Direct mount	–		E		–		F		–	–
Connection config. code		M4	M6	M4	M6	M4	M6	M4	M6	M4	M6	M4	M6

Holder type		Lightweight	Low profile
		Spring type	Direct mount
Code	Top port	HC	–
	Side port	HD	HE
	Dual side port	HDW	HEW
Connection config. code		M4 M6	M4 M6

(3) Pad dia.

Code	10	15	20
Pad dia. (mm)	ø10	ø15	ø20
Connection config. code	M4		M6

(4) Stroke (No code entry for Holder type: MA, A, MB, B, E, F, HE and HEW)

Code		-2	-4	-5	-6	-10	-15	-20	-25	-30	-40	-50
Stroke (mm)		2	4	5	6	10	15	20	25	30	40	50
Spring type holder code	VPMC		●●									
	VPC				●●	●●	●●	●●				
	VPOC							●●		●●	●●	●●
	VPLFC	●		●●		●●	●●	●●				
	VPMD		●●									
	VPD				●●	●●	●●	●●				
	VPOD							●●		●●	●●	●●
	VPLFD			●●		●●	●●	●●				
	VPHC					●●	●●	●●	●●	●●	●●	●●
	VPHD			●●								
	VPHDW			●●								

Connection config. code
●: M4
●: M6

(5) Pad type

Code	BE	BD
Type	Bellows with bumps and ribs	Bellows with bumps and no ribs

(6) Pad material

Code		MSF3	MSF5	MSS3	MSS5
Rubber material		Metal detectable silicone			
		Iron powder type		SUS powder type	
		Hardness 30°	Hardness 50°	Hardness 30°	Hardness 50°
Identification	Identification code	SF	SF	SS	SS
	Pad color	Reddish-brown	Dark-green	Brown	Green

(7) Vacuum port size and joint type (No code entry for Holder type: F) (○: Available)

Type	Push-in fitting								Barb fitting				Female thread	
	mm size (mm)					inch size (inch)			mm size (mm)			inch size (inch)	Metric thread	
Code	-180J	-2J	-3J	-4J	-6J	-1/8J	-5/32J	-1/4J	-3B	-4B*	-6B	-1/4B	-M5	-M6
Tube O.D.	ø1.8	ø2	ø3	ø4	ø6	ø1/8	ø5/32	ø1/4						
Tube I.D.									ø2	ø2.5	ø4	Polyurethane tube ø0.163 Nylon tube ø0.180		
Thread size													M5×0.8	M6×1
Holder type VPMA			○	○			○		○	○	○			
VPA			○	○	○	○	○	○		○	○	○		○
VPMB	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPB			○	○	○	○	○	○		○	○	○		○
VPMC	○	○	○	○		○	○		○	○	○	○		
VPC			○	○	○	○	○	○		○	○	○		○
VPOC			○	○	○	○	○	○		○	○	○		○
VPLFC			○	○	○	○	○	○	○	○	○		○	○
VPMD	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPD			○	○	○	○	○	○		○	○	○		○
VPOD			○	○	○	○	○	○		○	○	○		○
VPLFD			○	○	○	○	○	○	○	○	○		○	○
VPHC	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPHD	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPHDW	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPHE	○	○	○	○	○	○	○	○	○	○	○	○	○	
VPHEW	○	○	○	○	○	○	○	○	○	○	○	○	○	

*The barb fitting of 5/32" size is common with 4 mm size. Please order with the code: -4B.
*Available port size varies depending on pad dia. See model code lists on the following pages.

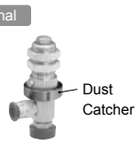
Type	Male thread																Female thread	
	Metric thread				Taper pipe thread				Parallel pipe thread				NPT thread				Metric thread	
Code	-M8	-M10	-M12	-M14	-R1	-R2	-R3	-R4	-G1	-G2	-G3	-G4	-N1	-N2	-N3	-N4	-FM5	-FM8
Thread size	M8×1.25	M10×1.5	M12×1.75	M14×2	R1/8	R1/4	R3/8	R1/2	G1/8	G1/4	G3/8	G1/2	NPT1/8	NPT1/4	NPT3/8	NPT1/2	M5×0.8	M8×1.25
Holder type VPE	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

*Configuration code: M4 is not available for R4 and G4 thread size.

(8) Dust Catcher (Holder type: C, D and F only) Optional

Code	No code	-DC
Dust Catcher	None	Installed

*Note that the holder stroke becomes shorter when a dust catcher is installed. Please visit our website for details.



(8) Spring load (Holder type: LFC only)

Code	No code	-SF1/4
Load	Standard load	Low load (1/4 of standard load)

*"-SF1/4" is not selectable when 2 mm stroke is selected.

(9) Fall Prevention Valve Optional

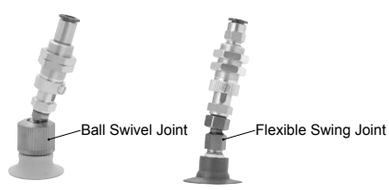
Code	No code	-ECV
Fall Prevention Valve	None	Installed

*-S3 spec. is not selectable when Fall Prevention Valve is selected.

(10) Swivel Joint for vacuum pad Optional

Code	No code	-FH	-FHH	-CFH
Option	None	Ball Swivel Joint (Swivel angle: 30°)	Ball Swivel Joint (Swivel angle: 15°)	Flexible Swing Joint (Swing angle: 8°)

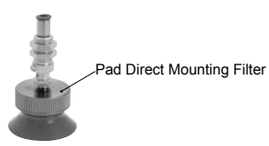
*-S3 spec. is not selectable when Ball Swivel Joint is selected.



(11) Filter Optional

Code	No code	-F15	-F30
Filter	None	Installed (Filter area 1.7 cm²)	Installed (Filter area 7 cm²)
Applicable config. Code	—	M4, M6	M6

*1. -S3 spec. is not selectable when Filter is selected.
*2. "-F30" is recommended when much dust is expected at sucking work pieces.



(12) -S3 spec. Optional

Code	No code	-S3
Metal material	Standard	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard	HNBR or FKM
Release ring color	Black	Dark blue

*1. -S3 spec. is not available for the following fittings and holders:
· Push-in fitting with dia. size of 1.8, 2, 3 mm and inch sizes except dia. 1/8" (some) and 5/32".
· Barb fitting with dia. of 1/4".
· Pad holder with stroke length 10 mm or longer (except for VPHC holders).
· VPLFC and VPLFD holders.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Vacuum Pad Metal Detectable Type

Characteristics

Metal Detectable vacuum pad for food industry.

Response ratio rate of iron powder type is more than twice compared with others. (In-house testing)

Pad dia. 3 types
ø10,15, 20㎜
Pad material 4 types

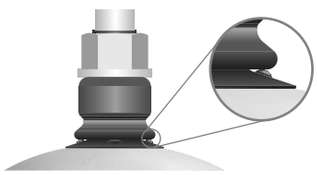
FDA and Food Sanitation Act compliant.

(Holder is not compliant. Vacuum pad complies only at work-piece contact area.)

*See page 6 for details of the Food Sanitation Act and FDA.

Iron powder type and SUS powder type with rust-resistant wear debris are available.

Lip part and bellows part sticking problem is mitigated by the bumps. (Comparison with existing models)



Lip with ribs and no rib types are available for suction surface. No rib type is suitable for spherical shaped work-pieces.

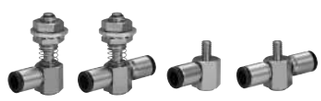
Rib type No rib type

Two types of rubber hardness, 30° and 50° are available.

Wide variations of Pad holders.

The following combinations of holder and pad rubber are also available although they are not listed on the model code list from the next page onward. Contact us for the details.

· Lightweight VPHD and VPHDW holders with spring type without cover.
· VPHE and VPHEW holders with reduced height.
· VPHDW and VPHEW holders with dual side vacuum ports, suitable for piping connection of multiple vacuum pads.



Low dust emission holders (VPLFC, VPLFD) with low noise and less wear from sliding are available to prevent dust generation.

VPLFC holder with top port has a separate shaft on the pad side and the vacuum port side, so there is no effect on the stroke caused by the tension of the tube. Low load type is also available to suppress impact when contacting the work-piece.

● Holder with dust catcher (Optional)

Collects wear debris generated by sliding spring type holders. Low-cost, simple holder with receiver tray added.

Applicable to VPC, VPD and VPF holders.

◀ Dust Catcher

● Accessories (Optional)

Fall Prevention Valve, Swivel (Ball Swivel Joint, Flexible Swing Joint) and Filter options are available.

● -S3 spec. (Optional)

No copper-based metallic materials used in flow paths.

The sealing rubber material of the fitting is HNBR or FKM, with good ozone resisntace.

RoHS2 (2011/65/EU+EU2015/863) compliant

Fixed type, Top port, Push-in fitting, Mini VPMA

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	12 : -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Mini VPMA	ø10	ø3	VPMA10[5][6]-3J	—	M4
		ø4	VPMA10[5][6]-4J[12]	○	
	ø15	ø3	VPMA15[5][6]-3J	—	
		ø4	VPMA15[5][6]-4J[12]	○	
	ø20	ø4	VPMA20[5][6]-4J[12]	○	M6

Holder type	Pad dia. (mm)	Tube O.D. (inch)	Model code	12 : -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Mini VPMA	ø10	ø5/32	VPMA10[5][6]-5/32J [12]	○	M4
	ø15	ø5/32	VPMA15[5][6]-5/32J [12]	○	
	ø20	ø5/32	VPMA20[5][6]-5/32J [12]	○	M6

Fixed type, Top port, Push-in fitting, Standard VPA

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	12 : -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Standard VPA	ø10	ø6	VPA10[5][6]-6J[12]	○	M4
	ø15	ø6	VPA15[5][6]-6J[12]	○	
	ø20	ø3	VPA20[5][6]-3J	—	M6
		ø4	VPA20[5][6]-4J[12]	○	
		ø6	VPA20[5][6]-6J[12]	○	

Holder type	Pad dia. (mm)	Tube O.D. (inch)	Model code	12 : -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Standard VPA	ø10	ø1/4	VPA10[5][6]-1/4J	—	M4
	ø15	ø1/4	VPA15[5][6]-1/4J	—	
	ø20	ø1/8	VPA20[5][6]-1/8J	—	M6
		ø5/32	VPA20[5][6]-5/32J [12]	○	
		ø1/4	VPA20[5][6]-1/4J	—	

Fixed type, Top port, Female thread, Standard VPA

Holder type	Pad dia. (mm)	Male thread size	Model code	12 : -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Female thread, Standard VPA	ø20	M6×1	VPA20[5][6]-M6[12]	○	M6

Fixed type, Side port, Push-in fitting, Mini VPMB

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	12 : -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Push-in fitting, Mini VPMB	ø10	ø3	VPMB10[5][6]-3J	—	M4
		ø4	VPMB10[5][6]-4J[12]	○	
		ø6	VPMB10[5][6]-6J[12]	○	
	ø15	ø3	VPMB15[5][6]-3J	—	
		ø4	VPMB15[5][6]-4J[12]	○	
		ø6	VPMB15[5][6]-6J[12]	○	
	ø20	ø3	VPMB20[5][6]-3J	—	M6
		ø4	VPMB20[5][6]-4J[12]	○	
		ø6	VPMB20[5][6]-6J[12]	○	

Holder type	Pad dia. (mm)	Tube O.D. (inch)	Model code	12 : -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Push-in fitting, Mini VPMB	ø10	ø1/8	VPMB10[5][6]-1/8J	—	M4
		ø5/32	VPMB10[5][6]-5/32J [12]	○	
		ø1/4	VPMB10[5][6]-1/4J	—	
	ø15	ø1/8	VPMB15[5][6]-1/8J	—	
		ø5/32	VPMB15[5][6]-5/32J [12]	○	
		ø1/4	VPMB15[5][6]-1/4J	—	
	ø20	ø1/8	VPMB20[5][6]-1/8J	—	M6
		ø5/32	VPMB20[5][6]-5/32J [12]	○	
		ø1/4	VPMB20[5][6]-1/4J	—	

Fixed type, Side port, Female thread, Mini VPMB

Holder type	Pad dia. (mm)	Male thread size	Model code	12 : -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Female thread, Mini VPMB	ø10	M5×0.8	VPMB10[5][6]-M5[12]	○	M4
	ø15	M5×0.8	VPMB15[5][6]-M5[12]	○	
	ø20	M5×0.8	VPMB20[5][6]-M5[12]	○	M6

Notes

*1. For [5] in model code list, please select a code of "BE" for rib type, and "BD" for no rib type.
*2. Holders are also available in Push-in fitting type (except for VPMA and VPA holders) for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

Packaging specifications)

1 pc. /bag

Options

12 : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.602

Fall Prevention Valve	Swivel Joint	Filter

Vacuum Pad Metal Detectable Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	[12] : -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	[12] : -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Push-in fitting, Standard VPB	ø10	ø3	VPB10[5][6]-3J	—	M4	ø10	ø1/8	VPB10[5][6]-1/8J	—	M4
		ø4	VPB10[5][6]-4J[12]	○			ø5/32	VPB10[5][6]-5/32J [12]	○	
		ø6	VPB10[5][6]-6J[12]	○			ø1/4	VPB10[5][6]-1/4J	—	
	ø15	ø3	VPB15[5][6]-3J	—		ø15	ø1/8	VPB15[5][6]-1/8J	—	
		ø4	VPB15[5][6]-4J[12]	○			ø5/32	VPB15[5][6]-5/32J [12]	○	
		ø6	VPB15[5][6]-6J[12]	○			ø1/4	VPB15[5][6]-1/4J	—	
	ø20	ø3	VPB20[5][6]-3J	—	M6	ø20	ø1/8	VPB20[5][6]-1/8J	—	M6
		ø4	VPB20[5][6]-4J[12]	○			ø5/32	VPB20[5][6]-5/32J [12]	○	
		ø6	VPB20[5][6]-6J[12]	○			ø1/4	VPB20[5][6]-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	[12] : -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Female thread, Standard VPB	ø10	M6×1	VPB10[5][6]-M6[12]	○	M4
	ø15	M6×1	VPB15[5][6]-M6[12]	○	
	ø20	M6×1	VPB20[5][6]-M6[12]	○	M6

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	[12] : -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	[12] : -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Mini VPMC Stroke 4mm	ø10	ø3	VPMC10-4[5][6]-3J	—	M4	ø10	ø1/8	VPMC10-4[5][6]-1/8J	—	M4
		ø4	VPMC10-4[5][6]-4J[12]	○			ø5/32	VPMC10-4[5][6]-5/32J [12]	○	
	ø15	ø3	VPMC15-4[5][6]-3J	—		ø15	ø1/8	VPMC15-4[5][6]-1/8J	—	
		ø4	VPMC15-4[5][6]-4J[12]	○			ø5/32	VPMC15-4[5][6]-5/32J [12]	○	
	ø20	ø3	VPMC20-4[5][6]-3J	—	M6	ø20	ø1/8	VPMC20-4[5][6]-1/8J	—	M6
		ø4	VPMC20-4[5][6]-4J[12]	○			ø5/32	VPMC20-4[5][6]-5/32J [12]	○	

Notes

*1. For [5] in model code list, please select a code of "BE" for rib type, and "BD" for no rib type.
*2. Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

Packaging specifications

1 pc. /bag

Options

[12] : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.602

Fall Prevention Valve	Swivel Joint	Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	⑫ : -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Standard VPC	ø10	6	ø3	VPC10-6⑤⑥-3J⑧	—	M4
			ø4	VPC10-6⑤⑥-4J⑧⑫	○	
			ø6	VPC10-6⑤⑥-6J⑧⑫	○	
		10	ø3	VPC10-10⑤⑥-3J⑧	—	
			ø4	VPC10-10⑤⑥-4J⑧	—	
			ø6	VPC10-10⑤⑥-6J⑧	—	
		15	ø3	VPC10-15⑤⑥-3J⑧	—	
			ø4	VPC10-15⑤⑥-4J⑧	—	
			ø6	VPC10-15⑤⑥-6J⑧	—	
		20	ø3	VPC10-20⑤⑥-3J⑧	—	
			ø4	VPC10-20⑤⑥-4J⑧	—	
			ø6	VPC10-20⑤⑥-6J⑧	—	
	ø15	6	ø3	VPC15-6⑤⑥-3J⑧	—	
			ø4	VPC15-6⑤⑥-4J⑧⑫	○	
			ø6	VPC15-6⑤⑥-6J⑧⑫	○	
		10	ø3	VPC15-10⑤⑥-3J⑧	—	
			ø4	VPC15-10⑤⑥-4J⑧	—	
			ø6	VPC15-10⑤⑥-6J⑧	—	
		15	ø3	VPC15-15⑤⑥-3J⑧	—	
			ø4	VPC15-15⑤⑥-4J⑧	—	
			ø6	VPC15-15⑤⑥-6J⑧	—	
		20	ø3	VPC15-20⑤⑥-3J⑧	—	
			ø4	VPC15-20⑤⑥-4J⑧	—	
			ø6	VPC15-20⑤⑥-6J⑧	—	
	ø20	6	ø3	VPC20-6⑤⑥-3J⑧	—	M6
			ø4	VPC20-6⑤⑥-4J⑧⑫	○	
			ø6	VPC20-6⑤⑥-6J⑧⑫	○	
		10	ø3	VPC20-10⑤⑥-3J⑧	—	
			ø4	VPC20-10⑤⑥-4J⑧	—	
			ø6	VPC20-10⑤⑥-6J⑧	—	
		15	ø3	VPC20-15⑤⑥-3J⑧	—	
			ø4	VPC20-15⑤⑥-4J⑧	—	
			ø6	VPC20-15⑤⑥-6J⑧	—	
		20	ø3	VPC20-20⑤⑥-3J⑧	—	
			ø4	VPC20-20⑤⑥-4J⑧	—	
			ø6	VPC20-20⑤⑥-6J⑧	—	

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	⑫ : -S3 -S3 spec.	Connection config. code
	ø10	6	ø1/8	VPC10-6⑤⑥-¹/₈J⑧	—	M4
			ø5/32	VPC10-6⑤⑥-⁵/₃₂J⑧⑫	○	
			ø1/4	VPC10-6⑤⑥-¹/₄J⑧	—	
		10	ø1/8	VPC10-10⑤⑥-¹/₈J⑧	—	
			ø5/32	VPC10-10⑤⑥-⁵/₃₂J⑧	—	
			ø1/4	VPC10-10⑤⑥-¹/₄J⑧	—	
		15	ø1/8	VPC10-15⑤⑥-¹/₈J⑧	—	
			ø5/32	VPC10-15⑤⑥-⁵/₃₂J⑧	—	
			ø1/4	VPC10-15⑤⑥-¹/₄J⑧	—	
		20	ø1/8	VPC10-20⑤⑥-¹/₈J⑧	—	
			ø5/32	VPC10-20⑤⑥-⁵/₃₂J⑧	—	
			ø1/4	VPC10-20⑤⑥-¹/₄J⑧	—	
	ø15	6	ø1/8	VPC15-6⑤⑥-¹/₈J⑧	—	
			ø5/32	VPC15-6⑤⑥-⁵/₃₂J⑧⑫	○	
			ø1/4	VPC15-6⑤⑥-¹/₄J⑧	—	
		10	ø1/8	VPC15-10⑤⑥-¹/₈J⑧	—	
			ø5/32	VPC15-10⑤⑥-⁵/₃₂J⑧	—	
			ø1/4	VPC15-10⑤⑥-¹/₄J⑧	—	
		15	ø1/8	VPC15-15⑤⑥-¹/₈J⑧	—	
			ø5/32	VPC15-15⑤⑥-⁵/₃₂J⑧	—	
			ø1/4	VPC15-15⑤⑥-¹/₄J⑧	—	
		20	ø1/8	VPC15-20⑤⑥-¹/₈J⑧	—	
			ø5/32	VPC15-20⑤⑥-⁵/₃₂J⑧	—	
			ø1/4	VPC15-20⑤⑥-¹/₄J⑧	—	
	ø20	6	ø1/8	VPC20-6⑤⑥-¹/₈J⑧	—	M6
			ø5/32	VPC20-6⑤⑥-⁵/₃₂J⑧⑫	○	
			ø1/4	VPC20-6⑤⑥-¹/₄J⑧	—	
		10	ø1/8	VPC20-10⑤⑥-¹/₈J⑧	—	
			ø5/32	VPC20-10⑤⑥-⁵/₃₂J⑧	—	
			ø1/4	VPC20-10⑤⑥-¹/₄J⑧	—	
		15	ø1/8	VPC20-15⑤⑥-¹/₈J⑧	—	
			ø5/32	VPC20-15⑤⑥-⁵/₃₂J⑧	—	
			ø1/4	VPC20-15⑤⑥-¹/₄J⑧	—	
		20	ø1/8	VPC20-20⑤⑥-¹/₈J⑧	—	
			ø5/32	VPC20-20⑤⑥-⁵/₃₂J⑧	—	
			ø1/4	VPC20-20⑤⑥-¹/₄J⑧	—	

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	⑫ : -S3 -S3 spec.	Connection config. code
Spring type, Top port, Female thread, Standard VPC	ø10	6	M5×0.8	VPC10-6⑤⑥-M6⑧⑫	○	M4
		10	M5×0.8	VPC10-10⑤⑥-M6⑧	—	
		15	M5×0.8	VPC10-15⑤⑥-M6⑧	—	
		20	M5×0.8	VPC10-20⑤⑥-M6⑧	—	
	ø15	6	M5×0.8	VPC15-6⑤⑥-M6⑧⑫	○	
		10	M5×0.8	VPC15-10⑤⑥-M6⑧	—	
		15	M5×0.8	VPC15-15⑤⑥-M6⑧	—	
		20	M5×0.8	VPC15-20⑤⑥-M6⑧	—	
	ø20	6	M5×0.8	VPC20-6⑤⑥-M6⑧⑫	○	M6
		10	M5×0.8	VPC20-10⑤⑥-M6⑧	—	
		15	M5×0.8	VPC20-15⑤⑥-M6⑧	—	
		20	M5×0.8	VPC20-20⑤⑥-M6⑧	—	

Notes

*1. For ⑤ in model code list, please select a code of "BE" for rib type, and "BD" for no rib type.
*2. Barb fitting type holders are also selectable. Contact us for the details.

Packaging specifications
1 pc. /bag

Options
⑧ : -DC ⇒ Holder with dust catcher
⑫ : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.602

Vacuum Pad Metal Detectable Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, No cover VPOC	ø10	20	ø3	VPOC10-20[5][6]-3J	M4	ø10	20	ø1/8	VPOC10-20[5][6]-1/8J	M4
			ø4	VPOC10-20[5][6]-4J				ø5/32	VPOC10-20[5][6]-5/32J	
			ø6	VPOC10-20[5][6]-6J				ø1/4	VPOC10-20[5][6]-1/4J	
		30	ø3	VPOC10-30[5][6]-3J			30	ø1/8	VPOC10-30[5][6]-1/8J	
			ø4	VPOC10-30[5][6]-4J				ø5/32	VPOC10-30[5][6]-5/32J	
			ø6	VPOC10-30[5][6]-6J				ø1/4	VPOC10-30[5][6]-1/4J	
		40	ø3	VPOC10-40[5][6]-3J			40	ø1/8	VPOC10-40[5][6]-1/8J	
			ø4	VPOC10-40[5][6]-4J				ø5/32	VPOC10-40[5][6]-5/32J	
			ø6	VPOC10-40[5][6]-6J				ø1/4	VPOC10-40[5][6]-1/4J	
		50	ø3	VPOC10-50[5][6]-3J			50	ø1/8	VPOC10-50[5][6]-1/8J	
			ø4	VPOC10-50[5][6]-4J				ø5/32	VPOC10-50[5][6]-5/32J	
			ø6	VPOC10-50[5][6]-6J				ø1/4	VPOC10-50[5][6]-1/4J	
	ø15	20	ø3	VPOC15-20[5][6]-3J		ø15	20	ø1/8	VPOC15-20[5][6]-1/8J	
			ø4	VPOC15-20[5][6]-4J				ø5/32	VPOC15-20[5][6]-5/32J	
			ø6	VPOC15-20[5][6]-6J				ø1/4	VPOC15-20[5][6]-1/4J	
		30	ø3	VPOC15-30[5][6]-3J			30	ø1/8	VPOC15-30[5][6]-1/8J	
			ø4	VPOC15-30[5][6]-4J				ø5/32	VPOC15-30[5][6]-5/32J	
			ø6	VPOC15-30[5][6]-6J				ø1/4	VPOC15-30[5][6]-1/4J	
		40	ø3	VPOC15-40[5][6]-3J			40	ø1/8	VPOC15-40[5][6]-1/8J	
			ø4	VPOC15-40[5][6]-4J				ø5/32	VPOC15-40[5][6]-5/32J	
			ø6	VPOC15-40[5][6]-6J				ø1/4	VPOC15-40[5][6]-1/4J	
		50	ø3	VPOC15-50[5][6]-3J			50	ø1/8	VPOC15-50[5][6]-1/8J	
			ø4	VPOC15-50[5][6]-4J				ø5/32	VPOC15-50[5][6]-5/32J	
			ø6	VPOC15-50[5][6]-6J				ø1/4	VPOC15-50[5][6]-1/4J	
	ø20	20	ø3	VPOC20-20[5][6]-3J	M6	ø20	20	ø1/8	VPOC20-20[5][6]-1/8J	M6
			ø4	VPOC20-20[5][6]-4J				ø5/32	VPOC20-20[5][6]-5/32J	
			ø6	VPOC20-20[5][6]-6J				ø1/4	VPOC20-20[5][6]-1/4J	
		30	ø3	VPOC20-30[5][6]-3J			30	ø1/8	VPOC20-30[5][6]-1/8J	
			ø4	VPOC20-30[5][6]-4J				ø5/32	VPOC20-30[5][6]-5/32J	
			ø6	VPOC20-30[5][6]-6J				ø1/4	VPOC20-30[5][6]-1/4J	
		40	ø3	VPOC20-40[5][6]-3J			40	ø1/8	VPOC20-40[5][6]-1/8J	
			ø4	VPOC20-40[5][6]-4J				ø5/32	VPOC20-40[5][6]-5/32J	
			ø6	VPOC20-40[5][6]-6J				ø1/4	VPOC20-40[5][6]-1/4J	
		50	ø3	VPOC20-50[5][6]-3J			50	ø1/8	VPOC20-50[5][6]-1/8J	
			ø4	VPOC20-50[5][6]-4J				ø5/32	VPOC20-50[5][6]-5/32J	
			ø6	VPOC20-50[5][6]-6J				ø1/4	VPOC20-50[5][6]-1/4J	

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Top port, Female thread, No cover VPOC	ø10	20	M6×1	VPOC10-20[5][6]-M6	M4
		30		VPOC10-30[5][6]-M6	
		40		VPOC10-40[5][6]-M6	
		50		VPOC10-50[5][6]-M6	
	ø15	20	M6×1	VPOC15-20[5][6]-M6	
		30		VPOC15-30[5][6]-M6	
		40		VPOC15-40[5][6]-M6	
		50		VPOC15-50[5][6]-M6	
	ø20	20	M6×1	VPOC20-20[5][6]-M6	M6
		30		VPOC20-30[5][6]-M6	
		40		VPOC20-40[5][6]-M6	
		50		VPOC20-50[5][6]-M6	

Notes

*1. For [5] in model code list, please select a code of "BE" for rib type, and "BD" for no rib type.
*2. Barb fitting type holders are also selectable. Contact us for the details.

Packaging specifications

1 pc. /bag

Optional items

⇒ P.602

Fall Prevention Valve

Swivel Joint

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, Low dust emission **VPLFC**	ø10	2	ø3	VPLFC10-2[5][6]-3J		ø10	2	ø1/8	VPLFC10-2[5][6]-1/8J	
			ø4	VPLFC10-2[5][6]-4J				ø5/32	VPLFC10-2[5][6]-5/32J	
		5	ø3	VPLFC10-5[5][6]-3J[8]			5	ø1/8	VPLFC10-5[5][6]-1/8J[8]	
			ø4	VPLFC10-5[5][6]-4J[8]				ø5/32	VPLFC10-5[5][6]-5/32J[8]	
		10	ø3	VPLFC10-10[5][6]-3J[8]			10	ø1/8	VPLFC10-10[5][6]-1/8J[8]	
			ø4	VPLFC10-10[5][6]-4J[8]				ø5/32	VPLFC10-10[5][6]-5/32J[8]	
		15	ø3	VPLFC10-15[5][6]-3J[8]			15	ø1/8	VPLFC10-15[5][6]-1/8J[8]	
			ø4	VPLFC10-15[5][6]-4J[8]				ø5/32	VPLFC10-15[5][6]-5/32J[8]	
		20	ø3	VPLFC10-20[5][6]-3J[8]			20	ø1/8	VPLFC10-20[5][6]-1/8J[8]	
			ø4	VPLFC10-20[5][6]-4J[8]	M4			ø5/32	VPLFC10-20[5][6]-5/32J[8]	M4
	ø15	2	ø3	VPLFC15-2[5][6]-3J		ø15	2	ø1/8	VPLFC15-2[5][6]-1/8J	
			ø4	VPLFC15-2[5][6]-4J				ø5/32	VPLFC15-2[5][6]-5/32J	
		5	ø3	VPLFC15-5[5][6]-3J[8]			5	ø1/8	VPLFC15-5[5][6]-1/8J[8]	
			ø4	VPLFC15-5[5][6]-4J[8]				ø5/32	VPLFC15-5[5][6]-5/32J[8]	
		10	ø3	VPLFC15-10[5][6]-3J[8]			10	ø1/8	VPLFC15-10[5][6]-1/8J[8]	
			ø4	VPLFC15-10[5][6]-4J[8]				ø5/32	VPLFC15-10[5][6]-5/32J[8]	
		15	ø3	VPLFC15-15[5][6]-3J[8]			15	ø1/8	VPLFC15-15[5][6]-1/8J[8]	
			ø4	VPLFC15-15[5][6]-4J[8]				ø5/32	VPLFC15-15[5][6]-5/32J[8]	
		20	ø3	VPLFC15-20[5][6]-3J[8]			20	ø1/8	VPLFC15-20[5][6]-1/8J[8]	
			ø4	VPLFC15-20[5][6]-4J[8]				ø5/32	VPLFC15-20[5][6]-5/32J[8]	
	ø20	5	ø3	VPLFC20-5[5][6]-3J[8]		ø20	5	ø1/8	VPLFC20-5[5][6]-1/8J[8]	
			ø4	VPLFC20-5[5][6]-4J[8]				ø5/32	VPLFC20-5[5][6]-5/32J[8]	
			ø6	VPLFC20-5[5][6]-6J[8]				ø1/4	VPLFC20-5[5][6]-1/4J[8]	
		10	ø3	VPLFC20-10[5][6]-3J[8]			10	ø1/8	VPLFC20-10[5][6]-1/8J[8]	
			ø4	VPLFC20-10[5][6]-4J[8]				ø5/32	VPLFC20-10[5][6]-5/32J[8]	
			ø6	VPLFC20-10[5][6]-6J[8]				ø1/4	VPLFC20-10[5][6]-1/4J[8]	
		15	ø3	VPLFC20-15[5][6]-3J[8]	M6		15	ø1/8	VPLFC20-15[5][6]-1/8J[8]	M6
			ø4	VPLFC20-15[5][6]-4J[8]				ø5/32	VPLFC20-15[5][6]-5/32J[8]	
			ø6	VPLFC20-15[5][6]-6J[8]				ø1/4	VPLFC20-15[5][6]-1/4J[8]	
		20	ø3	VPLFC20-20[5][6]-3J[8]			20	ø1/8	VPLFC20-20[5][6]-1/8J[8]	
			ø4	VPLFC20-20[5][6]-4J[8]				ø5/32	VPLFC20-20[5][6]-5/32J[8]	
			ø6	VPLFC20-20[5][6]-6J[8]				ø1/4	VPLFC20-20[5][6]-1/4J[8]	

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Top port, Female thread, Low dust emission **VPLFC**	ø10	2	M5×0.8	VPLFC10-2[5][6]-M5	
		5	M5×0.8	VPLFC10-5[5][6]-M5[8]	
		10	M5×0.8	VPLFC10-10[5][6]-M5[8]	
		15	M5×0.8	VPLFC10-15[5][6]-M5[8]	
		20	M5×0.8	VPLFC10-20[5][6]-M5[8]	M4
	ø15	2	M5×0.8	VPLFC15-2[5][6]-M5	
		5	M5×0.8	VPLFC15-5[5][6]-M5[8]	
		10	M5×0.8	VPLFC15-10[5][6]-M5[8]	
		15	M5×0.8	VPLFC15-15[5][6]-M5[8]	
		20	M5×0.8	VPLFC15-20[5][6]-M5[8]	
	ø20	5	M5×0.8	VPLFC20-5[5][6]-M5[8]	
		10	M5×0.8	VPLFC20-10[5][6]-M5[8]	M6
		15	M5×0.8	VPLFC20-15[5][6]-M5[8]	
		20	M5×0.8	VPLFC20-20[5][6]-M5[8]	

Notes

*1. For [5] in model code list, please select a code of "BE" for rib type, and "BD" for no rib type.
*2. Barb fitting type holders are also selectable. Contact us for the details.

Packaging specifications

1 pc. /bag

Options

[8] : -SF1/4 ⇒ Spring load 1/4

Optional items ⇒ P.602

Fall Prevention Valve	Swivel Joint	Filter

Vacuum Pad Metal Detectable Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	[12] : -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	[12] : -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Mini VPMD Stroke 4mm	ø10	ø3	VPMD10-4[5][6]-3J	—	M4	ø10	ø1/8	VPMD10-4[5][6]-1/8J	—	M4
		ø4	VPMD10-4[5][6]-4J[12]	○			ø5/32	VPMD10-4[5][6]-5/32J[12]	○	
		ø6	VPMD10-4[5][6]-6J[12]	○			ø1/4	VPMD10-4[5][6]-1/4J	—	
	ø15	ø3	VPMD15-4[5][6]-3J	—		ø15	ø1/8	VPMD15-4[5][6]-1/8J	—	
		ø4	VPMD15-4[5][6]-4J[12]	○			ø5/32	VPMD15-4[5][6]-5/32J[12]	○	
		ø6	VPMD15-4[5][6]-6J[12]	○			ø1/4	VPMD15-4[5][6]-1/4J	—	
	ø20	ø3	VPMD20-4[5][6]-3J	—	M6	ø20	ø1/8	VPMD20-4[5][6]-1/8J	—	M6
		ø4	VPMD20-4[5][6]-4J[12]	○			ø5/32	VPMD20-4[5][6]-5/32J[12]	○	
		ø6	VPMD20-4[5][6]-6J[12]	○			ø1/4	VPMD20-4[5][6]-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	[12] : -S3 -S3 spec.	Connection config. code
Spring type, Side port, Female thread, Mini VPMD Stroke 4mm	ø10	M5×0.8	VPMD10-4[5][6]-M5[12]	○	M4
	ø15	M5×0.8	VPMD15-4[5][6]-M5[12]	○	
	ø20	M5×0.8	VPMD20-4[5][6]-M5[12]	○	M6

Notes

*1. For [5] in model code list, please select a code of "BE" for rib type, and "BD" for no rib type.
*2. Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

Packaging specifications

1 pc. /bag

Options

[12] : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.602

Fall Prevention Valve
Swivel Joint
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	12 : -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Standard VPD	ø10	6	ø3	VPD10-6[5][6]-3J[8]	—	M4
			ø4	VPD10-6[5][6]-4J[8][12]	○	
			ø6	VPD10-6[5][6]-6J[8][12]	○	
		10	ø3	VPD10-10[5][6]-3J[8]	—	
			ø4	VPD10-10[5][6]-4J[8]	—	
			ø6	VPD10-10[5][6]-6J[8]	—	
		15	ø3	VPD10-15[5][6]-3J[8]	—	
			ø4	VPD10-15[5][6]-4J[8]	—	
			ø6	VPD10-15[5][6]-6J[8]	—	
		20	ø3	VPD10-20[5][6]-3J[8]	—	
			ø4	VPD10-20[5][6]-4J[8]	—	
			ø6	VPD10-20[5][6]-6J[8]	—	
	ø15	6	ø3	VPD15-6[5][6]-3J[8]	—	
			ø4	VPD15-6[5][6]-4J[8][12]	○	
			ø6	VPD15-6[5][6]-6J[8][12]	○	
		10	ø3	VPD15-10[5][6]-3J[8]	—	
			ø4	VPD15-10[5][6]-4J[8]	—	
			ø6	VPD15-10[5][6]-6J[8]	—	
		15	ø3	VPD15-15[5][6]-3J[8]	—	
			ø4	VPD15-15[5][6]-4J[8]	—	
			ø6	VPD15-15[5][6]-6J[8]	—	
		20	ø3	VPD15-20[5][6]-3J[8]	—	
			ø4	VPD15-20[5][6]-4J[8]	—	
			ø6	VPD15-20[5][6]-6J[8]	—	
	ø20	6	ø3	VPD20-6[5][6]-3J[8]	—	M6
			ø4	VPD20-6[5][6]-4J[8][12]	○	
			ø6	VPD20-6[5][6]-6J[8][12]	○	
		10	ø3	VPD20-10[5][6]-3J[8]	—	
			ø4	VPD20-10[5][6]-4J[8]	—	
			ø6	VPD20-10[5][6]-6J[8]	—	
		15	ø3	VPD20-15[5][6]-3J[8]	—	
			ø4	VPD20-15[5][6]-4J[8]	—	
			ø6	VPD20-15[5][6]-6J[8]	—	
		20	ø3	VPD20-20[5][6]-3J[8]	—	
			ø4	VPD20-20[5][6]-4J[8]	—	
			ø6	VPD20-20[5][6]-6J[8]	—	

Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	12 : -S3 -S3 spec.	Connection config. code
ø10	6	ø1/8	VPD10-6[5][6]-1/8J[8]	—	M4
		ø5/32	VPD10-6[5][6]-5/32J[8][12]	○	
		ø1/4	VPD10-6[5][6]-1/4J[8]	—	
	10	ø1/8	VPD10-10[5][6]-1/8J[8]	—	
		ø5/32	VPD10-10[5][6]-5/32J[8]	—	
		ø1/4	VPD10-10[5][6]-1/4J[8]	—	
	15	ø1/8	VPD10-15[5][6]-1/8J[8]	—	
		ø5/32	VPD10-15[5][6]-5/32J[8]	—	
		ø1/4	VPD10-15[5][6]-1/4J[8]	—	
	20	ø1/8	VPD10-20[5][6]-1/8J[8]	—	
		ø5/32	VPD10-20[5][6]-5/32J[8]	—	
		ø1/4	VPD10-20[5][6]-1/4J[8]	—	
ø15	6	ø1/8	VPD15-6[5][6]-1/8J[8]	—	
		ø5/32	VPD15-6[5][6]-5/32J[8][12]	○	
		ø1/4	VPD15-6[5][6]-1/4J[8]	—	
	10	ø1/8	VPD15-10[5][6]-1/8J[8]	—	
		ø5/32	VPD15-10[5][6]-5/32J[8]	—	
		ø1/4	VPD15-10[5][6]-1/4J[8]	—	
	15	ø1/8	VPD15-15[5][6]-1/8J[8]	—	
		ø5/32	VPD15-15[5][6]-5/32J[8]	—	
		ø1/4	VPD15-15[5][6]-1/4J[8]	—	
	20	ø1/8	VPD15-20[5][6]-1/8J[8]	—	
		ø5/32	VPD15-20[5][6]-5/32J[8]	—	
		ø1/4	VPD15-20[5][6]-1/4J[8]	—	
ø20	6	ø1/8	VPD20-6[5][6]-1/8J[8]	—	M6
		ø5/32	VPD20-6[5][6]-5/32J[8][12]	○	
		ø1/4	VPD20-6[5][6]-1/4J[8]	—	
	10	ø1/8	VPD20-10[5][6]-1/8J[8]	—	
		ø5/32	VPD20-10[5][6]-5/32J[8]	—	
		ø1/4	VPD20-10[5][6]-1/4J[8]	—	
	15	ø1/8	VPD20-15[5][6]-1/8J[8]	—	
		ø5/32	VPD20-15[5][6]-5/32J[8]	—	
		ø1/4	VPD20-15[5][6]-1/4J[8]	—	
	20	ø1/8	VPD20-20[5][6]-1/8J[8]	—	
		ø5/32	VPD20-20[5][6]-5/32J[8]	—	
		ø1/4	VPD20-20[5][6]-1/4J[8]	—	

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	12 : -S3 -S3 spec.	Connection config. code
Spring type, Side port, Female thread, Standard VPD	ø10	6	M5×0.8	VPD10-6[5][6]-M6[8][12]	○	M4
		10	M5×0.8	VPD10-10[5][6]-M6[8]	—	
		15	M5×0.8	VPD10-15[5][6]-M6[8]	—	
		20	M5×0.8	VPD10-20[5][6]-M6[8]	—	
	ø15	6	M5×0.8	VPD15-6[5][6]-M6[8][12]	○	
		10	M5×0.8	VPD15-10[5][6]-M6[8]	—	
		15	M5×0.8	VPD15-15[5][6]-M6[8]	—	
		20	M5×0.8	VPD15-20[5][6]-M6[8]	—	
	ø20	6	M5×0.8	VPD20-6[5][6]-M6[8][12]	○	M6
		10	M5×0.8	VPD20-10[5][6]-M6[8]	—	
		15	M5×0.8	VPD20-15[5][6]-M6[8]	—	
		20	M5×0.8	VPD20-20[5][6]-M6[8]	—	

Notes

*1. For [5] in model code list, please select a code of "BE" for rib type, and "BD" for no rib type.
*2. Barb fitting type holders are also selectable. Contact us for the details.

Packaging specifications

1 pc. /bag

Options

[8] : -DC ⇒ Holder with dust catcher
[12] : -S3 ⇒ -S3 spec. (○ in the lists: Available)

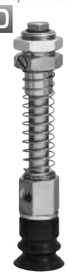
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.602

Vacuum Pad Metal Detectable Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, No cover VPOD	ø10	20	ø3	VPOD10-20[5][6]-3J	M4	ø10	20	ø1/8	VPOD10-20[5][6]-1/8J	M4
			ø4	VPOD10-20[5][6]-4J				ø5/32	VPOD10-20[5][6]-5/32J	
			ø6	VPOD10-20[5][6]-6J				ø1/4	VPOD10-20[5][6]-1/4J	
		30	ø3	VPOD10-30[5][6]-3J			30	ø1/8	VPOD10-30[5][6]-1/8J	
			ø4	VPOD10-30[5][6]-4J				ø5/32	VPOD10-30[5][6]-5/32J	
			ø6	VPOD10-30[5][6]-6J				ø1/4	VPOD10-30[5][6]-1/4J	
		40	ø3	VPOD10-40[5][6]-3J			40	ø1/8	VPOD10-40[5][6]-1/8J	
			ø4	VPOD10-40[5][6]-4J				ø5/32	VPOD10-40[5][6]-5/32J	
			ø6	VPOD10-40[5][6]-6J				ø1/4	VPOD10-40[5][6]-1/4J	
		50	ø3	VPOD10-50[5][6]-3J			50	ø1/8	VPOD10-50[5][6]-1/8J	
			ø4	VPOD10-50[5][6]-4J				ø5/32	VPOD10-50[5][6]-5/32J	
			ø6	VPOD10-50[5][6]-6J				ø1/4	VPOD10-50[5][6]-1/4J	
	ø15	20	ø3	VPOD15-20[5][6]-3J		ø15	20	ø1/8	VPOD15-20[5][6]-1/8J	
			ø4	VPOD15-20[5][6]-4J				ø5/32	VPOD15-20[5][6]-5/32J	
			ø6	VPOD15-20[5][6]-6J				ø1/4	VPOD15-20[5][6]-1/4J	
		30	ø3	VPOD15-30[5][6]-3J			30	ø1/8	VPOD15-30[5][6]-1/8J	
			ø4	VPOD15-30[5][6]-4J				ø5/32	VPOD15-30[5][6]-5/32J	
			ø6	VPOD15-30[5][6]-6J				ø1/4	VPOD15-30[5][6]-1/4J	
		40	ø3	VPOD15-40[5][6]-3J			40	ø1/8	VPOD15-40[5][6]-1/8J	
			ø4	VPOD15-40[5][6]-4J				ø5/32	VPOD15-40[5][6]-5/32J	
			ø6	VPOD15-40[5][6]-6J				ø1/4	VPOD15-40[5][6]-1/4J	
		50	ø3	VPOD15-50[5][6]-3J			50	ø1/8	VPOD15-50[5][6]-1/8J	
			ø4	VPOD15-50[5][6]-4J				ø5/32	VPOD15-50[5][6]-5/32J	
			ø6	VPOD15-50[5][6]-6J				ø1/4	VPOD15-50[5][6]-1/4J	
	ø20	20	ø3	VPOD20-20[5][6]-3J	M6	ø20	20	ø1/8	VPOD20-20[5][6]-1/8J	M6
			ø4	VPOD20-20[5][6]-4J				ø5/32	VPOD20-20[5][6]-5/32J	
			ø6	VPOD20-20[5][6]-6J				ø1/4	VPOD20-20[5][6]-1/4J	
		30	ø3	VPOD20-30[5][6]-3J			30	ø1/8	VPOD20-30[5][6]-1/8J	
			ø4	VPOD20-30[5][6]-4J				ø5/32	VPOD20-30[5][6]-5/32J	
			ø6	VPOD20-30[5][6]-6J				ø1/4	VPOD20-30[5][6]-1/4J	
		40	ø3	VPOD20-40[5][6]-3J			40	ø1/8	VPOD20-40[5][6]-1/8J	
			ø4	VPOD20-40[5][6]-4J				ø5/32	VPOD20-40[5][6]-5/32J	
			ø6	VPOD20-40[5][6]-6J				ø1/4	VPOD20-40[5][6]-1/4J	
		50	ø3	VPOD20-50[5][6]-3J			50	ø1/8	VPOD20-50[5][6]-1/8J	
			ø4	VPOD20-50[5][6]-4J				ø5/32	VPOD20-50[5][6]-5/32J	
			ø6	VPOD20-50[5][6]-6J				ø1/4	VPOD20-50[5][6]-1/4J	

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Side port, Female thread, No cover VPOD 	ø10	20	M6×1	VPOD10-20[5][6]-M6	M4
		30		VPOD10-30[5][6]-M6	
		40		VPOD10-40[5][6]-M6	
		50		VPOD10-50[5][6]-M6	
	ø15	20	M6×1	VPOD15-20[5][6]-M6	
		30		VPOD15-30[5][6]-M6	
		40		VPOD15-40[5][6]-M6	
		50		VPOD15-50[5][6]-M6	
	ø20	20	M6×1	VPOD20-20[5][6]-M6	M6
		30		VPOD20-30[5][6]-M6	
		40		VPOD20-40[5][6]-M6	
		50		VPOD20-50[5][6]-M6	

Notes

*1. For [5] in model code list, please select a code of "BE" for rib type, and "BD" for no rib type.
*2. Barb fitting type holders are also selectable. Contact us for the details.

Packaging specifications

1 pc. /bag

Optional items

⇒ P.602

Fall Prevention Valve	Swivel Joint	Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, Low dust emission VPLFD	ø10	5	ø3	VPLFD10-5[5][6]-3J	M4
			ø4	VPLFD10-5[5][6]-4J	
		10	ø3	VPLFD10-10[5][6]-3J	
			ø4	VPLFD10-10[5][6]-4J	
		15	ø3	VPLFD10-15[5][6]-3J	
			ø4	VPLFD10-15[5][6]-4J	
		20	ø3	VPLFD10-20[5][6]-3J	
			ø4	VPLFD10-20[5][6]-4J	
	ø15	5	ø3	VPLFD15-5[5][6]-3J	
			ø4	VPLFD15-5[5][6]-4J	
		10	ø3	VPLFD15-10[5][6]-3J	
			ø4	VPLFD15-10[5][6]-4J	
		15	ø3	VPLFD15-15[5][6]-3J	
			ø4	VPLFD15-15[5][6]-4J	
		20	ø3	VPLFD15-20[5][6]-3J	
			ø4	VPLFD15-20[5][6]-4J	
	ø20	5	ø3	VPLFD20-5[5][6]-3J	M6
			ø4	VPLFD20-5[5][6]-4J	
			ø6	VPLFD20-5[5][6]-6J	
		10	ø3	VPLFD20-10[5][6]-3J	
			ø4	VPLFD20-10[5][6]-4J	
			ø6	VPLFD20-10[5][6]-6J	
		15	ø3	VPLFD20-15[5][6]-3J	
			ø4	VPLFD20-15[5][6]-4J	
			ø6	VPLFD20-15[5][6]-6J	
		20	ø3	VPLFD20-20[5][6]-3J	
			ø4	VPLFD20-20[5][6]-4J	
			ø6	VPLFD20-20[5][6]-6J	

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
	ø10	5	ø1/8	VPLFD10-5[5][6]-1/8J	M4
			ø5/32	VPLFD10-5[5][6]-5/32J	
		10	ø1/8	VPLFD10-10[5][6]-1/8J	
			ø5/32	VPLFD10-10[5][6]-5/32J	
		15	ø1/8	VPLFD10-15[5][6]-1/8J	
			ø5/32	VPLFD10-15[5][6]-5/32J	
		20	ø1/8	VPLFD10-20[5][6]-1/8J	
			ø5/32	VPLFD10-20[5][6]-5/32J	
	ø15	5	ø1/8	VPLFD15-5[5][6]-1/8J	
			ø5/32	VPLFD15-5[5][6]-5/32J	
		10	ø1/8	VPLFD15-10[5][6]-1/8J	
			ø5/32	VPLFD15-10[5][6]-5/32J	
		15	ø1/8	VPLFD15-15[5][6]-1/8J	
			ø5/32	VPLFD15-15[5][6]-5/32J	
		20	ø1/8	VPLFD15-20[5][6]-1/8J	
			ø5/32	VPLFD15-20[5][6]-5/32J	
	ø20	5	ø1/8	VPLFD20-5[5][6]-1/8J	M6
			ø5/32	VPLFD20-5[5][6]-5/32J	
			ø1/4	VPLFD20-5[5][6]-1/4J	
		10	ø1/8	VPLFD20-10[5][6]-1/8J	
			ø5/32	VPLFD20-10[5][6]-5/32J	
			ø1/4	VPLFD20-10[5][6]-1/4J	
		15	ø1/8	VPLFD20-15[5][6]-1/8J	
			ø5/32	VPLFD20-15[5][6]-5/32J	
			ø1/4	VPLFD20-15[5][6]-1/4J	
		20	ø1/8	VPLFD20-20[5][6]-1/8J	
			ø5/32	VPLFD20-20[5][6]-5/32J	
			ø1/4	VPLFD20-20[5][6]-1/4J	

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Side port, Female thread, Low dust emission VPLFD	ø10	5	M5×0.8	VPLFD10-5[5][6]-M5	M4
		10	M5×0.8	VPLFD10-10[5][6]-M5	
		15	M5×0.8	VPLFD10-15[5][6]-M5	
		20	M5×0.8	VPLFD10-20[5][6]-M5	
	ø15	5	M5×0.8	VPLFD15-5[5][6]-M5	
		10	M5×0.8	VPLFD15-10[5][6]-M5	
		15	M5×0.8	VPLFD15-15[5][6]-M5	
		20	M5×0.8	VPLFD15-20[5][6]-M5	
	ø20	5	M5×0.8	VPLFD20-5[5][6]-M5	M6
		10	M5×0.8	VPLFD20-10[5][6]-M5	
		15	M5×0.8	VPLFD20-15[5][6]-M5	
		20	M5×0.8	VPLFD20-20[5][6]-M5	

Notes

*1. For [5] in model code list, please select a code of "BE" for rib type, and "BD" for no rib type.
*2. Barb fitting type holders are also selectable. Contact us for the details.

Packaging specifications

1 pc. /bag

Optional items

⇒ P.602

Fall Prevention Valve | Swivel Joint | Filter

Vacuum Pad Metal Detectable Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	
Fixed type, Direct mount, Standard **VPE**	VPE holders are available with metric male/female threads, taper pipe threads, parallel pipe threads and NPT threads. See Pad holder only (page 399) for variations. *Pads with the same configuration code as the holder can be connected. [See Pad rubber only (page 381)]. Applicable Screws: Metric male thread: M8, M10, M12, M14 Metric female thread: M5, M8 Taper pipe thread: R1/8, R1/4, R3/8, R1/2 Parallel pipe thread: G1/8, G1/4, G3/8, G1/2 NPT thread: NPT1/8, NPT1/4, NPT3/8, NPT1/2

Holder type	Pad dia. (mm)	Female thread size	Model code	⑫ : -S3 -S3 spec.	Connection config. code
Spring type, Direct mount **VPF** Stroke 5.8mm	ø10	M14×1	VPF10⑤⑥⑧⑫	○	M4
	ø15	M14×1	VPF15⑤⑥⑧⑫	○	
	ø20	M14×1	VPF20⑤⑥⑧⑫	○	M6

Notes

*1. For ⑤ in model code list, please select a code of "BE" for rib type, and "BD" for no rib type.

Packaging specifications

1 pc. /bag

Options

⑧ : -DC ⇒ Holder with dust catcher

⑫ : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.

*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

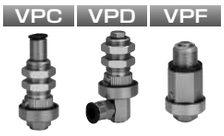
Optional items ⇒ See below.

Dust Catcher (VPF) | Fall Prevention Valve | Swivel Joint | Filter

Optional items (○: -S3 spec. is available)

⑧ Dust Catcher: -DC

Optional	Connection config. code	-S3 spec.
Dust Catcher (-DC)	M4	○
	M6	○

Holder type: VPC | VPD | VPF 

Characteristics of Dust Catcher ▶P.371

⑨ Fall Prevention Valve: -ECV

Optional	Connection config. code	Model code
Fall Prevention Valve (-ECV)	M4	ECVM4-FM4
	M6	ECVM6-FM6

Characteristics of Fall Prevention Valve ▶P.722

⑩ Swivel Joint: -FH, -FHH, -CFH

Optional	Swivel angle	Connection config. code	Model code
Ball Swivel Joint (-FH) (-FHH)	30° (-FH)	M4	FH10
		M6	FH20
	15° (-FHH)	M4	FH10-15
		M6	FH20-15

Characteristics of Ball Swivel Joint ▶P.724

Optional	Connection config. code	-S3 spec.	Model code (*1)
Flexible Swing Joint (-CFH)	M4	○	CFHM4-FM4
	M6	○	CFHM6-FM6

*When ordering a Flexible Swing Joint alone, please enter "-S3" at the end of the model code for -S3 specification.

Characteristics of Flexible Swing Joint ▶P.725

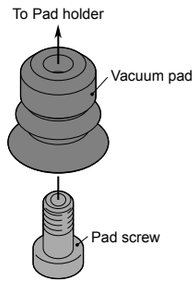
⑪ Filter: -F15, -F30

Optional	Filter area	Connection config. code	Model code
Pad Direct Mounting Filter (-F15) (-F30)	1.7 cm² (-F15)	M4	VFF15-M4
		M6	VFF15-M6
	7 cm² (-F30)	M6	VFF30-M6

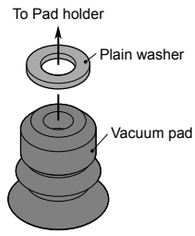
Characteristics of Filter ▶P.726

See the page 590 for the model designation including optional items.

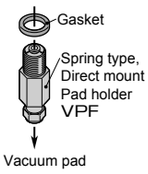
Replacement parts (○: -S3 spec. is available)



Pad screw Model code	12 : -S3 -S3 spec.	Applicable pad dia. (mm)	Connection config. code
VPM46-612	○	ø10, ø15	M4
VPM610-812	○	ø20	M6

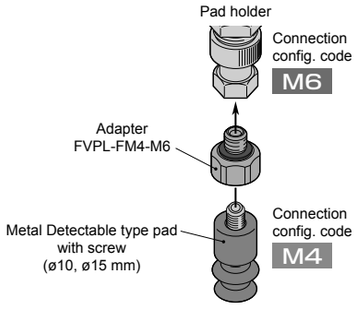


Plain washer Model code	Applicable pad dia. (mm)	Connection config. code
HW8.4×15.5×1.6	ø20	M6



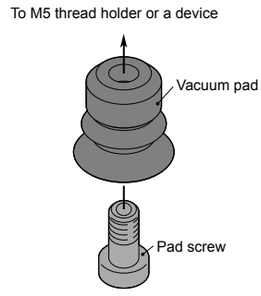
Gasket Model code	Applicable pad dia. (mm)	Connection config. code
VPFG10	ø10 to ø20	M4 M6

Rearrangement parts



Model code of Adapter for pad connection type conversion	12 : -S3 -S3 spec.	Applicable pad dia. (mm)	Connection config. code Before → After
FVPL-FM4-M612	○	ø10, ø15	M4 ▶ M6

*1. This adapter is used to mount a pad & screw set with M4 configuration code on a pad holder with M6 configuration code.
*2. Gasket for adapter is equipped with an Adapter.



Pad screw Model code	12 : -S3 -S3 spec.	Applicable pad dia. (mm)
VPM56-712	○	ø10, ø15
VPM510-812	○	ø20

Vacuum Pad Ultrathin Type

Vacuum pad for thin work-piece, such as paper or plastic bag.

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example) (○ : Available)

VP (1)	C (2)	10 (3)	-3 (4)	P (5)	N (6)	-ER (7)	-4J (8)	-DC (9)	-ECV (10)	-CFH (11)	(12)
						Optional		Optional	Optional	Optional	Optional

(1) Vacuum Pad

(2) Holder type

Holder type		Fixed type		Spring type				
		Mini	Standard	Mini	Slim	Standard	No cover	Low dust emission
Code	Top port	MA	A	MC	SC	C	OC	LFC
	Side port	MB	B	MD	-	D	OD	LFD
	Direct mount	ME	E	-	-	F	-	-
Connection config. code		T8	T8	T8	T8	T8	T8	T8

Holder type		Lightweight	Low profile
		Spring type	Direct mount
Code	Side port	HD	HE
	Dual side port	HDW	HEW
Connection config. code		T8	T8

(3) Pad dia.

Code	8	10	15	20
Pad dia.(mm)	ø8	ø10	ø15	ø20
Connection config. code	T8			

(4) Stroke (No code entry for Holder type: MA, A, MB, B, ME, E, F, HE and HEW)

Code	-2	-3	-5	-10	-15	-20	-30	-40	-50
Stroke(mm)	2	3	5	10	15	20	30	40	50
Spring type holder code VPMC	●								
VPSC		●							
VPC		●		●	●	●			
VPOC						●	●	●	●
VPLFC	●		●	●	●	●			
VPMD	●								
VPD		●		●	●	●			
VPOD						●	●	●	●
VPLFD			●	●	●	●			
VPHD			●						
VPHDW			●						

Connection config. code
●:T8

(5) Pad type P : Ultrathin

(6) Pad material

Code	N	S	U	F	FS	NE
Rubber material	Nitrile	Silicone	Urethane	Fluoro	Fluorosilicone	Conductive NBR (Low resistance)

* Nitrile rubber (N) and Conductive NBR (Low resistance, Volume resistance: 200Ω·cm or less) (NE) are not suitable for use with ozone environment.

(7) Pad surface treatment for suction mark-free Optional

Code	No code	-DL	-ER	-FG
Pad surface treatment for suction mark-free	None	DLC. coating	Reformed surface	Fluoro-coating
Applicable pad material	—	Silicone (S), Fluoro (F)	Nitrile(N), Conductive NBR (Low resistance) (NE)	Silicone (S)
Applicable pad dia.	—	All sizes	All sizes	All sizes

*Please refer to page 370 for the details of each pad surface type and treatment for Suction Mark-free.

(8) Vacuum port size and joint type (No code entry for Holder type: F) (○: Available)

Type		Push-in fitting mm size (mm)					Push-in fitting inch size (inch)			Barb fitting mm size (mm)			Barb fitting inch size (inch)	Female thread Metric thread		
Code		-180J	-2J	-3J	-4J	-6J	-1/8J	-5/32J	-1/4J	-3B	-4B*	-6B	-1/4B	-M3	-M5	-M6
Tube O.D.		ø1.8	ø2	ø3	ø4	ø6	ø1/8	ø5/32	ø1/4							
Tube I.D.										ø2	ø2.5	ø4	Polyurethane tube ø0.163 Nylon tube ø0.180			
Thread size														M3×0.5	M5×0.8	M6×1
Holder type	VPMA	○	○	○						○	○					
	VPA				○	○		○	○		○	○	○			
	VPMB	○	○	○	○		○	○		○	○	○		○		
	VPB	○	○	○	○	○	○	○	○	○	○	○	○		○	
	VPMC	○	○	○						○	○	○				
	VPSC	○	○	○	○		○	○		○	○	○		○		
	VPC	○	○	○	○	○	○	○	○	○	○	○	○		○	
	VPOC			○	○	○	○	○	○		○	○	○			○
	VPLFC			○	○		○	○		○	○	○			○	
	VPMD	○	○	○	○		○	○		○	○	○		○		
	VPD	○	○	○	○	○	○	○	○	○	○	○	○		○	
	VPOD			○	○	○	○	○	○		○	○	○			○
	VPLFD			○	○		○	○		○	○	○			○	
	VPHD	○	○	○	○	○	○	○	○	○	○	○	○		○	
	VPHDW	○	○	○	○	○	○	○	○	○	○	○	○		○	
	VPHE	○	○	○	○	○	○	○	○	○	○	○	○		○	
	VPHEW	○	○	○	○	○	○	○	○	○	○	○	○		○	

* The barb fitting of 5/32" size is common with 4 mm size. Please order with the code: -4B.
* Available port size varies depending on pad dia. See model code lists on the following pages.

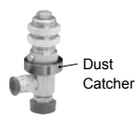
Type		Metric thread		
		Male thread	Female thread	
Code		-M5	-FM5	-FM8
Thread size		M5×0.8	M5×0.8	M8×1.25
Holder type	VPME	○		
	VPE	○	○	○

Direct mount

(9) Dust Catcher (Holder type: SC, C, D, and F only) Optional

Code	No code	-DC
Dust Catcher	None	Installed

* Note that the holder stroke becomes shorter when a dust catcher is installed. Please visit our website for details.



(9) Spring load (Holder type: LFC only)

Code	No code	-SF1/4
Load	Standard load	Low load (1/4 of standard load)

* "-SF1/4" is not selectable when 2 mm stroke is selected.

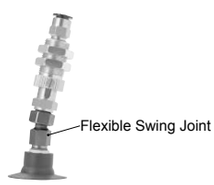
(10) Fall Prevention Valve Optional

Code	No code	-ECV
Fall Prevention Valve	None	Installed
Applicable connection type	—	M5 thread size of VPME and VPE holder

* -S3 spec. is not selectable when Fall Prevention Valve is selected.

(11) Swivel Joint for vacuum pad Optional

Code	No code	-CFH
Option	None	Flexible Swing Joint (Swing angle: 8°)
Applicable connection type	—	M5 thread size of VPME and VPE holder



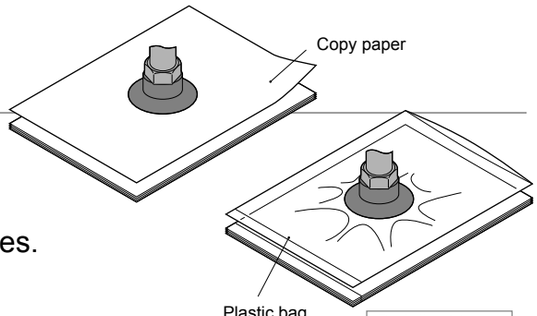
(12) -S3 spec. Optional

Code	No code	-S3
Metal material	Standard	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard	HNBR or FKM
Release ring color	Black	Dark blue

*1. -S3 spec. is not available for the following fittings and holders:
- Push-in fitting with dia. size of 1.8, 2, 3 mm and inch sizes except dia. 1/8" (some) and 5/32".
- Barb fitting with dia. of 1/4".
- Pad holder with stroke length 10 mm or longer (except for VPHC holders).
- VPLFC and VPLFD holders.

*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Vacuum Pad Ultrathin Type



Pad dia. 4 types
ø8 to ø20mm
Pad material 6 types
Surface treatment 3 types

Characteristics

Optimal for transporting thin components, such as paper, vinyl sheets.

As the lip is made thinner, work-piece gets less wrinkles.

Silicone (S) is Food Sanitation Act compliant.

(Holder is not compliant. Vacuum pad complies only at work-piece contact area.)

* See page 6 for the details of the Food Sanitation Act.

Wide variations of Pad holders.

The following combinations of holder and pad rubber are also available although they are not listed on the model code list from the next page onward. Contact us for the details.

- Lightweight VPHD and VPHDW holders with spring type without cover.
- VPHE and VPHEW holders with reduced height.
- VPHDW and VPHEW holders with dual side vacuum ports, suitable for piping connection of multiple vacuum pads.

Low dust emission holders (VPLFC, VPLFD) with low noise and less wear from sliding are available to prevent dust generation.

VPLFC holder with top port has a separate shaft on the pad side and the vacuum port side, so there is no effect on the stroke caused by the tension of the tube. Low load type is also available to suppress impact when contacting the work-piece.

● Pad surface treatment for suction mark-free (Optional)

NEW **Fluoro-coating type is added to the pad rubber surface treatment option to prevent tracing marks.**

- DLC. coating type: Slippery special coating. Effective for sticking prevention of lightweight or thin work-piece.
- Reformed surface type: Reduces tracing marks by surface reforming of nitrile rubber with chemicals.
- Fluoro-coating type: Surface reforming by special treatment prevents sticking to work-pieces. Improved pad durability and wear resistance.

● Holder with dust catcher (Optional)

Collects wear debris generated by sliding spring type holders. Low-cost, simple holder with receiver tray added.

Applicable to VPSC, VPC, VPD and VPF holders.

● Accessories (Optional)

Direct-mounted fixed type holders (VPME, VPE) are compatible with Fall Prevention Valve and Swivel options.

● -S3 spec.(Optional)

No copper-based metallic materials used in flow paths.

The sealing rubber material of the fitting is HNBR or FKM, with good ozone resisntace.

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	Connection config. code
Fixed type, Top port, Push-in fitting, Mini **VPMA**	ø8	ø3	VPMA8P⑥⑦-3J	T8
	ø10	ø3	VPMA10P⑥⑦-3J	
	ø15	ø3	VPMA15P⑥⑦-3J	
	ø20	ø3	VPMA20P⑥⑦-3J	

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	⑫ -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Standard **VPA**	ø8	ø4	VPA8P⑥⑦-4J⑫	○	T8
		ø6	VPA8P⑥⑦-6J⑫	○	
	ø10	ø4	VPA10P⑥⑦-4J⑫	○	
		ø6	VPA10P⑥⑦-6J⑫	○	
	ø15	ø4	VPA15P⑥⑦-4J⑫	○	
		ø6	VPA15P⑥⑦-6J⑫	○	
	ø20	ø4	VPA20P⑥⑦-4J⑫	○	
		ø6	VPA20P⑥⑦-6J⑫	○	

Holder type	Pad dia. (mm)	Tube O.D. (inch)	Model code	⑫ -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Standard **VPA**	ø8	ø5/32	VPA8P⑥⑦-5/32J⑫	○	T8
		ø1/4	VPA8P⑥⑦-1/4J	—	
	ø10	ø5/32	VPA10P⑥⑦-5/32J⑫	○	
		ø1/4	VPA10P⑥⑦-1/4J	—	
	ø15	ø5/32	VPA15P⑥⑦-5/32J⑫	○	
		ø1/4	VPA15P⑥⑦-1/4J	—	
	ø20	ø5/32	VPA20P⑥⑦-5/32J⑫	○	
		ø1/4	VPA20P⑥⑦-1/4J	—	

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	⑫ -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Push-in fitting, Mini **VPMB**	ø8	ø3	VPMB8P⑥⑦-3J	—	T8
		ø4	VPMB8P⑥⑦-4J⑫	○	
	ø10	ø3	VPMB10P⑥⑦-3J	—	
		ø4	VPMB10P⑥⑦-4J⑫	○	
	ø15	ø3	VPMB15P⑥⑦-3J	—	
		ø4	VPMB15P⑥⑦-4J⑫	○	
	ø20	ø3	VPMB20P⑥⑦-3J	—	
		ø4	VPMB20P⑥⑦-4J⑫	○	

Holder type	Pad dia. (mm)	Tube O.D. (inch)	Model code	⑫ -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Push-in fitting, Mini **VPMB**	ø8	ø1/8	VPMB8P⑥⑦-1/8J⑫	○	T8
		ø5/32	VPMB8P⑥⑦-5/32J⑫	○	
	ø10	ø1/8	VPMB10P⑥⑦-1/8J⑫	○	
		ø5/32	VPMB10P⑥⑦-5/32J⑫	○	
	ø15	ø1/8	VPMB15P⑥⑦-1/8J⑫	○	
		ø5/32	VPMB15P⑥⑦-5/32J⑫	○	
	ø20	ø1/8	VPMB20P⑥⑦-1/8J⑫	○	
		ø5/32	VPMB20P⑥⑦-5/32J⑫	○	

Holder type	Pad dia. (mm)	Male thread size	Model code	⑫ -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Female thread, Mini **VPMB**	ø8	M3×0.5	VPMB8P⑥⑦-M3⑫	○	T8
	ø10	M3×0.5	VPMB10P⑥⑦-M3⑫	○	
	ø15	M3×0.5	VPMB15P⑥⑦-M3⑫	○	
	ø20	M3×0.5	VPMB20P⑥⑦-M3⑫	○	

Notes
* Holders are also available in Push-in fitting type (except for VPA holders) for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
⑦ : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
⑫ : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.620
Pad surface treatment for suction mark-free

Vacuum Pad Ultrathin Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	12 -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Push-in fitting, Standard **VPB**	ø8	ø3	VPB8P6 7-3J	—	T8
		ø4	VPB8P6 7-4J12	○	
		ø6	VPB8P6 7-6J12	○	
	ø10	ø3	VPB10P6 7-3J	—	
		ø4	VPB10P6 7-4J12	○	
		ø6	VPB10P6 7-6J12	○	
	ø15	ø3	VPB15P6 7-3J	—	
		ø4	VPB15P6 7-4J12	○	
		ø6	VPB15P6 7-6J12	○	
	ø20	ø3	VPB20P6 7-3J	—	
		ø4	VPB20P6 7-4J12	○	
		ø6	VPB20P6 7-6J12	○	

Holder type	Pad dia. (mm)	Tube O.D. (inch)	Model code	12 -S3 -S3 spec.	Connection config. code
	ø8	ø1/8	VPB8P6 7-1/8J	—	T8
		ø5/32	VPB8P6 7-5/32J12	○	
		ø1/4	VPB8P6 7-1/4J	—	
	ø10	ø1/8	VPB10P6 7-1/8J	—	
		ø5/32	VPB10P6 7-5/32J12	○	
		ø1/4	VPB10P6 7-1/4J	—	
	ø15	ø1/8	VPB15P6 7-1/8J	—	
		ø5/32	VPB15P6 7-5/32J12	○	
		ø1/4	VPB15P6 7-1/4J	—	
	ø20	ø1/8	VPB20P6 7-1/8J	—	
		ø5/32	VPB20P6 7-5/32J12	○	
		ø1/4	VPB20P6 7-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	12 -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Female thread, Standard **VPB**	ø8	M5×0.8	VPB8P6 7-M512	○	T8
	ø10	M5×0.8	VPB10P6 7-M512	○	
	ø15	M5×0.8	VPB15P6 7-M512	○	
	ø20	M5×0.8	VPB20P6 7-M512	○	

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, Mini **VPMC** Stroke 2mm	ø8	ø3	VPMC8-2P6 7-3J	T8
	ø10	ø3	VPMC10-2P6 7-3J	
	ø15	ø3	VPMC15-2P6 7-3J	
	ø20	ø3	VPMC20-2P6 7-3J	

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	12 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Slim **VPSC** Stroke 3mm	ø8	ø3	VPSC8-3P6 7-3J9	—	T8
		ø4	VPSC8-3P6 7-4J9 12	○	
	ø10	ø3	VPSC10-3P6 7-3J9	—	
		ø4	VPSC10-3P6 7-4J9 12	○	
	ø15	ø3	VPSC15-3P6 7-3J9	—	
		ø4	VPSC15-3P6 7-4J9 12	○	
	ø20	ø3	VPSC20-3P6 7-3J9	—	
		ø4	VPSC20-3P6 7-4J9 12	○	

Holder type	Pad dia. (mm)	Tube O.D. (inch)	Model code	12 -S3 -S3 spec.	Connection config. code
	ø8	ø1/8	VPSC8-3P6 7-1/8J9 12	○	T8
		ø5/32	VPSC8-3P6 7-5/32J9 12	○	
	ø10	ø1/8	VPSC10-3P6 7-1/8J9 12	○	
		ø5/32	VPSC10-3P6 7-5/32J9 12	○	
	ø15	ø1/8	VPSC15-3P6 7-1/8J9 12	○	
		ø5/32	VPSC15-3P6 7-5/32J9 12	○	
	ø20	ø1/8	VPSC20-3P6 7-1/8J9 12	○	
		ø5/32	VPSC20-3P6 7-5/32J9 12	○	

Holder type	Pad dia. (mm)	Male thread size	Model code	12 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Female thread, Slim **VPSC** Stroke 3mm	ø8	M3×0.5	VPSC8-3P6 7-M3912	○	T8
	ø10	M3×0.5	VPSC10-3P6 7-M3912	○	
	ø15	M3×0.5	VPSC15-3P6 7-M3912	○	
	ø20	M3×0.5	VPSC20-3P6 7-M3912	○	

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	12 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Standard VPC	ø8	3	ø3	VPC8-3P67-3J9	—	T8
			ø4	VPC8-3P67-4J912	○	
			ø6	VPC8-3P67-6J912	○	
		10	ø3	VPC8-10P67-3J9	—	
			ø4	VPC8-10P67-4J9	—	
			ø6	VPC8-10P67-6J9		
		15	ø3	VPC8-15P67-3J9	—	
			ø4	VPC8-15P67-4J9	—	
			ø6	VPC8-15P67-6J9		
		20	ø3	VPC8-20P67-3J9	—	
			ø4	VPC8-20P67-4J9	—	
			ø6	VPC8-20P67-6J9		
	ø10	3	ø3	VPC10-3P67-3J9	—	
			ø4	VPC10-3P67-4J912	○	
			ø6	VPC10-3P67-6J912	○	
		10	ø3	VPC10-10P67-3J9	—	
			ø4	VPC10-10P67-4J9	—	
			ø6	VPC10-10P67-6J9		
		15	ø3	VPC10-15P67-3J9	—	
			ø4	VPC10-15P67-4J9	—	
			ø6	VPC10-15P67-6J9		
		20	ø3	VPC10-20P67-3J9	—	
			ø4	VPC10-20P67-4J9	—	
			ø6	VPC10-20P67-6J9		
	ø15	3	ø3	VPC15-3P67-3J9	—	
			ø4	VPC15-3P67-4J912	○	
			ø6	VPC15-3P67-6J912	○	
		10	ø3	VPC15-10P67-3J9	—	
			ø4	VPC15-10P67-4J9	—	
			ø6	VPC15-10P67-6J9		
		15	ø3	VPC15-15P67-3J9	—	
			ø4	VPC15-15P67-4J9	—	
			ø6	VPC15-15P67-6J9		
		20	ø3	VPC15-20P67-3J9	—	
			ø4	VPC15-20P67-4J9	—	
			ø6	VPC15-20P67-6J9		
	ø20	3	ø3	VPC20-3P67-3J9	—	
			ø4	VPC20-3P67-4J912	○	
			ø6	VPC20-3P67-6J912	○	
		10	ø3	VPC20-10P67-3J9	—	
			ø4	VPC20-10P67-4J9	—	
			ø6	VPC20-10P67-6J9		
		15	ø3	VPC20-15P67-3J9	—	
			ø4	VPC20-15P67-4J9	—	
			ø6	VPC20-15P67-6J9		
		20	ø3	VPC20-20P67-3J9	—	
			ø4	VPC20-20P67-4J9	—	
			ø6	VPC20-20P67-6J9		

Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	12 -S3 -S3 spec.	Connection config. code
ø8	3	ø1/8	VPC8-3P67-1/8J9	—	T8
		ø5/32	VPC8-3P67-5/32J912	○	
		ø1/4	VPC8-3P67-1/4J9	—	
	10	ø1/8	VPC8-10P67-1/8J9	—	
		ø5/32	VPC8-10P67-5/32J9	—	
		ø1/4	VPC8-10P67-1/4J9		
	15	ø1/8	VPC8-15P67-1/8J9	—	
		ø5/32	VPC8-15P67-5/32J9	—	
		ø1/4	VPC8-15P67-1/4J9		
	20	ø1/8	VPC8-20P67-1/8J9	—	
		ø5/32	VPC8-20P67-5/32J9	—	
		ø1/4	VPC8-20P67-1/4J9		
ø10	3	ø1/8	VPC10-3P67-1/8J9	—	
		ø5/32	VPC10-3P67-5/32J912	○	
		ø1/4	VPC10-3P67-1/4J9	—	
	10	ø1/8	VPC10-10P67-1/8J9	—	
		ø5/32	VPC10-10P67-5/32J9	—	
		ø1/4	VPC10-10P67-1/4J9		
	15	ø1/8	VPC10-15P67-1/8J9	—	
		ø5/32	VPC10-15P67-5/32J9	—	
		ø1/4	VPC10-15P67-1/4J9		
	20	ø1/8	VPC10-20P67-1/8J9	—	
		ø5/32	VPC10-20P67-5/32J9	—	
		ø1/4	VPC10-20P67-1/4J9		
ø15	3	ø1/8	VPC15-3P67-1/8J9	—	
		ø5/32	VPC15-3P67-5/32J912	○	
		ø1/4	VPC15-3P67-1/4J9	—	
	10	ø1/8	VPC15-10P67-1/8J9	—	
		ø5/32	VPC15-10P67-5/32J9	—	
		ø1/4	VPC15-10P67-1/4J9		
	15	ø1/8	VPC15-15P67-1/8J9	—	
		ø5/32	VPC15-15P67-5/32J9	—	
		ø1/4	VPC15-15P67-1/4J9		
	20	ø1/8	VPC15-20P67-1/8J9	—	
		ø5/32	VPC15-20P67-5/32J9	—	
		ø1/4	VPC15-20P67-1/4J9		
ø20	3	ø1/8	VPC20-3P67-1/8J9	—	
		ø5/32	VPC20-3P67-5/32J912	○	
		ø1/4	VPC20-3P67-1/4J9	—	
	10	ø1/8	VPC20-10P67-1/8J9	—	
		ø5/32	VPC20-10P67-5/32J9	—	
		ø1/4	VPC20-10P67-1/4J9		
	15	ø1/8	VPC20-15P67-1/8J9	—	
		ø5/32	VPC20-15P67-5/32J9	—	
		ø1/4	VPC20-15P67-1/4J9		
	20	ø1/8	VPC20-20P67-1/8J9	—	
		ø5/32	VPC20-20P67-5/32J9	—	
		ø1/4	VPC20-20P67-1/4J9		

Notes
*1 Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.
*2 VPSC holder is equivalent to VPC holder purchased before June 9, 2019. (For details, please make inquiry to PISCO.)

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
7 : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
9 : -DC ⇒ Holder with dust catcher
12 : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.620
Pad surface treatment for suction mark-free
Dust Catcher (VPSC, VPC)

Vacuum Pad Ultrathin Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	12 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Female thread, Standard VPC	ø8	3	M5×0.8	VPC8-3P[6][7]-M5[9][12]	○	T8
		10	M5×0.8	VPC8-10P[6][7]-M5[9]	—	
		15	M5×0.8	VPC8-15P[6][7]-M5[9]	—	
		20	M5×0.8	VPC8-20P[6][7]-M5[9]	—	
	ø10	3	M5×0.8	VPC10-3P[6][7]-M5[9][12]	○	
		10	M5×0.8	VPC10-10P[6][7]-M5[9]	—	
		15	M5×0.8	VPC10-15P[6][7]-M5[9]	—	
		20	M5×0.8	VPC10-20P[6][7]-M5[9]	—	
	ø15	3	M5×0.8	VPC15-3P[6][7]-M5[9][12]	○	
		10	M5×0.8	VPC15-10P[6][7]-M5[9]	—	
		15	M5×0.8	VPC15-15P[6][7]-M5[9]	—	
		20	M5×0.8	VPC15-20P[6][7]-M5[9]	—	
	ø20	3	M5×0.8	VPC20-3P[6][7]-M5[9][12]	○	
		10	M5×0.8	VPC20-10P[6][7]-M5[9]	—	
		15	M5×0.8	VPC20-15P[6][7]-M5[9]	—	
		20	M5×0.8	VPC20-20P[6][7]-M5[9]	—	

Notes
*VPSC holder is equivalent to VPC holder purchased before June 9, 2019. (For details, please make inquiry to PISCO.)

CAD data is available
at PISCO website.

Packaging specifications
1 pc. /bag

Options
[7] : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
[9] : -DC ⇒ Holder with dust catcher
[12] : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items
⇒ P.620

Pad surface treatment for suction mark-free

Dust Catcher (VPC)

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, No cover **VPOC**	ø8	20	ø3	VPOC8-20P⑥⑦-3J	T8	ø8	20	ø1/8	VPOC8-20P⑥⑦-1/8J	T8
			ø4	VPOC8-20P⑥⑦-4J				ø5/32	VPOC8-20P⑥⑦-5/32J	
			ø6	VPOC8-20P⑥⑦-6J				ø1/4	VPOC8-20P⑥⑦-1/4J	
		30	ø3	VPOC8-30P⑥⑦-3J			30	ø1/8	VPOC8-30P⑥⑦-1/8J	
			ø4	VPOC8-30P⑥⑦-4J				ø5/32	VPOC8-30P⑥⑦-5/32J	
			ø6	VPOC8-30P⑥⑦-6J				ø1/4	VPOC8-30P⑥⑦-1/4J	
		40	ø3	VPOC8-40P⑥⑦-3J			40	ø1/8	VPOC8-40P⑥⑦-1/8J	
			ø4	VPOC8-40P⑥⑦-4J				ø5/32	VPOC8-40P⑥⑦-5/32J	
			ø6	VPOC8-40P⑥⑦-6J				ø1/4	VPOC8-40P⑥⑦-1/4J	
		50	ø3	VPOC8-50P⑥⑦-3J			50	ø1/8	VPOC8-50P⑥⑦-1/8J	
			ø4	VPOC8-50P⑥⑦-4J				ø5/32	VPOC8-50P⑥⑦-5/32J	
			ø6	VPOC8-50P⑥⑦-6J				ø1/4	VPOC8-50P⑥⑦-1/4J	
	ø10	20	ø3	VPOC10-20P⑥⑦-3J		ø10	20	ø1/8	VPOC10-20P⑥⑦-1/8J	
			ø4	VPOC10-20P⑥⑦-4J				ø5/32	VPOC10-20P⑥⑦-5/32J	
			ø6	VPOC10-20P⑥⑦-6J				ø1/4	VPOC10-20P⑥⑦-1/4J	
		30	ø3	VPOC10-30P⑥⑦-3J			30	ø1/8	VPOC10-30P⑥⑦-1/8J	
			ø4	VPOC10-30P⑥⑦-4J				ø5/32	VPOC10-30P⑥⑦-5/32J	
			ø6	VPOC10-30P⑥⑦-6J				ø1/4	VPOC10-30P⑥⑦-1/4J	
		40	ø3	VPOC10-40P⑥⑦-3J			40	ø1/8	VPOC10-40P⑥⑦-1/8J	
			ø4	VPOC10-40P⑥⑦-4J				ø5/32	VPOC10-40P⑥⑦-5/32J	
			ø6	VPOC10-40P⑥⑦-6J				ø1/4	VPOC10-40P⑥⑦-1/4J	
		50	ø3	VPOC10-50P⑥⑦-3J			50	ø1/8	VPOC10-50P⑥⑦-1/8J	
			ø4	VPOC10-50P⑥⑦-4J				ø5/32	VPOC10-50P⑥⑦-5/32J	
			ø6	VPOC10-50P⑥⑦-6J				ø1/4	VPOC10-50P⑥⑦-1/4J	
	ø15	20	ø3	VPOC15-20P⑥⑦-3J		ø15	20	ø1/8	VPOC15-20P⑥⑦-1/8J	
			ø4	VPOC15-20P⑥⑦-4J				ø5/32	VPOC15-20P⑥⑦-5/32J	
			ø6	VPOC15-20P⑥⑦-6J				ø1/4	VPOC15-20P⑥⑦-1/4J	
		30	ø3	VPOC15-30P⑥⑦-3J			30	ø1/8	VPOC15-30P⑥⑦-1/8J	
			ø4	VPOC15-30P⑥⑦-4J				ø5/32	VPOC15-30P⑥⑦-5/32J	
			ø6	VPOC15-30P⑥⑦-6J				ø1/4	VPOC15-30P⑥⑦-1/4J	
		40	ø3	VPOC15-40P⑥⑦-3J			40	ø1/8	VPOC15-40P⑥⑦-1/8J	
			ø4	VPOC15-40P⑥⑦-4J				ø5/32	VPOC15-40P⑥⑦-5/32J	
			ø6	VPOC15-40P⑥⑦-6J				ø1/4	VPOC15-40P⑥⑦-1/4J	
		50	ø3	VPOC15-50P⑥⑦-3J			50	ø1/8	VPOC15-50P⑥⑦-1/8J	
			ø4	VPOC15-50P⑥⑦-4J				ø5/32	VPOC15-50P⑥⑦-5/32J	
			ø6	VPOC15-50P⑥⑦-6J				ø1/4	VPOC15-50P⑥⑦-1/4J	
	ø20	20	ø3	VPOC20-20P⑥⑦-3J		ø20	20	ø1/8	VPOC20-20P⑥⑦-1/8J	
			ø4	VPOC20-20P⑥⑦-4J				ø5/32	VPOC20-20P⑥⑦-5/32J	
			ø6	VPOC20-20P⑥⑦-6J				ø1/4	VPOC20-20P⑥⑦-1/4J	
		30	ø3	VPOC20-30P⑥⑦-3J			30	ø1/8	VPOC20-30P⑥⑦-1/8J	
			ø4	VPOC20-30P⑥⑦-4J				ø5/32	VPOC20-30P⑥⑦-5/32J	
			ø6	VPOC20-30P⑥⑦-6J				ø1/4	VPOC20-30P⑥⑦-1/4J	
		40	ø3	VPOC20-40P⑥⑦-3J			40	ø1/8	VPOC20-40P⑥⑦-1/8J	
			ø4	VPOC20-40P⑥⑦-4J				ø5/32	VPOC20-40P⑥⑦-5/32J	
			ø6	VPOC20-40P⑥⑦-6J				ø1/4	VPOC20-40P⑥⑦-1/4J	
		50	ø3	VPOC20-50P⑥⑦-3J			50	ø1/8	VPOC20-50P⑥⑦-1/8J	
			ø4	VPOC20-50P⑥⑦-4J				ø5/32	VPOC20-50P⑥⑦-5/32J	
			ø6	VPOC20-50P⑥⑦-6J				ø1/4	VPOC20-50P⑥⑦-1/4J	

Notes
*Barb fitting type holders are also selectable. Contact us for the details.

Packaging specifications
1 pc. /bag

Options
⑦ : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)

Optional items
⇒ P.620

Pad surface treatment for suction mark-free

Vacuum Pad Ultrathin Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Top port, Female thread, No cover **VPOC**	ø8	20	M6×1	VPOC8-20P⑥⑦-M6	T8
		30		VPOC8-30P⑥⑦-M6	
		40		VPOC8-40P⑥⑦-M6	
		50		VPOC8-50P⑥⑦-M6	
	ø10	20	M6×1	VPOC10-20P⑥⑦-M6	
		30		VPOC10-30P⑥⑦-M6	
		40		VPOC10-40P⑥⑦-M6	
		50		VPOC10-50P⑥⑦-M6	
	ø15	20	M6×1	VPOC15-20P⑥⑦-M6	
		30		VPOC15-30P⑥⑦-M6	
		40		VPOC15-40P⑥⑦-M6	
		50		VPOC15-50P⑥⑦-M6	
	ø20	20	M6×1	VPOC20-20P⑥⑦-M6	
		30		VPOC20-30P⑥⑦-M6	
		40		VPOC20-40P⑥⑦-M6	
		50		VPOC20-50P⑥⑦-M6	

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, Low dust emission **VPLFC**	ø8	2	ø3	VPLFC8-2P⑥⑦-3J	T8
			ø4	VPLFC8-2P⑥⑦-4J	
		5	ø3	VPLFC8-5P⑥⑦-3J⑨	
			ø4	VPLFC8-5P⑥⑦-4J⑨	
		10	ø3	VPLFC8-10P⑥⑦-3J⑨	
			ø4	VPLFC8-10P⑥⑦-4J⑨	
		15	ø3	VPLFC8-15P⑥⑦-3J⑨	
			ø4	VPLFC8-15P⑥⑦-4J⑨	
		20	ø3	VPLFC8-20P⑥⑦-3J⑨	
			ø4	VPLFC8-20P⑥⑦-4J⑨	
	ø10	2	ø3	VPLFC10-2P⑥⑦-3J	
			ø4	VPLFC10-2P⑥⑦-4J	
		5	ø3	VPLFC10-5P⑥⑦-3J⑨	
			ø4	VPLFC10-5P⑥⑦-4J⑨	
		10	ø3	VPLFC10-10P⑥⑦-3J⑨	
			ø4	VPLFC10-10P⑥⑦-4J⑨	
		15	ø3	VPLFC10-15P⑥⑦-3J⑨	
			ø4	VPLFC10-15P⑥⑦-4J⑨	
		20	ø3	VPLFC10-20P⑥⑦-3J⑨	
			ø4	VPLFC10-20P⑥⑦-4J⑨	
	ø15	2	ø3	VPLFC15-2P⑥⑦-3J	
			ø4	VPLFC15-2P⑥⑦-4J	
		5	ø3	VPLFC15-5P⑥⑦-3J⑨	
			ø4	VPLFC15-5P⑥⑦-4J⑨	
		10	ø3	VPLFC15-10P⑥⑦-3J⑨	
			ø4	VPLFC15-10P⑥⑦-4J⑨	
		15	ø3	VPLFC15-15P⑥⑦-3J⑨	
			ø4	VPLFC15-15P⑥⑦-4J⑨	
		20	ø3	VPLFC15-20P⑥⑦-3J⑨	
			ø4	VPLFC15-20P⑥⑦-4J⑨	
	ø20	2	ø3	VPLFC20-2P⑥⑦-3J	
			ø4	VPLFC20-2P⑥⑦-4J	
		5	ø3	VPLFC20-5P⑥⑦-3J⑨	
			ø4	VPLFC20-5P⑥⑦-4J⑨	
		10	ø3	VPLFC20-10P⑥⑦-3J⑨	
			ø4	VPLFC20-10P⑥⑦-4J⑨	
		15	ø3	VPLFC20-15P⑥⑦-3J⑨	
			ø4	VPLFC20-15P⑥⑦-4J⑨	
		20	ø3	VPLFC20-20P⑥⑦-3J⑨	
			ø4	VPLFC20-20P⑥⑦-4J⑨	

Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
ø8	2	ø1/8	VPLFC8-2P⑥⑦-1/8J	T8
		ø5/32	VPLFC8-2P⑥⑦-5/32J	
	5	ø1/8	VPLFC8-5P⑥⑦-1/8J⑨	
		ø5/32	VPLFC8-5P⑥⑦-5/32J⑨	
	10	ø1/8	VPLFC8-10P⑥⑦-1/8J⑨	
		ø5/32	VPLFC8-10P⑥⑦-5/32J⑨	
	15	ø1/8	VPLFC8-15P⑥⑦-1/8J⑨	
		ø5/32	VPLFC8-15P⑥⑦-5/32J⑨	
	20	ø1/8	VPLFC8-20P⑥⑦-1/8J⑨	
		ø5/32	VPLFC8-20P⑥⑦-5/32J⑨	
ø10	2	ø1/8	VPLFC10-2P⑥⑦-1/8J	
		ø5/32	VPLFC10-2P⑥⑦-5/32J	
	5	ø1/8	VPLFC10-5P⑥⑦-1/8J⑨	
		ø5/32	VPLFC10-5P⑥⑦-5/32J⑨	
	10	ø1/8	VPLFC10-10P⑥⑦-1/8J⑨	
		ø5/32	VPLFC10-10P⑥⑦-5/32J⑨	
	15	ø1/8	VPLFC10-15P⑥⑦-1/8J⑨	
		ø5/32	VPLFC10-15P⑥⑦-5/32J⑨	
	20	ø1/8	VPLFC10-20P⑥⑦-1/8J⑨	
		ø5/32	VPLFC10-20P⑥⑦-5/32J⑨	
ø15	2	ø1/8	VPLFC15-2P⑥⑦-1/8J	
		ø5/32	VPLFC15-2P⑥⑦-5/32J	
	5	ø1/8	VPLFC15-5P⑥⑦-1/8J⑨	
		ø5/32	VPLFC15-5P⑥⑦-5/32J⑨	
	10	ø1/8	VPLFC15-10P⑥⑦-1/8J⑨	
		ø5/32	VPLFC15-10P⑥⑦-5/32J⑨	
	15	ø1/8	VPLFC15-15P⑥⑦-1/8J⑨	
		ø5/32	VPLFC15-15P⑥⑦-5/32J⑨	
	20	ø1/8	VPLFC15-20P⑥⑦-1/8J⑨	
		ø5/32	VPLFC15-20P⑥⑦-5/32J⑨	
ø20	2	ø1/8	VPLFC20-2P⑥⑦-1/8J	
		ø5/32	VPLFC20-2P⑥⑦-5/32J	
	5	ø1/8	VPLFC20-5P⑥⑦-1/8J⑨	
		ø5/32	VPLFC20-5P⑥⑦-5/32J⑨	
	10	ø1/8	VPLFC20-10P⑥⑦-1/8J⑨	
		ø5/32	VPLFC20-10P⑥⑦-5/32J⑨	
	15	ø1/8	VPLFC20-15P⑥⑦-1/8J⑨	
		ø5/32	VPLFC20-15P⑥⑦-5/32J⑨	
	20	ø1/8	VPLFC20-20P⑥⑦-1/8J⑨	
		ø5/32	VPLFC20-20P⑥⑦-5/32J⑨	

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Top port, Female thread, Low dust emission **VPLFC**	ø8	2	M5×0.8	VPLFC8-2P⑥⑦-M5	T8
		5	M5×0.8	VPLFC8-5P⑥⑦-M5⑨	
		10	M5×0.8	VPLFC8-10P⑥⑦-M5⑨	
		15	M5×0.8	VPLFC8-15P⑥⑦-M5⑨	
		20	M5×0.8	VPLFC8-20P⑥⑦-M5⑨	
	ø10	2	M5×0.8	VPLFC10-2P⑥⑦-M5	
		5	M5×0.8	VPLFC10-5P⑥⑦-M5⑨	
		10	M5×0.8	VPLFC10-10P⑥⑦-M5⑨	
		15	M5×0.8	VPLFC10-15P⑥⑦-M5⑨	
		20	M5×0.8	VPLFC10-20P⑥⑦-M5⑨	
	ø15	2	M5×0.8	VPLFC15-2P⑥⑦-M5	
		5	M5×0.8	VPLFC15-5P⑥⑦-M5⑨	
		10	M5×0.8	VPLFC15-10P⑥⑦-M5⑨	
		15	M5×0.8	VPLFC15-15P⑥⑦-M5⑨	
		20	M5×0.8	VPLFC15-20P⑥⑦-M5⑨	
	ø20	2	M5×0.8	VPLFC20-2P⑥⑦-M5	
		5	M5×0.8	VPLFC20-5P⑥⑦-M5⑨	
		10	M5×0.8	VPLFC20-10P⑥⑦-M5⑨	
		15	M5×0.8	VPLFC20-15P⑥⑦-M5⑨	
		20	M5×0.8	VPLFC20-20P⑥⑦-M5⑨	

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	⑫ -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Mini **VPMD** Stroke 2mm	ø8	ø3	VPMD8-2P⑥⑦-3J	—	T8
		ø4	VPMD8-2P⑥⑦-4J⑫	○	
	ø10	ø3	VPMD10-2P⑥⑦-3J	—	
		ø4	VPMD10-2P⑥⑦-4J⑫	○	
	ø15	ø3	VPMD15-2P⑥⑦-3J	—	
		ø4	VPMD15-2P⑥⑦-4J⑫	○	
	ø20	ø3	VPMD20-2P⑥⑦-3J	—	
		ø4	VPMD20-2P⑥⑦-4J⑫	○	

Pad dia. (mm)	Tube O.D. (inch)	Model code	⑫ -S3 -S3 spec.	Connection config. code
ø8	ø1/8	VPMD8-2P⑥⑦-1/8J⑫	○	T8
	ø5/32	VPMD8-2P⑥⑦-5/32J⑫	○	
ø10	ø1/8	VPMD10-2P⑥⑦-1/8J⑫	○	
	ø5/32	VPMD10-2P⑥⑦-5/32J⑫	○	
ø15	ø1/8	VPMD15-2P⑥⑦-1/8J⑫	○	
	ø5/32	VPMD15-2P⑥⑦-5/32J⑫	○	
ø20	ø1/8	VPMD20-2P⑥⑦-1/8J⑫	○	
	ø5/32	VPMD20-2P⑥⑦-5/32J⑫	○	

Holder type	Pad dia. (mm)	Male thread size	Model code	⑫ -S3 -S3 spec.	Connection config. code
Spring type, Side port, Female thread, Mini **VPMD** Stroke 2mm	ø8	M3×0.5	VPMD8-2P⑥⑦-M3⑫	○	T8
	ø10	M3×0.5	VPMD10-2P⑥⑦-M3⑫	○	
	ø15	M3×0.5	VPMD15-2P⑥⑦-M3⑫	○	
	ø20	M3×0.5	VPMD20-2P⑥⑦-M3⑫	○	

Notes
*Barb fitting type holders are also selectable. VPMD holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
⑦ : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
⑨ : -SF1/4 ⇒ Spring load1/4
⑫ : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.620
Pad surface treatment for suction mark-free

Vacuum Pad Ultrathin Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	12 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Standard VPD	ø8	3	ø3	VPD8-3P67-3J9	—	T8
			ø4	VPD8-3P67-4J912	○	
			ø6	VPD8-3P67-6J912	○	
		10	ø3	VPD8-10P67-3J9	—	
			ø4	VPD8-10P67-4J9	—	
			ø6	VPD8-10P67-6J9	—	
		15	ø3	VPD8-15P67-3J9	—	
			ø4	VPD8-15P67-4J9	—	
			ø6	VPD8-15P67-6J9	—	
		20	ø3	VPD8-20P67-3J9	—	
			ø4	VPD8-20P67-4J9	—	
			ø6	VPD8-20P67-6J9	—	
	ø10	3	ø3	VPD10-3P67-3J9	—	
			ø4	VPD10-3P67-4J912	○	
			ø6	VPD10-3P67-6J912	○	
		10	ø3	VPD10-10P67-3J9	—	
			ø4	VPD10-10P67-4J9	—	
			ø6	VPD10-10P67-6J9	—	
		15	ø3	VPD10-15P67-3J9	—	
			ø4	VPD10-15P67-4J9	—	
			ø6	VPD10-15P67-6J9	—	
		20	ø3	VPD10-20P67-3J9	—	
			ø4	VPD10-20P67-4J9	—	
			ø6	VPD10-20P67-6J9	—	
	ø15	3	ø3	VPD15-3P67-3J9	—	
			ø4	VPD15-3P67-4J912	○	
			ø6	VPD15-3P67-6J912	○	
		10	ø3	VPD15-10P67-3J9	—	
			ø4	VPD15-10P67-4J9	—	
			ø6	VPD15-10P67-6J9	—	
		15	ø3	VPD15-15P67-3J9	—	
			ø4	VPD15-15P67-4J9	—	
			ø6	VPD15-15P67-6J9	—	
		20	ø3	VPD15-20P67-3J9	—	
			ø4	VPD15-20P67-4J9	—	
			ø6	VPD15-20P67-6J9	—	
	ø20	3	ø3	VPD20-3P67-3J9	—	
			ø4	VPD20-3P67-4J912	○	
			ø6	VPD20-3P67-6J912	○	
		10	ø3	VPD20-10P67-3J9	—	
			ø4	VPD20-10P67-4J9	—	
			ø6	VPD20-10P67-6J9	—	
		15	ø3	VPD20-15P67-3J9	—	
			ø4	VPD20-15P67-4J9	—	
			ø6	VPD20-15P67-6J9	—	
		20	ø3	VPD20-20P67-3J9	—	
			ø4	VPD20-20P67-4J9	—	
			ø6	VPD20-20P67-6J9	—	

Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	12 -S3 -S3 spec.	Connection config. code
ø8	3	ø1/8	VPD8-3P67-1/8J9	—	T8
		ø5/32	VPD8-3P67-5/32J912	○	
		ø1/4	VPD8-3P67-1/4J9	—	
	10	ø1/8	VPD8-10P67-1/8J9	—	
		ø5/32	VPD8-10P67-5/32J9	—	
		ø1/4	VPD8-10P67-1/4J9	—	
	15	ø1/8	VPD8-15P67-1/8J9	—	
		ø5/32	VPD8-15P67-5/32J9	—	
		ø1/4	VPD8-15P67-1/4J9	—	
	20	ø1/8	VPD8-20P67-1/8J9	—	
		ø5/32	VPD8-20P67-5/32J9	—	
		ø1/4	VPD8-20P67-1/4J9	—	
ø10	3	ø1/8	VPD10-3P67-1/8J9	—	
		ø5/32	VPD10-3P67-5/32J912	○	
		ø1/4	VPD10-3P67-1/4J9	—	
	10	ø1/8	VPD10-10P67-1/8J9	—	
		ø5/32	VPD10-10P67-5/32J9	—	
		ø1/4	VPD10-10P67-1/4J9	—	
	15	ø1/8	VPD10-15P67-1/8J9	—	
		ø5/32	VPD10-15P67-5/32J9	—	
		ø1/4	VPD10-15P67-1/4J9	—	
	20	ø1/8	VPD10-20P67-1/8J9	—	
		ø5/32	VPD10-20P67-5/32J9	—	
		ø1/4	VPD10-20P67-1/4J9	—	
ø15	3	ø1/8	VPD15-3P67-1/8J9	—	
		ø5/32	VPD15-3P67-5/32J912	○	
		ø1/4	VPD15-3P67-1/4J9	—	
	10	ø1/8	VPD15-10P67-1/8J9	—	
		ø5/32	VPD15-10P67-5/32J9	—	
		ø1/4	VPD15-10P67-1/4J9	—	
	15	ø1/8	VPD15-15P67-1/8J9	—	
		ø5/32	VPD15-15P67-5/32J9	—	
		ø1/4	VPD15-15P67-1/4J9	—	
	20	ø1/8	VPD15-20P67-1/8J9	—	
		ø5/32	VPD15-20P67-5/32J9	—	
		ø1/4	VPD15-20P67-1/4J9	—	
ø20	3	ø1/8	VPD20-3P67-1/8J9	—	
		ø5/32	VPD20-3P67-5/32J912	○	
		ø1/4	VPD20-3P67-1/4J9	—	
	10	ø1/8	VPD20-10P67-1/8J9	—	
		ø5/32	VPD20-10P67-5/32J9	—	
		ø1/4	VPD20-10P67-1/4J9	—	
	15	ø1/8	VPD20-15P67-1/8J9	—	
		ø5/32	VPD20-15P67-5/32J9	—	
		ø1/4	VPD20-15P67-1/4J9	—	
	20	ø1/8	VPD20-20P67-1/8J9	—	
		ø5/32	VPD20-20P67-5/32J9	—	
		ø1/4	VPD20-20P67-1/4J9	—	

Notes

*Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options

7 : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
9 : -DC ⇒ Holder with dust catcher
12 : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.620

Pad surface treatment for suction mark-free

Dust Catcher (VPD)

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	12 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Female thread, Standard VPD	ø8	3	M5×0.8	VPD8-3P67-M5912	○	T8
		10	M5×0.8	VPD8-10P67-M59	—	
		15	M5×0.8	VPD8-15P67-M59	—	
		20	M5×0.8	VPD8-20P67-M59	—	
	ø10	3	M5×0.8	VPD10-3P67-M5912	○	
		10	M5×0.8	VPD10-10P67-M59	—	
		15	M5×0.8	VPD10-15P67-M59	—	
		20	M5×0.8	VPD10-20P67-M59	—	
	ø15	3	M5×0.8	VPD15-3P67-M5912	○	
		10	M5×0.8	VPD15-10P67-M59	—	
		15	M5×0.8	VPD15-15P67-M59	—	
		20	M5×0.8	VPD15-20P67-M59	—	
	ø20	3	M5×0.8	VPD20-3P67-M5912	○	
		10	M5×0.8	VPD20-10P67-M59	—	
		15	M5×0.8	VPD20-15P67-M59	—	
		20	M5×0.8	VPD20-20P67-M59	—	

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
7 : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
9 : -DC ⇒ Holder with dust catcher
12 : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.620
Pad surface treatment for suction mark-free
Dust Catcher (VPD)

Vacuum Pad Ultrathin Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, No cover **VPOD**	ø8	20	ø3	VPOD8-20P⑥⑦-3J	T8
			ø4	VPOD8-20P⑥⑦-4J	
			ø6	VPOD8-20P⑥⑦-6J	
		30	ø3	VPOD8-30P⑥⑦-3J	
			ø4	VPOD8-30P⑥⑦-4J	
			ø6	VPOD8-30P⑥⑦-6J	
		40	ø3	VPOD8-40P⑥⑦-3J	
			ø4	VPOD8-40P⑥⑦-4J	
			ø6	VPOD8-40P⑥⑦-6J	
		50	ø3	VPOD8-50P⑥⑦-3J	
			ø4	VPOD8-50P⑥⑦-4J	
			ø6	VPOD8-50P⑥⑦-6J	
	ø10	20	ø3	VPOD10-20P⑥⑦-3J	
			ø4	VPOD10-20P⑥⑦-4J	
			ø6	VPOD10-20P⑥⑦-6J	
		30	ø3	VPOD10-30P⑥⑦-3J	
			ø4	VPOD10-30P⑥⑦-4J	
			ø6	VPOD10-30P⑥⑦-6J	
		40	ø3	VPOD10-40P⑥⑦-3J	
			ø4	VPOD10-40P⑥⑦-4J	
			ø6	VPOD10-40P⑥⑦-6J	
		50	ø3	VPOD10-50P⑥⑦-3J	
			ø4	VPOD10-50P⑥⑦-4J	
			ø6	VPOD10-50P⑥⑦-6J	
	ø15	20	ø3	VPOD15-20P⑥⑦-3J	
			ø4	VPOD15-20P⑥⑦-4J	
			ø6	VPOD15-20P⑥⑦-6J	
		30	ø3	VPOD15-30P⑥⑦-3J	
			ø4	VPOD15-30P⑥⑦-4J	
			ø6	VPOD15-30P⑥⑦-6J	
		40	ø3	VPOD15-40P⑥⑦-3J	
			ø4	VPOD15-40P⑥⑦-4J	
			ø6	VPOD15-40P⑥⑦-6J	
		50	ø3	VPOD15-50P⑥⑦-3J	
			ø4	VPOD15-50P⑥⑦-4J	
			ø6	VPOD15-50P⑥⑦-6J	
	ø20	20	ø3	VPOD20-20P⑥⑦-3J	
			ø4	VPOD20-20P⑥⑦-4J	
			ø6	VPOD20-20P⑥⑦-6J	
		30	ø3	VPOD20-30P⑥⑦-3J	
			ø4	VPOD20-30P⑥⑦-4J	
			ø6	VPOD20-30P⑥⑦-6J	
		40	ø3	VPOD20-40P⑥⑦-3J	
			ø4	VPOD20-40P⑥⑦-4J	
			ø6	VPOD20-40P⑥⑦-6J	
		50	ø3	VPOD20-50P⑥⑦-3J	
			ø4	VPOD20-50P⑥⑦-4J	
			ø6	VPOD20-50P⑥⑦-6J	

Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
ø8	20	ø1/8	VPOD8-20P⑥⑦-1/8J	T8
		ø5/32	VPOD8-20P⑥⑦-5/32J	
		ø1/4	VPOD8-20P⑥⑦-1/4J	
	30	ø1/8	VPOD8-30P⑥⑦-1/8J	
		ø5/32	VPOD8-30P⑥⑦-5/32J	
		ø1/4	VPOD8-30P⑥⑦-1/4J	
	40	ø1/8	VPOD8-40P⑥⑦-1/8J	
		ø5/32	VPOD8-40P⑥⑦-5/32J	
		ø1/4	VPOD8-40P⑥⑦-1/4J	
	50	ø1/8	VPOD8-50P⑥⑦-1/8J	
		ø5/32	VPOD8-50P⑥⑦-5/32J	
		ø1/4	VPOD8-50P⑥⑦-1/4J	
ø10	20	ø1/8	VPOD10-20P⑥⑦-1/8J	
		ø5/32	VPOD10-20P⑥⑦-5/32J	
		ø1/4	VPOD10-20P⑥⑦-1/4J	
	30	ø1/8	VPOD10-30P⑥⑦-1/8J	
		ø5/32	VPOD10-30P⑥⑦-5/32J	
		ø1/4	VPOD10-30P⑥⑦-1/4J	
	40	ø1/8	VPOD10-40P⑥⑦-1/8J	
		ø5/32	VPOD10-40P⑥⑦-5/32J	
		ø1/4	VPOD10-40P⑥⑦-1/4J	
	50	ø1/8	VPOD10-50P⑥⑦-1/8J	
		ø5/32	VPOD10-50P⑥⑦-5/32J	
		ø1/4	VPOD10-50P⑥⑦-1/4J	
ø15	20	ø1/8	VPOD15-20P⑥⑦-1/8J	
		ø5/32	VPOD15-20P⑥⑦-5/32J	
		ø1/4	VPOD15-20P⑥⑦-1/4J	
	30	ø1/8	VPOD15-30P⑥⑦-1/8J	
		ø5/32	VPOD15-30P⑥⑦-5/32J	
		ø1/4	VPOD15-30P⑥⑦-1/4J	
	40	ø1/8	VPOD15-40P⑥⑦-1/8J	
		ø5/32	VPOD15-40P⑥⑦-5/32J	
		ø1/4	VPOD15-40P⑥⑦-1/4J	
	50	ø1/8	VPOD15-50P⑥⑦-1/8J	
		ø5/32	VPOD15-50P⑥⑦-5/32J	
		ø1/4	VPOD15-50P⑥⑦-1/4J	
ø20	20	ø1/8	VPOD20-20P⑥⑦-1/8J	
		ø5/32	VPOD20-20P⑥⑦-5/32J	
		ø1/4	VPOD20-20P⑥⑦-1/4J	
	30	ø1/8	VPOD20-30P⑥⑦-1/8J	
		ø5/32	VPOD20-30P⑥⑦-5/32J	
		ø1/4	VPOD20-30P⑥⑦-1/4J	
	40	ø1/8	VPOD20-40P⑥⑦-1/8J	
		ø5/32	VPOD20-40P⑥⑦-5/32J	
		ø1/4	VPOD20-40P⑥⑦-1/4J	
	50	ø1/8	VPOD20-50P⑥⑦-1/8J	
		ø5/32	VPOD20-50P⑥⑦-5/32J	
		ø1/4	VPOD20-50P⑥⑦-1/4J	

Notes
*Barb fitting type holders are also selectable. Contact us for the details.

Packaging specifications
1 pc. /bag

Options
⑦ : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)

Optional items
⇒ P.620

Pad surface treatment
for suction mark-free

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Side port, Female thread, No cover VPOD	ø8	20	M6×1	VPOD8-20P[6][7]-M6	T8
		30		VPOD8-30P[6][7]-M6	
		40		VPOD8-40P[6][7]-M6	
		50		VPOD8-50P[6][7]-M6	
	ø10	20	M6×1	VPOD10-20P[6][7]-M6	
		30		VPOD10-30P[6][7]-M6	
		40		VPOD10-40P[6][7]-M6	
		50		VPOD10-50P[6][7]-M6	
	ø15	20	M6×1	VPOD15-20P[6][7]-M6	
		30		VPOD15-30P[6][7]-M6	
		40		VPOD15-40P[6][7]-M6	
		50		VPOD15-50P[6][7]-M6	
	ø20	20	M6×1	VPOD20-20P[6][7]-M6	
		30		VPOD20-30P[6][7]-M6	
		40		VPOD20-40P[6][7]-M6	
		50		VPOD20-50P[6][7]-M6	

Packaging specifications
1 pc. /bag

Options
[7] : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.620
Pad surface treatment for suction mark-free

Vacuum Pad Ultrathin Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, Low dust emission **VPLFD**	ø8	5	ø3	VPLFD8-5P6 7-3J	T8
			ø4	VPLFD8-5P6 7-4J	
		10	ø3	VPLFD8-10P6 7-3J	
			ø4	VPLFD8-10P6 7-4J	
		15	ø3	VPLFD8-15P6 7-3J	
			ø4	VPLFD8-15P6 7-4J	
		20	ø3	VPLFD8-20P6 7-3J	
			ø4	VPLFD8-20P6 7-4J	
	ø10	5	ø3	VPLFD10-5P6 7-3J	
			ø4	VPLFD10-5P6 7-4J	
		10	ø3	VPLFD10-10P6 7-3J	
			ø4	VPLFD10-10P6 7-4J	
		15	ø3	VPLFD10-15P6 7-3J	
			ø4	VPLFD10-15P6 7-4J	
		20	ø3	VPLFD10-20P6 7-3J	
			ø4	VPLFD10-20P6 7-4J	
	ø15	5	ø3	VPLFD15-5P6 7-3J	
			ø4	VPLFD15-5P6 7-4J	
		10	ø3	VPLFD15-10P6 7-3J	
			ø4	VPLFD15-10P6 7-4J	
		15	ø3	VPLFD15-15P6 7-3J	
			ø4	VPLFD15-15P6 7-4J	
		20	ø3	VPLFD15-20P6 7-3J	
			ø4	VPLFD15-20P6 7-4J	
	ø20	5	ø3	VPLFD20-5P6 7-3J	
			ø4	VPLFD20-5P6 7-4J	
		10	ø3	VPLFD20-10P6 7-3J	
			ø4	VPLFD20-10P6 7-4J	
		15	ø3	VPLFD20-15P6 7-3J	
			ø4	VPLFD20-15P6 7-4J	
		20	ø3	VPLFD20-20P6 7-3J	
			ø4	VPLFD20-20P6 7-4J	

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
	ø8	5	ø1/8	VPLFD8-5P6 7-1/8J	T8
			ø5/32	VPLFD8-5P6 7-5/32J	
		10	ø1/8	VPLFD8-10P6 7-1/8J	
			ø5/32	VPLFD8-10P6 7-5/32J	
		15	ø1/8	VPLFD8-15P6 7-1/8J	
			ø5/32	VPLFD8-15P6 7-5/32J	
		20	ø1/8	VPLFD8-20P6 7-1/8J	
			ø5/32	VPLFD8-20P6 7-5/32J	
	ø10	5	ø1/8	VPLFD10-5P6 7-1/8J	
			ø5/32	VPLFD10-5P6 7-5/32J	
		10	ø1/8	VPLFD10-10P6 7-1/8J	
			ø5/32	VPLFD10-10P6 7-5/32J	
		15	ø1/8	VPLFD10-15P6 7-1/8J	
			ø5/32	VPLFD10-15P6 7-5/32J	
		20	ø1/8	VPLFD10-20P6 7-1/8J	
			ø5/32	VPLFD10-20P6 7-5/32J	
	ø15	5	ø1/8	VPLFD15-5P6 7-1/8J	
			ø5/32	VPLFD15-5P6 7-5/32J	
		10	ø1/8	VPLFD15-10P6 7-1/8J	
			ø5/32	VPLFD15-10P6 7-5/32J	
		15	ø1/8	VPLFD15-15P6 7-1/8J	
			ø5/32	VPLFD15-15P6 7-5/32J	
		20	ø1/8	VPLFD15-20P6 7-1/8J	
			ø5/32	VPLFD15-20P6 7-5/32J	
	ø20	5	ø1/8	VPLFD20-5P6 7-1/8J	
			ø5/32	VPLFD20-5P6 7-5/32J	
		10	ø1/8	VPLFD20-10P6 7-1/8J	
			ø5/32	VPLFD20-10P6 7-5/32J	
		15	ø1/8	VPLFD20-15P6 7-1/8J	
			ø5/32	VPLFD20-15P6 7-5/32J	
		20	ø1/8	VPLFD20-20P6 7-1/8J	
			ø5/32	VPLFD20-20P6 7-5/32J	

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Side port, Female thread, Low dust emission **VPLFD**	ø8	5	M5×0.8	VPLFD8-5P6 7-M5	T8
		10	M5×0.8	VPLFD8-10P6 7-M5	
		15	M5×0.8	VPLFD8-15P6 7-M5	
		20	M5×0.8	VPLFD8-20P6 7-M5	
	ø10	5	M5×0.8	VPLFD10-5P6 7-M5	
		10	M5×0.8	VPLFD10-10P6 7-M5	
		15	M5×0.8	VPLFD10-15P6 7-M5	
		20	M5×0.8	VPLFD10-20P6 7-M5	
	ø15	5	M5×0.8	VPLFD15-5P6 7-M5	
		10	M5×0.8	VPLFD15-10P6 7-M5	
		15	M5×0.8	VPLFD15-15P6 7-M5	
		20	M5×0.8	VPLFD15-20P6 7-M5	
	ø20	5	M5×0.8	VPLFD20-5P6 7-M5	
		10	M5×0.8	VPLFD20-10P6 7-M5	
		15	M5×0.8	VPLFD20-15P6 7-M5	
		20	M5×0.8	VPLFD20-20P6 7-M5	

Notes
*Barb fitting type holders are also selectable. Contact us for the details.

Options
7 : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)

Optional items
⇒ P.620

Pad surface treatment for suction mark-free

Packaging specifications
1 pc. /bag

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Female thread size	Model code	12 -S3 -S3 spec.	Connection config. code
Fixed type, Direct mount, Mini VPME	ø8	M5×0.8	VPME8P67-M512	○	T8
	ø10	M5×0.8	VPME10P67-M512	○	
	ø15	M5×0.8	VPME15P67-M512	○	
	ø20	M5×0.8	VPME20P67-M512	○	

Holder type	Pad dia. (mm)	Female thread size	Model code	12 -S3 -S3 spec.	Connection config. code
Fixed type, Direct mount, Standard VPE	ø8	M5×0.8	VPE8P67-M512	○	T8
	ø10	M5×0.8	VPE10P67-M512	○	
	ø15	M5×0.8	VPE15P67-M512	○	
	ø20	M5×0.8	VPE20P67-M512	○	

VPE holders are available with metric male/female threads. See Pad holder only (page 399) for variations.
*Pads with the same configuration code as the holder can be connected. [See Pad rubber only (page 381)].

Applicable Screws Metric female thread: M5, M8

Holder type	Pad dia. (mm)	Female thread size	Model code	12 -S3 -S3 spec.	Connection config. code
Spring type, Direct mount VPF Stroke 3mm	ø8	M10×1	VPF8P6791 2	○	T8
	ø10	M10×1	VPF10P6791 2	○	
	ø15	M10×1	VPF15P6791 2	○	
	ø20	M10×1	VPF20P6791 2	○	

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
7 : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
9 : -DC ⇒ Holder with dust catcher
12 : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.620
Pad surface treatment for suction mark-free
Dust Catcher (VPF)
Fall Prevention Valve
Swivel Joint for vacuum pad

Vacuum Pad Ultrathin Type

Optional items (○: Available)

7 Pad surface treatment (Suction mark-free)

Pad dia. (mm)	5 Pad surface treatment for suction mark-free code			Connection config. code
	-DL	-ER	-FG	
	DLC. coating	Reformed surface	Fluoro-coating	
ø8	○	○	○	T8
ø10	○	○	○	
ø15	○	○	○	
ø20	○	○	○	
Material	S, F	N, NE	S	

Characteristics of surface treatment ▶P.370

9 Dust Catcher : -DC

Optional	Connection config. code	-S3 spec.
Dust Catcher(-DC)	T8	○

Holder type

VPSC VPC VPD VPF

Characteristics of Dust Catcher ▶P.371

10 Fall Prevention Valve : ECV

Optional	Connection config. code	Model code
Fall Prevention Valve (-ECV)	T8	ECVM5-FM5(*)

*Limited to M5 threads of VPME and VPE holders.

Characteristics of Fall Prevention Valve ▶P.722

11 Swivel Joint : -CFH

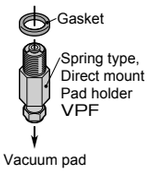
Optional	Connection config. code	-S3 spec.	Model code (*1)
Flexible Swing Joint (-CFH)	T8	○	CFHM5-FM5(*2)

*1. When ordering a Flexible Swing Joint alone, please enter "-S3" at the end of the model code for -S3 specification.
*2. Limited to M5 threads of VPME and VPE holders.

Characteristics of Flexible Swing Joint ▶P.725

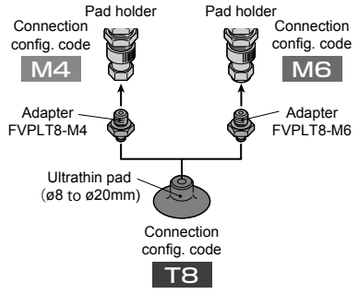
See the page 604 for the model designation including optional items.

Replacement parts



Gasket Model code	Pad dia. (mm)	Connection config. code
SG10	ø8 to ø20	T8

Rearrangement parts (○: -S3 spec. is available)



Model code of Adapter for pad connection type conversion	12 : -S3 -S3 spec.	Pad dia. (mm)	Connection config. code Before → After
FVPLT8-M412	○	ø8 to ø20	T8 ▶ M4
FVPLT8-M612	○		T8 ▶ M6

*1. These adapters are used to mount Ultrathin pads on a holder with M4 or M6 configuration code.
*2. Gasket for adapter is equipped with an Adapter.

Vacuum Pad Flat Type/Flat Large Suction Flow Type

Vacuum pad for thin work-pieces, such as sheets or vinyl that are easily deformed and wrinkled.

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VP (1)	C (2)	10 (3)	-6 (4)	F (5)	N (6)	-ER (7)	-6J (8)	-DC (9)	-ECV (10)	-FH (11)	-F15 (12)	(13)
						Optional		Optional	Optional	Optional	Optional	Optional

(1) Vacuum Pad

(2) Holder type

Holder type		Fixed type				Spring type					
		Mini		Standard		Mini		Standard		No cover	Low dust emission
Code	Top port	MA		A		MC		C		OC	LFC
	Side port	MB		B		MD		D		OD	LFD
	Direct mount	–		E		–		F		–	–
Connection config. code		M4	M6	M4	M6	M4	M6	M4	M6	M4	M6	M4	M6

Holder type		Lightweight	Low profile
		Spring type	Direct mount
Code	Top port	HC	–
	Side port	HD	HE
	Dual side port	HDW	HEW
Connection config. code		M4 M6	M4 M6

(3) Pad dia.

Code	10	15	20	25	30
Pad dia.(mm)	ø10	ø15	ø20	ø25	ø30
Connection config. code	M4		M6		

(4) Stroke (No code entry for Holder type: MA, A, MB, B, E, F, HE and HEW)

Code	-2	-4	-5	-6	-10	-15	-20	-25	-30	-40	-50
Stroke (mm)	2	4	5	6	10	15	20	25	30	40	50
Spring type holder code: VPMC		●●									
VPC				●●	●●	●●	●●				
VPOC							●●		●●	●●	●●
VPLFC	●		●●		●●	●●	●●				
VPMD		●●									
VPD				●●	●●	●●	●●				
VPOD							●●		●●	●●	●●
VPLFD			●●		●●	●●	●●				
VPHC					●●	●●	●●	●●	●●	●●	●●
VPHD			●●								
VPHDW			●●								

Connection config. code
●: M4
●: M6

(5) Pad type

Code	F	FH
Pad type	Flat	Flat, Large Suction Flow

(6) Pad material

Code	N	S	U (*3)	F	SE	NE
Rubber material	Nitrile	Silicone	Urethane	Fluoro	Conductive Silicone	Conductive NBR (Low resistance)

*1. The Conductive Silicone rubber (SE) is a silicon rubber capable of releasing static electricity. (Volume resistance: More than 200 Ω ·cm and 10^5 Ω ·cm or less)
*2. Nitrile rubber (N) and Conductive NBR (Low resistance, Volume resistance: 200 Ω·cm or less) (NE) are not suitable for use with ozone environment.
*3. Large Suction Flow type is not available on Urethane rubber (U).

(7) Pad surface treatment for suction mark-free Optional

Code	No code	-DL	-ER	-FG
Surface treatment	None	DLC. coating	Reformed surface	Fluoro-coating
Applicable pad material	—	Silicone (S), Fluoro (F), Conductive Silicone (SE)	Nitrile (N), Conductive NBR (Low resistance) (NE)	Silicone (S), Conductive Silicone (SE)
Applicable pad dia.	—	All sizes	All sizes	All sizes

* Please refer to page 370 for the details of each pad surface type and treatment for Suction Mark-free.

(8) Vacuum port size and joint type (No code entry for Holder type: F) (○: Available)

	Type	Push-in fitting								Barb fitting				Female thread	
		mm size (mm)					inch size (inch)			mm size (mm)			inch size (inch)	Metric thread	
	Code	-180J	-2J	-3J	-4J	-6J	-1/8J	-5/32J	-1/4J	-3B	-4B*	-6B	-1/4B	-M5	-M6
	Tube O.D.	ø1.8	ø2	ø3	ø4	ø6	ø1/8	ø5/32	ø1/4						
	Tube I.D.									ø2	ø2.5	ø4	Polyurethane tubeø 0.163 Nylon tubeø 0.180		
	Thread size													M5×0.8	M6×1
Holder type	VPMA			○	○			○		○	○	○			
	VPA			○	○	○	○	○	○		○	○	○		○
	VPMB	○	○	○	○	○	○	○	○	○	○	○	○	○	
	VPB			○	○	○	○	○	○		○	○	○		○
	VPMC	○	○	○	○		○	○		○	○	○	○		
	VPC			○	○	○	○	○	○		○	○	○		○
	VPOC			○	○	○	○	○	○		○	○	○		○
	VPLFC			○	○	○	○	○	○	○	○	○		○	○
	VPMD	○	○	○	○	○	○	○	○	○	○	○	○	○	
	VPD			○	○	○	○	○	○		○	○	○		○
	VPOD			○	○	○	○	○	○		○	○	○		○
	VPLFD			○	○	○	○	○	○	○	○	○		○	○
	VPHC	○	○	○	○	○	○	○	○	○	○	○	○	○	
	VPHD	○	○	○	○	○	○	○	○	○	○	○	○	○	
	VPHDW	○	○	○	○	○	○	○	○	○	○	○	○	○	
	VPHE	○	○	○	○	○	○	○	○	○	○	○	○	○	
	VPHEW	○	○	○	○	○	○	○	○	○	○	○	○	○	

* The barb fitting of 5/32" size is common with 4 mm size. Please order with the code: -4B.
* Available port size varies depending on pad dia. See model code lists on the following pages.

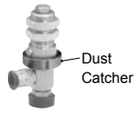
	Type	Male thread																Female thread	
		Metric thread				Taper pipe thread				Parallel pipe thread				NPT thread				Metric thread	
	Code	-M8	-M10	-M12	-M14	-R1	-R2	-R3	-R4	-G1	-G2	-G3	-G4	-N1	-N2	-N3	-N4	-FM5	-FM8
	Thread size	M8×1.25	M10×1.5	M12×1.75	M14×2	R1/8	R1/4	R3/8	R1/2	G1/8	G1/4	G3/8	G1/2	NPT1/8	NPT1/4	NPT3/8	NPT1/2	M5×0.8	M8×1.25
	Holder type VPE	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

*Configuration code: M4 is not available for R4 and G4 thread size.

(9) Dust Catcher (Holder type: C, D, and F only) Optional

Code	No code	-DC
Dust Catcher	None	Installed

* Note that the holder stroke becomes shorter when a dust catcher is installed. Please visit our website for details.



(9) Spring load (Holder type: LFC only)

Code	No code	-SF1/4
Load	Standard load	Low load (1/4 of standard load)

* "-SF1/4" is not selectable when 2 mm stroke is selected.

(10) Fall Prevention Valve Optional

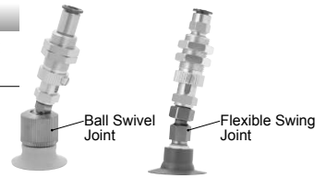
Code	No code	-ECV
Fall Prevention Valve	None	Installed

* -S3 spec. is not selectable when Fall Prevention Valve is selected.

(11) Swivel Joint for vacuum pad Optional

Code	No code	-FH	-FHH	-CFH
Option	None	Ball Swivel Joint (Swivel angle: 30°)	Ball Swivel Joint (Swivel angle: 15°)	Flexible Swing Joint (Swing angle: 8°)

* -S3 spec. is not selectable when Ball Swivel Joint is selected.



(12) Filter Optional

Code	No code	-F15	-F30
Filter	None	Installed (Filter area 1.7 cm^2)	Installed (Filter area 7 cm^2)
Applicable config. code	—	M4, M6	M6

*1. -S3 spec. is not selectable when Filter is selected.
*2. "-F30" is recommended when much dust is expected at sucking work pieces.

(13) -S3 spec. Optional

Code	No code	-S3
Metal material	Standard	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard	HNBR or FKM
Release ring color	Black	Dark blue

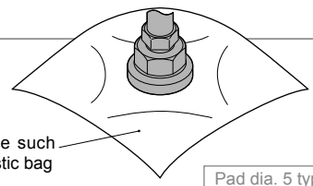
*1. -S3 spec. is not available for the following fittings and holders:
· Push-in fitting with dia. size of 1.8, 2, 3 mm and inch sizes except dia. 1/8" (some) and 5/32".
· Barb fitting with dia. of 1/4".
· Pad holder with stroke length 10 mm or longer (except for VPHC holders).
· VPLFC and VPLFD holders.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

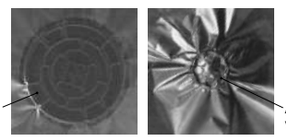
Vacuum Pad Flat Type/Flat Large Suction Flow Type

Characteristics

Suitable for thin work-pieces such as sheets or vinyl.

Groove on a flat pad reduces deformation and wrinkle on a work-piece.





Pad dia. 5 types
ø10 to ø30mm
Pad material 6 types
* Only 5 types for
Large Suction Flow type
Surface treatment 3 types

Silicone (S) is Food Sanitation Act compliant. (Holder is not compliant. Vacuum pad complies only at work-piece contact area.) * See page 6 for the details of the Food Sanitation Act.

Wide variations of Pad holders.

The following combinations of holder and pad rubber are also available although they are not listed on the model code list from the next page onward. Contact us for the details.

· Lightweight VPHC holder that is made of resin and aluminum.
· Lightweight VPHD and VPHDW holders with spring type without cover.
· VPHE and VPHEW holders with reduced height.
· VPHDW and VPHEW holders with dual side vacuum ports, suitable for piping connection of multiple vacuum pads.

Low dust emission holders (VPLFC, VPLFD) with low noise and less wear from sliding are available to prevent dust generation.

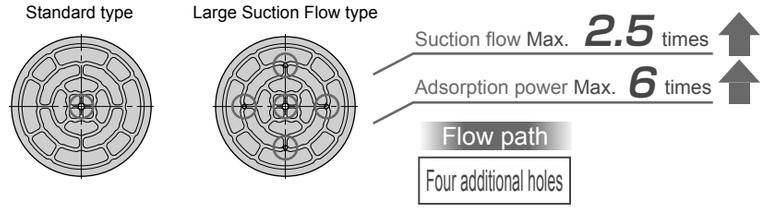
VPLFC holder with top port has a separate shaft on the pad side and the vacuum port side, so there is no effect on the stroke caused by the tension of the tube. Low load type is also available to suppress impact when contacting the work-piece.

Wide variations of fixed type direct mount holder (VPE) for various thread sizes.

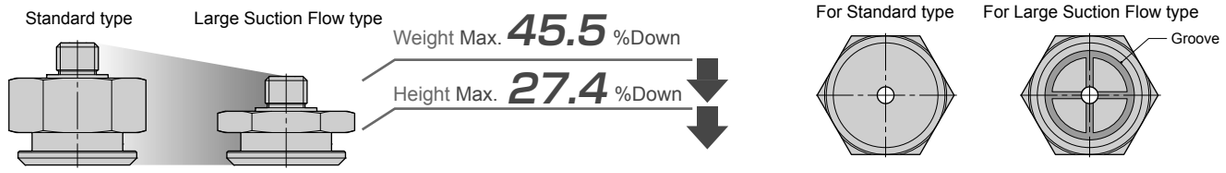
Metric male threads, metric female threads, taper pipe threads and parallel pipe threads are available.
* These are not shown in the model code list from the next page. Contact us for the details.

● Large Suction Flow type

Increased flow holes dramatically improve suction flow and adsorption power.



Smaller and lighter screw adapters. Reduced height makes the product more compact. Moreover, grooving on the screw adapter secures the flow path.



● Pad surface treatment for suction mark-free (Optional)

NEW **Fluoro-coating type is added to the pad rubber surface treatment option to prevent tracing marks.**

·DLC. coating type: Slippery special coating. Effective for sticking prevention of lightweight or thin work-piece.
·Reformed surface type: Reduces tracing marks by surface reforming of nitrile rubber with chemicals.
·Fluoro-coating type: Surface reforming by special treatment prevents sticking to work-pieces. Improved pad durability and wear resistance.

● Holder with dust catcher (Optional)

Collects wear debris generated by sliding spring type holders. Low-cost, simple holder with receiver tray added.

Applicable to VPC, VPD and VPF holders.

● Accessories (Optional)

Fall Prevention Valve, Swivel (Ball Swivel Joint, Flexible Swing Joint) and Filter options are available.

● -S3 spec. (Optional)

No copper-based metallic materials used in flow paths.

The sealing rubber material of the fitting is HNBR or FKM, with good ozone resisntace.

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Mini **VPMA**	ø10	ø3	VPMA10567-3J	—	M4
		ø4	VPMA10567-4J13	○	
	ø15	ø3	VPMA15567-3J	—	
		ø4	VPMA15567-4J13	○	
	ø20	ø4	VPMA20567-4J13	○	M6
	ø25	ø4	VPMA25567-4J13	○	
	ø30	ø4	VPMA30567-4J13	○	

Pad dia. (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
ø10	ø5/32	VPMA10567-5/32J 13	○	M4
ø15	ø5/32	VPMA15567-5/32J 13	○	
ø20	ø5/32	VPMA20567-5/32J 13	○	M6
ø25	ø5/32	VPMA25567-5/32J 13	○	
ø30	ø5/32	VPMA30567-5/32J 13	○	

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Standard **VPA**	ø10	ø6	VPA10567-6J13	○	M4
	ø15	ø6	VPA15567-6J13	○	
	ø20	ø3	VPA20567-3J	—	M6
		ø4	VPA20567-4J13	○	
		ø6	VPA20567-6J13	○	
	ø25	ø3	VPA25567-3J	—	
		ø4	VPA25567-4J13	○	
		ø6	VPA25567-6J13	○	
	ø30	ø3	VPA30567-3J	—	
		ø4	VPA30567-4J13	○	
		ø6	VPA30567-6J13	○	

Pad dia. (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
ø10	ø1/4	VPA10567-1/4J	—	M4
ø15	ø1/4	VPA15567-1/4J	—	
ø20	ø1/8	VPA20567-1/8J	—	M6
	ø5/32	VPA20567-5/32J 13	○	
	ø1/4	VPA20567-1/4J	—	
ø25	ø1/8	VPA25567-1/8J	—	
	ø5/32	VPA25567-5/32J 13	○	
	ø1/4	VPA25567-1/4J	—	
ø30	ø1/8	VPA30567-1/8J	—	
	ø5/32	VPA30567-5/32J 13	○	
	ø1/4	VPA30567-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Female thread, Standard **VPA**	ø20	M6×1	VPA20567-M613	○	M6
	ø25	M6×1	VPA25567-M613	○	
	ø30	M6×1	VPA30567-M613	○	

Notes
*1 Barb fitting type holders are also selectable. Contact us for the details.
*2 Large Suction Flow type is not available on Urethane rubber (U).

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
7 : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
13 : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1 For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.640

Pad surface treatment for suction mark-free
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Flat Type/Flat Large Suction Flow Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tusbe O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Push-in fitting, Mini **VPMB**	ø10	ø3	VPMB10567-3J	—	M4	ø10	ø1/8	VPMB10567-1/8J	—	M4
		ø4	VPMB10567-4J13	○			ø5/32	VPMB10567-5/32J 13	○	
		ø6	VPMB10567-6J13	○			ø1/4	VPMB10567-1/4J	—	
	ø15	ø3	VPMB15567-3J	—		ø15	ø1/8	VPMB15567-1/8J	—	
		ø4	VPMB15567-4J13	○			ø5/32	VPMB15567-5/32J 13	○	
		ø6	VPMB15567-6J13	○			ø1/4	VPMB15567-1/4J	—	
	ø20	ø3	VPMB20567-3J	—	M6	ø20	ø1/8	VPMB20567-1/8J	—	M6
		ø4	VPMB20567-4J13	○			ø5/32	VPMB20567-5/32J 13	○	
		ø6	VPMB20567-6J13	○			ø1/4	VPMB20567-1/4J	—	
	ø25	ø3	VPMB25567-3J	—		ø25	ø1/8	VPMB25567-1/8J	—	
		ø4	VPMB25567-4J13	○			ø5/32	VPMB25567-5/32J 13	○	
		ø6	VPMB25567-6J13	○			ø1/4	VPMB25567-1/4J	—	
	ø30	ø3	VPMB30567-3J	—		ø30	ø1/8	VPMB30567-1/8J	—	
		ø4	VPMB30567-4J13	○			ø5/32	VPMB30567-5/32J 13	○	
		ø6	VPMB30567-6J13	○			ø1/4	VPMB30567-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Female thread, Mini **VPMB**	ø10	M5×0.8	VPMB10567-M513	○	M4
	ø15	M5×0.8	VPMB15567-M513	○	
	ø20	M5×0.8	VPMB20567-M513	○	M6
	ø25	M5×0.8	VPMB25567-M513	○	
	ø30	M5×0.8	VPMB30567-M513	○	

Notes

*1 Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

*2 Large Suction Flow type is not available on Urethane rubber (U).

CAD data is available at PISCO website.

Packaging specifications

1 pc. /bag

Options

7 : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)

13 : -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1 For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.

*2 For inch size push-in fitting, the release ring color is white even for "-S3 spec.

Optional items ⇒ P.640

Pad surface treatment for suction mark-free

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Push-in fitting, Standard **VPB**	ø10	ø3	VPB10[5][6][7]-3J	—	M4	ø10	ø1/8	VPB10[5][6][7]-1/8J	—	M4
		ø4	VPB10[5][6][7]-4J[13]	○			ø5/32	VPB10[5][6][7]-5/32J [13]	○	
		ø6	VPB10[5][6][7]-6J[13]	○			ø1/4	VPB10[5][6][7]-1/4J	—	
	ø15	ø3	VPB15[5][6][7]-3J	—		ø15	ø1/8	VPB15[5][6][7]-1/8J	—	
		ø4	VPB15[5][6][7]-4J[13]	○			ø5/32	VPB15[5][6][7]-5/32J [13]	○	
		ø6	VPB15[5][6][7]-6J[13]	○			ø1/4	VPB15[5][6][7]-1/4J	—	
	ø20	ø3	VPB20[5][6][7]-3J	—	M6	ø20	ø1/8	VPB20[5][6][7]-1/8J	—	M6
		ø4	VPB20[5][6][7]-4J[13]	○			ø5/32	VPB20[5][6][7]-5/32J [13]	○	
		ø6	VPB20[5][6][7]-6J[13]	○			ø1/4	VPB20[5][6][7]-1/4J	—	
	ø25	ø3	VPB25[5][6][7]-3J	—		ø25	ø1/8	VPB25[5][6][7]-1/8J	—	
		ø4	VPB25[5][6][7]-4J[13]	○			ø5/32	VPB25[5][6][7]-5/32J [13]	○	
		ø6	VPB25[5][6][7]-6J[13]	○			ø1/4	VPB25[5][6][7]-1/4J	—	
	ø30	ø3	VPB30[5][6][7]-3J	—		ø30	ø1/8	VPB30[5][6][7]-1/8J	—	
		ø4	VPB30[5][6][7]-4J[13]	○			ø5/32	VPB30[5][6][7]-5/32J [13]	○	
		ø6	VPB30[5][6][7]-6J[13]	○			ø1/4	VPB30[5][6][7]-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Female thread, Standard **VPB**	ø10	M6×1	VPB10[5][6][7]-M6[13]	○	M4
	ø15	M6×1	VPB15[5][6][7]-M6[13]	○	
	ø20	M6×1	VPB20[5][6][7]-M6[13]	○	M6
	ø25	M6×1	VPB25[5][6][7]-M6[13]	○	
	ø30	M6×1	VPB30[5][6][7]-M6[13]	○	

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Mini **VPMC** Stroke 4mm	ø10	ø3	VPMC10-4[5][6][7]-3J	—	M4	ø10	ø1/8	VPMC10-4[5][6][7]-1/8J	—	M4
		ø4	VPMC10-4[5][6][7]-4J[13]	○			ø5/32	VPMC10-4[5][6][7]-5/32J [13]	○	
	ø15	ø3	VPMC15-4[5][6][7]-3J	—		ø15	ø1/8	VPMC15-4[5][6][7]-1/8J	—	
		ø4	VPMC15-4[5][6][7]-4J[13]	○			ø5/32	VPMC15-4[5][6][7]-5/32J [13]	○	
	ø20	ø3	VPMC20-4[5][6][7]-3J	—	M6	ø20	ø1/8	VPMC20-4[5][6][7]-1/8J	—	M6
		ø4	VPMC20-4[5][6][7]-4J[13]	○			ø5/32	VPMC20-4[5][6][7]-5/32J [13]	○	
	ø25	ø3	VPMC25-4[5][6][7]-3J	—		ø25	ø1/8	VPMC25-4[5][6][7]-1/8J	—	
		ø4	VPMC25-4[5][6][7]-4J[13]	○			ø5/32	VPMC25-4[5][6][7]-5/32J [13]	○	
	ø30	ø3	VPMC30-4[5][6][7]-3J	—		ø30	ø1/8	VPMC30-4[5][6][7]-1/8J	—	
		ø4	VPMC30-4[5][6][7]-4J[13]	○			ø5/32	VPMC30-4[5][6][7]-5/32J [13]	○	

Notes
*1 Barb fitting type holders are also selectable. VPMC holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm. Contact us for the details.
*2 Large Suction Flow type is not available on Urethane rubber (U).

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
[7] : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
[13] : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1 For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2 For inch size push-in fitting, the release ring color is white even for "-S3 spec.

Optional items ⇒ P.640
Pad surface treatment for suction mark-free
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Flat Type/Flat Large Suction Flow Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	[13] -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	[13] -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Standard VPC	ø10	6	ø3	VPC10-6[5][6][7]-3J[9]	—	M4	ø10	6	ø1/8	VPC10-6[5][6][7]-1/8J[9]	—	M4
			ø4	VPC10-6[5][6][7]-4J[9][13]	○				ø5/32	VPC10-6[5][6][7]-5/32J[9][13]	○	
			ø6	VPC10-6[5][6][7]-6J[9][13]	○				ø1/4	VPC10-6[5][6][7]-1/4J[9]	—	
		10	ø3	VPC10-10[5][6][7]-3J[9]	—			10	ø1/8	VPC10-10[5][6][7]-1/8J[9]	—	
			ø4	VPC10-10[5][6][7]-4J[9]	—				ø5/32	VPC10-10[5][6][7]-5/32J[9]	—	
			ø6	VPC10-10[5][6][7]-6J[9]	—				ø1/4	VPC10-10[5][6][7]-1/4J[9]	—	
		15	ø3	VPC10-15[5][6][7]-3J[9]	—			15	ø1/8	VPC10-15[5][6][7]-1/8J[9]	—	
			ø4	VPC10-15[5][6][7]-4J[9]	—				ø5/32	VPC10-15[5][6][7]-5/32J[9]	—	
			ø6	VPC10-15[5][6][7]-6J[9]	—				ø1/4	VPC10-15[5][6][7]-1/4J[9]	—	
		20	ø3	VPC10-20[5][6][7]-3J[9]	—			20	ø1/8	VPC10-20[5][6][7]-1/8J[9]	—	
			ø4	VPC10-20[5][6][7]-4J[9]	—				ø5/32	VPC10-20[5][6][7]-5/32J[9]	—	
			ø6	VPC10-20[5][6][7]-6J[9]	—				ø1/4	VPC10-20[5][6][7]-1/4J[9]	—	
	ø15	6	ø3	VPC15-6[5][6][7]-3J[9]	—		ø15	6	ø1/8	VPC15-6[5][6][7]-1/8J[9]	—	
			ø4	VPC15-6[5][6][7]-4J[9][13]	○				ø5/32	VPC15-6[5][6][7]-5/32J[9][13]	○	
			ø6	VPC15-6[5][6][7]-6J[9][13]	○				ø1/4	VPC15-6[5][6][7]-1/4J[9]	—	
		10	ø3	VPC15-10[5][6][7]-3J[9]	—			10	ø1/8	VPC15-10[5][6][7]-1/8J[9]	—	
			ø4	VPC15-10[5][6][7]-4J[9]	—				ø5/32	VPC15-10[5][6][7]-5/32J[9]	—	
			ø6	VPC15-10[5][6][7]-6J[9]	—				ø1/4	VPC15-10[5][6][7]-1/4J[9]	—	
		15	ø3	VPC15-15[5][6][7]-3J[9]	—			15	ø1/8	VPC15-15[5][6][7]-1/8J[9]	—	
			ø4	VPC15-15[5][6][7]-4J[9]	—				ø5/32	VPC15-15[5][6][7]-5/32J[9]	—	
			ø6	VPC15-15[5][6][7]-6J[9]	—				ø1/4	VPC15-15[5][6][7]-1/4J[9]	—	
		20	ø3	VPC15-20[5][6][7]-3J[9]	—			20	ø1/8	VPC15-20[5][6][7]-1/8J[9]	—	
			ø4	VPC15-20[5][6][7]-4J[9]	—				ø5/32	VPC15-20[5][6][7]-5/32J[9]	—	
			ø6	VPC15-20[5][6][7]-6J[9]	—				ø1/4	VPC15-20[5][6][7]-1/4J[9]	—	
	ø20	6	ø3	VPC20-6[5][6][7]-3J[9]	—		ø20	6	ø1/8	VPC20-6[5][6][7]-1/8J[9]	—	
			ø4	VPC20-6[5][6][7]-4J[9][13]	○				ø5/32	VPC20-6[5][6][7]-5/32J[9][13]	○	
			ø6	VPC20-6[5][6][7]-6J[9][13]	○				ø1/4	VPC20-6[5][6][7]-1/4J[9]	—	
		10	ø3	VPC20-10[5][6][7]-3J[9]	—			10	ø1/8	VPC20-10[5][6][7]-1/8J[9]	—	
			ø4	VPC20-10[5][6][7]-4J[9]	—				ø5/32	VPC20-10[5][6][7]-5/32J[9]	—	
			ø6	VPC20-10[5][6][7]-6J[9]	—				ø1/4	VPC20-10[5][6][7]-1/4J[9]	—	
		15	ø3	VPC20-15[5][6][7]-3J[9]	—			15	ø1/8	VPC20-15[5][6][7]-1/8J[9]	—	
			ø4	VPC20-15[5][6][7]-4J[9]	—				ø5/32	VPC20-15[5][6][7]-5/32J[9]	—	
			ø6	VPC20-15[5][6][7]-6J[9]	—				ø1/4	VPC20-15[5][6][7]-1/4J[9]	—	
		20	ø3	VPC20-20[5][6][7]-3J[9]	—			20	ø1/8	VPC20-20[5][6][7]-1/8J[9]	—	
			ø4	VPC20-20[5][6][7]-4J[9]	—				ø5/32	VPC20-20[5][6][7]-5/32J[9]	—	
			ø6	VPC20-20[5][6][7]-6J[9]	—				ø1/4	VPC20-20[5][6][7]-1/4J[9]	—	
	ø25	6	ø3	VPC25-6[5][6][7]-3J[9]	—		ø25	6	ø1/8	VPC25-6[5][6][7]-1/8J[9]	—	
			ø4	VPC25-6[5][6][7]-4J[9][13]	○				ø5/32	VPC25-6[5][6][7]-5/32J[9][13]	○	
			ø6	VPC25-6[5][6][7]-6J[9][13]	○				ø1/4	VPC25-6[5][6][7]-1/4J[9]	—	
		10	ø3	VPC25-10[5][6][7]-3J[9]	—			10	ø1/8	VPC25-10[5][6][7]-1/8J[9]	—	
			ø4	VPC25-10[5][6][7]-4J[9]	—				ø5/32	VPC25-10[5][6][7]-5/32J[9]	—	
			ø6	VPC25-10[5][6][7]-6J[9]	—				ø1/4	VPC25-10[5][6][7]-1/4J[9]	—	
		15	ø3	VPC25-15[5][6][7]-3J[9]	—			15	ø1/8	VPC25-15[5][6][7]-1/8J[9]	—	
			ø4	VPC25-15[5][6][7]-4J[9]	—				ø5/32	VPC25-15[5][6][7]-5/32J[9]	—	
			ø6	VPC25-15[5][6][7]-6J[9]	—				ø1/4	VPC25-15[5][6][7]-1/4J[9]	—	
		20	ø3	VPC25-20[5][6][7]-3J[9]	—			20	ø1/8	VPC25-20[5][6][7]-1/8J[9]	—	
			ø4	VPC25-20[5][6][7]-4J[9]	—				ø5/32	VPC25-20[5][6][7]-5/32J[9]	—	
			ø6	VPC25-20[5][6][7]-6J[9]	—				ø1/4	VPC25-20[5][6][7]-1/4J[9]	—	
	ø30	6	ø3	VPC30-6[5][6][7]-3J[9]	—		ø30	6	ø1/8	VPC30-6[5][6][7]-1/8J[9]	—	
			ø4	VPC30-6[5][6][7]-4J[9][13]	○				ø5/32	VPC30-6[5][6][7]-5/32J[9][13]	○	
			ø6	VPC30-6[5][6][7]-6J[9][13]	○				ø1/4	VPC30-6[5][6][7]-1/4J[9]	—	
		10	ø3	VPC30-10[5][6][7]-3J[9]	—			10	ø1/8	VPC30-10[5][6][7]-1/8J[9]	—	
			ø4	VPC30-10[5][6][7]-4J[9]	—				ø5/32	VPC30-10[5][6][7]-5/32J[9]	—	
			ø6	VPC30-10[5][6][7]-6J[9]	—				ø1/4	VPC30-10[5][6][7]-1/4J[9]	—	
		15	ø3	VPC30-15[5][6][7]-3J[9]	—			15	ø1/8	VPC30-15[5][6][7]-1/8J[9]	—	
			ø4	VPC30-15[5][6][7]-4J[9]	—				ø5/32	VPC30-15[5][6][7]-5/32J[9]	—	
			ø6	VPC30-15[5][6][7]-6J[9]	—				ø1/4	VPC30-15[5][6][7]-1/4J[9]	—	
		20	ø3	VPC30-20[5][6][7]-3J[9]	—			20	ø1/8	VPC30-20[5][6][7]-1/8J[9]	—	
			ø4	VPC30-20[5][6][7]-4J[9]	—				ø5/32	VPC30-20[5][6][7]-5/32J[9]	—	
			ø6	VPC30-20[5][6][7]-6J[9]	—				ø1/4	VPC30-20[5][6][7]-1/4J[9]	—	

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Female thread, Standard VPC	ø10	6	M6×1	VPC10-6567-M6913	○	M4
		10		VPC10-10567-M69	—	
		15		VPC10-15567-M69	—	
		20		VPC10-20567-M69	—	
	ø15	6	M6×1	VPC15-6567-M6913	○	
		10		VPC15-10567-M69	—	
		15		VPC15-15567-M69	—	
		20		VPC15-20567-M69	—	
	ø20	6	M6×1	VPC20-6567-M6913	○	M6
		10		VPC20-10567-M69	—	
		15		VPC20-15567-M69	—	
		20		VPC20-20567-M69	—	
	ø25	6	M6×1	VPC25-6567-M6913	○	
		10		VPC25-10567-M69	—	
		15		VPC25-15567-M69	—	
		20		VPC25-20567-M69	—	
	ø30	6	M6×1	VPC30-6567-M6913	○	
		10		VPC30-10567-M69	—	
		15		VPC30-15567-M69	—	
		20		VPC30-20567-M69	—	

Notes

*1 Barb fitting type holders are also selectable. Contact us for the details.
*2 Large Suction Flow type is not available on Urethane rubber (U).

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options

7 : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
9 : -DC ⇒ Holder with dust catcher
13 : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1 For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2 For inch size push-in fitting, the release ring color is white even for "-S3 spec.

Optional items ⇒ P.640

Pad surface treatment for suction mark-free
Dust Catcher (VPC)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Flat Type/Flat Large Suction Flow Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, No cover **VPOC**	ø10	20	ø3	VPOC10-20[5][6][7]-3J	M4	ø10	20	ø1/8	VPOC10-20[5][6][7]-1/8J	M4
			ø4	VPOC10-20[5][6][7]-4J				ø5/32	VPOC10-20[5][6][7]-5/32J	
			ø6	VPOC10-20[5][6][7]-6J				ø1/4	VPOC10-20[5][6][7]-1/4J	
		30	ø3	VPOC10-30[5][6][7]-3J			30	ø1/8	VPOC10-30[5][6][7]-1/8J	
			ø4	VPOC10-30[5][6][7]-4J				ø5/32	VPOC10-30[5][6][7]-5/32J	
			ø6	VPOC10-30[5][6][7]-6J				ø1/4	VPOC10-30[5][6][7]-1/4J	
		40	ø3	VPOC10-40[5][6][7]-3J			40	ø1/8	VPOC10-40[5][6][7]-1/8J	
			ø4	VPOC10-40[5][6][7]-4J				ø5/32	VPOC10-40[5][6][7]-5/32J	
			ø6	VPOC10-40[5][6][7]-6J				ø1/4	VPOC10-40[5][6][7]-1/4J	
		50	ø3	VPOC10-50[5][6][7]-3J			50	ø1/8	VPOC10-50[5][6][7]-1/8J	
			ø4	VPOC10-50[5][6][7]-4J				ø5/32	VPOC10-50[5][6][7]-5/32J	
			ø6	VPOC10-50[5][6][7]-6J				ø1/4	VPOC10-50[5][6][7]-1/4J	
	ø15	20	ø3	VPOC15-20[5][6][7]-3J		ø15	20	ø1/8	VPOC15-20[5][6][7]-1/8J	
			ø4	VPOC15-20[5][6][7]-4J				ø5/32	VPOC15-20[5][6][7]-5/32J	
			ø6	VPOC15-20[5][6][7]-6J				ø1/4	VPOC15-20[5][6][7]-1/4J	
		30	ø3	VPOC15-30[5][6][7]-3J			30	ø1/8	VPOC15-30[5][6][7]-1/8J	
			ø4	VPOC15-30[5][6][7]-4J				ø5/32	VPOC15-30[5][6][7]-5/32J	
			ø6	VPOC15-30[5][6][7]-6J				ø1/4	VPOC15-30[5][6][7]-1/4J	
		40	ø3	VPOC15-40[5][6][7]-3J			40	ø1/8	VPOC15-40[5][6][7]-1/8J	
			ø4	VPOC15-40[5][6][7]-4J				ø5/32	VPOC15-40[5][6][7]-5/32J	
			ø6	VPOC15-40[5][6][7]-6J				ø1/4	VPOC15-40[5][6][7]-1/4J	
		50	ø3	VPOC15-50[5][6][7]-3J			50	ø1/8	VPOC15-50[5][6][7]-1/8J	
			ø4	VPOC15-50[5][6][7]-4J				ø5/32	VPOC15-50[5][6][7]-5/32J	
			ø6	VPOC15-50[5][6][7]-6J				ø1/4	VPOC15-50[5][6][7]-1/4J	
	ø20	20	ø3	VPOC20-20[5][6][7]-3J	M6	ø20	20	ø1/8	VPOC20-20[5][6][7]-1/8J	M6
			ø4	VPOC20-20[5][6][7]-4J				ø5/32	VPOC20-20[5][6][7]-5/32J	
			ø6	VPOC20-20[5][6][7]-6J				ø1/4	VPOC20-20[5][6][7]-1/4J	
		30	ø3	VPOC20-30[5][6][7]-3J			30	ø1/8	VPOC20-30[5][6][7]-1/8J	
			ø4	VPOC20-30[5][6][7]-4J				ø5/32	VPOC20-30[5][6][7]-5/32J	
			ø6	VPOC20-30[5][6][7]-6J				ø1/4	VPOC20-30[5][6][7]-1/4J	
		40	ø3	VPOC20-40[5][6][7]-3J			40	ø1/8	VPOC20-40[5][6][7]-1/8J	
			ø4	VPOC20-40[5][6][7]-4J				ø5/32	VPOC20-40[5][6][7]-5/32J	
			ø6	VPOC20-40[5][6][7]-6J				ø1/4	VPOC20-40[5][6][7]-1/4J	
		50	ø3	VPOC20-50[5][6][7]-3J			50	ø1/8	VPOC20-50[5][6][7]-1/8J	
			ø4	VPOC20-50[5][6][7]-4J				ø5/32	VPOC20-50[5][6][7]-5/32J	
			ø6	VPOC20-50[5][6][7]-6J				ø1/4	VPOC20-50[5][6][7]-1/4J	
	ø25	20	ø3	VPOC25-20[5][6][7]-3J		ø25	20	ø1/8	VPOC25-20[5][6][7]-1/8J	
			ø4	VPOC25-20[5][6][7]-4J				ø5/32	VPOC25-20[5][6][7]-5/32J	
			ø6	VPOC25-20[5][6][7]-6J				ø1/4	VPOC25-20[5][6][7]-1/4J	
		30	ø3	VPOC25-30[5][6][7]-3J			30	ø1/8	VPOC25-30[5][6][7]-1/8J	
			ø4	VPOC25-30[5][6][7]-4J				ø5/32	VPOC25-30[5][6][7]-5/32J	
			ø6	VPOC25-30[5][6][7]-6J				ø1/4	VPOC25-30[5][6][7]-1/4J	
		40	ø3	VPOC25-40[5][6][7]-3J			40	ø1/8	VPOC25-40[5][6][7]-1/8J	
			ø4	VPOC25-40[5][6][7]-4J				ø5/32	VPOC25-40[5][6][7]-5/32J	
			ø6	VPOC25-40[5][6][7]-6J				ø1/4	VPOC25-40[5][6][7]-1/4J	
		50	ø3	VPOC25-50[5][6][7]-3J			50	ø1/8	VPOC25-50[5][6][7]-1/8J	
			ø4	VPOC25-50[5][6][7]-4J				ø5/32	VPOC25-50[5][6][7]-5/32J	
			ø6	VPOC25-50[5][6][7]-6J				ø1/4	VPOC25-50[5][6][7]-1/4J	
	ø30	20	ø3	VPOC30-20[5][6][7]-3J		ø30	20	ø1/8	VPOC30-20[5][6][7]-1/8J	
			ø4	VPOC30-20[5][6][7]-4J				ø5/32	VPOC30-20[5][6][7]-5/32J	
			ø6	VPOC30-20[5][6][7]-6J				ø1/4	VPOC30-20[5][6][7]-1/4J	
		30	ø3	VPOC30-30[5][6][7]-3J			30	ø1/8	VPOC30-30[5][6][7]-1/8J	
			ø4	VPOC30-30[5][6][7]-4J				ø5/32	VPOC30-30[5][6][7]-5/32J	
			ø6	VPOC30-30[5][6][7]-6J				ø1/4	VPOC30-30[5][6][7]-1/4J	
		40	ø3	VPOC30-40[5][6][7]-3J			40	ø1/8	VPOC30-40[5][6][7]-1/8J	
			ø4	VPOC30-40[5][6][7]-4J				ø5/32	VPOC30-40[5][6][7]-5/32J	
			ø6	VPOC30-40[5][6][7]-6J				ø1/4	VPOC30-40[5][6][7]-1/4J	
		50	ø3	VPOC30-50[5][6][7]-3J			50	ø1/8	VPOC30-50[5][6][7]-1/8J	
			ø4	VPOC30-50[5][6][7]-4J				ø5/32	VPOC30-50[5][6][7]-5/32J	
			ø6	VPOC30-50[5][6][7]-6J				ø1/4	VPOC30-50[5][6][7]-1/4J	

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Top port, Female thread, No cover VPOC	ø10	20	M6×1	VPOC10-20[5][6][7]-M6	M4
		30		VPOC10-30[5][6][7]-M6	
		40		VPOC10-40[5][6][7]-M6	
		50		VPOC10-50[5][6][7]-M6	
	ø15	20	M6×1	VPOC15-20[5][6][7]-M6	
		30		VPOC15-30[5][6][7]-M6	
		40		VPOC15-40[5][6][7]-M6	
		50		VPOC15-50[5][6][7]-M6	
	ø20	20	M6×1	VPOC20-20[5][6][7]-M6	M6
		30		VPOC20-30[5][6][7]-M6	
		40		VPOC20-40[5][6][7]-M6	
		50		VPOC20-50[5][6][7]-M6	
	ø25	20	M6×1	VPOC25-20[5][6][7]-M6	
		30		VPOC25-30[5][6][7]-M6	
		40		VPOC25-40[5][6][7]-M6	
		50		VPOC25-50[5][6][7]-M6	
	ø30	20	M6×1	VPOC30-20[5][6][7]-M6	
		30		VPOC30-30[5][6][7]-M6	
		40		VPOC30-40[5][6][7]-M6	
		50		VPOC30-50[5][6][7]-M6	

Notes
*1 Barb fitting type holders are also selectable. Contact us for the details.
*2 Large Suction Flow type is not available on Urethane rubber (U).

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
[7] : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.640

Pad surface treatment for suction mark-free

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

Vacuum Pad Flat Type/Flat Large Suction Flow Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, Low dust emission **VPLFC**	ø10	2	ø3	VPLFC10-2[5][6][7]-3J	M4	ø10	2	ø1/8	VPLFC10-2[5][6][7]-1/8J	M4
			ø4	VPLFC10-2[5][6][7]-4J				ø5/32	VPLFC10-2[5][6][7]-5/32J	
		5	ø3	VPLFC10-5[5][6][7]-3J[9]			5	ø1/8	VPLFC10-5[5][6][7]-1/8J[9]	
			ø4	VPLFC10-5[5][6][7]-4J[9]				ø5/32	VPLFC10-5[5][6][7]-5/32J[9]	
		10	ø3	VPLFC10-10[5][6][7]-3J[9]			10	ø1/8	VPLFC10-10[5][6][7]-1/8J[9]	
			ø4	VPLFC10-10[5][6][7]-4J[9]				ø5/32	VPLFC10-10[5][6][7]-5/32J[9]	
		15	ø3	VPLFC10-15[5][6][7]-3J[9]			15	ø1/8	VPLFC10-15[5][6][7]-1/8J[9]	
			ø4	VPLFC10-15[5][6][7]-4J[9]				ø5/32	VPLFC10-15[5][6][7]-5/32J[9]	
		20	ø3	VPLFC10-20[5][6][7]-3J[9]			20	ø1/8	VPLFC10-20[5][6][7]-1/8J[9]	
			ø4	VPLFC10-20[5][6][7]-4J[9]				ø5/32	VPLFC10-20[5][6][7]-5/32J[9]	
	ø15	2	ø3	VPLFC15-2[5][6][7]-3J		ø15	2	ø1/8	VPLFC15-2[5][6][7]-1/8J	
			ø4	VPLFC15-2[5][6][7]-4J				ø5/32	VPLFC15-2[5][6][7]-5/32J	
		5	ø3	VPLFC15-5[5][6][7]-3J[9]			5	ø1/8	VPLFC15-5[5][6][7]-1/8J[9]	
			ø4	VPLFC15-5[5][6][7]-4J[9]				ø5/32	VPLFC15-5[5][6][7]-5/32J[9]	
		10	ø3	VPLFC15-10[5][6][7]-3J[9]			10	ø1/8	VPLFC15-10[5][6][7]-1/8J[9]	
			ø4	VPLFC15-10[5][6][7]-4J[9]				ø5/32	VPLFC15-10[5][6][7]-5/32J[9]	
		15	ø3	VPLFC15-15[5][6][7]-3J[9]			15	ø1/8	VPLFC15-15[5][6][7]-1/8J[9]	
			ø4	VPLFC15-15[5][6][7]-4J[9]				ø5/32	VPLFC15-15[5][6][7]-5/32J[9]	
		20	ø3	VPLFC15-20[5][6][7]-3J[9]			20	ø1/8	VPLFC15-20[5][6][7]-1/8J[9]	
			ø4	VPLFC15-20[5][6][7]-4J[9]				ø5/32	VPLFC15-20[5][6][7]-5/32J[9]	
	ø20	5	ø3	VPLFC20-5[5][6][7]-3J[9]		ø20	5	ø1/8	VPLFC20-5[5][6][7]-1/8J[9]	
			ø4	VPLFC20-5[5][6][7]-4J[9]				ø5/32	VPLFC20-5[5][6][7]-5/32J[9]	
			ø6	VPLFC20-5[5][6][7]-6J[9]				ø1/4	VPLFC20-5[5][6][7]-1/4J[9]	
		10	ø3	VPLFC20-10[5][6][7]-3J[9]			10	ø1/8	VPLFC20-10[5][6][7]-1/8J[9]	
			ø4	VPLFC20-10[5][6][7]-4J[9]				ø5/32	VPLFC20-10[5][6][7]-5/32J[9]	
			ø6	VPLFC20-10[5][6][7]-6J[9]				ø1/4	VPLFC20-10[5][6][7]-1/4J[9]	
		15	ø3	VPLFC20-15[5][6][7]-3J[9]			15	ø1/8	VPLFC20-15[5][6][7]-1/8J[9]	
			ø4	VPLFC20-15[5][6][7]-4J[9]				ø5/32	VPLFC20-15[5][6][7]-5/32J[9]	
			ø6	VPLFC20-15[5][6][7]-6J[9]				ø1/4	VPLFC20-15[5][6][7]-1/4J[9]	
		20	ø3	VPLFC20-20[5][6][7]-3J[9]			20	ø1/8	VPLFC20-20[5][6][7]-1/8J[9]	
			ø4	VPLFC20-20[5][6][7]-4J[9]				ø5/32	VPLFC20-20[5][6][7]-5/32J[9]	
			ø6	VPLFC20-20[5][6][7]-6J[9]				ø1/4	VPLFC20-20[5][6][7]-1/4J[9]	
	ø25	5	ø3	VPLFC25-5[5][6][7]-3J[9]		ø25	5	ø1/8	VPLFC25-5[5][6][7]-1/8J[9]	
			ø4	VPLFC25-5[5][6][7]-4J[9]				ø5/32	VPLFC25-5[5][6][7]-5/32J[9]	
			ø6	VPLFC25-5[5][6][7]-6J[9]				ø1/4	VPLFC25-5[5][6][7]-1/4J[9]	
		10	ø3	VPLFC25-10[5][6][7]-3J[9]			10	ø1/8	VPLFC25-10[5][6][7]-1/8J[9]	
			ø4	VPLFC25-10[5][6][7]-4J[9]				ø5/32	VPLFC25-10[5][6][7]-5/32J[9]	
			ø6	VPLFC25-10[5][6][7]-6J[9]	M6			ø1/4	VPLFC25-10[5][6][7]-1/4J[9]	M6
		15	ø3	VPLFC25-15[5][6][7]-3J[9]			15	ø1/8	VPLFC25-15[5][6][7]-1/8J[9]	
			ø4	VPLFC25-15[5][6][7]-4J[9]				ø5/32	VPLFC25-15[5][6][7]-5/32J[9]	
			ø6	VPLFC25-15[5][6][7]-6J[9]				ø1/4	VPLFC25-15[5][6][7]-1/4J[9]	
		20	ø3	VPLFC25-20[5][6][7]-3J[9]			20	ø1/8	VPLFC25-20[5][6][7]-1/8J[9]	
			ø4	VPLFC25-20[5][6][7]-4J[9]				ø5/32	VPLFC25-20[5][6][7]-5/32J[9]	
			ø6	VPLFC25-20[5][6][7]-6J[9]				ø1/4	VPLFC25-20[5][6][7]-1/4J[9]	
	ø30	5	ø3	VPLFC30-5[5][6][7]-3J[9]		ø30	5	ø1/8	VPLFC30-5[5][6][7]-1/8J[9]	
			ø4	VPLFC30-5[5][6][7]-4J[9]				ø5/32	VPLFC30-5[5][6][7]-5/32J[9]	
			ø6	VPLFC30-5[5][6][7]-6J[9]				ø1/4	VPLFC30-5[5][6][7]-1/4J[9]	
		10	ø3	VPLFC30-10[5][6][7]-3J[9]			10	ø1/8	VPLFC30-10[5][6][7]-1/8J[9]	
			ø4	VPLFC30-10[5][6][7]-4J[9]				ø5/32	VPLFC30-10[5][6][7]-5/32J[9]	
			ø6	VPLFC30-10[5][6][7]-6J[9]				ø1/4	VPLFC30-10[5][6][7]-1/4J[9]	
		15	ø3	VPLFC30-15[5][6][7]-3J[9]			15	ø1/8	VPLFC30-15[5][6][7]-1/8J[9]	
			ø4	VPLFC30-15[5][6][7]-4J[9]				ø5/32	VPLFC30-15[5][6][7]-5/32J[9]	
			ø6	VPLFC30-15[5][6][7]-6J[9]				ø1/4	VPLFC30-15[5][6][7]-1/4J[9]	
		20	ø3	VPLFC30-20[5][6][7]-3J[9]			20	ø1/8	VPLFC30-20[5][6][7]-1/8J[9]	
			ø4	VPLFC30-20[5][6][7]-4J[9]				ø5/32	VPLFC30-20[5][6][7]-5/32J[9]	
			ø6	VPLFC30-20[5][6][7]-6J[9]				ø1/4	VPLFC30-20[5][6][7]-1/4J[9]	

Notes
*1 Barb fitting type holders are also selectable. Contact us for the details.
*2 Large Suction Flow type is not available on Urethane rubber (U).

Packaging specifications
1 pc. /bag

Options
[7] : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
[9] : -SF1/4 ⇒ Spring load 1/4

Optional items ⇒ P.640

Pad surface treatment for suction mark-free

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Top port, Female thread, Low dust emission **VPLFC**	ø10	2	M5×0.8	VPLFC10-2[5][6][7]-M5	M4
		5	M5×0.8	VPLFC10-5[5][6][7]-M5[9]	
		10	M5×0.8	VPLFC10-10[5][6][7]-M5[9]	
		15	M5×0.8	VPLFC10-15[5][6][7]-M5[9]	
		20	M5×0.8	VPLFC10-20[5][6][7]-M5[9]	
	ø15	2	M5×0.8	VPLFC15-2[5][6][7]-M5	
		5	M5×0.8	VPLFC15-5[5][6][7]-M5[9]	
		10	M5×0.8	VPLFC15-10[5][6][7]-M5[9]	
		15	M5×0.8	VPLFC15-15[5][6][7]-M5[9]	
		20	M5×0.8	VPLFC15-20[5][6][7]-M5[9]	
	ø20	5	M6×1	VPLFC20-5[5][6][7]-M6[9]	M6
		10	M6×1	VPLFC20-10[5][6][7]-M6[9]	
		15	M6×1	VPLFC20-15[5][6][7]-M6[9]	
		20	M6×1	VPLFC20-20[5][6][7]-M6[9]	
	ø25	5	M6×1	VPLFC25-5[5][6][7]-M6[9]	
		10	M6×1	VPLFC25-10[5][6][7]-M6[9]	
		15	M6×1	VPLFC25-15[5][6][7]-M6[9]	
		20	M6×1	VPLFC25-20[5][6][7]-M6[9]	
	ø30	5	M6×1	VPLFC30-5[5][6][7]-M6[9]	
		10	M6×1	VPLFC30-10[5][6][7]-M6[9]	
		15	M6×1	VPLFC30-15[5][6][7]-M6[9]	
		20	M6×1	VPLFC30-20[5][6][7]-M6[9]	

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	[13] -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	[13] -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Mini **VPMD** Stroke 4mm	ø10	ø3	VPMD10-4[5][6][7]-3J	—	M4	ø10	ø1/8	VPMD10-4[5][6][7]-1/8J	—	M4
		ø4	VPMD10-4[5][6][7]-4J[13]	○			ø5/32	VPMD10-4[5][6][7]-5/32J[13]	○	
		ø6	VPMD10-4[5][6][7]-6J[13]	○			ø1/4	VPMD10-4[5][6][7]-1/4J	—	
	ø15	ø3	VPMD15-4[5][6][7]-3J	—		ø15	ø1/8	VPMD15-4[5][6][7]-1/8J	—	
		ø4	VPMD15-4[5][6][7]-4J[13]	○			ø5/32	VPMD15-4[5][6][7]-5/32J[13]	○	
		ø6	VPMD15-4[5][6][7]-6J[13]	○			ø1/4	VPMD15-4[5][6][7]-1/4J	—	
	ø20	ø3	VPMD20-4[5][6][7]-3J	—	M6	ø20	ø1/8	VPMD20-4[5][6][7]-1/8J	—	M6
		ø4	VPMD20-4[5][6][7]-4J[13]	○			ø5/32	VPMD20-4[5][6][7]-5/32J[13]	○	
		ø6	VPMD20-4[5][6][7]-6J[13]	○			ø1/4	VPMD20-4[5][6][7]-1/4J	—	
	ø25	ø3	VPMD25-4[5][6][7]-3J	—		ø25	ø1/8	VPMD25-4[5][6][7]-1/8J	—	
		ø4	VPMD25-4[5][6][7]-4J[13]	○			ø5/32	VPMD25-4[5][6][7]-5/32J[13]	○	
		ø6	VPMD25-4[5][6][7]-6J[13]	○			ø1/4	VPMD25-4[5][6][7]-1/4J	—	
	ø30	ø3	VPMD30-4[5][6][7]-3J	—		ø30	ø1/8	VPMD30-4[5][6][7]-1/8J	—	
		ø4	VPMD30-4[5][6][7]-4J[13]	○			ø5/32	VPMD30-4[5][6][7]-5/32J[13]	○	
		ø6	VPMD30-4[5][6][7]-6J[13]	○			ø1/4	VPMD30-4[5][6][7]-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	[13] -S3 -S3 spec.	Connection config. code
Spring type, Side port, Female thread, Mini **VPMD** Stroke 4mm	ø10	M5×0.8	VPMD10-4[5][6][7]-M5[13]	○	M4
	ø15	M5×0.8	VPMD15-4[5][6][7]-M5[13]	○	
	ø20	M5×0.8	VPMD20-4[5][6][7]-M5[13]	○	M6
	ø25	M5×0.8	VPMD25-4[5][6][7]-M5[13]	○	
	ø30	M5×0.8	VPMD30-4[5][6][7]-M5[13]	○	

Notes
*1 Barb fitting type holders are also selectable. VPMD holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm. Contact us for the details.
*2 Large Suction Flow type is not available on Urethane rubber (U).

Options
[7] : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
[9] : -SF1/4 ⇒ Spring load 1/4
[13] : -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1 For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2 For inch size push-in fitting, the release ring color is white even for "-S3 spec."

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Vacuum Pad Flat Type/Flat Large Suction Flow Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	[13] -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	[13] -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Standard VPD	ø10	6	ø3	VPD10-6[5][6][7]-3J[9]	—	M4	ø10	6	ø1/8	VPD10-6[5][6][7]-1/8J[9]	—	M4
			ø4	VPD10-6[5][6][7]-4J[9][13]	○				ø5/32	VPD10-6[5][6][7]-5/32J[9][13]	○	
			ø6	VPD10-6[5][6][7]-6J[9][13]	○				ø1/4	VPD10-6[5][6][7]-1/4J[9]	—	
		10	ø3	VPD10-10[5][6][7]-3J[9]	—			10	ø1/8	VPD10-10[5][6][7]-1/8J[9]	—	
			ø4	VPD10-10[5][6][7]-4J[9]	—				ø5/32	VPD10-10[5][6][7]-5/32J[9]	—	
			ø6	VPD10-10[5][6][7]-6J[9]	—				ø1/4	VPD10-10[5][6][7]-1/4J[9]	—	
		15	ø3	VPD10-15[5][6][7]-3J[9]	—			15	ø1/8	VPD10-15[5][6][7]-1/8J[9]	—	
			ø4	VPD10-15[5][6][7]-4J[9]	—				ø5/32	VPD10-15[5][6][7]-5/32J[9]	—	
			ø6	VPD10-15[5][6][7]-6J[9]	—				ø1/4	VPD10-15[5][6][7]-1/4J[9]	—	
		20	ø3	VPD10-20[5][6][7]-3J[9]	—			20	ø1/8	VPD10-20[5][6][7]-1/8J[9]	—	
			ø4	VPD10-20[5][6][7]-4J[9]	—				ø5/32	VPD10-20[5][6][7]-5/32J[9]	—	
			ø6	VPD10-20[5][6][7]-6J[9]	—				ø1/4	VPD10-20[5][6][7]-1/4J[9]	—	
	ø15	6	ø3	VPD15-6[5][6][7]-3J[9]	—		ø15	6	ø1/8	VPD15-6[5][6][7]-1/8J[9]	—	
			ø4	VPD15-6[5][6][7]-4J[9][13]	○				ø5/32	VPD15-6[5][6][7]-5/32J[9][13]	○	
			ø6	VPD15-6[5][6][7]-6J[9][13]	○				ø1/4	VPD15-6[5][6][7]-1/4J[9]	—	
		10	ø3	VPD15-10[5][6][7]-3J[9]	—			10	ø1/8	VPD15-10[5][6][7]-1/8J[9]	—	
			ø4	VPD15-10[5][6][7]-4J[9]	—				ø5/32	VPD15-10[5][6][7]-5/32J[9]	—	
			ø6	VPD15-10[5][6][7]-6J[9]	—				ø1/4	VPD15-10[5][6][7]-1/4J[9]	—	
		15	ø3	VPD15-15[5][6][7]-3J[9]	—			15	ø1/8	VPD15-15[5][6][7]-1/8J[9]	—	
			ø4	VPD15-15[5][6][7]-4J[9]	—				ø5/32	VPD15-15[5][6][7]-5/32J[9]	—	
			ø6	VPD15-15[5][6][7]-6J[9]	—				ø1/4	VPD15-15[5][6][7]-1/4J[9]	—	
		20	ø3	VPD15-20[5][6][7]-3J[9]	—			20	ø1/8	VPD15-20[5][6][7]-1/8J[9]	—	
			ø4	VPD15-20[5][6][7]-4J[9]	—				ø5/32	VPD15-20[5][6][7]-5/32J[9]	—	
			ø6	VPD15-20[5][6][7]-6J[9]	—				ø1/4	VPD15-20[5][6][7]-1/4J[9]	—	
	ø20	6	ø3	VPD20-6[5][6][7]-3J[9]	—		ø20	6	ø1/8	VPD20-6[5][6][7]-1/8J[9]	—	
			ø4	VPD20-6[5][6][7]-4J[9][13]	○				ø5/32	VPD20-6[5][6][7]-5/32J[9][13]	○	
			ø6	VPD20-6[5][6][7]-6J[9][13]	○				ø1/4	VPD20-6[5][6][7]-1/4J[9]	—	
		10	ø3	VPD20-10[5][6][7]-3J[9]	—			10	ø1/8	VPD20-10[5][6][7]-1/8J[9]	—	
			ø4	VPD20-10[5][6][7]-4J[9]	—				ø5/32	VPD20-10[5][6][7]-5/32J[9]	—	
			ø6	VPD20-10[5][6][7]-6J[9]	—				ø1/4	VPD20-10[5][6][7]-1/4J[9]	—	
		15	ø3	VPD20-15[5][6][7]-3J[9]	—			15	ø1/8	VPD20-15[5][6][7]-1/8J[9]	—	
			ø4	VPD20-15[5][6][7]-4J[9]	—				ø5/32	VPD20-15[5][6][7]-5/32J[9]	—	
			ø6	VPD20-15[5][6][7]-6J[9]	—				ø1/4	VPD20-15[5][6][7]-1/4J[9]	—	
		20	ø3	VPD20-20[5][6][7]-3J[9]	—			20	ø1/8	VPD20-20[5][6][7]-1/8J[9]	—	
			ø4	VPD20-20[5][6][7]-4J[9]	—				ø5/32	VPD20-20[5][6][7]-5/32J[9]	—	
			ø6	VPD20-20[5][6][7]-6J[9]	—				ø1/4	VPD20-20[5][6][7]-1/4J[9]	—	
	ø25	6	ø3	VPD25-6[5][6][7]-3J[9]	—		ø25	6	ø1/8	VPD25-6[5][6][7]-1/8J[9]	—	
			ø4	VPD25-6[5][6][7]-4J[9][13]	○				ø5/32	VPD25-6[5][6][7]-5/32J[9][13]	○	
			ø6	VPD25-6[5][6][7]-6J[9][13]	○				ø1/4	VPD25-6[5][6][7]-1/4J[9]	—	
		10	ø3	VPD25-10[5][6][7]-3J[9]	—			10	ø1/8	VPD25-10[5][6][7]-1/8J[9]	—	
			ø4	VPD25-10[5][6][7]-4J[9]	—				ø5/32	VPD25-10[5][6][7]-5/32J[9]	—	
			ø6	VPD25-10[5][6][7]-6J[9]	—				ø1/4	VPD25-10[5][6][7]-1/4J[9]	—	
		15	ø3	VPD25-15[5][6][7]-3J[9]	—			15	ø1/8	VPD25-15[5][6][7]-1/8J[9]	—	
			ø4	VPD25-15[5][6][7]-4J[9]	—				ø5/32	VPD25-15[5][6][7]-5/32J[9]	—	
			ø6	VPD25-15[5][6][7]-6J[9]	—				ø1/4	VPD25-15[5][6][7]-1/4J[9]	—	
		20	ø3	VPD25-20[5][6][7]-3J[9]	—			20	ø1/8	VPD25-20[5][6][7]-1/8J[9]	—	
			ø4	VPD25-20[5][6][7]-4J[9]	—				ø5/32	VPD25-20[5][6][7]-5/32J[9]	—	
			ø6	VPD25-20[5][6][7]-6J[9]	—				ø1/4	VPD25-20[5][6][7]-1/4J[9]	—	
	ø30	6	ø3	VPD30-6[5][6][7]-3J[9]	—		ø30	6	ø1/8	VPD30-6[5][6][7]-1/8J[9]	—	
			ø4	VPD30-6[5][6][7]-4J[9][13]	○				ø5/32	VPD30-6[5][6][7]-5/32J[9][13]	○	
			ø6	VPD30-6[5][6][7]-6J[9][13]	○				ø1/4	VPD30-6[5][6][7]-1/4J[9]	—	
		10	ø3	VPD30-10[5][6][7]-3J[9]	—			10	ø1/8	VPD30-10[5][6][7]-1/8J[9]	—	
			ø4	VPD30-10[5][6][7]-4J[9]	—				ø5/32	VPD30-10[5][6][7]-5/32J[9]	—	
			ø6	VPD30-10[5][6][7]-6J[9]	—				ø1/4	VPD30-10[5][6][7]-1/4J[9]	—	
		15	ø3	VPD30-15[5][6][7]-3J[9]	—			15	ø1/8	VPD30-15[5][6][7]-1/8J[9]	—	
			ø4	VPD30-15[5][6][7]-4J[9]	—				ø5/32	VPD30-15[5][6][7]-5/32J[9]	—	
			ø6	VPD30-15[5][6][7]-6J[9]	—				ø1/4	VPD30-15[5][6][7]-1/4J[9]	—	
		20	ø3	VPD30-20[5][6][7]-3J[9]	—			20	ø1/8	VPD30-20[5][6][7]-1/8J[9]	—	
			ø4	VPD30-20[5][6][7]-4J[9]	—				ø5/32	VPD30-20[5][6][7]-5/32J[9]	—	
			ø6	VPD30-20[5][6][7]-6J[9]	—				ø1/4	VPD30-20[5][6][7]-1/4J[9]	—	

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Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Female thread, Standard VPD	ø10	6	M6×1	VPD10-6567-M6913	○	M4
		10		VPD10-10567-M69	—	
		15		VPD10-15567-M69	—	
		20		VPD10-20567-M69	—	
	ø15	6	M6×1	VPD15-6567-M6913	○	
		10		VPD15-10567-M69	—	
		15		VPD15-15567-M69	—	
		20		VPD15-20567-M69	—	
	ø20	6	M6×1	VPD20-6567-M6913	○	M6
		10		VPD20-10567-M69	—	
		15		VPD20-15567-M69	—	
		20		VPD20-20567-M69	—	
	ø25	6	M6×1	VPD25-6567-M6913	○	
		10		VPD25-10567-M69	—	
		15		VPD25-15567-M69	—	
		20		VPD25-20567-M69	—	
	ø30	6	M6×1	VPD30-6567-M6913	○	
		10		VPD30-10567-M69	—	
		15		VPD30-15567-M69	—	
		20		VPD30-20567-M69	—	

Notes
*1 Barb fitting type holders are also selectable. Contact us for the details.
*2 Large Suction Flow type is not available on Urethane rubber (U).

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
7 : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
9 : -DC ⇒ Holder with dust catcher
13 : -S3 ⇒ -S3 spec (○ in the lists: Available).
*1 For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2 For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.640
Pad surface treatment for suction mark-free
Dust Catcher (VPD)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Flat Type/Flat Large Suction Flow Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, No cover VPOD 	ø10	20	ø3	VPOD10-20[5][6][7]-3J		ø10	20	ø1/8	VPOD10-20[5][6][7]-1/8J	
			ø4	VPOD10-20[5][6][7]-4J				ø5/32	VPOD10-20[5][6][7]-5/32J	
			ø6	VPOD10-20[5][6][7]-6J				ø1/4	VPOD10-20[5][6][7]-1/4J	
		30	ø3	VPOD10-30[5][6][7]-3J			30	ø1/8	VPOD10-30[5][6][7]-1/8J	
			ø4	VPOD10-30[5][6][7]-4J				ø5/32	VPOD10-30[5][6][7]-5/32J	
			ø6	VPOD10-30[5][6][7]-6J				ø1/4	VPOD10-30[5][6][7]-1/4J	
		40	ø3	VPOD10-40[5][6][7]-3J			40	ø1/8	VPOD10-40[5][6][7]-1/8J	
			ø4	VPOD10-40[5][6][7]-4J				ø5/32	VPOD10-40[5][6][7]-5/32J	
			ø6	VPOD10-40[5][6][7]-6J				ø1/4	VPOD10-40[5][6][7]-1/4J	
		50	ø3	VPOD10-50[5][6][7]-3J			50	ø1/8	VPOD10-50[5][6][7]-1/8J	
			ø4	VPOD10-50[5][6][7]-4J				ø5/32	VPOD10-50[5][6][7]-5/32J	
			ø6	VPOD10-50[5][6][7]-6J	M4			ø1/4	VPOD10-50[5][6][7]-1/4J	M4
	ø15	20	ø3	VPOD15-20[5][6][7]-3J		ø15	20	ø1/8	VPOD15-20[5][6][7]-1/8J	
			ø4	VPOD15-20[5][6][7]-4J				ø5/32	VPOD15-20[5][6][7]-5/32J	
			ø6	VPOD15-20[5][6][7]-6J				ø1/4	VPOD15-20[5][6][7]-1/4J	
		30	ø3	VPOD15-30[5][6][7]-3J			30	ø1/8	VPOD15-30[5][6][7]-1/8J	
			ø4	VPOD15-30[5][6][7]-4J				ø5/32	VPOD15-30[5][6][7]-5/32J	
			ø6	VPOD15-30[5][6][7]-6J				ø1/4	VPOD15-30[5][6][7]-1/4J	
		40	ø3	VPOD15-40[5][6][7]-3J			40	ø1/8	VPOD15-40[5][6][7]-1/8J	
			ø4	VPOD15-40[5][6][7]-4J				ø5/32	VPOD15-40[5][6][7]-5/32J	
			ø6	VPOD15-40[5][6][7]-6J				ø1/4	VPOD15-40[5][6][7]-1/4J	
		50	ø3	VPOD15-50[5][6][7]-3J			50	ø1/8	VPOD15-50[5][6][7]-1/8J	
			ø4	VPOD15-50[5][6][7]-4J				ø5/32	VPOD15-50[5][6][7]-5/32J	
			ø6	VPOD15-50[5][6][7]-6J				ø1/4	VPOD15-50[5][6][7]-1/4J	
	ø20	20	ø3	VPOD20-20[5][6][7]-3J		ø20	20	ø1/8	VPOD20-20[5][6][7]-1/8J	
			ø4	VPOD20-20[5][6][7]-4J				ø5/32	VPOD20-20[5][6][7]-5/32J	
			ø6	VPOD20-20[5][6][7]-6J				ø1/4	VPOD20-20[5][6][7]-1/4J	
		30	ø3	VPOD20-30[5][6][7]-3J			30	ø1/8	VPOD20-30[5][6][7]-1/8J	
			ø4	VPOD20-30[5][6][7]-4J				ø5/32	VPOD20-30[5][6][7]-5/32J	
			ø6	VPOD20-30[5][6][7]-6J				ø1/4	VPOD20-30[5][6][7]-1/4J	
		40	ø3	VPOD20-40[5][6][7]-3J			40	ø1/8	VPOD20-40[5][6][7]-1/8J	
			ø4	VPOD20-40[5][6][7]-4J				ø5/32	VPOD20-40[5][6][7]-5/32J	
			ø6	VPOD20-40[5][6][7]-6J				ø1/4	VPOD20-40[5][6][7]-1/4J	
		50	ø3	VPOD20-50[5][6][7]-3J			50	ø1/8	VPOD20-50[5][6][7]-1/8J	
			ø4	VPOD20-50[5][6][7]-4J				ø5/32	VPOD20-50[5][6][7]-5/32J	
			ø6	VPOD20-50[5][6][7]-6J				ø1/4	VPOD20-50[5][6][7]-1/4J	
	ø25	20	ø3	VPOD25-20[5][6][7]-3J		ø25	20	ø1/8	VPOD25-20[5][6][7]-1/8J	
			ø4	VPOD25-20[5][6][7]-4J				ø5/32	VPOD25-20[5][6][7]-5/32J	
			ø6	VPOD25-20[5][6][7]-6J				ø1/4	VPOD25-20[5][6][7]-1/4J	
		30	ø3	VPOD25-30[5][6][7]-3J			30	ø1/8	VPOD25-30[5][6][7]-1/8J	
			ø4	VPOD25-30[5][6][7]-4J				ø5/32	VPOD25-30[5][6][7]-5/32J	
			ø6	VPOD25-30[5][6][7]-6J				ø1/4	VPOD25-30[5][6][7]-1/4J	
		40	ø3	VPOD25-40[5][6][7]-3J	M6		40	ø1/8	VPOD25-40[5][6][7]-1/8J	M6
			ø4	VPOD25-40[5][6][7]-4J				ø5/32	VPOD25-40[5][6][7]-5/32J	
			ø6	VPOD25-40[5][6][7]-6J				ø1/4	VPOD25-40[5][6][7]-1/4J	
		50	ø3	VPOD25-50[5][6][7]-3J			50	ø1/8	VPOD25-50[5][6][7]-1/8J	
			ø4	VPOD25-50[5][6][7]-4J				ø5/32	VPOD25-50[5][6][7]-5/32J	
			ø6	VPOD25-50[5][6][7]-6J				ø1/4	VPOD25-50[5][6][7]-1/4J	
	ø30	20	ø3	VPOD30-20[5][6][7]-3J		ø30	20	ø1/8	VPOD30-20[5][6][7]-1/8J	
			ø4	VPOD30-20[5][6][7]-4J				ø5/32	VPOD30-20[5][6][7]-5/32J	
			ø6	VPOD30-20[5][6][7]-6J				ø1/4	VPOD30-20[5][6][7]-1/4J	
		30	ø3	VPOD30-30[5][6][7]-3J			30	ø1/8	VPOD30-30[5][6][7]-1/8J	
			ø4	VPOD30-30[5][6][7]-4J				ø5/32	VPOD30-30[5][6][7]-5/32J	
			ø6	VPOD30-30[5][6][7]-6J				ø1/4	VPOD30-30[5][6][7]-1/4J	
		40	ø3	VPOD30-40[5][6][7]-3J			40	ø1/8	VPOD30-40[5][6][7]-1/8J	
			ø4	VPOD30-40[5][6][7]-4J				ø5/32	VPOD30-40[5][6][7]-5/32J	
			ø6	VPOD30-40[5][6][7]-6J				ø1/4	VPOD30-40[5][6][7]-1/4J	
		50	ø3	VPOD30-50[5][6][7]-3J			50	ø1/8	VPOD30-50[5][6][7]-1/8J	
			ø4	VPOD30-50[5][6][7]-4J				ø5/32	VPOD30-50[5][6][7]-5/32J	
			ø6	VPOD30-50[5][6][7]-6J				ø1/4	VPOD30-50[5][6][7]-1/4J	

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Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Side port, Female thread, No cover VPOD	ø10	20	M6×1	VPOD10-20[5][6][7]-M6	M4
		30		VPOD10-30[5][6][7]-M6	
		40		VPOD10-40[5][6][7]-M6	
		50		VPOD10-50[5][6][7]-M6	
	ø15	20	M6×1	VPOD15-20[5][6][7]-M6	
		30		VPOD15-30[5][6][7]-M6	
		40		VPOD15-40[5][6][7]-M6	
		50		VPOD15-50[5][6][7]-M6	
	ø20	20	M6×1	VPOD20-20[5][6][7]-M6	M6
		30		VPOD20-30[5][6][7]-M6	
		40		VPOD20-40[5][6][7]-M6	
		50		VPOD20-50[5][6][7]-M6	
	ø25	20	M6×1	VPOD25-20[5][6][7]-M6	
		30		VPOD25-30[5][6][7]-M6	
		40		VPOD25-40[5][6][7]-M6	
		50		VPOD25-50[5][6][7]-M6	
	ø30	20	M6×1	VPOD30-20[5][6][7]-M6	
		30		VPOD30-30[5][6][7]-M6	
		40		VPOD30-40[5][6][7]-M6	
		50		VPOD30-50[5][6][7]-M6	

Notes
*1 Barb fitting type holders are also selectable. Contact us for the details.
*2 Large Suction Flow type is not available on Urethane rubber (U).

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
[7] : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.640

Pad surface treatment for suction mark-free

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

Vacuum Pad Flat Type/Flat Large Suction Flow Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, Low dust emission **VPLFD**	ø10	5	ø3	VPLFD10-5[5][6][7]-3J	M4	ø10	5	ø1/8	VPLFD10-5[5][6][7]-1/8J	M4
			ø4	VPLFD10-5[5][6][7]-4J				ø5/32	VPLFD10-5[5][6][7]-5/32J	
		10	ø3	VPLFD10-10[5][6][7]-3J			10	ø1/8	VPLFD10-10[5][6][7]-1/8J	
			ø4	VPLFD10-10[5][6][7]-4J				ø5/32	VPLFD10-10[5][6][7]-5/32J	
		15	ø3	VPLFD10-15[5][6][7]-3J			15	ø1/8	VPLFD10-15[5][6][7]-1/8J	
			ø4	VPLFD10-15[5][6][7]-4J				ø5/32	VPLFD10-15[5][6][7]-5/32J	
		20	ø3	VPLFD10-20[5][6][7]-3J			20	ø1/8	VPLFD10-20[5][6][7]-1/8J	
			ø4	VPLFD10-20[5][6][7]-4J				ø5/32	VPLFD10-20[5][6][7]-5/32J	
	ø15	5	ø3	VPLFD15-5[5][6][7]-3J		ø15	5	ø1/8	VPLFD15-5[5][6][7]-1/8J	
			ø4	VPLFD15-5[5][6][7]-4J				ø5/32	VPLFD15-5[5][6][7]-5/32J	
		10	ø3	VPLFD15-10[5][6][7]-3J			10	ø1/8	VPLFD15-10[5][6][7]-1/8J	
			ø4	VPLFD15-10[5][6][7]-4J				ø5/32	VPLFD15-10[5][6][7]-5/32J	
		15	ø3	VPLFD15-15[5][6][7]-3J			15	ø1/8	VPLFD15-15[5][6][7]-1/8J	
			ø4	VPLFD15-15[5][6][7]-4J				ø5/32	VPLFD15-15[5][6][7]-5/32J	
		20	ø3	VPLFD15-20[5][6][7]-3J			20	ø1/8	VPLFD15-20[5][6][7]-1/8J	
			ø4	VPLFD15-20[5][6][7]-4J				ø5/32	VPLFD15-20[5][6][7]-5/32J	
	ø20	5	ø3	VPLFD20-5[5][6][7]-3J		ø20	5	ø1/8	VPLFD20-5[5][6][7]-1/8J	
			ø4	VPLFD20-5[5][6][7]-4J				ø5/32	VPLFD20-5[5][6][7]-5/32J	
			ø6	VPLFD20-5[5][6][7]-6J				ø1/4	VPLFD20-5[5][6][7]-1/4J	
		10	ø3	VPLFD20-10[5][6][7]-3J			10	ø1/8	VPLFD20-10[5][6][7]-1/8J	
			ø4	VPLFD20-10[5][6][7]-4J				ø5/32	VPLFD20-10[5][6][7]-5/32J	
			ø6	VPLFD20-10[5][6][7]-6J				ø1/4	VPLFD20-10[5][6][7]-1/4J	
		15	ø3	VPLFD20-15[5][6][7]-3J			15	ø1/8	VPLFD20-15[5][6][7]-1/8J	
			ø4	VPLFD20-15[5][6][7]-4J				ø5/32	VPLFD20-15[5][6][7]-5/32J	
			ø6	VPLFD20-15[5][6][7]-6J				ø1/4	VPLFD20-15[5][6][7]-1/4J	
		20	ø3	VPLFD20-20[5][6][7]-3J			20	ø1/8	VPLFD20-20[5][6][7]-1/8J	
			ø4	VPLFD20-20[5][6][7]-4J				ø5/32	VPLFD20-20[5][6][7]-5/32J	
			ø6	VPLFD20-20[5][6][7]-6J				ø1/4	VPLFD20-20[5][6][7]-1/4J	
	ø25	5	ø3	VPLFD25-5[5][6][7]-3J	M6	ø25	5	ø1/8	VPLFD25-5[5][6][7]-1/8J	M6
			ø4	VPLFD25-5[5][6][7]-4J				ø5/32	VPLFD25-5[5][6][7]-5/32J	
			ø6	VPLFD25-5[5][6][7]-6J				ø1/4	VPLFD25-5[5][6][7]-1/4J	
		10	ø3	VPLFD25-10[5][6][7]-3J			10	ø1/8	VPLFD25-10[5][6][7]-1/8J	
			ø4	VPLFD25-10[5][6][7]-4J				ø5/32	VPLFD25-10[5][6][7]-5/32J	
			ø6	VPLFD25-10[5][6][7]-6J				ø1/4	VPLFD25-10[5][6][7]-1/4J	
		15	ø3	VPLFD25-15[5][6][7]-3J			15	ø1/8	VPLFD25-15[5][6][7]-1/8J	
			ø4	VPLFD25-15[5][6][7]-4J				ø5/32	VPLFD25-15[5][6][7]-5/32J	
			ø6	VPLFD25-15[5][6][7]-6J				ø1/4	VPLFD25-15[5][6][7]-1/4J	
		20	ø3	VPLFD25-20[5][6][7]-3J			20	ø1/8	VPLFD25-20[5][6][7]-1/8J	
			ø4	VPLFD25-20[5][6][7]-4J				ø5/32	VPLFD25-20[5][6][7]-5/32J	
			ø6	VPLFD25-20[5][6][7]-6J				ø1/4	VPLFD25-20[5][6][7]-1/4J	
	ø30	5	ø3	VPLFD30-5[5][6][7]-3J		ø30	5	ø1/8	VPLFD30-5[5][6][7]-1/8J	
			ø4	VPLFD30-5[5][6][7]-4J				ø5/32	VPLFD30-5[5][6][7]-5/32J	
			ø6	VPLFD30-5[5][6][7]-6J				ø1/4	VPLFD30-5[5][6][7]-1/4J	
		10	ø3	VPLFD30-10[5][6][7]-3J			10	ø1/8	VPLFD30-10[5][6][7]-1/8J	
			ø4	VPLFD30-10[5][6][7]-4J				ø5/32	VPLFD30-10[5][6][7]-5/32J	
			ø6	VPLFD30-10[5][6][7]-6J				ø1/4	VPLFD30-10[5][6][7]-1/4J	
		15	ø3	VPLFD30-15[5][6][7]-3J			15	ø1/8	VPLFD30-15[5][6][7]-1/8J	
			ø4	VPLFD30-15[5][6][7]-4J				ø5/32	VPLFD30-15[5][6][7]-5/32J	
			ø6	VPLFD30-15[5][6][7]-6J				ø1/4	VPLFD30-15[5][6][7]-1/4J	
		20	ø3	VPLFD30-20[5][6][7]-3J			20	ø1/8	VPLFD30-20[5][6][7]-1/8J	
			ø4	VPLFD30-20[5][6][7]-4J				ø5/32	VPLFD30-20[5][6][7]-5/32J	
			ø6	VPLFD30-20[5][6][7]-6J				ø1/4	VPLFD30-20[5][6][7]-1/4J	

Notes
*1 Barb fitting type holders are also selectable. Contact us for the details.
*2 Large Suction Flow type is not available on Urethane rubber (U).

Packaging specifications
1 pc. /bag

Options
[7] : Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.640

Pad surface treatment for suction mark-free
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Side port, Female thread, Low dust emission **VPLFD**	ø10	5	M5×0.8	VPLFD10-5[5][6][7]-M5	M4
		10	M5×0.8	VPLFD10-10[5][6][7]-M5	
		15	M5×0.8	VPLFD10-15[5][6][7]-M5	
		20	M5×0.8	VPLFD10-20[5][6][7]-M5	
	ø15	5	M5×0.8	VPLFD15-5[5][6][7]-M5	
		10	M5×0.8	VPLFD15-10[5][6][7]-M5	
		15	M5×0.8	VPLFD15-15[5][6][7]-M5	
		20	M5×0.8	VPLFD15-20[5][6][7]-M5	
	ø20	5	M6×1	VPLFD20-5[5][6][7]-M6	M6
		10	M6×1	VPLFD20-10[5][6][7]-M6	
		15	M6×1	VPLFD20-15[5][6][7]-M6	
		20	M6×1	VPLFD20-20[5][6][7]-M6	
	ø25	5	M6×1	VPLFD25-5[5][6][7]-M6	
		10	M6×1	VPLFD25-10[5][6][7]-M6	
		15	M6×1	VPLFD25-15[5][6][7]-M6	
		20	M6×1	VPLFD25-20[5][6][7]-M6	
	ø30	5	M6×1	VPLFD30-5[5][6][7]-M6	
		10	M6×1	VPLFD30-10[5][6][7]-M6	
		15	M6×1	VPLFD30-15[5][6][7]-M6	
		20	M6×1	VPLFD30-20[5][6][7]-M6	

Holder type	
Fixed type, Direct mount, Standard **VPE**	VPE holders are available with metric male/female threads, taper pipe threads, parallel pipe threads and NPT threads. See Pad holder only (page 399) for variations. * Pads with the same configuration code as the holder can be connected. [See Pad rubber only (page 382)]. Applicable Screws Metric male thread：M8, M10, M12, M14 Metric female thread：M5, M8 Taper pipe thread：R1/8, R1/4, R3/8, R1/2 Parallel pipe thread：G1/8, G1/4, G3/8, G1/2 NPT thread：NPT1/8, NPT1/4, NPT3/8, NPT1/2

Holder type	Pad dia. (mm)	Female thread size	Model code	[13] -S3 -S3 spec.	Connection config. code
Spring type, Direct mount **VPF** Stroke 5.8mm	ø10	M14×1	VPF10[5][6][7][9][13]	○	M4
	ø15	M14×1	VPF15[5][6][7][9][13]	○	
	ø20	M14×1	VPF20[5][6][7][9][13]	○	M6
	ø25	M14×1	VPF25[5][6][7][9][13]	○	
	ø30	M14×1	VPF30[5][6][7][9][13]	○	

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Options
[7]：Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
[9]：-DC ⇒ Holder with dust catcher
[13]：-S3 ⇒ -S3 spec. (○ in the lists: Available)
*1 For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2 For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.640
Pad surface treatment for suction mark-free
Dust Catcher (VPF)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Flat Type/Flat Large Suction Flow Type

Optional items (○: Available)

7 Pad surface treatment (Suction mark-free)

Pad dia. (mm)	7 Surface treatment code -DL DLC. coating	-ER Reformed surface	-FG Fluoro-coating	Connection config. code
ø10	○	○	○	M4
ø15	○	○	○	
ø20	○	○	○	M6
ø25	○	○	○	
ø30	○	○	○	
Material	S, F, SE	N, NE	S, SE	

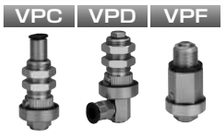
Characteristics of surface treatment ▶P.370

9 Dust Catcher : -DC

Optional	Connection config. code	-S3 spec.
Dust Catcher (-DC)	M4	○
	M6	○

Holder type

VPC VPD VPF



Characteristics of Dust Catcher ▶P.371

10 Fall Prevention Valve : -ECV

Optional	Connection config. code	Model code
Fall Prevention Valve (-ECV) M6	M4	ECVM4-FM4
	M6	ECVM6-FM6

Characteristics of Fall Prevention Valve ▶P.722

11 Swivel Joint for vacuum pad : -FH, -FHH, -CFH

Optional	Swivel angle	Connection config. code	Model code
Ball Swivel Joint (-FH)(-FHH)	30° (-FH)	M4	FH10
		M6	FH20
	15° (-FHH)	M4	FH10-15
		M6	FH20-15

Characteristics of Ball Swivel Joint ▶P.724

Optional	Connection config. code	-S3 spec.	Model code (*1)
Flexible Swing Joint (-CFH)	M4	○	CFHM4-FM4
	M6	○	CFHM6-FM6

* When ordering a Flexible Swing Joint alone, please enter "-S3" at the end of the model code for -S3 specification.

Characteristics of Flexible Swing Joint ▶P.725

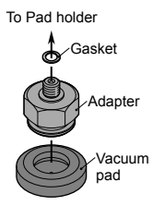
12 Filter : -F15, -F30

Optional	Filter area	Connection config. code	Model code
Pad Direct Mounting Filter (-F15)(-F30)	1.7㎠ (-F15)	M4	VFF15-M4
		M6	VFF15-M6
	7㎠ (-F30)	M6	VFF30-M6

Characteristics of Filter ▶P.726

See the page 622 for the model designation including optional items.

Replacement parts (○: -S3 spec. is available)

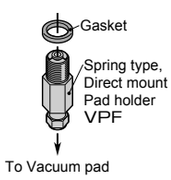


Adapter for Flat pad Model code	13 : -S3 -S3 spec.	Applicable pad dia. (mm)	Connection config. code
FVPLF15-M4[13]	○	ø10, ø15	M4
FVPLFH15-M4[13]	○		
FVPLF30-M6[13]	○	ø20 to ø30	M6
FVPLFH30-M6[13]	○		

* Use FVPLFH for Large Suction Flow type.

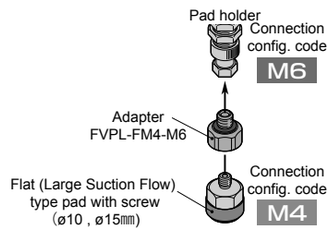
Gasket for adapter (*) Model code	Applicable adapter	Connection config. code
GAS-M4	FVPLF15-M4, FVPLFH15-M4	M4
GAS-M6 (Fall prevention)	FVPLF30-M6, FVPLFH30-M6	M6
-S3 spec.		
GAS-M5-SUS	FVPLF15-M4-S3, FVPLFH15-M4-S3	M4
GAS-M6-SUS	FVPLF30-M6-S3, FVPLFH30-M6-S3	M6

* Gasket for adapter is equipped with an Adapter. The model code above is for Gasket alone.



Gasket Model code	Applicable pad dia.(mm)	Connection config. code
VPFG10	ø10 to ø30	M4 M6

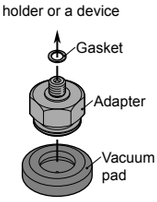
Rearrangement parts (○: -S3 spec. is available)



Model code of Adapter for pad connection type conversion	13 : -S3 -S3 spec.	Applicable pad dia. (mm)	Connection config. code Before → After
FVPL-FM4-M6[13]	○	ø10, ø15	M4 ▶ M6

*1. This adapter is used to mount a pad & screw set with M4 configuration code on a pad holder with M6 configuration code.
*2. Gasket for adapter is equipped with an Adapter.

To M5 thread holder or a device



Adapter for Flat pad Model code	13 : -S3 -S3 spec.	Applicable pad dia. (mm)
FVPLF15-M5[13]	○	ø10, ø15
FVPLFH15-M5[13]	○	
FVPLF30-M5[13]	○	ø20 to ø30
FVPLFH30-M5[13]	○	

*1 Use FVPLFH for Large Suction Flow type.
*2. Gasket for adapter is equipped with an Adapter.

Vacuum Pad Mark-free Type

Vacuum pad for preventing unfavorable suction marks on a work-piece, such as LCD.

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VP (1)	C (2)	10 (3)	-6 (4)	Q (5)	K (6)	-4J (7)	-DC (8)	-ECV (9)	-F15 (10)	(11)
							Optional	Optional	Optional	Optional

(1) Vacuum Pad

(2) Holder type

Holder type		Fixed type		Spring type			
		Mini	Standard	Mini	Standard	No cover	Low dust emission
Code	Top port	MA	A	MC	C	OC	LFC
	Side port	MB	B	MD	D	OD	LFD
	Direct mount	–	E	–	F	–	–
Connection config. code		M4 M6	M4 M6	M4 M6	M4 M6	M4 M6	M4 M6

Holder type		Lightweight Spring type	Low profile Direct mount
Code	Top port	HC	–
	Side port	HD	HE
	Dual side port	HDW	HEW
Connection config. code		M4 M6	M4 M6

(3) Pad dia.

Code	10	20	30
Pad dia. (mm)	ø10	ø20	ø30
Connection config. code	M4	M6	

(4) Stroke (No code entry for Holder type: MA, A, MB, B, E, F, HE and HEW)

Code	-2	-4	-5	-6	-10	-15	-20	-25	-30	-40	-50
Stroke (mm)	2	4	5	6	10	15	20	25	30	40	50
Spring type holder code VPMC		●●									
VPC				●●	●●	●●	●●				
VPOC							●●		●●	●●	●●
VPLFC	●		●●		●●	●●	●●				
VPMD		●●									
VPD				●●	●●	●●	●●				
VPOD							●●		●●	●●	●●
VPLFD			●●		●●	●●	●●				
VPHC					●●	●●	●●	●●	●●	●●	●●
VPHD			●●								
VPHDW			●●								

Connection config. code
●: M4
●: M6

(5) Pad type Q: Mark-free

(6) Pad material

Code	K	M	KE
Resin material	PEEK	POM	Conductive PEEK

*Volume resistance of Conductive PEEK (KE) is 10^5 to 10^6 Ω·cm.

(7) Vacuum port size and joint type (No code entry for Holder type: F) (○: Available)

Type		Push-in fitting								Barb fitting				Female thread	
		mm size (mm)					inch size (inch)			mm size (mm)			inch size (inch)	Metric thread	
Code		-180J	-2J	-3J	-4J	-6J	-1/8J	-5/32J	-1/4J	-3B	-4B*	-6B	-1/4B	-M5	-M6
Tube O.D.		ø1.8	ø2	ø3	ø4	ø6	ø1/8	ø5/32	ø1/4						
Tube I.D.										ø2	ø2.5	ø4	Polyurethane tube ø0.163 Nylon tube ø0.180		
Thread size														M5×0.8	M6×1
Holder type	VPMA			○	○			○		○	○	○			
	VPA			○	○	○	○	○	○		○	○	○		○
	VPMB	○	○	○	○	○	○	○	○	○	○	○	○	○	
	VPB			○	○	○	○	○	○		○	○	○		○
	VPMC	○	○	○	○		○	○		○	○	○	○		
	VPC			○	○	○	○	○	○		○	○	○		○
	VPOC			○	○	○	○	○	○		○	○	○		○
	VPLFC			○	○	○	○	○	○	○	○	○		○	○
	VPMD	○	○	○	○	○	○	○	○	○	○	○	○	○	
	VPD			○	○	○	○	○	○		○	○	○		○
	VPOD			○	○	○	○	○	○		○	○	○		○
	VPLFD			○	○	○	○	○	○	○	○	○		○	○
	VPHC	○	○	○	○	○	○	○	○	○	○	○	○	○	
	VPHD	○	○	○	○	○	○	○	○	○	○	○	○	○	
	VPHDW	○	○	○	○	○	○	○	○	○	○	○	○	○	
	VPHE	○	○	○	○	○	○	○	○	○	○	○	○	○	
	VPHEW	○	○	○	○	○	○	○	○	○	○	○	○	○	

*The barb fitting of 5/32" size is common with 4 mm size. Please order with the code: -4B.
*Available port size varies depending on pad dia. See model code lists on the following pages.

Type		Male thread																Female thread	
		Metric thread				Taper pipe thread				Parallel pipe thread				NPT thread				Metric thread	
Code		-M8	-M10	-M12	-M14	-R1	-R2	-R3	-R4	-G1	-G2	-G3	-G4	-N1	-N2	-N3	-N4	-FM5	-FM8
Thread size		M8×1.25	M10×1.5	M12×1.75	M14×2	R1/8	R1/4	R3/8	R1/2	G1/8	G1/4	G3/8	G1/2	NPT1/8	NPT1/4	NPT3/8	NPT1/2	M5×0.8	M8×1.25
Holder type	VPE	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

*Configuration code: M4 is not available for R4 and G4 thread size.

Push-in fitting Barb fitting Female thread Direct mount

(8) Dust Catcher (Holder type: C, D and F only) Optional

Code	No code	-DC
Dust Catcher	None	Installed

*Note that the holder stroke becomes shorter when a dust catcher is installed. Please visit our website for details.

Dust Catcher

(8) Spring load (Holder type: LFC only)

Code	No code	-SF1/4
Load	Standard load	Low load (1/4 of standard load)

*"-SF1/4" is not selectable when 2 mm stroke is selected.

(9) Fall Prevention Valve Optional

Code	No code	-ECV
Fall Prevention Valve	None	Installed

*-S3 spec. is not selectable when Fall Prevention Valve is selected.

Fall Prevention Valve

(10) Filter Optional

Code	No code	-F15	-F30
Filter	None	Installed (Filter area 1.7 cm^2)	Installed (Filter area 7 cm^2)
Applicable config. code	—	M4, M6	M6

Pad Direct Mounting Filter

*1. -S3 spec. is not selectable when Filter is selected.
*2. "-F30" is recommended when much dust is expected at sucking work pieces.

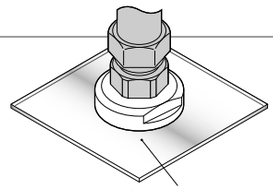
(11) -S3 spec. Optional

Code	No code	-S3
Metal material	Standard	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard	HNBR or FKM
Release ring color	Black	Dark blue

*1. -S3 spec. is not available for the following fittings and holders:
·Push-in fitting with dia. size of 1.8, 2, 3 mm and inch sizes except dia. 1/8" (some) and 5/32".
·Barb fitting with dia. of 1/4".
·Pad holder with stroke length 10 mm or longer (except for VPHC holders).
·VPLFC and VPLFD holders.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Vacuum Pad Mark-free Type

Characteristics



LCD glass, work-pieces in coating process and semiconductor facility.

Pad dia. 3 types
ø10, ø20, ø30mm
Pad material 3 types

Best suitable for transporting LCD and transportation in painting and semiconductor manufacturing process.

Resin pad leaves less suction mark on work-pieces. 3 types of material: PEEK, POM, Conductive PEEK are available.

Flexible swing joint and resin pad are suitable for inclined work-piece.

Smoothly release work-pieces by blow-off air.

Easy replacement of a resin pad without a spanner or a hex. key.

Wide variations of Pad holders.

The following combinations of holder and pad rubber are also available although they are not listed on the model code list from the next page onward. Contact us for the details.

· Lightweight VPHC holder that is made of resin and aluminum.
· Lightweight VPHD and VPHDW holders with spring type without cover.
· VPHE and VPHEW holders with reduced height.
· VPHDW and VPHEW holders with dual side vacuum ports, suitable for piping connection of multiple vacuum pads.

Low dust emission holders (VPLFC, VPLFD) with low noise and less wear from sliding are available to prevent dust generation.

VPLFC holder with top port has a separate shaft on the pad side and the vacuum port side, so there is no effect on the stroke caused by the tension of the tube. Low load type is also available to suppress impact when contacting the work-piece.

Wide variations of fixed type direct mount holder (VPE) for various thread sizes.

Metric male threads, metric female threads, taper pipe threads, parallel pipe threads and NPT threads are available.
*Only a part of the combinations are shown on the model code list from the next page onward. Contact us for the details.

Holder with dust catcher (Optional)

Collects wear debris generated by sliding spring type holders. Low-cost, simple holder with receiver tray added.

Applicable to VPC, VPD and VPF holders.

◀ Dust Catcher

Accessories (Optional)

Fall Prevention Valve and Filter options are available.

-S3 spec. (Optional)

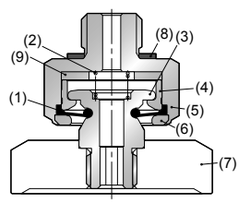
No copper-based metallic materials used in flow paths.

The sealing rubber material of the fitting is HNBR or FKM, with good ozone resisntace.

Specification of Flexible Swing Joint

Fluid medium	Air
Operating vacuum pressure	0 to -100 kPa
Operating temp. range	0 to 60°C (No freezing)

Sectional drawing of Flexible Swing Joint



No,	Parts	Material	
		Standard spec.	-S3 spec.
(1)	Diaphragm	FKM / Fluoro rubber	
(2)	Spring	SUS304	
(3)	Pad guide	Special stainless steel (*) + nitriding	
(4)	Weight block	Special stainless steel (*) + nitriding	
(5)	Metallic body	Nickel-plated brass	Special stainless steel (Austenite or ferritic) (*)
(6)	Plate	Nickel-plated brass	Special stainless steel (Austenite or ferritic) (*)
(7)	Pad	PEEK, POM or Conductive PEEK	
(8)	Gasket	SPCC + NBR (For VP10Q□)	SUS316 + FKM
		SUS304 + NBR (For VP20, 30Q□)	
(9)	Spacer	SUS304 + nitriding	

*The corrosive resistance is equivalent to SUS303.

RoHS2 (2011/65/EU+EU2015/863) compliant

Fixed type, Top port, Push-in fitting, Mini VPMA

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	⓫ -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Mini VPMA	ø10	ø3	VPMA10Q⑥-3J	—	M4
		ø4	VPMA10Q⑥-4J⑪	○	
	ø20	ø4	VPMA20Q⑥-4J⑪	○	M6
	ø30	ø4	VPMA30Q⑥-4J⑪	○	

Holder type	Pad dia. (mm)	Tube O.D. (inch)	Model code	⓫ -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Mini VPMA	ø10	ø5/32	VPMA10Q⑥-5/32J⑪	○	M4
	ø20	ø5/32	VPMA20Q⑥-5/32J⑪	○	M6
	ø30	ø5/32	VPMA30Q⑥-5/32J⑪	○	

Fixed type, Top port, Push-in fitting, Standard VPA

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	⓫ -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Standard VPA	ø10	ø6	VPA10Q⑥-6J⑪	○	M4
	ø20	ø3	VPA20Q⑥-3J	—	M6
		ø4	VPA20Q⑥-4J⑪	○	
		ø6	VPA20Q⑥-6J⑪	○	
	ø30	ø3	VPA30Q⑥-3J	—	
		ø4	VPA30Q⑥-4J⑪	○	
		ø6	VPA30Q⑥-6J⑪	○	

Holder type	Pad dia. (mm)	Tube O.D. (inch)	Model code	⓫ -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Standard VPA	ø10	ø1/4	VPA10Q⑥-1/4J	—	M4
	ø20	ø1/8	VPA20Q⑥-1/8J	—	M6
		ø5/32	VPA20Q⑥-5/32J⑪	○	
		ø1/4	VPA20Q⑥-1/4J	—	
	ø30	ø1/8	VPA30Q⑥-1/8J	—	
		ø5/32	VPA30Q⑥-5/32J⑪	○	
		ø1/4	VPA30Q⑥-1/4J	—	

Fixed type, Top port, Female thread, Standard VPA

Holder type	Pad dia. (mm)	Male thread size	Model code	⓫ -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Female thread, Standard VPA	ø20	M6×1	VPA20Q⑥-M6⑪	○	M6
	ø30	M6×1	VPA30Q⑥-M6⑪	○	

Fixed type, Side port, Push-in fitting, Mini VPMB

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	⓫ -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Push-in fitting, Mini VPMB	ø10	ø3	VPMB10Q⑥-3J	—	M4
		ø4	VPMB10Q⑥-4J⑪	○	
		ø6	VPMB10Q⑥-6J⑪	○	
	ø20	ø3	VPMB20Q⑥-3J	—	M6
		ø4	VPMB20Q⑥-4J⑪	○	
		ø6	VPMB20Q⑥-6J⑪	○	
	ø30	ø3	VPMB30Q⑥-3J	—	
		ø4	VPMB30Q⑥-4J⑪	○	
		ø6	VPMB30Q⑥-6J⑪	○	

Holder type	Pad dia. (mm)	Tube O.D. (inch)	Model code	⓫ -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Push-in fitting, Mini VPMB	ø10	ø1/8	VPMB10Q⑥-1/8J	—	M4
		ø5/32	VPMB10Q⑥-5/32J⑪	○	
		ø1/4	VPMB10Q⑥-1/4J	—	
	ø20	ø1/8	VPMB20Q⑥-1/8J	—	M6
		ø5/32	VPMB20Q⑥-5/32J⑪	○	
		ø1/4	VPMB20Q⑥-1/4J	—	
	ø30	ø1/8	VPMB30Q⑥-1/8J	—	
		ø5/32	VPMB30Q⑥-5/32J⑪	○	
		ø1/4	VPMB30Q⑥-1/4J	—	

Fixed type, Side port, Female thread, Mini VPMB

Holder type	Pad dia. (mm)	Male thread size	Model code	⓫ -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Female thread, Mini VPMB	ø10	M5×0.8	VPMB10Q⑥-M5⑪	○	M4
	ø20	M5×0.8	VPMB20Q⑥-M5⑪	○	M6
	ø30	M5×0.8	VPMB30Q⑥-M5⑪	○	

Notes

*Barb fitting type holders are also selectable. VPMB holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options

⓫: -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.

*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.654

Fall Prevention Valve

Filter

Vacuum Pad Mark-free Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	[11] -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	[11] -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Push-in fitting, Standard **VPB**	ø10	ø3	VPB10Q[6]-3J	—	M4	ø10	ø1/8	VPB10Q[6]-1/8J	—	M4
		ø4	VPB10Q[6]-4J[11]	○			ø5/32	VPB10Q[6]-5/32J[11]	○	
		ø6	VPB10Q[6]-6J[11]	○			ø1/4	VPB10Q[6]-1/4J	—	
	ø20	ø3	VPB20Q[6]-3J	—	M6	ø20	ø1/8	VPB20Q[6]-1/8J	—	M6
		ø4	VPB20Q[6]-4J[11]	○			ø5/32	VPB20Q[6]-5/32J[11]	○	
		ø6	VPB20Q[6]-6J[11]	○			ø1/4	VPB20Q[6]-1/4J	—	
	ø30	ø3	VPB30Q[6]-3J	—		ø30	ø1/8	VPB30Q[6]-1/8J	—	
		ø4	VPB30Q[6]-4J[11]	○			ø5/32	VPB30Q[6]-5/32J[11]	○	
		ø6	VPB30Q[6]-6J[11]	○			ø1/4	VPB30Q[6]-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	[11] -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Female thread, Standard **VPB**	ø10	M6×1	VPB10Q[6]-M6[11]	○	M4
	ø20	M6×1	VPB20Q[6]-M6[11]	○	M6
	ø30	M6×1	VPB30Q[6]-M6[11]	○	

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	[11] -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	[11] -S3 -S3 spec.	Connection config. code
Spring type Top port, Push-in fitting, Mini **VPMC** Stroke 4mm	ø10	ø3	VPMC10-4Q[6]-3J	—	M4	ø10	ø1/8	VPMC10-4Q[6]-1/8J	—	M4
		ø4	VPMC10-4Q[6]-4J[11]	○			ø5/32	VPMC10-4Q[6]-5/32J[11]	○	
	ø20	ø3	VPMC20-4Q[6]-3J	—	M6	ø20	ø1/8	VPMC20-4Q[6]-1/8J	—	M6
		ø4	VPMC20-4Q[6]-4J[11]	○			ø5/32	VPMC20-4Q[6]-5/32J[11]	○	
	ø30	ø3	VPMC30-4Q[6]-3J	—		ø30	ø1/8	VPMC30-4Q[6]-1/8J	—	
		ø4	VPMC30-4Q[6]-4J[11]	○			ø5/32	VPMC30-4Q[6]-5/32J[11]	○	

Notes

*Barb fitting type holders are also selectable. VPMC holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options

[11]: **-S3** ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.

*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.654

Fall Prevention Valve

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	11 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	11 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Standard VPC	ø10	6	ø3	VPC10-6Q6-3J8	—	M4	ø10	6	ø1/8	VPC10-6Q6-1/8J8	—	M4
			ø4	VPC10-6Q6-4J811	○				ø5/32	VPC10-6Q6-5/32J811	○	
			ø6	VPC10-6Q6-6J811	○				ø1/4	VPC10-6Q6-1/4J8	—	
		10	ø3	VPC10-10Q6-3J8	—			10	ø1/8	VPC10-10Q6-1/8J8	—	
			ø4	VPC10-10Q6-4J8	—				ø5/32	VPC10-10Q6-5/32J8	—	
			ø6	VPC10-10Q6-6J8	—				ø1/4	VPC10-10Q6-1/4J8	—	
		15	ø3	VPC10-15Q6-3J8	—			15	ø1/8	VPC10-15Q6-1/8J8	—	
			ø4	VPC10-15Q6-4J8	—				ø5/32	VPC10-15Q6-5/32J8	—	
			ø6	VPC10-15Q6-6J8	—				ø1/4	VPC10-15Q6-1/4J8	—	
		20	ø3	VPC10-20Q6-3J8	—			20	ø1/8	VPC10-20Q6-1/8J8	—	
			ø4	VPC10-20Q6-4J8	—				ø5/32	VPC10-20Q6-5/32J8	—	
			ø6	VPC10-20Q6-6J8	—				ø1/4	VPC10-20Q6-1/4J8	—	
	ø20	6	ø3	VPC20-6Q6-3J8	—	M6	ø20	6	ø1/8	VPC20-6Q6-1/8J8	—	M6
			ø4	VPC20-6Q6-4J811	○				ø5/32	VPC20-6Q6-5/32J811	○	
			ø6	VPC20-6Q6-6J811	○				ø1/4	VPC20-6Q6-1/4J8	—	
		10	ø3	VPC20-10Q6-3J8	—			10	ø1/8	VPC20-10Q6-1/8J8	—	
			ø4	VPC20-10Q6-4J8	—				ø5/32	VPC20-10Q6-5/32J8	—	
			ø6	VPC20-10Q6-6J8	—				ø1/4	VPC20-10Q6-1/4J8	—	
		15	ø3	VPC20-15Q6-3J8	—			15	ø1/8	VPC20-15Q6-1/8J8	—	
			ø4	VPC20-15Q6-4J8	—				ø5/32	VPC20-15Q6-5/32J8	—	
			ø6	VPC20-15Q6-6J8	—				ø1/4	VPC20-15Q6-1/4J8	—	
		20	ø3	VPC20-20Q6-3J8	—			20	ø1/8	VPC20-20Q6-1/8J8	—	
			ø4	VPC20-20Q6-4J8	—				ø5/32	VPC20-20Q6-5/32J8	—	
			ø6	VPC20-20Q6-6J8	—				ø1/4	VPC20-20Q6-1/4J8	—	
	ø30	6	ø3	VPC30-6Q6-3J8	—		ø30	6	ø1/8	VPC30-6Q6-1/8J8	—	
			ø4	VPC30-6Q6-4J811	○				ø5/32	VPC30-6Q6-5/32J811	○	
			ø6	VPC30-6Q6-6J811	○				ø1/4	VPC30-6Q6-1/4J8	—	
		10	ø3	VPC30-10Q6-3J8	—			10	ø1/8	VPC30-10Q6-1/8J8	—	
			ø4	VPC30-10Q6-4J8	—				ø5/32	VPC30-10Q6-5/32J8	—	
			ø6	VPC30-10Q6-6J8	—				ø1/4	VPC30-10Q6-1/4J8	—	
		15	ø3	VPC30-15Q6-3J8	—			15	ø1/8	VPC30-15Q6-1/8J8	—	
			ø4	VPC30-15Q6-4J8	—				ø5/32	VPC30-15Q6-5/32J8	—	
			ø6	VPC30-15Q6-6J8	—				ø1/4	VPC30-15Q6-1/4J8	—	
		20	ø3	VPC30-20Q6-3J8	—			20	ø1/8	VPC30-20Q6-1/8J8	—	
			ø4	VPC30-20Q6-4J8	—				ø5/32	VPC30-20Q6-5/32J8	—	
			ø6	VPC30-20Q6-6J8	—				ø1/4	VPC30-20Q6-1/4J8	—	

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	11 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Female thread, Standard VPC	ø10	6	M6×1	VPC10-6Q6-M6811	○	M4
		10		VPC10-10Q6-M68	—	
		15		VPC10-15Q6-M68	—	
		20		VPC10-20Q6-M68	—	
	ø20	6	M6×1	VPC20-6Q6-M6811	○	M6
		10		VPC20-10Q6-M68	—	
		15		VPC20-15Q6-M68	—	
		20		VPC20-20Q6-M68	—	
	ø30	6	M6×1	VPC30-6Q6-M6811	○	
		10		VPC30-10Q6-M68	—	
		15		VPC30-15Q6-M68	—	
		20		VPC30-20Q6-M68	—	

Notes
*Barb fitting type holders are also available. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
8: -DC ⇒ Holder with dust catcher
11: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.654
Dust Catcher (VPC)
Fall Prevention Valve
Filter

Vacuum Pad Mark-free Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, No cover VPOC	ø10	20	ø3	VPOC10-20Q6-3J	M4	ø10	20	ø1/8	VPOC10-20Q6-1/8J	M4
			ø4	VPOC10-20Q6-4J				ø5/32	VPOC10-20Q6-5/32J	
			ø6	VPOC10-20Q6-6J				ø1/4	VPOC10-20Q6-1/4J	
		30	ø3	VPOC10-30Q6-3J			30	ø1/8	VPOC10-30Q6-1/8J	
			ø4	VPOC10-30Q6-4J				ø5/32	VPOC10-30Q6-5/32J	
			ø6	VPOC10-30Q6-6J				ø1/4	VPOC10-30Q6-1/4J	
		40	ø3	VPOC10-40Q6-3J			40	ø1/8	VPOC10-40Q6-1/8J	
			ø4	VPOC10-40Q6-4J				ø5/32	VPOC10-40Q6-5/32J	
			ø6	VPOC10-40Q6-6J				ø1/4	VPOC10-40Q6-1/4J	
		50	ø3	VPOC10-50Q6-3J			50	ø1/8	VPOC10-50Q6-1/8J	
			ø4	VPOC10-50Q6-4J				ø5/32	VPOC10-50Q6-5/32J	
			ø6	VPOC10-50Q6-6J				ø1/4	VPOC10-50Q6-1/4J	
	ø20	20	ø3	VPOC20-20Q6-3J	M6	ø20	20	ø1/8	VPOC20-20Q6-1/8J	M6
			ø4	VPOC20-20Q6-4J				ø5/32	VPOC20-20Q6-5/32J	
			ø6	VPOC20-20Q6-6J				ø1/4	VPOC20-20Q6-1/4J	
		30	ø3	VPOC20-30Q6-3J			30	ø1/8	VPOC20-30Q6-1/8J	
			ø4	VPOC20-30Q6-4J				ø5/32	VPOC20-30Q6-5/32J	
			ø6	VPOC20-30Q6-6J				ø1/4	VPOC20-30Q6-1/4J	
		40	ø3	VPOC20-40Q6-3J			40	ø1/8	VPOC20-40Q6-1/8J	
			ø4	VPOC20-40Q6-4J				ø5/32	VPOC20-40Q6-5/32J	
			ø6	VPOC20-40Q6-6J				ø1/4	VPOC20-40Q6-1/4J	
		50	ø3	VPOC20-50Q6-3J			50	ø1/8	VPOC20-50Q6-1/8J	
			ø4	VPOC20-50Q6-4J				ø5/32	VPOC20-50Q6-5/32J	
			ø6	VPOC20-50Q6-6J				ø1/4	VPOC20-50Q6-1/4J	
	ø30	20	ø3	VPOC30-20Q6-3J		ø30	20	ø1/8	VPOC30-20Q6-1/8J	
			ø4	VPOC30-20Q6-4J				ø5/32	VPOC30-20Q6-5/32J	
			ø6	VPOC30-20Q6-6J				ø1/4	VPOC30-20Q6-1/4J	
		30	ø3	VPOC30-30Q6-3J			30	ø1/8	VPOC30-30Q6-1/8J	
			ø4	VPOC30-30Q6-4J				ø5/32	VPOC30-30Q6-5/32J	
			ø6	VPOC30-30Q6-6J				ø1/4	VPOC30-30Q6-1/4J	
		40	ø3	VPOC30-40Q6-3J			40	ø1/8	VPOC30-40Q6-1/8J	
			ø4	VPOC30-40Q6-4J				ø5/32	VPOC30-40Q6-5/32J	
			ø6	VPOC30-40Q6-6J				ø1/4	VPOC30-40Q6-1/4J	
		50	ø3	VPOC30-50Q6-3J			50	ø1/8	VPOC30-50Q6-1/8J	
			ø4	VPOC30-50Q6-4J				ø5/32	VPOC30-50Q6-5/32J	
			ø6	VPOC30-50Q6-6J				ø1/4	VPOC30-50Q6-1/4J	

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Top port, Female thread, No cover VPOC	ø10	20	M6×1	VPOC10-20Q6-M6	M4
		30		VPOC10-30Q6-M6	
		40		VPOC10-40Q6-M6	
		50		VPOC10-50Q6-M6	
	ø20	20	M6×1	VPOC20-20Q6-M6	M6
		30		VPOC20-30Q6-M6	
		40		VPOC20-40Q6-M6	
		50		VPOC20-50Q6-M6	
	ø30	20	M6×1	VPOC30-20Q6-M6	
		30		VPOC30-30Q6-M6	
		40		VPOC30-40Q6-M6	
		50		VPOC30-50Q6-M6	

Notes
*Barb fitting type holders are also available. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Optional items ⇒ P.654
Fall Prevention Valve
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, Low dust emission **VPLFC**	ø10	2	ø3	VPLFC10-2Q6-3J	M4	ø10	2	ø1/8	VPLFC10-2Q6-1/8J	M4
			ø4	VPLFC10-2Q6-4J				ø5/32	VPLFC10-2Q6-5/32J	
		5	ø3	VPLFC10-5Q6-3J8			5	ø1/8	VPLFC10-5Q6-1/8J8	
			ø4	VPLFC10-5Q6-4J8				ø5/32	VPLFC10-5Q6-5/32J8	
		10	ø3	VPLFC10-10Q6-3J8			10	ø1/8	VPLFC10-10Q6-1/8J8	
			ø4	VPLFC10-10Q6-4J8				ø5/32	VPLFC10-10Q6-5/32J8	
		15	ø3	VPLFC10-15Q6-3J8			15	ø1/8	VPLFC10-15Q6-1/8J8	
			ø4	VPLFC10-15Q6-4J8				ø5/32	VPLFC10-15Q6-5/32J8	
		20	ø3	VPLFC10-20Q6-3J8			20	ø1/8	VPLFC10-20Q6-1/8J8	
			ø4	VPLFC10-20Q6-4J8				ø5/32	VPLFC10-20Q6-5/32J8	
	ø20	5	ø3	VPLFC20-5Q6-3J8	M6	ø20	5	ø1/8	VPLFC20-5Q6-1/8J8	M6
			ø4	VPLFC20-5Q6-4J8				ø5/32	VPLFC20-5Q6-5/32J8	
			ø6	VPLFC20-5Q6-6J8				ø1/4	VPLFC20-5Q6-1/4J8	
		10	ø3	VPLFC20-10Q6-3J8			10	ø1/8	VPLFC20-10Q6-1/8J8	
			ø4	VPLFC20-10Q6-4J8				ø5/32	VPLFC20-10Q6-5/32J8	
			ø6	VPLFC20-10Q6-6J8				ø1/4	VPLFC20-10Q6-1/4J8	
		15	ø3	VPLFC20-15Q6-3J8			15	ø1/8	VPLFC20-15Q6-1/8J8	
			ø4	VPLFC20-15Q6-4J8				ø5/32	VPLFC20-15Q6-5/32J8	
			ø6	VPLFC20-15Q6-6J8				ø1/4	VPLFC20-15Q6-1/4J8	
		20	ø3	VPLFC20-20Q6-3J8			20	ø1/8	VPLFC20-20Q6-1/8J8	
			ø4	VPLFC20-20Q6-4J8				ø5/32	VPLFC20-20Q6-5/32J8	
			ø6	VPLFC20-20Q6-6J8				ø1/4	VPLFC20-20Q6-1/4J8	
	ø30	5	ø3	VPLFC30-5Q6-3J8		ø30	5	ø1/8	VPLFC30-5Q6-1/8J8	
			ø4	VPLFC30-5Q6-4J8				ø5/32	VPLFC30-5Q6-5/32J8	
			ø6	VPLFC30-5Q6-6J8				ø1/4	VPLFC30-5Q6-1/4J8	
		10	ø3	VPLFC30-10Q6-3J8			10	ø1/8	VPLFC30-10Q6-1/8J8	
			ø4	VPLFC30-10Q6-4J8				ø5/32	VPLFC30-10Q6-5/32J8	
			ø6	VPLFC30-10Q6-6J8				ø1/4	VPLFC30-10Q6-1/4J8	
		15	ø3	VPLFC30-15Q6-3J8			15	ø1/8	VPLFC30-15Q6-1/8J8	
			ø4	VPLFC30-15Q6-4J8				ø5/32	VPLFC30-15Q6-5/32J8	
			ø6	VPLFC30-15Q6-6J8				ø1/4	VPLFC30-15Q6-1/4J8	
		20	ø3	VPLFC30-20Q6-3J8			20	ø1/8	VPLFC30-20Q6-1/8J8	
			ø4	VPLFC30-20Q6-4J8				ø5/32	VPLFC30-20Q6-5/32J8	
			ø6	VPLFC30-20Q6-6J8				ø1/4	VPLFC30-20Q6-1/4J8	

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Top port, Female thread, Low dust emission **VPLFC**	ø10	2	M5×0.8	VPLFC10-2Q6-M5	M4
		5	M5×0.8	VPLFC10-5Q6-M58	
		10	M5×0.8	VPLFC10-10Q6-M58	
		15	M5×0.8	VPLFC10-15Q6-M58	
		20	M5×0.8	VPLFC10-20Q6-M58	
	ø20	5	M6×1	VPLFC20-5Q6-M68	M6
		10	M6×1	VPLFC20-10Q6-M68	
		15	M6×1	VPLFC20-15Q6-M68	
		20	M6×1	VPLFC20-20Q6-M68	
	ø30	5	M6×1	VPLFC30-5Q6-M68	
		10	M6×1	VPLFC30-10Q6-M68	
		15	M6×1	VPLFC30-15Q6-M68	
		20	M6×1	VPLFC30-20Q6-M68	

Notes
*Barb fitting type holders are also available. Contact us for the details.

Packaging specifications
1 pc./bag

Options
8: -SF1/4 ⇒ Spring load 1/4

Optional items ⇒ P.654 | Fall Prevention Valve | Filter

Vacuum Pad Mark-free Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	[11] -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	[11] -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Mini	ø10	ø3	VPMD10-4Q[6]-3J	—	M4	ø10	ø1/8	VPMD10-4Q[6]-1/8J	—	M4
		ø4	VPMD10-4Q[6]-4J[11]	○			ø5/32	VPMD10-4Q[6]-5/32J[11]	○	
		ø6	VPMD10-4Q[6]-6J[11]	○			ø1/4	VPMD10-4Q[6]-1/4J	—	
	ø20	ø3	VPMD20-4Q[6]-3J	—	M6	ø20	ø1/8	VPMD20-4Q[6]-1/8J	—	M6
		ø4	VPMD20-4Q[6]-4J[11]	○			ø5/32	VPMD20-4Q[6]-5/32J[11]	○	
		ø6	VPMD20-4Q[6]-6J[11]	○			ø1/4	VPMD20-4Q[6]-1/4J	—	
	ø30	ø3	VPMD30-4Q[6]-3J	—		ø30	ø1/8	VPMD30-4Q[6]-1/8J	—	
		ø4	VPMD30-4Q[6]-4J[11]	○			ø5/32	VPMD30-4Q[6]-5/32J[11]	○	
		ø6	VPMD30-4Q[6]-6J[11]	○			ø1/4	VPMD30-4Q[6]-1/4J	—	

VPMD

Stroke 4mm

Holder type	Pad dia. (mm)	Male thread size	Model code	[11] -S3 -S3 spec.	Connection config. code
Spring type, Side port, Female thread, Mini	ø10	M5×0.8	VPMD10-4Q[6]-M5[11]	○	M4
	ø20	M5×0.8	VPMD20-4Q[6]-M5[11]	○	M6
	ø30	M5×0.8	VPMD30-4Q[6]-M5[11]	○	

VPMD

Stroke 4mm

Notes

*Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications

1 pc./bag

Options

[11]: -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.

*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.654

Fall Prevention Valve

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	11 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Standard VPD	ø10	6	ø3	VPD10-6Q6-3J8	—	M4
			ø4	VPD10-6Q6-4J811	○	
			ø6	VPD10-6Q6-6J811	○	
		10	ø3	VPD10-10Q6-3J8	—	
			ø4	VPD10-10Q6-4J8	—	
			ø6	VPD10-10Q6-6J8	—	
		15	ø3	VPD10-15Q6-3J8	—	
			ø4	VPD10-15Q6-4J8	—	
			ø6	VPD10-15Q6-6J8	—	
		20	ø3	VPD10-20Q6-3J8	—	
			ø4	VPD10-20Q6-4J8	—	
			ø6	VPD10-20Q6-6J8	—	
	ø20	6	ø3	VPD20-6Q6-3J8	—	M6
			ø4	VPD20-6Q6-4J811	○	
			ø6	VPD20-6Q6-6J811	○	
		10	ø3	VPD20-10Q6-3J8	—	
			ø4	VPD20-10Q6-4J8	—	
			ø6	VPD20-10Q6-6J8	—	
		15	ø3	VPD20-15Q6-3J8	—	
			ø4	VPD20-15Q6-4J8	—	
			ø6	VPD20-15Q6-6J8	—	
		20	ø3	VPD20-20Q6-3J8	—	
			ø4	VPD20-20Q6-4J8	—	
			ø6	VPD20-20Q6-6J8	—	
	ø30	6	ø3	VPD30-6Q6-3J8	—	
			ø4	VPD30-6Q6-4J811	○	
			ø6	VPD30-6Q6-6J811	○	
		10	ø3	VPD30-10Q6-3J8	—	
			ø4	VPD30-10Q6-4J8	—	
			ø6	VPD30-10Q6-6J8	—	
		15	ø3	VPD30-15Q6-3J8	—	
			ø4	VPD30-15Q6-4J8	—	
			ø6	VPD30-15Q6-6J8	—	
		20	ø3	VPD30-20Q6-3J8	—	
			ø4	VPD30-20Q6-4J8	—	
			ø6	VPD30-20Q6-6J8	—	

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	11 -S3 -S3 spec.	Connection config. code
	ø10	6	ø1/8	VPD10-6Q6-1/8J8	—	M4
			ø5/32	VPD10-6Q6-5/32J811	○	
			ø1/4	VPD10-6Q6-1/4J8	—	
		10	ø1/8	VPD10-10Q6-1/8J8	—	
			ø5/32	VPD10-10Q6-5/32J8	—	
			ø1/4	VPD10-10Q6-1/4J8	—	
		15	ø1/8	VPD10-15Q6-1/8J8	—	
			ø5/32	VPD10-15Q6-5/32J8	—	
			ø1/4	VPD10-15Q6-1/4J8	—	
		20	ø1/8	VPD10-20Q6-1/8J8	—	
			ø5/32	VPD10-20Q6-5/32J8	—	
			ø1/4	VPD10-20Q6-1/4J8	—	
	ø20	6	ø1/8	VPD20-6Q6-1/8J8	—	M6
			ø5/32	VPD20-6Q6-5/32J811	○	
			ø1/4	VPD20-6Q6-1/4J8	—	
		10	ø1/8	VPD20-10Q6-1/8J8	—	
			ø5/32	VPD20-10Q6-5/32J8	—	
			ø1/4	VPD20-10Q6-1/4J8	—	
		15	ø1/8	VPD20-15Q6-1/8J8	—	
			ø5/32	VPD20-15Q6-5/32J8	—	
			ø1/4	VPD20-15Q6-1/4J8	—	
		20	ø1/8	VPD20-20Q6-1/8J8	—	
			ø5/32	VPD20-20Q6-5/32J8	—	
			ø1/4	VPD20-20Q6-1/4J8	—	
	ø30	6	ø1/8	VPD30-6Q6-1/8J8	—	
			ø5/32	VPD30-6Q6-5/32J811	○	
			ø1/4	VPD30-6Q6-1/4J8	—	
		10	ø1/8	VPD30-10Q6-1/8J8	—	
			ø5/32	VPD30-10Q6-5/32J8	—	
			ø1/4	VPD30-10Q6-1/4J8	—	
		15	ø1/8	VPD30-15Q6-1/8J8	—	
			ø5/32	VPD30-15Q6-5/32J8	—	
			ø1/4	VPD30-15Q6-1/4J8	—	
		20	ø1/8	VPD30-20Q6-1/8J8	—	
			ø5/32	VPD30-20Q6-5/32J8	—	
			ø1/4	VPD30-20Q6-1/4J8	—	

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	11 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Female thread, Standard VPD	ø10	6	M6×1	VPD10-6Q6-M6811	○	M4
		10		VPD10-10Q6-M68	—	
		15		VPD10-15Q6-M68	—	
		20		VPD10-20Q6-M68	—	
	ø20	6	M6×1	VPD20-6Q6-M6811	○	M6
		10		VPD20-10Q6-M68	—	
		15		VPD20-15Q6-M68	—	
		20		VPD20-20Q6-M68	—	
	ø30	6	M6×1	VPD30-6Q6-M6811	○	
		10		VPD30-10Q6-M68	—	
		15		VPD30-15Q6-M68	—	
		20		VPD30-20Q6-M68	—	

Notes
*Barb fitting type holders are also available. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
8: -DC ⇒ Holder with dust catcher
11: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.654
Dust Catcher (VPD)
Fall Prevention Valve
Filter

Vacuum Pad Mark-free Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, No cover VPOD 	ø10	20	ø3	VPOD10-20Q6-3J	M4
			ø4	VPOD10-20Q6-4J	
			ø6	VPOD10-20Q6-6J	
		30	ø3	VPOD10-30Q6-3J	
			ø4	VPOD10-30Q6-4J	
			ø6	VPOD10-30Q6-6J	
		40	ø3	VPOD10-40Q6-3J	
			ø4	VPOD10-40Q6-4J	
			ø6	VPOD10-40Q6-6J	
		50	ø3	VPOD10-50Q6-3J	
			ø4	VPOD10-50Q6-4J	
			ø6	VPOD10-50Q6-6J	
	ø20	20	ø3	VPOD20-20Q6-3J	M6
			ø4	VPOD20-20Q6-4J	
			ø6	VPOD20-20Q6-6J	
		30	ø3	VPOD20-30Q6-3J	
			ø4	VPOD20-30Q6-4J	
			ø6	VPOD20-30Q6-6J	
		40	ø3	VPOD20-40Q6-3J	
			ø4	VPOD20-40Q6-4J	
			ø6	VPOD20-40Q6-6J	
		50	ø3	VPOD20-50Q6-3J	
			ø4	VPOD20-50Q6-4J	
			ø6	VPOD20-50Q6-6J	
	ø30	20	ø3	VPOD30-20Q6-3J	
			ø4	VPOD30-20Q6-4J	
			ø6	VPOD30-20Q6-6J	
		30	ø3	VPOD30-30Q6-3J	
			ø4	VPOD30-30Q6-4J	
			ø6	VPOD30-30Q6-6J	
		40	ø3	VPOD30-40Q6-3J	
			ø4	VPOD30-40Q6-4J	
			ø6	VPOD30-40Q6-6J	
		50	ø3	VPOD30-50Q6-3J	
			ø4	VPOD30-50Q6-4J	
			ø6	VPOD30-50Q6-6J	

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, No cover VPOD	ø10	20	ø1/8	VPOD10-20Q6-1/8J	M4
			ø5/32	VPOD10-20Q6-5/32J	
			ø1/4	VPOD10-20Q6-1/4J	
		30	ø1/8	VPOD10-30Q6-1/8J	
			ø5/32	VPOD10-30Q6-5/32J	
			ø1/4	VPOD10-30Q6-1/4J	
		40	ø1/8	VPOD10-40Q6-1/8J	
			ø5/32	VPOD10-40Q6-5/32J	
			ø1/4	VPOD10-40Q6-1/4J	
		50	ø1/8	VPOD10-50Q6-1/8J	
			ø5/32	VPOD10-50Q6-5/32J	
			ø1/4	VPOD10-50Q6-1/4J	
	ø20	20	ø1/8	VPOD20-20Q6-1/8J	M6
			ø5/32	VPOD20-20Q6-5/32J	
			ø1/4	VPOD20-20Q6-1/4J	
		30	ø1/8	VPOD20-30Q6-1/8J	
			ø5/32	VPOD20-30Q6-5/32J	
			ø1/4	VPOD20-30Q6-1/4J	
		40	ø1/8	VPOD20-40Q6-1/8J	
			ø5/32	VPOD20-40Q6-5/32J	
			ø1/4	VPOD20-40Q6-1/4J	
		50	ø1/8	VPOD20-50Q6-1/8J	
			ø5/32	VPOD20-50Q6-5/32J	
			ø1/4	VPOD20-50Q6-1/4J	
	ø30	20	ø1/8	VPOD30-20Q6-1/8J	
			ø5/32	VPOD30-20Q6-5/32J	
			ø1/4	VPOD30-20Q6-1/4J	
		30	ø1/8	VPOD30-30Q6-1/8J	
			ø5/32	VPOD30-30Q6-5/32J	
			ø1/4	VPOD30-30Q6-1/4J	
		40	ø1/8	VPOD30-40Q6-1/8J	
			ø5/32	VPOD30-40Q6-5/32J	
			ø1/4	VPOD30-40Q6-1/4J	
		50	ø1/8	VPOD30-50Q6-1/8J	
			ø5/32	VPOD30-50Q6-5/32J	
			ø1/4	VPOD30-50Q6-1/4J	

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Side port, Female thread, No cover VPOD 	ø10	20	M6×1	VPOD10-20Q6-M6	M4
		30		VPOD10-30Q6-M6	
		40		VPOD10-40Q6-M6	
		50		VPOD10-50Q6-M6	
	ø20	20	M6×1	VPOD20-20Q6-M6	M6
		30		VPOD20-30Q6-M6	
		40		VPOD20-40Q6-M6	
		50		VPOD20-50Q6-M6	
	ø30	20	M6×1	VPOD30-20Q6-M6	
		30		VPOD30-30Q6-M6	
		40		VPOD30-40Q6-M6	
		50		VPOD30-50Q6-M6	

Notes
*Barb fitting type holders are also available. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Optional items ⇒ P.654
Fall Prevention Valve
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, Low dust emission **VPLFD**	ø10	5	ø3	VPLFD10-5Q⑥-3J	M4	ø10	5	ø1/8	VPLFD10-5Q⑥-1/8J	M4
			ø4	VPLFD10-5Q⑥-4J				ø5/32	VPLFD10-5Q⑥-5/32J	
		10	ø3	VPLFD10-10Q⑥-3J			10	ø1/8	VPLFD10-10Q⑥-1/8J	
			ø4	VPLFD10-10Q⑥-4J				ø5/32	VPLFD10-10Q⑥-5/32J	
		15	ø3	VPLFD10-15Q⑥-3J			15	ø1/8	VPLFD10-15Q⑥-1/8J	
			ø4	VPLFD10-15Q⑥-4J				ø5/32	VPLFD10-15Q⑥-5/32J	
		20	ø3	VPLFD10-20Q⑥-3J			20	ø1/8	VPLFD10-20Q⑥-1/8J	
			ø4	VPLFD10-20Q⑥-4J				ø5/32	VPLFD10-20Q⑥-5/32J	
	ø20	5	ø3	VPLFD20-5Q⑥-3J	M6	ø20	5	ø1/8	VPLFD20-5Q⑥-1/8J	M6
			ø4	VPLFD20-5Q⑥-4J				ø5/32	VPLFD20-5Q⑥-5/32J	
			ø6	VPLFD20-5Q⑥-6J				ø1/4	VPLFD20-5Q⑥-1/4J	
		10	ø3	VPLFD20-10Q⑥-3J			10	ø1/8	VPLFD20-10Q⑥-1/8J	
			ø4	VPLFD20-10Q⑥-4J				ø5/32	VPLFD20-10Q⑥-5/32J	
			ø6	VPLFD20-10Q⑥-6J				ø1/4	VPLFD20-10Q⑥-1/4J	
		15	ø3	VPLFD20-15Q⑥-3J			15	ø1/8	VPLFD20-15Q⑥-1/8J	
			ø4	VPLFD20-15Q⑥-4J				ø5/32	VPLFD20-15Q⑥-5/32J	
			ø6	VPLFD20-15Q⑥-6J				ø1/4	VPLFD20-15Q⑥-1/4J	
		20	ø3	VPLFD20-20Q⑥-3J			20	ø1/8	VPLFD20-20Q⑥-1/8J	
			ø4	VPLFD20-20Q⑥-4J				ø5/32	VPLFD20-20Q⑥-5/32J	
			ø6	VPLFD20-20Q⑥-6J				ø1/4	VPLFD20-20Q⑥-1/4J	
	ø30	5	ø3	VPLFD30-5Q⑥-3J		ø30	5	ø1/8	VPLFD30-5Q⑥-1/8J	
			ø4	VPLFD30-5Q⑥-4J				ø5/32	VPLFD30-5Q⑥-5/32J	
			ø6	VPLFD30-5Q⑥-6J				ø1/4	VPLFD30-5Q⑥-1/4J	
		10	ø3	VPLFD30-10Q⑥-3J			10	ø1/8	VPLFD30-10Q⑥-1/8J	
			ø4	VPLFD30-10Q⑥-4J				ø5/32	VPLFD30-10Q⑥-5/32J	
			ø6	VPLFD30-10Q⑥-6J				ø1/4	VPLFD30-10Q⑥-1/4J	
		15	ø3	VPLFD30-15Q⑥-3J			15	ø1/8	VPLFD30-15Q⑥-1/8J	
			ø4	VPLFD30-15Q⑥-4J				ø5/32	VPLFD30-15Q⑥-5/32J	
			ø6	VPLFD30-15Q⑥-6J				ø1/4	VPLFD30-15Q⑥-1/4J	
		20	ø3	VPLFD30-20Q⑥-3J			20	ø1/8	VPLFD30-20Q⑥-1/8J	
			ø4	VPLFD30-20Q⑥-4J				ø5/32	VPLFD30-20Q⑥-5/32J	
			ø6	VPLFD30-20Q⑥-6J				ø1/4	VPLFD30-20Q⑥-1/4J	

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Side port, Female thread, Low dust emission **VPLFD**	ø10	5	M5×0.8	VPLFD10-5Q⑥-M5	M4
		10	M5×0.8	VPLFD10-10Q⑥-M5	
		15	M5×0.8	VPLFD10-15Q⑥-M5	
		20	M5×0.8	VPLFD10-20Q⑥-M5	
	ø20	5	M6×1	VPLFD20-5Q⑥-M6	M6
		10	M6×1	VPLFD20-10Q⑥-M6	
		15	M6×1	VPLFD20-15Q⑥-M6	
		20	M6×1	VPLFD20-20Q⑥-M6	
	ø30	5	M6×1	VPLFD30-5Q⑥-M6	
		10	M6×1	VPLFD30-10Q⑥-M6	
		15	M6×1	VPLFD30-15Q⑥-M6	
		20	M6×1	VPLFD30-20Q⑥-M6	

Notes
*Barb fitting type holders are also available. Contact us for the details.

Packaging specifications
1 pc./bag

Optional items ⇒ P.654
Fall Prevention Valve
Filter

Vacuum Pad Mark-free Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	
Fixed type, Direct mount, Standard **VPE**	VPE holders are available with metric male/female threads, taper pipe threads, parallel pipe threads and NPT threads. See Pad holder only (page 399) for variations. *Pads with the same configuration code as the holder can be connected. [See Pad rubber only (page 382)]. Applicable Screws: Metric male thread: M8, M10, M12, M14 Metric female thread: M5, M8 Taper pipe thread: R1/8, R1/4, R3/8, R1/2 Parallel pipe thread: G1/8, G1/4, G3/8, G1/2 NPT thread: NPT1/8, NPT1/4, NPT3/8, NPT1/2

Holder type	Pad dia. (mm)	Female thread size	Model code	11 -S3 -S3 spec.	Connection config. code
Spring type, Direct mount **VPF** Stroke 5.8mm	ø10	M14×1	VPF10Q68 11	○	M4
	ø20	M14×1	VPF20Q68 11	○	M6
	ø30	M14×1	VPF30Q68 11	○	

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
8: -DC ⇒ Holder with dust catcher
11: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ See below. Dust Catcher (VPF) Fall Prevention Valve Filter

Optional items

8 Dust Catcher: -DC

Optional	Connection config. code	-S3 spec.
Dust Catcher (-DC)	M4	○
	M6	○

Holder type: VPC VPD VPF

9 Fall Prevention Valve: -ECV

Optional	Connection config. code	Model code
Fall Prevention Valve (-ECV)	M4	ECVM4-FM4
	M6	ECVM6-FM6

Characteristics of Dust Catcher ► P.371

Characteristics of Fall Prevention Valve ► P.722

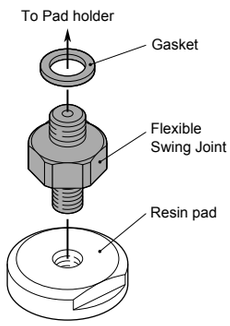
11 Filter: F15, -F30

Optional	Filter area	Connection config. code	Model code
Pad Direct Mounting Filter (-F15)(-F30)	1.7cm² (-F15)	M4	VFF15-M4
		M6	VFF15-M6
	7cm² (-F30)	M6	VFF30-M6

Characteristics of Filter ► P.726

See the page 642 for the model designation including optional items.

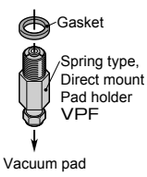
Replacement parts (○: -S3 spec. is available)



Flexible Swing Joint alone Model code	11 -S3 -S3 spec.	Applicable pad dia. (mm)	Connection config. code
CFHM4-M511	○	ø10	M4
CFHM6-M511	○	ø20, ø30	M6

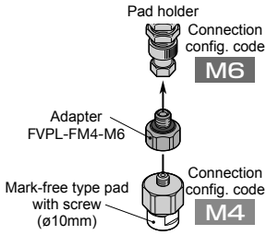
Gasket for Flexible Swing Joint (*) Model code	Applicable Flexible Swing Joint	Connection config. code
GAS-M4	CFHM4-M5	M4
GAS-M6(Fall prevention)	CFHM6-M5	M6
-S3 spec.		
GAS-M5-SUS	CFHM4-M5-S3	M4
GAS-M6-SUS	CFHM6-M5-S3	M6

*Gasket for Flexible Swing Joint is equipped with an Flexible Swing Joint. When the gasket alone is necessary, refer to "Gasket for Flexible Swing Joint Model code" above.



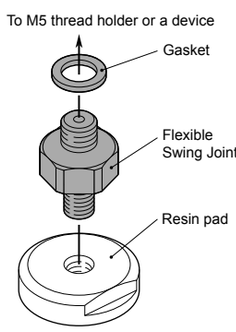
Gasket Model code	Applicable pad dia. (mm)	Connection config. code
VPFG10	ø10 to ø30	M4 M6

Rearrangement parts



Model code of Adapter for pad connection type conversion	11 -S3 -S3 spec.	Applicable pad dia. (mm)	Connection config. code Before → After
FVPL-FM4-M611	○	ø10	M4 ► M6

*1. This adapter is used to mount a pad & screw set with M4 configuration code on a pad holder with M6 configuration code.
*2. Gasket for adapter is equipped with an Adapter.



Flexible Swing Joint alone Model code	11 -S3 -S3 spec.	Applicable pad dia. (mm)
CFHM5-M511	○	ø10 to ø30

*Gasket for Flexible Swing Joint is equipped with an Flexible Swing Joint.

Vacuum Pad Sponge Type

Vacuum pad for work-piece with rough surface like exterior wall panel or pebble.

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VP (1)	C (2)	10 (3)	-6 (4)	S (5)	C (6)	-6J (7)	-DC (8)	-ECV (9)	-FH (10)	-F15 (11)	(12)
							Optional	Optional	Optional	Optional	Optional

(1) Vacuum Pad

(2) Holder type

Holder type		Fixed type		Spring type			
		Mini	Standard	Mini	Standard	No cover	Low dust emission
Code	Top port	MA	A	MC	C	OC	LFC
	Side port	MB	B	MD	D	OD	LFD
	Direct mount	–	E	–	F(*)	–	–
Connection config. code		M6	M6 M10	M6	M6 M10	M6	M6

Holder type		Lightweight Spring type	Low profile Direct mount
Code	Top port	HC	–
	Side port	HD	HE
	Dual side port	HDW	HEW
Connection config. code		M6	M6

*F holder is available only for configuration code: M6.

(3) Pad dia.

Code	10	15	20	25	30	35	50	70	100
Pad dia. (mm)	ø10	ø15	ø20	ø25	ø30	ø35	ø50	ø70	ø100
Connection config. code	M6							M10	

(4) Stroke (No code entry for Holder type: MA, A, MB, B, E, F, HE and HEW)

Connection config. code
●: M6
●: M10

Code	-4	-5	-6	-10	-15	-20	-25	-30	-40	-50
Stroke (mm)	4	5	6	10	15	20	25	30	40	50
Spring type holder code VPMC	●									
VPC			●	●●	●	●				
VPOC						●		●	●	●
VPLFC		●		●	●	●				
VPMD	●									
VPD			●	●●	●	●				
VPOD						●		●	●	●
VPLFD		●		●	●	●				
VPHC				●	●	●	●	●	●	●
VPHD		●								
VPHDW		●								

(5) Pad type S: Sponge

(6) Pad material

Code	C	S
Rubber material	Chloroprene	Silicone

(7) Vacuum port size and joint type (No code entry for Holder type: F) (○: Available)

Type	Push-in fitting												Barb fitting				Female thread			
	mm size (mm)						inch size (inch)						mm size (mm)			inch size (inch)	Metric thread		Parallel pipe thread	NPT thread
Code	-180J	-2J	-3J	-4J	-6J	-8J	-1/8J	-5/32J	-3/16J	-1/4J	-5/16J	-3/8J	-3B	-4B*	-6B	-1/4B	-M5	-M6	-G1	-N1
Tube O.D.	ø1.8	ø2	ø3	ø4	ø6	ø8	ø1/8	ø5/32	ø3/16	ø1/4	ø5/16	ø3/8								
Tube I.D.													ø2	ø2.5	ø4	Polyurethane tube ø0.163 Nylon tube ø0.180				
Thread size																	M5×0.8	M6×1	G1/8	NPT1/8
Holder type VPMA				○				○						○	○					
VPA			○	○	○	○	○	○	○	○	○	○		○	○	○		○	○	○
VPMB	○	○	○	○	○		○	○		○			○	○	○	○	○			
VPB			○	○	○	○	○	○	○	○	○			○	○	○		○	○	○
VPMC	○	○	○	○			○	○					○	○	○					
VPC			○	○	○	○	○	○	○	○	○	○		○	○	○		○	○	○
VPOC			○	○	○		○	○		○				○	○	○		○		
VPLFC			○	○	○		○	○		○				○	○			○		
VPMD	○	○	○	○	○		○	○		○			○	○	○	○	○			
VPD			○	○	○	○	○	○	○	○	○	○		○	○	○		○	○	○
VPOD			○	○	○		○	○		○				○	○	○		○		
VPLFD			○	○	○		○	○		○				○	○			○		
VPHC	○	○	○	○	○		○	○		○			○	○	○	○	○			
VPHD	○	○	○	○	○		○	○		○			○	○	○	○	○			
VPHDW	○	○	○	○	○		○	○		○			○	○	○	○	○			
VPHE	○	○	○	○	○		○	○		○			○	○	○	○	○			
VPHEW	○	○	○	○	○		○	○		○			○	○	○	○	○			

Push-in fitting
Barb fitting
Female thread

*The barb fitting of 5/32" size is common with 4 mm size. Please order with the code: -4B.
*Available port size varies depending on pad dia. See model code lists on the following pages.

Type	Male thread																Female thread	
	Metric thread				Taper pipe thread				Parallel pipe thread				NPT thread				Metric thread	
Code	-M8	-M10	-M12	-M14	-R1	-R2	-R3	-R4	-G1	-G2	-G3	-G4	-N1	-N2	-N3	-N4	-FM5	-FM8
Thread size	M8×1.25	M10×1.5	M12×1.75	M14×2	R1/8	R1/4	R3/8	R1/2	G1/8	G1/4	G3/8	G1/2	NPT1/8	NPT1/4	NPT3/8	NPT1/2	M5x0.8	M8x1.25
Holder type VPE	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

Direct mount

*Configuration code: M10 is not available for M8, M10, FM5 and FM8 thread size.

(8) Dust Catcher (Holder type: C, D and F only) Optional

Code	No code	-DC
Dust Catcher	None	Installed

*Note that the holder stroke becomes shorter when a dust catcher is installed. Please visit our website for details.

(8) Spring load (Holder type: LFC only)

Code	No code	-SF1/4
Load	Standard load	Low load (1/4 of standard load)

(9) Fall Prevention Valve Optional

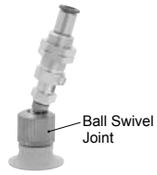
Code	No code	-ECV
Fall Prevention Valve	None	Installed

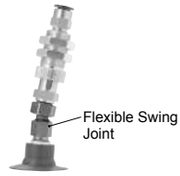
*-S3 spec. is not selectable when Fall Prevention Valve is selected.

(10) Swivel Joint for vacuum pad Optional

Code	No code	-FH	-FHH	-CFH
Option	None	Ball Swivel Joint (Swivel angle: 30°)	Ball Swivel Joint (Swivel angle: 15°)	Flexible Swing Joint (Swing angle: 8°)
Applicable config. code	—	M6, M10		M6

*-S3 spec. is not selectable when Ball Swivel Joint is selected.





(11) Filter Optional

Code	No code	-F15	-F30
Filter	None	Installed (Filter area 1.7 cm^2)	Installed (Filter area 7 cm^2)
Applicable config. code	—	M6	

*1. -S3 spec. is not selectable when Filter is selected.
*2. "-F30" is recommended when much dust is expected at sucking work pieces.

(12) -S3 spec. Optional

Code	No code	-S3
Metal material	Standard	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard	HNBR or FKM
Release ring color	Black	Dark blue

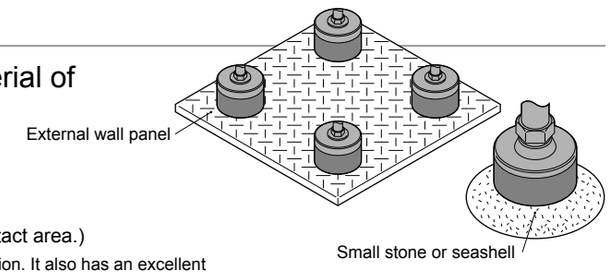
*1. -S3 spec. is not available for the following fittings and holders:
·Push-in fitting with dia. size of 1.8, 2, 3 mm and inch sizes except dia. 1/8" (some) and 5/32".
·Barb fitting with dia. of 1/4".
·Pad holder with stroke length 10 mm or longer (except for pad dia. 70 mm or larger and VPHC holders).
·VPLFC and VPLFD holders.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Vacuum Pad Sponge Type

Characteristics

Best suitable for work like an external wall material of building, small stone and seashell.

Closed-cell sponge absorbs the surface roughness of the work-piece.



Silicone (S) is Food Sanitation Act compliant.

(Holder is not compliant. Vacuum pad complies only at work-piece contact area.)

With its high density, Silicone rubber pad has less deformation against compression. It also has an excellent mechanical strength, wear resistance, and durability.

*See page 6 for the details of the Food Sanitation Act.

Pad dia. 9 types
ø10 to ø100mm
Pad material 2 types

Wide variations of Pad holders.

The following combinations of holder and pad rubber are also available although they are not listed on the model code list from the next page onward. Contact us for the details.

· Lightweight VPHC holder that is made of resin and aluminum.
· Lightweight VPHD and VPHDW holders with spring type without cover.
· VPHE and VPHEW holders with reduced height.
· VPHDW and VPHEW holders with dual side vacuum ports, suitable for piping connection of multiple vacuum pads.

Low dust emission holders (VPLFC, VPLFD) with low noise and less wear from sliding are available to prevent dust generation.

VPLFC holder with top port has a separate shaft on the pad side and the vacuum port side, so there is no effect on the stroke caused by the tension of the tube.
Low load type is also available to suppress impact when contacting the work-piece.

Wide variations of fixed type direct mount holder (VPE) for various thread sizes.

Metric male threads, metric female threads, taper pipe threads, parallel pipe threads and NPT threads are available.

*Only a part of the combinations are shown on the model code list from the next page onward. Contact us for the details.

Holder with dust catcher (Optional)

Collects wear debris generated by sliding spring type holders. Low-cost, simple holder with receiver tray added.

Applicable to VPC, VPD and VPF holders.

Accessories (Optional)

Fall Prevention Valve, Swivel (Ball Swivel Joint, Flexible Swing Joint) and Filter options are available.

-S3 spec. (Optional)

No copper-based metallic materials used in flow paths.

The sealing rubber material of the fitting is HNBR or FKM, with good ozone resisntace.

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	12 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	12 -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Mini VPMA	ø10	ø4	VPMA10S6-4J12	○	M6	ø10	ø5/32	VPMA10S6-5/32J12	○	M6
	ø15	ø4	VPMA15S6-4J12	○		ø15	ø5/32	VPMA15S6-5/32J12	○	
	ø20	ø4	VPMA20S6-4J12	○		ø20	ø5/32	VPMA20S6-5/32J12	○	
	ø25	ø4	VPMA25S6-4J12	○		ø25	ø5/32	VPMA25S6-5/32J12	○	
	ø30	ø4	VPMA30S6-4J12	○		ø30	ø5/32	VPMA30S6-5/32J12	○	
	ø35	ø4	VPMA35S6-4J12	○		ø35	ø5/32	VPMA35S6-5/32J12	○	
	ø50	ø4	VPMA50S6-4J12	○		ø50	ø5/32	VPMA50S6-5/32J12	○	

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	12 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	12 -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Standard VPA	ø10	ø3	VPA10S6-3J	—	M6	ø10	ø1/8	VPA10S6-1/8J	—	M6
		ø4	VPA10S6-4J12	○			ø5/32	VPA10S6-5/32J12	○	
		ø6	VPA10S6-6J12	○			ø1/4	VPA10S6-1/4J	—	
	ø15	ø3	VPA15S6-3J	—		ø15	ø1/8	VPA15S6-1/8J	—	
		ø4	VPA15S6-4J12	○			ø5/32	VPA15S6-5/32J12	○	
		ø6	VPA15S6-6J12	○			ø1/4	VPA15S6-1/4J	—	
	ø20	ø3	VPA20S6-3J	—		ø20	ø1/8	VPA20S6-1/8J	—	
		ø4	VPA20S6-4J12	○			ø5/32	VPA20S6-5/32J12	○	
		ø6	VPA20S6-6J12	○			ø1/4	VPA20S6-1/4J	—	
	ø25	ø3	VPA25S6-3J	—		ø25	ø1/8	VPA25S6-1/8J	—	
		ø4	VPA25S6-4J12	○			ø5/32	VPA25S6-5/32J12	○	
		ø6	VPA25S6-6J12	○			ø1/4	VPA25S6-1/4J	—	
	ø30	ø3	VPA30S6-3J	—		ø30	ø1/8	VPA30S6-1/8J	—	
		ø4	VPA30S6-4J12	○			ø5/32	VPA30S6-5/32J12	○	
		ø6	VPA30S6-6J12	○			ø1/4	VPA30S6-1/4J	—	
	ø35	ø3	VPA35S6-3J	—		ø35	ø1/8	VPA35S6-1/8J	—	
		ø4	VPA35S6-4J12	○			ø5/32	VPA35S6-5/32J12	○	
		ø6	VPA35S6-6J12	○			ø1/4	VPA35S6-1/4J	—	
	ø50	ø3	VPA50S6-3J	—		ø50	ø1/8	VPA50S6-1/8J	—	
		ø4	VPA50S6-4J12	○			ø5/32	VPA50S6-5/32J12	○	
		ø6	VPA50S6-6J12	○			ø1/4	VPA50S6-1/4J	—	
	ø70	ø4	VPA70S6-4J	—	M10	ø70	ø1/8	VPA70S6-1/8J	—	M10
		ø6	VPA70S6-6J	—			ø5/32	VPA70S6-5/32J	—	
		ø8	VPA70S6-8J	—			ø3/16	VPA70S6-3/16J	—	
	ø100	ø4	VPA100S6-4J	—			ø1/4	VPA70S6-1/4J	—	
		ø6	VPA100S6-6J	—			ø5/16	VPA70S6-5/16J	—	
		ø8	VPA100S6-8J	—			ø3/8	VPA70S6-3/8J	—	
						ø100	ø1/8	VPA100S6-1/8J	—	
							ø5/32	VPA100S6-5/32J	—	
							ø3/16	VPA100S6-3/16J	—	
							ø1/4	VPA100S6-1/4J	—	
							ø5/16	VPA100S6-5/16J	—	
							ø3/8	VPA100S6-3/8J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	12 -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Female thread, Standard VPA	ø10	M6×1	VPA10S6-M612	○	M6
	ø15	M6×1	VPA15S6-M612	○	
	ø20	M6×1	VPA20S6-M612	○	
	ø25	M6×1	VPA25S6-M612	○	
	ø30	M6×1	VPA30S6-M612	○	
	ø35	M6×1	VPA35S6-M612	○	
	ø50	M6×1	VPA50S6-M612	○	
	ø70	G1/8	VPA70S6-G112	○	M10
	ø100	G1/8	VPA100S6-G112	○	
	ø70	NPT1/8	VPA70S6-N1	—	
	ø100	NPT1/8	VPA100S6-N1	—	

Notes
*Barb fitting type holders are also selectable. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
12: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.677
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Sponge Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	12 -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Push-in fitting, Mini VPMB	ø10	ø3	VPMB10S6-3J	—	M6
		ø4	VPMB10S6-4J12	○	
		ø6	VPMB10S6-6J12	○	
	ø15	ø3	VPMB15S6-3J	—	
		ø4	VPMB15S6-4J12	○	
		ø6	VPMB15S6-6J12	○	
	ø20	ø3	VPMB20S6-3J	—	
		ø4	VPMB20S6-4J12	○	
		ø6	VPMB20S6-6J12	○	
	ø25	ø3	VPMB25S6-3J	—	
		ø4	VPMB25S6-4J12	○	
		ø6	VPMB25S6-6J12	○	
	ø30	ø3	VPMB30S6-3J	—	
		ø4	VPMB30S6-4J12	○	
		ø6	VPMB30S6-6J12	○	
	ø35	ø3	VPMB35S6-3J	—	
		ø4	VPMB35S6-4J12	○	
		ø6	VPMB35S6-6J12	○	
	ø50	ø3	VPMB50S6-3J	—	
		ø4	VPMB50S6-4J12	○	
		ø6	VPMB50S6-6J12	○	

Pad dia. (mm)	Tube O.D. (mm)	Model code	12 -S3 -S3 spec.	Connection config. code
ø10	ø1/8	VPMB10S6-1/8J	—	M6
	ø5/32	VPMB10S6-5/32J12	○	
	ø1/4	VPMB10S6-1/4J	—	
ø15	ø1/8	VPMB15S6-1/8J	—	
	ø5/32	VPMB15S6-5/32J12	○	
	ø1/4	VPMB15S6-1/4J	—	
ø20	ø1/8	VPMB20S6-1/8J	—	
	ø5/32	VPMB20S6-5/32J12	○	
	ø1/4	VPMB20S6-1/4J	—	
ø25	ø1/8	VPMB25S6-1/8J	—	
	ø5/32	VPMB25S6-5/32J12	○	
	ø1/4	VPMB25S6-1/4J	—	
ø30	ø1/8	VPMB30S6-1/8J	—	
	ø5/32	VPMB30S6-5/32J12	○	
	ø1/4	VPMB30S6-1/4J	—	
ø35	ø1/8	VPMB35S6-1/8J	—	
	ø5/32	VPMB35S6-5/32J12	○	
	ø1/4	VPMB35S6-1/4J	—	
ø50	ø1/8	VPMB50S6-1/8J	—	
	ø5/32	VPMB50S6-5/32J12	○	
	ø1/4	VPMB50S6-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	12 -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Female thread, Mini VPMB	ø10	M5×0.8	VPMB10S6-M512	○	M6
	ø15	M5×0.8	VPMB15S6-M512	○	
	ø20	M5×0.8	VPMB20S6-M512	○	
	ø25	M5×0.8	VPMB25S6-M512	○	
	ø30	M5×0.8	VPMB30S6-M512	○	
	ø35	M5×0.8	VPMB35S6-M512	○	
	ø50	M5×0.8	VPMB50S6-M512	○	

Notes

*Barb fitting type holders are also selectable. VPMB holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
12: -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.677

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	12 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	12 -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Push-in fitting, Standard **VPB**	ø10	ø3	VPB10S6-3J	—	M6	ø10	ø1/8	VPB10S6-1/8J	—	M6
		ø4	VPB10S6-4J12	○			ø5/32	VPB10S6-5/32J12	○	
		ø6	VPB10S6-6J12	○			ø1/4	VPB10S6-1/4J	—	
	ø15	ø3	VPB15S6-3J	—		ø15	ø1/8	VPB15S6-1/8J	—	
		ø4	VPB15S6-4J12	○			ø5/32	VPB15S6-5/32J12	○	
		ø6	VPB15S6-6J12	○			ø1/4	VPB15S6-1/4J	—	
	ø20	ø3	VPB20S6-3J	—		ø20	ø1/8	VPB20S6-1/8J	—	
		ø4	VPB20S6-4J12	○			ø5/32	VPB20S6-5/32J12	○	
		ø6	VPB20S6-6J12	○			ø1/4	VPB20S6-1/4J	—	
	ø25	ø3	VPB25S6-3J	—		ø25	ø1/8	VPB25S6-1/8J	—	
		ø4	VPB25S6-4J12	○			ø5/32	VPB25S6-5/32J12	○	
		ø6	VPB25S6-6J12	○			ø1/4	VPB25S6-1/4J	—	
	ø30	ø3	VPB30S6-3J	—		ø30	ø1/8	VPB30S6-1/8J	—	
		ø4	VPB30S6-4J12	○			ø5/32	VPB30S6-5/32J12	○	
		ø6	VPB30S6-6J12	○			ø1/4	VPB30S6-1/4J	—	
	ø35	ø3	VPB35S6-3J	—		ø35	ø1/8	VPB35S6-1/8J	—	
		ø4	VPB35S6-4J12	○			ø5/32	VPB35S6-5/32J12	○	
		ø6	VPB35S6-6J12	○			ø1/4	VPB35S6-1/4J	—	
	ø50	ø3	VPB50S6-3J	—		ø50	ø1/8	VPB50S6-1/8J	—	
		ø4	VPB50S6-4J12	○			ø5/32	VPB50S6-5/32J12	○	
		ø6	VPB50S6-6J12	○			ø1/4	VPB50S6-1/4J	—	
	ø70	ø4	VPB70S6-4J	—	M10	ø70	ø1/8	VPB70S6-1/8J	—	M10
		ø6	VPB70S6-6J	—			ø5/32	VPB70S6-5/32J	—	
		ø8	VPB70S6-8J	—			ø3/16	VPB70S6-3/16J	—	
	ø100	ø4	VPB100S6-4J	—			ø1/4	VPB70S6-1/4J	—	
		ø6	VPB100S6-6J	—			ø5/16	VPB70S6-5/16J	—	
		ø8	VPB100S6-8J	—		ø100	ø1/8	VPB100S6-1/8J	—	
							ø5/32	VPB100S6-5/32J	—	
							ø3/16	VPB100S6-3/16J	—	
							ø1/4	VPB100S6-1/4J	—	
							ø5/16	VPB100S6-5/16J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	12 -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Female thread, Standard **VPB**	ø10	M6×1	VPB10S6-M612	○	M6
	ø15	M6×1	VPB15S6-M612	○	
	ø20	M6×1	VPB20S6-M612	○	
	ø25	M6×1	VPB25S6-M612	○	
	ø30	M6×1	VPB30S6-M612	○	
	ø35	M6×1	VPB35S6-M612	○	
	ø50	M6×1	VPB50S6-M612	○	
	ø70	G1/8	VPB70S6-G112	○	M10
	ø100	G1/8	VPB100S6-G112	○	
	ø70	NPT1/8	VPB70S6-N1	—	
	ø100	NPT1/8	VPB100S6-N1	—	

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	12 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Tube O.D. (inch)	Model code	12 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Mini **VPMC** Stroke 4mm	ø10	ø3	VPMC10-4S6-3J	—	M6	ø10	ø1/8	VPMC10-4S6-1/8J	—	M6
		ø4	VPMC10-4S6-4J12	○			ø5/32	VPMC10-4S6-5/32J12	○	
	ø15	ø3	VPMC15-4S6-3J	—		ø15	ø1/8	VPMC15-4S6-1/8J	—	
		ø4	VPMC15-4S6-4J12	○			ø5/32	VPMC15-4S6-5/32J12	○	
	ø20	ø3	VPMC20-4S6-3J	—		ø20	ø1/8	VPMC20-4S6-1/8J	—	
		ø4	VPMC20-4S6-4J12	○			ø5/32	VPMC20-4S6-5/32J12	○	
	ø25	ø3	VPMC25-4S6-3J	—		ø25	ø1/8	VPMC25-4S6-1/8J	—	
		ø4	VPMC25-4S6-4J12	○			ø5/32	VPMC25-4S6-5/32J12	○	
	ø30	ø3	VPMC30-4S6-3J	—		ø30	ø1/8	VPMC30-4S6-1/8J	—	
		ø4	VPMC30-4S6-4J12	○			ø5/32	VPMC30-4S6-5/32J12	○	
	ø35	ø3	VPMC35-4S6-3J	—		ø35	ø1/8	VPMC35-4S6-1/8J	—	
		ø4	VPMC35-4S6-4J12	○			ø5/32	VPMC35-4S6-5/32J12	○	
	ø50	ø3	VPMC50-4S6-3J	—		ø50	ø1/8	VPMC50-4S6-1/8J	—	
		ø4	VPMC50-4S6-4J12	○			ø5/32	VPMC50-4S6-5/32J12	○	

Notes

*Barb fitting type holders are also selectable. VPMC holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
12: -S3 ⇒ -S3 spec.
(○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.

*2. For inch size fitting, the release ring color is white even for "-S3 spec."

Vacuum Pad Sponge Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	12 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	12 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Standard VPC Pad dia. ø10 mm to ø25 mm	ø10	6	ø3	VPC10-6S6-3J8	—	M6	ø10	6	ø1/8	VPC10-6S6-1/8J8	—	M6
			ø4	VPC10-6S6-4J812	○				ø5/32	VPC10-6S6-5/32J812	○	
			ø6	VPC10-6S6-6J812	○				ø1/4	VPC10-6S6-1/4J8	—	
		10	ø3	VPC10-10S6-3J8	—			10	ø1/8	VPC10-10S6-1/8J8	—	
			ø4	VPC10-10S6-4J8	—				ø5/32	VPC10-10S6-5/32J8	—	
			ø6	VPC10-10S6-6J8	—				ø1/4	VPC10-10S6-1/4J8	—	
		15	ø3	VPC10-15S6-3J8	—			15	ø1/8	VPC10-15S6-1/8J8	—	
			ø4	VPC10-15S6-4J8	—				ø5/32	VPC10-15S6-5/32J8	—	
			ø6	VPC10-15S6-6J8	—				ø1/4	VPC10-15S6-1/4J8	—	
		20	ø3	VPC10-20S6-3J8	—			20	ø1/8	VPC10-20S6-1/8J8	—	
			ø4	VPC10-20S6-4J8	—				ø5/32	VPC10-20S6-5/32J8	—	
			ø6	VPC10-20S6-6J8	—				ø1/4	VPC10-20S6-1/4J8	—	
	ø15	6	ø3	VPC15-6S6-3J8	—		ø15	6	ø1/8	VPC15-6S6-1/8J8	—	
			ø4	VPC15-6S6-4J812	○				ø5/32	VPC15-6S6-5/32J812	○	
			ø6	VPC15-6S6-6J812	○				ø1/4	VPC15-6S6-1/4J8	—	
		10	ø3	VPC15-10S6-3J8	—			10	ø1/8	VPC15-10S6-1/8J8	—	
			ø4	VPC15-10S6-4J8	—				ø5/32	VPC15-10S6-5/32J8	—	
			ø6	VPC15-10S6-6J8	—				ø1/4	VPC15-10S6-1/4J8	—	
		15	ø3	VPC15-15S6-3J8	—			15	ø1/8	VPC15-15S6-1/8J8	—	
			ø4	VPC15-15S6-4J8	—				ø5/32	VPC15-15S6-5/32J8	—	
			ø6	VPC15-15S6-6J8	—				ø1/4	VPC15-15S6-1/4J8	—	
		20	ø3	VPC15-20S6-3J8	—			20	ø1/8	VPC15-20S6-1/8J8	—	
			ø4	VPC15-20S6-4J8	—				ø5/32	VPC15-20S6-5/32J8	—	
			ø6	VPC15-20S6-6J8	—				ø1/4	VPC15-20S6-1/4J8	—	
	ø20	6	ø3	VPC20-6S6-3J8	—		ø20	6	ø1/8	VPC20-6S6-1/8J8	—	
			ø4	VPC20-6S6-4J812	○				ø5/32	VPC20-6S6-5/32J812	○	
			ø6	VPC20-6S6-6J812	○				ø1/4	VPC20-6S6-1/4J8	—	
		10	ø3	VPC20-10S6-3J8	—			10	ø1/8	VPC20-10S6-1/8J8	—	
			ø4	VPC20-10S6-4J8	—				ø5/32	VPC20-10S6-5/32J8	—	
			ø6	VPC20-10S6-6J8	—				ø1/4	VPC20-10S6-1/4J8	—	
		15	ø3	VPC20-15S6-3J8	—			15	ø1/8	VPC20-15S6-1/8J8	—	
			ø4	VPC20-15S6-4J8	—				ø5/32	VPC20-15S6-5/32J8	—	
			ø6	VPC20-15S6-6J8	—				ø1/4	VPC20-15S6-1/4J8	—	
		20	ø3	VPC20-20S6-3J8	—			20	ø1/8	VPC20-20S6-1/8J8	—	
			ø4	VPC20-20S6-4J8	—				ø5/32	VPC20-20S6-5/32J8	—	
			ø6	VPC20-20S6-6J8	—				ø1/4	VPC20-20S6-1/4J8	—	
	ø25	6	ø3	VPC25-6S6-3J8	—		ø25	6	ø1/8	VPC25-6S6-1/8J8	—	
			ø4	VPC25-6S6-4J812	○				ø5/32	VPC25-6S6-5/32J812	○	
			ø6	VPC25-6S6-6J812	○				ø1/4	VPC25-6S6-1/4J8	—	
		10	ø3	VPC25-10S6-3J8	—			10	ø1/8	VPC25-10S6-1/8J8	—	
			ø4	VPC25-10S6-4J8	—				ø5/32	VPC25-10S6-5/32J8	—	
			ø6	VPC25-10S6-6J8	—				ø1/4	VPC25-10S6-1/4J8	—	
		15	ø3	VPC25-15S6-3J8	—			15	ø1/8	VPC25-15S6-1/8J8	—	
			ø4	VPC25-15S6-4J8	—				ø5/32	VPC25-15S6-5/32J8	—	
			ø6	VPC25-15S6-6J8	—				ø1/4	VPC25-15S6-1/4J8	—	
		20	ø3	VPC25-20S6-3J8	—			20	ø1/8	VPC25-20S6-1/8J8	—	
			ø4	VPC25-20S6-4J8	—				ø5/32	VPC25-20S6-5/32J8	—	
			ø6	VPC25-20S6-6J8	—				ø1/4	VPC25-20S6-1/4J8	—	

Notes
*Barb fitting type holders are also selectable. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
8: -DC ⇒ Holder with dust catcher
12: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type, Top port, Push-in fitting, Standard

VPC

Pad dia. ø30 mm to ø100 mm

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	12 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Standard	ø30	6	ø3	VPC30-6S6-3J8	—	M6
			ø4	VPC30-6S6-4J812	○	
			ø6	VPC30-6S6-6J812	○	
		10	ø3	VPC30-10S6-3J8	—	
			ø4	VPC30-10S6-4J8	—	
			ø6	VPC30-10S6-6J8	—	
		15	ø3	VPC30-15S6-3J8	—	
			ø4	VPC30-15S6-4J8	—	
			ø6	VPC30-15S6-6J8	—	
		20	ø3	VPC30-20S6-3J8	—	
			ø4	VPC30-20S6-4J8	—	
			ø6	VPC30-20S6-6J8	—	
	ø35	6	ø3	VPC35-6S6-3J8	—	
			ø4	VPC35-6S6-4J812	○	
			ø6	VPC35-6S6-6J812	○	
		10	ø3	VPC35-10S6-3J8	—	
			ø4	VPC35-10S6-4J8	—	
			ø6	VPC35-10S6-6J8	—	
		15	ø3	VPC35-15S6-3J8	—	
			ø4	VPC35-15S6-4J8	—	
			ø6	VPC35-15S6-6J8	—	
		20	ø3	VPC35-20S6-3J8	—	
			ø4	VPC35-20S6-4J8	—	
			ø6	VPC35-20S6-6J8	—	
	ø50	6	ø3	VPC50-6S6-3J8	—	
			ø4	VPC50-6S6-4J812	○	
			ø6	VPC50-6S6-6J812	○	
		10	ø3	VPC50-10S6-3J8	—	
			ø4	VPC50-10S6-4J8	—	
			ø6	VPC50-10S6-6J8	—	
		15	ø3	VPC50-15S6-3J8	—	
			ø4	VPC50-15S6-4J8	—	
			ø6	VPC50-15S6-6J8	—	
		20	ø3	VPC50-20S6-3J8	—	
			ø4	VPC50-20S6-4J8	—	
			ø6	VPC50-20S6-6J8	—	
	ø70	10	ø4	VPC70-10S6-4J8	—	M10
			ø6	VPC70-10S6-6J8	—	
			ø8	VPC70-10S6-8J8	—	
	ø100	10	ø4	VPC100-10S6-4J8	—	
			ø6	VPC100-10S6-6J8	—	
			ø8	VPC100-10S6-8J8	—	

Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	12 -S3 -S3 spec.	Connection config. code
ø30	6	ø1/8	VPC30-6S6-1/8J8	—	M6
		ø5/32	VPC30-6S6-5/32J812	○	
		ø1/4	VPC30-6S6-1/4J8	—	
	10	ø1/8	VPC30-10S6-1/8J8	—	
		ø5/32	VPC30-10S6-5/32J8	—	
		ø1/4	VPC30-10S6-1/4J8	—	
	15	ø1/8	VPC30-15S6-1/8J8	—	
		ø5/32	VPC30-15S6-5/32J8	—	
		ø1/4	VPC30-15S6-1/4J8	—	
	20	ø1/8	VPC30-20S6-1/8J8	—	
		ø5/32	VPC30-20S6-5/32J8	—	
		ø1/4	VPC30-20S6-1/4J8	—	
ø35	6	ø1/8	VPC35-6S6-1/8J8	—	
		ø5/32	VPC35-6S6-5/32J812	○	
		ø1/4	VPC35-6S6-1/4J8	—	
	10	ø1/8	VPC35-10S6-1/8J8	—	
		ø5/32	VPC35-10S6-5/32J8	—	
		ø1/4	VPC35-10S6-1/4J8	—	
	15	ø1/8	VPC35-15S6-1/8J8	—	
		ø5/32	VPC35-15S6-5/32J8	—	
		ø1/4	VPC35-15S6-1/4J8	—	
	20	ø1/8	VPC35-20S6-1/8J8	—	
		ø5/32	VPC35-20S6-5/32J8	—	
		ø1/4	VPC35-20S6-1/4J8	—	
ø50	6	ø1/8	VPC50-6S6-1/8J8	—	
		ø5/32	VPC50-6S6-5/32J812	○	
		ø1/4	VPC50-6S6-1/4J8	—	
	10	ø1/8	VPC50-10S6-1/8J8	—	
		ø5/32	VPC50-10S6-5/32J8	—	
		ø1/4	VPC50-10S6-1/4J8	—	
	15	ø1/8	VPC50-15S6-1/8J8	—	
		ø5/32	VPC50-15S6-5/32J8	—	
		ø1/4	VPC50-15S6-1/4J8	—	
	20	ø1/8	VPC50-20S6-1/8J8	—	
		ø5/32	VPC50-20S6-5/32J8	—	
		ø1/4	VPC50-20S6-1/4J8	—	
ø70	10	ø1/8	VPC70-10S6-1/8J8	—	M10
		ø5/32	VPC70-10S6-5/32J8	—	
		ø3/16	VPC70-10S6-3/16J8	—	
		ø1/4	VPC70-10S6-1/4J8	—	
		ø5/16	VPC70-10S6-5/16J8	—	
		ø3/8	VPC70-10S6-3/8J8	—	
ø100	10	ø1/8	VPC100-10S6-1/8J8	—	
		ø5/32	VPC100-10S6-5/32J8	—	
		ø3/16	VPC100-10S6-3/16J8	—	
		ø1/4	VPC100-10S6-1/4J8	—	
		ø5/16	VPC100-10S6-5/16J8	—	
		ø3/8	VPC100-10S6-3/8J8	—	

Notes

*Barb fitting type holders are also selectable. Contact us for the details.Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options

8: -DC ⇒ Holder with dust catcher
12: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.677

Fall Prevention Valve
Dust Catcher (VPC)
Swivel Joint for vacuum pad
Filter

Vacuum Pad Sponge Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	12 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Female thread, Standard VPC 	ø10	6	M6×1	VPC10-6S6-M6812	○	M6
		10		VPC10-10S6-M68	—	
		15		VPC10-15S6-M68	—	
		20		VPC10-20S6-M68	—	
	ø15	6	M6×1	VPC15-6S6-M6812	○	
		10		VPC15-10S6-M68	—	
		15		VPC15-15S6-M68	—	
		20		VPC15-20S6-M68	—	
	ø20	6	M6×1	VPC20-6S6-M6812	○	
		10		VPC20-10S6-M68	—	
		15		VPC20-15S6-M68	—	
		20		VPC20-20S6-M68	—	
	ø25	6	M6×1	VPC25-6S6-M6812	○	
		10		VPC25-10S6-M68	—	
		15		VPC25-15S6-M68	—	
		20		VPC25-20S6-M68	—	
	ø30	6	M6×1	VPC30-6S6-M6812	○	
		10		VPC30-10S6-M68	—	
		15		VPC30-15S6-M68	—	
		20		VPC30-20S6-M68	—	
	ø35	6	M6×1	VPC35-6S6-M6812	○	
		10		VPC35-10S6-M68	—	
		15		VPC35-15S6-M68	—	
		20		VPC35-20S6-M68	—	
	ø50	6	M6×1	VPC50-6S6-M6812	○	
		10		VPC50-10S6-M68	—	
		15		VPC50-15S6-M68	—	
		20		VPC50-20S6-M68	—	
	ø70	10	G1/8	VPC70-10S6-G1812	○	M10
	ø100	10	G1/8	VPC100-10S6-G1812	○	
	ø70	10	NPT1/8	VPC70-10S6-N18	—	
	ø100	10	NPT1/8	VPC100-10S6-N18	—	

Notes
*Barb fitting type holders are also selectable.
Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
8: -DC ⇒ Holder with dust catcher
12: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.677

Fall Prevention Valve
Dust Catcher (VPC)
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type, Top port, Push-in fitting, No cover

VPOC

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, No cover VPOC	ø10	20	ø3	VPOC10-20S6-3J	M6	ø10	20	ø1/8	VPOC10-20S6-1/8J	M6
			ø4	VPOC10-20S6-4J				ø5/32	VPOC10-20S6-5/32J	
			ø6	VPOC10-20S6-6J				ø1/4	VPOC10-20S6-1/4J	
		30	ø3	VPOC10-30S6-3J			30	ø1/8	VPOC10-30S6-1/8J	
			ø4	VPOC10-30S6-4J				ø5/32	VPOC10-30S6-5/32J	
			ø6	VPOC10-30S6-6J				ø1/4	VPOC10-30S6-1/4J	
		40	ø3	VPOC10-40S6-3J			40	ø1/8	VPOC10-40S6-1/8J	
			ø4	VPOC10-40S6-4J				ø5/32	VPOC10-40S6-5/32J	
			ø6	VPOC10-40S6-6J				ø1/4	VPOC10-40S6-1/4J	
		50	ø3	VPOC10-50S6-3J			50	ø1/8	VPOC10-50S6-1/8J	
			ø4	VPOC10-50S6-4J				ø5/32	VPOC10-50S6-5/32J	
			ø6	VPOC10-50S6-6J				ø1/4	VPOC10-50S6-1/4J	
	ø15	20	ø3	VPOC15-20S6-3J		ø15	20	ø1/8	VPOC15-20S6-1/8J	
			ø4	VPOC15-20S6-4J				ø5/32	VPOC15-20S6-5/32J	
			ø6	VPOC15-20S6-6J				ø1/4	VPOC15-20S6-1/4J	
		30	ø3	VPOC15-30S6-3J			30	ø1/8	VPOC15-30S6-1/8J	
			ø4	VPOC15-30S6-4J				ø5/32	VPOC15-30S6-5/32J	
			ø6	VPOC15-30S6-6J				ø1/4	VPOC15-30S6-1/4J	
		40	ø3	VPOC15-40S6-3J			40	ø1/8	VPOC15-40S6-1/8J	
			ø4	VPOC15-40S6-4J				ø5/32	VPOC15-40S6-5/32J	
			ø6	VPOC15-40S6-6J				ø1/4	VPOC15-40S6-1/4J	
		50	ø3	VPOC15-50S6-3J			50	ø1/8	VPOC15-50S6-1/8J	
			ø4	VPOC15-50S6-4J				ø5/32	VPOC15-50S6-5/32J	
			ø6	VPOC15-50S6-6J				ø1/4	VPOC15-50S6-1/4J	
	ø20	20	ø3	VPOC20-20S6-3J		ø20	20	ø1/8	VPOC20-20S6-1/8J	
			ø4	VPOC20-20S6-4J				ø5/32	VPOC20-20S6-5/32J	
			ø6	VPOC20-20S6-6J				ø1/4	VPOC20-20S6-1/4J	
		30	ø3	VPOC20-30S6-3J			30	ø1/8	VPOC20-30S6-1/8J	
			ø4	VPOC20-30S6-4J				ø5/32	VPOC20-30S6-5/32J	
			ø6	VPOC20-30S6-6J				ø1/4	VPOC20-30S6-1/4J	
		40	ø3	VPOC20-40S6-3J			40	ø1/8	VPOC20-40S6-1/8J	
			ø4	VPOC20-40S6-4J				ø5/32	VPOC20-40S6-5/32J	
			ø6	VPOC20-40S6-6J				ø1/4	VPOC20-40S6-1/4J	
		50	ø3	VPOC20-50S6-3J			50	ø1/8	VPOC20-50S6-1/8J	
			ø4	VPOC20-50S6-4J				ø5/32	VPOC20-50S6-5/32J	
			ø6	VPOC20-50S6-6J				ø1/4	VPOC20-50S6-1/4J	
	ø25	20	ø3	VPOC25-20S6-3J		ø25	20	ø1/8	VPOC25-20S6-1/8J	
			ø4	VPOC25-20S6-4J				ø5/32	VPOC25-20S6-5/32J	
			ø6	VPOC25-20S6-6J				ø1/4	VPOC25-20S6-1/4J	
		30	ø3	VPOC25-30S6-3J			30	ø1/8	VPOC25-30S6-1/8J	
			ø4	VPOC25-30S6-4J				ø5/32	VPOC25-30S6-5/32J	
			ø6	VPOC25-30S6-6J				ø1/4	VPOC25-30S6-1/4J	
		40	ø3	VPOC25-40S6-3J			40	ø1/8	VPOC25-40S6-1/8J	
			ø4	VPOC25-40S6-4J				ø5/32	VPOC25-40S6-5/32J	
			ø6	VPOC25-40S6-6J				ø1/4	VPOC25-40S6-1/4J	
		50	ø3	VPOC25-50S6-3J			50	ø1/8	VPOC25-50S6-1/8J	
			ø4	VPOC25-50S6-4J				ø5/32	VPOC25-50S6-5/32J	
			ø6	VPOC25-50S6-6J				ø1/4	VPOC25-50S6-1/4J	
	ø30	20	ø3	VPOC30-20S6-3J		ø30	20	ø1/8	VPOC30-20S6-1/8J	
			ø4	VPOC30-20S6-4J				ø5/32	VPOC30-20S6-5/32J	
			ø6	VPOC30-20S6-6J				ø1/4	VPOC30-20S6-1/4J	
		30	ø3	VPOC30-30S6-3J			30	ø1/8	VPOC30-30S6-1/8J	
			ø4	VPOC30-30S6-4J				ø5/32	VPOC30-30S6-5/32J	
			ø6	VPOC30-30S6-6J				ø1/4	VPOC30-30S6-1/4J	
		40	ø3	VPOC30-40S6-3J			40	ø1/8	VPOC30-40S6-1/8J	
			ø4	VPOC30-40S6-4J				ø5/32	VPOC30-40S6-5/32J	
			ø6	VPOC30-40S6-6J				ø1/4	VPOC30-40S6-1/4J	
		50	ø3	VPOC30-50S6-3J			50	ø1/8	VPOC30-50S6-1/8J	
			ø4	VPOC30-50S6-4J				ø5/32	VPOC30-50S6-5/32J	
			ø6	VPOC30-50S6-6J				ø1/4	VPOC30-50S6-1/4J	
	ø35	20	ø3	VPOC35-20S6-3J		ø35	20	ø1/8	VPOC35-20S6-1/8J	
			ø4	VPOC35-20S6-4J				ø5/32	VPOC35-20S6-5/32J	
			ø6	VPOC35-20S6-6J				ø1/4	VPOC35-20S6-1/4J	
		30	ø3	VPOC35-30S6-3J			30	ø1/8	VPOC35-30S6-1/8J	
			ø4	VPOC35-30S6-4J				ø5/32	VPOC35-30S6-5/32J	
			ø6	VPOC35-30S6-6J				ø1/4	VPOC35-30S6-1/4J	
		40	ø3	VPOC35-40S6-3J			40	ø1/8	VPOC35-40S6-1/8J	
			ø4	VPOC35-40S6-4J				ø5/32	VPOC35-40S6-5/32J	
			ø6	VPOC35-40S6-6J				ø1/4	VPOC35-40S6-1/4J	
		50	ø3	VPOC35-50S6-3J			50	ø1/8	VPOC35-50S6-1/8J	
			ø4	VPOC35-50S6-4J				ø5/32	VPOC35-50S6-5/32J	
			ø6	VPOC35-50S6-6J				ø1/4	VPOC35-50S6-1/4J	
	ø50	20	ø3	VPOC50-20S6-3J		ø50	20	ø1/8	VPOC50-20S6-1/8J	
			ø4	VPOC50-20S6-4J				ø5/32	VPOC50-20S6-5/32J	
			ø6	VPOC50-20S6-6J				ø1/4	VPOC50-20S6-1/4J	
		30	ø3	VPOC50-30S6-3J			30	ø1/8	VPOC50-30S6-1/8J	
			ø4	VPOC50-30S6-4J				ø5/32	VPOC50-30S6-5/32J	
			ø6	VPOC50-30S6-6J				ø1/4	VPOC50-30S6-1/4J	
		40	ø3	VPOC50-40S6-3J			40	ø1/8	VPOC50-40S6-1/8J	
			ø4	VPOC50-40S6-4J				ø5/32	VPOC50-40S6-5/32J	
			ø6	VPOC50-40S6-6J				ø1/4	VPOC50-40S6-1/4J	
		50	ø3	VPOC50-50S6-3J			50	ø1/8	VPOC50-50S6-1/8J	
			ø4	VPOC50-50S6-4J				ø5/32	VPOC50-50S6-5/32J	
			ø6	VPOC50-50S6-6J				ø1/4	VPOC50-50S6-1/4J	

Notes
*Barb fitting type holders are also selectable. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Optional items
⇒ P.677
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Sponge Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Top port, Female thread, No cover VPOC 	ø10	20	M6×1	VPOC10-20S6-M6	M6
		30		VPOC10-30S6-M6	
		40		VPOC10-40S6-M6	
		50		VPOC10-50S6-M6	
	ø15	20	M6×1	VPOC15-20S6-M6	
		30		VPOC15-30S6-M6	
		40		VPOC15-40S6-M6	
		50		VPOC15-50S6-M6	
	ø20	20	M6×1	VPOC20-20S6-M6	
		30		VPOC20-30S6-M6	
		40		VPOC20-40S6-M6	
		50		VPOC20-50S6-M6	
	ø25	20	M6×1	VPOC25-20S6-M6	
		30		VPOC25-30S6-M6	
		40		VPOC25-40S6-M6	
		50		VPOC25-50S6-M6	
	ø30	20	M6×1	VPOC30-20S6-M6	
		30		VPOC30-30S6-M6	
		40		VPOC30-40S6-M6	
		50		VPOC30-50S6-M6	
	ø35	20	M6×1	VPOC35-20S6-M6	
		30		VPOC35-30S6-M6	
		40		VPOC35-40S6-M6	
		50		VPOC35-50S6-M6	
	ø50	20	M6×1	VPOC50-20S6-M6	
		30		VPOC50-30S6-M6	
		40		VPOC50-40S6-M6	
		50		VPOC50-50S6-M6	

Notes
*Barb fitting type holders are also selectable. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Optional items ⇒ P.677

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type,
Top port,
Push-in fitting,
Low dust emission

VPLFC

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, Low dust emission **VPLFC**	ø10	5	ø3	VPLFC10-5S6-3J8	M6
			ø4	VPLFC10-5S6-4J8	
			ø6	VPLFC10-5S6-6J8	
		10	ø3	VPLFC10-10S6-3J8	
			ø4	VPLFC10-10S6-4J8	
			ø6	VPLFC10-10S6-6J8	
		15	ø3	VPLFC10-15S6-3J8	
			ø4	VPLFC10-15S6-4J8	
			ø6	VPLFC10-15S6-6J8	
		20	ø3	VPLFC10-20S6-3J8	
			ø4	VPLFC10-20S6-4J8	
			ø6	VPLFC10-20S6-6J8	
	ø15	5	ø3	VPLFC15-5S6-3J8	
			ø4	VPLFC15-5S6-4J8	
			ø6	VPLFC15-5S6-6J8	
		10	ø3	VPLFC15-10S6-3J8	
			ø4	VPLFC15-10S6-4J8	
			ø6	VPLFC15-10S6-6J8	
		15	ø3	VPLFC15-15S6-3J8	
			ø4	VPLFC15-15S6-4J8	
			ø6	VPLFC15-15S6-6J8	
		20	ø3	VPLFC15-20S6-3J8	
			ø4	VPLFC15-20S6-4J8	
			ø6	VPLFC15-20S6-6J8	
	ø20	5	ø3	VPLFC20-5S6-3J8	
			ø4	VPLFC20-5S6-4J8	
			ø6	VPLFC20-5S6-6J8	
		10	ø3	VPLFC20-10S6-3J8	
			ø4	VPLFC20-10S6-4J8	
			ø6	VPLFC20-10S6-6J8	
		15	ø3	VPLFC20-15S6-3J8	
			ø4	VPLFC20-15S6-4J8	
			ø6	VPLFC20-15S6-6J8	
		20	ø3	VPLFC20-20S6-3J8	
			ø4	VPLFC20-20S6-4J8	
			ø6	VPLFC20-20S6-6J8	
	ø25	5	ø3	VPLFC25-5S6-3J8	
			ø4	VPLFC25-5S6-4J8	
			ø6	VPLFC25-5S6-6J8	
		10	ø3	VPLFC25-10S6-3J8	
			ø4	VPLFC25-10S6-4J8	
			ø6	VPLFC25-10S6-6J8	
		15	ø3	VPLFC25-15S6-3J8	
			ø4	VPLFC25-15S6-4J8	
			ø6	VPLFC25-15S6-6J8	
		20	ø3	VPLFC25-20S6-3J8	
			ø4	VPLFC25-20S6-4J8	
			ø6	VPLFC25-20S6-6J8	
	ø30	5	ø3	VPLFC30-5S6-3J8	
			ø4	VPLFC30-5S6-4J8	
			ø6	VPLFC30-5S6-6J8	
		10	ø3	VPLFC30-10S6-3J8	
			ø4	VPLFC30-10S6-4J8	
			ø6	VPLFC30-10S6-6J8	
		15	ø3	VPLFC30-15S6-3J8	
			ø4	VPLFC30-15S6-4J8	
			ø6	VPLFC30-15S6-6J8	
		20	ø3	VPLFC30-20S6-3J8	
			ø4	VPLFC30-20S6-4J8	
			ø6	VPLFC30-20S6-6J8	
	ø35	5	ø3	VPLFC35-5S6-3J8	
			ø4	VPLFC35-5S6-4J8	
			ø6	VPLFC35-5S6-6J8	
		10	ø3	VPLFC35-10S6-3J8	
			ø4	VPLFC35-10S6-4J8	
			ø6	VPLFC35-10S6-6J8	
		15	ø3	VPLFC35-15S6-3J8	
			ø4	VPLFC35-15S6-4J8	
			ø6	VPLFC35-15S6-6J8	
		20	ø3	VPLFC35-20S6-3J8	
			ø4	VPLFC35-20S6-4J8	
			ø6	VPLFC35-20S6-6J8	
	ø50	5	ø3	VPLFC50-5S6-3J8	
			ø4	VPLFC50-5S6-4J8	
			ø6	VPLFC50-5S6-6J8	
		10	ø3	VPLFC50-10S6-3J8	
			ø4	VPLFC50-10S6-4J8	
			ø6	VPLFC50-10S6-6J8	
		15	ø3	VPLFC50-15S6-3J8	
			ø4	VPLFC50-15S6-4J8	
			ø6	VPLFC50-15S6-6J8	
		20	ø3	VPLFC50-20S6-3J8	
			ø4	VPLFC50-20S6-4J8	
			ø6	VPLFC50-20S6-6J8	

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, Low dust emission **VPLFC**	ø10	5	ø1/8	VPLFC10-5S6-1/8J8	M6
			ø5/32	VPLFC10-5S6-5/32J8	
			ø1/4	VPLFC10-5S6-1/4J8	
		10	ø1/8	VPLFC10-10S6-1/8J8	
			ø5/32	VPLFC10-10S6-5/32J8	
			ø1/4	VPLFC10-10S6-1/4J8	
		15	ø1/8	VPLFC10-15S6-1/8J8	
			ø5/32	VPLFC10-15S6-5/32J8	
			ø1/4	VPLFC10-15S6-1/4J8	
		20	ø1/8	VPLFC10-20S6-1/8J8	
			ø5/32	VPLFC10-20S6-5/32J8	
			ø1/4	VPLFC10-20S6-1/4J8	
	ø15	5	ø1/8	VPLFC15-5S6-1/8J8	
			ø5/32	VPLFC15-5S6-5/32J8	
			ø1/4	VPLFC15-5S6-1/4J8	
		10	ø1/8	VPLFC15-10S6-1/8J8	
			ø5/32	VPLFC15-10S6-5/32J8	
			ø1/4	VPLFC15-10S6-1/4J8	
		15	ø1/8	VPLFC15-15S6-1/8J8	
			ø5/32	VPLFC15-15S6-5/32J8	
			ø1/4	VPLFC15-15S6-1/4J8	
		20	ø1/8	VPLFC15-20S6-1/8J8	
			ø5/32	VPLFC15-20S6-5/32J8	
			ø1/4	VPLFC15-20S6-1/4J8	
	ø20	5	ø1/8	VPLFC20-5S6-1/8J8	
			ø5/32	VPLFC20-5S6-5/32J8	
			ø1/4	VPLFC20-5S6-1/4J8	
		10	ø1/8	VPLFC20-10S6-1/8J8	
			ø5/32	VPLFC20-10S6-5/32J8	
			ø1/4	VPLFC20-10S6-1/4J8	
		15	ø1/8	VPLFC20-15S6-1/8J8	
			ø5/32	VPLFC20-15S6-5/32J8	
			ø1/4	VPLFC20-15S6-1/4J8	
		20	ø1/8	VPLFC20-20S6-1/8J8	
			ø5/32	VPLFC20-20S6-5/32J8	
			ø1/4	VPLFC20-20S6-1/4J8	
	ø25	5	ø1/8	VPLFC25-5S6-1/8J8	
			ø5/32	VPLFC25-5S6-5/32J8	
			ø1/4	VPLFC25-5S6-1/4J8	
		10	ø1/8	VPLFC25-10S6-1/8J8	
			ø5/32	VPLFC25-10S6-5/32J8	
			ø1/4	VPLFC25-10S6-1/4J8	
		15	ø1/8	VPLFC25-15S6-1/8J8	
			ø5/32	VPLFC25-15S6-5/32J8	
			ø1/4	VPLFC25-15S6-1/4J8	
		20	ø1/8	VPLFC25-20S6-1/8J8	
			ø5/32	VPLFC25-20S6-5/32J8	
			ø1/4	VPLFC25-20S6-1/4J8	
	ø30	5	ø1/8	VPLFC30-5S6-1/8J8	
			ø5/32	VPLFC30-5S6-5/32J8	
			ø1/4	VPLFC30-5S6-1/4J8	
		10	ø1/8	VPLFC30-10S6-1/8J8	
			ø5/32	VPLFC30-10S6-5/32J8	
			ø1/4	VPLFC30-10S6-1/4J8	
		15	ø1/8	VPLFC30-15S6-1/8J8	
			ø5/32	VPLFC30-15S6-5/32J8	
			ø1/4	VPLFC30-15S6-1/4J8	
		20	ø1/8	VPLFC30-20S6-1/8J8	
			ø5/32	VPLFC30-20S6-5/32J8	
			ø1/4	VPLFC30-20S6-1/4J8	
	ø35	5	ø1/8	VPLFC35-5S6-1/8J8	
			ø5/32	VPLFC35-5S6-5/32J8	
			ø1/4	VPLFC35-5S6-1/4J8	
		10	ø1/8	VPLFC35-10S6-1/8J8	
			ø5/32	VPLFC35-10S6-5/32J8	
			ø1/4	VPLFC35-10S6-1/4J8	
		15	ø1/8	VPLFC35-15S6-1/8J8	
			ø5/32	VPLFC35-15S6-5/32J8	
			ø1/4	VPLFC35-15S6-1/4J8	
		20	ø1/8	VPLFC35-20S6-1/8J8	
			ø5/32	VPLFC35-20S6-5/32J8	
			ø1/4	VPLFC35-20S6-1/4J8	
	ø50	5	ø1/8	VPLFC50-5S6-1/8J8	
			ø5/32	VPLFC50-5S6-5/32J8	
			ø1/4	VPLFC50-5S6-1/4J8	
		10	ø1/8	VPLFC50-10S6-1/8J8	
			ø5/32	VPLFC50-10S6-5/32J8	
			ø1/4	VPLFC50-10S6-1/4J8	
		15	ø1/8	VPLFC50-15S6-1/8J8	
			ø5/32	VPLFC50-15S6-5/32J8	
			ø1/4	VPLFC50-15S6-1/4J8	
		20	ø1/8	VPLFC50-20S6-1/8J8	
			ø5/32	VPLFC50-20S6-5/32J8	
			ø1/4	VPLFC50-20S6-1/4J8	

Notes

*Barb fitting type holders are also selectable. Contact us for the details.

Packaging specifications

1 pc./bag

Options

8: -SF1/4
⇒ Spring load 1/4

Optional items
⇒ P.677

- Fall Prevention Valve
- Swivel Joint for vacuum pad
- Filter

Vacuum Pad Sponge Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Top port, Female thread, Low dust emission **VPLFC** 	ø10	5	M6×1	VPLFC10-5S6-M68	M6
		10	M6×1	VPLFC10-10S6-M68	
		15	M6×1	VPLFC10-15S6-M68	
		20	M6×1	VPLFC10-20S6-M68	
	ø15	5	M6×1	VPLFC15-5S6-M68	
		10	M6×1	VPLFC15-10S6-M68	
		15	M6×1	VPLFC15-15S6-M68	
		20	M6×1	VPLFC15-20S6-M68	
	ø20	5	M6×1	VPLFC20-5S6-M68	
		10	M6×1	VPLFC20-10S6-M68	
		15	M6×1	VPLFC20-15S6-M68	
		20	M6×1	VPLFC20-20S6-M68	
	ø25	5	M6×1	VPLFC25-5S6-M68	
		10	M6×1	VPLFC25-10S6-M68	
		15	M6×1	VPLFC25-15S6-M68	
		20	M6×1	VPLFC25-20S6-M68	
	ø30	5	M6×1	VPLFC30-5S6-M68	
		10	M6×1	VPLFC30-10S6-M68	
		15	M6×1	VPLFC30-15S6-M68	
		20	M6×1	VPLFC30-20S6-M68	
	ø35	5	M6×1	VPLFC35-5S6-M68	
		10	M6×1	VPLFC35-10S6-M68	
		15	M6×1	VPLFC35-15S6-M68	
		20	M6×1	VPLFC35-20S6-M68	
	ø50	5	M6×1	VPLFC50-5S6-M68	
		10	M6×1	VPLFC50-10S6-M68	
		15	M6×1	VPLFC50-15S6-M68	
		20	M6×1	VPLFC50-20S6-M68	

Notes
*Barb fitting type holders are also selectable. Contact us for the details.

Packaging specifications
1 pc./bag

Options
8: -SF1/4 ⇒ Spring load 1/4

Optional items ⇒ P.677

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Tube O.D. (mm)	Model code	12 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Mini VPMD Stroke 4mm	ø10	ø3	VPMD10-4S6-3J	—	M6
		ø4	VPMD10-4S6-4J12	○	
		ø6	VPMD10-4S6-6J12	○	
	ø15	ø3	VPMD15-4S6-3J	—	
		ø4	VPMD15-4S6-4J12	○	
		ø6	VPMD15-4S6-6J12	○	
	ø20	ø3	VPMD20-4S6-3J	—	
		ø4	VPMD20-4S6-4J12	○	
		ø6	VPMD20-4S6-6J12	○	
	ø25	ø3	VPMD25-4S6-3J	—	
		ø4	VPMD25-4S6-4J12	○	
		ø6	VPMD25-4S6-6J12	○	
	ø30	ø3	VPMD30-4S6-3J	—	
		ø4	VPMD30-4S6-4J12	○	
		ø6	VPMD30-4S6-6J12	○	
	ø35	ø3	VPMD35-4S6-3J	—	
		ø4	VPMD35-4S6-4J12	○	
		ø6	VPMD35-4S6-6J12	○	
	ø50	ø3	VPMD50-4S6-3J	—	
		ø4	VPMD50-4S6-4J12	○	
		ø6	VPMD50-4S6-6J12	○	

Holder type	Pad dia. (mm)	Tube O.D. (inch)	Model code	12 -S3 -S3 spec.	Connection config. code
	ø10	ø1/8	VPMD10-4S6-1/8J	—	
		ø5/32	VPMD10-4S6-5/32J12	○	
		ø1/4	VPMD10-4S6-1/4J	—	
	ø15	ø1/8	VPMD15-4S6-1/8J	—	
		ø5/32	VPMD15-4S6-5/32J12	○	
		ø1/4	VPMD15-4S6-1/4J	—	
	ø20	ø1/8	VPMD20-4S6-1/8J	—	
		ø5/32	VPMD20-4S6-5/32J12	○	
		ø1/4	VPMD20-4S6-1/4J	—	
	ø25	ø1/8	VPMD25-4S6-1/8J	—	
		ø5/32	VPMD25-4S6-5/32J12	○	
		ø1/4	VPMD25-4S6-1/4J	—	
	ø30	ø1/8	VPMD30-4S6-1/8J	—	
		ø5/32	VPMD30-4S6-5/32J12	○	
		ø1/4	VPMD30-4S6-1/4J	—	
	ø35	ø1/8	VPMD35-4S6-1/8J	—	
		ø5/32	VPMD35-4S6-5/32J12	○	
		ø1/4	VPMD35-4S6-1/4J	—	
	ø50	ø1/8	VPMD50-4S6-1/8J	—	
		ø5/32	VPMD50-4S6-5/32J12	○	
		ø1/4	VPMD50-4S6-1/4J	—	

Holder type	Pad dia. (mm)	Male thread size	Model code	12 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Female thread, Mini VPMD Stroke 4mm	ø10	M5×0.8	VPMD10-4S6-M512	○	M6
	ø15	M5×0.8	VPMD15-4S6-M512	○	
	ø20	M5×0.8	VPMD20-4S6-M512	○	
	ø25	M5×0.8	VPMD25-4S6-M512	○	
	ø30	M5×0.8	VPMD30-4S6-M512	○	
	ø35	M5×0.8	VPMD35-4S6-M512	○	
	ø50	M5×0.8	VPMD50-4S6-M512	○	

Notes

*Barb fitting type holders are also selectable. VPMD holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options

12: **-S3** ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.677

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

Vacuum Pad Sponge Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	12 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	12 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Standard VPD 	ø10	6	ø3	VPD10-6S6-3J8	—	M6	ø10	6	ø1/8	VPD10-6S6-1/8J8	—	M6
			ø4	VPD10-6S6-4J812	○				ø5/32	VPD10-6S6-5/32J812	○	
			ø6	VPD10-6S6-6J812	○				ø1/4	VPD10-6S6-1/4J8	—	
		10	ø3	VPD10-10S6-3J8	—			10	ø1/8	VPD10-10S6-1/8J8	—	
			ø4	VPD10-10S6-4J8	—				ø5/32	VPD10-10S6-5/32J8	—	
			ø6	VPD10-10S6-6J8	—				ø1/4	VPD10-10S6-1/4J8	—	
		15	ø3	VPD10-15S6-3J8	—			15	ø1/8	VPD10-15S6-1/8J8	—	
			ø4	VPD10-15S6-4J8	—				ø5/32	VPD10-15S6-5/32J8	—	
			ø6	VPD10-15S6-6J8	—				ø1/4	VPD10-15S6-1/4J8	—	
		20	ø3	VPD10-20S6-3J8	—			20	ø1/8	VPD10-20S6-1/8J8	—	
			ø4	VPD10-20S6-4J8	—				ø5/32	VPD10-20S6-5/32J8	—	
			ø6	VPD10-20S6-6J8	—				ø1/4	VPD10-20S6-1/4J8	—	
	ø15	6	ø3	VPD15-6S6-3J8	—		ø15	6	ø1/8	VPD15-6S6-1/8J8	—	
			ø4	VPD15-6S6-4J812	○				ø5/32	VPD15-6S6-5/32J812	○	
			ø6	VPD15-6S6-6J812	○				ø1/4	VPD15-6S6-1/4J8	—	
		10	ø3	VPD15-10S6-3J8	—			10	ø1/8	VPD15-10S6-1/8J8	—	
			ø4	VPD15-10S6-4J8	—				ø5/32	VPD15-10S6-5/32J8	—	
			ø6	VPD15-10S6-6J8	—				ø1/4	VPD15-10S6-1/4J8	—	
		15	ø3	VPD15-15S6-3J8	—			15	ø1/8	VPD15-15S6-1/8J8	—	
			ø4	VPD15-15S6-4J8	—				ø5/32	VPD15-15S6-5/32J8	—	
			ø6	VPD15-15S6-6J8	—				ø1/4	VPD15-15S6-1/4J8	—	
		20	ø3	VPD15-20S6-3J8	—			20	ø1/8	VPD15-20S6-1/8J8	—	
			ø4	VPD15-20S6-4J8	—				ø5/32	VPD15-20S6-5/32J8	—	
			ø6	VPD15-20S6-6J8	—				ø1/4	VPD15-20S6-1/4J8	—	
	ø20	6	ø3	VPD20-6S6-3J8	—		ø20	6	ø1/8	VPD20-6S6-1/8J8	—	
			ø4	VPD20-6S6-4J812	○				ø5/32	VPD20-6S6-5/32J812	○	
			ø6	VPD20-6S6-6J812	○				ø1/4	VPD20-6S6-1/4J8	—	
		10	ø3	VPD20-10S6-3J8	—			10	ø1/8	VPD20-10S6-1/8J8	—	
			ø4	VPD20-10S6-4J8	—				ø5/32	VPD20-10S6-5/32J8	—	
			ø6	VPD20-10S6-6J8	—				ø1/4	VPD20-10S6-1/4J8	—	
		15	ø3	VPD20-15S6-3J8	—			15	ø1/8	VPD20-15S6-1/8J8	—	
			ø4	VPD20-15S6-4J8	—				ø5/32	VPD20-15S6-5/32J8	—	
			ø6	VPD20-15S6-6J8	—				ø1/4	VPD20-15S6-1/4J8	—	
		20	ø3	VPD20-20S6-3J8	—			20	ø1/8	VPD20-20S6-1/8J8	—	
			ø4	VPD20-20S6-4J8	—				ø5/32	VPD20-20S6-5/32J8	—	
			ø6	VPD20-20S6-6J8	—				ø1/4	VPD20-20S6-1/4J8	—	
	ø25	6	ø3	VPD25-6S6-3J8	—		ø25	6	ø1/8	VPD25-6S6-1/8J8	—	
			ø4	VPD25-6S6-4J812	○				ø5/32	VPD25-6S6-5/32J812	○	
			ø6	VPD25-6S6-6J812	○				ø1/4	VPD25-6S6-1/4J8	—	
		10	ø3	VPD25-10S6-3J8	—			10	ø1/8	VPD25-10S6-1/8J8	—	
			ø4	VPD25-10S6-4J8	—				ø5/32	VPD25-10S6-5/32J8	—	
			ø6	VPD25-10S6-6J8	—				ø1/4	VPD25-10S6-1/4J8	—	
		15	ø3	VPD25-15S6-3J8	—			15	ø1/8	VPD25-15S6-1/8J8	—	
			ø4	VPD25-15S6-4J8	—				ø5/32	VPD25-15S6-5/32J8	—	
			ø6	VPD25-15S6-6J8	—				ø1/4	VPD25-15S6-1/4J8	—	
		20	ø3	VPD25-20S6-3J8	—			20	ø1/8	VPD25-20S6-1/8J8	—	
			ø4	VPD25-20S6-4J8	—				ø5/32	VPD25-20S6-5/32J8	—	
			ø6	VPD25-20S6-6J8	—				ø1/4	VPD25-20S6-1/4J8	—	

Notes
*Barb fitting type holders are also selectable. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
8: -DC ⇒ Holder with dust catcher
12: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.677
Fall Prevention Valve
Dust Catcher (VPD)
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	12 -S3 -S3 spec.	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	12 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Standard VPD	ø30	6	ø3	VPD30-6S6-3J8	—	M6	ø30	6	ø1/8	VPD30-6S6-1/8J8	—	M6
			ø4	VPD30-6S6-4J812	○				ø5/32	VPD30-6S6-5/32J812	○	
			ø6	VPD30-6S6-6J812	○				ø1/4	VPD30-6S6-1/4J8	—	
		10	ø3	VPD30-10S6-3J8	—			10	ø1/8	VPD30-10S6-1/8J8	—	
			ø4	VPD30-10S6-4J8	—				ø5/32	VPD30-10S6-5/32J8	—	
			ø6	VPD30-10S6-6J8	—				ø1/4	VPD30-10S6-1/4J8	—	
		15	ø3	VPD30-15S6-3J8	—			15	ø1/8	VPD30-15S6-1/8J8	—	
			ø4	VPD30-15S6-4J8	—				ø5/32	VPD30-15S6-5/32J8	—	
			ø6	VPD30-15S6-6J8	—				ø1/4	VPD30-15S6-1/4J8	—	
		20	ø3	VPD30-20S6-3J8	—			20	ø1/8	VPD30-20S6-1/8J8	—	
			ø4	VPD30-20S6-4J8	—				ø5/32	VPD30-20S6-5/32J8	—	
			ø6	VPD30-20S6-6J8	—				ø1/4	VPD30-20S6-1/4J8	—	
	ø35	6	ø3	VPD35-6S6-3J8	—		ø35	6	ø1/8	VPD35-6S6-1/8J8	—	
			ø4	VPD35-6S6-4J812	○				ø5/32	VPD35-6S6-5/32J812	○	
			ø6	VPD35-6S6-6J812	○				ø1/4	VPD35-6S6-1/4J8	—	
		10	ø3	VPD35-10S6-3J8	—			10	ø1/8	VPD35-10S6-1/8J8	—	
			ø4	VPD35-10S6-4J8	—				ø5/32	VPD35-10S6-5/32J8	—	
			ø6	VPD35-10S6-6J8	—				ø1/4	VPD35-10S6-1/4J8	—	
		15	ø3	VPD35-15S6-3J8	—			15	ø1/8	VPD35-15S6-1/8J8	—	
			ø4	VPD35-15S6-4J8	—				ø5/32	VPD35-15S6-5/32J8	—	
			ø6	VPD35-15S6-6J8	—				ø1/4	VPD35-15S6-1/4J8	—	
		20	ø3	VPD35-20S6-3J8	—			20	ø1/8	VPD35-20S6-1/8J8	—	
			ø4	VPD35-20S6-4J8	—				ø5/32	VPD35-20S6-5/32J8	—	
			ø6	VPD35-20S6-6J8	—				ø1/4	VPD35-20S6-1/4J8	—	
	ø50	6	ø3	VPD50-6S6-3J8	—		ø50	6	ø1/8	VPD50-6S6-1/8J8	—	
			ø4	VPD50-6S6-4J812	○				ø5/32	VPD50-6S6-5/32J812	○	
			ø6	VPD50-6S6-6J812	○				ø1/4	VPD50-6S6-1/4J8	—	
		10	ø3	VPD50-10S6-3J8	—			10	ø1/8	VPD50-10S6-1/8J8	—	
			ø4	VPD50-10S6-4J8	—				ø5/32	VPD50-10S6-5/32J8	—	
			ø6	VPD50-10S6-6J8	—				ø1/4	VPD50-10S6-1/4J8	—	
		15	ø3	VPD50-15S6-3J8	—			15	ø1/8	VPD50-15S6-1/8J8	—	
			ø4	VPD50-15S6-4J8	—				ø5/32	VPD50-15S6-5/32J8	—	
			ø6	VPD50-15S6-6J8	—				ø1/4	VPD50-15S6-1/4J8	—	
		20	ø3	VPD50-20S6-3J8	—			20	ø1/8	VPD50-20S6-1/8J8	—	
			ø4	VPD50-20S6-4J8	—				ø5/32	VPD50-20S6-5/32J8	—	
			ø6	VPD50-20S6-6J8	—				ø1/4	VPD50-20S6-1/4J8	—	
	ø70	10	ø4	VPD70-10S6-4J8	—	M10	ø70	10	ø1/8	VPD70-10S6-1/8J8	—	M10
			ø6	VPD70-10S6-6J8	—				ø5/32	VPD70-10S6-5/32J8	—	
			ø8	VPD70-10S6-8J8	—				ø3/16	VPD70-10S6-3/16J8	—	
	ø100	10	ø4	VPD100-10S6-4J8	—				ø1/4	VPD70-10S6-1/4J8	—	
			ø6	VPD100-10S6-6J8	—				ø5/16	VPD70-10S6-5/16J8	—	
			ø8	VPD100-10S6-8J8	—				ø3/8	VPD70-10S6-3/8J8	—	
							ø100	10	ø1/8	VPD100-10S6-1/8J8	—	
									ø5/32	VPD100-10S6-5/32J8	—	
									ø3/16	VPD100-10S6-3/16J8	—	
									ø1/4	VPD100-10S6-1/4J8	—	
									ø5/16	VPD100-10S6-5/16J8	—	
									ø3/8	VPD100-10S6-3/8J8	—	

Notes
*Barb fitting type holders are also selectable. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
8: -DC ⇒ Holder with dust catcher
12: -S3 ⇒ -S3 spec.(○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.677
Fall Prevention Valve
Dust Catcher (VPD)
Swivel Joint for vacuum pad
Filter

Vacuum Pad Sponge Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	12 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Female thread, Standard VPD 	ø10	6	M6×1	VPD10-6S6-M6812	○	M6
		10		VPD10-10S6-M68	—	
		15		VPD10-15S6-M68	—	
		20		VPD10-20S6-M68	—	
	ø15	6	M6×1	VPD15-6S6-M6812	○	
		10		VPD15-10S6-M68	—	
		15		VPD15-15S6-M68	—	
		20		VPD15-20S6-M68	—	
	ø20	6	M6×1	VPD20-6S6-M6812	○	
		10		VPD20-10S6-M68	—	
		15		VPD20-15S6-M68	—	
		20		VPD20-20S6-M68	—	
	ø25	6	M6×1	VPD25-6S6-M6812	○	
		10		VPD25-10S6-M68	—	
		15		VPD25-15S6-M68	—	
		20		VPD25-20S6-M68	—	
	ø30	6	M6×1	VPD30-6S6-M6812	○	
		10		VPD30-10S6-M68	—	
		15		VPD30-15S6-M68	—	
		20		VPD30-20S6-M68	—	
	ø35	6	M6×1	VPD35-6S6-M6812	○	
		10		VPD35-10S6-M68	—	
		15		VPD35-15S6-M68	—	
		20		VPD35-20S6-M68	—	
	ø50	6	M6×1	VPD50-6S6-M6812	○	
		10		VPD50-10S6-M68	—	
		15		VPD50-15S6-M68	—	
		20		VPD50-20S6-M68	—	
	ø70	10	G1/8	VPD70-10S6-G1812	○	M10
	ø100	10	G1/8	VPD100-10S6-G1812	○	
	ø70	10	NPT1/8	VPD70-10S6-N18	—	
	ø100	10	NPT1/8	VPD100-10S6-N18	—	

Notes
*Barb fitting type holders are also selectable. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
8: -DC ⇒ Holder with dust catcher
12: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.677

Fall Prevention Valve

Dust Catcher (VPD)

Swivel Joint for vacuum pad

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, No cover VPOD	ø10	20	ø3	VPOD10-20S6-3J	M6	ø10	20	ø1/8	VPOD10-20S6-1/8J	M6
			ø4	VPOD10-20S6-4J				ø5/32	VPOD10-20S6-5/32J	
			ø6	VPOD10-20S6-6J				ø1/4	VPOD10-20S6-1/4J	
		30	ø3	VPOD10-30S6-3J			30	ø1/8	VPOD10-30S6-1/8J	
			ø4	VPOD10-30S6-4J				ø5/32	VPOD10-30S6-5/32J	
			ø6	VPOD10-30S6-6J				ø1/4	VPOD10-30S6-1/4J	
		40	ø3	VPOD10-40S6-3J			40	ø1/8	VPOD10-40S6-1/8J	
			ø4	VPOD10-40S6-4J				ø5/32	VPOD10-40S6-5/32J	
			ø6	VPOD10-40S6-6J				ø1/4	VPOD10-40S6-1/4J	
		50	ø3	VPOD10-50S6-3J			50	ø1/8	VPOD10-50S6-1/8J	
			ø4	VPOD10-50S6-4J				ø5/32	VPOD10-50S6-5/32J	
			ø6	VPOD10-50S6-6J				ø1/4	VPOD10-50S6-1/4J	
	ø15	20	ø3	VPOD15-20S6-3J		ø15	20	ø1/8	VPOD15-20S6-1/8J	
			ø4	VPOD15-20S6-4J				ø5/32	VPOD15-20S6-5/32J	
			ø6	VPOD15-20S6-6J				ø1/4	VPOD15-20S6-1/4J	
		30	ø3	VPOD15-30S6-3J			30	ø1/8	VPOD15-30S6-1/8J	
			ø4	VPOD15-30S6-4J				ø5/32	VPOD15-30S6-5/32J	
			ø6	VPOD15-30S6-6J				ø1/4	VPOD15-30S6-1/4J	
		40	ø3	VPOD15-40S6-3J			40	ø1/8	VPOD15-40S6-1/8J	
			ø4	VPOD15-40S6-4J				ø5/32	VPOD15-40S6-5/32J	
			ø6	VPOD15-40S6-6J				ø1/4	VPOD15-40S6-1/4J	
		50	ø3	VPOD15-50S6-3J			50	ø1/8	VPOD15-50S6-1/8J	
			ø4	VPOD15-50S6-4J				ø5/32	VPOD15-50S6-5/32J	
			ø6	VPOD15-50S6-6J				ø1/4	VPOD15-50S6-1/4J	
	ø20	20	ø3	VPOD20-20S6-3J		ø20	20	ø1/8	VPOD20-20S6-1/8J	
			ø4	VPOD20-20S6-4J				ø5/32	VPOD20-20S6-5/32J	
			ø6	VPOD20-20S6-6J				ø1/4	VPOD20-20S6-1/4J	
		30	ø3	VPOD20-30S6-3J			30	ø1/8	VPOD20-30S6-1/8J	
			ø4	VPOD20-30S6-4J				ø5/32	VPOD20-30S6-5/32J	
			ø6	VPOD20-30S6-6J				ø1/4	VPOD20-30S6-1/4J	
		40	ø3	VPOD20-40S6-3J			40	ø1/8	VPOD20-40S6-1/8J	
			ø4	VPOD20-40S6-4J				ø5/32	VPOD20-40S6-5/32J	
			ø6	VPOD20-40S6-6J				ø1/4	VPOD20-40S6-1/4J	
		50	ø3	VPOD20-50S6-3J			50	ø1/8	VPOD20-50S6-1/8J	
			ø4	VPOD20-50S6-4J				ø5/32	VPOD20-50S6-5/32J	
			ø6	VPOD20-50S6-6J				ø1/4	VPOD20-50S6-1/4J	
	ø25	20	ø3	VPOD25-20S6-3J		ø25	20	ø1/8	VPOD25-20S6-1/8J	
			ø4	VPOD25-20S6-4J				ø5/32	VPOD25-20S6-5/32J	
			ø6	VPOD25-20S6-6J				ø1/4	VPOD25-20S6-1/4J	
		30	ø3	VPOD25-30S6-3J			30	ø1/8	VPOD25-30S6-1/8J	
			ø4	VPOD25-30S6-4J				ø5/32	VPOD25-30S6-5/32J	
			ø6	VPOD25-30S6-6J				ø1/4	VPOD25-30S6-1/4J	
		40	ø3	VPOD25-40S6-3J			40	ø1/8	VPOD25-40S6-1/8J	
			ø4	VPOD25-40S6-4J				ø5/32	VPOD25-40S6-5/32J	
			ø6	VPOD25-40S6-6J				ø1/4	VPOD25-40S6-1/4J	
		50	ø3	VPOD25-50S6-3J			50	ø1/8	VPOD25-50S6-1/8J	
			ø4	VPOD25-50S6-4J				ø5/32	VPOD25-50S6-5/32J	
			ø6	VPOD25-50S6-6J				ø1/4	VPOD25-50S6-1/4J	
	ø30	20	ø3	VPOD30-20S6-3J		ø30	20	ø1/8	VPOD30-20S6-1/8J	
			ø4	VPOD30-20S6-4J				ø5/32	VPOD30-20S6-5/32J	
			ø6	VPOD30-20S6-6J				ø1/4	VPOD30-20S6-1/4J	
		30	ø3	VPOD30-30S6-3J			30	ø1/8	VPOD30-30S6-1/8J	
			ø4	VPOD30-30S6-4J				ø5/32	VPOD30-30S6-5/32J	
			ø6	VPOD30-30S6-6J				ø1/4	VPOD30-30S6-1/4J	
		40	ø3	VPOD30-40S6-3J			40	ø1/8	VPOD30-40S6-1/8J	
			ø4	VPOD30-40S6-4J				ø5/32	VPOD30-40S6-5/32J	
			ø6	VPOD30-40S6-6J				ø1/4	VPOD30-40S6-1/4J	
		50	ø3	VPOD30-50S6-3J			50	ø1/8	VPOD30-50S6-1/8J	
			ø4	VPOD30-50S6-4J				ø5/32	VPOD30-50S6-5/32J	
			ø6	VPOD30-50S6-6J				ø1/4	VPOD30-50S6-1/4J	
	ø35	20	ø3	VPOD35-20S6-3J		ø35	20	ø1/8	VPOD35-20S6-1/8J	
			ø4	VPOD35-20S6-4J				ø5/32	VPOD35-20S6-5/32J	
			ø6	VPOD35-20S6-6J				ø1/4	VPOD35-20S6-1/4J	
		30	ø3	VPOD35-30S6-3J			30	ø1/8	VPOD35-30S6-1/8J	
			ø4	VPOD35-30S6-4J				ø5/32	VPOD35-30S6-5/32J	
			ø6	VPOD35-30S6-6J				ø1/4	VPOD35-30S6-1/4J	
		40	ø3	VPOD35-40S6-3J			40	ø1/8	VPOD35-40S6-1/8J	
			ø4	VPOD35-40S6-4J				ø5/32	VPOD35-40S6-5/32J	
			ø6	VPOD35-40S6-6J				ø1/4	VPOD35-40S6-1/4J	
		50	ø3	VPOD35-50S6-3J			50	ø1/8	VPOD35-50S6-1/8J	
			ø4	VPOD35-50S6-4J				ø5/32	VPOD35-50S6-5/32J	
			ø6	VPOD35-50S6-6J				ø1/4	VPOD35-50S6-1/4J	
	ø50	20	ø3	VPOD50-20S6-3J		ø50	20	ø1/8	VPOD50-20S6-1/8J	
			ø4	VPOD50-20S6-4J				ø5/32	VPOD50-20S6-5/32J	
			ø6	VPOD50-20S6-6J				ø1/4	VPOD50-20S6-1/4J	
		30	ø3	VPOD50-30S6-3J			30	ø1/8	VPOD50-30S6-1/8J	
			ø4	VPOD50-30S6-4J				ø5/32	VPOD50-30S6-5/32J	
			ø6	VPOD50-30S6-6J				ø1/4	VPOD50-30S6-1/4J	
		40	ø3	VPOD50-40S6-3J			40	ø1/8	VPOD50-40S6-1/8J	
			ø4	VPOD50-40S6-4J				ø5/32	VPOD50-40S6-5/32J	
			ø6	VPOD50-40S6-6J				ø1/4	VPOD50-40S6-1/4J	
		50	ø3	VPOD50-50S6-3J			50	ø1/8	VPOD50-50S6-1/8J	
			ø4	VPOD50-50S6-4J				ø5/32	VPOD50-50S6-5/32J	
			ø6	VPOD50-50S6-6J				ø1/4	VPOD50-50S6-1/4J	

Notes
*Barb fitting type holders are also selectable. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./1 bag

Optional items
⇒ P.677

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

Vacuum Pad Sponge Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Side port, Female thread, No cover VPOD	ø10	20	M6×1	VPOD10-20S6-M6	M6
		30		VPOD10-30S6-M6	
		40		VPOD10-40S6-M6	
		50		VPOD10-50S6-M6	
	ø15	20	M6×1	VPOD15-20S6-M6	
		30		VPOD15-30S6-M6	
		40		VPOD15-40S6-M6	
		50		VPOD15-50S6-M6	
	ø20	20	M6×1	VPOD20-20S6-M6	
		30		VPOD20-30S6-M6	
		40		VPOD20-40S6-M6	
		50		VPOD20-50S6-M6	
	ø25	20	M6×1	VPOD25-20S6-M6	
		30		VPOD25-30S6-M6	
		40		VPOD25-40S6-M6	
		50		VPOD25-50S6-M6	
	ø30	20	M6×1	VPOD30-20S6-M6	
		30		VPOD30-30S6-M6	
		40		VPOD30-40S6-M6	
		50		VPOD30-50S6-M6	
	ø35	20	M6×1	VPOD35-20S6-M6	
		30		VPOD35-30S6-M6	
		40		VPOD35-40S6-M6	
		50		VPOD35-50S6-M6	
	ø50	20	M6×1	VPOD50-20S6-M6	
		30		VPOD50-30S6-M6	
		40		VPOD50-40S6-M6	
		50		VPOD50-50S6-M6	

Notes
*Barb fitting type holders are also selectable. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Optional items ⇒ P.677

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type,
Side port,
Push-in fitting,
Low dust emission

VPLFD

Holder type	Pad dia. (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad dia. (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, Low dust emission **VPLFD**	ø10	5	ø3	VPLFD10-5S6-3J	M6	ø10	5	ø1/8	VPLFD10-5S6-1/8J	M6
			ø4	VPLFD10-5S6-4J				ø5/32	VPLFD10-5S6-5/32J	
			ø6	VPLFD10-5S6-6J				ø1/4	VPLFD10-5S6-1/4J	
		10	ø3	VPLFD10-10S6-3J			10	ø1/8	VPLFD10-10S6-1/8J	
			ø4	VPLFD10-10S6-4J				ø5/32	VPLFD10-10S6-5/32J	
			ø6	VPLFD10-10S6-6J				ø1/4	VPLFD10-10S6-1/4J	
		15	ø3	VPLFD10-15S6-3J			15	ø1/8	VPLFD10-15S6-1/8J	
			ø4	VPLFD10-15S6-4J				ø5/32	VPLFD10-15S6-5/32J	
			ø6	VPLFD10-15S6-6J				ø1/4	VPLFD10-15S6-1/4J	
		20	ø3	VPLFD10-20S6-3J			20	ø1/8	VPLFD10-20S6-1/8J	
			ø4	VPLFD10-20S6-4J				ø5/32	VPLFD10-20S6-5/32J	
			ø6	VPLFD10-20S6-6J				ø1/4	VPLFD10-20S6-1/4J	
	ø15	5	ø3	VPLFD15-5S6-3J		ø15	5	ø1/8	VPLFD15-5S6-1/8J	
			ø4	VPLFD15-5S6-4J				ø5/32	VPLFD15-5S6-5/32J	
			ø6	VPLFD15-5S6-6J				ø1/4	VPLFD15-5S6-1/4J	
		10	ø3	VPLFD15-10S6-3J			10	ø1/8	VPLFD15-10S6-1/8J	
			ø4	VPLFD15-10S6-4J				ø5/32	VPLFD15-10S6-5/32J	
			ø6	VPLFD15-10S6-6J				ø1/4	VPLFD15-10S6-1/4J	
		15	ø3	VPLFD15-15S6-3J			15	ø1/8	VPLFD15-15S6-1/8J	
			ø4	VPLFD15-15S6-4J				ø5/32	VPLFD15-15S6-5/32J	
			ø6	VPLFD15-15S6-6J				ø1/4	VPLFD15-15S6-1/4J	
		20	ø3	VPLFD15-20S6-3J			20	ø1/8	VPLFD15-20S6-1/8J	
			ø4	VPLFD15-20S6-4J				ø5/32	VPLFD15-20S6-5/32J	
			ø6	VPLFD15-20S6-6J				ø1/4	VPLFD15-20S6-1/4J	
	ø20	5	ø3	VPLFD20-5S6-3J		ø20	5	ø1/8	VPLFD20-5S6-1/8J	
			ø4	VPLFD20-5S6-4J				ø5/32	VPLFD20-5S6-5/32J	
			ø6	VPLFD20-5S6-6J				ø1/4	VPLFD20-5S6-1/4J	
		10	ø3	VPLFD20-10S6-3J			10	ø1/8	VPLFD20-10S6-1/8J	
			ø4	VPLFD20-10S6-4J				ø5/32	VPLFD20-10S6-5/32J	
			ø6	VPLFD20-10S6-6J				ø1/4	VPLFD20-10S6-1/4J	
		15	ø3	VPLFD20-15S6-3J			15	ø1/8	VPLFD20-15S6-1/8J	
			ø4	VPLFD20-15S6-4J				ø5/32	VPLFD20-15S6-5/32J	
			ø6	VPLFD20-15S6-6J				ø1/4	VPLFD20-15S6-1/4J	
		20	ø3	VPLFD20-20S6-3J			20	ø1/8	VPLFD20-20S6-1/8J	
			ø4	VPLFD20-20S6-4J				ø5/32	VPLFD20-20S6-5/32J	
			ø6	VPLFD20-20S6-6J				ø1/4	VPLFD20-20S6-1/4J	
	ø25	5	ø3	VPLFD25-5S6-3J		ø25	5	ø1/8	VPLFD25-5S6-1/8J	
			ø4	VPLFD25-5S6-4J				ø5/32	VPLFD25-5S6-5/32J	
			ø6	VPLFD25-5S6-6J				ø1/4	VPLFD25-5S6-1/4J	
		10	ø3	VPLFD25-10S6-3J			10	ø1/8	VPLFD25-10S6-1/8J	
			ø4	VPLFD25-10S6-4J				ø5/32	VPLFD25-10S6-5/32J	
			ø6	VPLFD25-10S6-6J				ø1/4	VPLFD25-10S6-1/4J	
		15	ø3	VPLFD25-15S6-3J			15	ø1/8	VPLFD25-15S6-1/8J	
			ø4	VPLFD25-15S6-4J				ø5/32	VPLFD25-15S6-5/32J	
			ø6	VPLFD25-15S6-6J				ø1/4	VPLFD2515S6-1/4J	
		20	ø3	VPLFD25-20S6-3J			20	ø1/8	VPLFD25-20S6-1/8J	
			ø4	VPLFD25-20S6-4J				ø5/32	VPLFD25-20S6-5/32J	
			ø6	VPLFD25-20S6-6J				ø1/4	VPLFD25-20S6-1/4J	
	ø30	5	ø3	VPLFD30-5S6-3J		ø30	5	ø1/8	VPLFD30-5S6-1/8J	
			ø4	VPLFD30-5S6-4J				ø5/32	VPLFD30-5S6-5/32J	
			ø6	VPLFD30-5S6-6J				ø1/4	VPLFD30-5S6-1/4J	
		10	ø3	VPLFD30-10S6-3J			10	ø1/8	VPLFD30-10S6-1/8J	
			ø4	VPLFD30-10S6-4J				ø5/32	VPLFD30-10S6-5/32J	
			ø6	VPLFD30-10S6-6J				ø1/4	VPLFD30-10S6-1/4J	
		15	ø3	VPLFD30-15S6-3J			15	ø1/8	VPLFD30-15S6-1/8J	
			ø4	VPLFD30-15S6-4J				ø5/32	VPLFD30-15S6-5/32J	
			ø6	VPLFD30-15S6-6J				ø1/4	VPLFD30-15S6-1/4J	
		20	ø3	VPLFD30-20S6-3J			20	ø1/8	VPLFD30-20S6-1/8J	
			ø4	VPLFD30-20S6-4J				ø5/32	VPLFD30-20S6-5/32J	
			ø6	VPLFD30-20S6-6J				ø1/4	VPLFD30-20S6-1/4J	
	ø35	5	ø3	VPLFD35-5S6-3J		ø35	5	ø1/8	VPLFD35-5S6-1/8J	
			ø4	VPLFD35-5S6-4J				ø5/32	VPLFD35-5S6-5/32J	
			ø6	VPLFD35-5S6-6J				ø1/4	VPLFD35-5S6-1/4J	
		10	ø3	VPLFD35-10S6-3J			10	ø1/8	VPLFD35-10S6-1/8J	
			ø4	VPLFD35-10S6-4J				ø5/32	VPLFD35-10S6-5/32J	
			ø6	VPLFD35-10S6-6J				ø1/4	VPLFD35-10S6-1/4J	
		15	ø3	VPLFD35-15S6-3J			15	ø1/8	VPLFD35-15S6-1/8J	
			ø4	VPLFD35-15S6-4J				ø5/32	VPLFD35-15S6-5/32J	
			ø6	VPLFD35-15S6-6J				ø1/4	VPLFD35-15S6-1/4J	
		20	ø3	VPLFD35-20S6-3J			20	ø1/8	VPLFD35-20S6-1/8J	
			ø4	VPLFD35-20S6-4J				ø5/32	VPLFD35-20S6-5/32J	
			ø6	VPLFD35-20S6-6J				ø1/4	VPLFD35-20S6-1/4J	
	ø50	5	ø3	VPLFD50-5S6-3J		ø50	5	ø1/8	VPLFD50-5S6-1/8J	
			ø4	VPLFD50-5S6-4J				ø5/32	VPLFD50-5S6-5/32J	
			ø6	VPLFD50-5S6-6J				ø1/4	VPLFD50-5S6-1/4J	
		10	ø3	VPLFD50-10S6-3J			10	ø1/8	VPLFD50-10S6-1/8J	
			ø4	VPLFD50-10S6-4J				ø5/32	VPLFD50-10S6-5/32J	
			ø6	VPLFD50-10S6-6J				ø1/4	VPLFD50-10S6-1/4J	
		15	ø3	VPLFD50-15S6-3J			15	ø1/8	VPLFD50-15S6-1/8J	
			ø4	VPLFD50-15S6-4J				ø5/32	VPLFD50-15S6-5/32J	
			ø6	VPLFD50-15S6-6J				ø1/4	VPLFD50-15S6-1/4J	
		20	ø3	VPLFD50-20S6-3J			20	ø1/8	VPLFD50-20S6-1/8J	
			ø4	VPLFD50-20S6-4J				ø5/32	VPLFD50-20S6-5/32J	
			ø6	VPLFD50-20S6-6J				ø1/4	VPLFD50-20S6-1/4J	

Notes

*Barb fitting type holders are also selectable. Contact us for the details.

Packaging specifications
1 pc./bag

Optional items
⇒ P.677

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

Vacuum Pad Sponge Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Side port, Female thread, Low dust emission VPLFD 	ø10	5	M6×1	VPLFD10-5S6-M6	M6
		10	M6×1	VPLFD10-10S6-M6	
		15	M6×1	VPLFD10-15S6-M6	
		20	M6×1	VPLFD10-20S6-M6	
	ø15	5	M6×1	VPLFD15-5S6-M6	
		10	M6×1	VPLFD15-10S6-M6	
		15	M6×1	VPLFD15-15S6-M6	
		20	M6×1	VPLFD15-20S6-M6	
	ø20	5	M6×1	VPLFD20-5S6-M6	
		10	M6×1	VPLFD20-10S6-M6	
		15	M6×1	VPLFD20-15S6-M6	
		20	M6×1	VPLFD20-20S6-M6	
	ø25	5	M6×1	VPLFD25-5S6-M6	
		10	M6×1	VPLFD25-10S6-M6	
		15	M6×1	VPLFD25-15S6-M6	
		20	M6×1	VPLFD25-20S6-M6	
	ø30	5	M6×1	VPLFD30-5S6-M6	
		10	M6×1	VPLFD30-10S6-M6	
		15	M6×1	VPLFD30-15S6-M6	
		20	M6×1	VPLFD30-20S6-M6	
	ø35	5	M6×1	VPLFD35-5S6-M6	
		10	M6×1	VPLFD35-10S6-M6	
		15	M6×1	VPLFD35-15S6-M6	
		20	M6×1	VPLFD35-20S6-M6	
	ø50	5	M6×1	VPLFD50-5S6-M6	
		10	M6×1	VPLFD50-10S6-M6	
		15	M6×1	VPLFD50-15S6-M6	
		20	M6×1	VPLFD50-20S6-M6	

Notes
*Barb fitting type holders are also selectable. Contact us for the details.

Packaging specifications
1 pc./bag

Optional items ⇒ P.677

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Metric male threads, metric female threads, taper pipe threads, parallel pipe threads and NPT threads are available.See Pad holder only (page 399) for variations. *Pads with the same configuration code as the holder can be connected. [See Pad rubber only (page 382)].
Fixed type, Direct mount, Standard VPE	Applicable Screws: Metric male thread: M8, M10, M12, M14 Metric female thread: M5, M8 Taper pipe thread: R1/8, R1/4, R3/8, R1/2 Parallel pipe thread: G1/8, G1/4, G3/8, G1/2 NPT thread: NPT1/8, NPT1/4, NPT3/8, NPT1/2

Holder type	Pad dia. (mm)	Female thread size	Model code	12 -S3 -S3 spec.	Connection config. code
Spring type, Direct mount VPF Stroke 5.8mm	ø10	M14×1	VPF10S6 8 12	○	M6
	ø15	M14×1	VPF15S6 8 12	○	
	ø20	M14×1	VPF20S6 8 12	○	
	ø25	M14×1	VPF25S6 8 12	○	
	ø30	M14×1	VPF30S6 8 12	○	
	ø35	M14×1	VPF35S6 8 12	○	
	ø50	M14×1	VPF50S6 8 12	○	

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
8: -DC ⇒ Holder with dust catcher
12: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items (○: -S3 spec. is available)

8 Dust Catcher: -DC

Optional	Connection config. code	-S3 spec.
Dust catcher (-DC) Holder type: VPC VPD VPF	M6	○
	M10	○

* Configuration code: M10 is not available for VPF holder.

Characteristics of Dust Catcher ► P.371

9 Fall Prevention Valve: -ECV

Optional	Connection config. code	Model code
Fall Prevention Valve (-ECV)	M6	ECVM6-FM6
	M10	ECVM10-FM10

Characteristics of Fall Prevention Valve ► P.722

12 Swivel Joint: -FH, -FHH, -CFH

Optional	Swivel angle	Connection config. code	Model code
Ball Swivel Joint (-FH) (-FHH)	30° (-FH)	M6	FH20
		M10	FH60
	15° (-FHH)	M6	FH20-15
		M10	FH60-15

Characteristics of Ball Swivel Joint ► P.724

Optional	Connection config. code	-S3 spec.	Model code (*1)
Flexible Swing Joint (-CFH)	M6	○	CFHM6-FM6

*1. When ordering a Flexible Swing Joint alone, please enter "-S3" at the end of the model code for -S3 specification.
*2. Limited to M5 threads of VPME and VPE holders.

Characteristics of Flexible Swing Joint ► P.725

13 Filter: -F15, -F30

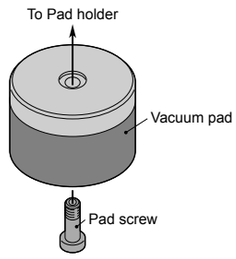
Optional	Filter area	Connection config. code	Model code
Pad Direct Mounting Filter (-F15)(-F30)	1.7cm² (-F15)	M6	VFF15-M6
	7cm² (-F30)	M6	VFF30-M6

Characteristics of Filter ► P.726

See the page 656 for the model designation including optional items.

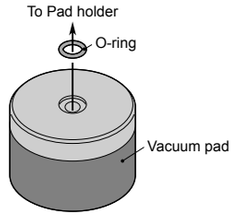
Vacuum Pad Sponge Type

Replacement parts (○: -S3 spec. is available)

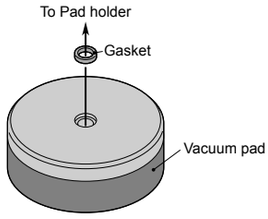


Pad screw Model code	12 -S3 -S3 spec.	Applicable pad dia. (mm)	Connection config. code
VPM610-15 12	○	ø35, ø50	M6
VPM1018 *		ø70, ø100	M10

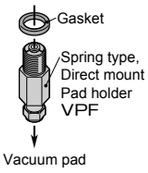
*Pad screws marked with (*) do not contain copper-based metallic materials in flow paths.



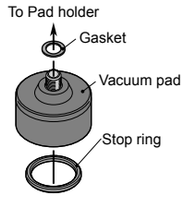
O-ring Model code	12 -S3 -S3 spec.	Applicable pad dia. (mm)	Connection config. code
S8 12	○	ø35, ø50	M6



Gasket Model code	Applicable pad dia. (mm)	Connection config. code
SG10	ø70, ø100	M10



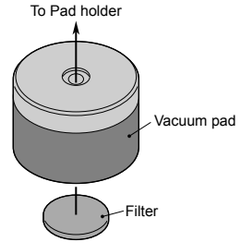
Gasket Model code	Applicable pad dia. (mm)	Connection config. code
VPFG10	ø10 to ø50	M6



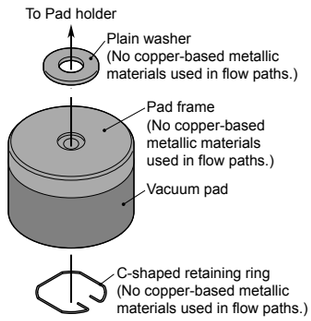
Stop ring Model code	Applicable pad dia. (mm)	Connection config. code
VPW12	ø20	M6
VPW16	ø25	
VPW22	ø30	

Gasket(*) Model code	Applicable pad dia. (mm)	Connection config. code
GAS-M6 (Fall prevention)	ø10 to ø30	M6
-S3 spec.		
GAS-M6-SUS	ø10 to ø30	M6

*Gasket for dia. 10 to 30 mm pad is equipped with a Pad & Screw set. The model code above is for Gasket alone.



Filter element Model code	Applicable pad dia. (mm)	Connection config. code
SEE1202	ø20	M6
SFE35	ø25, ø35	
SFE2202	ø30	
SFE50	ø50	
SFE70	ø70	M10
SFE100	ø100	



Plain washer Model code	Applicable pad dia. (mm)	Connection config. code
HW8.4×15.5×1.6	ø35	M6
HW8.5×22×1.6	ø50	
HW10.5×22×1.6	ø70, ø100	M10

Pad frame Model code	Applicable pad dia. (mm)	Connection config. code
VPH35S	ø35	M6
VPH50S	ø50	
VPH70S	ø70	M10
VPH100S	ø100	

C-shaped retaining ring Model code	Applicable pad dia. (mm)	Connection config. code
VPR16	ø35	M6
VPR26	ø50	
VPR40	ø70	M10
VPR60	ø100	

Package Packaging specifications
1 pc./bag: Pad frame
10 pcs./bag: All replacement parts except for Pad frame

Vacuum Pad Oval Type

Vacuum pad for rectangle work-piece with limited suction space.

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VP (1)	C (2)	4×10 (3)	-6 (4)	E (5)	N (6)	-ER (7)	-6J (8)	-DC (9)	-ECV (10)	-FH (11)	-F15 (12)	(13)
						Optional		Optional	Optional	Optional	Optional	Optional

(1) Vacuum Pad

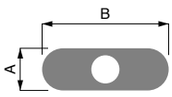
(2) Holder type

Holder type		Fixed type		Spring type			
		Mini	Standard	Mini	Standard	No cover	Low dust emission
Code	Top port	MA	A	MC	C	OC	LFC
	Side port	MB	B	MD	D	OD	LFD
	Direct mount	–	E	–	F	–	–
Connection config. code		M6	M6	M6	M6	M6	M6

Holder type		Lightweight	Low profile
		Spring type	Direct mount
Code	Top port	HC	–
	Side port	HD	HE
	Dual side port	HDW	HEW
Connection config. code		M6	M6

Holder type	Dedicated type	
	Top port	Side port
Code	AE	BE
Connection config. code	E10 E20	E10 E20

(3) Pad size



Code	2×4	3.5×7	4×10	4×20	4×30	5×10	5×20	5×30	6×10	6×20	6×30	8×20	8×30
Size(A×B)(mm)	2×4	3.5×7	4×10	4×20	4×30	5×10	5×20	5×30	6×10	6×20	6×30	8×20	8×30
Connection config. code	E10			E20		E10	E20		E10	E20			
	M6												

(4) Stroke (No code entry for Holder type: MA, A, MB, B, E, F, AE, BE, HE and HEW)

Code	-4	-5	-6	-10	-15	-20	-25	-30	-40	-50
Stroke (mm)	4	5	6	10	15	20	25	30	40	50
Spring type holder code VPMC	●									
VPC			●	●	●	●				
VPOC						●		●	●	●
VPLFC		●		●	●	●				
VPMD	●									
VPD			●	●	●	●				
VPOD						●		●	●	●
VPLFD		●		●	●	●				
VPHC				●	●	●	●	●	●	●
VPHD		●								
VPHDW		●								

Connection config. code
●: M6

(5) Pad type E: Oval

(6) Pad material

Code	N	S	U	F	SE	NE	HN	EP
Rubber material	Nitrile	Silicone	Urethane	Fluoro	Conductive Silicone	Conductive NBR (Low resistance)	HNBR	EPDM

*1. The Conductive Silicone rubber (SE) is a silicon rubber capable of releasing static electricity. (Volume resistance: More than 200 Ω·cm and 10^5 Ω·cm or less)
*2. Nitrile rubber (N), Conductive NBR (Low resistance, Volume resistance: 200 Ω·cm or less) (NE) are not suitable for use with ozone environment.
*3. Pad size 4 x 30 mm is not available for Urethane rubber (U) and Fluoro rubber (F).

(7) Pad surface treatment for suction Mark-free Optional

Code	No code	-DL	-ER	-FG
Surface treatment	None	DLC. coating	Reformed surface	Fluoro-coating
Applicable pad material	—	Silicone(S), Fluoro(F), Conductive Silicone(SE)	Nitrile(N), Conductive NBR (Low resistance) (NE)	Silicone(S), Conductive Silicone(SE)
Applicable pad dia.	—	All sizes	All sizes	All sizes

*Please refer to page 370 for the details of each pad surface type and treatment for Suction Mark-free.

(8)Port size and joint type (No code entry for Holder type: F) (○: Available)

Type		Push-in fitting								Barb fitting				Female thread	
		mm size (mm)					inch size (inch)			mm size (mm)			inch size (inch)	Metric thread	
Code		-180J	-2J	-3J	-4J	-6J	-1/8J	-5/32J	-1/4J	-3B	-4B*	-6B	-1/4B	-M5	-M6
Tube O.D.		ø1.8	ø2	ø3	ø4	ø6	ø1/8	ø5/32	ø1/4						
Tube I.D.										ø2	ø2.5	ø4	Polyurethane tube ø0.163 Nylon tube ø0.180		
Thread size														M5×0.8	M6×1
Holder type	VPMA				○			○			○	○			
	VPA			○	○	○	○	○	○		○	○	○		○
	VPMB	○	○	○	○	○	○	○	○	○	○	○	○	○	
	VPB			○	○	○	○	○	○		○	○	○		○
	VPMC	○	○	○	○		○	○		○	○	○			
	VPC			○	○	○	○	○	○		○	○	○		○
	VPOC			○	○	○	○	○	○		○	○	○		○
	VPLFC			○	○	○	○	○	○		○	○			○
	VPMD	○	○	○	○	○	○	○	○	○	○	○	○	○	
	VPD			○	○	○	○	○	○		○	○	○		○
	VPOD			○	○	○	○	○	○		○	○	○		○
	VPLFD			○	○	○	○	○	○		○	○			○
	VPHC	○	○	○	○	○	○	○	○	○	○	○	○	○	
	VPHD	○	○	○	○	○	○	○	○	○	○	○	○	○	
	VPHDW	○	○	○	○	○	○	○	○	○	○	○	○	○	
	VPHE	○	○	○	○	○	○	○	○	○	○	○	○	○	
	VPHEW	○	○	○	○	○	○	○	○	○	○	○	○	○	
	VPAE	○	○	○	○	○	○	○	○	○	○	○	○	○	
	VPBE	○	○	○	○	○	○	○	○	○	○	○	○	○	

Push-in fitting

Barb fitting

Female thread

*The barb fitting of 5/32" size is common with 4 mm size. Please order with the code: -4B.
*Available port size varies depending on pad dia. See model code lists on the following pages.

Type		Male thread																Female thread		Direct mount
		Metric thread				Taper pipe thread				Parallel pipe thread				NPT thread				Metric thread		
Code		-M8	-M10	-M12	-M14	-R1	-R2	-R3	-R4	-G1	-G2	-G3	-G4	-N1	-N2	-N3	-N4	-FM5	-FM8	
Thread size		M8×1.25	M10×1.5	M12×1.75	M14×2	R1/8	R1/4	R3/8	R1/2	G1/8	G1/4	G3/8	G1/2	NPT1/8	NPT1/4	NPT3/8	NPT1/2	M5×0.8	M8×1.25	
Holder type	VPE	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

(9) Dust Catcher (Holder type: C, D, and F only) Optional

Code	No code	-DC
Dust Catcher	None	Installed

*Note that the holder stroke becomes shorter when a dust catcher is installed. Please visit our website for details.

Dust Catcher

(9) Spring load (Holder type: LFC only)

Code	No code	-SF1/4
Load	Standard load	Low load (1/4 of standard load)

(10) Fall Prevention Valve Optional

Code	No code	-ECV
Fall Prevention Valve	None	Installed
Applicable config. code	—	M6

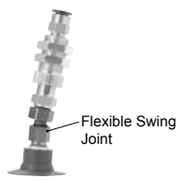
*-S3 spec. is not selectable when Fall Prevention Valve is selected.

Fall Prevention Valve

(11) Swivel Joint for vacuum pad Optional

Code	No code	-FH	-FHH	-CFH
Option	None	Ball Swivel Joint (Swivel angle: 30°)	Ball Swivel Joint (Swivel angle: 15°)	Flexible Swing Joint (Swing angle: 8°)
Applicable config. code	—	M6		

*-S3 spec. is not selectable when Ball Swivel Joint is selected.

Ball Swivel Joint

Flexible Swing Joint

(12) Filter Optional

Code	No code	-F15	-F30
Filter	None	Installed (Filter area 1.7 cm^2)	Installed (Filter area 7 cm^2)
Applicable config. code	—	M6	

*1. -S3 spec. is not selectable when Filter is selected.
*2. "-F30" is recommended when much dust is expected at sucking work pieces.

Pad Direct Mounting Filter

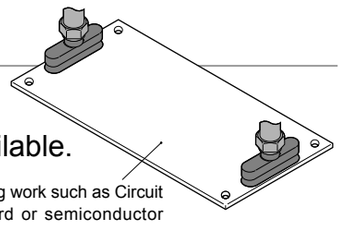
(13) -S3 spec. Optional

Code	No code	-S3
Metal material	Standard	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard	HNBR or FKM
Release ring color	Black	Dark blue

*1. -S3 spec. is not available for the following fittings and holders:
·Push-in fitting with dia. size of 1.8, 2, 3 mm and inch sizes except dia. 1/8" and 5/32".
·Barb fitting with dia. of 1/4".
·Pad holder with stroke length 10 mm or longer (except for VPHC holders).
·VPLFC and VPLFD holders.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Vacuum Pad Oval Type

Characteristics



Long work such as Circuit board or semiconductor chips.

Pad dia. 13 types
2×4 to 8×30mm
Pad material 8 types
Surface treatment 3 types

Best suitable for substrate or long work like semiconductor.

Small sizes for the work-piece which has small suction space is available.

Pad size: 2 x 4 mm and 3.5 x 7 mm are suitable for such work-pieces.

Silicone (S) is Food Sanitation Act compliant.

(Holder is not compliant. Vacuum pad complies only at work-piece contact area.)
*See page 6 for the details of the Food Sanitation Act.

Pad holders exclusively for Oval type which are resin made, light weight and easy for positioning.

Wide variations of Pad holders.

The following combinations of holder and pad rubber are also available although they are not listed on the model code list from the next page onward. Contact us for the details.

· Lightweight VPHC holder that is made of resin and aluminum.
· Lightweight VPHD and VPHDW holders with spring type without cover.
· VPHE and VPHEW holders with reduced height.
· VPHDW and VPHEW holders with dual side vacuum ports, suitable for piping connection of multiple vacuum pads.

Low dust emission holders (VPLFC, VPLFD) with low noise and less wear from sliding are available to prevent dust generation.

VPLFC holder with top port has a separate shaft on the pad side and the vacuum port side, so there is no effect on the stroke caused by the tension of the tube. Low load type is also available to suppress impact when contacting the work-piece.

Wide variations of fixed type direct mount holder (VPE) for various thread sizes.

Metric male threads, metric female threads, taper pipe threads, parallel pipe threads and NPT threads are available.
*Only a part of the combinations are shown on the model code list from the next page onward. Contact us for the details.

● Pad surface treatment for suction mark-free (Optional)

NEW **Fluoro-coating type is added to the pad rubber surface treatment option to prevent tracing marks.**

· DLC. coating type: Slippery special coating. Effective for sticking prevention of lightweight or thin work-piece.
· Reformed surface type: Reduces tracing marks by surface reforming of nitrile rubber with chemicals.
· Fluoro-coating type: Surface reforming by special treatment prevents sticking to work-pieces. Improved pad durability and wear resistance.

● Holder with dust catcher (Optional)

Collects wear debris generated by sliding spring type holders. Low-cost, simple holder with receiver tray added.

Applicable to VPC, VPD, and VPF holders.

◀ Dust Catcher

● Accessories (Optional)

Fall Prevention Valve, Swivel (Ball Swivel Joint, Flexible Swing Joint) and Filter options are available.

● -S3 spec. (Optional)

No copper-based metallic materials used in flow paths.

The sealing rubber material of the fitting is HNBR or FKM, with good ozone resisntace.

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad size (A×B) (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Mini VPMA	2×4	ø4	VPMA2x4E67-4J13	○	M6	2×4	ø5/32	VPMA2x4E67-5/32J13	○	M6
	3.5×7	ø4	VPMA3.5x7E67-4J13	○		3.5×7	ø5/32	VPMA3.5x7E67-5/32J13	○	
	4×10	ø4	VPMA4x10E67-4J13	○		4×10	ø5/32	VPMA4x10E67-5/32J13	○	
	4×20	ø4	VPMA4x20E67-4J13	○		4×20	ø5/32	VPMA4x20E67-5/32J13	○	
	4×30	ø4	VPMA4x30E67-4J13*2	○		4×30	ø5/32	VPMA4x30E67-5/32J13*2	○	
	5×10	ø4	VPMA5x10E67-4J13	○		5×10	ø5/32	VPMA5x10E67-5/32J13	○	
	5×20	ø4	VPMA5x20E67-4J13	○		5×20	ø5/32	VPMA5x20E67-5/32J13	○	
	5×30	ø4	VPMA5x30E67-4J13	○		5×30	ø5/32	VPMA5x30E67-5/32J13	○	
	6×10	ø4	VPMA6x10E67-4J13	○		6×10	ø5/32	VPMA6x10E67-5/32J13	○	
	6×20	ø4	VPMA6x20E67-4J13	○		6×20	ø5/32	VPMA6x20E67-5/32J13	○	
	6×30	ø4	VPMA6x30E67-4J13	○		6×30	ø5/32	VPMA6x30E67-5/32J13	○	
	8×20	ø4	VPMA8x20E67-4J13	○		8×20	ø5/32	VPMA8x20E67-5/32J13	○	
	8×30	ø4	VPMA8x30E67-4J13	○		8×30	ø5/32	VPMA8x30E67-5/32J13	○	

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Tube O.D. (mm)	Model code	⓭ -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Standard	2×4	ø3	VPA2x4E⑥⑦-3J	—	M6
		ø4	VPA2x4E⑥⑦-4J⑬	○	
		ø6	VPA2x4E⑥⑦-6J⑬	○	
	3.5×7	ø3	VPA3.5x7E⑥⑦-3J	—	
		ø4	VPA3.5x7E⑥⑦-4J⑬	○	
		ø6	VPA3.5x7E⑥⑦-6J⑬	○	
	4×10	ø3	VPA4x10E⑥⑦-3J	—	
		ø4	VPA4x10E⑥⑦-4J⑬	○	
		ø6	VPA4x10E⑥⑦-6J⑬	○	
	4×20	ø3	VPA4x20E⑥⑦-3J	—	
		ø4	VPA4x20E⑥⑦-4J⑬	○	
		ø6	VPA4x20E⑥⑦-6J⑬	○	
	4×30	ø3	VPA4x30E⑥⑦-3J*2	—	
		ø4	VPA4x30E⑥⑦-4J⑬*2	○	
		ø6	VPA4x30E⑥⑦-6J⑬*2	○	
	5×10	ø3	VPA5x10E⑥⑦-3J	—	
		ø4	VPA5x10E⑥⑦-4J⑬	○	
		ø6	VPA5x10E⑥⑦-6J⑬	○	
	5×20	ø3	VPA5x20E⑥⑦-3J	—	
		ø4	VPA5x20E⑥⑦-4J⑬	○	
		ø6	VPA5x20E⑥⑦-6J⑬	○	
	5×30	ø3	VPA5x30E⑥⑦-3J	—	
		ø4	VPA5x30E⑥⑦-4J⑬	○	
		ø6	VPA5x30E⑥⑦-6J⑬	○	
	6×10	ø3	VPA6x10E⑥⑦-3J	—	
		ø4	VPA6x10E⑥⑦-4J⑬	○	
		ø6	VPA6x10E⑥⑦-6J⑬	○	
	6×20	ø3	VPA6x20E⑥⑦-3J	—	
		ø4	VPA6x20E⑥⑦-4J⑬	○	
		ø6	VPA6x20E⑥⑦-6J⑬	○	
	6×30	ø3	VPA6x30E⑥⑦-3J	—	
		ø4	VPA6x30E⑥⑦-4J⑬	○	
		ø6	VPA6x30E⑥⑦-6J⑬	○	
	8×20	ø3	VPA8x20E⑥⑦-3J	—	
		ø4	VPA8x20E⑥⑦-4J⑬	○	
		ø6	VPA8x20E⑥⑦-6J⑬	○	
	8×30	ø3	VPA8x30E⑥⑦-3J	—	
		ø4	VPA8x30E⑥⑦-4J⑬	○	
		ø6	VPA8x30E⑥⑦-6J⑬	○	

Holder type	Pad size (A×B) (mm)	Tube O.D. (inch)	Model code	⓭ -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Push-in fitting, Standard	2×4	ø1/8	VPA2x4E⑥⑦-1/8J	—	M6
		ø5/32	VPA2x4E⑥⑦-5/32J⑬	○	
		ø1/4	VPA2x4E⑥⑦-1/4J	—	
	3.5×7	ø1/8	VPA3.5x7E⑥⑦-1/8J	—	
		ø5/32	VPA3.5x7E⑥⑦-5/32J⑬	○	
		ø1/4	VPA3.5x7E⑥⑦-1/4J	—	
	4×10	ø1/8	VPA4x10E⑥⑦-1/8J	—	
		ø5/32	VPA4x10E⑥⑦-5/32J⑬	○	
		ø1/4	VPA4x10E⑥⑦-1/4J	—	
	4×20	ø1/8	VPA4x20E⑥⑦-1/8J	—	
		ø5/32	VPA4x20E⑥⑦-5/32J⑬	○	
		ø1/4	VPA4x20E⑥⑦-1/4J	—	
	4×30	ø1/8	VPA4x30E⑥⑦-1/8J*2	—	
		ø5/32	VPA4x30E⑥⑦-5/32J⑬*2	○	
		ø1/4	VPA4x30E⑥⑦-1/4J*2	—	
	5×10	ø1/8	VPA5x10E⑥⑦-1/8J	—	
		ø5/32	VPA5x10E⑥⑦-5/32J⑬	○	
		ø1/4	VPA5x10E⑥⑦-1/4J	—	
	5×20	ø1/8	VPA5x20E⑥⑦-1/8J	—	
		ø5/32	VPA5x20E⑥⑦-5/32J⑬	○	
		ø1/4	VPA5x20E⑥⑦-1/4J	—	
	5×30	ø1/8	VPA5x30E⑥⑦-1/8J	—	
		ø5/32	VPA5x30E⑥⑦-5/32J⑬	○	
		ø1/4	VPA5x30E⑥⑦-1/4J	—	
	6×10	ø1/8	VPA6x10E⑥⑦-1/8J	—	
		ø5/32	VPA6x10E⑥⑦-5/32J⑬	○	
		ø1/4	VPA6x10E⑥⑦-1/4J	—	
	6×20	ø1/8	VPA6x20E⑥⑦-1/8J	—	
		ø5/32	VPA6x20E⑥⑦-5/32J⑬	○	
		ø1/4	VPA6x20E⑥⑦-1/4J	—	
	6×30	ø1/8	VPA6x30E⑥⑦-1/8J	—	
		ø5/32	VPA6x30E⑥⑦-5/32J⑬	○	
		ø1/4	VPA6x30E⑥⑦-1/4J	—	
	8×20	ø1/8	VPA8x20E⑥⑦-1/8J	—	
		ø5/32	VPA8x20E⑥⑦-5/32J⑬	○	
		ø1/4	VPA8x20E⑥⑦-1/4J	—	
	8×30	ø1/8	VPA8x30E⑥⑦-1/8J	—	
		ø5/32	VPA8x30E⑥⑦-5/32J⑬	○	
		ø1/4	VPA8x30E⑥⑦-1/4J	—	

Holder type	Pad size (A×B) (mm)	Male thread size	Model code	⓭ -S3 -S3 spec.	Connection config. code
Fixed type, Top port, Female thread, Standard	2×4	M6×1	VPA2x4E⑥⑦-M6⑬	○	M6
	3.5×7	M6×1	VPA3.5x7E⑥⑦-M6⑬	○	
	4×10	M6×1	VPA4x10E⑥⑦-M6⑬	○	
	4×20	M6×1	VPA4x20E⑥⑦-M6⑬	○	
	4×30	M6×1	VPA4x30E⑥⑦-M6⑬*2	○	
	5×10	M6×1	VPA5x10E⑥⑦-M6⑬	○	
	5×20	M6×1	VPA5x20E⑥⑦-M6⑬	○	
	5×30	M6×1	VPA5x30E⑥⑦-M6⑬	○	
	6×10	M6×1	VPA6x10E⑥⑦-M6⑬	○	
	6×20	M6×1	VPA6x20E⑥⑦-M6⑬	○	
	6×30	M6×1	VPA6x30E⑥⑦-M6⑬	○	
	8×20	M6×1	VPA8x20E⑥⑦-M6⑬	○	
	8×30	M6×1	VPA8x30E⑥⑦-M6⑬	○	

Notes
*1. Barb fitting type holders are also available. Contact us for the details.
*2. Urethane (U) and Fluoro (F) are not available.

CAD data is available at PISCO website.

Options
⑦: Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
⑬: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Packaging specifications
1 pc./bag

Optional items ⇒ P.715
Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Oval Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Tube O.D. (mm)	Model code	⓭ -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Push-in fitting, Mini **VPMB**	2×4	ø3	VPMB2x4E⑥⑦-3J	—	M6
		ø4	VPMB2x4E⑥⑦-4J⑬	○	
		ø6	VPMB2x4E⑥⑦-6J⑬	○	
	3.5×7	ø3	VPMB3.5x7E⑥⑦-3J	—	
		ø4	VPMB3.5x7E⑥⑦-4J⑬	○	
		ø6	VPMB3.5x7E⑥⑦-6J⑬	○	
	4×10	ø3	VPMB4x10E⑥⑦-3J	—	
		ø4	VPMB4x10E⑥⑦-4J⑬	○	
		ø6	VPMB4x10E⑥⑦-6J⑬	○	
	4×20	ø3	VPMB4x20E⑥⑦-3J	—	
		ø4	VPMB4x20E⑥⑦-4J⑬	○	
		ø6	VPMB4x20E⑥⑦-6J⑬	○	
	4×30	ø3	VPMB4x30E⑥⑦-3J*2	—	
		ø4	VPMB4x30E⑥⑦-4J⑬*2	○	
		ø6	VPMB4x30E⑥⑦-6J⑬*2	○	
	5×10	ø3	VPMB5x10E⑥⑦-3J	—	
		ø4	VPMB5x10E⑥⑦-4J⑬	○	
		ø6	VPMB5x10E⑥⑦-6J⑬	○	
	5×20	ø3	VPMB5x20E⑥⑦-3J	—	
		ø4	VPMB5x20E⑥⑦-4J⑬	○	
		ø6	VPMB5x20E⑥⑦-6J⑬	○	
	5×30	ø3	VPMB5x30E⑥⑦-3J	—	
		ø4	VPMB5x30E⑥⑦-4J⑬	○	
		ø6	VPMB5x30E⑥⑦-6J⑬	○	
	6×10	ø3	VPMB6x10E⑥⑦-3J	—	
		ø4	VPMB6x10E⑥⑦-4J⑬	○	
		ø6	VPMB6x10E⑥⑦-6J⑬	○	
	6×20	ø3	VPMB6x20E⑥⑦-3J	—	
		ø4	VPMB6x20E⑥⑦-4J⑬	○	
		ø6	VPMB6x20E⑥⑦-6J⑬	○	
	6×30	ø3	VPMB6x30E⑥⑦-3J	—	
		ø4	VPMB6x30E⑥⑦-4J⑬	○	
		ø6	VPMB6x30E⑥⑦-6J⑬	○	
	8×20	ø3	VPMB8x20E⑥⑦-3J	—	
		ø4	VPMB8x20E⑥⑦-4J⑬	○	
		ø6	VPMB8x20E⑥⑦-6J⑬	○	
	8×30	ø3	VPMB8x30E⑥⑦-3J	—	
		ø4	VPMB8x30E⑥⑦-4J⑬	○	
		ø6	VPMB8x30E⑥⑦-6J⑬	○	

Holder type	Pad size (A×B) (mm)	Tube O.D. (inch)	Model code	⓭ -S3 -S3 spec.	Connection config. code
	2×4	ø1/8	VPMB2x4E⑥⑦-1/8J	—	M6
		ø5/32	VPMB2x4E⑥⑦-5/32J⑬	○	
		ø1/4	VPMB2x4E⑥⑦-1/4J	—	
	3.5×7	ø1/8	VPMB3.5x7E⑥⑦-1/8J	—	
		ø5/32	VPMB3.5x7E⑥⑦-5/32J⑬	○	
		ø1/4	VPMB3.5x7E⑥⑦-1/4J	—	
	4×10	ø1/8	VPMB4x10E⑥⑦-1/8J	—	
		ø5/32	VPMB4x10E⑥⑦-5/32J⑬	○	
		ø1/4	VPMB4x10E⑥⑦-1/4J	—	
	4×20	ø1/8	VPMB4x20E⑥⑦-1/8J	—	
		ø5/32	VPMB4x20E⑥⑦-5/32J⑬	○	
		ø1/4	VPMB4x20E⑥⑦-1/4J	—	
	4×30	ø1/8	VPMB4x30E⑥⑦-1/8J*2	—	
		ø5/32	VPMB4x30E⑥⑦-5/32J⑬*2	○	
		ø1/4	VPMB4x30E⑥⑦-1/4J*2	—	
	5×10	ø1/8	VPMB5x10E⑥⑦-1/8J	—	
		ø5/32	VPMB5x10E⑥⑦-5/32J⑬	○	
		ø1/4	VPMB5x10E⑥⑦-1/4J	—	
	5×20	ø1/8	VPMB5x20E⑥⑦-1/8J	—	
		ø5/32	VPMB5x20E⑥⑦-5/32J⑬	○	
		ø1/4	VPMB5x20E⑥⑦-1/4J	—	
	5×30	ø1/8	VPMB5x30E⑥⑦-1/8J	—	
		ø5/32	VPMB5x30E⑥⑦-5/32J⑬	○	
		ø1/4	VPMB5x30E⑥⑦-1/4J	—	
	6×10	ø1/8	VPMB6x10E⑥⑦-1/8J	—	
		ø5/32	VPMB6x10E⑥⑦-5/32J⑬	○	
		ø1/4	VPMB6x10E⑥⑦-1/4J	—	
	6×20	ø1/8	VPMB6x20E⑥⑦-1/8J	—	
		ø5/32	VPMB6x20E⑥⑦-5/32J⑬	○	
		ø1/4	VPMB6x20E⑥⑦-1/4J	—	
	6×30	ø1/8	VPMB6x30E⑥⑦-1/8J	—	
		ø5/32	VPMB6x30E⑥⑦-5/32J⑬	○	
		ø1/4	VPMB6x30E⑥⑦-1/4J	—	
	8×20	ø1/8	VPMB8x20E⑥⑦-1/8J	—	
		ø5/32	VPMB8x20E⑥⑦-5/32J⑬	○	
		ø1/4	VPMB8x20E⑥⑦-1/4J	—	
	8×30	ø1/8	VPMB8x30E⑥⑦-1/8J	—	
		ø5/32	VPMB8x30E⑥⑦-5/32J⑬	○	
		ø1/4	VPMB8x30E⑥⑦-1/4J	—	

Holder type	Pad size (A×B) (mm)	Male thread size	Model code	⓭ -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Female thread, Mini **VPMB**	2×4	M5×0.8	VPMB2x4E⑥⑦-M5⑬	○	M6
	3.5×7	M5×0.8	VPMB3.5x7E⑥⑦-M5⑬	○	
	4×10	M5×0.8	VPMB4x10E⑥⑦-M5⑬	○	
	4×20	M5×0.8	VPMB4x20E⑥⑦-M5⑬	○	
	4×30	M5×0.8	VPMB4x30E⑥⑦-M5⑬*2	○	
	5×10	M5×0.8	VPMB5x10E⑥⑦-M5⑬	○	
	5×20	M5×0.8	VPMB5x20E⑥⑦-M5⑬	○	
	5×30	M5×0.8	VPMB5x30E⑥⑦-M5⑬	○	
	6×10	M5×0.8	VPMB6x10E⑥⑦-M5⑬	○	
	6×20	M5×0.8	VPMB6x20E⑥⑦-M5⑬	○	
	6×30	M5×0.8	VPMB6x30E⑥⑦-M5⑬	○	
	8×20	M5×0.8	VPMB8x20E⑥⑦-M5⑬	○	
	8×30	M5×0.8	VPMB8x30E⑥⑦-M5⑬	○	

Notes

*1. Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

*2. Urethane (U) and Fluoro (F) are not available.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options

⑦: Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)

⑬: -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.

*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.715

Surface treatment

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Tube O.D. (mm)	Model code	⓭ -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Push-in fitting, Standard VPB 	2×4	ø3	VPB2x4E⑥⑦-3J	—	M6
		ø4	VPB2x4E⑥⑦-4J⑬	○	
		ø6	VPB2x4E⑥⑦-6J⑬	○	
	3.5×7	ø3	VPB3.5x7E⑥⑦-3J	—	
		ø4	VPB3.5x7E⑥⑦-4J⑬	○	
		ø6	VPB3.5x7E⑥⑦-6J⑬	○	
	4×10	ø3	VPB4x10E⑥⑦-3J	—	
		ø4	VPB4x10E⑥⑦-4J⑬	○	
		ø6	VPB4x10E⑥⑦-6J⑬	○	
	4×20	ø3	VPB4x20E⑥⑦-3J	—	
		ø4	VPB4x20E⑥⑦-4J⑬	○	
		ø6	VPB4x20E⑥⑦-6J⑬	○	
	4×30	ø3	VPB4x30E⑥⑦-3J*2	—	
		ø4	VPB4x30E⑥⑦-4J⑬*2	○	
		ø6	VPB4x30E⑥⑦-6J⑬*2	○	
	5×10	ø3	VPB5x10E⑥⑦-3J	—	
		ø4	VPB5x10E⑥⑦-4J⑬	○	
		ø6	VPB5x10E⑥⑦-6J⑬	○	
	5×20	ø3	VPB5x20E⑥⑦-3J	—	
		ø4	VPB5x20E⑥⑦-4J⑬	○	
		ø6	VPB5x20E⑥⑦-6J⑬	○	
	5×30	ø3	VPB5x30E⑥⑦-3J	—	
		ø4	VPB5x30E⑥⑦-4J⑬	○	
		ø6	VPB5x30E⑥⑦-6J⑬	○	
	6×10	ø3	VPB6x10E⑥⑦-3J	—	
		ø4	VPB6x10E⑥⑦-4J⑬	○	
		ø6	VPB6x10E⑥⑦-6J⑬	○	
	6×20	ø3	VPB6x20E⑥⑦-3J	—	
		ø4	VPB6x20E⑥⑦-4J⑬	○	
		ø6	VPB6x20E⑥⑦-6J⑬	○	
	6×30	ø3	VPB6x30E⑥⑦-3J	—	
		ø4	VPB6x30E⑥⑦-4J⑬	○	
		ø6	VPB6x30E⑥⑦-6J⑬	○	
	8×20	ø3	VPB8x20E⑥⑦-3J	—	
		ø4	VPB8x20E⑥⑦-4J⑬	○	
		ø6	VPB8x20E⑥⑦-6J⑬	○	
	8×30	ø3	VPB8x30E⑥⑦-3J	—	
		ø4	VPB8x30E⑥⑦-4J⑬	○	
		ø6	VPB8x30E⑥⑦-6J⑬	○	

Holder type	Pad size (A×B) (mm)	Tube O.D. (inch)	Model code	⓭ -S3 -S3 spec.	Connection config. code
	2×4	ø1/8	VPB2x4E⑥⑦-1/8J	—	M6
		ø5/32	VPB2x4E⑥⑦-5/32J⑬	○	
		ø1/4	VPB2x4E⑥⑦-1/4J	—	
	3.5×7	ø1/8	VPB3.5x7E⑥⑦-1/8J	—	
		ø5/32	VPB3.5x7E⑥⑦-5/32J⑬	○	
		ø1/4	VPB3.5x7E⑥⑦-1/4J	—	
	4×10	ø1/8	VPB4x10E⑥⑦-1/8J	—	
		ø5/32	VPB4x10E⑥⑦-5/32J⑬	○	
		ø1/4	VPB4x10E⑥⑦-1/4J	—	
	4×20	ø1/8	VPB4x20E⑥⑦-1/8J	—	
		ø5/32	VPB4x20E⑥⑦-5/32J⑬	○	
		ø1/4	VPB4x20E⑥⑦-1/4J	—	
	4×30	ø1/8	VPB4x30E⑥⑦-1/8J*2	—	
		ø5/32	VPB4x30E⑥⑦-5/32J⑬*2	○	
		ø1/4	VPB4x30E⑥⑦-1/4J*2	—	
	5×10	ø1/8	VPB5x10E⑥⑦-1/8J	—	
		ø5/32	VPB5x10E⑥⑦-5/32J⑬	○	
		ø1/4	VPB5x10E⑥⑦-1/4J	—	
	5×20	ø1/8	VPB5x20E⑥⑦-1/8J	—	
		ø5/32	VPB5x20E⑥⑦-5/32J⑬	○	
		ø1/4	VPB5x20E⑥⑦-1/4J	—	
	5×30	ø1/8	VPB5x30E⑥⑦-1/8J	—	
		ø5/32	VPB5x30E⑥⑦-5/32J⑬	○	
		ø1/4	VPB5x30E⑥⑦-1/4J	—	
	6×10	ø1/8	VPB6x10E⑥⑦-1/8J	—	
		ø5/32	VPB6x10E⑥⑦-5/32J⑬	○	
		ø1/4	VPB6x10E⑥⑦-1/4J	—	
	6×20	ø1/8	VPB6x20E⑥⑦-1/8J	—	
		ø5/32	VPB6x20E⑥⑦-5/32J⑬	○	
		ø1/4	VPB6x20E⑥⑦-1/4J	—	
	6×30	ø1/8	VPB6x30E⑥⑦-1/8J	—	
		ø5/32	VPB6x30E⑥⑦-5/32J⑬	○	
		ø1/4	VPB6x30E⑥⑦-1/4J	—	
	8×20	ø1/8	VPB8x20E⑥⑦-1/8J	—	
		ø5/32	VPB8x20E⑥⑦-5/32J⑬	○	
		ø1/4	VPB8x20E⑥⑦-1/4J	—	
	8×30	ø1/8	VPB8x30E⑥⑦-1/8J	—	
		ø5/32	VPB8x30E⑥⑦-5/32J⑬	○	
		ø1/4	VPB8x30E⑥⑦-1/4J	—	

Holder type	Pad size (A×B) (mm)	Male thread size	Model code	⓭ -S3 -S3 spec.	Connection config. code
Fixed type, Side port, Female thread, Standard VPB 	2×4	M6×1	VPB2x4E⑥⑦-M6⑬	○	M6
	3.5×7	M6×1	VPB3.5x7E⑥⑦-M6⑬	○	
	4×10	M6×1	VPB4x10E⑥⑦-M6⑬	○	
	4×20	M6×1	VPB4x20E⑥⑦-M6⑬	○	
	4×30	M6×1	VPB4x30E⑥⑦-M6⑬*2	○	
	5×10	M6×1	VPB5x10E⑥⑦-M6⑬	○	
	5×20	M6×1	VPB5x20E⑥⑦-M6⑬	○	
	5×30	M6×1	VPB5x30E⑥⑦-M6⑬	○	
	6×10	M6×1	VPB6x10E⑥⑦-M6⑬	○	
	6×20	M6×1	VPB6x20E⑥⑦-M6⑬	○	
	6×30	M6×1	VPB6x30E⑥⑦-M6⑬	○	
	8×20	M6×1	VPB8x20E⑥⑦-M6⑬	○	
	8×30	M6×1	VPB8x30E⑥⑦-M6⑬	○	

Notes
*1. Barb fitting type holders are also available. Contact us for the details.
*2. Urethane (U) and Fluoro (F) are not available.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
⑬: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.715
Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Oval Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad size (A×B) (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Mini **VPMC** Stroke 4mm	2×4	ø3	VPMC2x4-4E67-3J	—	M6	2×4	ø1/8	VPMC2x4-4E67-1/8J	—	M6
		ø4	VPMC2x4-4E67-4J13	○			ø5/32	VPMC2x4-4E67-5/32J13	○	
	3.5×7	ø3	VPMC3.5x7-4E67-3J	—		3.5×7	ø1/8	VPMC3.5x7-4E67-1/8J	—	
		ø4	VPMC3.5x7-4E67-4J13	○			ø5/32	VPMC3.5x7-4E67-5/32J13	○	
	4×10	ø3	VPMC4x10-4E67-3J	—		4×10	ø1/8	VPMC4x10-4E67-1/8J	—	
		ø4	VPMC4x10-4E67-4J13	○			ø5/32	VPMC4x10-4E67-5/32J13	○	
	4×20	ø3	VPMC4x20-4E67-3J	—		4×20	ø1/8	VPMC4x20-4E67-1/8J	—	
		ø4	VPMC4x20-4E67-4J13	○			ø5/32	VPMC4x20-4E67-5/32J13	○	
	4×30	ø3	VPMC4x30-4E67-3J*2	—		4×30	ø1/8	VPMC4x30-4E67-1/8J*2	—	
		ø4	VPMC4x30-4E67-4J13*2	○			ø5/32	VPMC4x30-4E67-5/32J13*2	○	
	5×10	ø3	VPMC5x10-4E67-3J	—		5×10	ø1/8	VPMC5x10-4E67-1/8J	—	
		ø4	VPMC5x10-4E67-4J13	○			ø5/32	VPMC5x10-4E67-5/32J13	○	
	5×20	ø3	VPMC5x20-4E67-3J	—		5×20	ø1/8	VPMC5x20-4E67-1/8J	—	
		ø4	VPMC5x20-4E67-4J13	○			ø5/32	VPMC5x20-4E67-5/32J13	○	
	5×30	ø3	VPMC5x30-4E67-3J	—		5×30	ø1/8	VPMC5x30-4E67-1/8J	—	
		ø4	VPMC5x30-4E67-4J13	○			ø5/32	VPMC5x30-4E67-5/32J13	○	
	6×10	ø3	VPMC6x10-4E67-3J	—		6×10	ø1/8	VPMC6x10-4E67-1/8J	—	
		ø4	VPMC6x10-4E67-4J13	○			ø5/32	VPMC6x10-4E67-5/32J13	○	
	6×20	ø3	VPMC6x20-4E67-3J	—		6×20	ø1/8	VPMC6x20-4E67-1/8J	—	
		ø4	VPMC6x20-4E67-4J13	○			ø5/32	VPMC6x20-4E67-5/32J13	○	
	6×30	ø3	VPMC6x30-4E67-3J	—		6×30	ø1/8	VPMC6x30-4E67-1/8J	—	
		ø4	VPMC6x30-4E67-4J13	○			ø5/32	VPMC6x30-4E67-5/32J13	○	
	8×20	ø3	VPMC8x20-4E67-3J	—		8×20	ø1/8	VPMC8x20-4E67-1/8J	—	
		ø4	VPMC8x20-4E67-4J13	○			ø5/32	VPMC8x20-4E67-5/32J13	○	
	8×30	ø3	VPMC8x30-4E67-3J	—		8×30	ø1/8	VPMC8x30-4E67-1/8J	—	
		ø4	VPMC8x30-4E67-4J13	○			ø5/32	VPMC8x30-4E67-5/32J13	○	

Notes

*1. Barb fitting type holders are also selectable. VPMC holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm. Contact us for the details.

*2. Urethane (U) and Fluoro (F) are not available.

CAD data is available at PISCO website.

Packaging specifications

1 pc./bag

Options

7: Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)

9: -DC ⇒ Holder with dust catcher

13: -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.

*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.715

Surface treatment

Dust Catcher (VPC)

Fall Prevention Valve

Swivel Joint for vacuum pad

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	⓭ -S3 -S3 spec.	Connection config. code	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	⓭ -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Standard **VPC** Pad size 2×4mm to 4×30mm	2×4	6	ø3	VPC2x4-6E⑥⑦-3J⑨	—	M6	2×4	6	ø1/8	VPC2x4-6E⑥⑦-1/8J⑨	—	M6
			ø4	VPC2x4-6E⑥⑦-4J⑨⑬	○				ø5/32	VPC2x4-6E⑥⑦-5/32J⑨⑬	○	
			ø6	VPC2x4-6E⑥⑦-6J⑨⑬	○				ø1/4	VPC2x4-6E⑥⑦-1/4J⑨	—	
		10	ø3	VPC2x4-10E⑥⑦-3J⑨	—			10	ø1/8	VPC2x4-10E⑥⑦-1/8J⑨	—	
			ø4	VPC2x4-10E⑥⑦-4J⑨	—				ø5/32	VPC2x4-10E⑥⑦-5/32J⑨	—	
			ø6	VPC2x4-10E⑥⑦-6J⑨	—				ø1/4	VPC2x4-10E⑥⑦-1/4J⑨	—	
		15	ø3	VPC2x4-15E⑥⑦-3J⑨	—			15	ø1/8	VPC2x4-15E⑥⑦-1/8J⑨	—	
			ø4	VPC2x4-15E⑥⑦-4J⑨	—				ø5/32	VPC2x4-15E⑥⑦-5/32J⑨	—	
			ø6	VPC2x4-15E⑥⑦-6J⑨	—				ø1/4	VPC2x4-15E⑥⑦-1/4J⑨	—	
		20	ø3	VPC2x4-20E⑥⑦-3J⑨	—			20	ø1/8	VPC2x4-20E⑥⑦-1/8J⑨	—	
			ø4	VPC2x4-20E⑥⑦-4J⑨	—				ø5/32	VPC2x4-20E⑥⑦-5/32J⑨	—	
			ø6	VPC2x4-20E⑥⑦-6J⑨	—				ø1/4	VPC2x4-20E⑥⑦-1/4J⑨	—	
	3.5×7	6	ø3	VPC3.5x7-6E⑥⑦-3J⑨	—		3.5×7	6	ø1/8	VPC3.5x7-6E⑥⑦-1/8J⑨	—	
			ø4	VPC3.5x7-6E⑥⑦-4J⑨⑬	○				ø5/32	VPC3.5x7-6E⑥⑦-5/32J⑨⑬	○	
			ø6	VPC3.5x7-6E⑥⑦-6J⑨⑬	○				ø1/4	VPC3.5x7-6E⑥⑦-1/4J⑨	—	
		10	ø3	VPC3.5x7-10E⑥⑦-3J⑨	—			10	ø1/8	VPC3.5x7-10E⑥⑦-1/8J⑨	—	
			ø4	VPC3.5x7-10E⑥⑦-4J⑨	—				ø5/32	VPC3.5x7-10E⑥⑦-5/32J⑨	—	
			ø6	VPC3.5x7-10E⑥⑦-6J⑨	—				ø1/4	VPC3.5x7-10E⑥⑦-1/4J⑨	—	
		15	ø3	VPC3.5x7-15E⑥⑦-3J⑨	—			15	ø1/8	VPC3.5x7-15E⑥⑦-1/8J⑨	—	
			ø4	VPC3.5x7-15E⑥⑦-4J⑨	—				ø5/32	VPC3.5x7-15E⑥⑦-5/32J⑨	—	
			ø6	VPC3.5x7-15E⑥⑦-6J⑨	—				ø1/4	VPC3.5x7-15E⑥⑦-1/4J⑨	—	
		20	ø3	VPC3.5x7-20E⑥⑦-3J⑨	—			20	ø1/8	VPC3.5x7-20E⑥⑦-1/8J⑨	—	
			ø4	VPC3.5x7-20E⑥⑦-4J⑨	—				ø5/32	VPC3.5x7-20E⑥⑦-5/32J⑨	—	
			ø6	VPC3.5x7-20E⑥⑦-6J⑨	—				ø1/4	VPC3.5x7-20E⑥⑦-1/4J⑨	—	
	4×10	6	ø3	VPC4x10-6E⑥⑦-3J⑨	—		4×10	6	ø1/8	VPC4x10-6E⑥⑦-1/8J⑨	—	
			ø4	VPC4x10-6E⑥⑦-4J⑨⑬	○				ø5/32	VPC4x10-6E⑥⑦-5/32J⑨⑬	○	
			ø6	VPC4x10-6E⑥⑦-6J⑨⑬	○				ø1/4	VPC4x10-6E⑥⑦-1/4J⑨	—	
		10	ø3	VPC4x10-10E⑥⑦-3J⑨	—			10	ø1/8	VPC4x10-10E⑥⑦-1/8J⑨	—	
			ø4	VPC4x10-10E⑥⑦-4J⑨	—				ø5/32	VPC4x10-10E⑥⑦-5/32J⑨	—	
			ø6	VPC4x10-10E⑥⑦-6J⑨	—				ø1/4	VPC4x10-10E⑥⑦-1/4J⑨	—	
		15	ø3	VPC4x10-15E⑥⑦-3J⑨	—			15	ø1/8	VPC4x10-15E⑥⑦-1/8J⑨	—	
			ø4	VPC4x10-15E⑥⑦-4J⑨	—				ø5/32	VPC4x10-15E⑥⑦-5/32J⑨	—	
			ø6	VPC4x10-15E⑥⑦-6J⑨	—				ø1/4	VPC4x10-15E⑥⑦-1/4J⑨	—	
		20	ø3	VPC4x10-20E⑥⑦-3J⑨	—			20	ø1/8	VPC4x10-20E⑥⑦-1/8J⑨	—	
			ø4	VPC4x10-20E⑥⑦-4J⑨	—				ø5/32	VPC4x10-20E⑥⑦-5/32J⑨	—	
			ø6	VPC4x10-20E⑥⑦-6J⑨	—				ø1/4	VPC4x10-20E⑥⑦-1/4J⑨	—	
	4×20	6	ø3	VPC4x20-6E⑥⑦-3J⑨	—		4×20	6	ø1/8	VPC4x20-6E⑥⑦-1/8J⑨	—	
			ø4	VPC4x20-6E⑥⑦-4J⑨⑬	○				ø5/32	VPC4x20-6E⑥⑦-5/32J⑨⑬	○	
			ø6	VPC4x20-6E⑥⑦-6J⑨⑬	○				ø1/4	VPC4x20-6E⑥⑦-1/4J⑨	—	
		10	ø3	VPC4x20-10E⑥⑦-3J⑨	—			10	ø1/8	VPC4x20-10E⑥⑦-1/8J⑨	—	
			ø4	VPC4x20-10E⑥⑦-4J⑨	—				ø5/32	VPC4x20-10E⑥⑦-5/32J⑨	—	
			ø6	VPC4x20-10E⑥⑦-6J⑨	—				ø1/4	VPC4x20-10E⑥⑦-1/4J⑨	—	
		15	ø3	VPC4x20-15E⑥⑦-3J⑨	—			15	ø1/8	VPC4x20-15E⑥⑦-1/8J⑨	—	
			ø4	VPC4x20-15E⑥⑦-4J⑨	—				ø5/32	VPC4x20-15E⑥⑦-5/32J⑨	—	
			ø6	VPC4x20-15E⑥⑦-6J⑨	—				ø1/4	VPC4x20-15E⑥⑦-1/4J⑨	—	
		20	ø3	VPC4x20-20E⑥⑦-3J⑨	—			20	ø1/8	VPC4x20-20E⑥⑦-1/8J⑨	—	
			ø4	VPC4x20-20E⑥⑦-4J⑨	—				ø5/32	VPC4x20-20E⑥⑦-5/32J⑨	—	
			ø6	VPC4x20-20E⑥⑦-6J⑨	—				ø1/4	VPC4x20-20E⑥⑦-1/4J⑨	—	
	4×30	6	ø3	VPC4x30-6E⑥⑦-3J⑨*2	—		4×30	6	ø1/8	VPC4x30-6E⑥⑦-1/8J⑨*2	—	
			ø4	VPC4x30-6E⑥⑦-4J⑨⑬*2	○				ø5/32	VPC4x30-6E⑥⑦-5/32J⑨⑬*2	○	
			ø6	VPC4x30-6E⑥⑦-6J⑨⑬*2	○				ø1/4	VPC4x30-6E⑥⑦-1/4J⑨*2	—	
		10	ø3	VPC4x30-10E⑥⑦-3J⑨*2	—			10	ø1/8	VPC4x30-10E⑥⑦-1/8J⑨*2	—	
			ø4	VPC4x30-10E⑥⑦-4J⑨*2	—				ø5/32	VPC4x30-10E⑥⑦-5/32J⑨*2	—	
			ø6	VPC4x30-10E⑥⑦-6J⑨*2	—				ø1/4	VPC4x30-10E⑥⑦-1/4J⑨*2	—	
		15	ø3	VPC4x30-15E⑥⑦-3J⑨*2	—			15	ø1/8	VPC4x30-15E⑥⑦-1/8J⑨*2	—	
			ø4	VPC4x30-15E⑥⑦-4J⑨*2	—				ø5/32	VPC4x30-15E⑥⑦-5/32J⑨*2	—	
			ø6	VPC4x30-15E⑥⑦-6J⑨*2	—				ø1/4	VPC4x30-15E⑥⑦-1/4J⑨*2	—	
		20	ø3	VPC4x30-20E⑥⑦-3J⑨*2	—			20	ø1/8	VPC4x30-20E⑥⑦-1/8J⑨*2	—	
			ø4	VPC4x30-20E⑥⑦-4J⑨*2	—				ø5/32	VPC4x30-20E⑥⑦-5/32J⑨*2	—	
			ø6	VPC4x30-20E⑥⑦-6J⑨*2	—				ø1/4	VPC4x30-20E⑥⑦-1/4J⑨*2	—	

Vacuum Pad Oval Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Standard VPC Pad size 5×10mm to 5×30mm	5×10	6	ø3	VPC5x10-6E67-3J9	—	M6	5×10	6	ø1/8	VPC5x10-6E67-1/8J9	—	M6
			ø4	VPC5x10-6E67-4J913	○				ø5/32	VPC5x10-6E67-5/32J913	○	
			ø6	VPC5x10-6E67-6J913	○				ø1/4	VPC5x10-6E67-1/4J9	—	
		10	ø3	VPC5x10-10E67-3J9	—			10	ø1/8	VPC5x10-10E67-1/8J9	—	
			ø4	VPC5x10-10E67-4J9	—				ø5/32	VPC5x10-10E67-5/32J9	—	
			ø6	VPC5x10-10E67-6J9	—				ø1/4	VPC5x10-10E67-1/4J9	—	
		15	ø3	VPC5x10-15E67-3J9	—			15	ø1/8	VPC5x10-15E67-1/8J9	—	
			ø4	VPC5x10-15E67-4J9	—				ø5/32	VPC5x10-15E67-5/32J9	—	
			ø6	VPC5x10-15E67-6J9	—				ø1/4	VPC5x10-15E67-1/4J9	—	
		20	ø3	VPC5x10-20E67-3J9	—			20	ø1/8	VPC5x10-20E67-1/8J9	—	
			ø4	VPC5x10-20E67-4J9	—				ø5/32	VPC5x10-20E67-5/32J9	—	
			ø6	VPC5x10-20E67-6J9	—				ø1/4	VPC5x10-20E67-1/4J9	—	
	5×20	6	ø3	VPC5x20-6E67-3J9	—		5×20	6	ø1/8	VPC5x20-6E67-1/8J9	—	
			ø4	VPC5x20-6E67-4J913	○				ø5/32	VPC5x20-6E67-5/32J913	○	
			ø6	VPC5x20-6E67-6J913	○				ø1/4	VPC5x20-6E67-1/4J9	—	
		10	ø3	VPC5x20-10E67-3J9	—			10	ø1/8	VPC5x20-10E67-1/8J9	—	
			ø4	VPC5x20-10E67-4J9	—				ø5/32	VPC5x20-10E67-5/32J9	—	
			ø6	VPC5x20-10E67-6J9	—				ø1/4	VPC5x20-10E67-1/4J9	—	
		15	ø3	VPC5x20-15E67-3J9	—			15	ø1/8	VPC5x20-15E67-1/8J9	—	
			ø4	VPC5x20-15E67-4J9	—				ø5/32	VPC5x20-15E67-5/32J9	—	
			ø6	VPC5x20-15E67-6J9	—				ø1/4	VPC5x20-15E67-1/4J9	—	
		20	ø3	VPC5x20-20E67-3J9	—			20	ø1/8	VPC5x20-20E67-1/8J9	—	
			ø4	VPC5x20-20E67-4J9	—				ø5/32	VPC5x20-20E67-5/32J9	—	
			ø6	VPC5x20-20E67-6J9	—				ø1/4	VPC5x20-20E67-1/4J9	—	
	5×30	6	ø3	VPC5x30-6E67-3J9	—		5×30	6	ø1/8	VPC5x30-6E67-1/8J9	—	
			ø4	VPC5x30-6E67-4J913	○				ø5/32	VPC5x30-6E67-5/32J913	○	
			ø6	VPC5x30-6E67-6J913	○				ø1/4	VPC5x30-6E67-1/4J9	—	
		10	ø3	VPC5x30-10E67-3J9	—			10	ø1/8	VPC5x30-10E67-1/8J9	—	
			ø4	VPC5x30-10E67-4J9	—				ø5/32	VPC5x30-10E67-5/32J9	—	
			ø6	VPC5x30-10E67-6J9	—				ø1/4	VPC5x30-10E67-1/4J9	—	
		15	ø3	VPC5x30-15E67-3J9	—			15	ø1/8	VPC5x30-15E67-1/8J9	—	
			ø4	VPC5x30-15E67-4J9	—				ø5/32	VPC5x30-15E67-5/32J9	—	
			ø6	VPC5x30-15E67-6J9	—				ø1/4	VPC5x30-15E67-1/4J9	—	
		20	ø3	VPC5x30-20E67-3J9	—			20	ø1/8	VPC5x30-20E67-1/8J9	—	
			ø4	VPC5x30-20E67-4J9	—				ø5/32	VPC5x30-20E67-5/32J9	—	
			ø6	VPC5x30-20E67-6J9	—				ø1/4	VPC5x30-20E67-1/4J9	—	

Notes
*Barb fitting type holders are also available. Contact us for the details.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
9: -DC ⇒ Holder with dust catcher
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.715
Surface treatment
Dust Catcher (VPC)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	[13] -S3 -S3 spec.	Connection config. code	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	[13] -S3 -S3 spec.	Connection config. code
Spring type, Top port, Push-in fitting, Standard **VPC** Pad size 6×10mm to 8×30mm	6×10	6	ø3	VPC6x10-6E[6][7]-3J[9]	—	M6	6×10	6	ø1/8	VPC6x10-6E[6][7]-1/8J[9]	—	M6
			ø4	VPC6x10-6E[6][7]-4J[9][13]	○				ø5/32	VPC6x10-6E[6][7]-5/32J[9][13]	○	
			ø6	VPC6x10-6E[6][7]-6J[9][13]	○				ø1/4	VPC6x10-6E[6][7]-1/4J[9]	—	
		10	ø3	VPC6x10-10E[6][7]-3J[9]	—			10	ø1/8	VPC6x10-10E[6][7]-1/8J[9]	—	
			ø4	VPC6x10-10E[6][7]-4J[9]	—				ø5/32	VPC6x10-10E[6][7]-5/32J[9]	—	
			ø6	VPC6x10-10E[6][7]-6J[9]	—				ø1/4	VPC6x10-10E[6][7]-1/4J[9]	—	
		15	ø3	VPC6x10-15E[6][7]-3J[9]	—			15	ø1/8	VPC6x10-15E[6][7]-1/8J[9]	—	
			ø4	VPC6x10-15E[6][7]-4J[9]	—				ø5/32	VPC6x10-15E[6][7]-5/32J[9]	—	
			ø6	VPC6x10-15E[6][7]-6J[9]	—				ø1/4	VPC6x10-15E[6][7]-1/4J[9]	—	
		20	ø3	VPC6x10-20E[6][7]-3J[9]	—			20	ø1/8	VPC6x10-20E[6][7]-1/8J[9]	—	
			ø4	VPC6x10-20E[6][7]-4J[9]	—				ø5/32	VPC6x10-20E[6][7]-5/32J[9]	—	
			ø6	VPC6x10-20E[6][7]-6J[9]	—				ø1/4	VPC6x10-20E[6][7]-1/4J[9]	—	
	6×20	6	ø3	VPC6x20-6E[6][7]-3J[9]	—		6×20	6	ø1/8	VPC6x20-6E[6][7]-1/8J[9]	—	
			ø4	VPC6x20-6E[6][7]-4J[9][13]	○				ø5/32	VPC6x20-6E[6][7]-5/32J[9][13]	○	
			ø6	VPC6x20-6E[6][7]-6J[9][13]	○				ø1/4	VPC6x20-6E[6][7]-1/4J[9]	—	
		10	ø3	VPC6x20-10E[6][7]-3J[9]	—			10	ø1/8	VPC6x20-10E[6][7]-1/8J[9]	—	
			ø4	VPC6x20-10E[6][7]-4J[9]	—				ø5/32	VPC6x20-10E[6][7]-5/32J[9]	—	
			ø6	VPC6x20-10E[6][7]-6J[9]	—				ø1/4	VPC6x20-10E[6][7]-1/4J[9]	—	
		15	ø3	VPC6x20-15E[6][7]-3J[9]	—			15	ø1/8	VPC6x20-15E[6][7]-1/8J[9]	—	
			ø4	VPC6x20-15E[6][7]-4J[9]	—				ø5/32	VPC6x20-15E[6][7]-5/32J[9]	—	
			ø6	VPC6x20-15E[6][7]-6J[9]	—				ø1/4	VPC6x20-15E[6][7]-1/4J[9]	—	
		20	ø3	VPC6x20-20E[6][7]-3J[9]	—			20	ø1/8	VPC6x20-20E[6][7]-1/8J[9]	—	
			ø4	VPC6x20-20E[6][7]-4J[9]	—				ø5/32	VPC6x20-20E[6][7]-5/32J[9]	—	
			ø6	VPC6x20-20E[6][7]-6J[9]	—				ø1/4	VPC6x20-20E[6][7]-1/4J[9]	—	
	6×30	6	ø3	VPC6x30-6E[6][7]-3J[9]	—		6×30	6	ø1/8	VPC6x30-6E[6][7]-1/8J[9]	—	
			ø4	VPC6x30-6E[6][7]-4J[9][13]	○				ø5/32	VPC6x30-6E[6][7]-5/32J[9][13]	○	
			ø6	VPC6x30-6E[6][7]-6J[9][13]	○				ø1/4	VPC6x30-6E[6][7]-1/4J[9]	—	
		10	ø3	VPC6x30-10E[6][7]-3J[9]	—			10	ø1/8	VPC6x30-10E[6][7]-1/8J[9]	—	
			ø4	VPC6x30-10E[6][7]-4J[9]	—				ø5/32	VPC6x30-10E[6][7]-5/32J[9]	—	
			ø6	VPC6x30-10E[6][7]-6J[9]	—				ø1/4	VPC6x30-10E[6][7]-1/4J[9]	—	
		15	ø3	VPC6x30-15E[6][7]-3J[9]	—			15	ø1/8	VPC6x30-15E[6][7]-1/8J[9]	—	
			ø4	VPC6x30-15E[6][7]-4J[9]	—				ø5/32	VPC6x30-15E[6][7]-5/32J[9]	—	
			ø6	VPC6x30-15E[6][7]-6J[9]	—				ø1/4	VPC6x30-15E[6][7]-1/4J[9]	—	
		20	ø3	VPC6x30-20E[6][7]-3J[9]	—			20	ø1/8	VPC6x30-20E[6][7]-1/8J[9]	—	
			ø4	VPC6x30-20E[6][7]-4J[9]	—				ø5/32	VPC6x30-20E[6][7]-5/32J[9]	—	
			ø6	VPC6x30-20E[6][7]-6J[9]	—				ø1/4	VPC6x30-20E[6][7]-1/4J[9]	—	
	8×20	6	ø3	VPC8x20-6E[6][7]-3J[9]	—		8×20	6	ø1/8	VPC8x20-6E[6][7]-1/8J[9]	—	
			ø4	VPC8x20-6E[6][7]-4J[9][13]	○				ø5/32	VPC8x20-6E[6][7]-5/32J[9][13]	○	
			ø6	VPC8x20-6E[6][7]-6J[9][13]	○				ø1/4	VPC8x20-6E[6][7]-1/4J[9]	—	
		10	ø3	VPC8x20-10E[6][7]-3J[9]	—			10	ø1/8	VPC8x20-10E[6][7]-1/8J[9]	—	
			ø4	VPC8x20-10E[6][7]-4J[9]	—				ø5/32	VPC8x20-10E[6][7]-5/32J[9]	—	
			ø6	VPC8x20-10E[6][7]-6J[9]	—				ø1/4	VPC8x20-10E[6][7]-1/4J[9]	—	
		15	ø3	VPC8x20-15E[6][7]-3J[9]	—			15	ø1/8	VPC8x20-15E[6][7]-1/8J[9]	—	
			ø4	VPC8x20-15E[6][7]-4J[9]	—				ø5/32	VPC8x20-15E[6][7]-5/32J[9]	—	
			ø6	VPC8x20-15E[6][7]-6J[9]	—				ø1/4	VPC8x20-15E[6][7]-1/4J[9]	—	
		20	ø3	VPC8x20-20E[6][7]-3J[9]	—			20	ø1/8	VPC8x20-20E[6][7]-1/8J[9]	—	
			ø4	VPC8x20-20E[6][7]-4J[9]	—				ø5/32	VPC8x20-20E[6][7]-5/32J[9]	—	
			ø6	VPC8x20-20E[6][7]-6J[9]	—				ø1/4	VPC8x20-20E[6][7]-1/4J[9]	—	
	8×30	6	ø3	VPC8x30-6E[6][7]-3J[9]	—		8×30	6	ø1/8	VPC8x30-6E[6][7]-1/8J[9]	—	
			ø4	VPC8x30-6E[6][7]-4J[9][13]	○				ø5/32	VPC8x30-6E[6][7]-5/32J[9][13]	○	
			ø6	VPC8x30-6E[6][7]-6J[9][13]	○				ø1/4	VPC8x30-6E[6][7]-1/4J[9]	—	
		10	ø3	VPC8x30-10E[6][7]-3J[9]	—			10	ø1/8	VPC8x30-10E[6][7]-1/8J[9]	—	
			ø4	VPC8x30-10E[6][7]-4J[9]	—				ø5/32	VPC8x30-10E[6][7]-5/32J[9]	—	
			ø6	VPC8x30-10E[6][7]-6J[9]	—				ø1/4	VPC8x30-10E[6][7]-1/4J[9]	—	
		15	ø3	VPC8x30-15E[6][7]-3J[9]	—			15	ø1/8	VPC8x30-15E[6][7]-1/8J[9]	—	
			ø4	VPC8x30-15E[6][7]-4J[9]	—				ø5/32	VPC8x30-15E[6][7]-5/32J[9]	—	
			ø6	VPC8x30-15E[6][7]-6J[9]	—				ø1/4	VPC8x30-15E[6][7]-1/4J[9]	—	
		20	ø3	VPC8x30-20E[6][7]-3J[9]	—			20	ø1/8	VPC8x30-20E[6][7]-1/8J[9]	—	
			ø4	VPC8x30-20E[6][7]-4J[9]	—				ø5/32	VPC8x30-20E[6][7]-5/32J[9]	—	
			ø6	VPC8x30-20E[6][7]-6J[9]	—				ø1/4	VPC8x30-20E[6][7]-1/4J[9]	—	

Vacuum Pad Oval Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Stroke (mm)	Male thread size	Model code	⑬ -S3 -S3 spec.	Connection config. code
Spring type, Top port, Female thread, Standard VPC 	2×4	6	M6×1	VPC2x4-6E⑥⑦-M6⑨⑬	○	M6
		10		VPC2x4-10E⑥⑦-M6⑨	—	
		15		VPC2x4-15E⑥⑦-M6⑨	—	
		20		VPC2x4-20E⑥⑦-M6⑨	—	
	3.5×7	6	M6×1	VPC3.5x7-6E⑥⑦-M6⑨⑬	○	
		10		VPC3.5x7-10E⑥⑦-M6⑨	—	
		15		VPC3.5x7-15E⑥⑦-M6⑨	—	
		20		VPC3.5x7-20E⑥⑦-M6⑨	—	
	4×10	6	M6×1	VPC4x10-6E⑥⑦-M6⑨⑬	○	
		10		VPC4x10-10E⑥⑦-M6⑨	—	
		15		VPC4x10-15E⑥⑦-M6⑨	—	
		20		VPC4x10-20E⑥⑦-M6⑨	—	
	4×20	6	M6×1	VPC4x20-6E⑥⑦-M6⑨⑬	○	
		10		VPC4x20-10E⑥⑦-M6⑨	—	
		15		VPC4x20-15E⑥⑦-M6⑨	—	
		20		VPC4x20-20E⑥⑦-M6⑨	—	
	4×30	6	M6×1	VPC4x30-6E⑥⑦-M6⑨⑬*2	○	
		10		VPC4x30-10E⑥⑦-M6⑨*2	—	
		15		VPC4x30-15E⑥⑦-M6⑨*2	—	
		20		VPC4x30-20E⑥⑦-M6⑨*2	—	
	5×10	6	M6×1	VPC5x10-6E⑥⑦-M6⑨⑬	○	
		10		VPC5x10-10E⑥⑦-M6⑨	—	
		15		VPC5x10-15E⑥⑦-M6⑨	—	
		20		VPC5x10-20E⑥⑦-M6⑨	—	
	5×20	6	M6×1	VPC5x20-6E⑥⑦-M6⑨⑬	○	
		10		VPC5x20-10E⑥⑦-M6⑨	—	
		15		VPC5x20-15E⑥⑦-M6⑨	—	
		20		VPC5x20-20E⑥⑦-M6⑨	—	
	5×30	6	M6×1	VPC5x30-6E⑥⑦-M6⑨⑬	○	
		10		VPC5x30-10E⑥⑦-M6⑨	—	
		15		VPC5x30-15E⑥⑦-M6⑨	—	
		20		VPC5x30-20E⑥⑦-M6⑨	—	
	6×10	6	M6×1	VPC6x10-6E⑥⑦-M6⑨⑬	○	
		10		VPC6x10-10E⑥⑦-M6⑨	—	
		15		VPC6x10-15E⑥⑦-M6⑨	—	
		20		VPC6x10-20E⑥⑦-M6⑨	—	
	6×20	6	M6×1	VPC6x20-6E⑥⑦-M6⑨⑬	○	
		10		VPC6x20-10E⑥⑦-M6⑨	—	
		15		VPC6x20-15E⑥⑦-M6⑨	—	
		20		VPC6x20-20E⑥⑦-M6⑨	—	
	6×30	6	M6×1	VPC6x30-6E⑥⑦-M6⑨⑬	○	
		10		VPC6x30-10E⑥⑦-M6⑨	—	
		15		VPC6x30-15E⑥⑦-M6⑨	—	
		20		VPC6x30-20E⑥⑦-M6⑨	—	
	8×20	6	M6×1	VPC8x20-6E⑥⑦-M6⑨⑬	○	
		10		VPC8x20-10E⑥⑦-M6⑨	—	
		15		VPC8x20-15E⑥⑦-M6⑨	—	
		20		VPC8x20-20E⑥⑦-M6⑨	—	
	8×30	6	M6×1	VPC8x30-6E⑥⑦-M6⑨⑬	○	
		10		VPC8x30-10E⑥⑦-M6⑨	—	
		15		VPC8x30-15E⑥⑦-M6⑨	—	
		20		VPC8x30-20E⑥⑦-M6⑨	—	

Notes
*1. Barb fitting type holders are also available. Contact us for the details.
*2. Urethane (U) and Fluoro (F) are not available.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
⑨: -DC ⇒ Holder with dust catcher
⑬: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.715
Surface treatment
Dust Catcher (VPC)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, No cover **VPOC** Pad size 2×4mm to 4×30mm	2×4	20	ø3	VPOC2x4-20E6[7]-3J	M6	2×4	20	ø1/8	VPOC2x4-20E6[7]-1/8J	M6
			ø4	VPOC2x4-20E6[7]-4J				ø5/32	VPOC2x4-20E6[7]-5/32J	
			ø6	VPOC2x4-20E6[7]-6J				ø1/4	VPOC2x4-20E6[7]-1/4J	
		30	ø3	VPOC2x4-30E6[7]-3J			30	ø1/8	VPOC2x4-30E6[7]-1/8J	
			ø4	VPOC2x4-30E6[7]-4J				ø5/32	VPOC2x4-30E6[7]-5/32J	
			ø6	VPOC2x4-30E6[7]-6J				ø1/4	VPOC2x4-30E6[7]-1/4J	
		40	ø3	VPOC2x4-40E6[7]-3J			40	ø1/8	VPOC2x4-40E6[7]-1/8J	
			ø4	VPOC2x4-40E6[7]-4J				ø5/32	VPOC2x4-40E6[7]-5/32J	
			ø6	VPOC2x4-40E6[7]-6J				ø1/4	VPOC2x4-40E6[7]-1/4J	
		50	ø3	VPOC2x4-50E6[7]-3J			50	ø1/8	VPOC2x4-50E6[7]-1/8J	
			ø4	VPOC2x4-50E6[7]-4J				ø5/32	VPOC2x4-50E6[7]-5/32J	
			ø6	VPOC2x4-50E6[7]-6J				ø1/4	VPOC2x4-50E6[7]-1/4J	
	3.5×7	20	ø3	VPOC3.5x7-20E6[7]-3J		3.5×7	20	ø1/8	VPOC3.5x7-20E6[7]-1/8J	
			ø4	VPOC3.5x7-20E6[7]-4J				ø5/32	VPOC3.5x7-20E6[7]-5/32J	
			ø6	VPOC3.5x7-20E6[7]-6J				ø1/4	VPOC3.5x7-20E6[7]-1/4J	
		30	ø3	VPOC3.5x7-30E6[7]-3J			30	ø1/8	VPOC3.5x7-30E6[7]-1/8J	
			ø4	VPOC3.5x7-30E6[7]-4J				ø5/32	VPOC3.5x7-30E6[7]-5/32J	
			ø6	VPOC3.5x7-30E6[7]-6J				ø1/4	VPOC3.5x7-30E6[7]-1/4J	
		40	ø3	VPOC3.5x7-40E6[7]-3J			40	ø1/8	VPOC3.5x7-40E6[7]-1/8J	
			ø4	VPOC3.5x7-40E6[7]-4J				ø5/32	VPOC3.5x7-40E6[7]-5/32J	
			ø6	VPOC3.5x7-40E6[7]-6J				ø1/4	VPOC3.5x7-40E6[7]-1/4J	
		50	ø3	VPOC3.5x7-50E6[7]-3J			50	ø1/8	VPOC3.5x7-50E6[7]-1/8J	
			ø4	VPOC3.5x7-50E6[7]-4J				ø5/32	VPOC3.5x7-50E6[7]-5/32J	
			ø6	VPOC3.5x7-50E6[7]-6J				ø1/4	VPOC3.5x7-50E6[7]-1/4J	
	4×10	20	ø3	VPOC4x10-20E6[7]-3J		4×10	20	ø1/8	VPOC4x10-20E6[7]-1/8J	
			ø4	VPOC4x10-20E6[7]-4J				ø5/32	VPOC4x10-20E6[7]-5/32J	
			ø6	VPOC4x10-20E6[7]-6J				ø1/4	VPOC4x10-20E6[7]-1/4J	
		30	ø3	VPOC4x10-30E6[7]-3J			30	ø1/8	VPOC4x10-30E6[7]-1/8J	
			ø4	VPOC4x10-30E6[7]-4J				ø5/32	VPOC4x10-30E6[7]-5/32J	
			ø6	VPOC4x10-30E6[7]-6J				ø1/4	VPOC4x10-30E6[7]-1/4J	
		40	ø3	VPOC4x10-40E6[7]-3J			40	ø1/8	VPOC4x10-40E6[7]-1/8J	
			ø4	VPOC4x10-40E6[7]-4J				ø5/32	VPOC4x10-40E6[7]-5/32J	
			ø6	VPOC4x10-40E6[7]-6J				ø1/4	VPOC4x10-40E6[7]-1/4J	
		50	ø3	VPOC4x10-50E6[7]-3J			50	ø1/8	VPOC4x10-50E6[7]-1/8J	
			ø4	VPOC4x10-50E6[7]-4J				ø5/32	VPOC4x10-50E6[7]-5/32J	
			ø6	VPOC4x10-50E6[7]-6J				ø1/4	VPOC4x10-50E6[7]-1/4J	
	4×20	20	ø3	VPOC4x20-20E6[7]-3J		4×20	20	ø1/8	VPOC4x20-20E6[7]-1/8J	
			ø4	VPOC4x20-20E6[7]-4J				ø5/32	VPOC4x20-20E6[7]-5/32J	
			ø6	VPOC4x20-20E6[7]-6J				ø1/4	VPOC4x20-20E6[7]-1/4J	
		30	ø3	VPOC4x20-30E6[7]-3J			30	ø1/8	VPOC4x20-30E6[7]-1/8J	
			ø4	VPOC4x20-30E6[7]-4J				ø5/32	VPOC4x20-30E6[7]-5/32J	
			ø6	VPOC4x20-30E6[7]-6J				ø1/4	VPOC4x20-30E6[7]-1/4J	
		40	ø3	VPOC4x20-40E6[7]-3J			40	ø1/8	VPOC4x20-40E6[7]-1/8J	
			ø4	VPOC4x20-40E6[7]-4J				ø5/32	VPOC4x20-40E6[7]-5/32J	
			ø6	VPOC4x20-40E6[7]-6J				ø1/4	VPOC4x20-40E6[7]-1/4J	
		50	ø3	VPOC4x20-50E6[7]-3J			50	ø1/8	VPOC4x20-50E6[7]-1/8J	
			ø4	VPOC4x20-50E6[7]-4J				ø5/32	VPOC4x20-50E6[7]-5/32J	
			ø6	VPOC4x20-50E6[7]-6J				ø1/4	VPOC4x20-50E6[7]-1/4J	
	4×30	20	ø3	VPOC4x30-20E6[7]-3J*2		4×30	20	ø1/8	VPOC4x30-20E6[7]-1/8J*2	
			ø4	VPOC4x30-20E6[7]-4J*2				ø5/32	VPOC4x30-20E6[7]-5/32J*2	
			ø6	VPOC4x30-20E6[7]-6J*2				ø1/4	VPOC4x30-20E6[7]-1/4J*2	
		30	ø3	VPOC4x30-30E6[7]-3J*2			30	ø1/8	VPOC4x30-30E6[7]-1/8J*2	
			ø4	VPOC4x30-30E6[7]-4J*2				ø5/32	VPOC4x30-30E6[7]-5/32J*2	
			ø6	VPOC4x30-30E6[7]-6J*2				ø1/4	VPOC4x30-30E6[7]-1/4J*2	
		40	ø3	VPOC4x30-40E6[7]-3J*2			40	ø1/8	VPOC4x30-40E6[7]-1/8J*2	
			ø4	VPOC4x30-40E6[7]-4J*2				ø5/32	VPOC4x30-40E6[7]-5/32J*2	
			ø6	VPOC4x30-40E6[7]-6J*2				ø1/4	VPOC4x30-40E6[7]-1/4J*2	
		50	ø3	VPOC4x30-50E6[7]-3J*2			50	ø1/8	VPOC4x30-50E6[7]-1/8J*2	
			ø4	VPOC4x30-50E6[7]-4J*2				ø5/32	VPOC4x30-50E6[7]-5/32J*2	
			ø6	VPOC4x30-50E6[7]-6J*2				ø1/4	VPOC4x30-50E6[7]-1/4J*2	

Vacuum Pad Oval Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, No cover **VPOC** Pad size 5×10mm to 5×30mm	5×10	20	ø3	VPOC5x10-20E⑥⑦-3J	M6	5×10	20	ø1/8	VPOC5x10-20E⑥⑦-1/8J	M6
			ø4	VPOC5x10-20E⑥⑦-4J				ø5/32	VPOC5x10-20E⑥⑦-5/32J	
			ø6	VPOC5x10-20E⑥⑦-6J				ø1/4	VPOC5x10-20E⑥⑦-1/4J	
		30	ø3	VPOC5x10-30E⑥⑦-3J			30	ø1/8	VPOC5x10-30E⑥⑦-1/8J	
			ø4	VPOC5x10-30E⑥⑦-4J				ø5/32	VPOC5x10-30E⑥⑦-5/32J	
			ø6	VPOC5x10-30E⑥⑦-6J				ø1/4	VPOC5x10-30E⑥⑦-1/4J	
		40	ø3	VPOC5x10-40E⑥⑦-3J			40	ø1/8	VPOC5x10-40E⑥⑦-1/8J	
			ø4	VPOC5x10-40E⑥⑦-4J				ø5/32	VPOC5x10-40E⑥⑦-5/32J	
			ø6	VPOC5x10-40E⑥⑦-6J				ø1/4	VPOC5x10-40E⑥⑦-1/4J	
		50	ø3	VPOC5x10-50E⑥⑦-3J			50	ø1/8	VPOC5x10-50E⑥⑦-1/8J	
			ø4	VPOC5x10-50E⑥⑦-4J				ø5/32	VPOC5x10-50E⑥⑦-5/32J	
			ø6	VPOC5x10-50E⑥⑦-6J				ø1/4	VPOC5x10-50E⑥⑦-1/4J	
	5×20	20	ø3	VPOC5x20-20E⑥⑦-3J		5×20	20	ø1/8	VPOC5x20-20E⑥⑦-1/8J	
			ø4	VPOC5x20-20E⑥⑦-4J				ø5/32	VPOC5x20-20E⑥⑦-5/32J	
			ø6	VPOC5x20-20E⑥⑦-6J				ø1/4	VPOC5x20-20E⑥⑦-1/4J	
		30	ø3	VPOC5x20-30E⑥⑦-3J			30	ø1/8	VPOC5x20-30E⑥⑦-1/8J	
			ø4	VPOC5x20-30E⑥⑦-4J				ø5/32	VPOC5x20-30E⑥⑦-5/32J	
			ø6	VPOC5x20-30E⑥⑦-6J				ø1/4	VPOC5x20-30E⑥⑦-1/4J	
		40	ø3	VPOC5x20-40E⑥⑦-3J			40	ø1/8	VPOC5x20-40E⑥⑦-1/8J	
			ø4	VPOC5x20-40E⑥⑦-4J				ø5/32	VPOC5x20-40E⑥⑦-5/32J	
			ø6	VPOC5x20-40E⑥⑦-6J				ø1/4	VPOC5x20-40E⑥⑦-1/4J	
		50	ø3	VPOC5x20-50E⑥⑦-3J			50	ø1/8	VPOC5x20-50E⑥⑦-1/8J	
			ø4	VPOC5x20-50E⑥⑦-4J				ø5/32	VPOC5x20-50E⑥⑦-5/32J	
			ø6	VPOC5x20-50E⑥⑦-6J				ø1/4	VPOC5x20-50E⑥⑦-1/4J	
	5×30	20	ø3	VPOC5x30-20E⑥⑦-3J		5×30	20	ø1/8	VPOC5x30-20E⑥⑦-1/8J	
			ø4	VPOC5x30-20E⑥⑦-4J				ø5/32	VPOC5x30-20E⑥⑦-5/32J	
			ø6	VPOC5x30-20E⑥⑦-6J				ø1/4	VPOC5x30-20E⑥⑦-1/4J	
		30	ø3	VPOC5x30-30E⑥⑦-3J			30	ø1/8	VPOC5x30-30E⑥⑦-1/8J	
			ø4	VPOC5x30-30E⑥⑦-4J				ø5/32	VPOC5x30-30E⑥⑦-5/32J	
			ø6	VPOC5x30-30E⑥⑦-6J				ø1/4	VPOC5x30-30E⑥⑦-1/4J	
		40	ø3	VPOC5x30-40E⑥⑦-3J			40	ø1/8	VPOC5x30-40E⑥⑦-1/8J	
			ø4	VPOC5x30-40E⑥⑦-4J				ø5/32	VPOC5x30-40E⑥⑦-5/32J	
			ø6	VPOC5x30-40E⑥⑦-6J				ø1/4	VPOC5x30-40E⑥⑦-1/4J	
		50	ø3	VPOC5x30-50E⑥⑦-3J			50	ø1/8	VPOC5x30-50E⑥⑦-1/8J	
			ø4	VPOC5x30-50E⑥⑦-4J				ø5/32	VPOC5x30-50E⑥⑦-5/32J	
			ø6	VPOC5x30-50E⑥⑦-6J				ø1/4	VPOC5x30-50E⑥⑦-1/4J	

Notes
*Barb fitting type holders are also available. Contact us for the details.

CAD data is available at PISCO website.

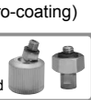
Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.715

Surface treatment

Fall Prevention Valve

Swivel Joint for vacuum pad 

Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, No cover **VPOC** Pad size 6×10mm to 8×30mm	6×10	20	ø3	VPOC6x10-20E6[7]-3J	M6	6×10	20	ø1/8	VPOC6x10-20E6[7]-1/8J	M6
			ø4	VPOC6x10-20E6[7]-4J				ø5/32	VPOC6x10-20E6[7]-5/32J	
			ø6	VPOC6x10-20E6[7]-6J				ø1/4	VPOC6x10-20E6[7]-1/4J	
		30	ø3	VPOC6x10-30E6[7]-3J			30	ø1/8	VPOC6x10-30E6[7]-1/8J	
			ø4	VPOC6x10-30E6[7]-4J				ø5/32	VPOC6x10-30E6[7]-5/32J	
			ø6	VPOC6x10-30E6[7]-6J				ø1/4	VPOC6x10-30E6[7]-1/4J	
		40	ø3	VPOC6x10-40E6[7]-3J			40	ø1/8	VPOC6x10-40E6[7]-1/8J	
			ø4	VPOC6x10-40E6[7]-4J				ø5/32	VPOC6x10-40E6[7]-5/32J	
			ø6	VPOC6x10-40E6[7]-6J				ø1/4	VPOC6x10-40E6[7]-1/4J	
		50	ø3	VPOC6x10-50E6[7]-3J			50	ø1/8	VPOC6x10-50E6[7]-1/8J	
			ø4	VPOC6x10-50E6[7]-4J				ø5/32	VPOC6x10-50E6[7]-5/32J	
			ø6	VPOC6x10-50E6[7]-6J				ø1/4	VPOC6x10-50E6[7]-1/4J	
	6×20	20	ø3	VPOC6x20-20E6[7]-3J		6×20	20	ø1/8	VPOC6x20-20E6[7]-1/8J	
			ø4	VPOC6x20-20E6[7]-4J				ø5/32	VPOC6x20-20E6[7]-5/32J	
			ø6	VPOC6x20-20E6[7]-6J				ø1/4	VPOC6x20-20E6[7]-1/4J	
		30	ø3	VPOC6x20-30E6[7]-3J			30	ø1/8	VPOC6x20-30E6[7]-1/8J	
			ø4	VPOC6x20-30E6[7]-4J				ø5/32	VPOC6x20-30E6[7]-5/32J	
			ø6	VPOC6x20-30E6[7]-6J				ø1/4	VPOC6x20-30E6[7]-1/4J	
		40	ø3	VPOC6x20-40E6[7]-3J			40	ø1/8	VPOC6x20-40E6[7]-1/8J	
			ø4	VPOC6x20-40E6[7]-4J				ø5/32	VPOC6x20-40E6[7]-5/32J	
			ø6	VPOC6x20-40E6[7]-6J				ø1/4	VPOC6x20-40E6[7]-1/4J	
		50	ø3	VPOC6x20-50E6[7]-3J			50	ø1/8	VPOC6x20-50E6[7]-1/8J	
			ø4	VPOC6x20-50E6[7]-4J				ø5/32	VPOC6x20-50E6[7]-5/32J	
			ø6	VPOC6x20-50E6[7]-6J				ø1/4	VPOC6x20-50E6[7]-1/4J	
	6×30	20	ø3	VPOC6x30-20E6[7]-3J		6×30	20	ø1/8	VPOC6x30-20E6[7]-1/8J	
			ø4	VPOC6x30-20E6[7]-4J				ø5/32	VPOC6x30-20E6[7]-5/32J	
			ø6	VPOC6x30-20E6[7]-6J				ø1/4	VPOC6x30-20E6[7]-1/4J	
		30	ø3	VPOC6x30-30E6[7]-3J			30	ø1/8	VPOC6x30-30E6[7]-1/8J	
			ø4	VPOC6x30-30E6[7]-4J				ø5/32	VPOC6x30-30E6[7]-5/32J	
			ø6	VPOC6x30-30E6[7]-6J				ø1/4	VPOC6x30-30E6[7]-1/4J	
		40	ø3	VPOC6x30-40E6[7]-3J			40	ø1/8	VPOC6x30-40E6[7]-1/8J	
			ø4	VPOC6x30-40E6[7]-4J				ø5/32	VPOC6x30-40E6[7]-5/32J	
			ø6	VPOC6x30-40E6[7]-6J				ø1/4	VPOC6x30-40E6[7]-1/4J	
		50	ø3	VPOC6x30-50E6[7]-3J			50	ø1/8	VPOC6x30-50E6[7]-1/8J	
			ø4	VPOC6x30-50E6[7]-4J				ø5/32	VPOC6x30-50E6[7]-5/32J	
			ø6	VPOC6x30-50E6[7]-6J				ø1/4	VPOC6x30-50E6[7]-1/4J	
	8×20	20	ø3	VPOC8x20-20E6[7]-3J		8×20	20	ø1/8	VPOC8x20-20E6[7]-1/8J	
			ø4	VPOC8x20-20E6[7]-4J				ø5/32	VPOC8x20-20E6[7]-5/32J	
			ø6	VPOC8x20-20E6[7]-6J				ø1/4	VPOC8x20-20E6[7]-1/4J	
		30	ø3	VPOC8x20-30E6[7]-3J			30	ø1/8	VPOC8x20-30E6[7]-1/8J	
			ø4	VPOC8x20-30E6[7]-4J				ø5/32	VPOC8x20-30E6[7]-5/32J	
			ø6	VPOC8x20-30E6[7]-6J				ø1/4	VPOC8x20-30E6[7]-1/4J	
		40	ø3	VPOC8x20-40E6[7]-3J			40	ø1/8	VPOC8x20-40E6[7]-1/8J	
			ø4	VPOC8x20-40E6[7]-4J				ø5/32	VPOC8x20-40E6[7]-5/32J	
			ø6	VPOC8x20-40E6[7]-6J				ø1/4	VPOC8x20-40E6[7]-1/4J	
		50	ø3	VPOC8x20-50E6[7]-3J			50	ø1/8	VPOC8x20-50E6[7]-1/8J	
			ø4	VPOC8x20-50E6[7]-4J				ø5/32	VPOC8x20-50E6[7]-5/32J	
			ø6	VPOC8x20-50E6[7]-6J				ø1/4	VPOC8x20-50E6[7]-1/4J	
	8×30	20	ø3	VPOC8x30-20E6[7]-3J		8×30	20	ø1/8	VPOC8x30-20E6[7]-1/8J	
			ø4	VPOC8x30-20E6[7]-4J				ø5/32	VPOC8x30-20E6[7]-5/32J	
			ø6	VPOC8x30-20E6[7]-6J				ø1/4	VPOC8x30-20E6[7]-1/4J	
		30	ø3	VPOC8x30-30E6[7]-3J			30	ø1/8	VPOC8x30-30E6[7]-1/8J	
			ø4	VPOC8x30-30E6[7]-4J				ø5/32	VPOC8x30-30E6[7]-5/32J	
			ø6	VPOC8x30-30E6[7]-6J				ø1/4	VPOC8x30-30E6[7]-1/4J	
		40	ø3	VPOC8x30-40E6[7]-3J			40	ø1/8	VPOC8x30-40E6[7]-1/8J	
			ø4	VPOC8x30-40E6[7]-4J				ø5/32	VPOC8x30-40E6[7]-5/32J	
			ø6	VPOC8x30-40E6[7]-6J				ø1/4	VPOC8x30-40E6[7]-1/4J	
		50	ø3	VPOC8x30-50E6[7]-3J			50	ø1/8	VPOC8x30-50E6[7]-1/8J	
			ø4	VPOC8x30-50E6[7]-4J				ø5/32	VPOC8x30-50E6[7]-5/32J	
			ø6	VPOC8x30-50E6[7]-6J				ø1/4	VPOC8x30-50E6[7]-1/4J	

Vacuum Pad Oval Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Top port, Female thread, No cover VPOC 	2×4	20	M6×1	VPOC2x4-20E⑥⑦-M6	M6
		30		VPOC2x4-30E⑥⑦-M6	
		40		VPOC2x4-40E⑥⑦-M6	
		50		VPOC2x4-50E⑥⑦-M6	
	3.5×7	20	M6×1	VPOC3.5x7-20E⑥⑦-M6	
		30		VPOC3.5x7-30E⑥⑦-M6	
		40		VPOC3.5x7-40E⑥⑦-M6	
		50		VPOC3.5x7-50E⑥⑦-M6	
	4×10	20	M6×1	VPOC4x10-20E⑥⑦-M6	
		30		VPOC4x10-30E⑥⑦-M6	
		40		VPOC4x10-40E⑥⑦-M6	
		50		VPOC4x10-50E⑥⑦-M6	
	4×20	20	M6×1	VPOC4x20-20E⑥⑦-M6	
		30		VPOC4x20-30E⑥⑦-M6	
		40		VPOC4x20-40E⑥⑦-M6	
		50		VPOC4x20-50E⑥⑦-M6	
	4×30	20	M6×1	VPOC4x30-20E⑥⑦-M6*	
		30		VPOC4x30-30E⑥⑦-M6*	
		40		VPOC4x30-40E⑥⑦-M6*	
		50		VPOC4x30-50E⑥⑦-M6*	
	5×10	20	M6×1	VPOC5x10-20E⑥⑦-M6	
		30		VPOC5x10-30E⑥⑦-M6	
		40		VPOC5x10-40E⑥⑦-M6	
		50		VPOC5x10-50E⑥⑦-M6	
	5×20	20	M6×1	VPOC5x20-20E⑥⑦-M6	
		30		VPOC5x20-30E⑥⑦-M6	
		40		VPOC5x20-40E⑥⑦-M6	
		50		VPOC5x20-50E⑥⑦-M6	
	5×30	20	M6×1	VPOC5x30-20E⑥⑦-M6	
		30		VPOC5x30-30E⑥⑦-M6	
		40		VPOC5x30-40E⑥⑦-M6	
		50		VPOC5x30-50E⑥⑦-M6	
	6×10	20	M6×1	VPOC6x10-20E⑥⑦-M6	
		30		VPOC6x10-30E⑥⑦-M6	
		40		VPOC6x10-40E⑥⑦-M6	
		50		VPOC6x10-50E⑥⑦-M6	
	6×20	20	M6×1	VPOC6x20-20E⑥⑦-M6	
		30		VPOC6x20-30E⑥⑦-M6	
		40		VPOC6x20-40E⑥⑦-M6	
		50		VPOC6x20-50E⑥⑦-M6	
	6×30	20	M6×1	VPOC6x30-20E⑥⑦-M6	
		30		VPOC6x30-30E⑥⑦-M6	
		40		VPOC6x30-40E⑥⑦-M6	
		50		VPOC6x30-50E⑥⑦-M6	
	8×20	20	M6×1	VPOC8x20-20E⑥⑦-M6	
		30		VPOC8x20-30E⑥⑦-M6	
		40		VPOC8x20-40E⑥⑦-M6	
		50		VPOC8x20-50E⑥⑦-M6	
	8×30	20	M6×1	VPOC8x30-20E⑥⑦-M6	
		30		VPOC8x30-30E⑥⑦-M6	
		40		VPOC8x30-40E⑥⑦-M6	
		50		VPOC8x30-50E⑥⑦-M6	

Notes
*Urethane (U) and Fluoro (F) are not available.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.715

Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, Low dust emission **VPLFC** Pad size 2×4mm to 4×30mm	2×4	5	ø3	VPLFC2x4-5E[6][7]-3J[9]	M6	2×4	5	ø1/8	VPLFC2x4-5E[6][7]-1/8J[9]	M6
			ø4	VPLFC2x4-5E[6][7]-4J[9]				ø5/32	VPLFC2x4-5E[6][7]-5/32J[9]	
			ø6	VPLFC2x4-5E[6][7]-6J[9]				ø1/4	VPLFC2x4-5E[6][7]-1/4J[9]	
		10	ø3	VPLFC2x4-10E[6][7]-3J[9]			10	ø1/8	VPLFC2x4-10E[6][7]-1/8J[9]	
			ø4	VPLFC2x4-10E[6][7]-4J[9]				ø5/32	VPLFC2x4-10E[6][7]-5/32J[9]	
			ø6	VPLFC2x4-10E[6][7]-6J[9]				ø1/4	VPLFC2x4-10E[6][7]-1/4J[9]	
		15	ø3	VPLFC2x4-15E[6][7]-3J[9]			15	ø1/8	VPLFC2x4-15E[6][7]-1/8J[9]	
			ø4	VPLFC2x4-15E[6][7]-4J[9]				ø5/32	VPLFC2x4-15E[6][7]-5/32J[9]	
			ø6	VPLFC2x4-15E[6][7]-6J[9]				ø1/4	VPLFC2x4-15E[6][7]-1/4J[9]	
		20	ø3	VPLFC2x4-20E[6][7]-3J[9]			20	ø1/8	VPLFC2x4-20E[6][7]-1/8J[9]	
			ø4	VPLFC2x4-20E[6][7]-4J[9]				ø5/32	VPLFC2x4-20E[6][7]-5/32J[9]	
			ø6	VPLFC2x4-20E[6][7]-6J[9]				ø1/4	VPLFC2x4-20E[6][7]-1/4J[9]	
	3.5×7	5	ø3	VPLFC3.5x7-5E[6][7]-3J[9]		3.5×7	5	ø1/8	VPLFC3.5x7-5E[6][7]-1/8J[9]	
			ø4	VPLFC3.5x7-5E[6][7]-4J[9]				ø5/32	VPLFC3.5x7-5E[6][7]-5/32J[9]	
			ø6	VPLFC3.5x7-5E[6][7]-6J[9]				ø1/4	VPLFC3.5x7-5E[6][7]-1/4J[9]	
		10	ø3	VPLFC3.5x7-10E[6][7]-3J[9]			10	ø1/8	VPLFC3.5x7-10E[6][7]-1/8J[9]	
			ø4	VPLFC3.5x7-10E[6][7]-4J[9]				ø5/32	VPLFC3.5x7-10E[6][7]-5/32J[9]	
			ø6	VPLFC3.5x7-10E[6][7]-6J[9]				ø1/4	VPLFC3.5x7-10E[6][7]-1/4J[9]	
		15	ø3	VPLFC3.5x7-15E[6][7]-3J[9]			15	ø1/8	VPLFC3.5x7-15E[6][7]-1/8J[9]	
			ø4	VPLFC3.5x7-15E[6][7]-4J[9]				ø5/32	VPLFC3.5x7-15E[6][7]-5/32J[9]	
			ø6	VPLFC3.5x7-15E[6][7]-6J[9]				ø1/4	VPLFC3.5x7-15E[6][7]-1/4J[9]	
		20	ø3	VPLFC3.5x7-20E[6][7]-3J[9]			20	ø1/8	VPLFC3.5x7-20E[6][7]-1/8J[9]	
			ø4	VPLFC3.5x7-20E[6][7]-4J[9]				ø5/32	VPLFC3.5x7-20E[6][7]-5/32J[9]	
			ø6	VPLFC3.5x7-20E[6][7]-6J[9]				ø1/4	VPLFC3.5x7-20E[6][7]-1/4J[9]	
	4×10	5	ø3	VPLFC4x10-5E[6][7]-3J[9]		4×10	5	ø1/8	VPLFC4x10-5E[6][7]-1/8J[9]	
			ø4	VPLFC4x10-5E[6][7]-4J[9]				ø5/32	VPLFC4x10-5E[6][7]-5/32J[9]	
			ø6	VPLFC4x10-5E[6][7]-6J[9]				ø1/4	VPLFC4x10-5E[6][7]-1/4J[9]	
		10	ø3	VPLFC4x10-10E[6][7]-3J[9]			10	ø1/8	VPLFC4x10-10E[6][7]-1/8J[9]	
			ø4	VPLFC4x10-10E[6][7]-4J[9]				ø5/32	VPLFC4x10-10E[6][7]-5/32J[9]	
			ø6	VPLFC4x10-10E[6][7]-6J[9]				ø1/4	VPLFC4x10-10E[6][7]-1/4J[9]	
		15	ø3	VPLFC4x10-15E[6][7]-3J[9]			15	ø1/8	VPLFC4x10-15E[6][7]-1/8J[9]	
			ø4	VPLFC4x10-15E[6][7]-4J[9]				ø5/32	VPLFC4x10-15E[6][7]-5/32J[9]	
			ø6	VPLFC4x10-15E[6][7]-6J[9]				ø1/4	VPLFC4x10-15E[6][7]-1/4J[9]	
		20	ø3	VPLFC4x10-20E[6][7]-3J[9]			20	ø1/8	VPLFC4x10-20E[6][7]-1/8J[9]	
			ø4	VPLFC4x10-20E[6][7]-4J[9]				ø5/32	VPLFC4x10-20E[6][7]-5/32J[9]	
			ø6	VPLFC4x10-20E[6][7]-6J[9]				ø1/4	VPLFC4x10-20E[6][7]-1/4J[9]	
	4×20	5	ø3	VPLFC4x20-5E[6][7]-3J[9]		4×20	5	ø1/8	VPLFC4x20-5E[6][7]-1/8J[9]	
			ø4	VPLFC4x20-5E[6][7]-4J[9]				ø5/32	VPLFC4x20-5E[6][7]-5/32J[9]	
			ø6	VPLFC4x20-5E[6][7]-6J[9]				ø1/4	VPLFC4x20-5E[6][7]-1/4J[9]	
		10	ø3	VPLFC4x20-10E[6][7]-3J[9]			10	ø1/8	VPLFC4x20-10E[6][7]-1/8J[9]	
			ø4	VPLFC4x20-10E[6][7]-4J[9]				ø5/32	VPLFC4x20-10E[6][7]-5/32J[9]	
			ø6	VPLFC4x20-10E[6][7]-6J[9]				ø1/4	VPLFC4x20-10E[6][7]-1/4J[9]	
		15	ø3	VPLFC4x20-15E[6][7]-3J[9]			15	ø1/8	VPLFC4x20-15E[6][7]-1/8J[9]	
			ø4	VPLFC4x20-15E[6][7]-4J[9]				ø5/32	VPLFC4x20-15E[6][7]-5/32J[9]	
			ø6	VPLFC4x20-15E[6][7]-6J[9]				ø1/4	VPLFC4x20-15E[6][7]-1/4J[9]	
		20	ø3	VPLFC4x20-20E[6][7]-3J[9]			20	ø1/8	VPLFC4x20-20E[6][7]-1/8J[9]	
			ø4	VPLFC4x20-20E[6][7]-4J[9]				ø5/32	VPLFC4x20-20E[6][7]-5/32J[9]	
			ø6	VPLFC4x20-20E[6][7]-6J[9]				ø1/4	VPLFC4x20-20E[6][7]-1/4J[9]	
	4×30	5	ø3	VPLFC4x30-5E[6][7]-3J[9]*2		4×30	5	ø1/8	VPLFC4x30-5E[6][7]-1/8J[9]*2	
			ø4	VPLFC4x30-5E[6][7]-4J[9]*2				ø5/32	VPLFC4x30-5E[6][7]-5/32J[9]*2	
			ø6	VPLFC4x30-5E[6][7]-6J[9]*2				ø1/4	VPLFC4x30-5E[6][7]-1/4J[9]*2	
		10	ø3	VPLFC4x30-10E[6][7]-3J[9]*2			10	ø1/8	VPLFC4x30-10E[6][7]-1/8J[9]*2	
			ø4	VPLFC4x30-10E[6][7]-4J[9]*2				ø5/32	VPLFC4x30-10E[6][7]-5/32J[9]*2	
			ø6	VPLFC4x30-10E[6][7]-6J[9]*2				ø1/4	VPLFC4x30-10E[6][7]-1/4J[9]*2	
		15	ø3	VPLFC4x30-15E[6][7]-3J[9]*2			15	ø1/8	VPLFC4x30-15E[6][7]-1/8J[9]*2	
			ø4	VPLFC4x30-15E[6][7]-4J[9]*2				ø5/32	VPLFC4x30-15E[6][7]-5/32J[9]*2	
			ø6	VPLFC4x30-15E[6][7]-6J[9]*2				ø1/4	VPLFC4x30-15E[6][7]-1/4J[9]*2	
		20	ø3	VPLFC4x30-20E[6][7]-3J[9]*2			20	ø1/8	VPLFC4x30-20E[6][7]-1/8J[9]*2	
			ø4	VPLFC4x30-20E[6][7]-4J[9]*2				ø5/32	VPLFC4x30-20E[6][7]-5/32J[9]*2	
			ø6	VPLFC4x30-20E[6][7]-6J[9]*2				ø1/4	VPLFC4x30-20E[6][7]-1/4J[9]*2	

Notes
*1. Barb fitting type holders are also available. Contact us for the details.
*2. Urethane (U) and Fluoro (F) are not available.

Packaging specifications
1 pc./bag

Options
[7]: Surface treatment
(DLC. coating, Reformed surface, and Fluoro-coating)
[9]: -SF1/4 ⇒ Spring load 1/4

Vacuum Pad Oval Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, Low dust emission **VPLFC** Pad size 5×10mm to 5×30mm	5×10	5	ø3	VPLFC5x10-5E⑥⑦-3J⑨	M6	5×10	5	ø1/8	VPLFC5x10-5E⑥⑦-1/8J⑨	M6
			ø4	VPLFC5x10-5E⑥⑦-4J⑨				ø5/32	VPLFC5x10-5E⑥⑦-5/32J⑨	
			ø6	VPLFC5x10-5E⑥⑦-6J⑨				ø1/4	VPLFC5x10-5E⑥⑦-1/4J⑨	
		10	ø3	VPLFC5x10-10E⑥⑦-3J⑨			10	ø1/8	VPLFC5x10-10E⑥⑦-1/8J⑨	
			ø4	VPLFC5x10-10E⑥⑦-4J⑨				ø5/32	VPLFC5x10-10E⑥⑦-5/32J⑨	
			ø6	VPLFC5x10-10E⑥⑦-6J⑨				ø1/4	VPLFC5x10-10E⑥⑦-1/4J⑨	
		15	ø3	VPLFC5x10-15E⑥⑦-3J⑨			15	ø1/8	VPLFC5x10-15E⑥⑦-1/8J⑨	
			ø4	VPLFC5x10-15E⑥⑦-4J⑨				ø5/32	VPLFC5x10-15E⑥⑦-5/32J⑨	
			ø6	VPLFC5x10-15E⑥⑦-6J⑨				ø1/4	VPLFC5x10-15E⑥⑦-1/4J⑨	
		20	ø3	VPLFC5x10-20E⑥⑦-3J⑨			20	ø1/8	VPLFC5x10-20E⑥⑦-1/8J⑨	
			ø4	VPLFC5x10-20E⑥⑦-4J⑨				ø5/32	VPLFC5x10-20E⑥⑦-5/32J⑨	
			ø6	VPLFC5x10-20E⑥⑦-6J⑨				ø1/4	VPLFC5x10-20E⑥⑦-1/4J⑨	
	5×20	5	ø3	VPLFC5x20-5E⑥⑦-3J⑨		5×20	5	ø1/8	VPLFC5x20-5E⑥⑦-1/8J⑨	
			ø4	VPLFC5x20-5E⑥⑦-4J⑨				ø5/32	VPLFC5x20-5E⑥⑦-5/32J⑨	
			ø6	VPLFC5x20-5E⑥⑦-6J⑨				ø1/4	VPLFC5x20-5E⑥⑦-1/4J⑨	
		10	ø3	VPLFC5x20-10E⑥⑦-3J⑨			10	ø1/8	VPLFC5x20-10E⑥⑦-1/8J⑨	
			ø4	VPLFC5x20-10E⑥⑦-4J⑨				ø5/32	VPLFC5x20-10E⑥⑦-5/32J⑨	
			ø6	VPLFC5x20-10E⑥⑦-6J⑨				ø1/4	VPLFC5x20-10E⑥⑦-1/4J⑨	
		15	ø3	VPLFC5x20-15E⑥⑦-3J⑨			15	ø1/8	VPLFC5x20-15E⑥⑦-1/8J⑨	
			ø4	VPLFC5x20-15E⑥⑦-4J⑨				ø5/32	VPLFC5x20-15E⑥⑦-5/32J⑨	
			ø6	VPLFC5x20-15E⑥⑦-6J⑨				ø1/4	VPLFC5x20-15E⑥⑦-1/4J⑨	
		20	ø3	VPLFC5x20-20E⑥⑦-3J⑨			20	ø1/8	VPLFC5x20-20E⑥⑦-1/8J⑨	
			ø4	VPLFC5x20-20E⑥⑦-4J⑨				ø5/32	VPLFC5x20-20E⑥⑦-5/32J⑨	
			ø6	VPLFC5x20-20E⑥⑦-6J⑨				ø1/4	VPLFC5x20-20E⑥⑦-1/4J⑨	
	5×30	5	ø3	VPLFC5x30-5E⑥⑦-3J⑨		5×30	5	ø1/8	VPLFC5x30-5E⑥⑦-1/8J⑨	
			ø4	VPLFC5x30-5E⑥⑦-4J⑨				ø5/32	VPLFC5x30-5E⑥⑦-5/32J⑨	
			ø6	VPLFC5x30-5E⑥⑦-6J⑨				ø1/4	VPLFC5x30-5E⑥⑦-1/4J⑨	
		10	ø3	VPLFC5x30-10E⑥⑦-3J⑨			10	ø1/8	VPLFC5x30-10E⑥⑦-1/8J⑨	
			ø4	VPLFC5x30-10E⑥⑦-4J⑨				ø5/32	VPLFC5x30-10E⑥⑦-5/32J⑨	
			ø6	VPLFC5x30-10E⑥⑦-6J⑨				ø1/4	VPLFC5x30-10E⑥⑦-1/4J⑨	
		15	ø3	VPLFC5x30-15E⑥⑦-3J⑨			15	ø1/8	VPLFC5x30-15E⑥⑦-1/8J⑨	
			ø4	VPLFC5x30-15E⑥⑦-4J⑨				ø5/32	VPLFC5x30-15E⑥⑦-5/32J⑨	
			ø6	VPLFC5x30-15E⑥⑦-6J⑨				ø1/4	VPLFC5x30-15E⑥⑦-1/4J⑨	
		20	ø3	VPLFC5x30-20E⑥⑦-3J⑨			20	ø1/8	VPLFC5x30-20E⑥⑦-1/8J⑨	
			ø4	VPLFC5x30-20E⑥⑦-4J⑨				ø5/32	VPLFC5x30-20E⑥⑦-5/32J⑨	
			ø6	VPLFC5x30-20E⑥⑦-6J⑨				ø1/4	VPLFC5x30-20E⑥⑦-1/4J⑨	

Notes
*Barb fitting type holders are also available. Contact us for the details.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
⑨: -SF1/4 ⇒ Spring load 1/4

Optional items ⇒ P.715 | Surface treatment | Fall Prevention Valve | Swivel Joint for vacuum pad | Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Top port, Push-in fitting, Low dust emission **VPLFC** Pad size 6×10mm to 8×30mm	6×10	5	ø3	VPLFC6x10-5E⬜⬜-3J⬜	M6	6×10	5	ø1/8	VPLFC6x10-5E⬜⬜-1/8J⬜	M6
			ø4	VPLFC6x10-5E⬜⬜-4J⬜				ø5/32	VPLFC6x10-5E⬜⬜-5/32J⬜	
			ø6	VPLFC6x10-5E⬜⬜-6J⬜				ø1/4	VPLFC6x10-5E⬜⬜-1/4J⬜	
		10	ø3	VPLFC6x10-10E⬜⬜-3J⬜			10	ø1/8	VPLFC6x10-10E⬜⬜-1/8J⬜	
			ø4	VPLFC6x10-10E⬜⬜-4J⬜				ø5/32	VPLFC6x10-10E⬜⬜-5/32J⬜	
			ø6	VPLFC6x10-10E⬜⬜-6J⬜				ø1/4	VPLFC6x10-10E⬜⬜-1/4J⬜	
		15	ø3	VPLFC6x10-15E⬜⬜-3J⬜			15	ø1/8	VPLFC6x10-15E⬜⬜-1/8J⬜	
			ø4	VPLFC6x10-15E⬜⬜-4J⬜				ø5/32	VPLFC6x10-15E⬜⬜-5/32J⬜	
			ø6	VPLFC6x10-15E⬜⬜-6J⬜				ø1/4	VPLFC6x10-15E⬜⬜-1/4J⬜	
		20	ø3	VPLFC6x10-20E⬜⬜-3J⬜			20	ø1/8	VPLFC6x10-20E⬜⬜-1/8J⬜	
			ø4	VPLFC6x10-20E⬜⬜-4J⬜				ø5/32	VPLFC6x10-20E⬜⬜-5/32J⬜	
			ø6	VPLFC6x10-20E⬜⬜-6J⬜				ø1/4	VPLFC6x10-20E⬜⬜-1/4J⬜	
	6×20	5	ø3	VPLFC6x20-5E⬜⬜-3J⬜		6×20	5	ø1/8	VPLFC6x20-5E⬜⬜-1/8J⬜	
			ø4	VPLFC6x20-5E⬜⬜-4J⬜				ø5/32	VPLFC6x20-5E⬜⬜-5/32J⬜	
			ø6	VPLFC6x20-5E⬜⬜-6J⬜				ø1/4	VPLFC6x20-5E⬜⬜-1/4J⬜	
		10	ø3	VPLFC6x20-10E⬜⬜-3J⬜			10	ø1/8	VPLFC6x20-10E⬜⬜-1/8J⬜	
			ø4	VPLFC6x20-10E⬜⬜-4J⬜				ø5/32	VPLFC6x20-10E⬜⬜-5/32J⬜	
			ø6	VPLFC6x20-10E⬜⬜-6J⬜				ø1/4	VPLFC6x20-10E⬜⬜-1/4J⬜	
		15	ø3	VPLFC6x20-15E⬜⬜-3J⬜			15	ø1/8	VPLFC6x20-15E⬜⬜-1/8J⬜	
			ø4	VPLFC6x20-15E⬜⬜-4J⬜				ø5/32	VPLFC6x20-15E⬜⬜-5/32J⬜	
			ø6	VPLFC6x20-15E⬜⬜-6J⬜				ø1/4	VPLFC6x20-15E⬜⬜-1/4J⬜	
		20	ø3	VPLFC6x20-20E⬜⬜-3J⬜			20	ø1/8	VPLFC6x20-20E⬜⬜-1/8J⬜	
			ø4	VPLFC6x20-20E⬜⬜-4J⬜				ø5/32	VPLFC6x20-20E⬜⬜-5/32J⬜	
			ø6	VPLFC6x20-20E⬜⬜-6J⬜				ø1/4	VPLFC6x20-20E⬜⬜-1/4J⬜	
	6×30	5	ø3	VPLFC6x30-5E⬜⬜-3J⬜		6×30	5	ø1/8	VPLFC6x30-5E⬜⬜-1/8J⬜	
			ø4	VPLFC6x30-5E⬜⬜-4J⬜				ø5/32	VPLFC6x30-5E⬜⬜-5/32J⬜	
			ø6	VPLFC6x30-5E⬜⬜-6J⬜				ø1/4	VPLFC6x30-5E⬜⬜-1/4J⬜	
		10	ø3	VPLFC6x30-10E⬜⬜-3J⬜			10	ø1/8	VPLFC6x30-10E⬜⬜-1/8J⬜	
			ø4	VPLFC6x30-10E⬜⬜-4J⬜				ø5/32	VPLFC6x30-10E⬜⬜-5/32J⬜	
			ø6	VPLFC6x30-10E⬜⬜-6J⬜				ø1/4	VPLFC6x30-10E⬜⬜-1/4J⬜	
		15	ø3	VPLFC6x30-15E⬜⬜-3J⬜			15	ø1/8	VPLFC6x30-15E⬜⬜-1/8J⬜	
			ø4	VPLFC6x30-15E⬜⬜-4J⬜				ø5/32	VPLFC6x30-15E⬜⬜-5/32J⬜	
			ø6	VPLFC6x30-15E⬜⬜-6J⬜				ø1/4	VPLFC6x30-15E⬜⬜-1/4J⬜	
		20	ø3	VPLFC6x30-20E⬜⬜-3J⬜			20	ø1/8	VPLFC6x30-20E⬜⬜-1/8J⬜	
			ø4	VPLFC6x30-20E⬜⬜-4J⬜				ø5/32	VPLFC6x30-20E⬜⬜-5/32J⬜	
			ø6	VPLFC6x30-20E⬜⬜-6J⬜				ø1/4	VPLFC6x30-20E⬜⬜-1/4J⬜	
	8×20	5	ø3	VPLFC8x20-5E⬜⬜-3J⬜		8×20	5	ø1/8	VPLFC8x20-5E⬜⬜-1/8J⬜	
			ø4	VPLFC8x20-5E⬜⬜-4J⬜				ø5/32	VPLFC8x20-5E⬜⬜-5/32J⬜	
			ø6	VPLFC8x20-5E⬜⬜-6J⬜				ø1/4	VPLFC8x20-5E⬜⬜-1/4J⬜	
		10	ø3	VPLFC8x20-10E⬜⬜-3J⬜			10	ø1/8	VPLFC8x20-10E⬜⬜-1/8J⬜	
			ø4	VPLFC8x20-10E⬜⬜-4J⬜				ø5/32	VPLFC8x20-10E⬜⬜-5/32J⬜	
			ø6	VPLFC8x20-10E⬜⬜-6J⬜				ø1/4	VPLFC8x20-10E⬜⬜-1/4J⬜	
		15	ø3	VPLFC8x20-15E⬜⬜-3J⬜			15	ø1/8	VPLFC8x20-15E⬜⬜-1/8J⬜	
			ø4	VPLFC8x20-15E⬜⬜-4J⬜				ø5/32	VPLFC8x20-15E⬜⬜-5/32J⬜	
			ø6	VPLFC8x20-15E⬜⬜-6J⬜				ø1/4	VPLFC8x20-15E⬜⬜-1/4J⬜	
		20	ø3	VPLFC8x20-20E⬜⬜-3J⬜			20	ø1/8	VPLFC8x20-20E⬜⬜-1/8J⬜	
			ø4	VPLFC8x20-20E⬜⬜-4J⬜				ø5/32	VPLFC8x20-20E⬜⬜-5/32J⬜	
			ø6	VPLFC8x20-20E⬜⬜-6J⬜				ø1/4	VPLFC8x20-20E⬜⬜-1/4J⬜	
	8×30	5	ø3	VPLFC8x30-5E⬜⬜-3J⬜		8×30	5	ø1/8	VPLFC8x30-5E⬜⬜-1/8J⬜	
			ø4	VPLFC8x30-5E⬜⬜-4J⬜				ø5/32	VPLFC8x30-5E⬜⬜-5/32J⬜	
			ø6	VPLFC8x30-5E⬜⬜-6J⬜				ø1/4	VPLFC8x30-5E⬜⬜-1/4J⬜	
		10	ø3	VPLFC8x30-10E⬜⬜-3J⬜			10	ø1/8	VPLFC8x30-10E⬜⬜-1/8J⬜	
			ø4	VPLFC8x30-10E⬜⬜-4J⬜				ø5/32	VPLFC8x30-10E⬜⬜-5/32J⬜	
			ø6	VPLFC8x30-10E⬜⬜-6J⬜				ø1/4	VPLFC8x30-10E⬜⬜-1/4J⬜	
		15	ø3	VPLFC8x30-15E⬜⬜-3J⬜			15	ø1/8	VPLFC8x30-15E⬜⬜-1/8J⬜	
			ø4	VPLFC8x30-15E⬜⬜-4J⬜				ø5/32	VPLFC8x30-15E⬜⬜-5/32J⬜	
			ø6	VPLFC8x30-15E⬜⬜-6J⬜				ø1/4	VPLFC8x30-15E⬜⬜-1/4J⬜	
		20	ø3	VPLFC8x30-20E⬜⬜-3J⬜			20	ø1/8	VPLFC8x30-20E⬜⬜-1/8J⬜	
			ø4	VPLFC8x30-20E⬜⬜-4J⬜				ø5/32	VPLFC8x30-20E⬜⬜-5/32J⬜	
			ø6	VPLFC8x30-20E⬜⬜-6J⬜				ø1/4	VPLFC8x30-20E⬜⬜-1/4J⬜	

Vacuum Pad Oval Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Top port, Female thread, Low dust emission **VPLFC** 	2×4	5	M6×1	VPLFC2x4-5E⑥⑦-M6⑨	M6
		10	M6×1	VPLFC2x4-10E⑥⑦-M6⑨	
		15	M6×1	VPLFC2x4-15E⑥⑦-M6⑨	
		20	M6×1	VPLFC2x4-20E⑥⑦-M6⑨	
	3.5×7	5	M6×1	VPLFC3.5x7-5E⑥⑦-M6⑨	
		10	M6×1	VPLFC3.5x7-10E⑥⑦-M6⑨	
		15	M6×1	VPLFC3.5x7-15E⑥⑦-M6⑨	
		20	M6×1	VPLFC3.5x7-20E⑥⑦-M6⑨	
	4×10	5	M6×1	VPLFC4x10-5E⑥⑦-M6⑨	
		10	M6×1	VPLFC4x10-10E⑥⑦-M6⑨	
		15	M6×1	VPLFC4x10-15E⑥⑦-M6⑨	
		20	M6×1	VPLFC4x10-20E⑥⑦-M6⑨	
	4×20	5	M6×1	VPLFC4x20-5E⑥⑦-M6⑨	
		10	M6×1	VPLFC4x20-10E⑥⑦-M6⑨	
		15	M6×1	VPLFC4x20-15E⑥⑦-M6⑨	
		20	M6×1	VPLFC4x20-20E⑥⑦-M6⑨	
	4×30	5	M6×1	VPLFC4x30-5E⑥⑦-M6⑨*	
		10	M6×1	VPLFC4x30-10E⑥⑦-M6⑨*	
		15	M6×1	VPLFC4x30-15E⑥⑦-M6⑨*	
		20	M6×1	VPLFC4x30-20E⑥⑦-M6⑨*	
	5×10	5	M6×1	VPLFC5x10-5E⑥⑦-M6⑨	
		10	M6×1	VPLFC5x10-10E⑥⑦-M6⑨	
		15	M6×1	VPLFC5x10-15E⑥⑦-M6⑨	
		20	M6×1	VPLFC5x10-20E⑥⑦-M6⑨	
	5×20	5	M6×1	VPLFC5x20-5E⑥⑦-M6⑨	
		10	M6×1	VPLFC5x20-10E⑥⑦-M6⑨	
		15	M6×1	VPLFC5x20-15E⑥⑦-M6⑨	
		20	M6×1	VPLFC5x20-20E⑥⑦-M6⑨	
	5×30	5	M6×1	VPLFC5x30-5E⑥⑦-M6⑨	
		10	M6×1	VPLFC5x30-10E⑥⑦-M6⑨	
		15	M6×1	VPLFC5x30-15E⑥⑦-M6⑨	
		20	M6×1	VPLFC5x30-20E⑥⑦-M6⑨	
	6×10	5	M6×1	VPLFC6x10-5E⑥⑦-M6⑨	
		10	M6×1	VPLFC6x10-10E⑥⑦-M6⑨	
		15	M6×1	VPLFC6x10-15E⑥⑦-M6⑨	
		20	M6×1	VPLFC6x10-20E⑥⑦-M6⑨	
	6×20	5	M6×1	VPLFC6x20-5E⑥⑦-M6⑨	
		10	M6×1	VPLFC6x20-10E⑥⑦-M6⑨	
		15	M6×1	VPLFC6x20-15E⑥⑦-M6⑨	
		20	M6×1	VPLFC6x20-20E⑥⑦-M6⑨	
	6×30	5	M6×1	VPLFC6x30-5E⑥⑦-M6⑨	
		10	M6×1	VPLFC6x30-10E⑥⑦-M6⑨	
		15	M6×1	VPLFC6x30-15E⑥⑦-M6⑨	
		20	M6×1	VPLFC6x30-20E⑥⑦-M6⑨	
	8×20	5	M6×1	VPLFC8x20-5E⑥⑦-M6⑨	
		10	M6×1	VPLFC8x20-10E⑥⑦-M6⑨	
		15	M6×1	VPLFC8x20-15E⑥⑦-M6⑨	
		20	M6×1	VPLFC8x20-20E⑥⑦-M6⑨	
	8×30	5	M6×1	VPLFC8x30-5E⑥⑦-M6⑨	
		10	M6×1	VPLFC8x30-10E⑥⑦-M6⑨	
		15	M6×1	VPLFC8x30-15E⑥⑦-M6⑨	
		20	M6×1	VPLFC8x30-20E⑥⑦-M6⑨	

Notes
*Urethane (U) and Fluoro (F) are not available.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
⑨: -SF1/4 ⇒ Spring load 1/4

Optional items ⇒ P.715
Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad size (A×B) (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Mini VPMD Stroke 4mm	2×4	ø3	VPMD2x4-4E67-3J	—	M6	2×4	ø1/8	VPMD2x4-4E67-1/8J	—	
		ø4	VPMD2x4-4E67-4J13	○			ø5/32	VPMD2x4-4E67-5/32J13	○	
		ø6	VPMD2x4-4E67-6J13	○			ø1/4	VPMD2x4-4E67-1/4J	—	
	3.5×7	ø3	VPMD3.5x7-4E67-3J	—		3.5×7	ø1/8	VPMD3.5x7-4E67-1/8J	—	
		ø4	VPMD3.5x7-4E67-4J13	○			ø5/32	VPMD3.5x7-4E67-5/32J13	○	
		ø6	VPMD3.5x7-4E67-6J13	○			ø1/4	VPMD3.5x7-4E67-1/4J	—	
	4×10	ø3	VPMD4x10-4E67-3J	—		4×10	ø1/8	VPMD4x10-4E67-1/8J	—	
		ø4	VPMD4x10-4E67-4J13	○			ø5/32	VPMD4x10-4E67-5/32J13	○	
		ø6	VPMD4x10-4E67-6J13	○			ø1/4	VPMD4x10-4E67-1/4J	—	
	4×20	ø3	VPMD4x20-4E67-3J	—		4×20	ø1/8	VPMD4x20-4E67-1/8J	—	
		ø4	VPMD4x20-4E67-4J13	○			ø5/32	VPMD4x20-4E67-5/32J13	○	
		ø6	VPMD4x20-4E67-6J13	○			ø1/4	VPMD4x20-4E67-1/4J	—	
	4×30	ø3	VPMD4x30-4E67-3J*2	—		4×30	ø1/8	VPMD4x30-4E67-1/8J*2	—	
		ø4	VPMD4x30-4E67-4J13*2	○			ø5/32	VPMD4x30-4E67-5/32J13*2	○	
		ø6	VPMD4x30-4E67-6J13*2	○			ø1/4	VPMD4x30-4E67-1/4J*2	—	
	5×10	ø3	VPMD5x10-4E67-3J	—		5×10	ø1/8	VPMD5x10-4E67-1/8J	—	
		ø4	VPMD5x10-4E67-4J13	○			ø5/32	VPMD5x10-4E67-5/32J13	○	
		ø6	VPMD5x10-4E67-6J13	○			ø1/4	VPMD5x10-4E67-1/4J	—	
	5×20	ø3	VPMD5x20-4E67-3J	—		5×20	ø1/8	VPMD5x20-4E67-1/8J	—	
		ø4	VPMD5x20-4E67-4J13	○			ø5/32	VPMD5x20-4E67-5/32J13	○	
		ø6	VPMD5x20-4E67-6J13	○			ø1/4	VPMD5x20-4E67-1/4J	—	
	5×30	ø3	VPMD5x30-4E67-3J	—		5×30	ø1/8	VPMD5x30-4E67-1/8J	—	
		ø4	VPMD5x30-4E67-4J13	○			ø5/32	VPMD5x30-4E67-5/32J13	○	
		ø6	VPMD5x30-4E67-6J13	○			ø1/4	VPMD5x30-4E67-1/4J	—	
	6×10	ø3	VPMD6x10-4E67-3J	—		6×10	ø1/8	VPMD6x10-4E67-1/8J	—	
		ø4	VPMD6x10-4E67-4J13	○			ø5/32	VPMD6x10-4E67-5/32J13	○	
		ø6	VPMD6x10-4E67-6J13	○			ø1/4	VPMD6x10-4E67-1/4J	—	
	6×20	ø3	VPMD6x20-4E67-3J	—		6×20	ø1/8	VPMD6x20-4E67-1/8J	—	
		ø4	VPMD6x20-4E67-4J13	○			ø5/32	VPMD6x20-4E67-5/32J13	○	
		ø6	VPMD6x20-4E67-6J13	○			ø1/4	VPMD6x20-4E67-1/4J	—	
	6×30	ø3	VPMD6x30-4E67-3J	—		6×30	ø1/8	VPMD6x30-4E67-1/8J	—	
		ø4	VPMD6x30-4E67-4J13	○			ø5/32	VPMD6x30-4E67-5/32J13	○	
		ø6	VPMD6x30-4E67-6J13	○			ø1/4	VPMD6x30-4E67-1/4J	—	
	8×20	ø3	VPMD8x20-4E67-3J	—		8×20	ø1/8	VPMD8x20-4E67-1/8J	—	
		ø4	VPMD8x20-4E67-4J13	○			ø5/32	VPMD8x20-4E67-5/32J13	○	
		ø6	VPMD8x20-4E67-6J13	○			ø1/4	VPMD8x20-4E67-1/4J	—	
	8×30	ø3	VPMD8x30-4E67-3J	—		8×30	ø1/8	VPMD8x30-4E67-1/8J	—	
		ø4	VPMD8x30-4E67-4J13	○			ø5/32	VPMD8x30-4E67-5/32J13	○	
		ø6	VPMD8x30-4E67-6J13	○			ø1/4	VPMD8x30-4E67-1/4J	—	

Holder type	Pad size (A×B) (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Female thread, Mini VPMD Stroke 4mm	2×4	M5×0.8	VPMD2x4-4E67-M513	○	M6
	3.5×7	M5×0.8	VPMD3.5x7-4E67-M513	○	
	4×10	M5×0.8	VPMD4x10-4E67-M513	○	
	4×20	M5×0.8	VPMD4x20-4E67-M513	○	
	4×30	M5×0.8	VPMD4x30-4E67-M513*2	○	
	5×10	M5×0.8	VPMD5x10-4E67-M513	○	
	5×20	M5×0.8	VPMD5x20-4E67-M513	○	
	5×30	M5×0.8	VPMD5x30-4E67-M513	○	
	6×10	M5×0.8	VPMD6x10-4E67-M513	○	
	6×20	M5×0.8	VPMD6x20-4E67-M513	○	
	6×30	M5×0.8	VPMD6x30-4E67-M513	○	
	8×20	M5×0.8	VPMD8x20-4E67-M513	○	
	8×30	M5×0.8	VPMD8x30-4E67-M513	○	

Notes
*1. Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.
*2. Urethane (U) and Fluoro (F) are not available.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Vacuum Pad Oval Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	[13] -S3 -S3 spec.	Connection config. code	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	[13] -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Standard **VPD** Pad size 2×4mm to 4×30mm	2×4	6	ø3	VPD2x4-6E[6][7]-3J[9]	—		2×4	6	ø1/8	VPD2x4-6E[6][7]-1/8J[9]	—	
			ø4	VPD2x4-6E[6][7]-4J[9][13]	○				ø5/32	VPD2x4-6E[6][7]-5/32J[9][13]	○	
			ø6	VPD2x4-6E[6][7]-6J[9][13]	○				ø1/4	VPD2x4-6E[6][7]-1/4J[9]	—	
		10	ø3	VPD2x4-10E[6][7]-3J[9]	—			10	ø1/8	VPD2x4-10E[6][7]-1/8J[9]	—	
			ø4	VPD2x4-10E[6][7]-4J[9]	—				ø5/32	VPD2x4-10E[6][7]-5/32J[9]	—	
			ø6	VPD2x4-10E[6][7]-6J[9]	—				ø1/4	VPD2x4-10E[6][7]-1/4J[9]	—	
		15	ø3	VPD2x4-15E[6][7]-3J[9]	—			15	ø1/8	VPD2x4-15E[6][7]-1/8J[9]	—	
			ø4	VPD2x4-15E[6][7]-4J[9]	—				ø5/32	VPD2x4-15E[6][7]-5/32J[9]	—	
			ø6	VPD2x4-15E[6][7]-6J[9]	—				ø1/4	VPD2x4-15E[6][7]-1/4J[9]	—	
		20	ø3	VPD2x4-20E[6][7]-3J[9]	—			20	ø1/8	VPD2x4-20E[6][7]-1/8J[9]	—	
			ø4	VPD2x4-20E[6][7]-4J[9]	—				ø5/32	VPD2x4-20E[6][7]-5/32J[9]	—	
			ø6	VPD2x4-20E[6][7]-6J[9]	—				ø1/4	VPD2x4-20E[6][7]-1/4J[9]	—	
	3.5×7	6	ø3	VPD3.5x7-6E[6][7]-3J[9]	—		3.5×7	6	ø1/8	VPD3.5x7-6E[6][7]-1/8J[9]	—	
			ø4	VPD3.5x7-6E[6][7]-4J[9][13]	○				ø5/32	VPD3.5x7-6E[6][7]-5/32J[9][13]	○	
			ø6	VPD3.5x7-6E[6][7]-6J[9][13]	○				ø1/4	VPD3.5x7-6E[6][7]-1/4J[9]	—	
		10	ø3	VPD3.5x7-10E[6][7]-3J[9]	—			10	ø1/8	VPD3.5x7-10E[6][7]-1/8J[9]	—	
			ø4	VPD3.5x7-10E[6][7]-4J[9]	—				ø5/32	VPD3.5x7-10E[6][7]-5/32J[9]	—	
			ø6	VPD3.5x7-10E[6][7]-6J[9]	—				ø1/4	VPD3.5x7-10E[6][7]-1/4J[9]	—	
		15	ø3	VPD3.5x7-15E[6][7]-3J[9]	—			15	ø1/8	VPD3.5x7-15E[6][7]-1/8J[9]	—	
			ø4	VPD3.5x7-15E[6][7]-4J[9]	—				ø5/32	VPD3.5x7-15E[6][7]-5/32J[9]	—	
			ø6	VPD3.5x7-15E[6][7]-6J[9]	—				ø1/4	VPD3.5x7-15E[6][7]-1/4J[9]	—	
		20	ø3	VPD3.5x7-20E[6][7]-3J[9]	—			20	ø1/8	VPD3.5x7-20E[6][7]-1/8J[9]	—	
			ø4	VPD3.5x7-20E[6][7]-4J[9]	—				ø5/32	VPD3.5x7-20E[6][7]-5/32J[9]	—	
			ø6	VPD3.5x7-20E[6][7]-6J[9]	—				ø1/4	VPD3.5x7-20E[6][7]-1/4J[9]	—	
	4×10	6	ø3	VPD4x10-6E[6][7]-3J[9]	—	M6	4×10	6	ø1/8	VPD4x10-6E[6][7]-1/8J[9]	—	M6
			ø4	VPD4x10-6E[6][7]-4J[9][13]	○				ø5/32	VPD4x10-6E[6][7]-5/32J[9][13]	○	
			ø6	VPD4x10-6E[6][7]-6J[9][13]	○				ø1/4	VPD4x10-6E[6][7]-1/4J[9]	—	
		10	ø3	VPD4x10-10E[6][7]-3J[9]	—			10	ø1/8	VPD4x10-10E[6][7]-1/8J[9]	—	
			ø4	VPD4x10-10E[6][7]-4J[9]	—				ø5/32	VPD4x10-10E[6][7]-5/32J[9]	—	
			ø6	VPD4x10-10E[6][7]-6J[9]	—				ø1/4	VPD4x10-10E[6][7]-1/4J[9]	—	
		15	ø3	VPD4x10-15E[6][7]-3J[9]	—			15	ø1/8	VPD4x10-15E[6][7]-1/8J[9]	—	
			ø4	VPD4x10-15E[6][7]-4J[9]	—				ø5/32	VPD4x10-15E[6][7]-5/32J[9]	—	
			ø6	VPD4x10-15E[6][7]-6J[9]	—				ø1/4	VPD4x10-15E[6][7]-1/4J[9]	—	
		20	ø3	VPD4x10-20E[6][7]-3J[9]	—			20	ø1/8	VPD4x10-20E[6][7]-1/8J[9]	—	
			ø4	VPD4x10-20E[6][7]-4J[9]	—				ø5/32	VPD4x10-20E[6][7]-5/32J[9]	—	
			ø6	VPD4x10-20E[6][7]-6J[9]	—				ø1/4	VPD4x10-20E[6][7]-1/4J[9]	—	
	4×20	6	ø3	VPD4x20-6E[6][7]-3J[9]	—		4×20	6	ø1/8	VPD4x20-6E[6][7]-1/8J[9]	—	
			ø4	VPD4x20-6E[6][7]-4J[9][13]	○				ø5/32	VPD4x20-6E[6][7]-5/32J[9][13]	○	
			ø6	VPD4x20-6E[6][7]-6J[9][13]	○				ø1/4	VPD4x20-6E[6][7]-1/4J[9]	—	
		10	ø3	VPD4x20-10E[6][7]-3J[9]	—			10	ø1/8	VPD4x20-10E[6][7]-1/8J[9]	—	
			ø4	VPD4x20-10E[6][7]-4J[9]	—				ø5/32	VPD4x20-10E[6][7]-5/32J[9]	—	
			ø6	VPD4x20-10E[6][7]-6J[9]	—				ø1/4	VPD4x20-10E[6][7]-1/4J[9]	—	
		15	ø3	VPD4x20-15E[6][7]-3J[9]	—			15	ø1/8	VPD4x20-15E[6][7]-1/8J[9]	—	
			ø4	VPD4x20-15E[6][7]-4J[9]	—				ø5/32	VPD4x20-15E[6][7]-5/32J[9]	—	
			ø6	VPD4x20-15E[6][7]-6J[9]	—				ø1/4	VPD4x20-15E[6][7]-1/4J[9]	—	
		20	ø3	VPD4x20-20E[6][7]-3J[9]	—			20	ø1/8	VPD4x20-20E[6][7]-1/8J[9]	—	
			ø4	VPD4x20-20E[6][7]-4J[9]	—				ø5/32	VPD4x20-20E[6][7]-5/32J[9]	—	
			ø6	VPD4x20-20E[6][7]-6J[9]	—				ø1/4	VPD4x20-20E[6][7]-1/4J[9]	—	
	4×30	6	ø3	VPD4x30-6E[6][7]-3J[9]*2	—		4×30	6	ø1/8	VPD4x30-6E[6][7]-1/8J[9]*2	—	
			ø4	VPD4x30-6E[6][7]-4J[9][13]*2	○				ø5/32	VPD4x30-6E[6][7]-5/32J[9][13]*2	○	
			ø6	VPD4x30-6E[6][7]-6J[9][13]*2	○				ø1/4	VPD4x30-6E[6][7]-1/4J[9]*2	—	
		10	ø3	VPD4x30-10E[6][7]-3J[9]*2	—			10	ø1/8	VPD4x30-10E[6][7]-1/8J[9]*2	—	
			ø4	VPD4x30-10E[6][7]-4J[9]*2	—				ø5/32	VPD4x30-10E[6][7]-5/32J[9]*2	—	
			ø6	VPD4x30-10E[6][7]-6J[9]*2	—				ø1/4	VPD4x30-10E[6][7]-1/4J[9]*2	—	
		15	ø3	VPD4x30-15E[6][7]-3J[9]*2	—			15	ø1/8	VPD4x30-15E[6][7]-1/8J[9]*2	—	
			ø4	VPD4x30-15E[6][7]-4J[9]*2	—				ø5/32	VPD4x30-15E[6][7]-5/32J[9]*2	—	
			ø6	VPD4x30-15E[6][7]-6J[9]*2	—				ø1/4	VPD4x30-15E[6][7]-1/4J[9]*2	—	
		20	ø3	VPD4x30-20E[6][7]-3J[9]*2	—			20	ø1/8	VPD4x30-20E[6][7]-1/8J[9]*2	—	
			ø4	VPD4x30-20E[6][7]-4J[9]*2	—				ø5/32	VPD4x30-20E[6][7]-5/32J[9]*2	—	
			ø6	VPD4x30-20E[6][7]-6J[9]*2	—				ø1/4	VPD4x30-20E[6][7]-1/4J[9]*2	—	

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Standard **VPD** Pad size 5×10mm to 5×30mm	5×10	6	ø3	VPD5x10-6E67-3J9	—	M6	5×10	6	ø1/8	VPD5x10-6E67-1/8J9	—	M6
			ø4	VPD5x10-6E67-4J913	○				ø5/32	VPD5x10-6E67-5/32J913	○	
			ø6	VPD5x10-6E67-6J913	○				ø1/4	VPD5x10-6E67-1/4J9	—	
		10	ø3	VPD5x10-10E67-3J9	—			10	ø1/8	VPD5x10-10E67-1/8J9	—	
			ø4	VPD5x10-10E67-4J9	—				ø5/32	VPD5x10-10E67-5/32J9	—	
			ø6	VPD5x10-10E67-6J9	—				ø1/4	VPD5x10-10E67-1/4J9	—	
		15	ø3	VPD5x10-15E67-3J9	—			15	ø1/8	VPD5x10-15E67-1/8J9	—	
			ø4	VPD5x10-15E67-4J9	—				ø5/32	VPD5x10-15E67-5/32J9	—	
			ø6	VPD5x10-15E67-6J9	—				ø1/4	VPD5x10-15E67-1/4J9	—	
		20	ø3	VPD5x10-20E67-3J9	—			20	ø1/8	VPD5x10-20E67-1/8J9	—	
			ø4	VPD5x10-20E67-4J9	—				ø5/32	VPD5x10-20E67-5/32J9	—	
			ø6	VPD5x10-20E67-6J9	—				ø1/4	VPD5x10-20E67-1/4J9	—	
	5×20	6	ø3	VPD5x20-6E67-3J9	—		5×20	6	ø1/8	VPD5x20-6E67-1/8J9	—	
			ø4	VPD5x20-6E67-4J913	○				ø5/32	VPD5x20-6E67-5/32J913	○	
			ø6	VPD5x20-6E67-6J913	○				ø1/4	VPD5x20-6E67-1/4J9	—	
		10	ø3	VPD5x20-10E67-3J9	—			10	ø1/8	VPD5x20-10E67-1/8J9	—	
			ø4	VPD5x20-10E67-4J9	—				ø5/32	VPD5x20-10E67-5/32J9	—	
			ø6	VPD5x20-10E67-6J9	—				ø1/4	VPD5x20-10E67-1/4J9	—	
		15	ø3	VPD5x20-15E67-3J9	—			15	ø1/8	VPD5x20-15E67-1/8J9	—	
			ø4	VPD5x20-15E67-4J9	—				ø5/32	VPD5x20-15E67-5/32J9	—	
			ø6	VPD5x20-15E67-6J9	—				ø1/4	VPD5x20-15E67-1/4J9	—	
		20	ø3	VPD5x20-20E67-3J9	—			20	ø1/8	VPD5x20-20E67-1/8J9	—	
			ø4	VPD5x20-20E67-4J9	—				ø5/32	VPD5x20-20E67-5/32J9	—	
			ø6	VPD5x20-20E67-6J9	—				ø1/4	VPD5x20-20E67-1/4J9	—	
	5×30	6	ø3	VPD5x30-6E67-3J9	—		5×30	6	ø1/8	VPD5x30-6E67-1/8J9	—	
			ø4	VPD5x30-6E67-4J913	○				ø5/32	VPD5x30-6E67-5/32J913	○	
			ø6	VPD5x30-6E67-6J913	○				ø1/4	VPD5x30-6E67-1/4J9	—	
		10	ø3	VPD5x30-10E67-3J9	—			10	ø1/8	VPD5x30-10E67-1/8J9	—	
			ø4	VPD5x30-10E67-4J9	—				ø5/32	VPD5x30-10E67-5/32J9	—	
			ø6	VPD5x30-10E67-6J9	—				ø1/4	VPD5x30-10E67-1/4J9	—	
		15	ø3	VPD5x30-15E67-3J9	—			15	ø1/8	VPD5x30-15E67-1/8J9	—	
			ø4	VPD5x30-15E67-4J9	—				ø5/32	VPD5x30-15E67-5/32J9	—	
			ø6	VPD5x30-15E67-6J9	—				ø1/4	VPD5x30-15E67-1/4J9	—	
		20	ø3	VPD5x30-20E67-3J9	—			20	ø1/8	VPD5x30-20E67-1/8J9	—	
			ø4	VPD5x30-20E67-4J9	—				ø5/32	VPD5x30-20E67-5/32J9	—	
			ø6	VPD5x30-20E67-6J9	—				ø1/4	VPD5x30-20E67-1/4J9	—	

Notes
*1. Barb fitting type holders are also available. Contact us for the details.
*2. Urethane (U) and Fluoro (F) are not available.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
9: **-DC** ⇒ Holder with dust catcher
13: **-S3** ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.715
Surface treatment
Dust Catcher (VPD)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Oval Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	⓭ -S3 -S3 spec.	Connection config. code	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	⓭ -S3 -S3 spec.	Connection config. code
Spring type, Side port, Push-in fitting, Standard **VPD** Pad size 6×10mm to 8×30mm	6×10	6	ø3	VPD6x10-6E⑥⑦-3J⑨	—		6×10	6	ø1/8	VPD6x10-6E⑥⑦-1/8J⑨	—	
			ø4	VPD6x10-6E⑥⑦-4J⑨⑬	○				ø5/32	VPD6x10-6E⑥⑦-5/32J⑨⑬	○	
			ø6	VPD6x10-6E⑥⑦-6J⑨⑬	○				ø1/4	VPD6x10-6E⑥⑦-1/4J⑨	—	
		10	ø3	VPD6x10-10E⑥⑦-3J⑨	—			10	ø1/8	VPD6x10-10E⑥⑦-1/8J⑨	—	
			ø4	VPD6x10-10E⑥⑦-4J⑨	—				ø5/32	VPD6x10-10E⑥⑦-5/32J⑨	—	
			ø6	VPD6x10-10E⑥⑦-6J⑨	—				ø1/4	VPD6x10-10E⑥⑦-1/4J⑨	—	
		15	ø3	VPD6x10-15E⑥⑦-3J⑨	—			15	ø1/8	VPD6x10-15E⑥⑦-1/8J⑨	—	
			ø4	VPD6x10-15E⑥⑦-4J⑨	—				ø5/32	VPD6x10-15E⑥⑦-5/32J⑨	—	
			ø6	VPD6x10-15E⑥⑦-6J⑨	—				ø1/4	VPD6x10-15E⑥⑦-1/4J⑨	—	
		20	ø3	VPD6x10-20E⑥⑦-3J⑨	—			20	ø1/8	VPD6x10-20E⑥⑦-1/8J⑨	—	
			ø4	VPD6x10-20E⑥⑦-4J⑨	—				ø5/32	VPD6x10-20E⑥⑦-5/32J⑨	—	
			ø6	VPD6x10-20E⑥⑦-6J⑨	—				ø1/4	VPD6x10-20E⑥⑦-1/4J⑨	—	
	6×20	6	ø3	VPD6x20-6E⑥⑦-3J⑨	—		6×20	6	ø1/8	VPD6x20-6E⑥⑦-1/8J⑨	—	
			ø4	VPD6x20-6E⑥⑦-4J⑨⑬	○				ø5/32	VPD6x20-6E⑥⑦-5/32J⑨⑬	○	
			ø6	VPD6x20-6E⑥⑦-6J⑨⑬	○				ø1/4	VPD6x20-6E⑥⑦-1/4J⑨	—	
		10	ø3	VPD6x20-10E⑥⑦-3J⑨	—			10	ø1/8	VPD6x20-10E⑥⑦-1/8J⑨	—	
			ø4	VPD6x20-10E⑥⑦-4J⑨	—				ø5/32	VPD6x20-10E⑥⑦-5/32J⑨	—	
			ø6	VPD6x20-10E⑥⑦-6J⑨	—				ø1/4	VPD6x20-10E⑥⑦-1/4J⑨	—	
		15	ø3	VPD6x20-15E⑥⑦-3J⑨	—			15	ø1/8	VPD6x20-15E⑥⑦-1/8J⑨	—	
			ø4	VPD6x20-15E⑥⑦-4J⑨	—				ø5/32	VPD6x20-15E⑥⑦-5/32J⑨	—	
			ø6	VPD6x20-15E⑥⑦-6J⑨	—				ø1/4	VPD6x20-15E⑥⑦-1/4J⑨	—	
		20	ø3	VPD6x20-20E⑥⑦-3J⑨	—			20	ø1/8	VPD6x20-20E⑥⑦-1/8J⑨	—	
			ø4	VPD6x20-20E⑥⑦-4J⑨	—				ø5/32	VPD6x20-20E⑥⑦-5/32J⑨	—	
			ø6	VPD6x20-20E⑥⑦-6J⑨	—				ø1/4	VPD6x20-20E⑥⑦-1/4J⑨	—	
	6×30	6	ø3	VPD6x30-6E⑥⑦-3J⑨	—	M6	6×30	6	ø1/8	VPD6x30-6E⑥⑦-1/8J⑨	—	M6
			ø4	VPD6x30-6E⑥⑦-4J⑨⑬	○				ø5/32	VPD6x30-6E⑥⑦-5/32J⑨⑬	○	
			ø6	VPD6x30-6E⑥⑦-6J⑨⑬	○				ø1/4	VPD6x30-6E⑥⑦-1/4J⑨	—	
		10	ø3	VPD6x30-10E⑥⑦-3J⑨	—			10	ø1/8	VPD6x30-10E⑥⑦-1/8J⑨	—	
			ø4	VPD6x30-10E⑥⑦-4J⑨	—				ø5/32	VPD6x30-10E⑥⑦-5/32J⑨	—	
			ø6	VPD6x30-10E⑥⑦-6J⑨	—				ø1/4	VPD6x30-10E⑥⑦-1/4J⑨	—	
		15	ø3	VPD6x30-15E⑥⑦-3J⑨	—			15	ø1/8	VPD6x30-15E⑥⑦-1/8J⑨	—	
			ø4	VPD6x30-15E⑥⑦-4J⑨	—				ø5/32	VPD6x30-15E⑥⑦-5/32J⑨	—	
			ø6	VPD6x30-15E⑥⑦-6J⑨	—				ø1/4	VPD6x30-15E⑥⑦-1/4J⑨	—	
		20	ø3	VPD6x30-20E⑥⑦-3J⑨	—			20	ø1/8	VPD6x30-20E⑥⑦-1/8J⑨	—	
			ø4	VPD6x30-20E⑥⑦-4J⑨	—				ø5/32	VPD6x30-20E⑥⑦-5/32J⑨	—	
			ø6	VPD6x30-20E⑥⑦-6J⑨	—				ø1/4	VPD6x30-20E⑥⑦-1/4J⑨	—	
	8×20	6	ø3	VPD8x20-6E⑥⑦-3J⑨	—		8×20	6	ø1/8	VPD8x20-6E⑥⑦-1/8J⑨	—	
			ø4	VPD8x20-6E⑥⑦-4J⑨⑬	○				ø5/32	VPD8x20-6E⑥⑦-5/32J⑨⑬	○	
			ø6	VPD8x20-6E⑥⑦-6J⑨⑬	○				ø1/4	VPD8x20-6E⑥⑦-1/4J⑨	—	
		10	ø3	VPD8x20-10E⑥⑦-3J⑨	—			10	ø1/8	VPD8x20-10E⑥⑦-1/8J⑨	—	
			ø4	VPD8x20-10E⑥⑦-4J⑨	—				ø5/32	VPD8x20-10E⑥⑦-5/32J⑨	—	
			ø6	VPD8x20-10E⑥⑦-6J⑨	—				ø1/4	VPD8x20-10E⑥⑦-1/4J⑨	—	
		15	ø3	VPD8x20-15E⑥⑦-3J⑨	—			15	ø1/8	VPD8x20-15E⑥⑦-1/8J⑨	—	
			ø4	VPD8x20-15E⑥⑦-4J⑨	—				ø5/32	VPD8x20-15E⑥⑦-5/32J⑨	—	
			ø6	VPD8x20-15E⑥⑦-6J⑨	—				ø1/4	VPD8x20-15E⑥⑦-1/4J⑨	—	
		20	ø3	VPD8x20-20E⑥⑦-3J⑨	—			20	ø1/8	VPD8x20-20E⑥⑦-1/8J⑨	—	
			ø4	VPD8x20-20E⑥⑦-4J⑨	—				ø5/32	VPD8x20-20E⑥⑦-5/32J⑨	—	
			ø6	VPD8x20-20E⑥⑦-6J⑨	—				ø1/4	VPD8x20-20E⑥⑦-1/4J⑨	—	
	8×30	6	ø3	VPD8x30-6E⑥⑦-3J⑨	—		8×30	6	ø1/8	VPD8x30-6E⑥⑦-1/8J⑨	—	
			ø4	VPD8x30-6E⑥⑦-4J⑨⑬	○				ø5/32	VPD8x30-6E⑥⑦-5/32J⑨⑬	○	
			ø6	VPD8x30-6E⑥⑦-6J⑨⑬	○				ø1/4	VPD8x30-6E⑥⑦-1/4J⑨	—	
		10	ø3	VPD8x30-10E⑥⑦-3J⑨	—			10	ø1/8	VPD8x30-10E⑥⑦-1/8J⑨	—	
			ø4	VPD8x30-10E⑥⑦-4J⑨	—				ø5/32	VPD8x30-10E⑥⑦-5/32J⑨	—	
			ø6	VPD8x30-10E⑥⑦-6J⑨	—				ø1/4	VPD8x30-10E⑥⑦-1/4J⑨	—	
		15	ø3	VPD8x30-15E⑥⑦-3J⑨	—			15	ø1/8	VPD8x30-15E⑥⑦-1/8J⑨	—	
			ø4	VPD8x30-15E⑥⑦-4J⑨	—				ø5/32	VPD8x30-15E⑥⑦-5/32J⑨	—	
			ø6	VPD8x30-15E⑥⑦-6J⑨	—				ø1/4	VPD8x30-15E⑥⑦-1/4J⑨	—	
		20	ø3	VPD8x30-20E⑥⑦-3J⑨	—			20	ø1/8	VPD8x30-20E⑥⑦-1/8J⑨	—	
			ø4	VPD8x30-20E⑥⑦-4J⑨	—				ø5/32	VPD8x30-20E⑥⑦-5/32J⑨	—	
			ø6	VPD8x30-20E⑥⑦-6J⑨	—				ø1/4	VPD8x30-20E⑥⑦-1/4J⑨	—	

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Stroke (mm)	Male thread size	Model code	⑬ -S3 -S3 spec.	Connection config. code
Spring type, Side port, Female thread, Standard VPD 	2×4	6	M6×1	VPD2x4-6E⑥⑦-M6⑨⑬	○	M6
		10		VPD2x4-10E⑥⑦-M6⑨	—	
		15		VPD2x4-15E⑥⑦-M6⑨	—	
		20		VPD2x4-20E⑥⑦-M6⑨	—	
	3.5×7	6	M6×1	VPD3.5x7-6E⑥⑦-M6⑨⑬	○	
		10		VPD3.5x7-10E⑥⑦-M6⑨	—	
		15		VPD3.5x7-15E⑥⑦-M6⑨	—	
		20		VPD3.5x7-20E⑥⑦-M6⑨	—	
	4×10	6	M6×1	VPD4x10-6E⑥⑦-M6⑨⑬	○	
		10		VPD4x10-10E⑥⑦-M6⑨	—	
		15		VPD4x10-15E⑥⑦-M6⑨	—	
		20		VPD4x10-20E⑥⑦-M6⑨	—	
	4×20	6	M6×1	VPD4x20-6E⑥⑦-M6⑨⑬	○	
		10		VPD4x20-10E⑥⑦-M6⑨	—	
		15		VPD4x20-15E⑥⑦-M6⑨	—	
		20		VPD4x20-20E⑥⑦-M6⑨	—	
	4×30	6	M6×1	VPD4x30-6E⑥⑦-M6⑨⑬*2	○	
		10		VPD4x30-10E⑥⑦-M6⑨*2	—	
		15		VPD4x30-15E⑥⑦-M6⑨*2	—	
		20		VPD4x30-20E⑥⑦-M6⑨*2	—	
	5×10	6	M6×1	VPD5x10-6E⑥⑦-M6⑨⑬	○	
		10		VPD5x10-10E⑥⑦-M6⑨	—	
		15		VPD5x10-15E⑥⑦-M6⑨	—	
		20		VPD5x10-20E⑥⑦-M6⑨	—	
	5×20	6	M6×1	VPD5x20-6E⑥⑦-M6⑨⑬	○	
		10		VPD5x20-10E⑥⑦-M6⑨	—	
		15		VPD5x20-15E⑥⑦-M6⑨	—	
		20		VPD5x20-20E⑥⑦-M6⑨	—	
	5×30	6	M6×1	VPD5x30-6E⑥⑦-M6⑨⑬	○	
		10		VPD5x30-10E⑥⑦-M6⑨	—	
		15		VPD5x30-15E⑥⑦-M6⑨	—	
		20		VPD5x30-20E⑥⑦-M6⑨	—	
	6×10	6	M6×1	VPD6x10-6E⑥⑦-M6⑨⑬	○	
		10		VPD6x10-10E⑥⑦-M6⑨	—	
		15		VPD6x10-15E⑥⑦-M6⑨	—	
		20		VPD6x10-20E⑥⑦-M6⑨	—	
	6×20	6	M6×1	VPD6x20-6E⑥⑦-M6⑨⑬	○	
		10		VPD6x20-10E⑥⑦-M6⑨	—	
		15		VPD6x20-15E⑥⑦-M6⑨	—	
		20		VPD6x20-20E⑥⑦-M6⑨	—	
	6×30	6	M6×1	VPD6x30-6E⑥⑦-M6⑨⑬	○	
		10		VPD6x30-10E⑥⑦-M6⑨	—	
		15		VPD6x30-15E⑥⑦-M6⑨	—	
		20		VPD6x30-20E⑥⑦-M6⑨	—	
	8×20	6	M6×1	VPD8x20-6E⑥⑦-M6⑨⑬	○	
		10		VPD8x20-10E⑥⑦-M6⑨	—	
		15		VPD8x20-15E⑥⑦-M6⑨	—	
		20		VPD8x20-20E⑥⑦-M6⑨	—	
	8×30	6	M6×1	VPD8x30-6E⑥⑦-M6⑨⑬	○	
		10		VPD8x30-10E⑥⑦-M6⑨	—	
		15		VPD8x30-15E⑥⑦-M6⑨	—	
		20		VPD8x30-20E⑥⑦-M6⑨	—	

Notes
*1. Barb fitting type holders are also available. Contact us for the details.
*2. Urethane (U) and Fluoro (F) are not available.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
⑨: -DC ⇒ Holder with dust catcher
⑬: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.715
Surface treatment
Dust Catcher (VPD)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Oval Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, No cover **VPOD** Pad size 2×4mm to 4×30mm	2×4	20	ø3	VPOD2x4-20E⑥⑦-3J	M6	2×4	20	ø1/8	VPOD2x4-20E⑥⑦-1/8J	M6
			ø4	VPOD2x4-20E⑥⑦-4J				ø5/32	VPOD2x4-20E⑥⑦-5/32J	
			ø6	VPOD2x4-20E⑥⑦-6J				ø1/4	VPOD2x4-20E⑥⑦-1/4J	
		30	ø3	VPOD2x4-30E⑥⑦-3J			30	ø1/8	VPOD2x4-30E⑥⑦-1/8J	
			ø4	VPOD2x4-30E⑥⑦-4J				ø5/32	VPOD2x4-30E⑥⑦-5/32J	
			ø6	VPOD2x4-30E⑥⑦-6J				ø1/4	VPOD2x4-30E⑥⑦-1/4J	
		40	ø3	VPOD2x4-40E⑥⑦-3J			40	ø1/8	VPOD2x4-40E⑥⑦-1/8J	
			ø4	VPOD2x4-40E⑥⑦-4J				ø5/32	VPOD2x4-40E⑥⑦-5/32J	
			ø6	VPOD2x4-40E⑥⑦-6J				ø1/4	VPOD2x4-40E⑥⑦-1/4J	
		50	ø3	VPOD2x4-50E⑥⑦-3J			50	ø1/8	VPOD2x4-50E⑥⑦-1/8J	
			ø4	VPOD2x4-50E⑥⑦-4J				ø5/32	VPOD2x4-50E⑥⑦-5/32J	
			ø6	VPOD2x4-50E⑥⑦-6J				ø1/4	VPOD2x4-50E⑥⑦-1/4J	
	3.5×7	20	ø3	VPOD3.5x7-20E⑥⑦-3J		3.5×7	20	ø1/8	VPOD3.5x7-20E⑥⑦-1/8J	
			ø4	VPOD3.5x7-20E⑥⑦-4J				ø5/32	VPOD3.5x7-20E⑥⑦-5/32J	
			ø6	VPOD3.5x7-20E⑥⑦-6J				ø1/4	VPOD3.5x7-20E⑥⑦-1/4J	
		30	ø3	VPOD3.5x7-30E⑥⑦-3J			30	ø1/8	VPOD3.5x7-30E⑥⑦-1/8J	
			ø4	VPOD3.5x7-30E⑥⑦-4J				ø5/32	VPOD3.5x7-30E⑥⑦-5/32J	
			ø6	VPOD3.5x7-30E⑥⑦-6J				ø1/4	VPOD3.5x7-30E⑥⑦-1/4J	
		40	ø3	VPOD3.5x7-40E⑥⑦-3J			40	ø1/8	VPOD3.5x7-40E⑥⑦-1/8J	
			ø4	VPOD3.5x7-40E⑥⑦-4J				ø5/32	VPOD3.5x7-40E⑥⑦-5/32J	
			ø6	VPOD3.5x7-40E⑥⑦-6J				ø1/4	VPOD3.5x7-40E⑥⑦-1/4J	
		50	ø3	VPOD3.5x7-50E⑥⑦-3J			50	ø1/8	VPOD3.5x7-50E⑥⑦-1/8J	
			ø4	VPOD3.5x7-50E⑥⑦-4J				ø5/32	VPOD3.5x7-50E⑥⑦-5/32J	
			ø6	VPOD3.5x7-50E⑥⑦-6J				ø1/4	VPOD3.5x7-50E⑥⑦-1/4J	
	4×10	20	ø3	VPOD4x10-20E⑥⑦-3J		4×10	20	ø1/8	VPOD4x10-20E⑥⑦-1/8J	
			ø4	VPOD4x10-20E⑥⑦-4J				ø5/32	VPOD4x10-20E⑥⑦-5/32J	
			ø6	VPOD4x10-20E⑥⑦-6J				ø1/4	VPOD4x10-20E⑥⑦-1/4J	
		30	ø3	VPOD4x10-30E⑥⑦-3J			30	ø1/8	VPOD4x10-30E⑥⑦-1/8J	
			ø4	VPOD4x10-30E⑥⑦-4J				ø5/32	VPOD4x10-30E⑥⑦-5/32J	
			ø6	VPOD4x10-30E⑥⑦-6J				ø1/4	VPOD4x10-30E⑥⑦-1/4J	
		40	ø3	VPOD4x10-40E⑥⑦-3J			40	ø1/8	VPOD4x10-40E⑥⑦-1/8J	
			ø4	VPOD4x10-40E⑥⑦-4J				ø5/32	VPOD4x10-40E⑥⑦-5/32J	
			ø6	VPOD4x10-40E⑥⑦-6J				ø1/4	VPOD4x10-40E⑥⑦-1/4J	
		50	ø3	VPOD4x10-50E⑥⑦-3J			50	ø1/8	VPOD4x10-50E⑥⑦-1/8J	
			ø4	VPOD4x10-50E⑥⑦-4J				ø5/32	VPOD4x10-50E⑥⑦-5/32J	
			ø6	VPOD4x10-50E⑥⑦-6J				ø1/4	VPOD4x10-50E⑥⑦-1/4J	
	4×20	20	ø3	VPOD4x20-20E⑥⑦-3J		4×20	20	ø1/8	VPOD4x20-20E⑥⑦-1/8J	
			ø4	VPOD4x20-20E⑥⑦-4J				ø5/32	VPOD4x20-20E⑥⑦-5/32J	
			ø6	VPOD4x20-20E⑥⑦-6J				ø1/4	VPOD4x20-20E⑥⑦-1/4J	
		30	ø3	VPOD4x20-30E⑥⑦-3J			30	ø1/8	VPOD4x20-30E⑥⑦-1/8J	
			ø4	VPOD4x20-30E⑥⑦-4J				ø5/32	VPOD4x20-30E⑥⑦-5/32J	
			ø6	VPOD4x20-30E⑥⑦-6J				ø1/4	VPOD4x20-30E⑥⑦-1/4J	
		40	ø3	VPOD4x20-40E⑥⑦-3J			40	ø1/8	VPOD4x20-40E⑥⑦-1/8J	
			ø4	VPOD4x20-40E⑥⑦-4J				ø5/32	VPOD4x20-40E⑥⑦-5/32J	
			ø6	VPOD4x20-40E⑥⑦-6J				ø1/4	VPOD4x20-40E⑥⑦-1/4J	
		50	ø3	VPOD4x20-50E⑥⑦-3J			50	ø1/8	VPOD4x20-50E⑥⑦-1/8J	
			ø4	VPOD4x20-50E⑥⑦-4J				ø5/32	VPOD4x20-50E⑥⑦-5/32J	
			ø6	VPOD4x20-50E⑥⑦-6J				ø1/4	VPOD4x20-50E⑥⑦-1/4J	
	4×30	20	ø3	VPOD4x30-20E⑥⑦-3J*2		4×30	20	ø1/8	VPOD4x30-20E⑥⑦-1/8J*2	
			ø4	VPOD4x30-20E⑥⑦-4J*2				ø5/32	VPOD4x30-20E⑥⑦-5/32J*2	
			ø6	VPOD4x30-20E⑥⑦-6J*2				ø1/4	VPOD4x30-20E⑥⑦-1/4J*2	
		30	ø3	VPOD4x30-30E⑥⑦-3J*2			30	ø1/8	VPOD4x30-30E⑥⑦-1/8J*2	
			ø4	VPOD4x30-30E⑥⑦-4J*2				ø5/32	VPOD4x30-30E⑥⑦-5/32J*2	
			ø6	VPOD4x30-30E⑥⑦-6J*2				ø1/4	VPOD4x30-30E⑥⑦-1/4J*2	
		40	ø3	VPOD4x30-40E⑥⑦-3J*2			40	ø1/8	VPOD4x30-40E⑥⑦-1/8J*2	
			ø4	VPOD4x30-40E⑥⑦-4J*2				ø5/32	VPOD4x30-40E⑥⑦-5/32J*2	
			ø6	VPOD4x30-40E⑥⑦-6J*2				ø1/4	VPOD4x30-40E⑥⑦-1/4J*2	
		50	ø3	VPOD4x30-50E⑥⑦-3J*2			50	ø1/8	VPOD4x30-50E⑥⑦-1/8J*2	
			ø4	VPOD4x30-50E⑥⑦-4J*2				ø5/32	VPOD4x30-50E⑥⑦-5/32J*2	
			ø6	VPOD4x30-50E⑥⑦-6J*2				ø1/4	VPOD4x30-50E⑥⑦-1/4J*2	

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, No cover **VPOD** Pad size 5×10mm to 5×30mm	5×10	20	ø3	VPOD5x10-20E⑥⑦-3J	M6	5×10	20	ø1/8	VPOD5x10-20E⑥⑦-1/8J	M6
			ø4	VPOD5x10-20E⑥⑦-4J				ø5/32	VPOD5x10-20E⑥⑦-5/32J	
			ø6	VPOD5x10-20E⑥⑦-6J				ø1/4	VPOD5x10-20E⑥⑦-1/4J	
		30	ø3	VPOD5x10-30E⑥⑦-3J			30	ø1/8	VPOD5x10-30E⑥⑦-1/8J	
			ø4	VPOD5x10-30E⑥⑦-4J				ø5/32	VPOD5x10-30E⑥⑦-5/32J	
			ø6	VPOD5x10-30E⑥⑦-6J				ø1/4	VPOD5x10-30E⑥⑦-1/4J	
		40	ø3	VPOD5x10-40E⑥⑦-3J			40	ø1/8	VPOD5x10-40E⑥⑦-1/8J	
			ø4	VPOD5x10-40E⑥⑦-4J				ø5/32	VPOD5x10-40E⑥⑦-5/32J	
			ø6	VPOD5x10-40E⑥⑦-6J				ø1/4	VPOD5x10-40E⑥⑦-1/4J	
		50	ø3	VPOD5x10-50E⑥⑦-3J			50	ø1/8	VPOD5x10-50E⑥⑦-1/8J	
			ø4	VPOD5x10-50E⑥⑦-4J				ø5/32	VPOD5x10-50E⑥⑦-5/32J	
			ø6	VPOD5x10-50E⑥⑦-6J				ø1/4	VPOD5x10-50E⑥⑦-1/4J	
	5×20	20	ø3	VPOD5x20-20E⑥⑦-3J		5×20	20	ø1/8	VPOD5x20-20E⑥⑦-1/8J	
			ø4	VPOD5x20-20E⑥⑦-4J				ø5/32	VPOD5x20-20E⑥⑦-5/32J	
			ø6	VPOD5x20-20E⑥⑦-6J				ø1/4	VPOD5x20-20E⑥⑦-1/4J	
		30	ø3	VPOD5x20-30E⑥⑦-3J			30	ø1/8	VPOD5x20-30E⑥⑦-1/8J	
			ø4	VPOD5x20-30E⑥⑦-4J				ø5/32	VPOD5x20-30E⑥⑦-5/32J	
			ø6	VPOD5x20-30E⑥⑦-6J				ø1/4	VPOD5x20-30E⑥⑦-1/4J	
		40	ø3	VPOD5x20-40E⑥⑦-3J			40	ø1/8	VPOD5x20-40E⑥⑦-1/8J	
			ø4	VPOD5x20-40E⑥⑦-4J				ø5/32	VPOD5x20-40E⑥⑦-5/32J	
			ø6	VPOD5x20-40E⑥⑦-6J				ø1/4	VPOD5x20-40E⑥⑦-1/4J	
		50	ø3	VPOD5x20-50E⑥⑦-3J			50	ø1/8	VPOD5x20-50E⑥⑦-1/8J	
			ø4	VPOD5x20-50E⑥⑦-4J				ø5/32	VPOD5x20-50E⑥⑦-5/32J	
			ø6	VPOD5x20-50E⑥⑦-6J				ø1/4	VPOD5x20-50E⑥⑦-1/4J	
	5×30	20	ø3	VPOD5x30-20E⑥⑦-3J		5×30	20	ø1/8	VPOD5x30-20E⑥⑦-1/8J	
			ø4	VPOD5x30-20E⑥⑦-4J				ø5/32	VPOD5x30-20E⑥⑦-5/32J	
			ø6	VPOD5x30-20E⑥⑦-6J				ø1/4	VPOD5x30-20E⑥⑦-1/4J	
		30	ø3	VPOD5x30-30E⑥⑦-3J			30	ø1/8	VPOD5x30-30E⑥⑦-1/8J	
			ø4	VPOD5x30-30E⑥⑦-4J				ø5/32	VPOD5x30-30E⑥⑦-5/32J	
			ø6	VPOD5x30-30E⑥⑦-6J				ø1/4	VPOD5x30-30E⑥⑦-1/4J	
		40	ø3	VPOD5x30-40E⑥⑦-3J			40	ø1/8	VPOD5x30-40E⑥⑦-1/8J	
			ø4	VPOD5x30-40E⑥⑦-4J				ø5/32	VPOD5x30-40E⑥⑦-5/32J	
			ø6	VPOD5x30-40E⑥⑦-6J				ø1/4	VPOD5x30-40E⑥⑦-1/4J	
		50	ø3	VPOD5x30-50E⑥⑦-3J			50	ø1/8	VPOD5x30-50E⑥⑦-1/8J	
			ø4	VPOD5x30-50E⑥⑦-4J				ø5/32	VPOD5x30-50E⑥⑦-5/32J	
			ø6	VPOD5x30-50E⑥⑦-6J				ø1/4	VPOD5x30-50E⑥⑦-1/4J	

Notes
*1. Barb fitting type holders are also available. Contact us for the details.
*2. Urethane (U) and Fluoro (F) are not available.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.715
Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Oval Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type, Side port, Push-in fitting, No cover

VPOD

Pad size 6×10mm to 8×30mm

Holder type	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
	6×10	20	ø3	VPOD6x10-20E□-3J	M6	6×10	20	ø1/8	VPOD6x10-20E□-1/8J	M6
			ø4	VPOD6x10-20E□-4J				ø5/32	VPOD6x10-20E□-5/32J	
			ø6	VPOD6x10-20E□-6J				ø1/4	VPOD6x10-20E□-1/4J	
		30	ø3	VPOD6x10-30E□-3J			30	ø1/8	VPOD6x10-30E□-1/8J	
			ø4	VPOD6x10-30E□-4J				ø5/32	VPOD6x10-30E□-5/32J	
			ø6	VPOD6x10-30E□-6J				ø1/4	VPOD6x10-30E□-1/4J	
		40	ø3	VPOD6x10-40E□-3J			40	ø1/8	VPOD6x10-40E□-1/8J	
			ø4	VPOD6x10-40E□-4J				ø5/32	VPOD6x10-40E□-5/32J	
			ø6	VPOD6x10-40E□-6J				ø1/4	VPOD6x10-40E□-1/4J	
		50	ø3	VPOD6x10-50E□-3J			50	ø1/8	VPOD6x10-50E□-1/8J	
			ø4	VPOD6x10-50E□-4J				ø5/32	VPOD6x10-50E□-5/32J	
			ø6	VPOD6x10-50E□-6J				ø1/4	VPOD6x10-50E□-1/4J	
	6×20	20	ø3	VPOD6x20-20E□-3J		6×20	20	ø1/8	VPOD6x20-20E□-1/8J	
			ø4	VPOD6x20-20E□-4J				ø5/32	VPOD6x20-20E□-5/32J	
			ø6	VPOD6x20-20E□-6J				ø1/4	VPOD6x20-20E□-1/4J	
		30	ø3	VPOD6x20-30E□-3J			30	ø1/8	VPOD6x20-30E□-1/8J	
			ø4	VPOD6x20-30E□-4J				ø5/32	VPOD6x20-30E□-5/32J	
			ø6	VPOD6x20-30E□-6J				ø1/4	VPOD6x20-30E□-1/4J	
		40	ø3	VPOD6x20-40E□-3J			40	ø1/8	VPOD6x20-40E□-1/8J	
			ø4	VPOD6x20-40E□-4J				ø5/32	VPOD6x20-40E□-5/32J	
			ø6	VPOD6x20-40E□-6J				ø1/4	VPOD6x20-40E□-1/4J	
		50	ø3	VPOD6x20-50E□-3J			50	ø1/8	VPOD6x20-50E□-1/8J	
			ø4	VPOD6x20-50E□-4J				ø5/32	VPOD6x20-50E□-5/32J	
			ø6	VPOD6x20-50E□-6J				ø1/4	VPOD6x20-50E□-1/4J	
	6×30	20	ø3	VPOD6x30-20E□-3J		6×30	20	ø1/8	VPOD6x30-20E□-1/8J	
			ø4	VPOD6x30-20E□-4J				ø5/32	VPOD6x30-20E□-5/32J	
			ø6	VPOD6x30-20E□-6J				ø1/4	VPOD6x30-20E□-1/4J	
		30	ø3	VPOD6x30-30E□-3J			30	ø1/8	VPOD6x30-30E□-1/8J	
			ø4	VPOD6x30-30E□-4J				ø5/32	VPOD6x30-30E□-5/32J	
			ø6	VPOD6x30-30E□-6J				ø1/4	VPOD6x30-30E□-1/4J	
		40	ø3	VPOD6x30-40E□-3J			40	ø1/8	VPOD6x30-40E□-1/8J	
			ø4	VPOD6x30-40E□-4J				ø5/32	VPOD6x30-40E□-5/32J	
			ø6	VPOD6x30-40E□-6J				ø1/4	VPOD6x30-40E□-1/4J	
		50	ø3	VPOD6x30-50E□-3J			50	ø1/8	VPOD6x30-50E□-1/8J	
			ø4	VPOD6x30-50E□-4J				ø5/32	VPOD6x30-50E□-5/32J	
			ø6	VPOD6x30-50E□-6J				ø1/4	VPOD6x30-50E□-1/4J	
	8×20	20	ø3	VPOD8x20-20E□-3J		8×20	20	ø1/8	VPOD8x20-20E□-1/8J	
			ø4	VPOD8x20-20E□-4J				ø5/32	VPOD8x20-20E□-5/32J	
			ø6	VPOD8x20-20E□-6J				ø1/4	VPOD8x20-20E□-1/4J	
		30	ø3	VPOD8x20-30E□-3J			30	ø1/8	VPOD8x20-30E□-1/8J	
			ø4	VPOD8x20-30E□-4J				ø5/32	VPOD8x20-30E□-5/32J	
			ø6	VPOD8x20-30E□-6J				ø1/4	VPOD8x20-30E□-1/4J	
		40	ø3	VPOD8x20-40E□-3J			40	ø1/8	VPOD8x20-40E□-1/8J	
			ø4	VPOD8x20-40E□-4J				ø5/32	VPOD8x20-40E□-5/32J	
			ø6	VPOD8x20-40E□-6J				ø1/4	VPOD8x20-40E□-1/4J	
		50	ø3	VPOD8x20-50E□-3J			50	ø1/8	VPOD8x20-50E□-1/8J	
			ø4	VPOD8x20-50E□-4J				ø5/32	VPOD8x20-50E□-5/32J	
			ø6	VPOD8x20-50E□-6J				ø1/4	VPOD8x20-50E□-1/4J	
	8×30	20	ø3	VPOD8x30-20E□-3J		8×30	20	ø1/8	VPOD8x30-20E□-1/8J	
			ø4	VPOD8x30-20E□-4J				ø5/32	VPOD8x30-20E□-5/32J	
			ø6	VPOD8x30-20E□-6J				ø1/4	VPOD8x30-20E□-1/4J	
		30	ø3	VPOD8x30-30E□-3J			30	ø1/8	VPOD8x30-30E□-1/8J	
			ø4	VPOD8x30-30E□-4J				ø5/32	VPOD8x30-30E□-5/32J	
			ø6	VPOD8x30-30E□-6J				ø1/4	VPOD8x30-30E□-1/4J	
		40	ø3	VPOD8x30-40E□-3J			40	ø1/8	VPOD8x30-40E□-1/8J	
			ø4	VPOD8x30-40E□-4J				ø5/32	VPOD8x30-40E□-5/32J	
			ø6	VPOD8x30-40E□-6J				ø1/4	VPOD8x30-40E□-1/4J	
		50	ø3	VPOD8x30-50E□-3J			50	ø1/8	VPOD8x30-50E□-1/8J	
			ø4	VPOD8x30-50E□-4J				ø5/32	VPOD8x30-50E□-5/32J	
			ø6	VPOD8x30-50E□-6J				ø1/4	VPOD8x30-50E□-1/4J	

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Stroke (mm)	Male thread size	Model code	Connection config. code
Spring type, Side port, Female thread, No cover VPOD	2×4	20	M6×1	VPOD2x4-20E⑥⑦-M6	M6
		30		VPOD2x4-30E⑥⑦-M6	
		40		VPOD2x4-40E⑥⑦-M6	
		50		VPOD2x4-50E⑥⑦-M6	
	3.5×7	20	M6×1	VPOD3.5x7-20E⑥⑦-M6	
		30		VPOD3.5x7-30E⑥⑦-M6	
		40		VPOD3.5x7-40E⑥⑦-M6	
		50		VPOD3.5x7-50E⑥⑦-M6	
	4×10	20	M6×1	VPOD4x10-20E⑥⑦-M6	
		30		VPOD4x10-30E⑥⑦-M6	
		40		VPOD4x10-40E⑥⑦-M6	
		50		VPOD4x10-50E⑥⑦-M6	
	4×20	20	M6×1	VPOD4x20-20E⑥⑦-M6	
		30		VPOD4x20-30E⑥⑦-M6	
		40		VPOD4x20-40E⑥⑦-M6	
		50		VPOD4x20-50E⑥⑦-M6	
	4×30	20	M6×1	VPOD4x30-20E⑥⑦-M6*2	
		30		VPOD4x30-30E⑥⑦-M6*2	
		40		VPOD4x30-40E⑥⑦-M6*2	
		50		VPOD4x30-50E⑥⑦-M6*2	
	5×10	20	M6×1	VPOD5x10-20E⑥⑦-M6	
		30		VPOD5x10-30E⑥⑦-M6	
		40		VPOD5x10-40E⑥⑦-M6	
		50		VPOD5x10-50E⑥⑦-M6	
	5×20	20	M6×1	VPOD5x20-20E⑥⑦-M6	
		30		VPOD5x20-30E⑥⑦-M6	
		40		VPOD5x20-40E⑥⑦-M6	
		50		VPOD5x20-50E⑥⑦-M6	
	5×30	20	M6×1	VPOD5x30-20E⑥⑦-M6	
		30		VPOD5x30-30E⑥⑦-M6	
		40		VPOD5x30-40E⑥⑦-M6	
		50		VPOD5x30-50E⑥⑦-M6	
	6×10	20	M6×1	VPOD6x10-20E⑥⑦-M6	
		30		VPOD6x10-30E⑥⑦-M6	
		40		VPOD6x10-40E⑥⑦-M6	
		50		VPOD6x10-50E⑥⑦-M6	
	6×20	20	M6×1	VPOD6x20-20E⑥⑦-M6	
		30		VPOD6x20-30E⑥⑦-M6	
		40		VPOD6x20-40E⑥⑦-M6	
		50		VPOD6x20-50E⑥⑦-M6	
	6×30	20	M6×1	VPOD6x30-20E⑥⑦-M6	
		30		VPOD6x30-30E⑥⑦-M6	
		40		VPOD6x30-40E⑥⑦-M6	
		50		VPOD6x30-50E⑥⑦-M6	
	8×20	20	M6×1	VPOD8x20-20E⑥⑦-M6	
		30		VPOD8x20-30E⑥⑦-M6	
		40		VPOD8x20-40E⑥⑦-M6	
		50		VPOD8x20-50E⑥⑦-M6	
	8×30	20	M6×1	VPOD8x30-20E⑥⑦-M6	
		30		VPOD8x30-30E⑥⑦-M6	
		40		VPOD8x30-40E⑥⑦-M6	
		50		VPOD8x30-50E⑥⑦-M6	

Notes
*1. Barb fitting type holders are also available. Contact us for the details.
*2. Urethane (U) and Fluoro (F) are not available.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment
(DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.715

Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Oval Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Spring type,
Side port,
Push-in fitting,
Low dust emission

VPLFD

Pad size
2×4mm
to
4×30mm

Holder type	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
	2×4	5	ø3	VPLFD2x4-5E⑥⑦-3J	M6	2×4	5	ø1/8	VPLFD2x4-5E⑥⑦-1/8J	M6
			ø4	VPLFD2x4-5E⑥⑦-4J				ø5/32	VPLFD2x4-5E⑥⑦-5/32J	
			ø6	VPLFD2x4-5E⑥⑦-6J				ø1/4	VPLFD2x4-5E⑥⑦-1/4J	
		10	ø3	VPLFD2x4-10E⑥⑦-3J			10	ø1/8	VPLFD2x4-10E⑥⑦-1/8J	
			ø4	VPLFD2x4-10E⑥⑦-4J				ø5/32	VPLFD2x4-10E⑥⑦-5/32J	
			ø6	VPLFD2x4-10E⑥⑦-6J				ø1/4	VPLFD2x4-10E⑥⑦-1/4J	
		15	ø3	VPLFD2x4-15E⑥⑦-3J			15	ø1/8	VPLFD2x4-15E⑥⑦-1/8J	
			ø4	VPLFD2x4-15E⑥⑦-4J				ø5/32	VPLFD2x4-15E⑥⑦-5/32J	
			ø6	VPLFD2x4-15E⑥⑦-6J				ø1/4	VPLFD2x4-15E⑥⑦-1/4J	
		20	ø3	VPLFD2x4-20E⑥⑦-3J			20	ø1/8	VPLFD2x4-20E⑥⑦-1/8J	
			ø4	VPLFD2x4-20E⑥⑦-4J				ø5/32	VPLFD2x4-20E⑥⑦-5/32J	
			ø6	VPLFD2x4-20E⑥⑦-6J				ø1/4	VPLFD2x4-20E⑥⑦-1/4J	
	3.5×7	5	ø3	VPLFD3.5x7-5E⑥⑦-3J		3.5×7	5	ø1/8	VPLFD3.5x7-5E⑥⑦-1/8J	
			ø4	VPLFD3.5x7-5E⑥⑦-4J				ø5/32	VPLFD3.5x7-5E⑥⑦-5/32J	
			ø6	VPLFD3.5x7-5E⑥⑦-6J				ø1/4	VPLFD3.5x7-5E⑥⑦-1/4J	
		10	ø3	VPLFD3.5x7-10E⑥⑦-3J			10	ø1/8	VPLFD3.5x7-10E⑥⑦-1/8J	
			ø4	VPLFD3.5x7-10E⑥⑦-4J				ø5/32	VPLFD3.5x7-10E⑥⑦-5/32J	
			ø6	VPLFD3.5x7-10E⑥⑦-6J				ø1/4	VPLFD3.5x7-10E⑥⑦-1/4J	
		15	ø3	VPLFD3.5x7-15E⑥⑦-3J			15	ø1/8	VPLFD3.5x7-15E⑥⑦-1/8J	
			ø4	VPLFD3.5x7-15E⑥⑦-4J				ø5/32	VPLFD3.5x7-15E⑥⑦-5/32J	
			ø6	VPLFD3.5x7-15E⑥⑦-6J				ø1/4	VPLFD3.5x7-15E⑥⑦-1/4J	
		20	ø3	VPLFD3.5x7-20E⑥⑦-3J			20	ø1/8	VPLFD3.5x7-20E⑥⑦-1/8J	
			ø4	VPLFD3.5x7-20E⑥⑦-4J				ø5/32	VPLFD3.5x7-20E⑥⑦-5/32J	
			ø6	VPLFD3.5x7-20E⑥⑦-6J				ø1/4	VPLFD3.5x7-20E⑥⑦-1/4J	
	4×10	5	ø3	VPLFD4x10-5E⑥⑦-3J		4×10	5	ø1/8	VPLFD4x10-5E⑥⑦-1/8J	
			ø4	VPLFD4x10-5E⑥⑦-4J				ø5/32	VPLFD4x10-5E⑥⑦-5/32J	
			ø6	VPLFD4x10-5E⑥⑦-6J				ø1/4	VPLFD4x10-5E⑥⑦-1/4J	
		10	ø3	VPLFD4x10-10E⑥⑦-3J			10	ø1/8	VPLFD4x10-10E⑥⑦-1/8J	
			ø4	VPLFD4x10-10E⑥⑦-4J				ø5/32	VPLFD4x10-10E⑥⑦-5/32J	
			ø6	VPLFD4x10-10E⑥⑦-6J				ø1/4	VPLFD4x10-10E⑥⑦-1/4J	
		15	ø3	VPLFD4x10-15E⑥⑦-3J			15	ø1/8	VPLFD4x10-15E⑥⑦-1/8J	
			ø4	VPLFD4x10-15E⑥⑦-4J				ø5/32	VPLFD4x10-15E⑥⑦-5/32J	
			ø6	VPLFD4x10-15E⑥⑦-6J				ø1/4	VPLFD4x10-15E⑥⑦-1/4J	
		20	ø3	VPLFD4x10-20E⑥⑦-3J			20	ø1/8	VPLFD4x10-20E⑥⑦-1/8J	
			ø4	VPLFD4x10-20E⑥⑦-4J				ø5/32	VPLFD4x10-20E⑥⑦-5/32J	
			ø6	VPLFD4x10-20E⑥⑦-6J				ø1/4	VPLFD4x10-20E⑥⑦-1/4J	
	4×20	5	ø3	VPLFD4x20-5E⑥⑦-3J		4×20	5	ø1/8	VPLFD4x20-5E⑥⑦-1/8J	
			ø4	VPLFD4x20-5E⑥⑦-4J				ø5/32	VPLFD4x20-5E⑥⑦-5/32J	
			ø6	VPLFD4x20-5E⑥⑦-6J				ø1/4	VPLFD4x20-5E⑥⑦-1/4J	
		10	ø3	VPLFD4x20-10E⑥⑦-3J			10	ø1/8	VPLFD4x20-10E⑥⑦-1/8J	
			ø4	VPLFD4x20-10E⑥⑦-4J				ø5/32	VPLFD4x20-10E⑥⑦-5/32J	
			ø6	VPLFD4x20-10E⑥⑦-6J				ø1/4	VPLFD4x20-10E⑥⑦-1/4J	
		15	ø3	VPLFD4x20-15E⑥⑦-3J			15	ø1/8	VPLFD4x20-15E⑥⑦-1/8J	
			ø4	VPLFD4x20-15E⑥⑦-4J				ø5/32	VPLFD4x20-15E⑥⑦-5/32J	
			ø6	VPLFD4x20-15E⑥⑦-6J				ø1/4	VPLFD4x20-15E⑥⑦-1/4J	
		20	ø3	VPLFD4x20-20E⑥⑦-3J			20	ø1/8	VPLFD4x20-20E⑥⑦-1/8J	
			ø4	VPLFD4x20-20E⑥⑦-4J				ø5/32	VPLFD4x20-20E⑥⑦-5/32J	
			ø6	VPLFD4x20-20E⑥⑦-6J				ø1/4	VPLFD4x20-20E⑥⑦-1/4J	
	4×30	5	ø3	VPLFD4x30-5E⑥⑦-3J*2		4×30	5	ø1/8	VPLFD4x30-5E⑥⑦-1/8J*2	
			ø4	VPLFD4x30-5E⑥⑦-4J*2				ø5/32	VPLFD4x30-5E⑥⑦-5/32J*2	
			ø6	VPLFD4x30-5E⑥⑦-6J*2				ø1/4	VPLFD4x30-5E⑥⑦-1/4J*2	
		10	ø3	VPLFD4x30-10E⑥⑦-3J*2			10	ø1/8	VPLFD4x30-10E⑥⑦-1/8J*2	
			ø4	VPLFD4x30-10E⑥⑦-4J*2				ø5/32	VPLFD4x30-10E⑥⑦-5/32J*2	
			ø6	VPLFD4x30-10E⑥⑦-6J*2				ø1/4	VPLFD4x30-10E⑥⑦-1/4J*2	
		15	ø3	VPLFD4x30-15E⑥⑦-3J*2			15	ø1/8	VPLFD4x30-15E⑥⑦-1/8J*2	
			ø4	VPLFD4x30-15E⑥⑦-4J*2				ø5/32	VPLFD4x30-15E⑥⑦-5/32J*2	
			ø6	VPLFD4x30-15E⑥⑦-6J*2				ø1/4	VPLFD4x30-15E⑥⑦-1/4J*2	
		20	ø3	VPLFD4x30-20E⑥⑦-3J*2			20	ø1/8	VPLFD4x30-20E⑥⑦-1/8J*2	
			ø4	VPLFD4x30-20E⑥⑦-4J*2				ø5/32	VPLFD4x30-20E⑥⑦-5/32J*2	
			ø6	VPLFD4x30-20E⑥⑦-6J*2				ø1/4	VPLFD4x30-20E⑥⑦-1/4J*2	

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type, Side port, Push-in fitting, Low dust emission **VPLFD** Pad size 5×10mm to 5×30mm	5×10	5	ø3	VPLFD5x10-5E⑥⑦-3J	M6	5×10	5	ø1/8	VPLFD5x10-5E⑥⑦-1/8J	M6
			ø4	VPLFD5x10-5E⑥⑦-4J				ø5/32	VPLFD5x10-5E⑥⑦-5/32J	
			ø6	VPLFD5x10-5E⑥⑦-6J				ø1/4	VPLFD5x10-5E⑥⑦-1/4J	
		10	ø3	VPLFD5x10-10E⑥⑦-3J			10	ø1/8	VPLFD5x10-10E⑥⑦-1/8J	
			ø4	VPLFD5x10-10E⑥⑦-4J				ø5/32	VPLFD5x10-10E⑥⑦-5/32J	
			ø6	VPLFD5x10-10E⑥⑦-6J				ø1/4	VPLFD5x10-10E⑥⑦-1/4J	
		15	ø3	VPLFD5x10-15E⑥⑦-3J			15	ø1/8	VPLFD5x10-15E⑥⑦-1/8J	
			ø4	VPLFD5x10-15E⑥⑦-4J				ø5/32	VPLFD5x10-15E⑥⑦-5/32J	
			ø6	VPLFD5x10-15E⑥⑦-6J				ø1/4	VPLFD5x10-15E⑥⑦-1/4J	
		20	ø3	VPLFD5x10-20E⑥⑦-3J			20	ø1/8	VPLFD5x10-20E⑥⑦-1/8J	
			ø4	VPLFD5x10-20E⑥⑦-4J				ø5/32	VPLFD5x10-20E⑥⑦-5/32J	
			ø6	VPLFD5x10-20E⑥⑦-6J				ø1/4	VPLFD5x10-20E⑥⑦-1/4J	
	5×20	5	ø3	VPLFD5x20-5E⑥⑦-3J		5×20	5	ø1/8	VPLFD5x20-5E⑥⑦-1/8J	
			ø4	VPLFD5x20-5E⑥⑦-4J				ø5/32	VPLFD5x20-5E⑥⑦-5/32J	
			ø6	VPLFD5x20-5E⑥⑦-6J				ø1/4	VPLFD5x20-5E⑥⑦-1/4J	
		10	ø3	VPLFD5x20-10E⑥⑦-3J			10	ø1/8	VPLFD5x20-10E⑥⑦-1/8J	
			ø4	VPLFD5x20-10E⑥⑦-4J				ø5/32	VPLFD5x20-10E⑥⑦-5/32J	
			ø6	VPLFD5x20-10E⑥⑦-6J				ø1/4	VPLFD5x20-10E⑥⑦-1/4J	
		15	ø3	VPLFD5x20-15E⑥⑦-3J			15	ø1/8	VPLFD5x20-15E⑥⑦-1/8J	
			ø4	VPLFD5x20-15E⑥⑦-4J				ø5/32	VPLFD5x20-15E⑥⑦-5/32J	
			ø6	VPLFD5x20-15E⑥⑦-6J				ø1/4	VPLFD5x20-15E⑥⑦-1/4J	
		20	ø3	VPLFD5x20-20E⑥⑦-3J			20	ø1/8	VPLFD5x20-20E⑥⑦-1/8J	
			ø4	VPLFD5x20-20E⑥⑦-4J				ø5/32	VPLFD5x20-20E⑥⑦-5/32J	
			ø6	VPLFD5x20-20E⑥⑦-6J				ø1/4	VPLFD5x20-20E⑥⑦-1/4J	
	5×30	5	ø3	VPLFD5x30-5E⑥⑦-3J		5×30	5	ø1/8	VPLFD5x30-5E⑥⑦-1/8J	
			ø4	VPLFD5x30-5E⑥⑦-4J				ø5/32	VPLFD5x30-5E⑥⑦-5/32J	
			ø6	VPLFD5x30-5E⑥⑦-6J				ø1/4	VPLFD5x30-5E⑥⑦-1/4J	
		10	ø3	VPLFD5x30-10E⑥⑦-3J			10	ø1/8	VPLFD5x30-10E⑥⑦-1/8J	
			ø4	VPLFD5x30-10E⑥⑦-4J				ø5/32	VPLFD5x30-10E⑥⑦-5/32J	
			ø6	VPLFD5x30-10E⑥⑦-6J				ø1/4	VPLFD5x30-10E⑥⑦-1/4J	
		15	ø3	VPLFD5x30-15E⑥⑦-3J			15	ø1/8	VPLFD5x30-15E⑥⑦-1/8J	
			ø4	VPLFD5x30-15E⑥⑦-4J				ø5/32	VPLFD5x30-15E⑥⑦-5/32J	
			ø6	VPLFD5x30-15E⑥⑦-6J				ø1/4	VPLFD5x30-15E⑥⑦-1/4J	
		20	ø3	VPLFD5x30-20E⑥⑦-3J			20	ø1/8	VPLFD5x30-20E⑥⑦-1/8J	
			ø4	VPLFD5x30-20E⑥⑦-4J				ø5/32	VPLFD5x30-20E⑥⑦-5/32J	
			ø6	VPLFD5x30-20E⑥⑦-6J				ø1/4	VPLFD5x30-20E⑥⑦-1/4J	

Notes
*1. Barb fitting type holders are also available. Contact us for the details.
*2. Urethane (U) and Fluoro (F) are not available.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.715
Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Oval Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (mm)	Model code	Connection config. code	Pad size (A×B) (mm)	Stroke (mm)	Tube O.D. (inch)	Model code	Connection config. code
Spring type Side port, Push-in fitting, Low dust emission **VPLFD** Pad size 6×10mm to 8×30mm	6×10	5	ø3	VPLFD6x10-5E[6|7]-3J	M6	6×10	5	ø1/8	VPLFD6x10-5E[6|7]-1/8J	M6
			ø4	VPLFD6x10-5E[6|7]-4J				ø5/32	VPLFD6x10-5E[6|7]-5/32J	
			ø6	VPLFD6x10-5E[6|7]-6J				ø1/4	VPLFD6x10-5E[6|7]-1/4J	
		10	ø3	VPLFD6x10-10E[6|7]-3J			10	ø1/8	VPLFD6x10-10E[6|7]-1/8J	
			ø4	VPLFD6x10-10E[6|7]-4J				ø5/32	VPLFD6x10-10E[6|7]-5/32J	
			ø6	VPLFD6x10-10E[6|7]-6J				ø1/4	VPLFD6x10-10E[6|7]-1/4J	
		15	ø3	VPLFD6x10-15E[6|7]-3J			15	ø1/8	VPLFD6x10-15E[6|7]-1/8J	
			ø4	VPLFD6x10-15E[6|7]-4J				ø5/32	VPLFD6x10-15E[6|7]-5/32J	
			ø6	VPLFD6x10-15E[6|7]-6J				ø1/4	VPLFD6x10-15E[6|7]-1/4J	
		20	ø3	VPLFD6x10-20E[6|7]-3J			20	ø1/8	VPLFD6x10-20E[6|7]-1/8J	
			ø4	VPLFD6x10-20E[6|7]-4J				ø5/32	VPLFD6x10-20E[6|7]-5/32J	
			ø6	VPLFD6x10-20E[6|7]-6J				ø1/4	VPLFD6x10-20E[6|7]-1/4J	
	6×20	5	ø3	VPLFD6x20-5E[6|7]-3J		6×20	5	ø1/8	VPLFD6x20-5E[6|7]-1/8J	
			ø4	VPLFD6x20-5E[6|7]-4J				ø5/32	VPLFD6x20-5E[6|7]-5/32J	
			ø6	VPLFD6x20-5E[6|7]-6J				ø1/4	VPLFD6x20-5E[6|7]-1/4J	
		10	ø3	VPLFD6x20-10E[6|7]-3J			10	ø1/8	VPLFD6x20-10E[6|7]-1/8J	
			ø4	VPLFD6x20-10E[6|7]-4J				ø5/32	VPLFD6x20-10E[6|7]-5/32J	
			ø6	VPLFD6x20-10E[6|7]-6J				ø1/4	VPLFD6x20-10E[6|7]-1/4J	
		15	ø3	VPLFD6x20-15E[6|7]-3J			15	ø1/8	VPLFD6x20-15E[6|7]-1/8J	
			ø4	VPLFD6x20-15E[6|7]-4J				ø5/32	VPLFD6x20-15E[6|7]-5/32J	
			ø6	VPLFD6x20-15E[6|7]-6J				ø1/4	VPLFD6x20-15E[6|7]-1/4J	
		20	ø3	VPLFD6x20-20E[6|7]-3J			20	ø1/8	VPLFD6x20-20E[6|7]-1/8J	
			ø4	VPLFD6x20-20E[6|7]-4J				ø5/32	VPLFD6x20-20E[6|7]-5/32J	
			ø6	VPLFD6x20-20E[6|7]-6J				ø1/4	VPLFD6x20-20E[6|7]-1/4J	
	6×30	5	ø3	VPLFD6x30-5E[6|7]-3J		6×30	5	ø1/8	VPLFD6x30-5E[6|7]-1/8J	
			ø4	VPLFD6x30-5E[6|7]-4J				ø5/32	VPLFD6x30-5E[6|7]-5/32J	
			ø6	VPLFD6x30-5E[6|7]-6J				ø1/4	VPLFD6x30-5E[6|7]-1/4J	
		10	ø3	VPLFD6x30-10E[6|7]-3J			10	ø1/8	VPLFD6x30-10E[6|7]-1/8J	
			ø4	VPLFD6x30-10E[6|7]-4J				ø5/32	VPLFD6x30-10E[6|7]-5/32J	
			ø6	VPLFD6x30-10E[6|7]-6J				ø1/4	VPLFD6x30-10E[6|7]-1/4J	
		15	ø3	VPLFD6x30-15E[6|7]-3J			15	ø1/8	VPLFD6x30-15E[6|7]-1/8J	
			ø4	VPLFD6x30-15E[6|7]-4J				ø5/32	VPLFD6x30-15E[6|7]-5/32J	
			ø6	VPLFD6x30-15E[6|7]-6J				ø1/4	VPLFD6x30-15E[6|7]-1/4J	
		20	ø3	VPLFD6x30-20E[6|7]-3J			20	ø1/8	VPLFD6x30-20E[6|7]-1/8J	
			ø4	VPLFD6x30-20E[6|7]-4J				ø5/32	VPLFD6x30-20E[6|7]-5/32J	
			ø6	VPLFD6x30-20E[6|7]-6J				ø1/4	VPLFD6x30-20E[6|7]-1/4J	
	8×20	5	ø3	VPLFD8x20-5E[6|7]-3J		8×20	5	ø1/8	VPLFD8x20-5E[6|7]-1/8J	
			ø4	VPLFD8x20-5E[6|7]-4J				ø5/32	VPLFD8x20-5E[6|7]-5/32J	
			ø6	VPLFD8x20-5E[6|7]-6J				ø1/4	VPLFD8x20-5E[6|7]-1/4J	
		10	ø3	VPLFD8x20-10E[6|7]-3J			10	ø1/8	VPLFD8x20-10E[6|7]-1/8J	
			ø4	VPLFD8x20-10E[6|7]-4J				ø5/32	VPLFD8x20-10E[6|7]-5/32J	
			ø6	VPLFD8x20-10E[6|7]-6J				ø1/4	VPLFD8x20-10E[6|7]-1/4J	
		15	ø3	VPLFD8x20-15E[6|7]-3J			15	ø1/8	VPLFD8x20-15E[6|7]-1/8J	
			ø4	VPLFD8x20-15E[6|7]-4J				ø5/32	VPLFD8x20-15E[6|7]-5/32J	
			ø6	VPLFD8x20-15E[6|7]-6J				ø1/4	VPLFD8x20-15E[6|7]-1/4J	
		20	ø3	VPLFD8x20-20E[6|7]-3J			20	ø1/8	VPLFD8x20-20E[6|7]-1/8J	
			ø4	VPLFD8x20-20E[6|7]-4J				ø5/32	VPLFD8x20-20E[6|7]-5/32J	
			ø6	VPLFD8x20-20E[6|7]-6J				ø1/4	VPLFD8x20-20E[6|7]-1/4J	
	8×30	5	ø3	VPLFD8x30-5E[6|7]-3J		8×30	5	ø1/8	VPLFD8x30-5E[6|7]-1/8J	
			ø4	VPLFD8x30-5E[6|7]-4J				ø5/32	VPLFD8x30-5E[6|7]-5/32J	
			ø6	VPLFD8x30-5E[6|7]-6J				ø1/4	VPLFD8x30-5E[6|7]-1/4J	
		10	ø3	VPLFD8x30-10E[6|7]-3J			10	ø1/8	VPLFD8x30-10E[6|7]-1/8J	
			ø4	VPLFD8x30-10E[6|7]-4J				ø5/32	VPLFD8x30-10E[6|7]-5/32J	
			ø6	VPLFD8x30-10E[6|7]-6J				ø1/4	VPLFD8x30-10E[6|7]-1/4J	
		15	ø3	VPLFD8x30-15E[6|7]-3J			15	ø1/8	VPLFD8x30-15E[6|7]-1/8J	
			ø4	VPLFD8x30-15E[6|7]-4J				ø5/32	VPLFD8x30-15E[6|7]-5/32J	
			ø6	VPLFD8x30-15E[6|7]-6J				ø1/4	VPLFD8x30-15E[6|7]-1/4J	
		20	ø3	VPLFD8x30-20E[6|7]-3J			20	ø1/8	VPLFD8x30-20E[6|7]-1/8J	
			ø4	VPLFD8x30-20E[6|7]-4J				ø5/32	VPLFD8x30-20E[6|7]-5/32J	
			ø6	VPLFD8x30-20E[6|7]-6J				ø1/4	VPLFD8x30-20E[6|7]-1/4J	

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Holder type	Pad size (A×B) (mm)	Stroke (mm)	Male thread size	Model code (mm size)	Connection config. code
Spring type, Side port, Female thread, Low dust emission VPLFD 	2×4	5	M6×1	VPLFD2x4-5E⑥⑦-M6	M6
		10	M6×1	VPLFD2x4-10E⑥⑦-M6	
		15	M6×1	VPLFD2x4-15E⑥⑦-M6	
		20	M6×1	VPLFD2x4-20E⑥⑦-M6	
	3.5×7	5	M6×1	VPLFD3.5x7-5E⑥⑦-M6	
		10	M6×1	VPLFD3.5x7-10E⑥⑦-M6	
		15	M6×1	VPLFD3.5x7-15E⑥⑦-M6	
		20	M6×1	VPLFD3.5x7-20E⑥⑦-M6	
	4×10	5	M6×1	VPLFD4x10-5E⑥⑦-M6	
		10	M6×1	VPLFD4x10-10E⑥⑦-M6	
		15	M6×1	VPLFD4x10-15E⑥⑦-M6	
		20	M6×1	VPLFD4x10-20E⑥⑦-M6	
	4×20	5	M6×1	VPLFD4x20-5E⑥⑦-M6	
		10	M6×1	VPLFD4x20-10E⑥⑦-M6	
		15	M6×1	VPLFD4x20-15E⑥⑦-M6	
		20	M6×1	VPLFD4x20-20E⑥⑦-M6	
	4×30	5	M6×1	VPLFD4x30-5E⑥⑦-M6*2	
		10	M6×1	VPLFD4x30-10E⑥⑦-M6*2	
		15	M6×1	VPLFD4x30-15E⑥⑦-M6*2	
		20	M6×1	VPLFD4x30-20E⑥⑦-M6*2	
	5×10	5	M6×1	VPLFD5x10-5E⑥⑦-M6	
		10	M6×1	VPLFD5x10-10E⑥⑦-M6	
		15	M6×1	VPLFD5x10-15E⑥⑦-M6	
		20	M6×1	VPLFD5x10-20E⑥⑦-M6	
	5×20	5	M6×1	VPLFD5x20-5E⑥⑦-M6	
		10	M6×1	VPLFD5x20-10E⑥⑦-M6	
		15	M6×1	VPLFD5x20-15E⑥⑦-M6	
		20	M6×1	VPLFD5x20-20E⑥⑦-M6	
	5×30	5	M6×1	VPLFD5x30-5E⑥⑦-M6	
		10	M6×1	VPLFD5x30-10E⑥⑦-M6	
		15	M6×1	VPLFD5x30-15E⑥⑦-M6	
		20	M6×1	VPLFD5x30-20E⑥⑦-M6	
	6×10	5	M6×1	VPLFD6x10-5E⑥⑦-M6	
		10	M6×1	VPLFD6x10-10E⑥⑦-M6	
		15	M6×1	VPLFD6x10-15E⑥⑦-M6	
		20	M6×1	VPLFD6x10-20E⑥⑦-M6	
	6×20	5	M6×1	VPLFD6x20-5E⑥⑦-M6	
		10	M6×1	VPLFD6x20-10E⑥⑦-M6	
		15	M6×1	VPLFD6x20-15E⑥⑦-M6	
		20	M6×1	VPLFD6x20-20E⑥⑦-M6	
	6×30	5	M6×1	VPLFD6x30-5E⑥⑦-M6	
		10	M6×1	VPLFD6x30-10E⑥⑦-M6	
		15	M6×1	VPLFD6x30-15E⑥⑦-M6	
		20	M6×1	VPLFD6x30-20E⑥⑦-M6	
	8×20	5	M6×1	VPLFD8x20-5E⑥⑦-M6	
		10	M6×1	VPLFD8x20-10E⑥⑦-M6	
		15	M6×1	VPLFD8x20-15E⑥⑦-M6	
		20	M6×1	VPLFD8x20-20E⑥⑦-M6	
	8×30	5	M6×1	VPLFD8x30-5E⑥⑦-M6	
		10	M6×1	VPLFD8x30-10E⑥⑦-M6	
		15	M6×1	VPLFD8x30-15E⑥⑦-M6	
		20	M6×1	VPLFD8x30-20E⑥⑦-M6	

Notes
*1. Barb fitting type holders are also available. Contact us for the details.
*2. Urethane (U) and Fluoro (F) are not available.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment
(DLC. coating, Reformed surface, and Fluoro-coating)

Optional items ⇒ P.715
Surface treatment
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

Vacuum Pad Oval Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	
Fixed type, Direct mount, Standard VPE 	Metric male threads, metric female threads, taper pipe threads, parallel pipe threads and NPT threads are available. See Pad holder only (page 399) for variations. * Pads with the same configuration code as the holder can be connected. [See Pad rubber only (page 383)]. Applicable Screws: Metric male thread: M8, M10, M12, M14 Metric female thread: M5, M8 Taper pipe thread: R1/8, R1/4, R3/8, R1/2 Parallel pipe thread: G1/8, G1/4, G3/8, G1/2 NPT thread: NPT1/8, NPT1/4, NPT3/8, NPT1/2

Holder type	Pad size (A×B) (mm)	Female thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Spring type, Direct mount VPF Stroke 5.8mm	2×4	M14×1	VPF2x4E6 7 9 13	○	M6
	3.5×7	M14×1	VPF3.5x7E6 7 9 13	○	
	4×10	M14×1	VPF4x10E6 7 9 13	○	
	4×20	M14×1	VPF4x20E6 7 9 13	○	
	4×30	M14×1	VPF4x30E6 7 9 13*	○	
	5×10	M14×1	VPF5x10E6 7 9 13	○	
	5×20	M14×1	VPF5x20E6 7 9 13	○	
	5×30	M14×1	VPF5x30E6 7 9 13	○	
	6×10	M14×1	VPF6x10E6 7 9 13	○	
	6×20	M14×1	VPF6x20E6 7 9 13	○	
	6×30	M14×1	VPF6x30E6 7 9 13	○	
	8×20	M14×1	VPF8x20E6 7 9 13	○	
	8×30	M14×1	VPF8x30E6 7 9 13	○	

Notes
*Urethane (U) and Fluoro (F) are not available.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
9: -DC ⇒ Holder with dust catcher
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.715
Surface treatment
Dust Catcher (VPF)
Fall Prevention Valve
Swivel Joint for vacuum pad
Filter

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Tube O.D. (mm)	Model code	13 -S3 -S3 spec.	Connection config. code	Pad size (A×B) (mm)	Tube O.D. (inch)	Model code	13 -S3 -S3 spec.	Connection config. code
Screwed type, Top port, Push-in fitting, For oval pad	2×4	ø3	VPAE2x4E67-3J	—	E10	2×4	ø1/8	VPAE2x4E67-1/8J	—	E10
		ø4	VPAE2x4E67-4J13	○			ø5/32	VPAE2x4E67-5/32J13	○	
		ø6	VPAE2x4E67-6J13	○			ø1/4	VPAE2x4E67-1/4J	—	
	3.5×7	ø3	VPAE3.5x7E67-3J	—		3.5×7	ø1/8	VPAE3.5x7E67-1/8J	—	
		ø4	VPAE3.5x7E67-4J13	○			ø5/32	VPAE3.5x7E67-5/32J13	○	
		ø6	VPAE3.5x7E67-6J13	○			ø1/4	VPAE3.5x7E67-1/4J	—	
	4×10	ø3	VPAE4x10E67-3J	—		4×10	ø1/8	VPAE4x10E67-1/8J	—	
		ø4	VPAE4x10E67-4J13	○			ø5/32	VPAE4x10E67-5/32J13	○	
		ø6	VPAE4x10E67-6J13	○			ø1/4	VPAE4x10E67-1/4J	—	
	4×20	ø3	VPAE4x20E67-3J	—	E20	4×20	ø1/8	VPAE4x20E67-1/8J	—	E20
		ø4	VPAE4x20E67-4J13	○			ø5/32	VPAE4x20E67-5/32J13	○	
		ø6	VPAE4x20E67-6J13	○			ø1/4	VPAE4x20E67-1/4J	—	
	4×30	ø3	VPAE4x30E67-3J*2	—		4×30	ø1/8	VPAE4x30E67-1/8J*2	—	
		ø4	VPAE4x30E67-4J13*2	○			ø5/32	VPAE4x30E67-5/32J13*2	○	
		ø6	VPAE4x30E67-6J13*2	○			ø1/4	VPAE4x30E67-1/4J*2	—	
	5×10	ø3	VPAE5x10E67-3J	—	E10	5×10	ø1/8	VPAE5x10E67-1/8J	—	E10
		ø4	VPAE5x10E67-4J13	○			ø5/32	VPAE5x10E67-5/32J13	○	
		ø6	VPAE5x10E67-6J13	○			ø1/4	VPAE5x10E67-1/4J	—	
	5×20	ø3	VPAE5x20E67-3J	—	E20	5×20	ø1/8	VPAE5x20E67-1/8J	—	E20
		ø4	VPAE5x20E67-4J13	○			ø5/32	VPAE5x20E67-5/32J13	○	
		ø6	VPAE5x20E67-6J13	○			ø1/4	VPAE5x20E67-1/4J	—	
	5×30	ø3	VPAE5x30E67-3J	—		5×30	ø1/8	VPAE5x30E67-1/8J	—	
		ø4	VPAE5x30E67-4J13	○			ø5/32	VPAE5x30E67-5/32J13	○	
		ø6	VPAE5x30E67-6J13	○			ø1/4	VPAE5x30E67-1/4J	—	
	6×10	ø3	VPAE6x10E67-3J	—	E10	6×10	ø1/8	VPAE6x10E67-1/8J	—	E10
		ø4	VPAE6x10E67-4J13	○			ø5/32	VPAE6x10E67-5/32J13	○	
		ø6	VPAE6x10E67-6J13	○			ø1/4	VPAE6x10E67-1/4J	—	
	6×20	ø3	VPAE6x20E67-3J	—	E20	6×20	ø1/8	VPAE6x20E67-1/8J	—	E20
		ø4	VPAE6x20E67-4J13	○			ø5/32	VPAE6x20E67-5/32J13	○	
		ø6	VPAE6x20E67-6J13	○			ø1/4	VPAE6x20E67-1/4J	—	
	6×30	ø3	VPAE6x30E67-3J	—		6×30	ø1/8	VPAE6x30E67-1/8J	—	
		ø4	VPAE6x30E67-4J13	○			ø5/32	VPAE6x30E67-5/32J13	○	
		ø6	VPAE6x30E67-6J13	○			ø1/4	VPAE6x30E67-1/4J	—	
	8×20	ø3	VPAE8x20E67-3J	—		8×20	ø1/8	VPAE8x20E67-1/8J	—	
		ø4	VPAE8x20E67-4J13	○			ø5/32	VPAE8x20E67-5/32J13	○	
		ø6	VPAE8x20E67-6J13	○			ø1/4	VPAE8x20E67-1/4J	—	
	8×30	ø3	VPAE8x30E67-3J	—		8×30	ø1/8	VPAE8x30E67-1/8J	—	
		ø4	VPAE8x30E67-4J13	○			ø5/32	VPAE8x30E67-5/32J13	○	
		ø6	VPAE8x30E67-6J13	○			ø1/4	VPAE8x30E67-1/4J	—	

Holder type	Pad size (A×B) (mm)	Male thread size	Model code	13 -S3 -S3 spec.	Connection config. code
Screwed type, Top port, Female thread, For oval pad	2×4	M5×0.8	VPAE2x4E67-M513	○	E10
	3.5×7	M5×0.8	VPAE3.5x7E67-M513	○	
	4×10	M5×0.8	VPAE4x10E67-M513	○	
	4×20	M5×0.8	VPAE4x20E67-M513	○	E20
	4×30	M5×0.8	VPAE4x30E67-M513*2	○	
	5×10	M5×0.8	VPAE5x10E67-M513	○	E10
	5×20	M5×0.8	VPAE5x20E67-M513	○	E20
	5×30	M5×0.8	VPAE5x30E67-M513	○	
	6×10	M5×0.8	VPAE6x10E67-M513	○	E10
	6×20	M5×0.8	VPAE6x20E67-M513	○	E20
	6×30	M5×0.8	VPAE6x30E67-M513	○	
	8×20	M5×0.8	VPAE8x20E67-M513	○	
	8×30	M5×0.8	VPAE8x30E67-M513	○	

Notes
*1. Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.
*2. Urethane (U) and Fluoro (F) are not available.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
7: Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
13: -S3 ⇒ -S3 spec. (○ in the lists: Available)
*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.
*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.715
Surface treatment

Vacuum Pad Oval Type

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad size (A×B) (mm)	Tube O.D. (mm)	Model code	⓭ -S3 -S3 spec.	Connection config. code	Pad size (A×B) (mm)	Tube O.D. (inch)	Model code	⓭ -S3 -S3 spec.	Connection config. code
Screwed type, Side port, Push-in fitting, For oval pad VPBE	2×4	ø3	VPBE2x4E⑥⑦-3J	—	E10	2×4	ø1/8	VPBE2x4E⑥⑦-1/8J	—	E10
		ø4	VPBE2x4E⑥⑦-4J⑬	○			ø5/32	VPBE2x4E⑥⑦-5/32J⑬	○	
		ø6	VPBE2x4E⑥⑦-6J⑬	○			ø1/4	VPBE2x4E⑥⑦-1/4J	—	
	3.5×7	ø3	VPBE3.5x7E⑥⑦-3J	—		3.5×7	ø1/8	VPBE3.5x7E⑥⑦-1/8J	—	
		ø4	VPBE3.5x7E⑥⑦-4J⑬	○			ø5/32	VPBE3.5x7E⑥⑦-5/32J⑬	○	
		ø6	VPBE3.5x7E⑥⑦-6J⑬	○			ø1/4	VPBE3.5x7E⑥⑦-1/4J	—	
	4×10	ø3	VPBE4x10E⑥⑦-3J	—		4×10	ø1/8	VPBE4x10E⑥⑦-1/8J	—	
		ø4	VPBE4x10E⑥⑦-4J⑬	○			ø5/32	VPBE4x10E⑥⑦-5/32J⑬	○	
		ø6	VPBE4x10E⑥⑦-6J⑬	○			ø1/4	VPBE4x10E⑥⑦-1/4J	—	
	4×20	ø3	VPBE4x20E⑥⑦-3J	—	E20	4×20	ø1/8	VPBE4x20E⑥⑦-1/8J	—	E20
		ø4	VPBE4x20E⑥⑦-4J⑬	○			ø5/32	VPBE4x20E⑥⑦-5/32J⑬	○	
		ø6	VPBE4x20E⑥⑦-6J⑬	○			ø1/4	VPBE4x20E⑥⑦-1/4J	—	
	4×30	ø3	VPBE4x30E⑥⑦-3J*2	—		4×30	ø1/8	VPBE4x30E⑥⑦-1/8J*2	—	
		ø4	VPBE4x30E⑥⑦-4J⑬*2	○			ø5/32	VPBE4x30E⑥⑦-5/32J⑬*2	○	
		ø6	VPBE4x30E⑥⑦-6J⑬*2	○			ø1/4	VPBE4x30E⑥⑦-1/4J*2	—	
	5×10	ø3	VPBE5x10E⑥⑦-3J	—	E10	5×10	ø1/8	VPBE5x10E⑥⑦-1/8J	—	E10
		ø4	VPBE5x10E⑥⑦-4J⑬	○			ø5/32	VPBE5x10E⑥⑦-5/32J⑬	○	
		ø6	VPBE5x10E⑥⑦-6J⑬	○			ø1/4	VPBE5x10E⑥⑦-1/4J	—	
	5×20	ø3	VPBE5x20E⑥⑦-3J	—	E20	5×20	ø1/8	VPBE5x20E⑥⑦-1/8J	—	E20
		ø4	VPBE5x20E⑥⑦-4J⑬	○			ø5/32	VPBE5x20E⑥⑦-5/32J⑬	○	
		ø6	VPBE5x20E⑥⑦-6J⑬	○			ø1/4	VPBE5x20E⑥⑦-1/4J	—	
	5×30	ø3	VPBE5x30E⑥⑦-3J	—		5×30	ø1/8	VPBE5x30E⑥⑦-1/8J	—	
		ø4	VPBE5x30E⑥⑦-4J⑬	○			ø5/32	VPBE5x30E⑥⑦-5/32J⑬	○	
		ø6	VPBE5x30E⑥⑦-6J⑬	○			ø1/4	VPBE5x30E⑥⑦-1/4J	—	
	6×10	ø3	VPBE6x10E⑥⑦-3J	—	E10	6×10	ø1/8	VPBE6x10E⑥⑦-1/8J	—	E10
		ø4	VPBE6x10E⑥⑦-4J⑬	○			ø5/32	VPBE6x10E⑥⑦-5/32J⑬	○	
		ø6	VPBE6x10E⑥⑦-6J⑬	○			ø1/4	VPBE6x10E⑥⑦-1/4J	—	
	6×20	ø3	VPBE6x20E⑥⑦-3J	—	E20	6×20	ø1/8	VPBE6x20E⑥⑦-1/8J	—	E20
		ø4	VPBE6x20E⑥⑦-4J⑬	○			ø5/32	VPBE6x20E⑥⑦-5/32J⑬	○	
		ø6	VPBE6x20E⑥⑦-6J⑬	○			ø1/4	VPBE6x20E⑥⑦-1/4J	—	
	6×30	ø3	VPBE6x30E⑥⑦-3J	—		6×30	ø1/8	VPBE6x30E⑥⑦-1/8J	—	
		ø4	VPBE6x30E⑥⑦-4J⑬	○			ø5/32	VPBE6x30E⑥⑦-5/32J⑬	○	
		ø6	VPBE6x30E⑥⑦-6J⑬	○			ø1/4	VPBE6x30E⑥⑦-1/4J	—	
	8×20	ø3	VPBE8x20E⑥⑦-3J	—		8×20	ø1/8	VPBE8x20E⑥⑦-1/8J	—	
		ø4	VPBE8x20E⑥⑦-4J⑬	○			ø5/32	VPBE8x20E⑥⑦-5/32J⑬	○	
		ø6	VPBE8x20E⑥⑦-6J⑬	○			ø1/4	VPBE8x20E⑥⑦-1/4J	—	
	8×30	ø3	VPBE8x30E⑥⑦-3J	—		8×30	ø1/8	VPBE8x30E⑥⑦-1/8J	—	
		ø4	VPBE8x30E⑥⑦-4J⑬	○			ø5/32	VPBE8x30E⑥⑦-5/32J⑬	○	
		ø6	VPBE8x30E⑥⑦-6J⑬	○			ø1/4	VPBE8x30E⑥⑦-1/4J	—	

Holder type	Pad size (A×B) (mm)	Male thread size	Model code	⓭ -S3 -S3 spec.	Connection config. code
Screwed type, Side port, Female thread For oval pad VPBE	2×4	M5×0.8	VPBE2x4E⑥⑦-M5⑬	○	E10
	3.5×7	M5×0.8	VPBE3.5x7E⑥⑦-M5⑬	○	
	4×10	M5×0.8	VPBE4x10E⑥⑦-M5⑬	○	
	4×20	M5×0.8	VPBE4x20E⑥⑦-M5⑬	○	E20
	4×30	M5×0.8	VPBE4x30E⑥⑦-M5⑬*2	○	
	5×10	M5×0.8	VPBE5x10E⑥⑦-M5⑬	○	E10
	5×20	M5×0.8	VPBE5x20E⑥⑦-M5⑬	○	E20
	5×30	M5×0.8	VPBE5x30E⑥⑦-M5⑬	○	
	6×10	M5×0.8	VPBE6x10E⑥⑦-M5⑬	○	E10
	6×20	M5×0.8	VPBE6x20E⑥⑦-M5⑬	○	E20
	6×30	M5×0.8	VPBE6x30E⑥⑦-M5⑬	○	
	8×20	M5×0.8	VPBE8x20E⑥⑦-M5⑬	○	
	8×30	M5×0.8	VPBE8x30E⑥⑦-M5⑬	○	

Notes

*1. Holders are also available in Push-in fitting type for tube O.D. of 1.8 mm and 2 mm, and barb fitting type. Contact us for the details.

*2. Urethane (U) and Fluoro (F) are not available.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Options
⑦: Surface treatment (DLC. coating, Reformed surface, and Fluoro-coating)
⑬: -S3 ⇒ -S3 spec. (○ in the lists: Available)

*1. For "-S3 spec.", the release ring color is dark blue, and the gasket material is FKM+SUS316.

*2. For inch size push-in fitting, the release ring color is white even for "-S3 spec."

Optional items ⇒ P.715

Surface treatment

Optional items (○: Available)

7 Pad surface treatment (Suction mark-free)

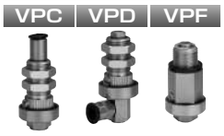
Pad size (mm)	5 Surface treatment code -DL DLC. coating	-ER Reformed surface	-FG Fluoro-coating	Connection config. code
2×4	○	○	○	E10
3.5×7	○	○	○	E10
4×10	○	○	○	E20
4×20	○	○	○	E20
4×30	○	○	○	E10
5×10	○	○	○	E20
5×20	○	○	○	E20
5×30	○	○	○	E10
6×10	○	○	○	E20
6×20	○	○	○	E20
6×30	○	○	○	E20
8×20	○	○	○	E20
8×30	○	○	○	E20
Material	S, F, SE	N, NE	S, SE	M6

Characteristics of surface treatment ► P.370

9 Dust Catcher: -DC

Optional	Connection config. code	-S3 spec.
Dust Catcher (-DC)	M6	○

Holder type: VPC | VPD | VPF



Characteristics of Dust Catcher ► P.371

10 Fall Prevention Valve: -ECV

Optional	Connection config. code	Model code
Fall Prevention Valve (-ECV)	M6	ECVM6-FM6

Characteristics of Fall Prevention Valve ► P.722

12 Filter: -F15, -F30

Optional	Filter area	Connection config. code	Model code
Pad Direct Mounting Filter (-F15)(-F30)	1.7cm² (-F15)	M6	VFF15-M6
	7cm² (-F30)	M6	VFF30-M6

Characteristics of Filter ► P.726

11 Swivel Joint: -FH, -FHH, -CFH

Optional	Swivel angle	Connection config. code	Model code
Ball Swivel Joint (-FH) (-FHH)	30° (-FH)	M6	FH20
	15° (-FHH)	M6	FH20-15

Characteristics of Ball Swivel Joint ► P.724

Optional	Connection config. code	-S3 spec.	Model code (*)
Flexible Swing Joint (-CFH)	M6	○	CFHM6-FM6

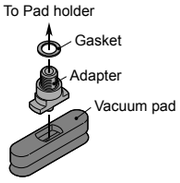
*When ordering a Flexible Swing Joint alone, please enter "-S3" at the end of the model code for -S3 specification.

Characteristics of Flexible Swing Joint ► P.725

See the page 680 for the model designation including optional items.

Replacement parts (○: -S3 spec. is available)

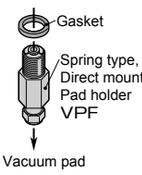
To Pad holder



Adapter for oval pad Model code	13 -S3 -S3 spec.	Applicable pad size. (mm)	Connection config. code
FSPH10-M6[13]	○	2×4, 3.5×7, □×10	M6
FSPH20-M6[13]	○	□×20, □×30	M6

Gasket for adapter (*) Model code	Applicable adapter	Connection config. code
GAS-M6 (Fall prevention)	FSPH10-M6, FSPH20-M6	M6
-S3 spec.		
GAS-M6-SUS	FSPH10-M6-S3, FSPH20-M6-S3	M6

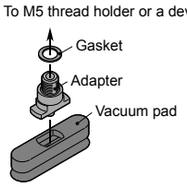
*Gasket for adapter is equipped with an Adapter. When the gasket alone is necessary, refer to "Gasket for adapter Model code" on the left.



Gasket Model code	Applicable pad size. (mm)	Connection config. code
VPFG10	2×4 to 8×30	M6

Rearrangement parts (○: -S3 spec. is available)

To M5 thread holder or a device

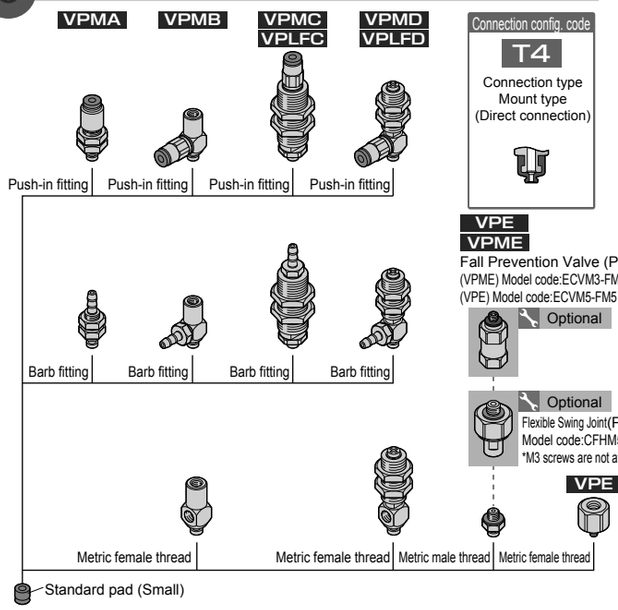


Adapter for oval pad Model code	13 -S3 -S3 spec.	Applicable pad size. (mm)
FSPH10-M5[13]	○	2×4, 3.5×7, □×10
FSPH20-M5[13]	○	□×20, □×30

*Gasket for adapter is equipped with an Adapter.

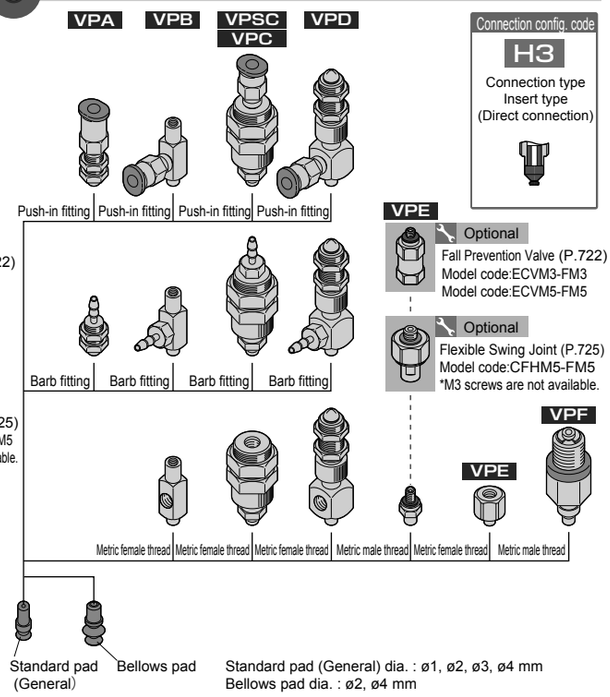
Vacuum Pad Configuration

Pad dia. : ø0.7, ø1, ø1.5, ø2, ø3, ø4 mm



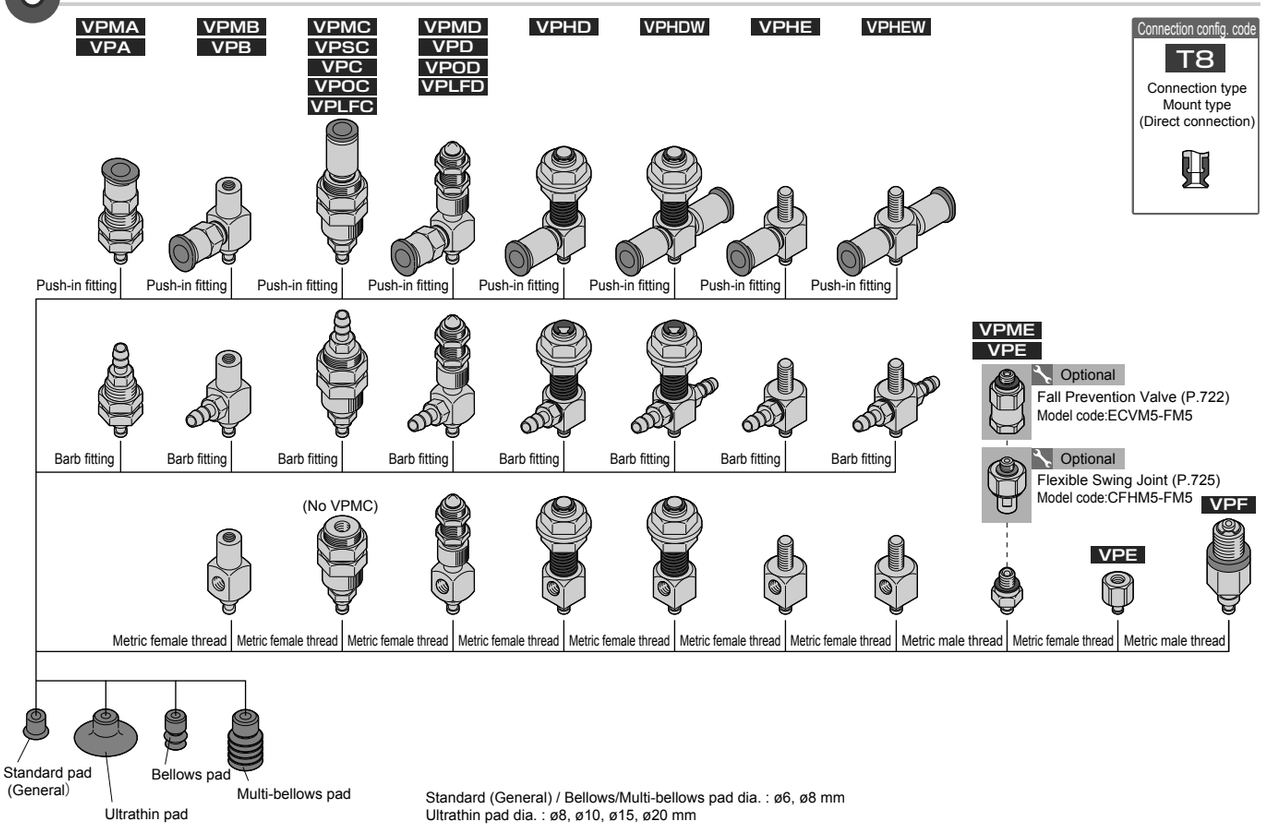
Standard pad (Small) dia. : ø0.7, ø1, ø1.5, ø2, ø3, ø4mm

Pad dia. : ø1, ø2, ø3, ø4 mm



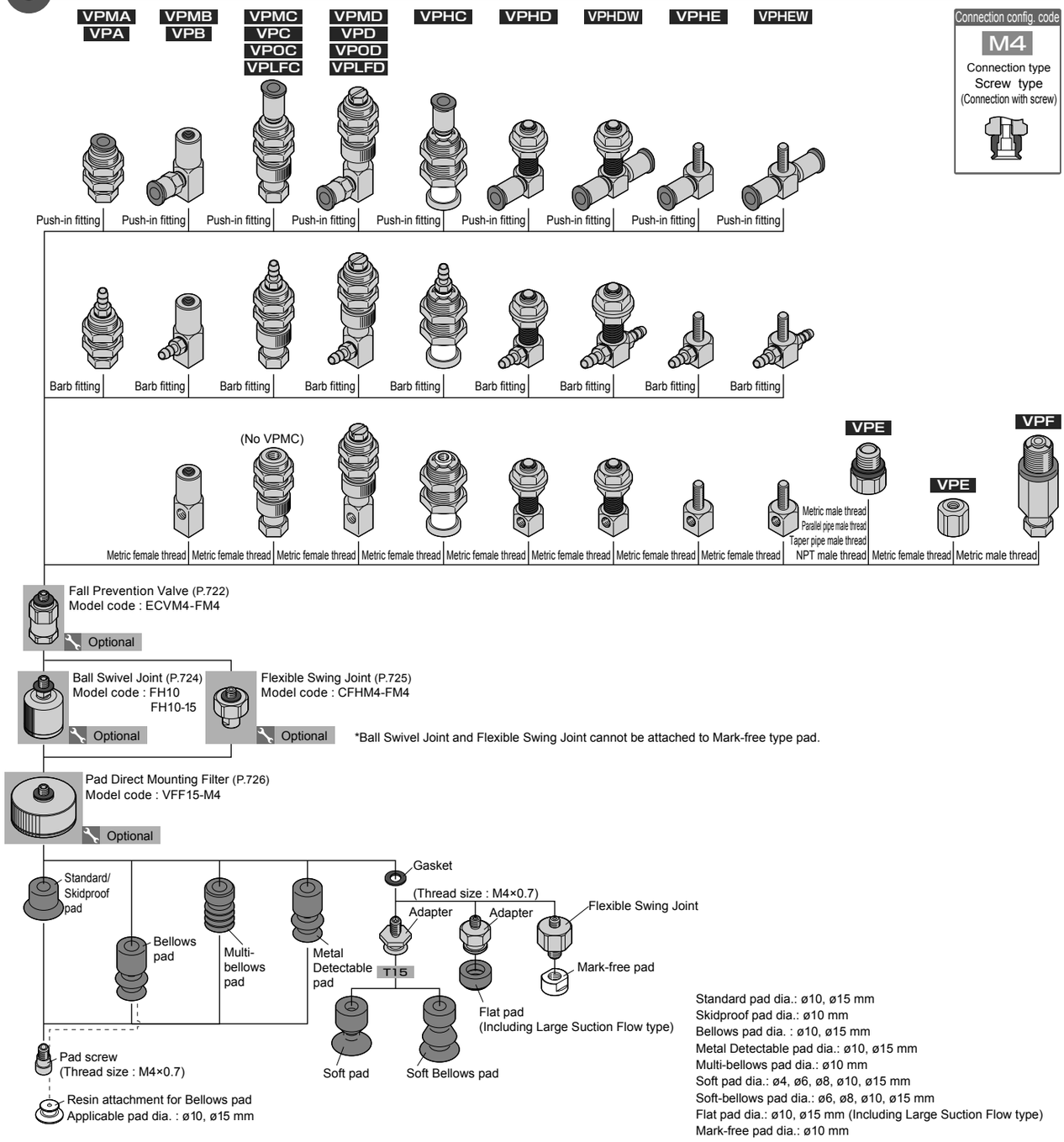
Standard pad (General) dia. : ø1, ø2, ø3, ø4 mm
Bellows pad dia. : ø2, ø4 mm

Pad dia. : ø6, ø8, ø10, ø15, ø20 ㎜



Standard (General) / Bellows/Multi-bellows pad dia. : ø6, ø8 mm
Ultrathin pad dia. : ø8, ø10, ø15, ø20 mm

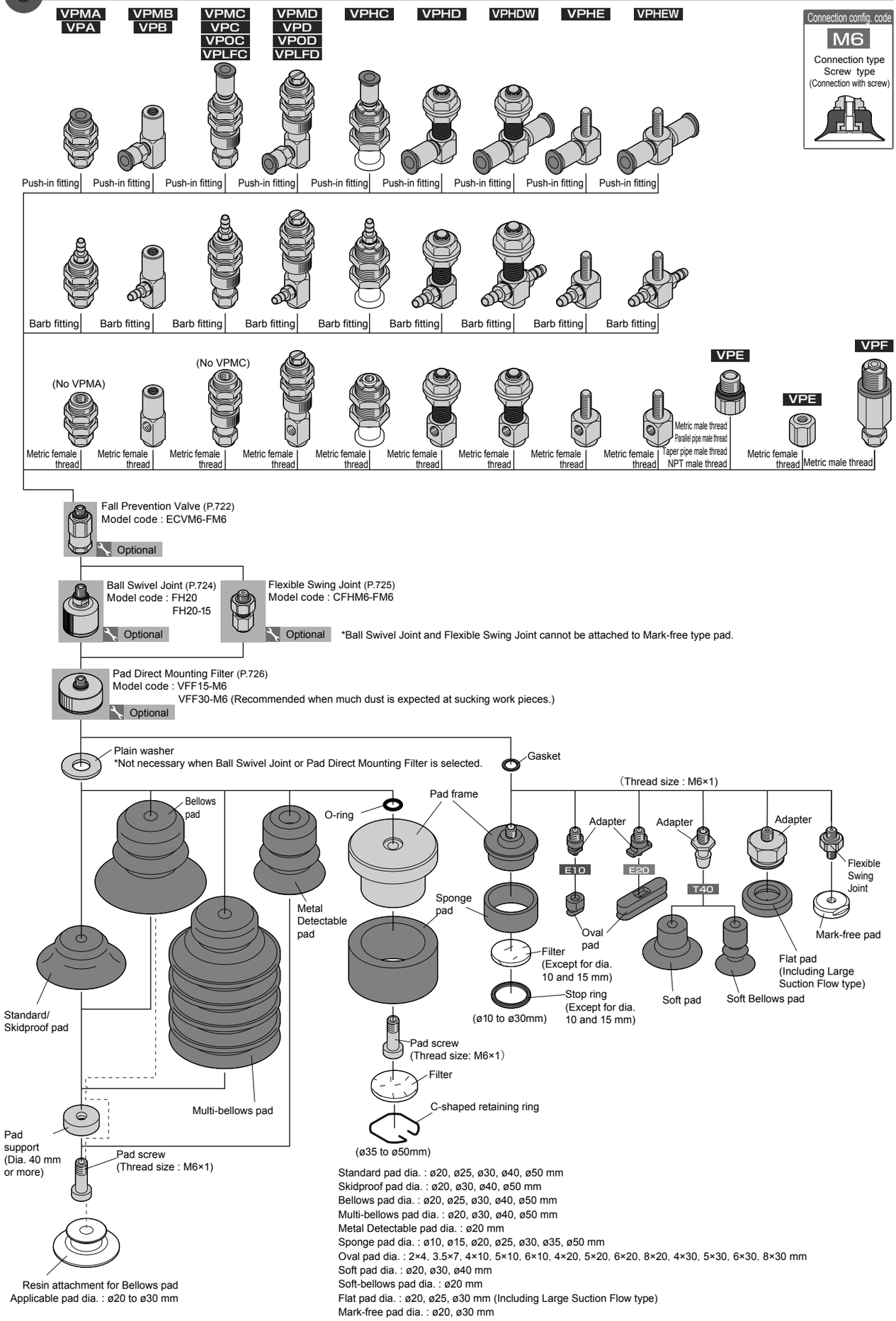
Pad dia. : ø4, ø6, ø8, ø10, ø15 mm



Standard pad dia.: ø10, ø15 mm
Skidproof pad dia.: ø10 mm
Bellows pad dia. : ø10, ø15 mm
Metal Detectable pad dia.: ø10, ø15 mm
Multi-bellows pad dia.: ø10 mm
Soft pad dia.: ø4, ø6, ø8, ø10, ø15 mm
Soft-bellows pad dia.: ø6, ø8, ø10, ø15 mm
Flat pad dia.: ø10, ø15 mm (Including Large Suction Flow type)
Mark-free pad dia.: ø10 mm

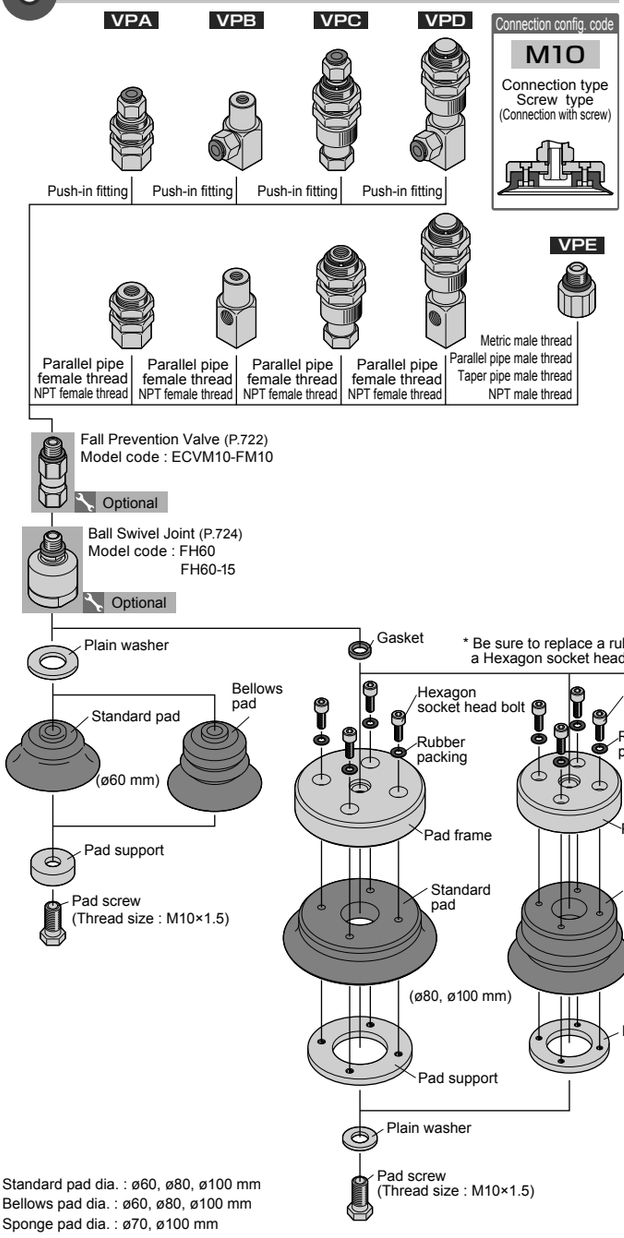
Vacuum Pad Configuration

Pad dia. : ø10, ø15, ø20, ø25, ø30, ø35, ø40, ø50 mm



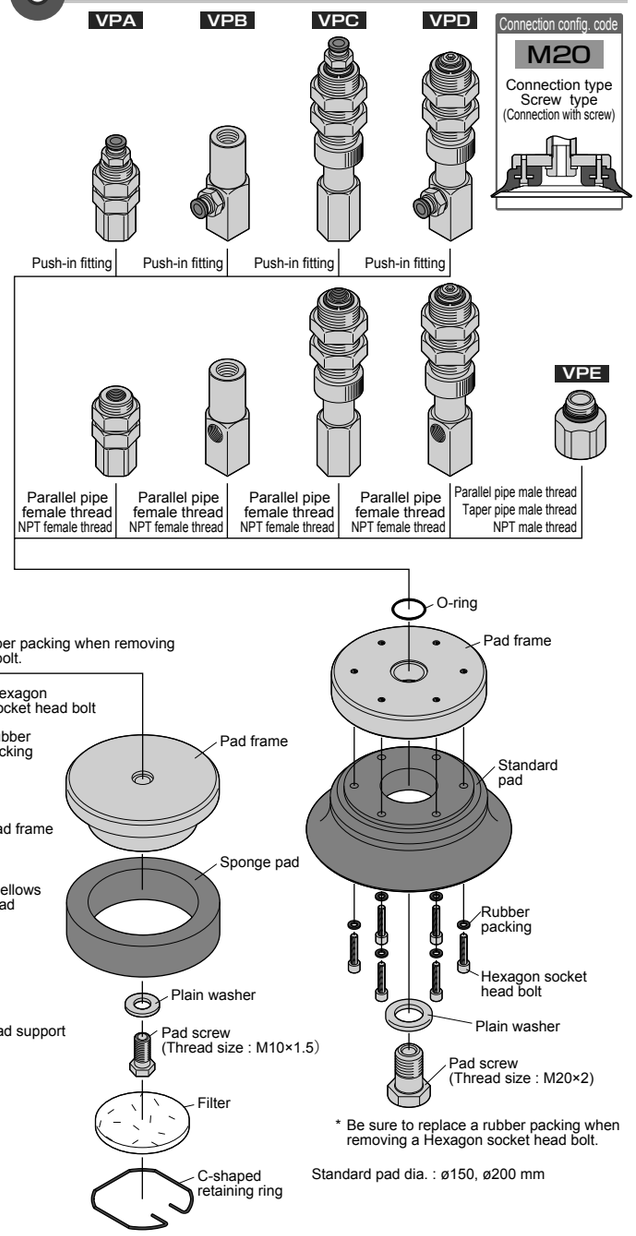
Standard pad dia. : ø20, ø25, ø30, ø40, ø50 mm
Skidproof pad dia. : ø20, ø30, ø40, ø50 mm
Bellows pad dia. : ø20, ø25, ø30, ø40, ø50 mm
Multi-bellows pad dia. : ø20, ø30, ø40, ø50 mm
Metal Detectable pad dia. : ø20 mm
Sponge pad dia. : ø10, ø15, ø20, ø25, ø30, ø35, ø50 mm
Oval pad dia. : 2×4, 3.5×7, 4×10, 5×10, 6×10, 4×20, 5×20, 6×20, 8×20, 4×30, 5×30, 6×30, 8×30 mm
Soft pad dia. : ø20, ø30, ø40 mm
Soft-bellows pad dia. : ø20 mm
Flat pad dia. : ø20, ø25, ø30 mm (Including Large Suction Flow type)
Mark-free pad dia. : ø20, ø30 mm

Pad dia. : ø60, ø70, ø80, ø100 mm



Standard pad dia. : ø60, ø80, ø100 mm
Bellows pad dia. : ø60, ø80, ø100 mm
Sponge pad dia. : ø70, ø100 mm

Pad dia. : ø150, ø200 mm

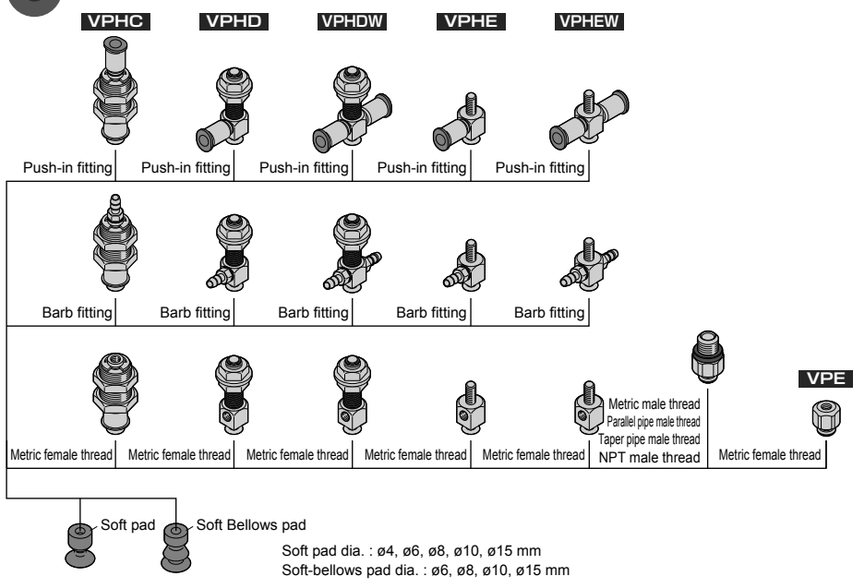


* Be sure to replace a rubber packing when removing a Hexagon socket head bolt.

Standard pad dia. : ø150, ø200 mm

Vacuum Pad Configuration

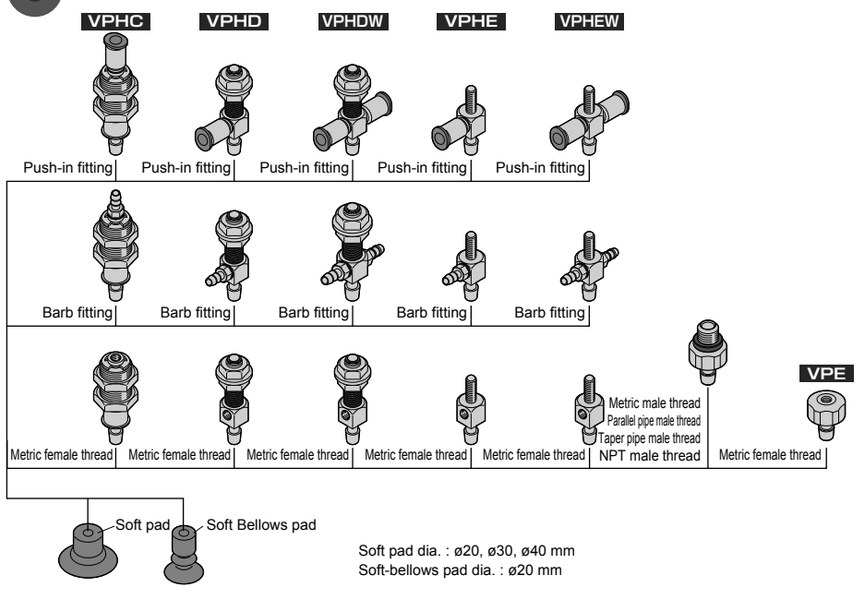
Pad dia. : ø4, ø6, ø8, ø10, ø15 mm (Exclusive to Soft and Soft Bellows type)



Soft pad dia. : ø4, ø6, ø8, ø10, ø15 mm
Soft-bellows pad dia. : ø6, ø8, ø10, ø15 mm

Connection config. code
T15
Connection type
Mount type
(Direct connection)

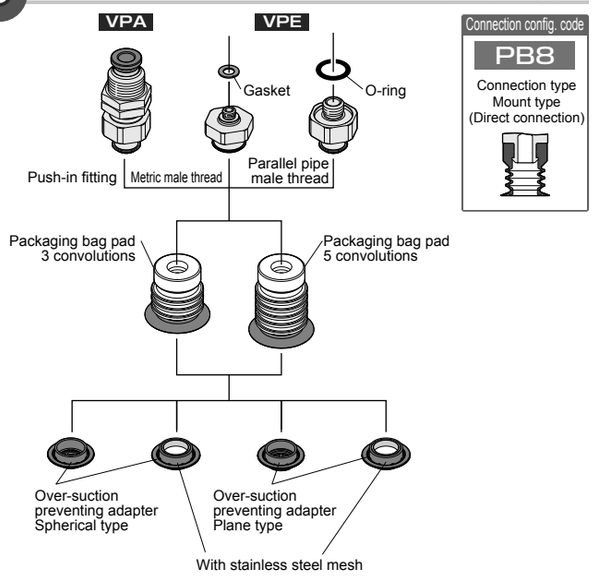
Pad dia. : ø20, ø30, ø40 mm (Exclusive to Soft and Soft Bellows type)



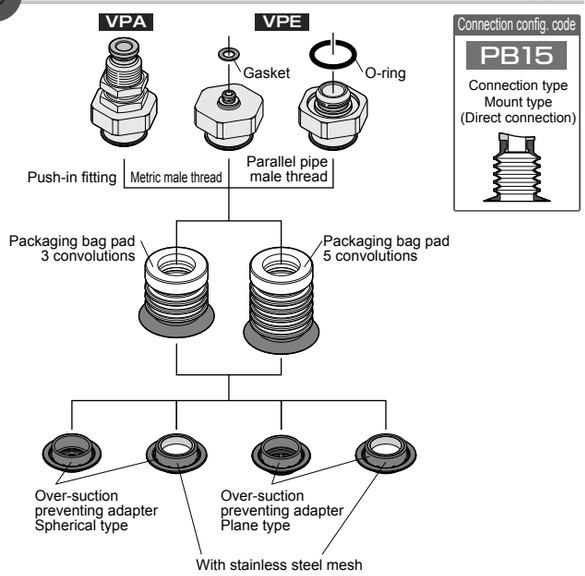
Soft pad dia. : ø20, ø30, ø40 mm
Soft-bellows pad dia. : ø20 mm

Connection config. code
T40
Connection type
Mount type
(Direct connection)

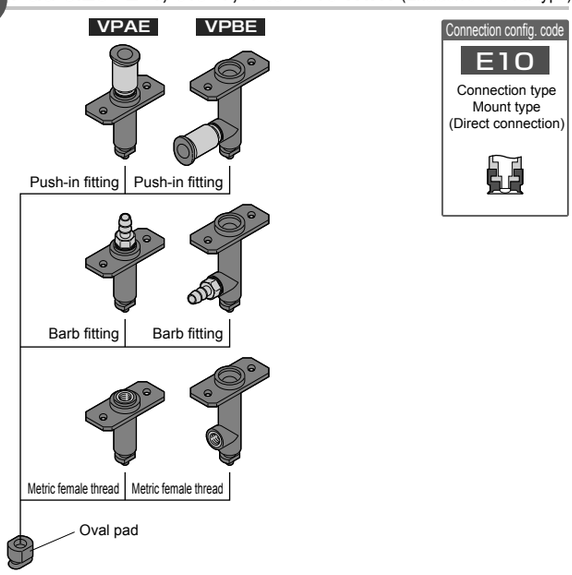
Pad dia. : ø20, ø25 mm (Exclusive to Vacuum pad for packaging bag)



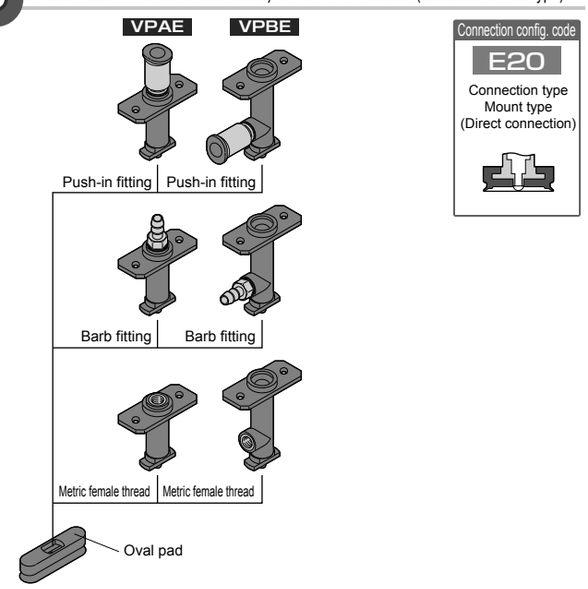
Pad dia. : ø30, ø40, ø50 mm (Exclusive to Vacuum pad for packaging bag)



Pad size : 2×4, 3.5×7, 4 to 6×10 mm (Exclusive to Oval type)



Pad size : 4 to 8×20 mm, 4 to 8×30 mm (Exclusive to Oval type)



Fall Prevention Valve

Valve for multiple vacuum pads with one vacuum supply

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

ECV (1) M4 (2) – FM4 (3)

(1) Fall Prevention Valve

(2) Male thread size (Holder side) **(3) Female thread size (Pad side)**

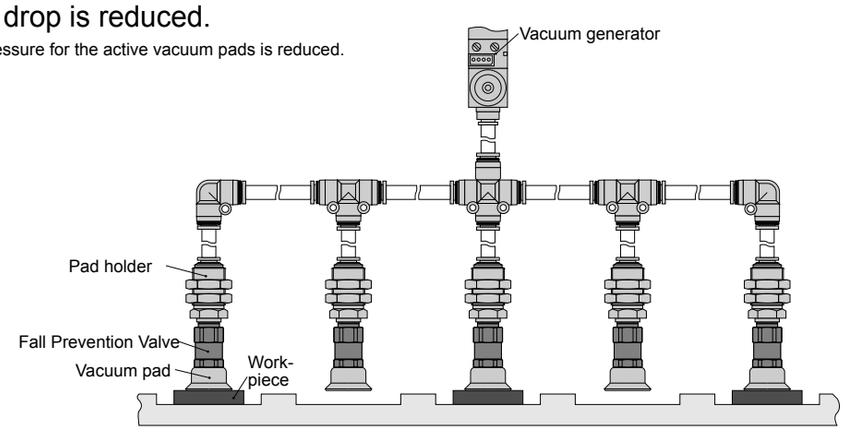
	Metric thread					Taper pipe thread
Code	M3-FM3	M4-FM4	M5-FM5	M6-FM6	M10-FM10	01-F01
Male thread size (Holder side)	M3×0.5	M4×0.7	M5×0.8	M6×1	M10×1.5	R1/8
Female thread size (Pad side)	M3×0.5	M4×0.7	M5×0.8	M6×1	M10×1.5	Rc1/8

Characteristics

Minimizing the pressure drop of other circuit when a work-piece falls down.

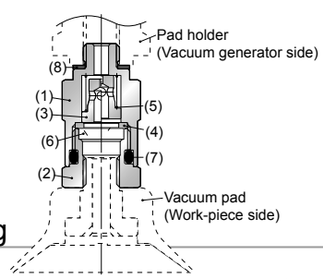
Even if some vacuum pads are not operated, active vacuum pads would work normally because the vacuum drop is reduced.

Drop in vacuum pressure for the active vacuum pads is reduced.



Fall prevention valve for large pad holder (ø60 to ø100 mm) is also available.

Suitable for Standard pad (ø60, ø80 and ø100 mm). Sponge pad (ø70, ø100 mm) and Bellows pad (ø80 mm).



Specifications

Fluid medium	Air		
Operating pressure range	Positive pressure : 0 to 0.7 MPa Negative pressure: -100 to 0 kPa		
Min. working suction flow	M3-FM3	M4-FM4, M5-FM5	M6-FM6, M10-FM10, 01-F01
	2 ℓ/min[ANR]	5 ℓ/min[ANR]	13 ℓ/min[ANR]
Operating temp. range	0 to 60°C (No freezing)		

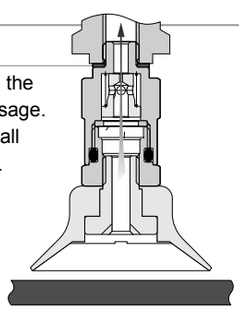
Sectional drawing

No,	Parts	ECVM3-FM3	ECVM4-FM4	ECVM5-FM5	ECVM6-FM6	ECVM10-FM10	ECV01-F01
		Material					
(1)	Metallic body A	Stainless steel		Nickel-plated brass		Nickel-plated aluminum	
(2)	Metallic body B	Nickel-plated brass		Nickel-plated aluminum			
(3)	Valve body	Aluminum					
(4)	Stopper	Nickel-plated brass					
(5)	Spring	Stainless steel					
(6)	Filter	PVFM					
(7)	O-ring	NBR					
(8)	Gasket	SUS304 + NBR				POM	—

Mechanism

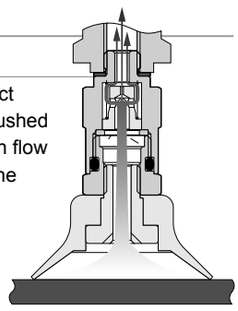
Fall Prevention

When a work-piece is off from vacuum pad, the valve is pushed up and shuts a suction passage. Small amount of air is sucked through a small hole at the center of Valve during operation.



Suction State

When a work-piece is lifted and gets in direct contact with the vacuum pad, the valve is pushed down by a spring force because of a suction flow drop. Then, the suction passage between the valve and the body part opens up.



Applicable vacuum pad list

Fall prevention valve Model code	Connection configuration code	Pad type/size (mm)													
		Standard			Soft	Soft Bellows	Skidproof	Bellows	Multi-bellows	Metal detectable	Ultrathin	Flat, Large Suction Flow	Mark-free	Sponge	Oval
		General	Deep	Small											
ECVM3-FM3	T4 (Only for VPME holder with M3)	—	—	ø0.7 to ø4	—	—	—	—	—	—	—	—	—	—	—
	H3 (Only for VPE holder with M3)	ø1 to ø4	—	—	—	—	—	ø2, ø4	—	—	—	—	—	—	—
ECVM4-FM4	M4	ø10, ø15	ø15	—	ø4 to ø15	ø6 to ø15	ø10	ø10, ø15	ø10	ø10, ø15	—	ø10, ø15	ø10	—	—
ECVM5-FM5	T4 (Only for VPE holder with M5)	—	—	ø0.7 to ø4	—	—	—	—	—	—	—	—	—	—	—
	H3 (Only for VPE holder with M5)	ø1 to ø4	—	—	—	—	—	ø2, ø4	—	—	—	—	—	—	—
	T8 (Only for VPME and VPE holder with M5)	ø6, ø8	—	—	—	—	—	ø6, ø8	ø6, ø8	—	ø8 to ø20	—	—	—	—
ECVM6-FM6	M6	ø20 to ø50	ø20 to ø50	—	ø20 to ø40	ø20	ø20 to ø50	ø20 to ø50	ø20 to ø50	ø20	—	ø20 to ø30	ø20, ø30	ø10 to ø50	All sizes
ECVM10-FM10	M10	ø60 to ø100	ø60 to ø100	—	—	—	—	ø60 to ø100	—	—	—	—	—	ø70, ø100	—

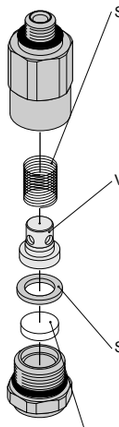
RoHS2 (2011/65/EU+EU2015/863) compliant

Product	Model code ECV M-FM
Fall Prevention Valve	ECVM3-FM3
ECV	ECVM4-FM4
M	ECVM5-FM5
	ECVM6-FM6
	ECVM10-FM10
	ECV01-F01
FM	

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Maintenance parts



Spring

Spring Model code	Fall prevention valve Model code
ECV01-S	ECVM3-FM3
ECV02-S	ECVM4-FM4, ECVM5-FM5
ECV03-S	ECVM6-FM6, ECVM10-FM10, ECV01-F01

Valve body

Valve body Model code	Fall prevention valve Model code
ECV01-V	ECVM3-FM3
ECV02-V	ECVM4-FM4, ECVM5-FM5
ECV03-V	ECVM6-FM6, ECVM10-FM10, ECV01-F01

Stopper

Stopper Model code	Fall prevention valve Model code
ECV01-R	ECVM3-FM3
ECV02-R	ECVM4-FM4, ECVM5-FM5
ECV03-R	ECVM6-FM6, ECVM10-FM10, ECV01-F01

Filter

Filter Model code	Fall prevention valve Model code
ECV01-E	ECVM3-FM3
ECV02-E	ECVM4-FM4, ECVM5-FM5
ECV03-E	ECVM6-FM6, ECVM10-FM10, ECV01-F01

Packaging specifications of Maintenance parts
10 pcs. /bag

* The list price is the price per piece.

Ball Swivel Joint for Vacuum Pad mounting

Ball swivel joint for vacuum pad holder

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

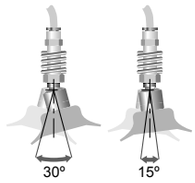
FH (1) 10 (2) -15 (3)

(1) Ball Swivel Joint

(2) Applicable pad dia.

Code	10	20	60
Pad dia.	ø10, ø15 mm	ø20 to ø50 mm	ø60 to ø100 mm
Thread size	M4×0.7	M6×1	M10×1.5

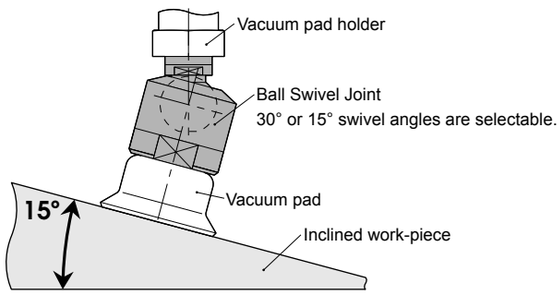
(3) Swivel angle
No code: 30°
-15: 15°



Characteristics

Suitable when work-pieces are not placed perpendicular to the pad surface for suction or are placed with flexible angle.

Installation of Ball Swivel Joint between a pad holder and a pad allows flexible tilt angle of the vacuum pad.



Applicable vacuum pad list

Ball Swivel Joint Model code	Connection configuration code	Pad type/size (mm)									
		Standard		Soft	Soft Bellows	Skidproof	Bellows	Multi-bellows	Metal detectable	Flat, Large Suction Flow	Sponge	Oval
		General	Deep									
FH10	M4	ø10, ø15	ø15	ø4 to ø15	ø6 to ø15	ø10	ø10, ø15	ø10	ø10, ø15	ø10, ø15	—	—
FH20	M6	ø20 to ø50	ø20 to ø50	ø20 to ø40	ø20	ø20 to ø50	ø20 to ø50	ø20 to ø50	ø20	ø20 to ø30	ø10 to ø50	All sizes
FH60	M10	ø60 to ø100	ø60 to ø100	—	—	—	ø60 to ø100	—	—	—	ø70, ø100	—

RoHS2 (2011/65/EU+EU2015/863) compliant

Product	Model code
Ball Swivel Joint FH	FH10
	FH20
	FH60
	FH10-15
	FH20-15
	FH60-15

Notes
* Gasket (SUS304+NBR) is equipped on the thread.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag

Flexible Swing Joint for Vacuum Pad mounting

PISCO
>>> https://www.pisco.co.jp/en/

Flexible swing joint for vacuum pad holder

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

CFH (1) M4 (2) – FM4 (3) (4)

(1) Flexible Swing Joint

(2) Size of Male thread for Holder

Code	M4	M5	M6
Size	M4×0.7	M5×0.8	M6×1

(3) Size of Female thread for Vacuum Pad

Code	FM4	FM5	FM6
Size	M4×0.7	M5×0.8	M6×1

● Applicable thread size

		For Holder		
		M4	M5	M6
For Vacuum Pad	FM4	○	○	
	FM5	○	○	○
	FM6		○	○

(○ : Available)

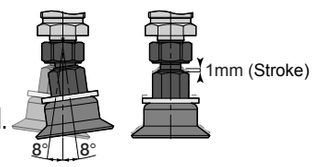
(4) -S3 spec. (Metal option)

Code	No code	-S3
Metal material	Standard	No copper-based metallic materials used in flow paths.
Seal rubber material	Standard	HNBR or FKM

Characteristics

The vacuum pad conforms to the inclined workpiece for stable suctioning.

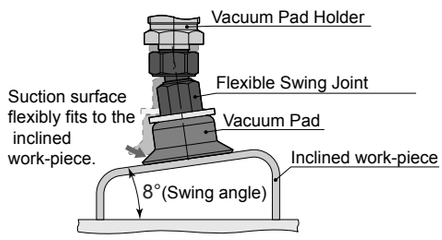
Flexible swing joint has a stroke to absorb the impact when contacting a work-piece.



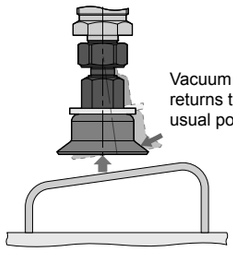
Internal spring returns the vacuum pad surface to its usual position when a work-piece is released.

The vacuum pad surface stays in the same direction always at suction.

■At suction of a work-piece



■After releasing a work-piece



● -S3 spec. (Metal option)

No copper-based metallic materials used in flow paths.

The seal rubber material is FKM with good ozone resistance.

Applicable vacuum pad list

Flexible Swing Joint model code	Connection configuration code	Pad type/size (mm)												
		Standard			Soft	Soft Bellows	Skidproof	Bellows	Multi-bellows	Metal detectable	Ultrathin	Flat, Large Suction Flow	Sponge	Oval
		General	Deep	Small										
CFH□-FM4	M4	ø10, ø15	ø15	—	ø4 to ø15	ø6 to ø15	ø10	ø10, ø15	ø10	ø10, ø15	—	ø10, ø15	—	—
CFH□-FM5	T4 (Only for VPE holder with M5)	—	—	ø0.7 to ø4	—	—	—	—	—	—	—	—	—	—
	H3 (Only for VPE holder with M5)	ø1 to ø4	—	—	—	—	—	ø2, ø4	—	—	—	—	—	—
	T8 (Only for VPME and VPE holder with M5)	ø6, ø8	—	—	—	—	—	ø6, ø8	ø6, ø8	—	ø8 to ø20	—	—	—
CFH□-FM6	M6	ø20 to ø50	ø20 to ø50	—	ø20 to ø40	ø20	ø20 to ø50	ø20 to ø50	ø20 to ø50	ø20	—	ø20 to ø30	ø10 to ø50	All sizes

Specifications

Fluid medium	Air
Operating vacuum pressure	-100 to 0 kPa
Operating temp. range	0 to 60°C (No freezing)

RoHS2 (2011/65/EU+EU2015/863) compliant

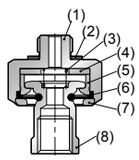
Product	Model code
Flexible Swing Joint CFH M FM	CFHM4-FM4④
	CFHM4-FM5④
	CFHM5-FM4④
	CFHM5-FM5④
	CFHM5-FM6④
	CFHM6-FM5④
	CFHM6-FM6④

Package: Packaging specifications
1 pc. /bag

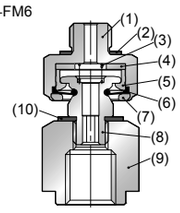
Option: Options
④ : -S3 ⇒ -S3 spec.

Sectional drawing

CFH □ -FM4, CHH □ -FM5



CFH□ -FM6



No,	Parts	Material			
		Standard spec.			-S3 specification
		CFH□-FM4	CFH□-FM5	CFH□-FM6	
(1)	Metallic body	Nickel-plated brass			Special stainless steel (Austenite or ferritic) *1
(2)	Gasket	SPCC + NBR	SUS304 + NBR		SUS316 + FKM
(3)	Spring	SUS304			
(4)	Spacer	SUS304 + nitriding			
(5)	Weight block	Special stainless steel *1 + nitriding			
(6)	Diaphragm	FKM			
(7)	Plate	Nickel-plated brass			Special stainless steel (Austenite or ferritic) *1
(8)	Pad guide (*2)	Special stainless steel *1 + nitriding			
(9)	Thread adaptor	Nickel-plated brass			Special stainless steel (Austenite or ferritic) *1
(10)	Gasket	—	—	SPCC + NBR	SUS316 + FKM

*1. The corrosive resistance is equivalent to SUS303.
*2. Pad guide of CFH □ -FM4 and CFH □ -FM5 is female-threaded for a Pad screw.

Vacuum Filter Pad Direct Mounting Type

Vacuum filter between pad and pad holder

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VF (1) F (2) 15 (3) – M6 (4)

(1) Vacuum filter

(2) Type
F：Pad direct mounting type

(3) Filter Size

Code	15	30
Filter area (cm^2)	1.7	7

* Filter size 30 is selectable for M6 thread only.

(4) Thread size on Pad side / Holder side

Code	M4	M6
Size	M4×0.7	M6×1

* Gasket (SUS304+NBR) is equipped on the thread.

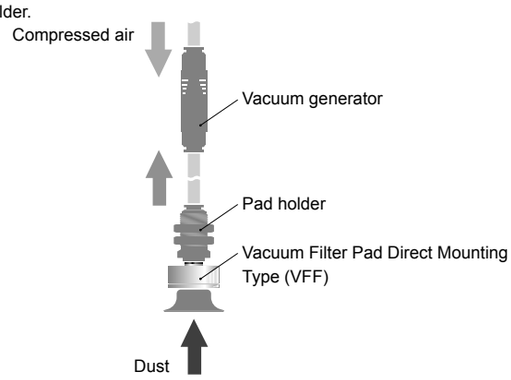
Characteristics

Dust gets removed by installing Pad Direct Mounting type between pad and pad holder.

Piping arrangement example

Vacuum Filter Pad Direct Mounting Type (VFF)

Dust gets removed by installing Pad Direct Mounting type between pad and pad holder.



Specifications

Fluid medium	Air
Operating vacuum pressure	-100 to 0 kPa
Filtering accuracy (*)	10 μm
Operating temp. range	0 to 60°C (No freezing)

* Based on PISCO measuring condition.

Applicable vacuum pad list

Filter model code	Connection configuration code	Pad type/size (㎜)										
		Standard		Soft	Soft Bellows	Skidproof	Bellows	Multi-bellows	Metal detectable	Flat, Large Suction Flow	Mark-free	Sponge	Oval
		General	Deep										
VFF15-M4	M4	ø10, ø15	ø15	ø4 to ø15	ø6 to ø15	ø10	ø10, ø15	ø10	ø10, ø15	ø10, ø15	ø10	—	—
VFF15-M6	M6	ø20 to ø50	ø20 to ø50	ø20 to ø40	ø20	ø20 to ø50	ø20 to ø50	ø20 to ø50	ø20	ø20 to ø30	ø20, ø30	ø10 to ø50	All sizes
VFF30-M6	M6	ø20 to ø50	ø20 to ø50	ø20 to ø40	ø20	ø20 to ø50	ø20 to ø50	ø20 to ø50	ø20	ø20 to ø30	ø20, ø30	ø10 to ø50	All sizes

* VFF30-M6 is recommended when much dust is expected at sucking work-pieces.

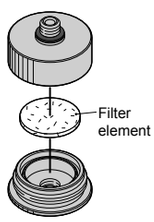
RoHS2 (2011/65/EU+EU2015/863) compliant

Product	model code VFF3-M
Vac. Filter Pad Direct Mount Type VFF	VFF15-M4
	VFF15-M6
	VFF30-M6

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag: Vacuum Filter Pad Direct Mounting Type
10 pcs. /bag: Filter element

Replacement parts



Filter model code	Filter element Model code
VFF15-M4	VFFE15
VFF15-M6	
VFF30-M6	VFFE30

Multiple Pad Holder

PISCO

>>> https://www.pisco.co.jp/en/

Vacuum Pad Holder to mount multiple Vacuum Pads

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VP (1) HMP (2) 50 (3) 4-M4 (4) - M10 (5)

(1) Vacuum Pad

(2) Holder type: Multiple Pad Holder

(3) Body size

Code	35	43	50	55	75
Body size (mm)	ø35	ø43	ø50	ø55	ø75

(4) No. of pads & Female thread size

Code	3-M3	4-M3	3-M4	4-M4	3-M6	4-M6	-B
No. of pads	3	4	3	4	3	4	Blank
Size	M3×0.5		M4×0.7		M6×1		(with no hole)
Body size (mm)	ø35		ø43, ø50, ø55, ø75		ø55, ø75		All sizes

(5) Body mounting screw size

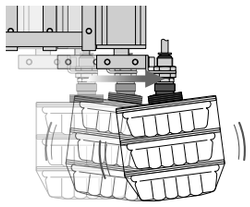
Code	M5	M6	M8	M10	M12	M14	G1	G2
Size	M5×0.8	M6×1	M8×1.25	M10×1.5	M12×1.75	M14×2	G1/8A	G1/4A

*Body size dia. 35mm can be mounted only with M5, M6, and M8.

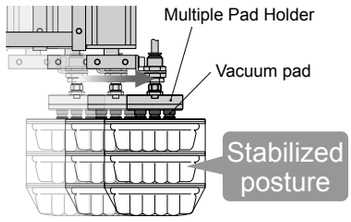
Characteristics

Using multiple pads stabilizes the posture of the work-piece during conveyance.

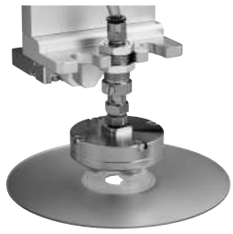
■Conveyance by 1 pc of pad



■Conveyance by multiple pcs of pads



Even a hollow work-piece can be easily suctioned.



Vacuum filter is incorporated.

Removes the suctioned dust and prevent trouble relating to the vacuum system.

Light aluminum is adopted for the body material.

Blank without any holes is also available for users to make holes to cater to applications.

Applicable vacuum pad list

Multiple Pad Holder model code	Body size (mm)	P. C. D to mount pads (mm)	No. of pads	Pad type/size (mm)												
				Standard			Soft	Soft Bellows	Skidproof	Bellows	Multi-bellows	Metal detectable	Ultrathin	Flat, Large Suction Flow	Mark-free	Sponge
				General	Deep	Small										
VPHMP353-M3-5	ø35	12	3	ø1 to ø4 (*2)	—	ø0.7 to ø4 (*3)	—	—	—	ø2, ø4 (*2)	—		—	—	—	—
VPHMP354-M3-5			4													
VPHMP433-M4-5	ø43	19	3	ø1 to ø15 (*4)	ø15	ø0.7 to ø4 (*4)	ø4 to ø15	ø6 to ø15	ø10	ø2 to ø15 (*4)	ø6 to ø10 (*4)	ø10, ø15	ø8 to ø15 (*4)	ø10, ø15	ø10	—
VPHMP434-M4-5			4	ø1 to ø10 (*4)	—		ø4 to ø10	ø6 to ø10		ø2 to ø10 (*4)		ø10	ø8, ø10	ø10		—
VPHMP503-M4-5	ø50	26	3	ø1 to ø15 (*4)	ø15	ø0.7 to ø4 (*4)	ø4 to ø20 (*4)	ø6 to ø20 (*4)	ø10	ø2 to ø15 (*4)	ø6 to ø10 (*4)	ø10, ø15	ø8 to ø20 (*4)	ø10, ø15	ø10	—
VPHMP504-M4-5			4				ø4 to ø15	ø6 to ø15					ø8 to ø15 (*4)			—
VPHMP553-M4-5	ø55	33	3	ø1 to ø15 (*4)	ø15	ø0.7 to ø4 (*4)	ø4 to ø20 (*4)	ø6 to ø20 (*4)	ø10	ø2 to ø15 (*4)	ø6 to ø10 (*4)	ø10, ø15	ø8 to ø20 (*4)	ø10, ø15	ø10	—
VPHMP554-M4-5			4													—
VPHMP553-M6-5		31	3	ø1 to ø25 (*4)	ø20, ø25	ø0.7 to ø4 (*4)	ø4 to ø20 (*4)	ø6 to ø20 (*4)	ø20	ø2 to ø25 (*4)	ø6 to ø20 (*4)	ø20	ø8 to ø20 (*4)	ø20, ø25	ø20	ø10 to ø25
VPHMP554-M6-5			4	ø1 to ø20 (*4)	ø20					ø2 to ø20 (*4)				ø20		ø10 to ø20
VPHMP753-M4-5	ø75	53	3	ø1 to ø15 (*4)	ø15	ø0.7 to ø4 (*4)	ø4 to ø40 (*4)	ø6 to ø20 (*4)	ø10	ø2 to ø15 (*4)	ø6 to ø10 (*4)	ø10, ø15	ø8 to ø20 (*4)	ø10, ø15	ø10	—
VPHMP754-M4-5			4				ø4 to ø30 (*4)									—
VPHMP753-M6-5		51	3	ø1 to ø40 (*4)	ø20 to ø40	ø0.7 to ø4 (*4)	ø4 to ø40 (*4)	ø6 to ø20 (*4)	ø20 to ø40	ø2 to ø40 (*4)	ø6 to ø40 (*4)	ø20	ø8 to ø20 (*4)	ø20 to ø30	ø20, ø30	ø10 to ø35
VPHMP754-M6-5			4	ø1 to ø30 (*4)	ø20 to ø30		ø4 to ø30 (*4)		ø20, ø30	ø2 to ø30 (*4)	ø6 to ø30 (*4)					

*1. Please select a code for pad from Pad & screw set.
*2. Vacuum holder is VPE type.
*3. Vacuum holder is VPME type.
*4. Conversion adaptors are necessary to mount some sizes. Please contact our sales office for details.

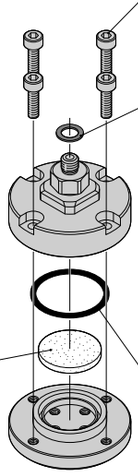
Multiple Pad Holder

RoHS2 (2011/65/EU+EU2015/863) compliant

Product	Model code	Product	Model code	Product	Model code
Multiple Pad Holder 3 pads mounting VPHMP *The image illustrates the product with 3 vacuum pads.	VPHMP353-M3-M5	Multiple Pad Holder 4 pads mounting VPHMP *The image illustrates the product with 4 vacuum pads.	VPHMP354-M3-M5	Multiple Pad Holder Blank (with no hole) VPHMP	VPHMP35-B-M5
	VPHMP353-M3-M6		VPHMP354-M3-M6		VPHMP35-B-M6
	VPHMP353-M3-M8		VPHMP354-M3-M8		VPHMP35-B-M8
	VPHMP433-M4-M5		VPHMP434-M4-M5		VPHMP43-B-M5
	VPHMP433-M4-M6		VPHMP434-M4-M6		VPHMP43-B-M6
	VPHMP433-M4-M8		VPHMP434-M4-M8		VPHMP43-B-M8
	VPHMP433-M4-M10		VPHMP434-M4-M10		VPHMP43-B-M10
	VPHMP433-M4-M12		VPHMP434-M4-M12		VPHMP43-B-M12
	VPHMP433-M4-M14		VPHMP434-M4-M14		VPHMP43-B-M14
	VPHMP433-M4-G1		VPHMP434-M4-G1		VPHMP43-B-G1
	VPHMP433-M4-G2		VPHMP434-M4-G2		VPHMP43-B-G2
	VPHMP503-M4-M5		VPHMP504-M4-M5		VPHMP50-B-M5
	VPHMP503-M4-M6		VPHMP504-M4-M6		VPHMP50-B-M6
	VPHMP503-M4-M8		VPHMP504-M4-M8		VPHMP50-B-M8
	VPHMP503-M4-M10		VPHMP504-M4-M10		VPHMP50-B-M10
	VPHMP503-M4-M12		VPHMP504-M4-M12		VPHMP50-B-M12
	VPHMP503-M4-M14		VPHMP504-M4-M14		VPHMP50-B-M14
	VPHMP503-M4-G1		VPHMP504-M4-G1		VPHMP50-B-G1
	VPHMP503-M4-G2		VPHMP504-M4-G2		VPHMP50-B-G2
	VPHMP553-M4-M5		VPHMP554-M4-M5		VPHMP55-B-M5
	VPHMP553-M4-M6		VPHMP554-M4-M6		VPHMP55-B-M6
	VPHMP553-M4-M8		VPHMP554-M4-M8		VPHMP55-B-M8
	VPHMP553-M4-M10		VPHMP554-M4-M10		VPHMP55-B-M10
	VPHMP553-M4-M12		VPHMP554-M4-M12		VPHMP55-B-M12
	VPHMP553-M4-M14		VPHMP554-M4-M14		VPHMP55-B-M14
	VPHMP553-M4-G1		VPHMP554-M4-G1		VPHMP55-B-G1
	VPHMP553-M4-G2		VPHMP554-M4-G2		VPHMP55-B-G2
	VPHMP553-M6-M5		VPHMP554-M6-M5		VPHMP75-B-M5
	VPHMP553-M6-M6		VPHMP554-M6-M6		VPHMP75-B-M6
	VPHMP553-M6-M8		VPHMP554-M6-M8		VPHMP75-B-M8
	VPHMP553-M6-M10		VPHMP554-M6-M10		VPHMP75-B-M10
	VPHMP553-M6-M12		VPHMP554-M6-M12		VPHMP75-B-M12
	VPHMP553-M6-M14		VPHMP554-M6-M14		VPHMP75-B-M14
	VPHMP553-M6-G1		VPHMP554-M6-G1		VPHMP75-B-G1
	VPHMP553-M6-G2		VPHMP554-M6-G2		VPHMP75-B-G2
	VPHMP753-M4-M5		VPHMP754-M4-M5		
	VPHMP753-M4-M6		VPHMP754-M4-M6		
	VPHMP753-M4-M8		VPHMP754-M4-M8		
	VPHMP753-M4-M10		VPHMP754-M4-M10		
	VPHMP753-M4-M12		VPHMP754-M4-M12		
	VPHMP753-M4-M14		VPHMP754-M4-M14		
	VPHMP753-M4-G1		VPHMP754-M4-G1		
	VPHMP753-M4-G2		VPHMP754-M4-G2		
	VPHMP753-M6-M5		VPHMP754-M6-M5		
	VPHMP753-M6-M6		VPHMP754-M6-M6		
	VPHMP753-M6-M8		VPHMP754-M6-M8		
	VPHMP753-M6-M10		VPHMP754-M6-M10		
	VPHMP753-M6-M12		VPHMP754-M6-M12		
	VPHMP753-M6-M14		VPHMP754-M6-M14		
	VPHMP753-M6-G1		VPHMP754-M6-G1		
	VPHMP753-M6-G2		VPHMP754-M6-G2		

Packaging specifications
1 pc. /bag

Replacement parts



Body fixing screw model code	Applicable body size
VPHMPCS-SET	All sizes

Gasket model code	Body mounting screw	
	Code	Size
GAS-M5 (fall prevention)	-M5	M5×0.8
GAS-M6 (fall prevention)	-M6	M6×1
GASP-M8	-M8	M8×1.25
SG10	-M10	M10×1.5
SG12	-M12	M12×1.75
SG14	-M14	M14×2
GAS01G	-G1	G1/8A
GAS02G	-G2	G1/4A

Filter element model code	Body size (mm)
VFFE15	ø35
SFE50	ø43
VFFE30	ø50
SFE70	ø55
SFE100	ø75

O-ring model code	Body size (mm)
19.5×1.5 (NBR70)	ø35
27.5×2 (NBR70)	ø43
34.5×2 (NBR70)	ø50
39.5×2 (NBR70)	ø55
59.5×2 (NBR70)	ø75

Vacuum Pad with Mechanical Release Function

PISCO
>>> https://www.pisco.co.jp/en/

Ejecting a pin to release small, light work-pieces without blowing off

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VP (1) KE (2) 6 (3) Y (4) N (5) – M4 (6)

(1) Vacuum Pad

(2) Holder type

KE: Direct mounting type with Mechanical Release Function

(3) Vacuum pad size

Code	2	3	4	6	8	10
Size (mm)	ø2.5	ø3	ø4	ø6	ø8	ø10
Connection config. Code	Y4					

(4) Vacuum pad type

Y: Vacuum pad for Mechanical Release Function

(5) Pad material

Code	N	S	F	SE
Rubber material	Nitrile	Silicone	Fluoro	Conductive silicone

*Volume resistance of Conductive silicone rubber (SE) is $10^5\Omega$·cm or less.

(6) Mounting screw size

Code	M3	M4	M5
Screw size	M3×0.5	M4×0.7	M5×0.8

Model designation of Holder only

VP (1) KE (2) – Y4 (3) – M4 (4)

(1) Vacuum Pad

(2) Holder type

KE: Direct mounting type with Mechanical Release Function

(3) Connection configuration code

Y4: Mount type (Direct connection) for Mechanical Release Function

(4) Mounting screw size

Code	M3	M4	M5
Screw size	M3×0.5	M4×0.7	M5×0.8

Model designation of Vacuum Pad only

VP (1) 6 (2) Y (3) N (4)

(1) Vacuum Pad

(2) Vacuum pad size

Code	2	3	4	6	8	10
Size (mm)	ø2.5	ø3	ø4	ø6	ø8	ø10
Connection config. Code	Y4					

(3) Pad type

Y: Vacuum pad for Mechanical Release Function

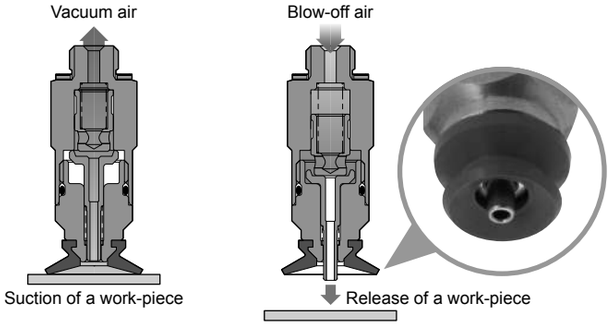
(4) Pad material

Code	N	S	F	SE
Rubber material	Nitrile	Silicone	Fluoro	Conductive silicone

Characteristics

Vacuum blow-off air ejects an internal pin to release a work-piece.

6 types of pad sizes are available.
ø2.5 to ø10 mm
4 types of pad materials are available.



Vacuum blow-off air does not come out from the port, and it prevents blowing off the work-piece.

Best suitable for suction of work-pieces where static electricity or sticking to rubber cause problems at releasing the work-pieces.

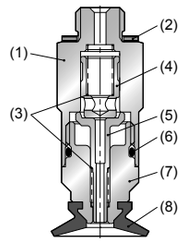
Vacuum Pad with Mechanical Release Function

Specifications

Fluid medium		Air
Operating pressure range	Positive pressure	30 kPa to 0.5 MPa
	Negative pressure	-101 kPa to -30 kPa
Operating temp. range		0 to 60°C (No freezing)
Suction flow		4 ℓ/min (*)
Operating pressure of vacuum release valve to move Pin		30 kPa
Operating pressure of valve to flow suction air		-30 kPa

*When vacuum pressure is -80 kPa or less

Sectional drawing



No.	Parts	Material
(1)	Metallic body	Special stainless steel (*)
(2)	Gasket	SUS304+NBR or SPCC+NBR
(3)	Spring	Stainless steel
(4)	Suction air valve	Special stainless steel (*)
(5)	Vacuum release valve (Pin)	Special stainless steel (*)
(6)	O-ring	NBR
(7)	Holder	Special stainless steel (*)
(8)	Designated vacuum pad	Nitrile, Silicone, Fluoro, Conductive silicone

*Anti-corrosivity is equivalent to SUS303. Austenite or ferritic.

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Applicable female thread	Model code	Connection configuration code
Direct mounting type with Mechanical Release Function VPKE	ø2.5	M3×0.5	VPKE2Y□-M3	Y4
		M4×0.7	VPKE2Y□-M4	
		M5×0.8	VPKE2Y□-M5	
	ø3	M3×0.5	VPKE3Y□-M3	
		M4×0.7	VPKE3Y□-M4	
		M5×0.8	VPKE3Y□-M5	
	ø4	M3×0.5	VPKE4Y□-M3	
		M4×0.7	VPKE4Y□-M4	
		M5×0.8	VPKE4Y□-M5	
	ø6	M3×0.5	VPKE6Y□-M3	
		M4×0.7	VPKE6Y□-M4	
		M5×0.8	VPKE6Y□-M5	
	ø8	M3×0.5	VPKE8Y□-M3	
		M4×0.7	VPKE8Y□-M4	
		M5×0.8	VPKE8Y□-M5	
	ø10	M3×0.5	VPKE10Y□-M3	
		M4×0.7	VPKE10Y□-M4	
		M5×0.8	VPKE10Y□-M5	

Pad type	Model code	Connection configuration code
Vacuum pad with Mechanical Release Function	VP2Y□4	Y4
	VP3Y□4	
	VP4Y□4	
	VP6Y□4	
	VP8Y□4	
	VP10Y□4	

Holder type	Model code	Connection configuration code
Holder with Mechanical Release Function	VPKE-Y4-M3	Y4
	VPKE-Y4-M4	
	VPKE-Y4-M5	

Notes
* Please select a rubber material code for □5 or □4 in model code.

Packaging specifications
1 pc. /bag

Vacuum Cylinder

Vacuum pad equipped with Cylinder and Vacuum generator

2in1 Product

PISCO®
>>> https://www.pisco.co.jp/en/

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

VSPE (1) 40 (2) – 10 (3) L (4) N (5) –ER (6) – 6J (7)

(6): Optional

(1) Vacuum Cylinder

(2) Pad size, (4) Pad type (○: Available)

Type	Standard		Skidproof	Bellows	Multi-bellows	Metal detectable	Flat	Flat, Large Suction Flow	Mark-free	Sponge	Soft	Soft bellows
	General	Deep										
Code	R	A	K	B	W	BE,BD	F	FH	Q	S	L	LB
Pad dia. (ømm) 4											○	
6											○	○ T15
8		M4									○	○
10	○		○	○	○	○	○	○	○	○	○	○
15	○	○		○		○	○	○		○	○	○
20	○	○	○	○	○	○	○	○	○	○	○	○
25	○	○		○			○	○		○		
30	○	○	○	○	○		○	○	○	○	○	
35										○		
40	○	○	○	○	○						○	
50	○	○	○	○	○					○		T40
		M6										

Type	Oval
Code	E
Pad dia. (mm) 2×4	○
3.5×7	○
4×10	○
5×10	○
6×10	○
4×20	○
4×30	○ M6
5×20	○
5×30	○
6×20	○
6×30	○
8×20	○
8×30	○

(3) Stroke

Code	5	10	20	30
Stroke (mm)	5	10	20	30

(5) Pad material (○: Available)

Code			N	S	U	F	SE	NE	G	HN	EP	FS	NH	YS2	YS4
Rubber material			Nitrile	Silicone	Urethane	Fluoro	Conductive silicone	Conductive NBR (Low resistance)	Food Sanit. Act-compliant NBR	HNBR	EPDM	Fluoro silicone	Oilproof NBR	Extra soft silicone	
														Hardness 20°	Hardness 40°
Type Standard	General	R	○	○	○	○	○	○	○	○	○	—	—	—	—
	Deep	A	○	○	○	○	○	○	○	○	○	—	—	—	—
Soft		L	○	○	—	—	○	○	—	—	—	○	—	—	—
Soft Bellows		LB	○	○	○	—	○	○	—	○	○	—	—	—	—
Skidproof		K	—	○	○	○	—	○	—	—	—	—	○	—	—
Bellows		B	○	○	○	○	○	○	—	○	○	—	—	○	○
Multi-bellows		W	○	○	○	○	—	○	○	○	○	—	—	○	○
Flat		F	○	○	○	○	○	○	—	—	—	—	—	—	—
Flat, Large Suction Flow		FH	○	○	—	○	○	○	—	—	—	—	—	—	—
Oval		E	○	○	○	○	○	○	—	○	○	—	—	—	—

*Some rubber materials are not available depending on pad sizes. Please check the page of each pad type for details.

● Metal detectable type (Pad type code: BE, BD)

Code	MSF3	MSF5	MSS3	MSS5
Rubber material	Metal detectable silicone			
	Iron powder type		SUS powder type	
	Hardness 30°	Hardness 50°	Hardness 30°	Hardness 50°

● Mark-free type (Pad type code: Q)

Code	K	M	KE
Resin material	PEEK	POM	Conductive PEEK

● Sponge type (Pad type code: S)

Code	S	C
Rubber material	Silicone	Chloroprene

(6) Pad Surface treatment for Suction Mark-free Optional (○: Available)

Code			No code	-NF	-SF	-DL	-ER	-FG
Surface treatment			No surface treatment	Fiber surface type		DLC. coating	Reformed surface	Fluoro coating
				Nylon fiber	Silk fiber			
Applicable rubber material			—	Silicone (S) Fluoro (F)	Silicone (S) Fluoro (F)	Silicone (S) Fluoro (F) Conductive silicone (SE)	Nitrile (N) Conductive NBR (NE)	Silicone (S) Conductive silicone (SE) Extra soft silicone (YS2, YS4)
Vacuum pad Type Standard	General	R	—	○	○	○	○	○
	Deep	A	—	○	○	○	○	○
Soft		L	—	○	○	○	○	○
Soft Bellows		LB	—	○	○	○	○	○
Bellows		B	—	○	○	○	○	○
Multi-bellows		W	—	—	—	○	○	○
Flat		F	—	—	—	○	○	○
Flat, Large Suction Flow		FH	—	—	—	○	○	○
Oval		E	—	—	—	○	○	○

*Please refer to page 370 for the details of each pad surface type and treatment for Suction Mark-free. Some surface treatments are not available depending on pad sizes. Please check the page of each pad type for details.

(7) Port size and joint type

Code	4J	6J
Fitting type	Push-in fitting	Push-in fitting
Size (O.D. × I.D.)	4×2.5 mm	6×4 mm

Model designation of Holder only (Example)

VSPE (1) – T15 (2) – 30 (3) – 6J (4)

(1) Vacuum Cylinder

(2) Connection configuration code

Code	T15	T40	M4	M6
Type	Mount type		Screw type	

*Please select a connection configuration code, referring to the table of (2) Pad size and (4) Pad type under Model Designation (Example) of Vacuum Cylinder.

(3) Stroke

Code	5	10	20	30
Stroke (mm)	5	10	20	30

(4) Port size and joint type

Code	4J	6J
Fitting type	Push-in fitting	Push-in fitting
Size (O.D. × I.D.)	4×2.5 mm	6×4 mm

Vacuum Cylinder

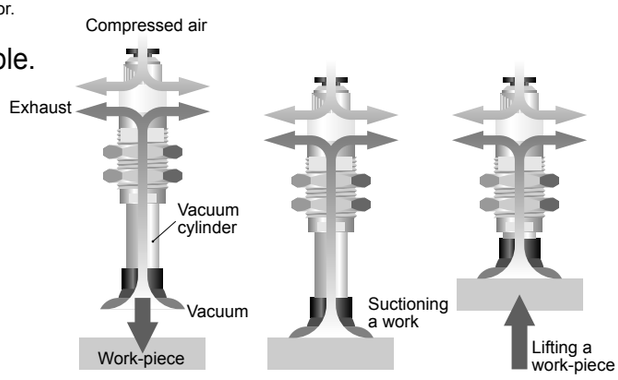
Characteristics

By just applying compressed air, a work-piece gets sucked and lifted.

The vacuum cylinder is incorporated with a vacuum pad and a vacuum generator.

"M4" and "M6" connection holders are also available.

Various pad types such as Standard and Bellows can be mounted.



● Pad Surface treatment for Suction Mark-free (Optional)

NEW Fluoro coating type is a new addition to the surface treatment for Suction Mark-free.

·Fiber surface type ··· Raised fiber (nylon or silk) on vacuum pad surface prevents rubber from directly contacting workpieces, and suction marks are minimized.

·DLC. Coating type ··· Special chemical coating on vacuum pad achieves minimal friction. It prevents thin/light work-pieces from sticking to the surface of vacuum pad.

·Reformed surface ··· Surface of vacuum pad is reformed at molecular level by chemical immersion to reduce suction mark.

·Fluoro coating type ··· Surface treatment by fluorine gas prevents a vacuum pad from sticking to a work-piece and prevents bellow convolutions from sticking to each other. It also improves durability and abrasion resistance.

Vacuum characteristics

Supply pressure (MPa)	Nozzle dia. (mm)	Final vacuum (-kPa)	Suction flow (ℓ/min [ANR])	Air consumption (ℓ/min [ANR])
0.5	0.5	90.7	7	11.5

Cylinder thrust force

Supply pressure (MPa)	Cylinder thrust force (N)	Condition
0.5	5	Vacuum level inside cylinder tube of the product should be -85 kPa or more.

<Notes>

·The cylinder thrust force (spec. value) above is calculated under the condition of no leakage between a vacuum pad and a work-piece with supply pressure 0.5 MPa. The cylinder thrust force of this product depends on the vacuum level inside the cylinder tube. Calculate a cylinder thrust force by the formula below, using an actual measured vacuum level, if supply pressure 0.5 MPa cannot be secured, or there is leakage between a vacuum pad and a work-piece, etc.

Formula: Cylinder thrust force = $5 \times \frac{\text{(Actual vacuum level [-kPa])}}{85}$ [N]

(Example) Actual measured vacuum level: -60 kPa

Cylinder thrust force = $5 \times \frac{60}{85} \fallingdotseq 3.5$ [N]

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Model code	Connection configuration code
Vacuum Cylinder (Soft pad) VSPE	ø4	5	VSPE4-5L5 6-7	T15
		10	VSPE4-10L5 6-7	
		20	VSPE4-20L5 6-7	
		30	VSPE4-30L5 6-7	
	ø6	5	VSPE6-5L5 6-7	
		10	VSPE6-10L5 6-7	
		20	VSPE6-20L5 6-7	
		30	VSPE6-30L5 6-7	
	ø8	5	VSPE8-5L5 6-7	
		10	VSPE8-10L5 6-7	
		20	VSPE8-20L5 6-7	
		30	VSPE8-30L5 6-7	
	ø10	5	VSPE10-5L5 6-7	
		10	VSPE10-10L5 6-7	
		20	VSPE10-20L5 6-7	
		30	VSPE10-30L5 6-7	
	ø15	5	VSPE15-5L5 6-7	
		10	VSPE15-10L5 6-7	
		20	VSPE15-20L5 6-7	
		30	VSPE15-30L5 6-7	
	ø20	5	VSPE20-5L5 6-7	T40
		10	VSPE20-10L5 6-7	
		20	VSPE20-20L5 6-7	
		30	VSPE20-30L5 6-7	
	ø30	5	VSPE30-5L5 6-7	
		10	VSPE30-10L5 6-7	
		20	VSPE30-20L5 6-7	
		30	VSPE30-30L5 6-7	
	ø40	5	VSPE40-5L5 6-7	
		10	VSPE40-10L5 6-7	
		20	VSPE40-20L5 6-7	
		30	VSPE40-30L5 6-7	

● Selectable pad size and material of Pad Surface Treatment for Suction Mark-free

Pad dia. (mm)	6 Surface treatment code				
	-NF	-SF	-DL	-ER	-FG
	Fiber surface type		DLC. coating	Reformed surface	Fluoro coating
	Nylon fiber	Silk fiber			
ø4	—	—	○	○	○
ø6	—	—	○	○	○
ø8	—	—	○	○	○
ø10	○	○	○	○	○
ø15	○	○	○	○	○
ø20	○	○	○	○	○
ø30	○	○	○	○	○
ø40	○	○	○	○	○
Applicable material	S		S, SE	N, NE	S, SE

(○ : Available)

Notes

*Please select a rubber material code for 5 in model code and port size and joint type code for 7, referring to the model designation (example) of Vacuum Cylinder on page 731.

CAD data is available at PISCO website.

Packaging specifications

1 pc. /bag

Options

Please select a Pad rubber surface treatment code for 6.

RoHS2 (2011/65/EU+EU2015/863) compliant

Holder type	Pad dia. (mm)	Stroke (mm)	Model code	Connection configuration code
Vacuum Cylinder (Soft bellows pad) VSPE	ø6	5	VSPE6-5LB[5][6]-[7]	T15
		10	VSPE6-10LB[5][6]-[7]	
		20	VSPE6-20LB[5][6]-[7]	
		30	VSPE6-30LB[5][6]-[7]	
	ø8	5	VSPE8-5LB[5][6]-[7]	
		10	VSPE8-10LB[5][6]-[7]	
		20	VSPE8-20LB[5][6]-[7]	
		30	VSPE8-30LB[5][6]-[7]	
	ø10	5	VSPE10-5LB[5][6]-[7]	
		10	VSPE10-10LB[5][6]-[7]	
		20	VSPE10-20LB[5][6]-[7]	
		30	VSPE10-30LB[5][6]-[7]	
	ø15	5	VSPE15-5LB[5][6]-[7]	
		10	VSPE15-10LB[5][6]-[7]	
		20	VSPE15-20LB[5][6]-[7]	
		30	VSPE15-30LB[5][6]-[7]	
	ø20	5	VSPE20-5LB[5][6]-[7]	T40
		10	VSPE20-10LB[5][6]-[7]	
		20	VSPE20-20LB[5][6]-[7]	
		30	VSPE20-30LB[5][6]-[7]	

Notes
*Please select a rubber material code for [5] in model code and port size and joint type code for [7], referring to the model designation (example) of Vacuum Cylinder on page 731.

Packaging specifications
1 pc. /bag

Options
Please select a Pad rubber surface treatment code for [6].

● Selectable pad size and material of Pad Surface Treatment for Suction Mark-free

Pad dia. (mm)	[6] Surface treatment				
	-NF	-SF	-DL	-ER	-FG
	Fiber surface type		DLC. coating	Reformed surface	Fluoro coating
	Nylon fiber	Silk fiber			
ø6	—	—	○	○	○
ø8	—	—	○	○	○
ø10	○	○	○	○	○
ø15	○	○	○	○	○
ø20	○	○	○	○	○
Applicable material	S		S, SE	N, NE	S, SE

(○ : Available)

Vacuum cylinder with the connection configuration code "M4" and "M6":

Although the connection configuration codes "M4" and "M6" are not found in the Vacuum Cylinder tables, "M4" and "M6" are selectable. For "M4"/"M6" vacuum cylinders, select one with the matching connection configuration code from the following "Cylinder Holder Only" and from the "Pad & screw set" (on page 374 to 383) .

Cylinder Holder Only

Holder type	Model code	Connection configuration code
Vacuum Cylinder VSPE	VSPE-T15-5-[4]	T15
	VSPE-T15-10-[4]	
	VSPE-T15-20-[4]	
	VSPE-T15-30-[4]	
	VSPE-T40-5-[4]	T40
	VSPE-T40-10-[4]	
	VSPE-T40-20-[4]	
	VSPE-T40-30-[4]	
	VSPE-M4-5-[4]	M4
	VSPE-M4-10-[4]	
	VSPE-M4-20-[4]	
	VSPE-M4-30-[4]	
	VSPE-M6-5-[4]	M6
	VSPE-M6-10-[4]	
	VSPE-M6-20-[4]	
	VSPE-M6-30-[4]	

Applicable vacuum pad list

Holder type	Connection configuration code	Pad type/size (mm)	
		Soft	Soft Bellows
VSPE-T15-[3]-[4]	T15	ø4 to ø15	ø6 to ø15
VSPE-T40-[3]-[4]	T40	ø20 to ø40	ø20

Holder type	Connection configuration code	Pad type/size (mm)									
		Standard		Skidproof	Bellows	Multi-bellows	Metal detectable	Flat, Large Suction Flow	Mark-free	Sponge	Oval
		General	Deep								
VSPE-M4-[3]-[4]	M4	ø10, ø15	ø15	ø10	ø10, ø15	ø10	ø10, ø15	ø10, ø15	ø10	—	—
VSPE-M6-[3]-[4]	M6	ø20 to ø50	ø20 to ø50	ø20 to ø50	ø20 to ø50	ø20 to ø50	ø20	ø20 to ø30	ø20, ø30	ø10 to ø50	All sizes

Notes
*1. Please select a code from Port size and joint type (4J or 6J) for [4], referring to the model designation (example) on page 731.
*2. For a vacuum pad to be connected to a cylinder holder only with "M4" or "M6" connection configuration code, select a code from "Pad & screw set".

Packaging specifications
1 pc. /bag

Vacuum Pen

Suction pen with internal vacuum generator

AbN automation

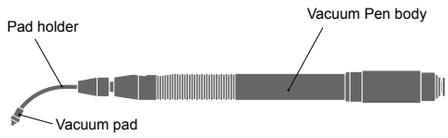
2in1 Product

⚠ Safety instructions for this product

Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation of Vacuum Pen with Vacuum pad (Example)

VT (1) A (2) – W (3) – 6RS (4) (5) (6)



(1) Vacuum Pen

(2) Holder type

Code	A	B
Holder type	Without Valve	With Valve

(3) Body color (Spec.)

Code	W	EG
Body color (Spec.)	Light gray	Black (Anti-static type)

(4) Pad dia. /Material

Code						
	Nitrile rubber	1RN	2RN	4RN	6RN	8RN
	Silicone rubber	1RS	2RS	4RS	6RS	8RS
	Conductive NBR (Low resistance)	1RNE	2RNE	4RNE	6RNE	8RNE
Size (mm)		ø1	ø2	ø4	ø6	ø8

Conductive NBR (Low resistance) is selectable only for Body color: Black (Anti-static type).

(5) Pad holder type

Code	No code	-S
Type	R	Straight

(6) Body fixing bracket

Code	No code	-H
Holder	Without Holder	With Holder

Model Designation of Vacuum Pen Package (Example)

VT (1) B (2) – W (3) (4) – SET (5)

(1) Vacuum Pen

(2) Holder type

Code	A	B
Holder type	Without Valve	With Valve

(3) Body color (Spec.)

Code	W	EG
Body color (Spec.)	Light gray	Black (Anti-static type)

(4) Pad holder type

Code	No code	-S
Type	R	Straight

(5) For Package set, Insert "SET"

Model Designation of Vacuum Pen only (Example)

VT (1) B (2) – W (3)

(1) Vacuum Pen

(2) Holder type

Code	A	B
Holder type	Without Valve	With Valve

(3) Body color (Spec.)

Code	W	EG
Body color (Spec.)	Light gray	Black (Anti-static type)

Model Designation of Vacuum Pen Pad holder only (Example)

VPZ (1) – M4 (2) – (3)

(1) Vacuum Pen Pad holder

(2) Pad connection type

Code	H3	T8	T15	T40	M4	M6
Type	Insert type (Direct connection)	Mount type (Direct connection)			Screw type (Connection with screw)	

(3) Pad holder type

Code	No code	S
Type	R	Straight

Characteristics

Suitable for assembling small components.
Pen type body equipped with vacuum pad and vacuum generator.

Valve incorporated type (VTB) achieves energy-saving.
Less noise. Air is consumed only when necessary.

Anti-static type is suitable for assembly process that dislikes static electricity.
See the specifications on the right for volume resistance.

2 types of pad holders are available.
Straight type and curved type are selectable according to application.

More pad connection types are available.
Additional selectable pad types and sizes.

Specifications

Type	VTA	VTB
Fluid medium	Air	
Operating pressure range	0.15 to 0.7 MPa	
Rated supply pressure	0.5 MPa	
Final vacuum	-85 kPa	-80 kPa
Nozzle dia.	ø0.5 mm	ø0.4 mm
Suction flow	2 ℓ/min [ANR]	
Operating temp. range	0 to 60°C (No freezing)	
Volume resistance (*) [For Anti-static type (EG) only]	Conductive ABS: $1\times10^4\Omega\cdot cm$ Conductive PA: $1\times10^3\Omega\cdot cm$ Conductive POM: $1\times10^2\Omega\cdot cm$ Conductive PBT: $1\times10^3\Omega\cdot cm$ Anti-static coiling tube: $1.4\times10^3\Omega\cdot cm$	
Air supply port (Type and size)	Push-in fitting·ø4 mm	

*Volume resistance value is a representative value from a material manufacturer and is not a guaranteed value.

RoHS2 (2011/65/EU+EU2015/863) compliant

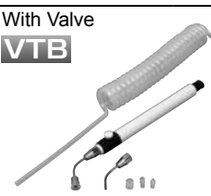
Vacuum Pen type	Model code	Connection configuration code
Vacuum Pen w/Vacuum Pad, w/o Valve VTA	VTA-W-1R[4][5][6]	
	VTA-W-2R[4][5][6]	H3
	VTA-W-4R[4][5][6]	
	VTA-W-6R[4][5][6]	T8
	VTA-W-8R[4][5][6]	

Vacuum Pen type	Model code	Connection configuration code
Vacuum Pen w/Vacuum Pad and Valve VTB	VTB-W-1R[4][5][6]	
	VTB-W-2R[4][5][6]	H3
	VTB-W-4R[4][5][6]	
	VTB-W-6R[4][5][6]	T8
	VTB-W-8R[4][5][6]	

Package set

Without Valve VTA

Model code
VTA-W[4]-SET

With Valve VTB 

Model code
VTB-W[4]-SET

Package set details

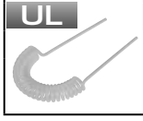
Included products	Quantity	Details
Vacuum Pen body	1	VTA (without valve) or VTB (with valve)
Vacuum pad	4	Material: Silicone rubber Size: dia. 2, 4, 6, 8 mm (1 pc. per size)
Vacuum Pad Holder for dia.1, 2, 4 mm	1	Curved (Model code: VPZ-H3) or straight type (Model code: VPZ-H3-S)
Vacuum Pad Holder for dia.6, 8 mm	1	Curved (Model code: VPZ-T8) or straight type (Model code: VPZ-T8-S)
Coiling tube	1	Color: W (Milk white)

Parts

Vacuum Pen type	Model code
Vacuum Pen alone w/o Valve VTA	VTA-W

Vacuum Pen type	Model code
Vacuum Pen alone w/Valve VTB	VTB-W

Vacuum Pen type	Model code (Nitrile)	Model code (Silicone)	Connection configuration code
Vacuum Pad for Replacement VP Nitrile	VP1RN	VP1RS	
	VP2RN	VP2RS	H3
	VP4RN	VP4RS	
	VP6RN	VP6RS	T8
	VP8RN	VP8RS	

Vacuum Pen type	Model code
Coiling tube UL 	UL04-2-W
	UL04-2-CB

Vacuum Pen type	Model code
Body fixing bracket VFUH	VFUH010P01

*Body fixing bracket is not made of antistatic material.

Notes
*1. Please select a Pad rubber material code for [4], a Pad holder type code for [5], and a Body fixing bracket for [6], referring to the Model Designation (Example) of Vacuum Pen with Vacuum pad on page 734.
*2. For [4] in model code of Vacuum Pen Package set, please select a Pad holder type, referring to the Model Designation (Example) of Package set on page 734.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag: Vacuum Pen with Vacuum pad, Vacuum Pen body, Coiling tube, Pad Holder, Body fixing bracket
1 set/box: Vacuum Pen Package Set

Vacuum Pen

RoHS2 (2011/65/EU+EU2015/863) compliant

Anti-static type

Vacuum Pen type	Model code	Connection configuration code
Vacuum Pen w/ Vacuum Pad, w/o Valve VTA 	VTA-EG-1RNE[5][6]	H3
	VTA-EG-2RNE[5][6]	
	VTA-EG-4RNE[5][6]	
	VTA-EG-6RNE[5][6]	T8
	VTA-EG-8RNE[5][6]	

Vacuum Pen type	Model code	Connection configuration code
Vacuum Pen w/ Vacuum Pad and Valve VTB 	VTB-EG-1RNE[5][6]	H3
	VTB-EG-2RNE[5][6]	
	VTB-EG-4RNE[5][6]	
	VTB-EG-6RNE[5][6]	T8
	VTB-EG-8RNE[5][6]	

Package set

Without Valve
VTA

Model code
VTA-EG[4]-SET

With Valve
VTB

Model code
VTB-EG[4]-SET

Package set details

Included products	Quantity	Details
Anti-static Vacuum Pen body	1	VTA (without valve) or VTB (with valve)
Vacuum pad	4	Material: Conductive NBR (Low resistance type) Size: dia. 2, 4, 6, 8 mm (1 pc. per size)
Vacuum Pad Holder for dia.1, 2, 4 mm	1	Curved (Model code: VPZ-H3) or straight type (Model code: VPZ-H3-S)
Vacuum Pad Holder for dia.6, 8 mm	1	Curved (Model code: VPZ-T8) or straight type (Model code: VPZ-T8-S)
Anti-static Coiling tube	1	Color: B (Black)

Parts

Vacuum Pen type	Model code
Vacuum Pen alone w/o Valve VTA 	VTA-EG

Vacuum Pen type	Model code
Vacuum Pen alone w/ Valve VTB 	VTB-EG

Vacuum Pen type	Model code (Conductive NBR)	Connection configuration code
Vacuum Pad for Replacement VP 	VP1RNE	H3
	VP2RNE	
	VP4RNE	
	VP6RNE	T8
	VP8RNE	

Vacuum Pen type	Model code
Coiling tube UL 	UEL04-2-B

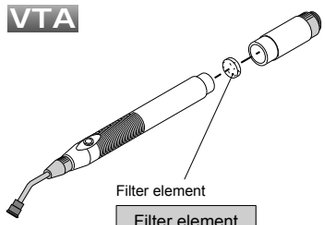
Notes
*1. Please select a Pad holder type code for [5], and a Body fixing bracket for [6], referring to the Model Designation (Example) of Vacuum Pen with Vacuum pad on page 734.
*2. For [4] in model code of Vacuum Pen Package set, please select a Pad holder type, referring to the Model Designation (Example) of Package set on page 734.

CAD data is available at PISCO website.

Packaging specifications
1 pc. /bag: Vacuum Pen with Vacuum pad, Vacuum Pen body, Coiling tube, Pad Holder, Body fixing bracket
1 set/box: Vacuum Pen Package Set
10 pcs. /bag: Filter element

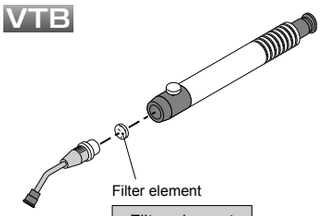
Replacement parts

VTA



Filter element Model code
FEE10×2

VTB



Filter element Model code
VTVA

Pad holder

Curved pad holder type	Applicable pad dia. (mm)	Connection configuration code
VPZ-H3	ø1 to ø4	H3
VPZ-T8	ø6, ø8	T8

Pad holder

Straight pad holder type	Applicable pad dia. (mm)	Connection configuration code
VPZ-H3-S	ø1 to ø4	H3
VPZ-T8-S	ø6, ø8	T8

Replacement parts

Pad holder

Curved pad holder type	Connection configuration code
VPZ-M4	M4
VPZ-M6	M6
VPZ-T15	T15
VPZ-T40	T40

Pad holder

Straight pad holder type	Connection configuration code
VPZ-M4-S	M4
VPZ-M6-S	M6
VPZ-T15-S	T15
VPZ-T40-S	T40

Vacuum pad for replacement/exchange

Please select the rubber material and pad dia. from pad size: dia.1 to dia.8 mm of Vacuum pad standard type (General) .
Any vacuum pad can be mounted as long as its connection configuration code matches that of pad holder. Please refer to the table below for selectable vacuum pad types and sizes.

Applicable vacuum pad list

Pad holder type	Connection configuration code	Pad type/size (mm)										
		Standard		Skidproof	Bellows	Multi-bellows	Metal detectable	Ultrathin	Flat, Large Suction Flow	Mark-free	Sponge	Oval
		General	Deep									
VPZ-H3 (-S)	H3	ø1 to ø4*	—	—	ø2, ø4	—	—	—	—	—	—	—
VPZ-T8 (-S)	T8	ø6, ø8*	—	—	ø6, ø8	ø6, ø8	—	ø8 to ø20	—	—	—	—
VPZ-M4 (-S)	M4	ø10, ø15	ø15	ø10	ø10, ø15	ø10	ø10, ø15	—	ø10, ø15	ø10	—	—
VPZ-M6 (-S)	M6	ø20 to ø50	ø20 to ø50	ø20 to ø50	ø20 to ø50	ø20 to ø50	ø20	—	ø20 to ø30	ø20, ø30	ø10 to ø50	All sizes

*Pad with an apostrophe symbol (*) next to diameter is the one that comes with Vacuum Pen with Vacuum pad.

Pad holder type	Connection configuration code	Pad type/size (mm)	
		Soft	Soft Bellows
VPZ-T15 (-S)	T15	ø4 to ø15	ø6 to ø15
VPZ-T40 (-S)	T40	ø20 to ø40	ø20

Robot Accessories

Robot accessories

Index

New ▶ New product

End of Arm Tooling (EOAT)

For Large Works

Vacuum Grippers ····· New · P.740

Vacuum Adsorption Test Kit

Vacuum Pad Trial Kit ····· P.753

Aluminum bar type

Vacuum Modular Kit HML ····· P.762

Flange type

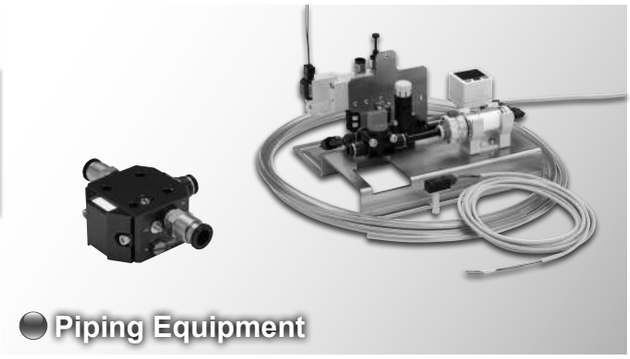
Mounting Flange HS ····· P.765

Attachment

Robot Flange P.C.D Conversion Attachment ····· P.770

Plate

Interface Plates ····· P.774



Piping Equipment

EOAT Direct Mountable type

EOAT Direct Mountable Material Handling Vacuum Generator VYR ··· P.768

Vacuum & Air Control Unit

Vacuum & Air Control Unit HKU ····· P.771

Special products

EOATs are made-to-order.
(Except for Vacuum Grippers and Vacuum Pad Trial Kit)

Vacuum Grippers

For suction transfer of large workpieces.
Vacuum Generator built-in and External Vacuum Pump compatible types

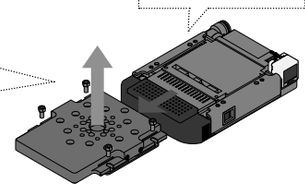
⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Characteristics of Rectangular ring type VRG and general-purpose type VMG

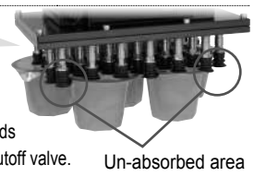
- Vacuum grippers suitable for lifting large workpieces.
- Three types of suction surfaces: two sponge types (Rectangular ring type and whole surface type) and aligned vacuum pads type.
- Built-in high flow Vacuum Generator. Max. suction flow: 760 L/min.(*)
  Capable of lifting even porous workpieces.
  * Value for 3 built-in ejectors specification.
- External Vacuum Pump compatible type is also available.
- Can be easily installed by sliding it onto the flange mounting plate once the plate has been fixed to the robot. Improved operability and safety.

(1) Fix the mounting plate to the robot.
P.C.D. 31.5
P.C.D. 40
P.C.D. 56
P.C.D. 80
P.C.D. 100

(2) Slide the vacuum gripper onto the mounting plate.



Type	Rectangular ring type **VRG**	General-purpose type **VMG**	
	Sponge (Rectangular ring type) Theoretical max. suction force 1512.7N (*1)	Aligned vacuum pads Theoretical max. suction force 2369.5N(*1)	Whole surface sponge Theoretical max. suction force 1546.4N(*1)
Recommended workpieces	Large bags such as material bags Shrink-wrapped plastic bottles Supple sponge pad conforms to and lifts uneven or deformed surfaces of workpieces.	Cardboard boxes and bags	Uneven workpieces such as wood and exterior walls
Pad replacement	Replaceable by replacing the VRG sponge plate.	Vacuum pad + pad screw set (pad connection configuration code: M6) can be mounted. *2	Replaceable by replacing the VMG sponge plate.
		VMG common plate is available for easy pad/sponge switching.	
Accessories	● Spacer (included)	● Fixed orifice or orifice coupling (optional).	● Fixed orifice (optional)
	The stroke can be adjusted to suit the workpiece by changing the height of the adjusting plate on the inside of the pad. Four suction strokes in total: 10, 15, 20, and 25 mm (factory setting: 25 mm). Adjustable in 5 mm increments. * For VRG1515: 8, 13, 18, and 23 mm (factory setting: 23 mm).	Capable of lifting even if there are un-absorbed areas. Suppresses vacuum degradation due to leakage from non-absorbed areas by attaching an orifice to regulate the flow rate. The orifice coupling type makes it easy to attach/ detach the pads. The pads unnecessary for suction can be removed thanks to the socket's built-in shutoff valve.	


Un-absorbed area

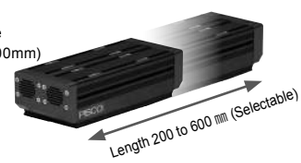
*1. Safety factor 1/4 considered.
*2. Bellows-type vacuum pad is provided as standard. If other pads are to be installed, order "No pad".(Vacuum pads are sold separately.)

Characteristics of the general-purpose bar type VLG

- Two types of suction surfaces: aligned vacuum pads type and whole surface sponge type.
- Body width (50, 100 mm) and length (200 to 600 mm, 5 types) are available.

Single type (Width 50mm)

Dual type (Width 100mm)



- Built-in high flow Vacuum Generator. Max. suction flow: 890 L/min(*).
  * Value for 4 built-in ejectors specification.
- Capable of lifting even if there are non-absorbed areas if fall prevention valves or check valves are attached.
- Mounting plate available for connection to robots with P.C.D. 31.5 (sold separately).

Type	General-purpose type **VLG**	
	Aligned vacuum pads(*)	Sponge (Whole surface)
Recommended workpiece	Cardboard boxes and bags	Uneven workpieces such as wood and exterior walls
Optional	Fall Prevention Valve	Check valve

* Bellows-type vacuum pad is provided as standard. If other pads are to be installed, order "No pad". (Vacuum pads are sold separately.)

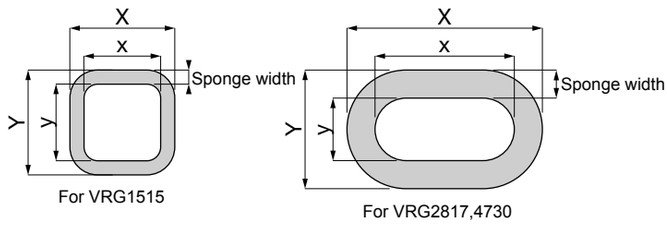
Model designation of VRG (Example)

VRG (1) - 2817 (2) - 40 (3) - SS05 (4) - 163 (5) - V4N (6)

(1) Vacuum Gripper Rectangular ring type

(2) Pad size

Code	1515	2817	4730
Outer size (mm)	X:150, Y:150	X:280, Y:170	X:470, Y:300
Inside size (mm)	x:110, y:110	x:200, y:90	x:390, y:220
Pad thickness (mm)	25		



(3) Sponge width

Code	20	40
Pad width (mm)	20	40
Applicable size code	1515	2817, 4730

(4) Sponge material

Code	SS05	SS10
Material: Hardness	Silicone: 5°	Silicone: 10°

(5) Vacuum Generator specification

Code	No. of nozzles (pcs)	Suction flow (ℓ/min)	Air consumption (ℓ/min)	Final vacuum (kPa)	Nozzle diameter (mm)
161	1	290	110	-94	ø1.6
162	2	550	220		
163	3	760	330		
P	Without Vacuum Generator (External Vacuum Pump compatible type)				

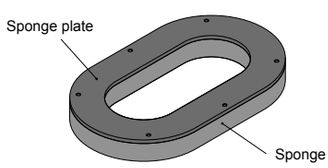
* Values when rated supply pressure (0.5 MPa) is applied.

(6) Sensor specifications

Code	Specifications
V4N	Digital pressure sensor NPN output 2 switch outputs + analog output
V4P	Digital pressure sensor PNP output 2 switch outputs + analog output

Model designation of VRG-type replacement sponges (Example)

VRG (1) - VP (2) - 2817 (3) - 40 (4) - SS05 (5)

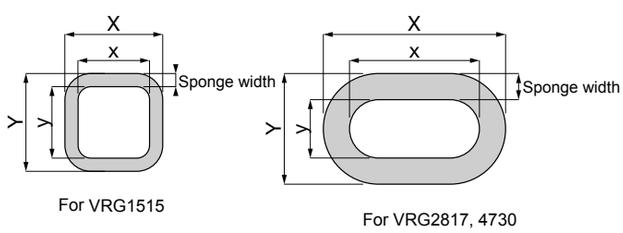


(1) Vacuum Gripper Rectangular ring type

(2) Sponge plate type

(3) Pad size

Code	1515	2817	4730
Outer size (mm)	X:150, Y:150	X:280, Y:170	X:470, Y:300
Inside size (mm)	x:110,y:110	x:200, y:90	x:390, y:220
Pad thickness (mm)	25		



(4) Sponge width

Code	20	40
Pad width (mm)	20	40
Applicable size code	1515	2817, 4730

(5) Sponge material

Code	SS05	SS10
Material: Hardness	Silicone: 5°	Silicone: 10°

Vacuum Grippers

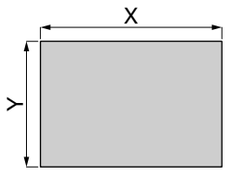
Model designation of VMG type (Example)

VMG (1) 2618 (2) - SE5L (3) -EP20S (4) -K0.8 (5) - 163 (6) - V4N (7)

(1) Vacuum Gripper General-purpose type

(2) Plate size

Code		2618	3725	5738
Size (mm)	X	260	370	570
	Y	180	250	380



(3) No. of pad (sponge) rows (○: Available)

Code	Specifications	Dia. (mm) (Cell shape)	No. of rows	Pitch (mm)	No. of pads (No.of holes)	Compatible plate size code 2618	3725	5738
P5L	Aligned vacuum pad type	ø40	5	64	18	○		
P7L		ø20	7	36	44	○		
		ø40	7	64	39		○	
P11L		ø40	11	64	94			○
SE5L	Whole surface sponge type	ø30 equivalent oblong hole	5	64	18	○		
S7L		ø20 circular hole	7	36	44	○		
SE7L		ø30 equivalent oblong hole	7	64	39		○	
SE11L		ø30 equivalent oblong hole	11	64	94			○

(4) Pad (sponge) specification

Code	Specifications		Material	Compatible pad row number
No code	Aligned vacuum pad type	No pad	—	P5L, P7L, P11L
-20BN		ø20mm, Single-convolution bellows	Nitrile	P7L (Only for 2618)
-20BS			Silicone	
-40BN		ø40mm, Single-convolution bellows	Nitrile	P5L, P7L, P11L
-40BS			Silicone	
-EP20S	Whole surface sponge type	Thickness 20 mm, Sponge	EPDM	SE5L, S7L, SE7L, SE11L

(5) Holder specifications

Code	Specifications	Orifice dia. (mm)	Compatible pad specification
No code	Without orifice	—	All types
-0.5	Orifice coupling (*)	ø0.5	Aligned vacuum pads type only
-0.8		ø0.8	
-1.5		ø1.5	
-2.0		ø2.0	
-K0.5	Fixed orifice	ø0.5	All types
-K0.8		ø0.8	
-K1.5		ø1.5	
-K2.0		ø2.0	

* When selecting an orifice coupling, please check Common Safety Instructions.

(6) Vacuum Generator specification

Code	No. of nozzles (pcs)	Suction flow (ℓ/min)	Air consumption (ℓ/min)	Final vacuum (kPa)	Nozzle diameter (mm)
161	1	290	110	-94	ø1.6
162	2	550	220		
163	3	760	330		
P	Without Vacuum Generator (External Vacuum Pump compatible type)				

* Values when rated supply pressure (0.5 MPa) is applied.

(7) Sensor specifications

Code	Specifications
V4N	Digital pressure sensor NPN output 2 switch outputs + analog output
V4P	Digital pressure sensor PNP output 2 switch outputs + analog output

Model designation of VMG type common plate (Example)

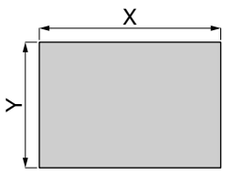
VMG (1) – EXP (2) – 2618 (3) – SE5L (4) –EP20S (5) –K0.8 (6)

(1) Vacuum Gripper General-purpose type

(2) Common plate

(3) Plate size

Code		2618	3725	5738
Size (mm)	X	260	370	570
	Y	180	250	380

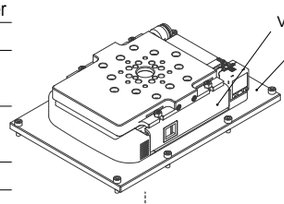


(4) No. of pad (sponge) rows (○: Available)

Code	Specifications	Dia. (mm) (Cell shape)	No. of rows	Pitch (mm)	No. of pads (No.of holes)	Compatible plate size code 2618	3725	5738
P5L	Aligned vacuum pad type	ø40	5	64	18	○		
P7L		ø20	7	36	44	○		
		ø40	7	64	39		○	
P11L		ø40	11	64	94			○
SE5L	Whole surface sponge type	ø30 equivalent oblong hole	5	64	18	○		
S7L		ø20 circular hole	7	36	44	○		
SE7L		ø30 equivalent oblong hole	7	64	39		○	
SE11L		ø30 equivalent oblong hole	11	64	94			○

(5) Pad (sponge) specification

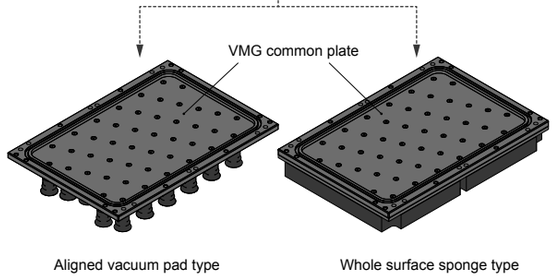
Code	Specifications		Material	Compatible pad row number
No code	Aligned vacuum pad type	No pad	—	P5L, P7L, P11L
-20BN		ø20mm, Single-convolution bellows	Nitrile	P7L (Only for 2618)
-20BS			Silicone	
-40BN		ø40mm, Single-convolution bellow	Nitrile	P5L, P7L, P11L
-40BS			Silicone	
-EP20S	Whole surface sponge type	Thickness 20mm, Sponge	EPDM	SE5L, S7L, SE7L, SE11L



(6) Holder specifications

Code	Specifications	Orifice dia.(mm)	Compatible pad specification
No code	Without orifice	—	All types
-0.5	Orifice coupling (*)	ø0.5	Aligned vacuum pads type only
-0.8		ø0.8	
-1.5		ø1.5	
-2.0		ø2.0	
-K0.5	Fixed orifice	ø0.5	All types
-K0.8		ø0.8	
-K1.5		ø1.5	
-K2.0		ø2.0	

* When selecting an orifice coupling, please check Common Safety Instructions.

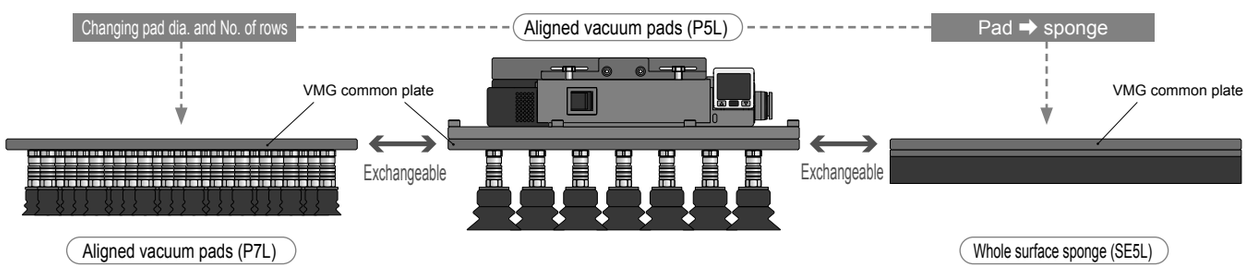


Changes to the pad (sponge) specifications of VMG types

For VMG types, the pad/sponge specification can be easily swapped by replacing the VMG common plate.

* Plates are not interchangeable between specifications with different plate sizes.

(Example) For plate size 2618



Vacuum Grippers

Model designation of VMG-type replacement sponges (Example)

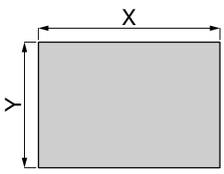
VMG – VP – 2618 – SE5L – EP20S
(1) (2) (3) (4) (5)

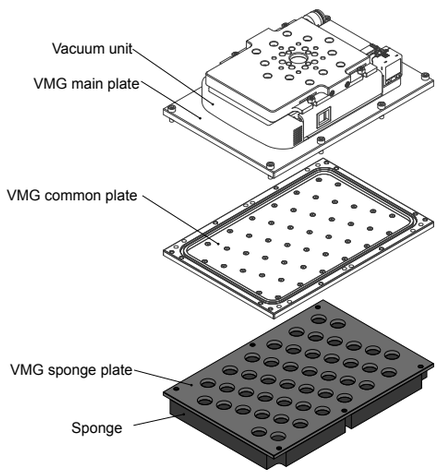
(1) Vacuum Gripper General-purpose type

(2) Sponge plate set

(3) Plate size

Code		2618	3725	5738
Size (mm)	X	260	370	570
	Y	180	250	380





(4) No. of pad (sponge) rows (○: Available)

Code	Dia. (mm) (Cell shape)	No. of rows	Pitch (mm)	No. of pads (No.of holes)	Compatible plate size code 2618	3725	5738
SE5L	ø30 equivalent oblong hole	5	64	18	○		
S7L	ø20 circular hole	7	36	44	○		
SE7L	ø30 equivalent oblong hole	7	64	39		○	
SE11L	ø30 equivalent oblong hole	11	64	94			○

(5) Sponge specification

Code	Specifications	Material
EP20S	Thickness 20 mm, Sponge	EPDM

Regarding VMG type replacement pads

Pad connection config. code: M6 pad & screw set can be installed. For more information, see Vacuum pad & screw set on page 374.

Model designation of orifice coupling (plug) (Example)

VMG – CPPE7 – FM6 – 0.8
(1) (2) (3)

(1) Vacuum Gripper General-purpose type

(2) Coupling plug only

(3) Orifice dia.

Code	Orifice dia. (mm)
0.5	ø0.5
0.8	ø0.8
1.5	ø1.5
2.0	ø2.0

Model designation of orifice coupling (socket)

VMG – CPSE7 – M6
(1) (2)

(1) Vacuum Gripper General-purpose type

(2) Coupling socket only

Model designation of fixed orifice (Example)

VMG – VPEM6 S – K0.8
(1) (2) (3) (4)

(1) Vacuum Gripper General-purpose type

(2) Fixed orifices

(3) Specifications

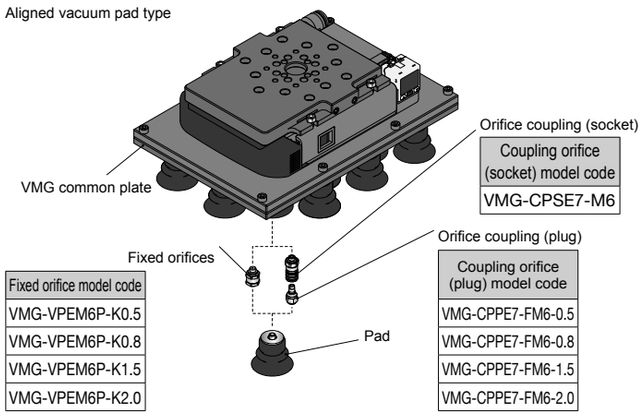
Code	P	S
Adsorption part	Aligned vacuum pad type	Whole surface sponge type

(4) Orifice dia.

Code	Orifice dia. (mm)
K0.5	ø0.5
K0.8	ø0.8
K1.5	ø1.5
K2.0	ø2.0

VMG type orifice part components

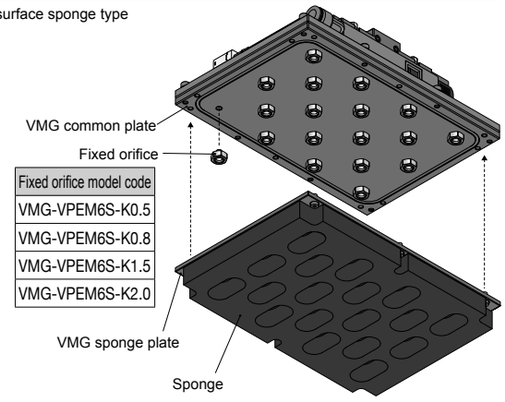
Aligned vacuum pad type



Fixed orifice model code
VMG-VPEM6P-K0.5
VMG-VPEM6P-K0.8
VMG-VPEM6P-K1.5
VMG-VPEM6P-K2.0

Coupling orifice (plug) model code
VMG-CPPE7-FM6-0.5
VMG-CPPE7-FM6-0.8
VMG-CPPE7-FM6-1.5
VMG-CPPE7-FM6-2.0

Whole surface sponge type



Fixed orifice model code
VMG-VPEM6S-K0.5
VMG-VPEM6S-K0.8
VMG-VPEM6S-K1.5
VMG-VPEM6S-K2.0

Model designation of VLG type (Example)

VLG (1) 30S (2) - S2L (3) - EP20S (4) -CV (5) - 161 (6) -V4N (7)

(1) Vacuum grippers General-purpose bar type

(2) Size

Code						
Code	Single (width 50mm)	20S	30S	40S	50S	60S
	Dual (width 100mm)	20D	30D	40D	50D	60D
Length (mm)		200	300	400	500	600

(3) No. of pad (sponge) rows

■ Single type

Code	Specifications	Dia. (mm) (Cell shape)	No. of rows	Pitch (mm)	No. of pads (No.of holes)				
					200mm	300mm	400mm	500mm	600mm
P2L	Aligned vacuum pad type	ø15	2	20	20	30	40	50	60
		ø20	2	25	16	24	32	40	48
		ø25	2	30	12	19	25	32	39
P1L		ø30	1	40	5	7	10	12	15
		ø40	1	50	4	6	8	10	12
S2L	Whole surface sponge type	ø10 circular hole	2	20	20	30	40	50	60

■ Dual type

Code	Specifications	Dia. (mm) (Cell shape)	No. of rows	Pitch (mm)	No. of pads (No.of holes)				
					200mm	300mm	400mm	500mm	600mm
P4L	Aligned vacuum pad type	ø15	4	20	40	60	80	100	120
		ø20	4	25	32	48	64	80	96
		ø25	4	30	24	38	50	64	78
P2L		ø30	2	40	10	14	20	24	30
		ø40	2	50	8	12	16	20	24
S4L	Whole surface sponge type	ø10 circular hole	4	20	40	60	80	100	120

(4) Pad (sponge) specification

Code	Specifications			Material
15	Aligned vacuum pad type	No pad (*1,2)	(ø15mm, Pitch 20mm)	—
20			(ø20mm, Pitch 25mm)	—
25			(ø25mm, Pitch 30mm)	—
30			(ø30mm, Pitch 40mm)	—
40			(ø40mm, Pitch 50mm)	—
15BN		ø15mm, Single-convolution bellows		Nitrile
15BS				Silicone
20BN		ø20mm, Single-convolution bellows		Nitrile
20BS				Silicone
25BN		ø25mm, Single-convolution bellows		Nitrile
25BS				Silicone
30BN		ø30mm, Single-convolution bellows		Nitrile
30BS				Silicone
40BN		ø40mm, Single-convolution bellows		Nitrile
40BS				Silicone
EP20S	Whole surface sponge type	Thickness 20㎜ , Sponge		EPDM

*1 For "no pad" spec., enter the code for pad dia. to specify the pitch.
*2 Mounting screw size for "no pad".

Code	Mounting screw size
15	M4 x 0.7 Vacuum pad + pad screw set (pad connection configuration code: M4) can be mounted.
20,25,30,40	M6 x 1 Vacuum pad + pad screw set (pad connection configuration code: M6) can be mounted.

For more information, see the page for sets with vacuum pad screws (p. 374).

(5) Holder specifications

Code	Specifications	Compatible pad specification
No code	Without orifice	All types
-ECV	Fall Prevention Valve	Vacuum pad aligned type only
-CV	Check valve	Only for whole surface sponge type

(6) Vacuum Generator specifications

Code	No. of nozzles (pcs)	Suction flow (ℓ/min)	Air consumption (ℓ/min)	Final vacuum (kPa)	Nozzle diameter (mm)	Applicable size	
						Single	Dual
161	1	290	110	-94	ø1.6	20S to 40S	—
162	2	550	220			50S to	20D to 40D
164	4	890	440			—	50D to

* Values when rated supply pressure (0.5 MPa) is applied.

(7) Sensor specifications

Code	Specifications
No code	No sensor
-V4N	Digital pressure sensor NPN output 2 switch outputs + analog output
-V4P	Digital pressure sensor PNP output 2 switch outputs + analog output

Vacuum Grippers

Model designation of VLG type pad alone (sponge whole surface type) (Example)

VLG (1) - VP (2) - 30S (2) - S2L (3) - EP20S (4)

(1) Vacuum grippers General-purpose bar type

(2) Sponge

(3) Size

Code						
Code	SingleSingle (width 50 mm)	20S	30S	40S	50S	60S
	Dual (width 100 mm)	20D	30D	40D	50D	60D
Length (mm)		200	300	400	500	600

(3) No. of pad (sponge) rows

■ Single type

Code	Hole dia. (mm)	No. of rows	Pitch (mm)	No. of holes				
				200㎜	300㎜	400㎜	500㎜	600㎜
S2L	ø10	2	20	20	30	40	50	60

■ Dual type

Code	Hole dia. (mm)	No. of rows	Pitch (mm)	No. of holes				
				200㎜	300㎜	400㎜	500㎜	600㎜
S4L	ø10	4	20	40	60	80	100	120

(4) Sponge specification

Code	Specifications	Material
EP20S	Thickness 20㎜ , Sponge	EPDM

* For dual type, a set of two sponges of single type is provided.

Model designation of Fall Prevention Valve (Example)

*Only for Aligned pad type

ECV (1) M4 (2) - FM4 (3)

(1) Fall Prevention Valve

(2) Male thread size on vacuum unit

(3) Female thread size on pad

Code	M4-FM4	M6-FM6
Male thread size on vacuum unit	M4×0.7	M6×1
Female thread size on pad	M4×0.7	M6×1
Pad dia. (mm)	ø15	ø20, ø25, ø30, ø40

Model designation of robot flange mounting plate (Example)

VLG (1) - RFP (2) - S (3)

(1) Vacuum grippers General-purpose bar type

(2) Robot flange mounting plate

(3) Size

Code	S	D
Size (mm)	Single (Pad width50)	Dual (Pad width100)

* Robot flange mounting plate is not available for 500 mm and 600 mm length types (size code: 50S, 50D, 60S, 60D).

Specifications

■ VRG、VMGType

Model		VRG			VMG							
Type		Sponge (Rectangular ring type)			Aligned vacuum pads				Whole surface sponge			
Code		1515	2817	4730	2618-P5L	2618-P7L	3725-P7L	5738-P11L	2618-SE5L	2618-S7L	3725-SE7L	5738-SE11L
Suction surface size		150x150	280x170	470x300	260x180		370x250	570x380	260x180		370x250	570x380
No. of rows		—	—	—	5rows	7rows	7rows	11rows	5rows	7rows	7rows	11rows
Fluid medium		Air, Vacuum (*1)										
Operating pressure range	Only for Vacuum Generator spec.	0.3 to 0.7 MPa										
Rated supply pressure		0.5 MPa										
Noise level		70dB (A)										
Operating vacuum pressure	Only for External Vacuum Pump spec.	-100 to 0 kPa										
Operating temp. range		5 to 50°C (No freezing)										
Theoretical suction force (*2,3)	FoS 1/4 (Horizontal lifting)	235.8N	326.2N	1512.7N	453.7N	277.3N	983.1N	2369.5N	296.1N	277.3N	641.6N	1546.4N
	FoS 1/8 (Vertical lifting)	117.9N	163.1N	756.4N	226.9N	138.6N	491.5N	1184.7N	148.1N	138.6N	320.8N	773.2N

* 1 "Fluid medium: vacuum" is only for external vacuum pump spec.
* 2 Theoretical suction force at a vacuum of -80 kPa.
* 3 Do not exceed the maximum load capacity of 100 kg of the main body mounting section, including the weight of the gripper body and inertia forces during transport.

■ VLG type (single type, 200 mm length)

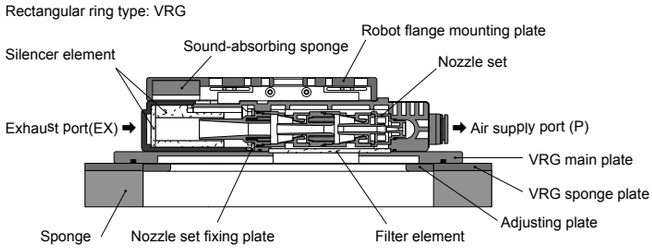
Model		VLG					
Type		Aligned vacuum pads					Whole surface sponge
Pad dia. (hole dia.)		ø15	ø20	ø25	ø30	ø40	ø10
No. of rows		2rows	2rows	2rows	1rows	1rows	2rows
Fluid medium		Air					
Operating pressure range		0.3 to 0.7 MPa					
Rated supply pressure		0.5 MPa					
Noise level		For 1 or 2 nozzles: 76dB (A) For 4 nozzles: 80dB (A)					
Operating temp. range		5 to 50°C (No freezing)					
Theoretical suction force (*2,3)	FoS 1/4 (Horizontal lifting)	70.9N	100.8N	118.1N	70.9N	100.8N	31.5N
	FoS 1/8 (Vertical lifting)	35.4N	50.4N	59.1N	35.4N	50.4N	15.8N

* 1 Theoretical suction force at a vacuum of -80 kPa.
* 2 For dual types, multiply by 2; for models other than 200 mm length, multiply by the length ratio (e.g. multiply by 1.5 for 300 mm length).

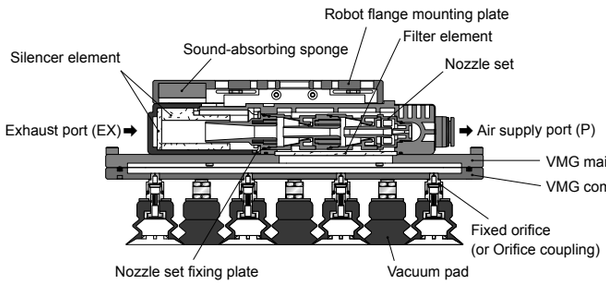
Vacuum Grippers

Sectional drawing

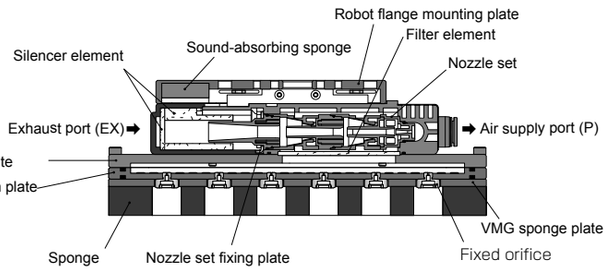
Rectangular ring type: VRG



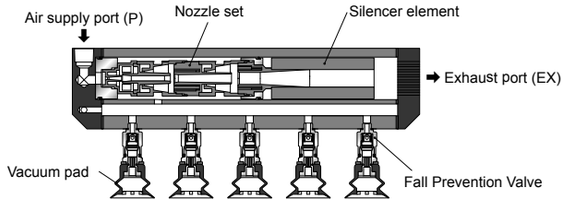
General-purpose type: VMG (Aligned pads type)



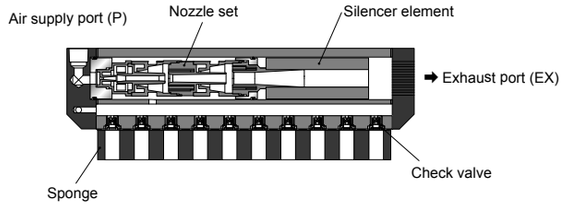
General-purpose type: VMG (sponge full surface type)



General-purpose bar type: VLG (aligned vacuumpads type)



General-purpose bar type: VLG (whole surface sponge type)



RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Pad size (mm)	Pad width, thickness (mm)	Sponge material (Hardness)	Model code	Replacement sponge (VRG sponge plate set) model code
Rectangular ring type New VRG	150 x 150	Pad width 20, Thickness 25	Silicone (5˚)	VRG1515-20-SS05-161-6	VRG-VP-1515-20-SS05
				VRG1515-20-SS05-162-6	
				VRG1515-20-SS05-163-6	
				VRG1515-20-SS05-P-6	
			Silicone (10˚)	VRG1515-20-SS10-161-6	VRG-VP-1515-20-SS10
				VRG1515-20-SS10-162-6	
				VRG1515-20-SS10-163-6	
				VRG1515-20-SS10-P-6	
	280 x 170	Pad width 40, Thickness 25	Silicone (5˚)	VRG2817-40-SS05-161-6	VRG-VP-2817-40-SS05
				VRG2817-40-SS05-162-6	
				VRG2817-40-SS05-163-6	
				VRG2817-40-SS05-P-6	
			Silicone (10˚)	VRG2817-40-SS10-161-6	VRG-VP-2817-40-SS10
				VRG2817-40-SS10-162-6	
				VRG2817-40-SS10-163-6	
				VRG2817-40-SS10-P-6	
	470 x 300	Pad width 40, Thickness 25	Silicone (5˚)	VRG4730-40-SS05-161-6	VRG-VP-4730-40-SS05
				VRG4730-40-SS05-162-6	
				VRG4730-40-SS05-163-6	
				VRG4730-40-SS05-P-6	
			Silicone (10˚)	VRG4730-40-SS10-161-6	VRG-VP-4730-40-SS10
				VRG4730-40-SS10-162-6	
				VRG4730-40-SS10-163-6	
				VRG4730-40-SS10-P-6	

Notes
*1. Please specify the code for sensor specification in 6 for VRG type, referring to model designation (Example) on page 741.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Frame size (mm)	Pad dia., (mm), No. of rows	Pad material	Model code	VMG common plate (with pad) model code
Aligned vacuum pad type New VMG	260 x 180	ø40, 5rows	Nitrile	VMG2618-P5L-40BN5-161-7	VMG-EXP2618-P5L-40BN5
				VMG2618-P5L-40BN5-162-7	
				VMG2618-P5L-40BN5-163-7	
				VMG2618-P5L-40BN5-P-7	
			Silicone	VMG2618-P5L-40BS5-161-7	VMG-EXP2618-P5L-40BS5
				VMG2618-P5L-40BS5-162-7	
				VMG2618-P5L-40BS5-163-7	
				VMG2618-P5L-40BS5-P-7	
		ø20, 7rows	Nitrile	VMG2618-P7L-20BN5-161-7	VMG-EXP2618-P7L-20BN5
				VMG2618-P7L-20BN5-162-7	
				VMG2618-P7L-20BN5-163-7	
				VMG2618-P7L-20BN5-P-7	
			Silicone	VMG2618-P7L-20BS5-161-7	VMG-EXP2618-P7L-20BS5
				VMG2618-P7L-20BS5-162-7	
				VMG2618-P7L-20BS5-163-7	
				VMG2618-P7L-20BS5-P-7	
	370 x 250	ø40, 7rows	Nitrile	VMG3725-P7L-40BN5-161-7	VMG-EXP3725-P7L-40BN5
				VMG3725-P7L-40BN5-162-7	
				VMG3725-P7L-40BN5-163-7	
				VMG3725-P7L-40BN5-P-7	
			Silicone	VMG3725-P7L-40BS5-161-7	VMG-EXP3725-P7L-40BS5
				VMG3725-P7L-40BS5-162-7	
				VMG3725-P7L-40BS5-163-7	
				VMG3725-P7L-40BS5-P-7	
	570 x 380	ø40, 11rows	Nitrile	VMG5738-P11L-40BN5-161-7	VMG-EXP5738-P11L-40BN5
				VMG5738-P11L-40BN5-162-7	
				VMG5738-P11L-40BN5-163-7	
				VMG5738-P11L-40BN5-P-7	
			Silicone	VMG5738-P11L-40BS5-161-7	VMG-EXP5738-P11L-40BS5
				VMG5738-P11L-40BS5-162-7	
				VMG5738-P11L-40BS5-163-7	
				VMG5738-P11L-40BS5-P-7	

Type	Frame size (mm)	Hole dia. (mm) (cell shape), No. of rows	Sponge material	Model code	VMG common plate (with sponge plate set) model code	Replacement sponge (VMG sponge plate set) model code
Whole surface sponge type VMG New	260 x 180	ø30 equivalent oblong hole, 5rows	EPDM	VMG2618-SE5L-EP20S5-161-7	VMG-EXP2618-SE5L-EP20S5	VMG-VP-2618-SE5L-EP20S
				VMG2618-SE5L-EP20S5-162-7		
				VMG2618-SE5L-EP20S5-163-7		
				VMG2618-SE5L-EP20S5-P-7		
		ø20 equivalent circular hole 7rows	EPDM	VMG2618-S7L-EP20S5-161-7	VMG-EXP2618-S7L-EP20S5	VMG-VP-2618-S7L-EP20S
				VMG2618-S7L-EP20S5-162-7		
				VMG2618-S7L-EP20S5-163-7		
				VMG2618-S7L-EP20S5-P-7		
	370 x 250	ø30 equivalent oblong hole, 7rows	EPDM	VMG3725-SE7L-EP20S5-161-7	VMG-EXP3725-SE7L-EP20S5	VMG-VP-3725-SE7L-EP20S
				VMG3725-SE7L-EP20S5-162-7		
				VMG3725-SE7L-EP20S5-163-7		
				VMG3725-SE7L-EP20S5-P-7		
	570 x 380	ø30 equivalent oblong hole, 11rows	EPDM	VMG5738-SE11L-EP20S5-161-7	VMG-EXP5738-SE11L-EP20S5	VMG-VP-5738-SE11L-EP20S
				VMG5738-SE11L-EP20S5-162-7		
				VMG5738-SE11L-EP20S5-163-7		
				VMG5738-SE11L-EP20S5-P-7		

Notes
*1. Please specify the code for sensor specification in 7 for VMG type, referring to model designation (Example) on page 742.
*2. No pad" type is also available for VMG type. For model code of "no pad" type, see page 742.

Vacuum Grippers

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Length (mm)	No. of rows	Pad dia. (mm)	Pad material	Model code
Single type (Aligned vacuum pads type) VLG New	200	2rows	ø15	Nitrile	VLG20S-P2L-15BN5-1617
				Silicone	VLG20S-P2L-15BS5-1617
			ø20	Nitrile	VLG20S-P2L-20BN5-1617
				Silicone	VLG20S-P2L-20BS5-1617
			ø25	Nitrile	VLG20S-P2L-25BN5-1617
				Silicone	VLG20S-P2L-25BS5-1617
		1rows	ø30	Nitrile	VLG20S-P1L-30BN5-1617
				Silicone	VLG20S-P1L-30BS5-1617
			ø40	Nitrile	VLG20S-P1L-40BN5-1617
				Silicone	VLG20S-P1L-40BS5-1617
	300	2rows	ø15	Nitrile	VLG30S-P2L-15BN5-1617
				Silicone	VLG30S-P2L-15BS5-1617
			ø20	Nitrile	VLG30S-P2L-20BN5-1617
				Silicone	VLG30S-P2L-20BS5-1617
			ø25	Nitrile	VLG30S-P2L-25BN5-1617
				Silicone	VLG30S-P2L-25BS5-1617
		1rows	ø30	Nitrile	VLG30S-P1L-30BN5-1617
				Silicone	VLG30S-P1L-30BS5-1617
			ø40	Nitrile	VLG30S-P1L-40BN5-1617
				Silicone	VLG30S-P1L-40BS5-1617
	400	2rows	ø15	Nitrile	VLG40S-P2L-15BN5-1617
				Silicone	VLG40S-P2L-15BS5-1617
			ø20	Nitrile	VLG40S-P2L-20BN5-1617
				Silicone	VLG40S-P2L-20BS5-1617
			ø25	Nitrile	VLG40S-P2L-25BN5-1617
				Silicone	VLG40S-P2L-25BS5-1617
		1rows	ø30	Nitrile	VLG40S-P1L-30BN5-1617
				Silicone	VLG40S-P1L-30BS5-1617
			ø40	Nitrile	VLG40S-P1L-40BN5-1617
				Silicone	VLG40S-P1L-40BS5-1617
	500	2rows	ø15	Nitrile	VLG50S-P2L-15BN5-1627
				Silicone	VLG50S-P2L-15BS5-1627
			ø20	Nitrile	VLG50S-P2L-20BN5-1627
				Silicone	VLG50S-P2L-20BS5-1627
			ø25	Nitrile	VLG50S-P2L-25BN5-1627
				Silicone	VLG50S-P2L-25BS5-1627
		1rows	ø30	Nitrile	VLG50S-P1L-30BN5-1627
				Silicone	VLG50S-P1L-30BS5-1627
			ø40	Nitrile	VLG50S-P1L-40BN5-1627
				Silicone	VLG50S-P1L-40BS5-1627
	600	2rows	ø15	Nitrile	VLG60S-P2L-15BN5-1627
				Silicone	VLG60S-P2L-15BS5-1627
			ø20	Nitrile	VLG60S-P2L-20BN5-1627
				Silicone	VLG60S-P2L-20BS5-1627
			ø25	Nitrile	VLG60S-P2L-25BN5-1627
				Silicone	VLG60S-P2L-25BS5-1627
		1rows	ø30	Nitrile	VLG60S-P1L-30BN5-1627
				Silicone	VLG60S-P1L-30BS5-1627
			ø40	Nitrile	VLG60S-P1L-40BN5-1627
				Silicone	VLG60S-P1L-40BS5-1627

Notes
*1. Please specify the code for mounting holder specification in 5 and code for sensor specification in 7 for VLG type, referring to model designation (Example) on page 745.
*2. "No pad" type is also available for VLG type. For model code of "no pad" type, see page 745.

Type	Length (mm)	No. of rows	Hole dia. (mm)	Sponge material	Model code	Replacement sponge model code
Single type (Whole surface sponge) VLG New	200	2rows	ø10	EPDM	VLG20S-S2L-EP20S5-1617	VLG-VP-20S-S2L-EP20S
	300				VLG30S-S2L-EP20S5-1617	VLG-VP-30S-S2L-EP20S
	400				VLG40S-S2L-EP20S5-1617	VLG-VP-40S-S2L-EP20S
	500				VLG50S-S2L-EP20S5-1627	VLG-VP-50S-S2L-EP20S
	600				VLG60S-S2L-EP20S5-1627	VLG-VP-60S-S2L-EP20S

Type	Model code
Single type robot flange mounting plate VLG New	VLG-RFP-S

* The robot flange mounting plate is not compatible with the 500 mm and 600 mm length types (size code: 50S, 60S)

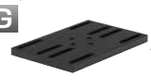
Product name	Model code ECV M-FM
Fall Prevention Valve ECV M FM	ECVM4-FM4
	ECVM6-FM6

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Length (mm)	No. of rows	Pad dia. (mm)	Pad material	Model code
Dual type (Aligned vacuum pads type) VLG New	200	4rows	ø15	Nitrile	VLG20D-P4L-15BN5-1627
				Silicone	VLG20D-P4L-15BS5-1627
			ø20	Nitrile	VLG20D-P4L-20BN5-1627
				Silicone	VLG20D-P4L-20BS5-1627
			ø25	Nitrile	VLG20D-P4L-25BN5-1627
				Silicone	VLG20D-P4L-25BS5-1627
		2rows	ø30	Nitrile	VLG20D-P2L-30BN5-1627
				Silicone	VLG20D-P2L-30BS5-1627
			ø40	Nitrile	VLG20D-P2L-40BN5-1627
				Silicone	VLG20D-P2L-40BS5-1627
	300	4rows	ø15	Nitrile	VLG30D-P4L-15BN5-1627
				Silicone	VLG30D-P4L-15BS5-1627
			ø20	Nitrile	VLG30D-P4L-20BN5-1627
				Silicone	VLG30D-P4L-20BS5-1627
			ø25	Nitrile	VLG30D-P4L-25BN5-1627
				Silicone	VLG30D-P4L-25BS5-1627
		2rows	ø30	Nitrile	VLG30D-P2L-30BN5-1627
				Silicone	VLG30D-P2L-30BS5-1627
			ø40	Nitrile	VLG30D-P2L-40BN5-1627
				Silicone	VLG30D-P2L-40BS5-1627
	400	4rows	ø15	Nitrile	VLG40D-P4L-15BN5-1627
				Silicone	VLG40D-P4L-15BS5-1627
			ø20	Nitrile	VLG40D-P4L-20BN5-1627
				Silicone	VLG40D-P4L-20BS5-1627
			ø25	Nitrile	VLG40D-P4L-25BN5-1627
				Silicone	VLG40D-P4L-25BS5-1627
		2rows	ø30	Nitrile	VLG40D-P2L-30BN5-1627
				Silicone	VLG40D-P2L-30BS5-1627
			ø40	Nitrile	VLG40D-P2L-40BN5-1627
				Silicone	VLG40D-P2L-40BS5-1627
	500	4rows	ø15	Nitrile	VLG50D-P4L-15BN5-1647
				Silicone	VLG50D-P4L-15BS5-1647
			ø20	Nitrile	VLG50D-P4L-20BN5-1647
				Silicone	VLG50D-P4L-20BS5-1647
			ø25	Nitrile	VLG50D-P4L-25BN5-1647
				Silicone	VLG50D-P4L-25BS5-1647
		2rows	ø30	Nitrile	VLG50D-P2L-30BN5-1647
				Silicone	VLG50D-P2L-30BS5-1647
			ø40	Nitrile	VLG50D-P2L-40BN5-1647
				Silicone	VLG50D-P2L-40BS5-1647
	600	4rows	ø15	Nitrile	VLG60D-P4L-15BN5-1647
				Silicone	VLG60D-P4L-15BS5-1647
			ø20	Nitrile	VLG60D-P4L-20BN5-1647
				Silicone	VLG60D-P4L-20BS5-1647
			ø25	Nitrile	VLG60D-P4L-25BN5-1647
				Silicone	VLG60D-P4L-25BS5-1647
		2rows	ø30	Nitrile	VLG60D-P2L-30BN5-1647
				Silicone	VLG60D-P2L-30BS5-1647
			ø40	Nitrile	VLG60D-P2L-40BN5-1647
				Silicone	VLG60D-P2L-40BS5-1647

Notes
*1. Please specify the code for mounting holder specification in 5 and code for sensor specification in 7 for VLG type, referring to model designation (Example) on page 745.
*2. "No pad" type is also available for VLG type. For model code of "no pad" type, see page 745.

Type	Length (mm)	No. of rows	Hole dia. (mm)	Sponge material	Model code	Replacement sponge model code
Dual type (Whole surface sponge) VLG New	200	4rows	ø10	EPDM	VLG20D-S4L-EP20S5-1627	VLG-VP-20D-S4L-EP20S
	300				VLG30D-S4L-EP20S5-1627	VLG-VP-30D-S4L-EP20S
	400				VLG40D-S4L-EP20S5-1627	VLG-VP-40D-S4L-EP20S
	500				VLG50D-S4L-EP20S5-1647	VLG-VP-50D-S4L-EP20S
	600				VLG60D-S4L-EP20S5-1647	VLG-VP-60D-S4L-EP20S

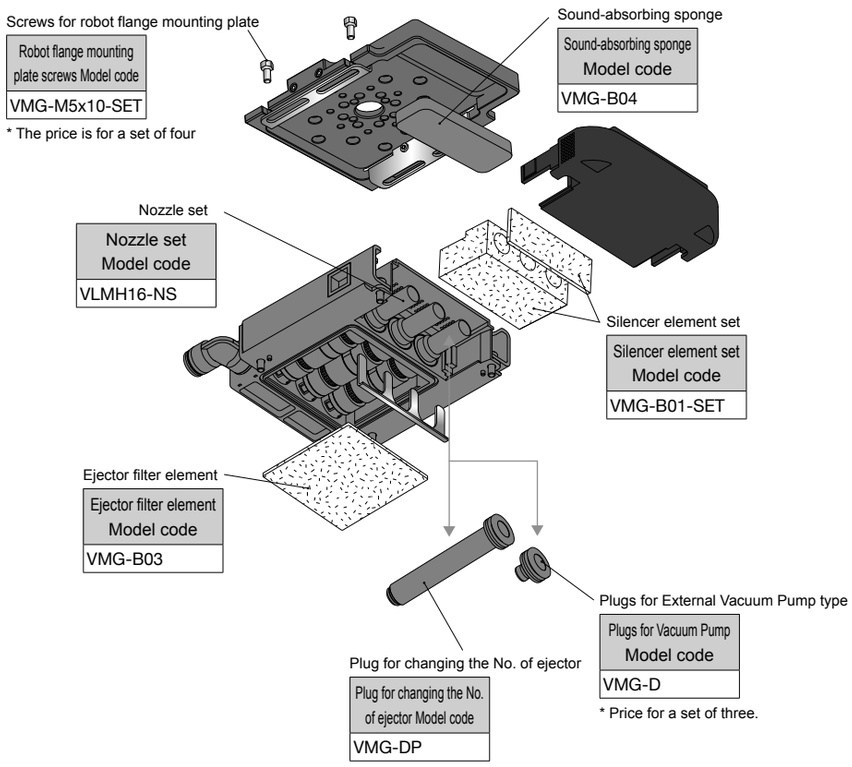
Type	Model code
Dual type robot flange mounting plate VLG New 	VLG-RFP-D

* The robot flange mounting plate is not compatible with the 500 mm and 600 mm length types (size code: 50D, 60D).

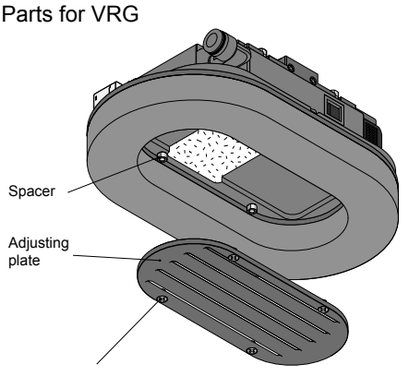
Vacuum Grippers

Maintenance parts

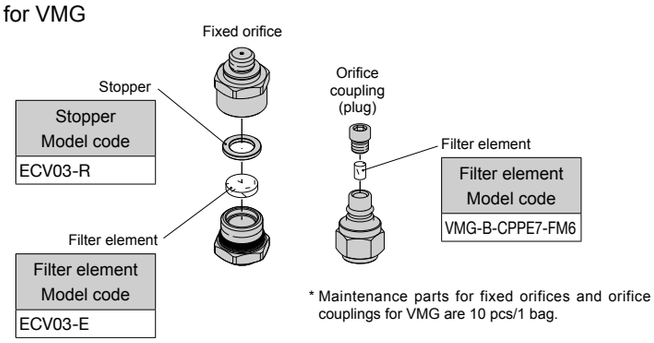
Common parts for VRG and VMG



Parts for VRG



Parts for VMG



Vacuum Pad Trial Kit

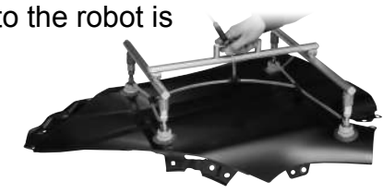
PISCO®

>>> https://www.pisco.co.jp/en/

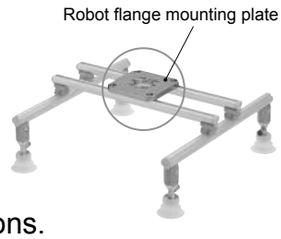
Trial kit with components to test workpiece adsorption

Characteristics

- Includes vacuum pads, frame, vacuum generators, and fittings necessary for adsorption testing.
- Easy assembly using general-purpose tools and direct mounting to the robot is also possible.



- Robot flange mounting plate for connecting the Trial kit to the robot is available for various robot manufacturers. (Sold separately)



* Please refer to our website for the applicable robots and the model code for mounting plate.

- Five types with different set contents are available for different applications.

Standard type

Set of vacuum pads in a variety of types/sizes and different frame lengths for various applications.

(2 parts cases/set)

Pad dia.	ø10 to 50㎜	
Pad type	5types	Standard general Standard deep Soft bellows Bellows Multi-bellows
Pad material	Silicone rubber	
Pad holder type	3types	VPMB、VPMD、VPD
Aluminum frame length	100 to 400mm	
Piping accessories	Two types of vacuum generator pipe type (high vacuum type, high-vacuum at low air pressure supply type), push-in fitting union tee type (piping dia. 6 mm)	

EconomyType

Simplified set of select vacuum pads.

(1 parts case/set)

Pad dia.	ø20 to 40㎜	
Pad type	5types	Standard general Standard deep Soft bellows Bellows Multi-bellows
Pad material	Silicone rubber	
Pad holder type	2types	VPMB、VPMD
Aluminum frame length	100 to 300mm	

SingleType

Best set for picking using vacuum pads.

(1 parts case/set)

Pad dia.	ø6 to 30㎜	
Pad type	4types	Standard general Standard deep Soft bellows Bellows
Pad material	Silicone rubber	
Pad holder type	4types	VPMB、VPMD、VPB、VPD
Aluminum frame length	100 to 400mm	

Small dia.Type

Set of various small dia. vacuum pads, with the same frame contents as the Economy type.

(1 parts case/set)

Pad dia.	ø2 to 15㎜	
Pad type	6types	Standard general Standard deep Soft Soft bellows Bellows Multi-bellows
Pad material	Silicone rubber	
Pad holder type	1type	VPMD
Aluminum frame length	100 to 300㎜	
Piping accessories	Two types of vacuum generator pipe type (high vacuum type, high-vacuum at low air pressure supply type), push-in fitting union tee type (piping dia. 4 mm)	

For packaging bagsType

Set mainly used to check the adsorption of bagged workpieces, and includes the same frame contents as the Economy type.

(2 parts cases/set)

Pad dia.	ø20 to 50㎜	
Pad type	1type	For packaging bags Lip hardness: 20°, 40° Bellows convolution: 3 and 5 (Oversuction Preventing Adapter spherical and plane types are included.)
Pad material	Silicone rubber	
Pad holder type	1type	VPE
Aluminum frame length	100 to 300㎜	
Piping accessories	Two types of vacuum generator solenoid valve direct mount type (high vacuum type, high-vacuum at low air pressure supply type), push-in fitting female straight type, union tee type (piping dia. 8 mm), pad remover	

- Our vacuum pads and pad holders not included in the set can also be mounted.

* Holder joint is required for mounting on a frame.

Model designation (Example)

VPGFSKIT (1) – STA (2)

(1) Vacuum Pad Trial Kit

(2) Type

Code	STA	ECO	SIN	MIN	PB
Type	Standard	Economy	Single	Small dia.	For packaging bags

Model designation of holder joint (Example)

VPGFS (1) – MD (2) – M4M6 (3) –4 (4)

(1) Holder joint

(2) Pad holder type

Code	MB	B	MD	D	OD	HD	HE
Holder type	Fixed type Side port Mini type	Fixed type Side port Standard type	Spring type Side port Mini type	Spring type Side port Standard type	Spring type Side port Without cover	Spring type Side (Dual side) port Lightweight type w/o cover	Fixed type Side (Dual side) port Lowprofile type
Holder code	VPMB	VPB	VPMD	VPD	VPOD	VPHD, VPHDW	VPHE, VPHEW
Notes	Hexagon socket head cap screws and flat washers are included.		—	—	—	—	Hexagonal nuts are included.

(3) Pad connection configuration code (Leave blank for pad holder type HD, HE) (○: Available)

Code	T4H3(*)		H3T8		T4T8		T8	T8M4M6			M4M6	
Connection config. code	T4	H3	H3	T8	T4	T8	T8	T8	M4	M6	M4	M6
Holder type VPMB	○	—	—		—		○	—			○	○
Holder type VPB	—	○	—		—		○	—			○	○
Holder type VPMD	—		—		○	○	—	—			○	○
Holder type VPD	—		○	○	—		—	—			○	○
Holder type VPOD	—		—		—		—	○	○	○	—	

* For VPB connection config. code H3, select the model VPGFS-MB-T4H3.

(4) Stroke (Fill in only for pad holder type MD, D, OD) (○: Available)

Code	-2	-3	-4	-6	-10	-15	-20	-30	-40	-50
Stroke (mm)	2	3	4	6	10	15	20	30	40	50
Holder type VPMD	○		○							
Holder type VPD		○		○	○	○	○			
Holder type VPOD							○	○	○	○

■ For packaging bag set

VPGFS (1) – E (2) – G1 (3) – 8J (4)

(1) Holder joint

(2) Pad holder type

Code	E
Holder type	Fixed direct mount type
Holder code	VPE

(3) Holder male thread size

Code	G1	G2	G3
Size	G1/8	G1/4	G3/8

(4) Vacuum port size and joint type

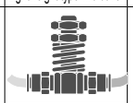
	Push-in fitting			Parallel pipe female thread
	Applicable Tube O.D. (mm)			
Code	4J	6J	8J	G1
Size	ø4	ø6	ø8	G1/8

Model designation of pad holder with holder joint (Example)

VP (1) MD (2) – M6 (3) –4 (4) – 6J (5) – VPGFS (6)

(1) Vacuum pad

(2) Pad holder type

Code	MB	B	MD	D	OD	HD	HDW	HE	HEW
Holder type	Fixed type Side port Mini type	Fixed type Side port Standard type	Spring type Side port Mini type	Spring type Side port Standard type	Spring type Side port Without cover	Spring type Side port Light weight type w/o cover	Spring type Dual side port Lightweight type w/o cover	Fixed type Side port Lowprofile type	Fixed type Dual side port Lowprofile type
									
Holder code	VPMB	VPB	VPMD	VPD	VPOD	VPHD	VPHDW	VPHE	VPHEW

(3) Pad connection type (○: Available)

Code		H3	T4	T8	T15	T40	M4	M6
Holder type	VPMB		○	○			○	○
	VPB	○		○			○	○
	VPMD		○	○			○	○
	VPD	○		○			○	○
	VPOD			○			○	○
	VPHD,VPHDW			○	○	○	○	○
	VPHE,VPHEW			○	○	○	○	○

(4) Stroke (Fill in only for spring type) (○: Available)

Code		-2	-3	-4	-5	-6	-10	-15	-20	-30	-40	-50
Stroke (mm)		2	3	4	5	6	10	15	20	30	40	50
Holder type	VPMD	○		○								
	VPD		○			○	○	○	○			
	VPOD								○	○	○	○
	VPHD,VPHDW				○							

(5) Vacuum port size and joint type (○: Available)

Joint type		Push-in fitting (Tube O.D. Dia.[mm])					Barb fitting (Tube I.D. Dia. [mm])			Metric female thread		
Code		180J	2J	3J	4J	6J	3B	4B	6B	M3	M5	M6
Size		1.8	2	3	4	6	2	2.5	4	M3×0.5	M5×0.8	M6×1
Holder type	VPMB	○	○	○	○	○	○	○	○	○	○	
	VPB	○	○	○	○	○	○	○	○		○	○
	VPMD	○	○	○	○	○	○	○	○	○	○	
	VPD	○	○	○	○	○	○	○	○		○	○
	VPOD			○	○	○		○	○			○
	VPHD	○	○	○	○	○	○	○	○		○	
	VPHDW	○	○	○	○	○	○	○	○		○	
	VPHE	○	○	○	○	○	○	○	○		○	
	VPHEW	○	○	○	○	○	○	○	○		○	

(6) With holder joints

Model designation of robot flange mounting plate (Example)

VPGFSB (1) – A01 (2)

(1) Robot flange mounting plate

(2) Type

Code	A01 to A29	B01 to B08
Type	With mounting pitch	Blank

Vacuum Pad Trial Kit

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code
Standard type VPGFSKIT	VPGFSKIT-STA

Type	Model code
EconomyType VPGFSKIT	VPGFSKIT-ECO

Type	Model code
SingleType VPGFSKIT	VPGFSKIT-SIN

Type	Model code
Small dia.Type VPGFSKIT	VPGFSKIT-MIN

Type	Model code
For packaging bagsType VPGFSKIT	VPGFSKIT-PB

Holder joint

For fixed holders

Type	Model code	Pad connection config. code
For VPMB VPGFS-MB	VPGFS-MB-T4H3	T4
	VPGFS-MB-T8	T8
	VPGFS-MB-M4M6 *2	M4 M6

* Hexagon socket head cap screws and flat washers are included.

Type	Model code	Pad connection config. code
For VPB VPGFS-B	VPGFS-MB-T4H3	H3
	VPGFS-B-T8 *2	T8
	VPGFS-B-M4M6	M4 M6

* Hexagon socket head cap screws and flat washers are included.

Type	Model code	Pad connection config. code
For VPHE,VPHEW VPGFS-HE	VPGFS-HE	T15 T40 T8 M4 M6

* Hexagonal nuts are included.

Type	Model code	Pad connection config. code
For VPE (for packaging bag type) push-in joint VPGFS-E	VPGFS-E-G1-4J	PB8
	VPGFS-E-G1-6J	
	VPGFS-E-G1-8J *2	PB15
	VPGFS-E-G2-4J	
	VPGFS-E-G2-6J	
	VPGFS-E-G2-8J	
	VPGFS-E-G3-4J	PB15
	VPGFS-E-G3-6J	
	VPGFS-E-G3-8J *2	

Type	Model code	Pad connection config. code
For VPE (for packaging bag type) female thread VPGFS-E	VPGFS-E-G1-G1	PB8 PB15
	VPGFS-E-G2-G1	PB15
	VPGFS-E-G3-G1	

For spring type holder

Type	Model code	Stroke (mm)	Pad connection config. code
For VPMD VPGFS-MD	VPGFS-MD-T4T8-2 *2	2 *2	T4 T8
	VPGFS-MD-M4M6-4 *2	4 *2	M4 M6

Type	Model code	Stroke (mm)	Pad connection config. code
For VPOD VPGFS-OD	VPGFS-OD-T8M4M6-20	20	T8 M4 M6
	VPGFS-OD-T8M4M6-30	30	
	VPGFS-OD-T8M4M6-40	40	
	VPGFS-OD-T8M4M6-50	50	

Type	Model code	Stroke (mm)	Pad connection config. code
For VPD VPGFS-D	VPGFS-D-H3T8-3 *2	3 *2	
	VPGFS-D-H3T8-10 *2	10	H3 T8
	VPGFS-D-H3T8-15 *2	15	
	VPGFS-D-H3T8-20 *2	20	
	VPGFS-D-M4M6-6 *2	6 *2	
	VPGFS-D-M4M6-10 *2	10 *2	M4
	VPGFS-D-M4M6-15 *2	15	M6
	VPGFS-D-M4M6-20 *2	20	

Type	Model code	Stroke (mm)	Pad connection config. code
For VPHD,VPHDW VPGFS-HD	VPGFS-HD	5	T15 T40 T8 M4 M6

Notes
*1. See page 368 for pad connection configuration codes.
*2. Items marked with *2 in the above table indicate the holder joints included in the Trial kit as standard. The holder joints included in the Trial kit vary depending on the type of the kit. For details, please refer to the notes on the pad holder + holder joint set on following pages.

RoHS2 (2011/65/EU+EU2015/863) compliant

Pad Holder with holder joint

Fixed type/Side port/Mini holder (VPMB)

Joint type: Push-in fitting			Joint type: Barb fitting			Joint type: Female thread		
Holder type	Model code	Pad connection config. code	Holder type	Model code	Pad connection config. code	Holder type	Model code	Pad connection config. code
VPMB	VPMB-T4-180J-VPGFS	T4	VPMB	VPMB-T4-3B-VPGFS	T4	VPMB	VPMB-T4-M3-VPGFS	T4
	VPMB-T4-2J-VPGFS			VPMB-T4-4B-VPGFS			VPMB-T8-M3-VPGFS	T8
	VPMB-T4-3J-VPGFS			VPMB-T4-6B-VPGFS			VPMB-M4-M5-VPGFS	M4
	VPMB-T4-4J-VPGFS			VPMB-T8-3B-VPGFS	T8		VPMB-M6-M5-VPGFS	M6
	VPMB-T8-180J-VPGFS	T8		VPMB-T8-4B-VPGFS				
	VPMB-T8-2J-VPGFS			VPMB-T8-6B-VPGFS				
	VPMB-T8-3J-VPGFS			VPMB-M4-3B-VPGFS	M4			
	VPMB-T8-4J-VPGFS			VPMB-M4-4B-VPGFS				
	VPMB-M4-180J-VPGFS	M4		VPMB-M4-6B-VPGFS				
	VPMB-M4-2J-VPGFS			VPMB-M6-3B-VPGFS	M6			
	VPMB-M4-3J-VPGFS			VPMB-M6-4B-VPGFS				
	VPMB-M4-4J-VPGFS			VPMB-M6-6B-VPGFS				
	VPMB-M4-6J-VPGFS *2							
	VPMB-M6-180J-VPGFS	M6						
	VPMB-M6-2J-VPGFS							
	VPMB-M6-3J-VPGFS							
	VPMB-M6-4J-VPGFS							
	VPMB-M6-6J-VPGFS *2							

Fixed type/Side port/Standard holder (VPB)

Joint type: Push-in fitting			Joint type: Barb fitting			Joint type: Female thread		
Holder type	Model code	Pad connection config. code	Holder type	Model code	Pad connection config. code	Holder type	Model code	Pad connection config. code
VPB	VPB-H3-180J-VPGFS	H3	VPB	VPB-H3-3B-VPGFS	H3	VPB	VPB-H3-M3-VPGFS	H3
	VPB-H3-2J-VPGFS			VPB-H3-4B-VPGFS			VPB-T8-M5-VPGFS	T8
	VPB-H3-3J-VPGFS			VPB-H3-6B-VPGFS			VPB-M4-M6-VPGFS	M4
	VPB-H3-4J-VPGFS			VPB-T8-3B-VPGFS	T8		VPB-M6-M6-VPGFS	M6
	VPB-T8-180J-VPGFS	T8		VPB-T8-4B-VPGFS				
	VPB-T8-2J-VPGFS			VPB-T8-6B-VPGFS				
	VPB-T8-3J-VPGFS			VPB-M4-4B-VPGFS	M4			
	VPB-T8-4J-VPGFS			VPB-M4-6B-VPGFS				
	VPB-T8-6J-VPGFS *2			VPB-M6-4B-VPGFS	M6			
	VPB-M4-3J-VPGFS	M4		VPB-M6-6B-VPGFS				
	VPB-M4-4J-VPGFS							
	VPB-M4-6J-VPGFS							
	VPB-M6-3J-VPGFS	M6						
	VPB-M6-4J-VPGFS							
	VPB-M6-6J-VPGFS							

Notes

*1. See page 368 for pad connection configuration codes.

*2. Items marked with *2 in the above table indicate the pad holder + holder joint set included in the Trial kit as standard. The Pad holder + holder joint set included in the Trial kit vary depending on the type of the kit. Please refer to the table below for confirmation.

		Pad holder + holder joint set type		
		VPMB-M4-6J-VPGFS	VPMB-M6-6J-VPGFS	VPB-T8-6J-VPGFS
Pad holder Model code		VPMB-M4-6J	VPMB-M6-6J	VPB-T8-6J
Holder joint Model code		VPGFS-MB-M4M6	VPGFS-MB-M4M6	VPGFS-B-T8
Trial kit type	Standard	○	○	—
	Economy	—	○	—
	Single	○	○	○
	Small dia.	—	—	—
	For packaging bags	—	—	—

(○: Included)

Vacuum Pad Trial Kit

RoHS2 (2011/65/EU+EU2015/863) compliant

Pad Holder with holder joint

Fixed type/Side port/Lowprofile holder (VPHE) *Pad config. Code: T15, T40 are for soft and soft bellows type pads only.

Joint type: Push-in fitting			Joint type: Barb fitting			Joint type: Female thread		
Holder type	Model code	Pad connection config. code	Holder type	Model code	Pad connection config. code	Holder type	Model code	Pad connection config. code
VPHE	VPHE-T15-180J-VPGFS		VPHE	VPHE-T15-3B-VPGFS		VPHE	VPHE-T15-M5-VPGFS	T15
	VPHE-T15-2J-VPGFS			VPHE-T15-4B-VPGFS	T15		VPHE-T40-M5-VPGFS	T40
	VPHE-T15-3J-VPGFS	T15		VPHE-T15-6B-VPGFS			VPHE-T8-M5-VPGFS	T8
	VPHE-T15-4J-VPGFS			VPHE-T40-3B-VPGFS			VPHE-M4-M5-VPGFS	M4
	VPHE-T15-6J-VPGFS			VPHE-T40-4B-VPGFS	T40		VPHE-M6-M5-VPGFS	M6
	VPHE-T40-180J-VPGFS			VPHE-T40-6B-VPGFS				
	VPHE-T40-2J-VPGFS			VPHE-T8-3B-VPGFS				
	VPHE-T40-3J-VPGFS	T40		VPHE-T8-4B-VPGFS	T8			
	VPHE-T40-4J-VPGFS			VPHE-T8-6B-VPGFS				
	VPHE-T40-6J-VPGFS			VPHE-M4-3B-VPGFS				
	VPHE-T8-180J-VPGFS			VPHE-M4-4B-VPGFS	M4			
	VPHE-T8-2J-VPGFS			VPHE-M4-6B-VPGFS				
	VPHE-T8-3J-VPGFS	T8		VPHE-M6-3B-VPGFS				
	VPHE-T8-4J-VPGFS			VPHE-M6-4B-VPGFS	M6			
	VPHE-T8-6J-VPGFS			VPHE-M6-6B-VPGFS				
	VPHE-M4-180J-VPGFS							
	VPHE-M4-2J-VPGFS							
	VPHE-M4-3J-VPGFS	M4						
	VPHE-M4-4J-VPGFS							
	VPHE-M4-6J-VPGFS							
	VPHE-M6-180J-VPGFS							
	VPHE-M6-2J-VPGFS							
	VPHE-M6-3J-VPGFS	M6						
	VPHE-M6-4J-VPGFS							
	VPHE-M6-6J-VPGFS							

Fixed type/Dual side port/Lowprofile holder (VPHEW) *Pad config. Code: T15, T40 are for soft and soft bellows type pads only.

Joint type: Push-in fitting			Joint type: Barb fitting			Joint type: Female thread		
Holder type	Model code	Pad connection config. code	Holder type	Model code	Pad connection config. code	Holder type	Model code	Pad connection config. code
VPHEW	VPHEW-T15-180J-VPGFS		VPHEW	VPHEW-T15-3B-VPGFS		VPHEW	VPHEW-T15-M5-VPGFS	T15
	VPHEW-T15-2J-VPGFS			VPHEW-T15-4B-VPGFS	T15		VPHEW-T40-M5-VPGFS	T40
	VPHEW-T15-3J-VPGFS	T15		VPHEW-T15-6B-VPGFS			VPHEW-T8-M5-VPGFS	T8
	VPHEW-T15-4J-VPGFS			VPHEW-T40-3B-VPGFS			VPHEW-M4-M5-VPGFS	M4
	VPHEW-T15-6J-VPGFS			VPHEW-T40-4B-VPGFS	T40		VPHEW-M6-M5-VPGFS	M6
	VPHEW-T40-180J-VPGFS			VPHEW-T40-6B-VPGFS				
	VPHEW-T40-2J-VPGFS			VPHEW-T8-3B-VPGFS				
	VPHEW-T40-3J-VPGFS	T40		VPHEW-T8-4B-VPGFS	T8			
	VPHEW-T40-4J-VPGFS			VPHEW-T8-6B-VPGFS				
	VPHEW-T40-6J-VPGFS			VPHEW-M4-3B-VPGFS				
	VPHEW-T8-180J-VPGFS			VPHEW-M4-4B-VPGFS	M4			
	VPHEW-T8-2J-VPGFS			VPHEW-M4-6B-VPGFS				
	VPHEW-T8-3J-VPGFS	T8		VPHEW-M6-3B-VPGFS				
	VPHEW-T8-4J-VPGFS			VPHEW-M6-4B-VPGFS	M6			
	VPHEW-T8-6J-VPGFS			VPHEW-M6-6B-VPGFS				
	VPHEW-M4-180J-VPGFS							
	VPHEW-M4-2J-VPGFS							
	VPHEW-M4-3J-VPGFS	M4						
	VPHEW-M4-4J-VPGFS							
	VPHEW-M4-6J-VPGFS							
	VPHEW-M6-180J-VPGFS							
	VPHEW-M6-2J-VPGFS							
	VPHEW-M6-3J-VPGFS	M6						
	VPHEW-M6-4J-VPGFS							
	VPHEW-M6-6J-VPGFS							

RoHS2 (2011/65/EU+EU2015/863) compliant

Pad Holder with holder joint

Spring type/Side port/Mini holder (VPMD)

Joint type: Push-in fitting

Holder type	Model code	Pad connection config. code
VPMD	VPMD-T4-2-180J-VPGFS	T4
	VPMD-T4-2-2J-VPGFS	
	VPMD-T4-2-3J-VPGFS	
	VPMD-T4-2-4J-VPGFS *2	
	VPMD-T8-2-180J-VPGFS	T8
	VPMD-T8-2-2J-VPGFS	
	VPMD-T8-2-3J-VPGFS	
	VPMD-T8-2-4J-VPGFS *2	
	VPMD-M4-4-180J-VPGFS	M4
	VPMD-M4-4-2J-VPGFS	
	VPMD-M4-4-3J-VPGFS	
	VPMD-M4-4-4J-VPGFS *2	
	VPMD-M4-4-6J-VPGFS *2	
	VPMD-M6-4-180J-VPGFS	M6
	VPMD-M6-4-2J-VPGFS	
	VPMD-M6-4-3J-VPGFS	
	VPMD-M6-4-4J-VPGFS	
	VPMD-M6-4-6J-VPGFS *2	

Joint type: Barb fitting

Holder type	Model code	Pad connection config. code
VPMD	VPMD-T4-2-3B-VPGFS	T4
	VPMD-T4-2-4B-VPGFS	
	VPMD-T4-2-6B-VPGFS	
	VPMD-T8-2-3B-VPGFS	T8
	VPMD-T8-2-4B-VPGFS	
	VPMD-T8-2-6B-VPGFS	
	VPMD-M4-4-3B-VPGFS	M4
	VPMD-M4-4-4B-VPGFS	
	VPMD-M4-4-6B-VPGFS	
	VPMD-M6-4-3B-VPGFS	M6
	VPMD-M6-4-4B-VPGFS	
	VPMD-M6-4-6B-VPGFS	

Joint type: Female thread

Holder type	Model code	Pad connection config. code
VPMD	VPMD-T4-2-M3-VPGFS	T4
	VPMD-T8-2-M3-VPGFS	T8
	VPMD-M4-4-M5-VPGFS	M4
	VPMD-M6-4-M5-VPGFS	M6

Spring type/Side port/No cover holder (VPOD)

Joint type: Push-in fitting

Holder type	Model code	Pad connection config. code
VPOD	VPOD-T8-20-3J-VPGFS	T8
	VPOD-T8-20-4J-VPGFS	
	VPOD-T8-20-6J-VPGFS	
	VPOD-T8-30-3J-VPGFS	
	VPOD-T8-30-4J-VPGFS	
	VPOD-T8-30-6J-VPGFS	
	VPOD-T8-40-3J-VPGFS	
	VPOD-T8-40-4J-VPGFS	
	VPOD-T8-40-6J-VPGFS	
	VPOD-T8-50-3J-VPGFS	
	VPOD-T8-50-4J-VPGFS	
	VPOD-T8-50-6J-VPGFS	
	VPOD-M4-20-3J-VPGFS	M4
	VPOD-M4-20-4J-VPGFS	
	VPOD-M4-20-6J-VPGFS	
	VPOD-M4-30-3J-VPGFS	
	VPOD-M4-30-4J-VPGFS	
	VPOD-M4-30-6J-VPGFS	
	VPOD-M4-40-3J-VPGFS	
	VPOD-M4-40-4J-VPGFS	
	VPOD-M4-40-6J-VPGFS	
	VPOD-M4-50-3J-VPGFS	
	VPOD-M4-50-4J-VPGFS	
	VPOD-M4-50-6J-VPGFS	
	VPOD-M6-20-3J-VPGFS	M6
	VPOD-M6-20-4J-VPGFS	
	VPOD-M6-20-6J-VPGFS	
	VPOD-M6-30-3J-VPGFS	
	VPOD-M6-30-4J-VPGFS	
	VPOD-M6-30-6J-VPGFS	
	VPOD-M6-40-3J-VPGFS	
	VPOD-M6-40-4J-VPGFS	
	VPOD-M6-40-6J-VPGFS	
	VPOD-M6-50-3J-VPGFS	
	VPOD-M6-50-4J-VPGFS	
	VPOD-M6-50-6J-VPGFS	

Joint type: Barb fitting

Holder type	Model code	Pad connection config. code
VPOD	VPOD-T8-20-4B-VPGFS	T8
	VPOD-T8-20-6B-VPGFS	
	VPOD-T8-30-4B-VPGFS	
	VPOD-T8-30-6B-VPGFS	
	VPOD-T8-40-4B-VPGFS	
	VPOD-T8-40-6B-VPGFS	
	VPOD-T8-50-4B-VPGFS	
	VPOD-T8-50-6B-VPGFS	
	VPOD-M4-20-4B-VPGFS	M4
	VPOD-M4-20-6B-VPGFS	
	VPOD-M4-30-4B-VPGFS	
	VPOD-M4-30-6B-VPGFS	
	VPOD-M4-40-4B-VPGFS	
	VPOD-M4-40-6B-VPGFS	
	VPOD-M4-50-4B-VPGFS	
	VPOD-M4-50-6B-VPGFS	
	VPOD-M6-20-4B-VPGFS	M6
	VPOD-M6-20-6B-VPGFS	
	VPOD-M6-30-4B-VPGFS	
	VPOD-M6-30-6B-VPGFS	
	VPOD-M6-40-4B-VPGFS	
	VPOD-M6-40-6B-VPGFS	
	VPOD-M6-50-4B-VPGFS	
	VPOD-M6-50-6B-VPGFS	

Joint type: Female thread

Holder type	Model code	Pad connection config. code
VPOD	VPOD-T8-20-M6-VPGFS	T8
	VPOD-T8-30-M6-VPGFS	
	VPOD-T8-40-M6-VPGFS	
	VPOD-T8-50-M6-VPGFS	
	VPOD-M4-20-M6-VPGFS	M4
	VPOD-M4-30-M6-VPGFS	
	VPOD-M4-40-M6-VPGFS	
	VPOD-M4-50-M6-VPGFS	
	VPOD-M6-20-M6-VPGFS	M6
	VPOD-M6-30-M6-VPGFS	
	VPOD-M6-40-M6-VPGFS	
	VPOD-M6-50-M6-VPGFS	

Notes

*1. See page 368 for pad connection configuration codes.

*2. sItems marked with *2 in the above table indicate the pad holder + holder joint set included in the Trial kit as standard. The pad holder + holder joint set included in the Trial kit vary depending on the type of the kit. Please refer to the table below for confirmation.

		Pad holder + holder joint set type				
		VPMD-T4-2-4J-VPGFS	VPMD-T8-2-4J-VPGFS	VPMD-M4-4-4J-VPGFS	VPMD-M4-4-6J-VPGFS	VPMD-M6-4-6J-VPGFS
Pad holder Model code		VPMD-T4-2-4J	VPMD-T8-2-4J	VPMD-M4-4-4J	VPMD-M4-4-6J	VPMD-M6-4-6J
Holder joint Model code		VPGFS-MD-T4T8-2	VPGFS-MD-T4T8-2	VPGFS-MD-M4M6-4	VPGFS-MD-M4M6-4	VPGFS-MD-M4M6-4
Trial kit type	Standard	—	—	—	○	○
	Economy	—	—	—	—	○
	Single	—	—	—	○	○
	Small dia.	○	○	○	—	—
	For packaging bags	—	—	—	—	—

(○: Included)

Vacuum Pad Trial Kit

RoHS2 (2011/65/EU+EU2015/863) compliant

Pad Holder with holder joint

Spring type/Side port/Standard holder (VPD)

Joint type: Push-in fitting

Holder type	Model code	Pad connection config. code	Model code	Pad connection config. code	Model code	Pad connection config. code	Model code	Pad connection config. code
VPD	VPD-H3-3-180J-VPGFS	H3	VPD-T8-3-180J-VPGFS	T8	VPD-M4-6-3J-VPGFS	M4	VPD-M6-6-3J-VPGFS	M6
	VPD-H3-3-2J-VPGFS		VPD-T8-3-2J-VPGFS		VPD-M4-6-4J-VPGFS		VPD-M6-6-4J-VPGFS	
	VPD-H3-3-3J-VPGFS		VPD-T8-3-3J-VPGFS		VPD-M4-6-6J-VPGFS *2		VPD-M6-6-6J-VPGFS	
	VPD-H3-3-4J-VPGFS		VPD-T8-3-4J-VPGFS		VPD-M4-10-3J-VPGFS		VPD-M6-10-3J-VPGFS	
	VPD-H3-3-6J-VPGFS		VPD-T8-3-6J-VPGFS *2		VPD-M4-10-4J-VPGFS		VPD-M6-10-4J-VPGFS	
	VPD-H3-10-180J-VPGFS		VPD-T8-10-180J-VPGFS		VPD-M4-10-6J-VPGFS		VPD-M6-10-6J-VPGFS *2	
	VPD-H3-10-2J-VPGFS		VPD-T8-10-2J-VPGFS		VPD-M4-15-3J-VPGFS		VPD-M6-15-3J-VPGFS	
	VPD-H3-10-3J-VPGFS		VPD-T8-10-3J-VPGFS		VPD-M4-15-4J-VPGFS		VPD-M6-15-4J-VPGFS	
	VPD-H3-10-4J-VPGFS		VPD-T8-10-4J-VPGFS		VPD-M4-15-6J-VPGFS		VPD-M6-15-6J-VPGFS	
	VPD-H3-10-6J-VPGFS		VPD-T8-10-6J-VPGFS		VPD-M4-20-3J-VPGFS		VPD-M6-20-3J-VPGFS	
	VPD-H3-15-180J-VPGFS		VPD-T8-15-180J-VPGFS		VPD-M4-20-4J-VPGFS		VPD-M6-20-4J-VPGFS	
	VPD-H3-15-2J-VPGFS		VPD-T8-15-2J-VPGFS		VPD-M4-20-6J-VPGFS		VPD-M6-20-6J-VPGFS	
	VPD-H3-15-3J-VPGFS		VPD-T8-15-3J-VPGFS					
	VPD-H3-15-4J-VPGFS		VPD-T8-15-4J-VPGFS					
	VPD-H3-15-6J-VPGFS		VPD-T8-15-6J-VPGFS					
	VPD-H3-20-180J-VPGFS		VPD-T8-20-180J-VPGFS					
	VPD-H3-20-2J-VPGFS		VPD-T8-20-2J-VPGFS					
	VPD-H3-20-3J-VPGFS		VPD-T8-20-3J-VPGFS					
	VPD-H3-20-4J-VPGFS		VPD-T8-20-4J-VPGFS					
	VPD-H3-20-6J-VPGFS		VPD-T8-20-6J-VPGFS					

Joint type: Barb fitting

Holder type	Model code	Pad connection config. code	Model code	Pad connection config. code
VPD	VPD-H3-3-3B-VPGFS	H3	VPD-M4-6-4B-VPGFS	M4
	VPD-H3-3-4B-VPGFS		VPD-M4-6-6B-VPGFS	
	VPD-H3-3-6B-VPGFS		VPD-M4-10-4B-VPGFS	
	VPD-H3-10-3B-VPGFS		VPD-M4-10-6B-VPGFS	
	VPD-H3-10-4B-VPGFS		VPD-M4-15-4B-VPGFS	
	VPD-H3-10-6B-VPGFS		VPD-M4-15-6B-VPGFS	
	VPD-H3-15-3B-VPGFS		VPD-M4-20-4B-VPGFS	
	VPD-H3-15-4B-VPGFS		VPD-M4-20-6B-VPGFS	
	VPD-H3-15-6B-VPGFS		VPD-M6-6-4B-VPGFS	M6
	VPD-H3-20-3B-VPGFS		VPD-M6-6-6B-VPGFS	
	VPD-H3-20-4B-VPGFS		VPD-M6-10-4B-VPGFS	
	VPD-H3-20-6B-VPGFS		VPD-M6-10-6B-VPGFS	
	VPD-T8-3-3B-VPGFS	T8	VPD-M6-15-4B-VPGFS	
	VPD-T8-3-4B-VPGFS		VPD-M6-15-6B-VPGFS	
	VPD-T8-3-6B-VPGFS		VPD-M6-20-4B-VPGFS	
	VPD-T8-10-3B-VPGFS		VPD-M6-20-6B-VPGFS	
	VPD-T8-10-4B-VPGFS			
	VPD-T8-10-6B-VPGFS			
	VPD-T8-15-3B-VPGFS			
	VPD-T8-15-4B-VPGFS			
	VPD-T8-15-6B-VPGFS			
	VPD-T8-20-3B-VPGFS			
	VPD-T8-20-4B-VPGFS			
	VPD-T8-20-6B-VPGFS			

Joint type: Female thread

Holder type	Model code	Pad connection config. code
VPD	VPD-H3-3-M5-VPGFS	H3
	VPD-H3-10-M5-VPGFS	
	VPD-H3-15-M5-VPGFS	
	VPD-H3-20-M5-VPGFS	
	VPD-T8-3-M5-VPGFS	T8
	VPD-T8-10-M5-VPGFS	
	VPD-T8-15-M5-VPGFS	
	VPD-T8-20-M5-VPGFS	
	VPD-M4-6-M6-VPGFS	M4
	VPD-M4-10-M6-VPGFS	
	VPD-M4-15-M6-VPGFS	
	VPD-M4-20-M6-VPGFS	
	VPD-M6-6-M6-VPGFS	M6
	VPD-M6-10-M6-VPGFS	
	VPD-M6-15-M6-VPGFS	
	VPD-M6-20-M6-VPGFS	

Notes

*1. See page 368 for pad connection configuration codes.

*2. Items marked with *2 in the above table indicate the pad holder + holder joint set included in the Trial kit as standard. The Pad holder + holder joint set included in the Trial kit vary depending on the type of the kit. Please refer to the table below for confirmation.

		Pad holder + holder joint set type		
		VPD-T8-3-6J-VPGFS	VPD-M4-6-6J-VPGFS	VPD-M6-10-6J-VPGFS
Pad holder Model code		VPD-T8-3-6J	VPD-M4-6-6J	VPD-M6-10-6J
Holder joint Model code		VPGFS-D-H3T8-3	VPGFS-D-M4M6-6	VPGFS-D-M4M6-10
Trial kit type	Standard	—	○	○
	Economy	—	—	—
	Single	○	—	—
	Small dia.	—	—	—
	For packaging bags	—	—	—

(○: Included)

RoHS2 (2011/65/EU+EU2015/863) compliant

Pad Holder with holder joint

Spring type/Side port/No cover Lightweight holder (VPHD) * Pad config. code: T15, T40 are for soft and soft bellows type pads only.

Joint type: Push-in fitting			Joint type: Barb fitting			Joint type: Female thread		
Holder type	Model code	Pad connection config. code	Holder type	Model code	Pad connection config. code	Holder type	Model code	Pad connection config. code
VPHD	VPHD-T15-5-180J-VPGFS		VPHD	VPHD-T15-5-3B-VPGFS		VPHD	VPHD-T15-5-M5-VPGFS	T15
	VPHD-T15-5-2J-VPGFS			VPHD-T15-5-4B-VPGFS	T15		VPHD-T40-5-M5-VPGFS	T40
	VPHD-T15-5-3J-VPGFS	T15		VPHD-T15-5-6B-VPGFS			VPHD-T8-5-M5-VPGFS	T8
	VPHD-T15-5-4J-VPGFS			VPHD-T40-5-3B-VPGFS			VPHD-M4-5-M5-VPGFS	M4
	VPHD-T15-5-6J-VPGFS			VPHD-T40-5-4B-VPGFS	T40		VPHD-M6-5-M5-VPGFS	M6
	VPHD-T40-5-180J-VPGFS			VPHD-T40-5-6B-VPGFS				
	VPHD-T40-5-2J-VPGFS			VPHD-T8-5-3B-VPGFS				
	VPHD-T40-5-3J-VPGFS	T40		VPHD-T8-5-4B-VPGFS	T8			
	VPHD-T40-5-4J-VPGFS			VPHD-T8-5-6B-VPGFS				
	VPHD-T40-5-6J-VPGFS			VPHD-M4-5-3B-VPGFS				
	VPHD-T8-5-180J-VPGFS			VPHD-M4-5-4B-VPGFS	M4			
	VPHD-T8-5-2J-VPGFS			VPHD-M4-5-6B-VPGFS				
	VPHD-T8-5-3J-VPGFS	T8		VPHD-M6-5-3B-VPGFS				
	VPHD-T8-5-4J-VPGFS			VPHD-M6-5-4B-VPGFS	M6			
	VPHD-T8-5-6J-VPGFS			VPHD-M6-5-6B-VPGFS				
	VPHD-M4-5-180J-VPGFS							
	VPHD-M4-5-2J-VPGFS							
	VPHD-M4-5-3J-VPGFS	M4						
	VPHD-M4-5-4J-VPGFS							
	VPHD-M4-5-6J-VPGFS							
	VPHD-M6-5-180J-VPGFS							
	VPHD-M6-5-2J-VPGFS							
	VPHD-M6-5-3J-VPGFS	M6						
	VPHD-M6-5-4J-VPGFS							
	VPHD-M6-5-6J-VPGFS							

Spring type/Dual side port/No cover Lightweight holder (VPHDW) * Pad config. code: T15, T40 are for soft and soft bellows type pads only.

Joint type: Push-in fitting			Joint type: Barb fitting			Joint type: Female thread		
Holder type	Model code	Pad connection config. code	Holder type	Model code	Pad connection config. code	Holder type	Model code	Pad connection config. code
VPHDW	VPHDW-T15-5-180J-VPGFS		VPHDW	VPHDW-T15-5-3B-VPGFS		VPHDW	VPHDW-T15-5-M5-VPGFS	T15
	VPHDW-T15-5-2J-VPGFS			VPHDW-T15-5-4B-VPGFS	T15		VPHDW-T40-5-M5-VPGFS	T40
	VPHDW-T15-5-3J-VPGFS	T15		VPHDW-T15-5-6B-VPGFS			VPHDW-T8-5-M5-VPGFS	T8
	VPHDW-T15-5-4J-VPGFS			VPHDW-T40-5-3B-VPGFS			VPHDW-M4-5-M5-VPGFS	M4
	VPHDW-T15-5-6J-VPGFS			VPHDW-T40-5-4B-VPGFS	T40		VPHDW-M6-5-M5-VPGFS	M6
	VPHDW-T40-5-180J-VPGFS			VPHDW-T40-5-6B-VPGFS				
	VPHDW-T40-5-2J-VPGFS			VPHDW-T8-5-3B-VPGFS				
	VPHDW-T40-5-3J-VPGFS	T40		VPHDW-T8-5-4B-VPGFS	T8			
	VPHDW-T40-5-4J-VPGFS			VPHDW-T8-5-6B-VPGFS				
	VPHDW-T40-5-6J-VPGFS			VPHDW-M4-5-3B-VPGFS				
	VPHDW-T8-5-180J-VPGFS			VPHDW-M4-5-4B-VPGFS	M4			
	VPHDW-T8-5-2J-VPGFS			VPHDW-M4-5-6B-VPGFS				
	VPHDW-T8-5-3J-VPGFS	T8		VPHDW-M6-5-3B-VPGFS				
	VPHDW-T8-5-4J-VPGFS			VPHDW-M6-5-4B-VPGFS	M6			
	VPHDW-T8-5-6J-VPGFS			VPHDW-M6-5-6B-VPGFS				
	VPHDW-M4-5-180J-VPGFS							
	VPHDW-M4-5-2J-VPGFS							
	VPHDW-M4-5-3J-VPGFS	M4						
	VPHDW-M4-5-4J-VPGFS							
	VPHDW-M4-5-6J-VPGFS							
	VPHDW-M6-5-180J-VPGFS							
	VPHDW-M6-5-2J-VPGFS							
	VPHDW-M6-5-3J-VPGFS	M6						
	VPHDW-M6-5-4J-VPGFS							
	VPHDW-M6-5-6J-VPGFS							

Vacuum Modular Kit HML for EOAT

Aluminum bar type for mounting of 4 to 16 vacuum pads

Model designation (Example)

* See next page for frame set configuration.

HML (1) - L47 (2) C (3) - T144 (4) - M14 (5) T120 (6) - P04 (7)

(1) Vacuum Modular Kit HML for EOAT

(2) Pipe flange height

Code	L47	L67
Height (mm)	47	67

(3) Requirement of rotational positioning of piping flange

Code	Rotational positioning requirement
C	Rotational positioning is required for mounting on a robot with a P.C.D. of 31.5 M5 flange
No code	Rotational positioning is not required

(4) Max. main bar adjustment width

Code	T144	T210
Max. width (mm)	144	210

(5) Pad holder bulkhead thread size

Code	M10	M12	M14	M16
Size	M10×1	M12×1	M14×1	M16×1

* Refer to our digital catalog for pad holder bulkhead thread sizes and compatible pads. Please note that the pad holder cannot be attached to the pad bar if the screw size is incorrect.

(6) Max. pad bar adjustment width

Pad holder bulkhead thread size	M10, M12, M14		M16	
Code	T120	T206	T122	T204
Max. width (mm)	120	206	122	204
Width across flats of vacuum pad fixing nut	Hex. 24		Hex. 26	

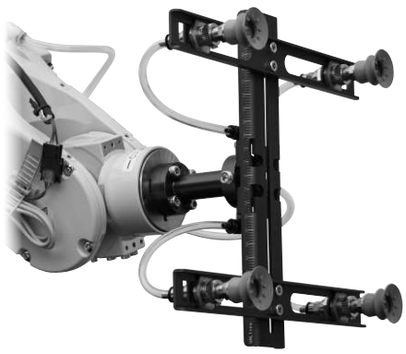
(7) Number of pads to be mounted (○: Available)

Code		P04	P06	P08	P10	P12	P14	P16
No. of pads		4	6	8	10	12	14	16
Pad holder bulkhead thread size	M10, M12, M14	○	○	○	○	○	○ (*2)	○ (*2)
	M16	○	○	○	○	○ (*2)	○ (*2)	—

*1. Two pads are used per pad bar in this setting.
*2. Not available when T144 is selected for the max. main bar adjustment width.

Characteristics

- No robot hand design required; direct mounting on P.C.D. 31.5 M5.
- Two different lengths for both main bar and pad bar are available. You can combine them as you desire.
- Robot Flange P.C.D Conversion Attachment is available to connect Modular Kit with robots from various manufacturers.
  * This is for robots with payloads of 6 kg or less.
- Bent shape ensures strength. Ultra-lightweight aluminum material.
- The bar is graduated for easy positioning.
- Custom-made products to suit the pad arrangement are also available in small lots.



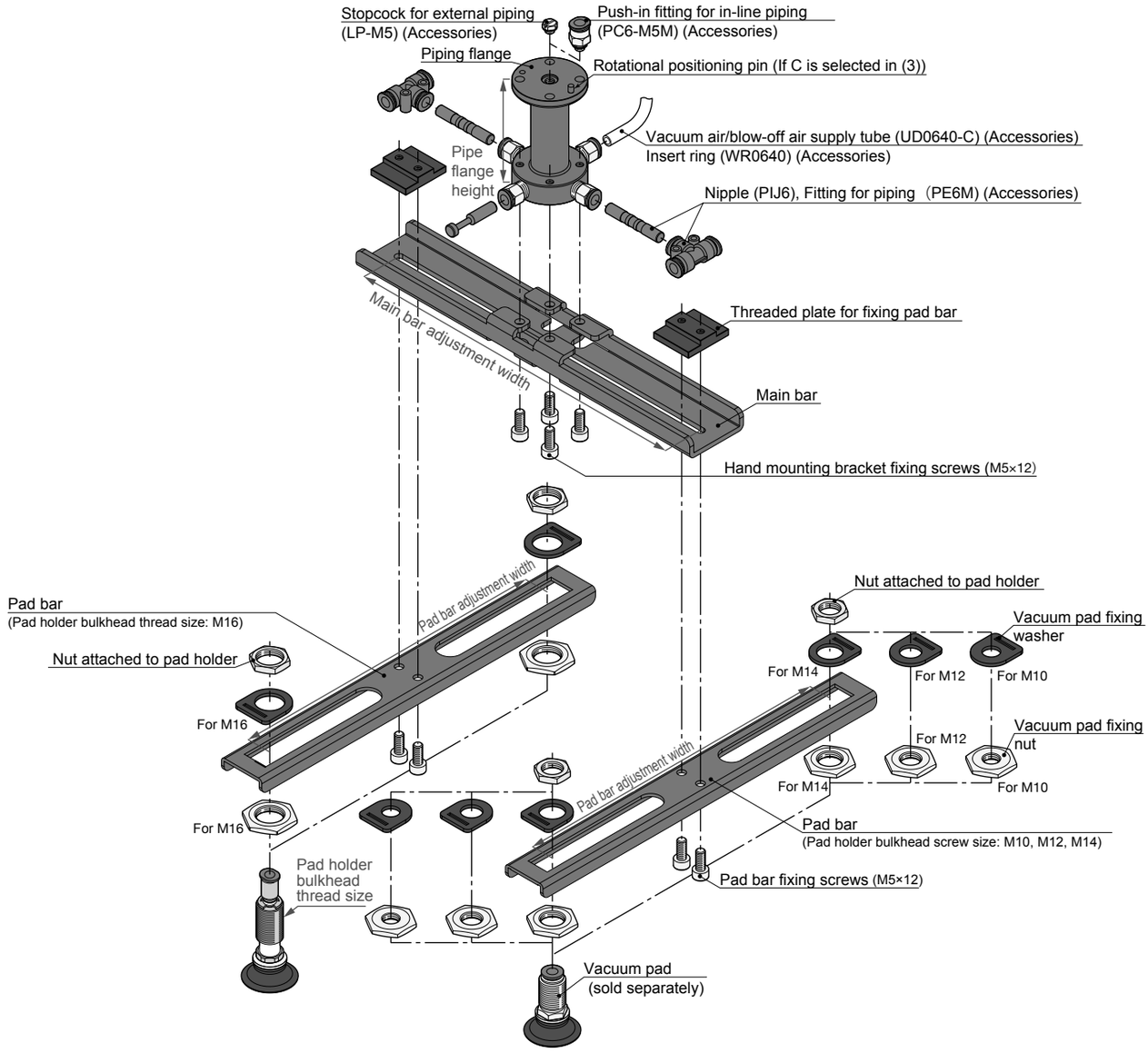
* Pads are not included in this set. Please order separately.

Related Products

EOAT Direct Mountable Material Handling Vacuum Generator VYR
► P.768

Robot Flange P.C.D Conversion Attachment
► P.770

Frame set parts configuration



Attachable pad when using the attached tube (O.D. x I.D.: 6 mm x 4 mm)

■ The HML frame set comes with a tube (5 m) with O.D. of 6 mm. Select a pad holder with an applicable tube O.D. of 6 mm.

Vacuum joint type: Push-in fitting

Pad holder bulkhead thread size	Pad holder type		Pad connection config. code
		Code	
M10	Fixed type Standard type	VPA	T8
M12	Fixed type Standard type	VPA	M4
	Spring type Standard type	VPC	H3
			T8
M14	Fixed typeStandard type	VPA	M6
	Spring type Standard type	VPC	M4
			M6
	Spring type Low dust emission type	VPLFC	M6
	Fixed type For packaging bag type	VPA	PB8
			PB15
M16	Spring type Lightweight type	VPHC	T15
			T40
			M4
			M6

Vacuum joint type: Barb fitting

Pad holder bulkhead thread size	Pad holder type		Pad connection config. code
		Code	
M10	Fixed type Mini type	VPMA	M6
	Spring type Mini type	VPMC	M4
			M6
	Spring type Low dust emission type	VPLFC	T4
			T8
			M4
M12	Fixed type Standard type	VPA	M6
	Spring type Standard type	VPC	H3
			T8
M14	Spring type Standard type	VPC	M4
			M6
	Spring type Low dust emission type	VPLFC	M6
M16	Spring type Lightweight type	VPHC	T15
			T40
			M4
			M6

*1. Vacuum pads of the size and shape matching the pad connection configuration code of the holder listed in the left table can be selected. For details of pad connection configuration code, please see page 368.
*2: If you need piping other than 6 mm tube O.D., please check the bulkhead thread size of the pad holder in our digital catalog before ordering.

Vacuum Modular Kit HML for EOAT

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code
Frame set HML	HML-L47-4-5 6-7
	HML-L47C-4-5 6-7
	HML-L67-4-5 6-7
	HML-L67C-4-5 6-7
* Vacuum pads are sold separately	

Notes
* Please specify the code for max. main bar adjustment width in 4, the pad holder bulkhead thread size in 5, max. pad bar adjustment width in 6, and the number of pads to be mounted in 7, referring to model designation (Example) on page 762.

CAD data is available at PISCO website.

Parts

Type	Model code	Note
Piping flange HML-TB	HML-TB-M5-31.5-47	Height 47mm
	HML-TB-M5-31.5-47C	Height 47mm, With rotary positioning pin
	HML-TB-M5-31.5-67	Height 67mm
	HML-TB-M5-31.5-67C	Height 67mm, With rotary positioning pin

Type	Model code
Threaded plate for fixing pad bar HML-TN	HML-TN-M5-14

Type	Model code	Note
Main bar HML-MB	HML-MB-M5-210	Max. adjustment width 210mm
	HML-MB-M5-144	Max. adjustment width 144mm

Type	Model code
Vacuum pad fixing nut HML-N	HML-N-M10-H24
	HML-N-M12-H24
	HML-N-M14-H24
	HML-N-M16-H26

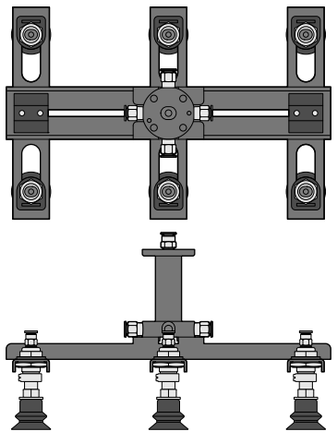
Type	Model code	Note
Pad bar HML-PB	HML-PB-H24-206	Max. adjustment width 206mm
	HML-PB-H24-120	Max. adjustment width 120mm
	HML-PB-H26-204	Max. adjustment width 204mm
	HML-PB-H26-122	Max. adjustment width 122mm

Type	Model code
Vacuum pad fixing washer HML-W	HML-W-M10-M14
	HML-W-M12-M14
	HML-W-M14-M14
	HML-W-M16-M16

Combination example

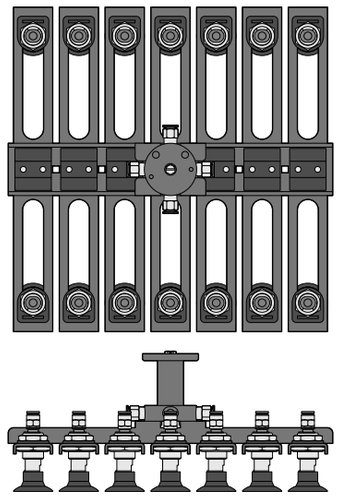
*The illustration below shows an example of how vacuum pads are installed. Vacuum pads and pad holders are not included in the frame set and must be ordered separately.

Model code: **HML-L67-T210-M14T120-P06**



Flange height	Max. main bar adjustment width	Pad holder bulkhead thread size	Max. pad bar adjustment width	Number of pads to be mounted
67mm	210mm	M14×1	120mm	6

Model code: **HML-L47-T210-M16T204-P14**



Flange height	Max. main bar adjustment width	Pad holder bulkhead thread size	Max. pad bar adjustment width	Number of pads to be mounted
47mm	210mm	M16×1	204mm	14

Mounting Flange HS for EOAT

Special products

PISCO

>>> https://www.pisco.co.jp/en/

Flange for mounting one vacuum pad/gripper

Model designation of vacuum pad mounting type (Example)

HS (1) P (2) – VPM (3) – M6 (4) C (5)

(1) Mounting Flange HS for EOAT

(2) Mounting type

P: Vacuum pad

(3) Flange type

Code	Flange type	Pad Selection Guideline
VPM	Fixed type	Choose from pad & screw set (For Vacuum pad for packaging bags, choose from VPE holder & pad set)
VPF	For spring type holder	Choose from VPF holder & pad set
VPLFC	For spring type low dust emission holder	Choose from VPLFC holder (female thread type) & pad set

* As pads and pad holders are not included, please order separately. See the table below for details.

(4) Flange thread size

Flange type	Fixed type		For spring type holder	For spring type low dust emission holder	
Code	**M4**	**M6**	**M14**	**M10**	**M14**
Thread size	M4×0.7	M6×1	M14×1	M10×1	M14×1

(5) Requirement of rotary positioning

Code	Requirement of rotary positioning
C	Rotational positioning is required for mounting on a robot with a P.C.D. of 31.5 M5 flange
No code	Rotational positioning is not required

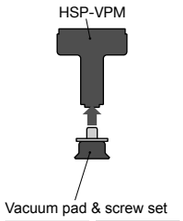
Mountable vacuum pad

■ For VPM type

Flange type	Flange thread size code	Mountable vacuum pad	
			Pad connection config. code
VPM	**M4**	Pad & screw set	M4
	M6		M6(*2)

*1. Vacuum pads of the size and shape matching the pad connection configuration code listed in the table above can be selected. For details of pad connection configuration code, see page 368.

*2. For vacuum pad for packaging bag, select a holder code: VPE and vacuum outlet size code: M6.



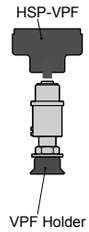
For flange thread M4	For flange thread M6
Connection config. code M4	Connection config. code M6

■ For VPF, VPLFC type

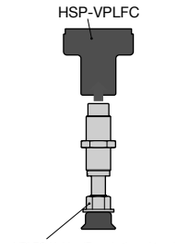
Flange type	Flange thread size code	Pad holder type		Pad connection config. code
			Code	
VPF	**M14**	Spring type	VPF	M4,M6
VPLFC	**M10**	Spring type low dust emission type *2	VPLFC	T4,T8,M4
	M14			M6

*1. Vacuum pads of the size and shape matching the pad connection configuration code of the holders listed in the table above can be selected. For details of pad connection configuration code, see page 368.

*2. For the spring type low dust emission type (VPLFC), choose the female threaded type for vacuum joint type.



Conn. config. code M4, M6



For flange thread M10	For flange thread M14
Conn. config. code T4, T8, M4	Conn. config. code M6

Model designation of gripper attachment type (Example)

HS (1) C (2) – CHM11 (3) C (4)

(1) Mounting Flange HS for EOAT

(2) Mounting type

C: Gripper

(3) Flange type

Code	Mountable gripper type	Gripper selection guideline
CHB18	Parallel Gripper Multi-acting type	Choose from grippers with a body thickness of 23.6 mm (CHB18) without the center port
CHA10	Parallel Gripper Single-acting type	Choose from grippers with a body thickness of 14 mm (CHA10, CHA10E)
CHT34	Parallel Gripper with 3-finger	Select CHT34-D.
CHT44	Parallel Gripper with 3-finger	Select CHT44-D.
CHM11	Angular Gripper Series	Select from shank type with a cylinder diameter of 11 mm (CHM11)

* Gripper is not included. Please order separately.

(4) Requirement of rotational positioning (No code for Parallel Gripper with 3-finger)

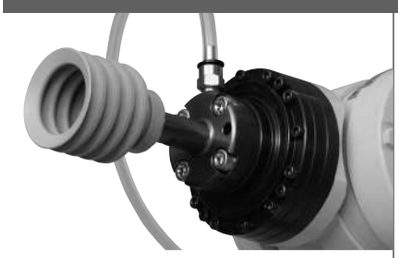
Code	Requirement of rotary positioning
C	Rotational positioning is required for mounting on a robot with a P.C.D. of 31.5 M5 flange
No code	Rotational positioning is not required

Mounting Flange HS for EOAT

Characteristics

Flange for attaching one vacuum pad/gripper.

Vacuum pad

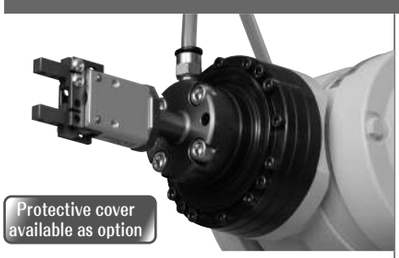


Fixed type

For spring type holder

For spring type low dust emission holder

Gripper



Parallel Gripper

Parallel Gripper with 3-finger

Angular Gripper

Direct mounting on P.C.D. 31.5 M5

Robot Flange P.C.D Conversion Attachments are available for each robot manufacturer.

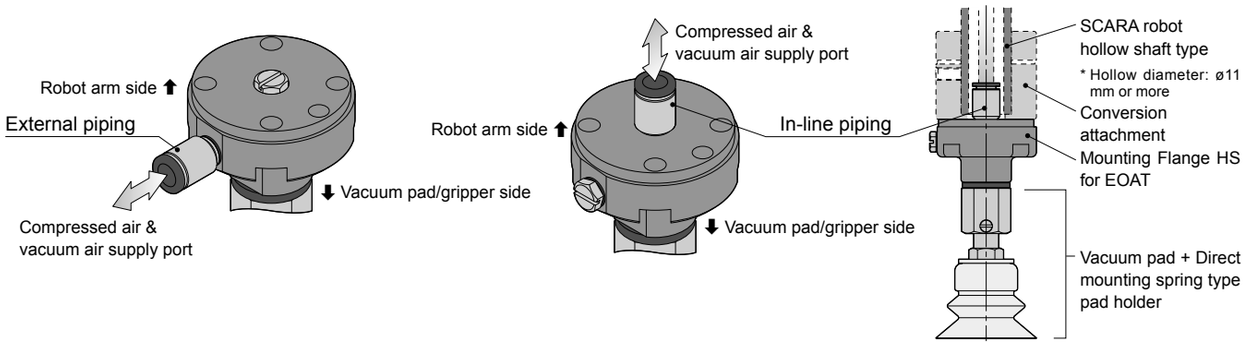
Protective covers are available for safety.

Available for two types of flanges: For spring type pad holder, and for Parallel Gripper Single-acting type.

【Model code】 For spring type holder：HSP-HC-VPF-M14
For Parallel Grippers: HSC-HC-CHA10

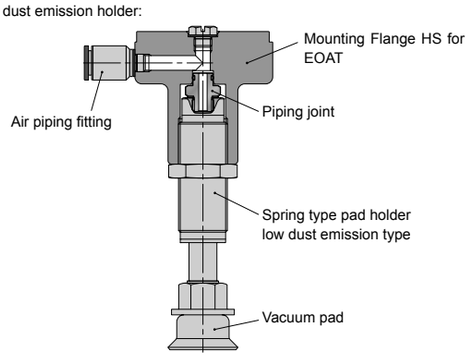
Each flange has two different directional piping ports as standard. * Except for Parallel Gripper with 3-finger.

In-line piping is available when mounting on a SCARA robot hollow shaft type.

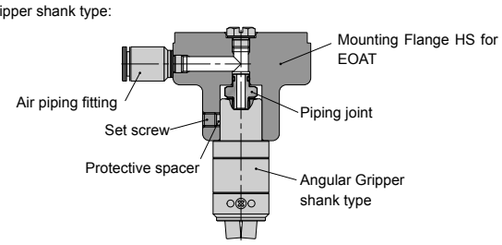


Sectional drawing

For Spring type low dust emission holder:
HSP-VPLFC



For Angular Gripper shank type:
HSC-CHM

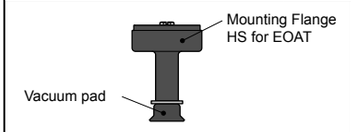


RoHS2 (2011/65/EU+EU2015/863) compliant

Flange for mounting Vacuum pad

Type	Model code
Fixed type HSP	HSP-VPM-M4
	HSP-VPM-M4C
	HSP-VPM-M6
	HSP-VPM-M6C

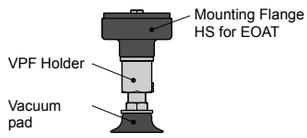
Accessories
· Robot flange fixing screws
· Air pipe fitting for flange mounting (POC6-M5M-RMQ, PL6-M5M, LP-M5)
· O-ring for sealing in use of EOAT Direct Mountable Material Handling Vacuum Generator VYR (sold separately)



Type	Model code
For spring type holder HSP	HSP-VPF-M14
	HSP-VPF-M14C

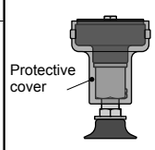
Protective cover is available

Accessories
· Robot flange fixing screws
· Air pipe fitting for flange mounting (POC6-M5M-RMQ, PL6-M5M, LP-M5)
· O-ring for sealing in use of EOAT Direct Mountable Material Handling Vacuum Generator VYR (sold separately)



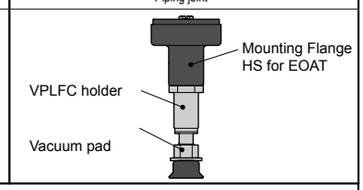
Type
Protective cover for spring type holder HSP

Model code
HSP-HC-VPF-M14



Type	Model code
For spring type low dust emission holder HSP	HSP-VPLFC-M10
	HSP-VPLFC-M10C
	HSP-VPLFC-M14
	HSP-VPLFC-M14C

Accessories
· Robot flange fixing screws
· Air pipe fitting for flange mounting (POC6-M5M-RMQ, PL6-M5M, LP-M5)
· O-ring for sealing in use of EOAT Direct Mountable Material Handling Vacuum Generator VYR (sold separately)
· Piping joint

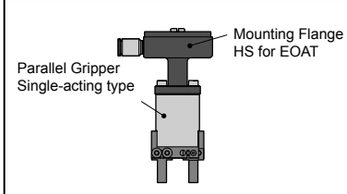


Flange for mounting Gripper

Type	Model code
For Parallel Gripper Single-acting type HSC	HSC-CHA10
	HSC-CHA10C

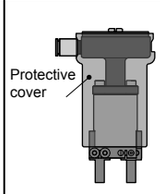
Protective cover is available

Accessories
· Robot flange fixing screws
· Parallel Gripper fixing screw
· O-ring for sealing of Parallel Gripper
· Air pipe fitting for flange mounting (POC6-M5M-RMQ, PL6-M5M, LP-M5)



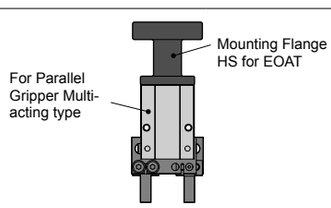
Type
Protective cover for Parallel Gripper Single-acting type HSC

Model code
HSC-HC-CHA10



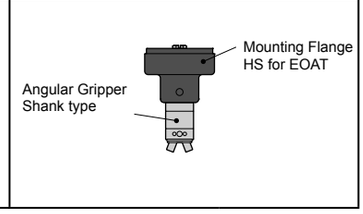
Type	Model code
For Parallel Gripper Multi-acting type HSC	HSC-CHB18
	HSC-CHB18C

Accessories
· Robot flange fixing screws
· Parallel Gripper fixing screw



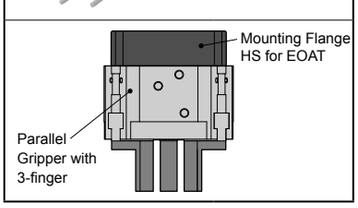
Type	Model code
For Angular Gripper shank type HSC	HSC-CHM11
	HSC-CHM11C

Accessories
· Robot flange fixing screws
· Air pipe fitting for flange mounting (POC6-M5M-RMQ, PL6-M5M, LP-M5)
· Set screw for fixing Angular Gripper
· Protective spacer for set screw
· Piping joint



Type	Model code
For Parallel Grippers with 3-finger HSC	HSC-CHT34
	HSC-CHT44

Accessories
· Robot flange fixing screws
· Parallel Gripper with 3-finger fixing screw



Related Products

EOAT Direct Mountable Material Handling Vacuum Generator VYR
► P.768

Robot Flange P.C.D Conversion Attachment
► P.770

Notes
* Both in-line and external piping can be installed with the supplied fittings.

CAD data is available at PISCO website.

EOAT Direct Mountable Material Handling Vacuum Generator VYR

Vacuum generator with vacuum generation and blow-off functions that can be directly mounted on the end of the robot arm

Model designation (Example)

VYR (1) H (2) 07 (3) - 6 (4) 6 (5)

(1) EOAT Direct Mountable Material Handling Vacuum Generator VYR

(2) Vacuum characteristics

Code	H	L	E
Characteristics	High vacuum type (Rated supply pressure: 0.5MPa)	High flow type (Rated supply pressure: 0.5MPa)	High-vacuum at Low air pressure supply type (Rated supply pressure: 0.35MPa)

(3) Nozzle dia.

Code	Nozzle dia. (mm)	Body height (mm)	H Type		L Type		E Type	
			Vacuum level	Suction flow	Vacuum level	Suction flow	Vacuum level	Suction flow
05	0.5	20	-90kPa	7ℓ/min(ANR)	-66kPa	12ℓ/min(ANR)	-90kPa	3ℓ/min(ANR)
07	0.7		-92kPa	12.5ℓ/min(ANR)	-66kPa	18ℓ/min(ANR)(*1) 21ℓ/min(ANR)(*2)	-90kPa	9ℓ/min(ANR)
10	ø1.0	28	-93kPa	28ℓ/min(ANR)	-66kPa	42ℓ/min(ANR)	-92kPa	21ℓ/min(ANR)
12	ø1.2		-93kPa	38ℓ/min(ANR)	-66kPa	70ℓ/min(ANR)	-92kPa	27ℓ/min(ANR)

*1. For Tube O.D. 4 mm.
*2. For Tube O.D. 6 mm.
*3. Values when rated supply pressure (H and L types: 0.5 MPa, E type: 0.35 MPa) is applied.
*4. The values in the table are typical values. Suction flow varies depending on the vacuum port size of the product. Please ask us for details.

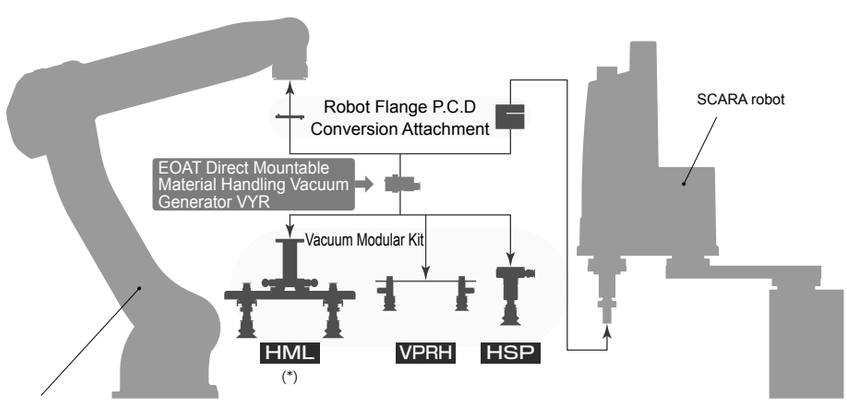
(4) Vacuum port size (○: Available)

Code		3	4	6	8	3L	4L	6L	8L
Applicable Tube O.D. (mm)		ø3	ø4	ø6	ø8	ø3	ø4	ø6	ø8
Port direction		Straight				Elbow			
Nozzle dia. Code	05	○	○	○	—	○	○	○	—
	07	○	○	○	—	○	○	○	—
	10	—	—	○	○	—	—	○	○
	12	—	—	○	○	—	—	○	○

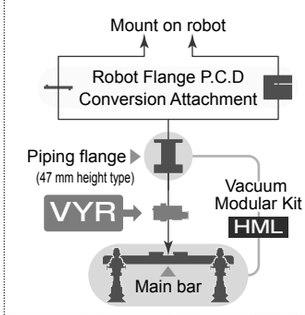
(5) Air supply port size (○: Available)

Code		4	6	8	4L	6L	8L
Applicable Tube O.D. (mm)		ø4	ø6	ø8	ø4	ø6	ø8
Port direction		Straight			Elbow		
Nozzle dia. Code	05	○	○	—	○	○	—
	07	○	○	—	○	○	—
	10	—	○	○	—	○	○
	12	—	○	○	—	○	○

Robot arm configuration and vacuum generator VYR installation



* Vacuum Generator VYR of 1.0 or 1.2 mm nozzle dia. type, when used with Vacuum Modular Kit HML with a 47 mm height piping flange, cannot structurally be installed between the robot flange and the piping flange. Please install the VYR between the piping flange and the main bar as shown in the figure below.



Characteristics

Compact, lowprofile, lightweight type for direct mounting on robots (P.C.D. 31.5).

Vacuum generator and blow-off function are integrated.

Blow-off can be also done with only one air line for vacuum generation.
Equipped with a needle for adjustable blow-off air rate and blow-off time.

High speed adsorption/blow-off cycle.

Ejector exhaust noise of 75 dB [A] or less.

Nozzle diameter 0.5 mm, 0.7 mm type: 65 dB [A] or less
Nozzle diameter 1.0 mm, 1.2 mm type: 75 dB [A] or less
* The figures under our brief measurement.

Built-in tank for blow-off air.

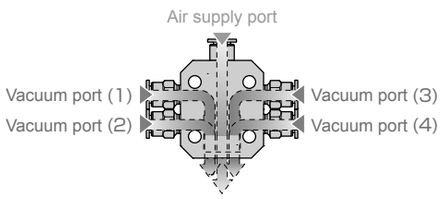
Nozzle dia. 0.5mm, 0.7mm type: 0.4mℓ
Nozzle dia. 1.0mm, 1.2mm type: 0.6mℓ

Nozzle dia. 0.5 mm, 0.7 mm

Up to 4 vacuum ports are available.

Pressure sensor can be attached.

(When the pressure sensor is mounted, 3 vacuum ports are available.)

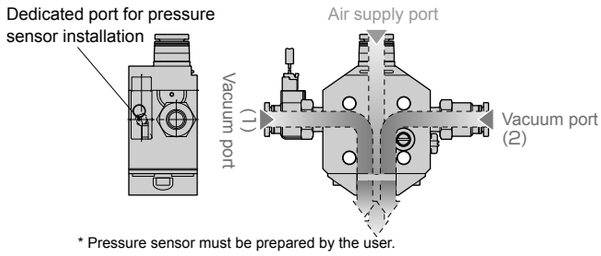


* Pressure sensor must be prepared by the user.

Nozzle dia.: 1.0 mm, 1.2 mm type

2 vacuum ports are available.

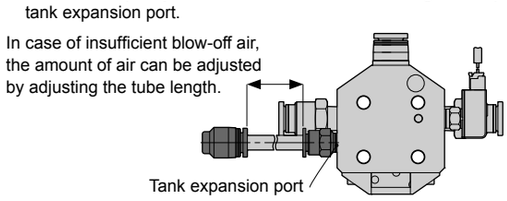
Dedicated port for pressure sensor installation is available.



* Pressure sensor must be prepared by the user.

Blow-off air reserve tank capacity can be expanded.

Reservoir capacity can be increased with air tubing and cap piped to the tank expansion port.



* Tubing for capacity expansion must be prepared by the user.

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code
Nozzle dia. 0.5 mm, 0.7 mm type VYR	VYR2 05-4 5 VYR2 07-4 5

Type	Model code
Nozzle dia. 1.0 mm, 1.2 mm type VYR	VYR2 10-4 5 VYR2 12-4 5

Notes
* Please specify the code for vacuum characteristics in 2, the vacuum port size in 4, and the air supply port size in 5, referring to model designation (Example) on the left page.

CAD data is available at PISCO website.

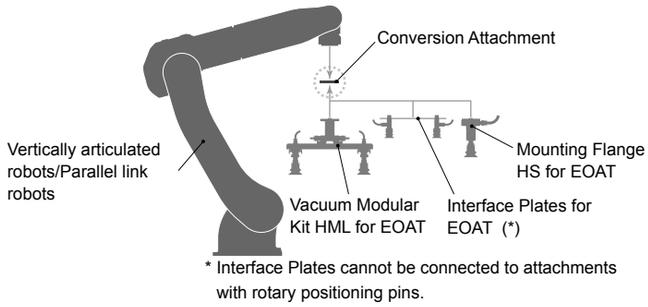
Robot Flange P.C.D Conversion Attachment

Attachment to connect PISCO end effectors with robots from various manufacturers

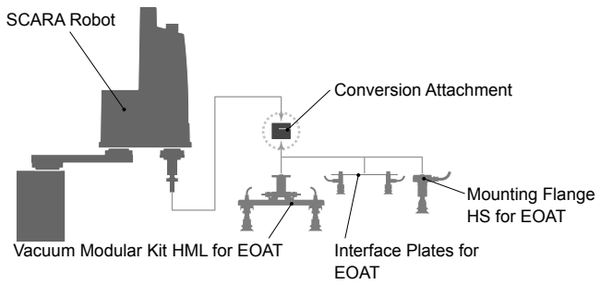
Characteristics

PISCO EOAT can also be mounted on robots with P.C.D.s other than P.C.D. 31.5 M5 robots.

* It can be connected to a P.C.D. 31.5 M5 robot without a conversion attachment.



* Interface Plates cannot be connected to attachments with rotary positioning pins.



Without rotary positioning type

RoHS2 (2011/65/EU+EU2015/863) compliant

Conversion Attachment type	RFA002M01	RFA002M07	RFA002M04	RFA002M03	RFA002M08
Robot flange side P.C.D (mm)	20, 25 (Common use)	25	27	31.5	40
Robot flange side mounting screw	M4	M5	M5	M4	M6
Displacement in rotary direction (deg)	26°	28°	—	25°	28°
Conversion Attachment type	RFA002M06	RFA002M02	RFA002M09	RFA002M12	
Robot flange side P.C.D (mm)	50	53.5, 60 (Common use)	63	56	
Robot flange side mounting screw	M6	M5	M6	M4	
Displacement in rotary direction (deg)	—	—	—	—	

With rotary positioning type

Conversion Attachment type	RFA002M01-20C	RFA002M01-25C	RFA002M07C	RFA002M05C
Robot flange side P.C.D (mm)	20	25	25	27
Robot flange side mounting screw	M4	M4	M5	M5
Displacement in rotary direction (deg)	26°	26°	28°	35°
Conversion Attachment type	RFA002M03C	RFA002M08C	RFA002M06C	RFA002M02-53.5C
Robot flange side P.C.D (mm)	31.5	40	50	53.5
Robot flange side mounting screw	M4	M6	M6	M5
Displacement in rotary direction (deg)	25°	28°	—	—
Conversion Attachment type	RFA002M02-60C	RFA002M09C	RFA002M12C	
Robot flange side P.C.D (mm)	60	63	56	
Robot flange side mounting screw	M5	M6	M4	
Displacement in rotary direction (deg)	—	—	—	

For SCARA robot

Conversion Attachment type	SCH001M01	SCH001M02	SCH001M04	SCH001M05
Shaft Dia. (mm)	ø8	ø10	ø16	ø20

Vacuum & Air Control Unit HKU

Vacuum and compressed air supply unit for EOAT

Model designation of Solenoid Valve & Pressure Sensor Mounted Unit (Example)

HKU (1) – VYR (2) – D24 (3)

(1) Vacuum & Air Control Unit HKU

(2) Solenoid valve & pressure sensor mounted type for controlling Vacuum Generator VYR

* Please order EOAT Direct Mountable Material Handling Vacuum Generator VYR separately.

(3) Solenoid valve specifications

Code	D24	A100
Voltage	24VDC	100VAC

Model designation of Vacuum Generator Complex type mounted unit (Example)

HKU (1) – VK (2) H12 (3) E (4) – NW (5)

(1) Vacuum & Air Control Unit HKU

(2) Vacuum Generator VK mounted type

(3) Vacuum Characteristics

Code	H12	L12	E12
Characteristics	High vacuum type (Rated supply pressure: 0.5MPa)	Large-flow type (Rated supply pressure: 0.5MPa)	High-vacuum at Low air pressure supply type (Rated supply pressure: 0.35MPa)
Nozzle dia. (mm)	ø1.2		

(4) Solenoid valve specifications

Code	E	G	F	H
Voltage	24VDC		100VAC	
Type	Normally closed (N.C.)	Normally open (N.O.)	Normally closed (N.C.)	Normally open (N.O.)

(5) Pressure Sensor

Code	Specifications
NW	NPN open collector output with 2 switch outputs
NA	NPN open collector output with 1 switch output and analog output
PW	PNP open collector output with 2 switch outputs
PA	PNP open collector output with 1 switch output and analog output

Model designation of External Vacuum Controller mounted unit (Example)

HKU (1) – VJP (2) A (3) – D24 (4) – W (5)

(1) Vacuum & Air Control Unit HKU

(2) External Vacuum Controller VJP mounted type

(3) Valve unit type

Code	A	B	C
Type	Double solenoid	Normally closed	Normally open

(3) Solenoid valve specifications

Code	D24	A100
Voltage	24VDC	100VAC

(5) Pressure Sensor

Code	Specifications
W	NPN open collector output with 2 switch outputs
A	NPN open collector output with 1 switch output and analog output

Model designation of Solenoid valve mounted unit (Example)

HKU (1) – SVB (2) – D24 (3)

(1) Vacuum & Air Control Unit HKU

(2) Solenoid valve mounted type for gripper operation

(3) Solenoid valve specifications

Code	D24	A100
Voltage	24VDC	100VAC

Vacuum & Air Control Unit HKU

Characteristics

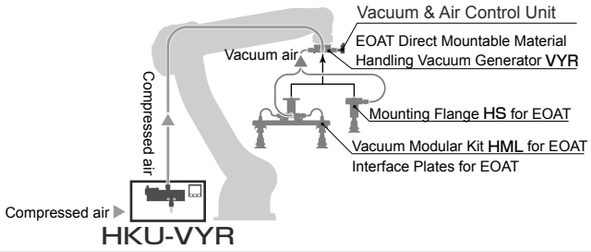
- All necessary equipment for supplying vacuum/compressed air is integrated as a unit.
- No need to select necessary equipment on the pneumatic circuit. Reduces the time and labor required for piping and installation.
- Simply connect to the supply port (IN) side and the output port (P or V) side to generate vacuum or switch and control air supply.

*1. Electrical wiring is required separately.
*2. A vacuum pump is separately required for External Vacuum Controller mounted type (HKU-VJP).

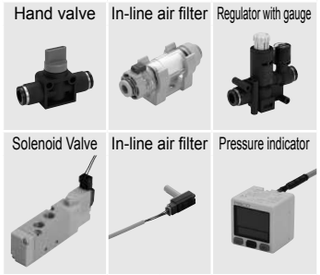
Transfer workpieces with vacuum pad adsorption

Solenoid valve & pressure sensor mounted unit
Controls EOAT Direct Mountable Material Handling Vacuum Generator VYR (sold separately)

HKU-VYR

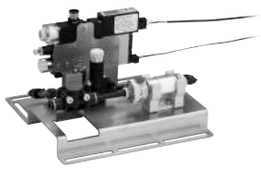


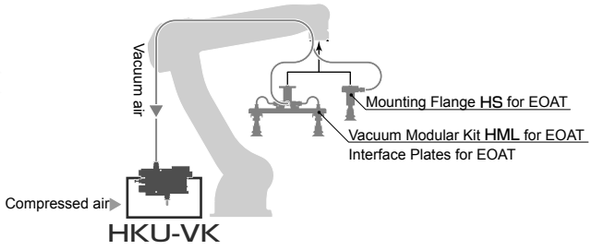
Components



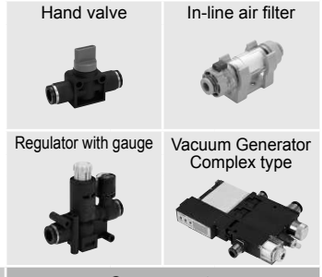
Vacuum Generator Complex type mounted unit

HKU-VK



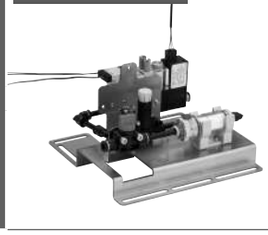


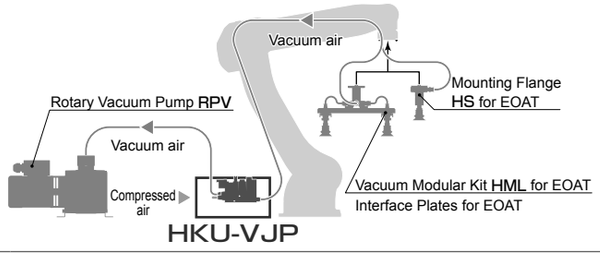
Components



External Vacuum Controller mounted unit

HKU-VJP



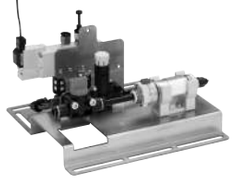


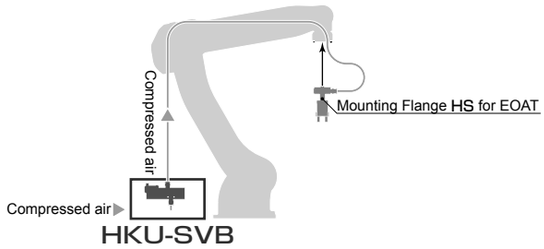
Components

Transfer workpieces with gripper force

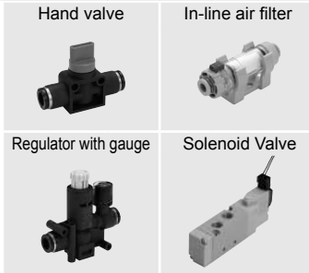
Unit with solenoid valve

HKU-SVB





Components

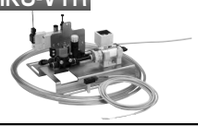


* All pneumatic equipment mounted on the unit are our products. Please refer to each product page for specifications and details.

RoHS2 (2011/65/EU+EU2015/863) compliant

For adsorption transfer with vacuum pad

Type	Model code
Solenoid Valve, Pressure Sensor mounted type HKU-VYR	HKU-VYR-D24
	HKU-VYR-A100



* Includes 3 m tube (UB0640-CB) for connecting EOAT Direct Mountable Material Handling Vacuum Generator VYR.

Type	Model code
Vacuum Generator VK mounted type HKU-VK	HKU-VKH12[4]-[5]
	HKU-VKL12[4]-[5]
	HKU-VKE12[4]-[5]

Type	Model code
External Vacuum Controller VJP mounted type HKU-VJP	HKU-VJPA-D24-[5]
	HKU-VJPA-A100-[5]
	HKU-VJPB-D24-[5]
	HKU-VJPB-A100-[5]
	HKU-VJPC-D24-[5]
	HKU-VJPC-A100-[5]

For grasp transfer with gripper

Type	Model code
Solenoid Valve for gripper control mounted type HKU-SVB	HKU-SVB-D24
	HKU-SVB-A100

Notes

* Please specify the code for Solenoid Valve specification in [4] and Pressure Sensor specification in [5], referring to model designation (Example) on page 771.

CAD data is available at PISCO website.

Related Products

EOAT Direct Mountable Material Handling Vacuum Generator VYR

► P.768

Rotary Vacuum Pump

► P.317

Interface Plates for EOAT

Plate for installation of 2 to 4 vacuum pads

Model designation (Example)

VPRH (1) T (2) – 100 (3) – M5 (4) – 2 (5)

(1) Interface Plates for EOAT

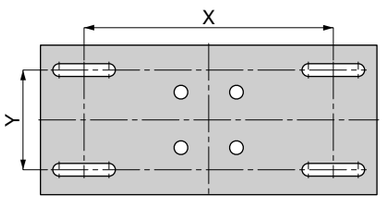
(2) Plate type

Code	T	L
Type	High-strength	Lightweight

(3) Vacuum pad mounting pitch

Code		100	150	200
Pitch (mm)	X	100	150	200
	Y	40	50	70

* When 2 vacuum pads are to be installed, refer to X only for the mounting pitch. When 4 vacuum pads are selected, refer to the figure on the right.



(4) Robot flange mounting screw size

M5: (P.C.D. 31.5 M5)

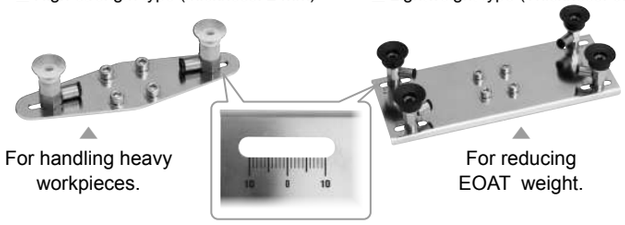
(5) No. of vacuum pads mounted

Plate type	High-strength		Lightweight	
Code	2	4	S2	S4
No. of pads (pcs)	2	4	2	4

Characteristics

Two types are available: "high-strength" and "lightweight" types.

■ High-strength type (thickness: 2 mm) ■ Lightweight type (Thickness: 0.8 mm)



For handling heavy workpieces.

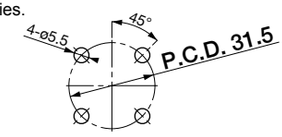
For reducing EOAT weight.

Slotted holes with graduated markings option is available.

Reduces work time for pad changeover. *Please contact us for a graduated markings option.

Industry standard mounting holes for robots.

Compatible with mounting dimensions of articulated and parallel link robots from various companies.



Small-lot production and quick delivery are also available for special shape processing.

Related Products

EOAT Direct Mountable Material Handling Vacuum Generator VYR
► P.768

Robot Flange P.C.D Conversion Attachment
► P.770

Type	Model code	Type	Model code
High-strength type (2 pad mounting holes) VPRHT	VPRHT-100-M5-2	Lightweight type (2 pad mounting holes) VPRHL	VPRHL-100-M5-2
	VPRHT-150-M5-2		VPRHL-150-M5-2
	VPRHT-200-M5-2		VPRHL-200-M5-2

Type	Model code	Type	Model code
High-strength type (4 pad mounting holes) VPRHT	VPRHT-100-M5-4	Lightweight type (4 pad mounting holes) VPRHL	VPRHL-100-M5-4
	VPRHT-150-M5-4		VPRHL-150-M5-4
	VPRHT-200-M5-4		VPRHL-200-M5-4

Installable vacuum pad

Pad holder type		Pad connection config. code
	Code	
Fixed type Mini type	VPMB	M4
		M6
Fixed type Lowprofile type	VPHE	T8
		T15
		T40
		M4
		M6
	VPHEW	T8
		T15
		T40
		M4
		M6

* Vacuum pads of the size and shape matching the pad connection configuration code of the holders listed in the table above can be selected. For details of pad connection configuration code, see page 368.

Actuator

Actuator

Index

Renewal ▶ Renewal product　　Add ▶ Additional model item or design changed

Angular Grippers

Closing Gripper Series ····· P.776
Opening Gripper Series ····· P.778

HARMO product

Angular Gripper ····· Renewal Add P.780

Parallel Grippers

Parallel Gripper Multi-acting type ····· P.782
Parallel Gripper Single-acting type ····· P.785

HARMO product

Parallel Gripper ····· P.787

3-finger type

Parallel Gripper with 3-finger ····· P.789

Closing Gripper Series

Normally Open, Single-acting Angular Gripper

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

CHM (1) 08 (2) A (3) A (4) K (5)

(1) Angular gripper

(2) Cylinder dia.

Code	08	11
Cylinder dia. (mm)	ø8	ø11

(3) Gripper action
A: Single-acting closing gripper (normally open)

(4) Holder type

A	B	C	D	E	F
Shank type	Panel mount type	Panel mount type w/ floating mechanism Fingers in parallel	Panel mount type w/ floating mechanism Fingers at right angle	Block type w/ floating mechanism Fingers in parallel	Block type w/ floating mechanism Fingers at right angle

(5) Finger type

Code	K	S
Type	R-guide single screw installation type (option parts: finger blank) *	2-screw installation type (flat back surface)

*Work stopper is equipped. Detach it if not necessary.

Finger Blank Model Designation (Example)

CHM (1) 08 (2) AK (3) 11 (4)

(1) Angular Gripper

(2) Cylinder dia.

Code	08	11
Cylinder dia. (mm)	ø8	ø11

(3) Gripper action and finger type
AK: Single-acting closing gripper (normally open) R-guide single screw installation type

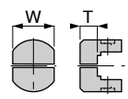
(4) Size

■ Cylinder dia.: 8 mm

Code							
	With slot	11	12	13	14	15	16
	Without slot	01	02	03	04	05	06
W×T Size (mm)		6×5	6×10	12×5	12×10	16×5	16×10

■ Cylinder dia.: 11 mm

Code					
	With slot	11	12	13	14
	Without slot	01	02	03	04
W×T Size (mm)		8×6	8×12	16×6	16×12



Characteristics

Finger blank is available as option for the K type finger.

R-guide leaves no possibility of misalignment. The finger blank can be attached to the K type finger with a single screw.

Stable gripping is assured by a work stopper.

The holder with floating mechanism makes more effective use of the work stopper and prevents damage due to bumping. (Finger type: K)

*Process the finger blank to shape to your work.

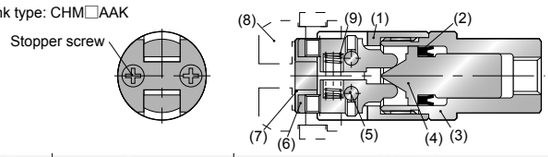
Example of mounting finger blank

Specifications

Cylinder dia.	ø8 mm	ø11 mm
Gripping force at 0.5 MPa, fingers in parallel	0.08 N·m	0.20 N·m
Operating pressure range	0.2 to 0.7 MPa	
Operating temp. range	0 to 60°C (No freezing)	
Lubrication	Not required	
Air supply port type & size	Metric female thread·M5x0.8	

Sectional drawing

Shank type: CHM□AAK



No.	Parts	Material
(1)	Body A	Stainless steel
(2)	Y packing	NBR/Nitrile rubber
(3)	Body B	Stainless steel
(4)	Piston cam	Stainless steel
(5)	Shaft	SUJ2
(6)	Finger	Stainless steel
(7)	Stopper	Stainless steel
(8)	Finger blank (Option)	Special stainless steel
(9)	Return spring	Piano wire

RoHS2 (2011/65/EU+EU2015/863) compliant

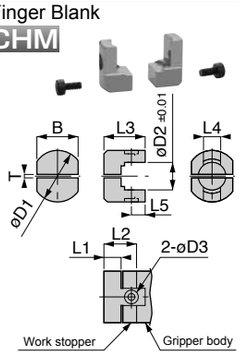
Finger type: Single screw installation

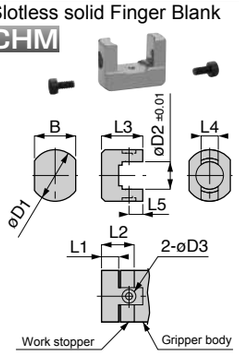
Type	Model code	Type	Model code	Type	Model code
Shank type CHM	CHM08AAK CHM11AAK	Panel mount type CHM	CHM08ABK CHM11ABK	Panel mount type w/ floating mechanism Fingers in parallel CHM	CHM08ACK CHM11ACK
No copper-based metallic material used in flow paths.					
Type	Model code	Type	Model code	Type	Model code
Panel mount type w/ floating mechanism Fingers at right angle CHM	CHM08ADK CHM11ADK	Block type w/ floating mechanism Fingers in parallel CHM	CHM08AEK CHM11AEK	Block type w/ floating mechanism Fingers at right angle CHM	CHM08AFK CHM11AFK

Finger type: 2-screw installation

Type	Model code	Type	Model code
Shank type CHM	CHM08AAS CHM11AAS	Panel mount type CHM	CHM08ABS CHM11ABS
No copper-based metallic material used in flow paths.			

Finger Blank (Finger type: Single screw installation)

Type	Model code	B	øD1	øD2	øD3	T	L1	L2	L3	L4	Set screw (supplied)	Applicable gripper
Finger Blank CHM 	CHM08AK11	6	15	10	2.1	1	5	8	11.5	4.8	Hex Socket Head Cap Screws M2×4ℓ 2 pcs.	CHM08A□ K Type
	CHM08AK12						10	13	16.5			
	CHM08AK13	12					5	8	11.5			
	CHM08AK14						10	13	16.5			
	CHM08AK15	16	20				5	8	11.5			
	CHM08AK16						10	13	16.5			
	CHM11AK11	8	20	13	2.6	2	6	10	14	6.8	Hex Socket Head Cap Screws M2.5×5ℓ 2 pcs.	CHM11A□ K Type
	CHM11AK12						12	16	20			
	CHM11AK13	16					6	10	14			
	CHM11AK14						12	16	20			

Type	Model code	B	øD1	øD2	øD3	T	L1	L2	L3	L4	Set screw (supplied)	Applicable gripper
Slotless solid Finger Blank CHM 	CHM08AK01	6	15	10	2.1	–	5	8	11.5	4.8	Hex Socket Head Cap Screws M2×4ℓ 2 pcs.	CHM08A□ K Type
	CHM08AK02						10	13	16.5			
	CHM08AK03	12					5	8	11.5			
	CHM08AK04						10	13	16.5			
	CHM08AK05	16	20				5	8	11.5			
	CHM08AK06						10	13	16.5			
	CHM11AK01	8	20	13	2.6	–	6	10	14	6.8	Hex Socket Head Cap Screws M2.5×5ℓ 2 pcs.	CHM11A□ K Type
	CHM11AK02						12	16	20			
	CHM11AK03	16					6	10	14			
	CHM11AK04						12	16	20			

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag
1 set/bag: Finger Blank, Slotless solid Finger Blank

Opening Gripper Series

Normally Closed, Single-acting Angular Gripper

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

CHM (1) 08 (2) B (3) A (4) 06 (5) H (6)

(1) Angular gripper

(2) Cylinder dia.

Code	08	11
Cylinder dia. (mm)	ø8	ø11

(3) Gripper action

B：Single-acting opening gripper (normally closed)

(4) Holder type

A	B	C	D	E	F
Shank type	Panel mount type	Panel mount type w/ floating mechanism Fingers in parallel	Panel mount type w/ floating mechanism Fingers at right angle	Block type w/ floating mechanism Fingers in parallel	Block type w/ floating mechanism Fingers at right angle

(5) Finger size (See the table below and select the most suitable type and size for your work)

■ Finger type: H (work with round hole)

Code	02	03	04	06	08	10	12
Hole dia.(mm)	ø2 to ø3	ø3 to ø4	ø4 to ø6	ø6 to ø8	ø8 to ø10	ø10 to ø12	ø12 to ø14

■ Finger type: C (work with groove hole)

Code	03	05	06	07	08	10	12
Hole dia.(mm)	3 to 5	5 to 7	6 to 8	7 to 9	8 to 10	10 to 12	12 to 14

(6) Finger type

Code	H	C
Type	Work with round hole	Work with groove hole

Characteristics

No dedicated fingers are necessary for works in simple shapes.

Stable gripping is assured by a work stopper.

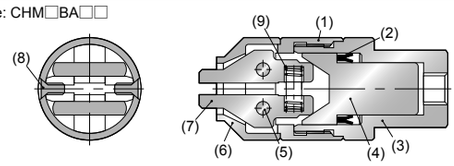
The holder with floating mechanism makes more effective use of the work stopper and prevents damage due to bumping.

Specifications

Cylinder dia.	ø8 mm	ø11 mm
Gripping force at 0.5 MPa, fingers in parallel	0.08 N·m	0.20 N·m
Operating pressure range	0.2 to 0.7 MPa	
Operating temp. range	0 to 60°C (No freezing)	
Lubrication	Not required	
Air supply port type & size	Metric female thread·M5x0.8	

Sectional drawing

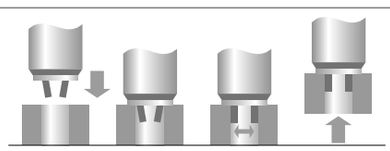
Shank type: CHM□BA□□



No.	Parts	Material
(1)	Body A	Stainless steel
(2)	Y packing	NBR/Nitrile rubber
(3)	Body B	Stainless steel
(4)	Piston cam	Stainless steel
(5)	Shaft	SUJ2
(6)	Stopper	Stainless steel
(7)	Finger	Stainless steel
(8)	Stopper screw	Stainless steel
(9)	Return spring	Piano wire

Example use of work stopper

Stable work transfer is possible by pressing the work against the work stopper and having the work firmly gripped. In addition, light press-fitting can be performed directly as it is. When the cylinder thrust is too large or unstable, use of the floating type holder will facilitate stable gripping.



RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code	Type	Model code	Type	Model code
Shank type CHM No copper-based metallic material used in flow paths.	CHM08BA03C	Panel mount type CHM 	CHM08BB03C	Panel mount type w/ floating mechanism Fingers in parallel CHM 	CHM08BC03C
	CHM08BA05C		CHM08BB05C		CHM08BC05C
	CHM08BA07C		CHM08BB07C		CHM08BC07C
	CHM08BA02H		CHM08BB02H		CHM08BC02H
	CHM08BA03H		CHM08BB03H		CHM08BC03H
	CHM08BA04H		CHM08BB04H		CHM08BC04H
	CHM08BA06H		CHM08BB06H		CHM08BC06H
	CHM08BA08H		CHM08BB08H		CHM08BC08H
	CHM11BA06C		CHM11BB06C		CHM11BC06C
	CHM11BA08C		CHM11BB08C		CHM11BC08C
	CHM11BA10C		CHM11BB10C		CHM11BC10C
	CHM11BA12C		CHM11BB12C		CHM11BC12C
	CHM11BA06H		CHM11BB06H		CHM11BC06H
	CHM11BA08H		CHM11BB08H		CHM11BC08H
	CHM11BA10H		CHM11BB10H		CHM11BC10H
	CHM11BA12H		CHM11BB12H		CHM11BC12H

Type	Model code	Type	Model code	Type	Model code
Panel mount type w/ floating mechanism Fingers at right angle CHM 	CHM08BD03C	Block type w/ floating mechanism Fingers in parallel CHM 	CHM08BE03C	Block type w/ floating mechanism Fingers at right angle CHM 	CHM08BF03C
	CHM08BD05C		CHM08BE05C		CHM08BF05C
	CHM08BD07C		CHM08BE07C		CHM08BF07C
	CHM08BD02H		CHM08BE02H		CHM08BF02H
	CHM08BD03H		CHM08BE03H		CHM08BF03H
	CHM08BD04H		CHM08BE04H		CHM08BF04H
	CHM08BD06H		CHM08BE06H		CHM08BF06H
	CHM08BD08H		CHM08BE08H		CHM08BF08H
	CHM11BD06C		CHM11BE06C		CHM11BF06C
	CHM11BD08C		CHM11BE08C		CHM11BF08C
	CHM11BD10C		CHM11BE10C		CHM11BF10C
	CHM11BD12C		CHM11BE12C		CHM11BF12C
	CHM11BD06H		CHM11BE06H		CHM11BF06H
	CHM11BD08H		CHM11BE08H		CHM11BF08H
	CHM11BD10H		CHM11BE10H		CHM11BF10H
	CHM11BD12H		CHM11BE12H		CHM11BF12H

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag

Angular Gripper

HARMO Robot Parts

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

HC (1) 15 (2) B (3) R (4) -B (5)

(1) HARMO Angular Gripper

(2) Cylinder area

Code	15	20	30
Cylinder area (cm^2)	2.1	4.3	8.8

(3) Gripper action

Code	A	B	C
Gripper action	Double-acting	Single-acting, normally open	Single-acting, normally closed

*Finger tools (body material code: RX/MX) are selectable only with "Single-acting, normally open" B type.

(4) Body material (○: Available)

Code	R	M	RX	MX
Material	Plastic	Die cast	Plastic, with finger tool	Die cast, with finger tool
HC15	○	—	○	—
HC20	○	○	○	○
HC30	—	○	—	—

(5) Options (○: Available)

■ Without Finger tool (Body material code: R, M)

Code	No code	-S	-B
Type	No option	Sensor (with bracket)	With bracket
HC15	○	○	○
HC20	○	○	○
HC30	○	○	—

■ With Finger tool (Body material code: RX, MX)

Code	No code	-WS	-B	-BS
Type	No option	Finger sensor	With bracket	Finger sensor + Bracket
HC15	○	○	○	○
HC20	○	○	○	○

Characteristics

- The elliptic cylinder contributes to the reduction of body size and weight.
- Light-weight plastic type and durable die-cast alloy type are available.
- A sensor equipped type allows easy checking of the jaw operation and the clamping condition by the flashing LED lamp.
  As to the gripper w/o finger tool, the proximity switch can be moved horizontally to adjust its position according to workpieces.
- With finger tool, no need to machine custom attachments. It is most suitable to take out plastic injection molded products (sprues).

NEW "With bracket" option is now available for HC20 die cast type.

NEW Sensor for HC20 finger tool equipped type has been replaced with Finger sensor for easier adjustment.

NEW "Finger sensor" option is now available for HC15 finger tool equipped type.

Specifications

Type	HC15□R	HC20□R	HC20□M	HC30□M
Gripper action	Double-acting type, Single-acting type			
Fluid medium	Compressed air (oilless)			
Operating pressure range	0.2 to 0.6 MPa		0.2 to 0.7 MPa	
Operating temp. range	-10 to 60ºC (No freezing)			
Port size	M5×0.8			
Cylinder area	2.1 cm^2	4.3 cm^2		8.8 cm^2
Repeatability	±0.1 mm (at the center of the jaws)			
Max. cycle per minute	100 C.P.M.			

Sensor Specification

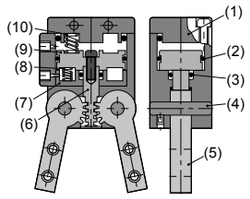
■ Sensor for type without Finger tool

Power voltage	12 to 24 VDC +10%/-15% Ripple (P-P) 10% max.
Current consumption	15 mA or less
Output	NPN open collector Max. current: 100 mA Applied voltage: 30 VDC max.
Operation indicator	Red LED (Lights when turned on)
Operating ambient temp.	-25 to 70°C
Cable	0.08SQ 3 cores, 1 m

■ Sensor for type with Finger tool

Power voltage	4.5 to 28 VDC
Current consumption	8 mA Max. (24 VDC)
Output	NPN open collector
Operation indicator	Red LED indicator turns on at operation
Operating ambient temp.	0 to 60°C
Cable	PCCV 0.15SQ 3 cores (Brown, Blue, Black) x 1 m

Sectional drawing



No.	Parts	Material
(1)	Top cover	Aluminum die casting
(2)	Piston packing	NBR
(3)	Rod packing	NBR
(4)	Fulcrum shaft	Stainless steel
(5)	Jaw	No Finger tool type: Carbon steel Finger tool type: Chromium-molybdenum steel
(6)	Rack	HC15, HC30: Carbon steel HC20: Chromium-molybdenum steel
(7)	Body (Cylinder)	Polyamide resin or zinc die casting
(8)	Spring	SWP (Single-acting normally close type)
(9)	Piston	POM
(10)	Spring	SWP (Single-acting normally open type)

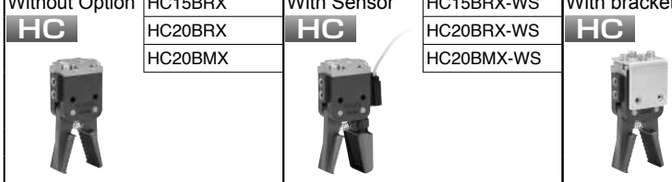
RoHS2 (2011/65/EU+EU2015/863) compliant

Without Finger tool

Type	Model code	Type	Model code	Type	Model code
Without Option	HC15③R	With Sensor	HC15③R-S	With bracket	HC15③R-B
	HC20③R		HC20③R-S		HC20③R-B
	HC20③M		HC20③M-S		HC20③M-B
	HC30③M		HC30③M-S		

With Finger tool

Type	Model code	Type	Model code	Type	Model code
Without Option	HC15BRX	With Sensor	HC15BRX-WS	With bracket	HC15BRX-B
	HC20BRX		HC20BRX-WS		HC20BRX-B
	HC20BMX		HC20BMX-WS		HC20BMX-B



Type	Model code
With Finger sensor and bracket	HC15BRX-BS
	HC20BRX-BS
	HC20BMX-BS

Option Parts

Sensor Set

Model code	Applicable gripper type	Set Item
KE01EE03	HC15③R	Sensor, Sensor Fixing Screw, Limit Dog, Dog Fixing Screw, Sensor Bracket, Sensor Bracket Fixing Screw
KE02JE03	HC20③R	
KE02ME03	HC20③M	
KE03DE03	HC30③M	

Sensor

Model code	Applicable gripper type	Supplied
K*ZE155A	With Finger tool type	—
*K9GX-F8A	No Finger tool type	Sensor, Bracket, Sleeve

Bracket for gripper (Bracket alone)

Model code	Applicable gripper type	Supplied
KE01EE04	All HC15 models	Fixing Screw
KE02JE04	All HC20 models	Fixing Screw

Notes
*1 Please select a gripper action code for ③ from the Model Designation (Example) on page 780.
*2 Finger sensor cannot be post-installed.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag: Angular Gripper and Sensor only as option parts
1 set/bag: Sensor set as option parts.

Parallel Gripper Multi-acting type

Parallel Gripper for Single-acting Opening/Closing & Double-acting

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

CHB12E (1) – N (2) – (3)

(1) Model No.

Code	Type	Body width (mm)	Countermeasure for lateral load	Stroke (mm)
CHB08	Multi-acting	10	N/A	4
CHB08E			E-shaped retaining ring	
CHB12		16.4	N/A	6
CHB12E			E-shaped retaining ring	
CHB18		23.6	N/A	8

(2) Acting type

Code	N	D
Acting type	Single-acting	Double-acting

(3) Center port (Options)

Code	No code	C
Center port	No port	With port

Model Designation of Finger Attachment (Example)

CHK (1) 12 (2)

(1) Finger Attachment for Parallel Gripper

(2) Applicable gripper model

Code	08	12	18
Applicable model	CHB08 (E)	CHB12 (E)	CHB18

Model Designation of Sensor Switch (Example)

ZE (1) 155 (2) A (3)

(1) Sensor switch

(2) Sensor switch for Parallel Gripper

Code	135	155	175	235	255	275
Wiring type	2 wires	3 wires		2 wires	3 wires	
		NPN Output	PNP Output		NPN Output	PNP Output
Cable direction	Side			Top		

(3) Cable length

Code	A	B	G(*)
Cable length (mm)	1000	3000	300 with M8 connector

*Cable length: 300 mm with M8 connector is only for ZE175□ and ZE275□.

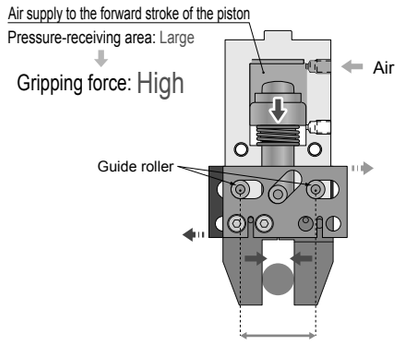
Characteristics

High precision and high gripping force.

Piston movement directly drives fingers which in turn allows for fewer moving parts.
This simple structure enables high precision. (Repeatability: ± 0.01 mm)
Air supply to the forward stroke of the piston generates high gripping force.

Uniquely Designed Roller Guide System.

The long distance between rollers enables smooth movement and gripping .
E type (with E-shaped retaining ring) which withstands lateral moment load is provided.



Long distance between the fulcrum points
||
Stable movement, mild abrasion

4 mm stroke type: ultra thin body.

Ultra thin 10mm width body, incorporating 8mm bore cylinder with high gripping force. Good for narrow pitch multi-station use.

6 mm stroke type: short body.

Long travel stroke with short body allows equipment downsizing.

8 mm stroke type: super light weight.

About half the weight of the conventional grippers with the same gripping force.

Attachments and sensor switches: available as option parts.

Sensor switch can be selected from 6 types depending on the application.

Specifications

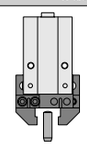
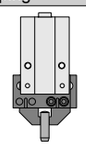
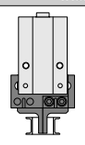
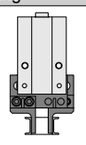
Fluid medium	Filtered air (Limited to filtered compressed air)
Operating pressure range	0.3 to 0.5 MPa
Operating temp. range	5 to 50 °C (No freezing)
Lubrication	Not required
Max. operating cycle	Single-acting: 120 cpm, Double-acting: 180 cpm

Gripping force

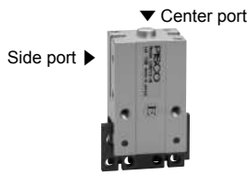
Acting type	Model code	Effective gripping force (N)	
		Force by air	Force by spring
Single-acting	CHB08(E)-N	4.2	1
	CHB12(E)-N	10.4	1.9
	CHB18-N	34	2.5
Double-acting	CHB08(E)-D	4.9	—
	CHB12(E)-D	12.2	—
	CHB18-D	37	—

Various gripping styles with one body.

Various gripping action: Inside, outside, by air or by spring force.

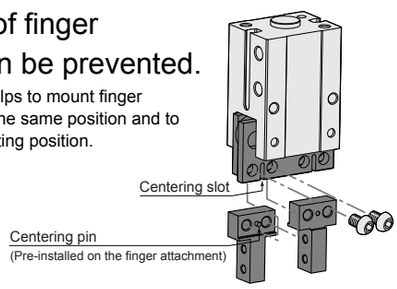
Gripping style			
Outside gripping		Inside gripping	
			
Gripping by air (Single/Double-acting)	Gripping by spring (Single-acting)	Gripping by air (Single/Double-acting)	Gripping by spring (Single-acting)

Either the center port or the side port can be used as an air supply port.



Mispositioning of finger attachments can be prevented.

Centering slot on finger helps to mount finger attachment repeatedly in the same position and to prevent deviation of mounting position.



Sensor switch Specifications

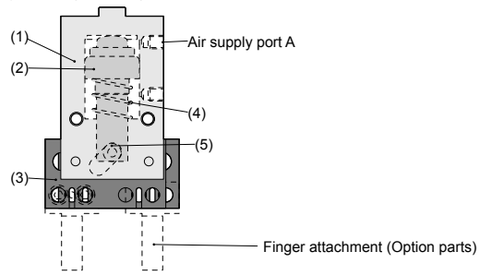
Item \ Model code	ZE135□	ZE155□	ZE175□	ZE235□	ZE255□	ZE275□
Wiring type	2 wires	3 wires NPN Output	3 wires PNP Output	2 wires	3 wires NPN Output	3 wires PNP Output
Cable direction	Side			Top		
Power voltage	—	4.5 to 28 VDC		—	4.5 to 28 VDC	
Load voltage	10 to 28 VDC	4.5 to 28 VDC		10 to 28 VDC	4.5 to 28 VDC	
Load current	2.5 to 20 mA (at 25°C, 10 mA at 60°C)	40 mA Max.		2.5 to 20 mA (at 25°C, 10 mA at 60°C)	40 mA Max.	
Current consumption	—	8 mA Max. (24 VDC)	10 mA Max. (24 VDC)	—	8 mA Max. (24 VDC)	10 mA Max. (24 VDC)
Internal voltage drop(*1)	4 V Max.	2 V Max. (0.8 V Max. when load ≦ 10 mA)		4 V Max.	2 V Max. (0.8 V Max. when load ≦ 10 mA)	
Leakage Current	0.7 mA Max. (24 VDC, 25°C)	50 μA Max. (24 VDC)		0.7 mA Max. (24 VDC, 25°C)	50 μA Max. (24 VDC)	
Response time	1 msec Max.					
Insulation resistance	100 MΩ Min. (with 500 VDC megger, between case and wire terminal)					
Withstand voltage	500 VAC (50/60 Hz) 1 min. (between case and wire terminal)					
Impact resistance(*2)	294.2 m/s² (Non-repetitive)					
Vibration resistance(*2)	88.3 m/s² (Peak to peak amplitude 1.5 mm・10 to 55 Hz)					
Protective structure	IP 67 (IEC standard), JIS C0920 (watertight type)					
Indicator	Red LED indicator turns on at operation					
Cable(*3)	PCCV0.2SQ 2 wires (Brown, Blue) x ℓ	PCCV0.15SQ 3 wires (Brown, Blue, Black)×ℓ		PCCV0.2SQ 2 wires (Brown, Blue) x ℓ	PCCV0.15SQ 3 wires (Brown, Blue, Black)×ℓ	
Operating temp. range	0 to 60°C					
Storage temp. range	-10 to 70°C					

*1. Internal voltage drop changes depending on the current load.
*2. Manufacturer's test standard
*3. Cable length ℓ is A: 1000 mm, B: 3000 mm. G: 300 mm with M8 connector is only for ZE175□, ZE275□

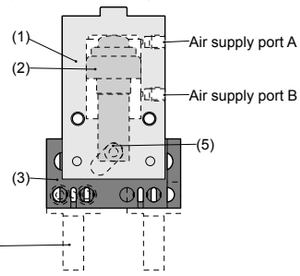
Parallel Gripper Multi-acting type

Sectional drawing

■ Acting type: Single-acting



■ Acting type: Double-acting



No.	Parts	Material
(1)	Body	Aluminum
(2)	Piston	Aluminum
(3)	Finger	Iron
(4)	Spring	Spring Steel
(5)	Drive roller	Steel

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code	Type	Model code	Type	Model code
Stroke 4 mm CHB	CHB08(E)-2	Stroke 6 mm CHB	CHB12(E)-2	Stroke 8 mm CHB	CHB18-2
	CHB08(E)-2-C		CHB12(E)-2-C		CHB18-2-C

Option parts

Finger attachment

Type	Model code	Type	Model code	Type	Model code
For 4 mm stroke CHK	CHK08	For 6 mm stroke CHK	CHK12	For 8 mm stroke CHK	CHK18

Sensor switch

Type	Model code	Type	Model code
Cable direction: Side ZE	ZE135A	Cable direction: Top ZE	ZE235A
	ZE135B		ZE235B
	ZE155A		ZE255A
	ZE155B		ZE255B
	ZE175A		ZE275A
	ZE175B		ZE275B

Minimal fitting designated for CHB08(E)

Type	Model code LC-øD-MM
Minimal straight LC	LC-0320-M3M
	LC-0425-M3M

Type	Model code	Type	Model code
Cable direction: Side, with M8 connector ZE	ZE175G	Cable direction: Top, with M8 connector ZE	ZE275G

Notes
*Please select an acting type code for 2 from Model Designation (Example) on page 782.

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag
1 set/bag: Finger attachment

Parallel Gripper Single-acting type

PISCO

>>> https://www.pisco.co.jp/en/

Parallel Gripper for Single-acting Opening/Closing

⚠ Safety instructions for this product

Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

CHA10E
(1)

(1) Model No.

Code	Type	Body width (mm)	Countermeasure for lateral load	Stroke (mm)
CHA08	Single-acting	10	N/A	4
CHA10		14	N/A	6
CHA10E			E-shaped retaining ring	

Model Designation of Finger Attachment (Example)

CHK **10**
(1) **(2)**

(1) Finger Attachment for Parallel Gripper

(2) Applicable gripper model

Code	08	10
Applicable gripper model	CHA08	CHA10 (E)

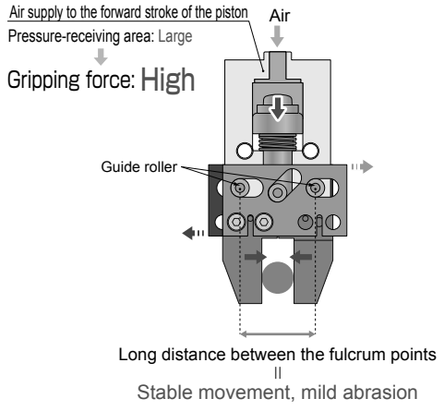
Characteristics

High precision and high gripping force.

Piston movement directly drives fingers which in turn allows for fewer moving parts.
This simple structure enables high precision. (Repeatability: ± 0.01 mm)
Air supply to the forward stroke of the piston generates high gripping force.

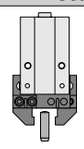
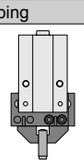
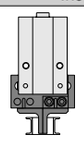
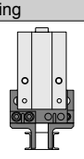
Uniquely Designed Roller Guide System.

The long distance between rollers enables smooth movement and gripping.
E type (with E-shaped retaining ring) which withstands lateral moment load is provided.



Various gripping styles with one body.

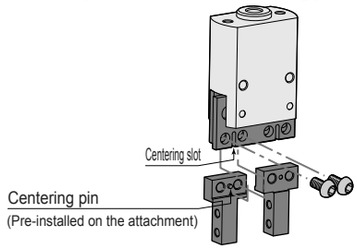
Various gripping action : inside, outside, by air or by spring force.

Gripping style			
Outside gripping		Inside gripping	
			
Gripping by air	Gripping by spring	Gripping by air	Gripping by spring

Finger attachments are available as option parts.

Mispositioning of finger attachment can be prevented.

Centering slot on finger helps to mount finger attachment repeatedly in the same position and to prevent deviation of mounting position.



Miniature body but long stroke.

The smallest body among 6 mm stroke grippers in the industry. (by in-house research)

10mm width model is the lightest in the industry.

A small gripper with secure gripping.

Commonization of N.O. and N.C., which was impossible for conventional single-acting type of grippers, has been realized.

Contributing to space-saving of equipment.

Single-acting, not requiring piping for the cylinder retraction, enables compact handling.

Parallel Gripper Single-acting type

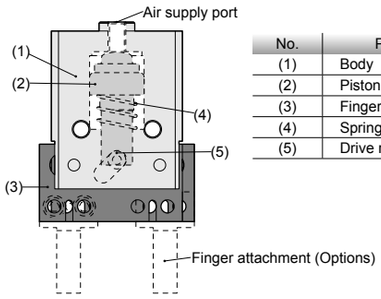
Specifications

Fluid medium	Filtered air (Limited to filtered compressed air)
Operating pressure range	0.3 to 0.5 MPa
Operating temp. range	5 to 50ºC (No freezing)
Lubrication	Not required
Max. operating cycle	180cpm

Gripping force

Acting type	Model code	Effective gripping force (N)	
		Force by air	Force by spring
Single-acting	CHA08	4.2	1
	CHA10 (E)	7.2	1.3

Sectional drawing



No.	Parts	Material
(1)	Body	Aluminum
(2)	Piston	Aluminum
(3)	Finger	Iron
(4)	Spring	SpringSteel
(5)	Drive roller	Steel

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code	Type	Model code
Stroke 4mm	CHA08	Stroke 6mm	CHA10(E)
CHA		CHA	

Finger Attachment (option parts)

Type	Model code	Type	Model code
For 4 mm stroke	CHK08	For 6 mm stroke	CHK10
CHK		CHK	

CAD data is available at PISCO website.

Packaging specifications
1 pc./bag
1 set/bag: Finger attachment

Parallel Gripper

PISCO

>>> https://www.pisco.co.jp/en/

HARMO Robot Parts

⚠ Safety instructions for this product

Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

HP (1) 15 (2) P (3) -S (4)

(1) HARMO Parallel Gripper

(2) Cylinder area

Code	15	20	30
Cylinder area	1.7 cm^2	3.3 cm^2	7.2 cm^2

(3) Body material (○: Available)

Code	P	D
Material	Plastic	Die cast
HP15	○	–
HP20	○	○
HP30	–	○

(4) Options (○: Available)

Code	-B	-S	No code
Type	With bracket	Sensor (With bracket)	Without option
HP15P	○	○	
HP20P	○	○	
HP20D	–	○	
HP30D	–	○	

Characteristics

- The elliptic cylinder contributes to the reduction of body size and weight, and the improvement of cycle time.
- Light-weight plastic type and durable die-cast alloy type are available.
- A sensor equipped type allows easy checking of the jaw operation and the clamping condition by the flashing LED lamp.

  The proximity switch can be moved horizontally to adjust its position according to workpieces.

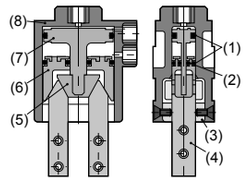
Specifications (○: Available)

Type		HP15P	HP20P	HP20D	HP30D
Gripper action		Double-acting type			
Fluid medium		Compressed air (oilless)			
Operating pressure range		0.3 to 0.7 MPa		0.25 to 0.9 MPa	
Operating temp. range		-10 to 60ºC (No freezing)			
Port size		M5×0.8			
Cylinder area		1.7 cm^2	3.3 cm^2		7.2 cm^2
Jaw stroke		2.8 mm	5 mm		8.8 mm
Repeatability		±0.05 mm (at the center of the jaws)			
Maximum operating cycle		100 C.P.M.			
Option	With bracket (B)	○	○	–	–
	Sensor (S)	○	○	○	○

Sensor Specifications

Power voltage	12 to 24 VDC +10%/-15% Ripple (P-P) 10% max.
Current consumption	15 mA or less
Output	NPN open collector Max. current: 100 mA, Applied voltage: 30 VDC max.
Operation indicator	Red LED (Lights when turned on)
Operating ambient temp.	-25 to 70°C
Cable	0.08SQ 3 cores, 1 m

Sectional drawing



No.	Parts	Material
(1)	Piston packing	NBR/Nitrile rubber
(2)	Rod packing	NBR/Nitrile rubber
(3)	Slider	Phosphor bronze
(4)	Jaw	Chromium-molybdenum steel
(5)	Cam b	POM
(6)	Cam a	POM
(7)	Piston	POM
(8)	Cylinder	Polyamide resin or zinc die casting

Parallel Gripper

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code	Type	Model code	Type	Model code
Without option	HP15P	With bracket	HP15P-B	With Sensor	HP15P-S
HP	HP20P	HP	HP20P-B	HP	HP20P-S
	HP20D				HP20D-S
	HP30D				HP30D-S

Option Parts

Sensor only

Model code	Applicable model	Set Item
D000907	All types	Sensor 1 pc.+ Sleeve 1 pc.+ Fixing Screw 1 pc.

Sensor Set

Model code	Applicable model	Set Item
D1002	HP15P	Sensor, Sensor Fixing Screw, Sleeve, Limit Dog, Dog Fixing Screw, Sensor Bracket, Sensor Bracket Fixing Screw
D1102	HP20P	
D1112	HP20D	
D1202	HP30D	

Limit Dog for Sensor (Dog only)

Model code	Applicable model	Set Item
D100903	HP15P	Dog only
D110903	HP20P	
D111903	HP20D	
D120903	HP30D	

Limit Dog Fixing Screw for Sensor

Model code	Applicable model	Set Item
/100613	HP15P	For fixing, 2 pcs. required.
/100813	HP20P, HP20D	
/101015	HP30D	

Sensor Bracket only

Model code	Applicable model	Set Item
D100902	HP15P	Bracket for sensor
D110902	HP20P	
D111902	HP20D	
D120902	HP30D	

Sensor Bracket Fixing Screw

Model code	Applicable model	Set Item
/110613	HP15P, HP20P	For fixing, 4 pcs. required.
/000304	HP20D	For fixing, 2 pcs. required.
/000505	HP30D	For fixing, 4 pcs. required.

Bracket for gripper (Bracket only)

Model code	Applicable model	Fixing Screw Size
D100901	HP15P	M3x0.5, Depth 4.5 mm, 4 holes
D110901	HP20P	

*Fixing screws are not included with Bracket for gripper (Bracket only). Please prepare them yourself.

CAD data is available at PISCO website.

Packaging specifications

1 pc./bag: Parallel Gripper and the following option parts;
- · Limit Dog for Sensor (Dog only)
- · Limit Dog Fixing Screw for Sensor
- · Sensor Bracket only
- · Sensor Bracket Fixing Screw

1 set/bag: Option parts
- · Sensor Set
- · Sensor only

Parallel Gripper with 3-finger

PISCO

>>> https://www.pisco.co.jp/en/

Gripper with 3-finger, Double-acting, High gripping force

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

CHT (1) 34 (2) – D (3)

(1) Parallel Gripper with 3-finger

(2) Cylinder dia.

Code	34	44
Cylinder dia. (mm)	34	44

(3) Acting type
D: Double-acting

Sensor Switch Model Designation (Example)

SEM (1) – G (2) D (3) V (4) – C100 (5)

(1) Sensor switch

(2) Applicable gripper model

Code	G	F
Applicable gripper model	CHT34	CHT44

(3) Wiring type

Code	D	N	P
Wiring type	2 wires	3 wires	
		NPN Output	PNP Output

(4) Cable direction

Code	No code	V
Direction	Side	Top

*For CHT34, only TOP is selectable.

(5) Cable length

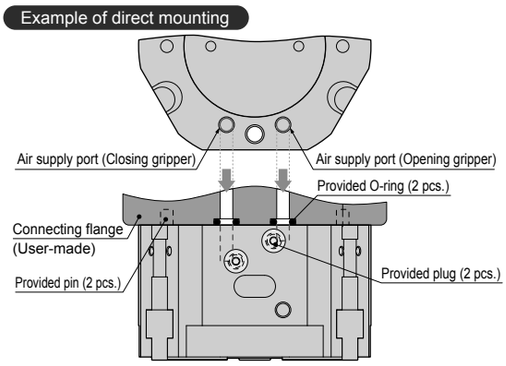
Code	C100	C200
Cable length (mm)	1,000	2,000

Characteristics

- Best suitable for gripping cylindrical work-pieces.
- Space saving compact body.
- Circular-piston-drive wedge cam generates high gripping force.
- Good Repeatability: ±0.01 mm
- Sensor Switch is available as option part.
- Directly mountable on an end of arm tooling.

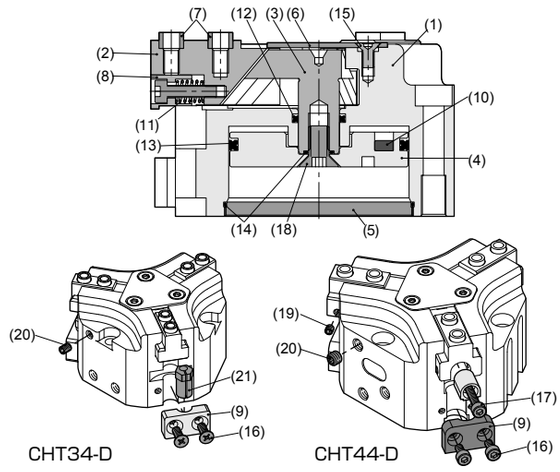
Thread connection from gripper top is not necessary.

Example of direct mounting



Connectable Pitch Circle Diameter on a robot
CHT34-D: P.C.D 25 M5, P.C.D 31.5 M5,
CHT44-D: P.C.D 25 M5, P.C.D 31.5 M5, P.C.D 40 M6
*With use of our Robot Flange P.C.D Conversion Attachment (page 770), this product can be connected to other P.C.D.

Sectional drawing



No,	Parts	Material	
		CHT34-D	CHT44-D
(1)	Body	Aluminum	
(2)	Finger	Carbon steel	
(3)	Rod	Carbon steel	
(4)	Piston	Aluminum	
(5)	Cap	Stainless steel	
(6)	Top cover	Stainless steel	
(7)	Bush	Stainless steel	
(8)	Sensor adjustment part	—	Aluminum
(9)	Sensor fixing holder	Aluminum	PBT
(10)	Magnet	Magnet	
(11)	Spring	—	Piano wire
(12)	Rod packing	NBR	
(13)	Piston packing	NBR	
(14)	O-ring	NBR	
(15)	Torx screw	Carbon steel	
(16)	Sensor fixing screw	Stainless steel	
(17)	Hexagon socket head bolt	—	Stainless steel
(18)	Hexagon socket countersunk head screw	Stainless steel	
(19)	Hexagon socket set screw	—	Stainless steel
(20)	Hexagon socket set screw	Stainless steel	
(21)	Adjustment socket	Stainless steel	—

Parallel Gripper with 3-finger

Specifications

Type		CHT34-D	CHT44-D
Gripper action		Double-acting	
Cylinder I. D.		34 mm	44 mm
Finger stroke		4 mm (Dia. 8 mm)	6 mm (Dia. 12 mm)
Effective gripping force (at 0.6 MPa)*	O. D	97 N	198 N
	I. D	114 N	209 N
Fluid medium		Air	
Operating pressure range		0.2 to 0.8 MPa	
Operating temp. range		5 to 80ºC (No freezing)	
Lubrication		Not required	
Repeatability		±0.01 mm	

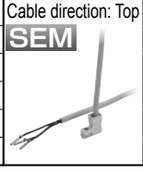
*Values at gripping length: 40 mm.

Sensor switch Specifications

Item \ Model code	SEM-GDV□5	SEM-GNV□5	SEM-GPV□5	SEM-FD□5	SEM-FDV□5	SEM-FN□5	SEM-FNV□5	SEM-FP□5	SEM-FPV□5
Wiring type	No contact, 2 wires	No contact, 3 wires NPN output	No contact, 3 wires PNP output	No contact, 2 wires		No contact, 3 wires NPN output		No contact, 3 wires PNP output	
Lead wire Direction	Top			Side	Top	Side	Top	Side	Top
Load voltage	10 to 28 VDC	5 to 28 VDC		5 to 30 VDC					
Load current	4 to 20 mA Max.	50 mA Max.					80 mA Max.	50 mA Max.	80 mA Max.
Current consumption	—	10 mA Max. (24 VDC)		—		10 mA Max. (24 VDC)	6 mA Max. (24 VDC)	10 mA Max. (24 VDC)	6 mA Max. (24 VDC)
Internal voltage drop	3.5 V Max.	0.5 V Max.(at 50 mA)		3.5 V Max.		0.5 V Max.(at 50 mA)			
Leakage Current	0.8 mA Max.	0.01 mA Max.		0.1 mA Max.		0.01 mA Max.			
Indicator	Red LED indicator turns on at operation.								
Response time	1 msec Max.								
Operating temp. range	-10 to 70°C (No freezing)								
Impact resistance	490 m/s^2 (Non-repetitive)								
Vibration resistance	88.3 m/s^2 (Peak to peak amplitude 1.5 mm · 10 to 55Hz)								
Protective structure	IP67								
Surge protection circuit	Surge protection	Surge protection, Reverse connection prevention							

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code	Type	Model code
Cylinder dia. 34 mm	CHT34-D	Cylinder dia. 44 mm	CHT44-D
CHT		CHT	

Sensor switch					
For CHT34		For CHT44			
Type	Model code	Type	Model code	Type	Model code
Cable direction: Top	SEM-GDV-C100	Cable direction: Top	SEM-FDV-C100	Cable direction: Side	SEM-FD-C100
SEM	SEM-GNV-C100	SEM 	SEM-FNV-C100	SEM	SEM-FN-C100
	SEM-GPV-C100		SEM-FPV-C100		SEM-FP-C100
	SEM-GDV-C200		SEM-FDV-C200		SEM-FD-C200
	SEM-GNV-C200		SEM-FNV-C200		SEM-FN-C200
	SEM-GPV-C200		SEM-FPV-C200		SEM-FP-C200

Packaging specifications
1 pc./bag

Plarailchain

Plarailchains

Index

HP Series

Open-Close Flap Type
HPU ····· P.798
HPO ····· P.800
HPE ····· P.802
HPC ····· P.804
Fixed flap Type
HPK ····· P.806
HPM ····· P.807

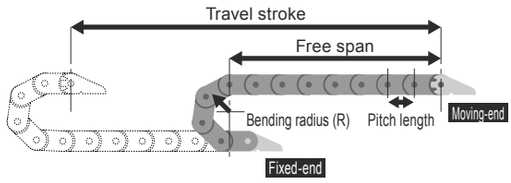
S Series

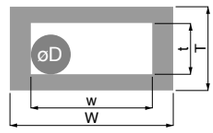
Low Abrasion, Low Noise, Open-Close Flap Type
SP ····· P.808
SPO ····· P.811
High Resistance, Low Abrasion, Low Noise, Open-Close Flap Type
SD ····· P.813
Low Dust, Low Noise, Open-Close Flap, Hinge Connection Type
SC・SCL ····· P.815

Related Products

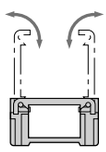
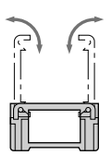
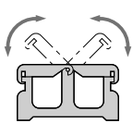
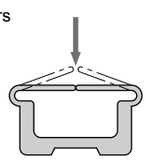
Accessories for dividing
Cable clamp ····· P.819
Dividing sheet ····· P.819

Selection chart for Plarailchain series



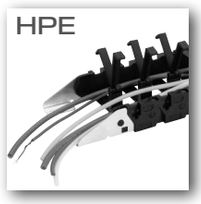


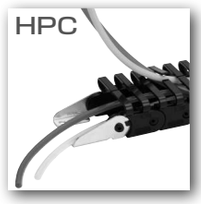
T : Height
W : Width
t : Inner height
w : Inner width
øD: Max. O.D. of cable/tube

Open-close flap type		Bending radius (mm)	Pitch length (mm)	No. of links (/m)	Max. free span (m)*	Max. travel stroke (m)	Max. contents weight (kg/m)	Max. travel speed (m/s)	Chain weight (kg/m)	Divider	Open/close system
HPU	102	19	20	50	0.46	0.7	1.5	2.5	0.12	–	Snap open on either side (along the outer radius). 
	202	25, 30, 45	25	40	0.75	1.4	1.2		0.25	–	
	203	30, 45							0.26	–	
	204	38, 50	32	32	1	1.9	2		0.5	–	
	206								0.56	–	
	306	50, 100, 150	45	23	1.5	2.9	6		0.64	–	
	408	50, 75, 100,150, 200					5		1.1	●	
	412								1.3	●	
	615	75, 100, 150, 200	70	15	3	5.8	25		2.46	●	
HPO Fully-enclosed type	202	30, 45	20	50	0.75	1.4	1.9	2.5	0.28	–	Snap open on either side (along the outer radius). 
	203								0.31	–	
	204	38, 50	26	39			2.5		0.5	–	
	206								0.6	–	
	408	70, 100,150, 200	45	23	1.75	3.4	10		1.36	●	
	412								1.7	●	
	512	100	60	17	4.5	8.8	30.6		2.15	●	
	819	150, 200, 250, 300, 400	90	11	2.5	4.6	35		4.4	●	
HPE Open-close split flap type	408	50, 75, 100,150, 200	45	23	1.5	2.9	2.5	2.5	1.1	–	Twin gull-wing crossbars operate independently. 
	412								1.3	–	
HPC Simple flap type Low noise	203	30, 45, 60	25	40	0.9	1.7	2.5	2.5	0.37	–	Cut apart crossbars by a cutter (at the spot indicated by the arrow) so that cables / tubings can be easily installed. 
	204	50, 90, 150	32	32	1	1.8	4		0.59	–	
	306	50, 100, 150	45	23			6		0.78	–	
	50	60	25	40	1.06	1.9	5		0.358	–	
	100	90			1	1.8			0.608	–	
	200	105							1.056	–	

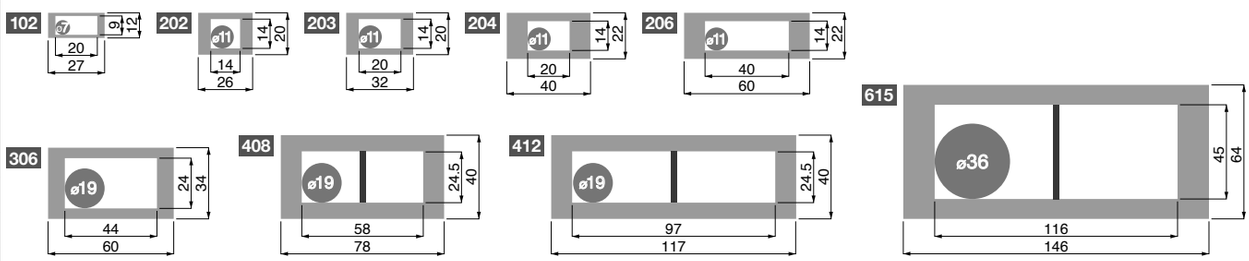
Fixed flap type		Bending radius (mm)	Pitch length (mm)	No. of links (/m)	Max. free span (m)*1	Max. travel stroke (m)	Max. contents weight (kg/m)	Max. travel speed (m/s)	Chain weight (kg/m)	Divider	Open/close system
HPK Compact	101	19	20	50	0.5	0.8	1.5	1	0.105	–	No flap
	202	30, 45	25	40	0.75	1.4	3		0.222	–	
	203								0.24	–	
	204	38, 50	32	32	0.75	1.4	4	2.5	0.45	–	
	206				0.86	1.6	4.5		0.51	–	
HPM Fully-enclosed type	204	28	15	67	1	1.8	3	2.5	0.34	–	No flap
	205								0.39	–	
	206	38, 50	22	46			4.5		0.46	–	

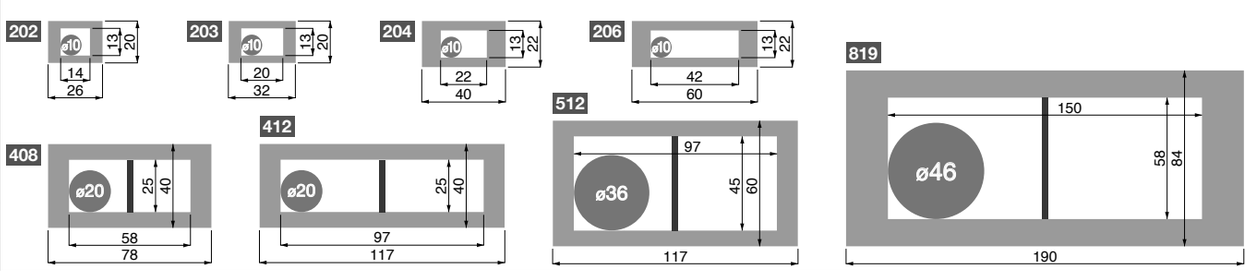
*Max. free span is the maximum length that the upper runs in straight line with no sag.

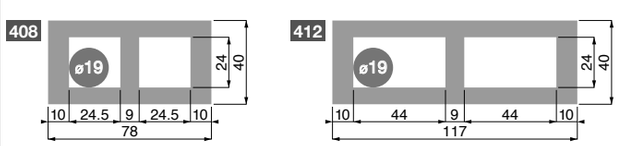


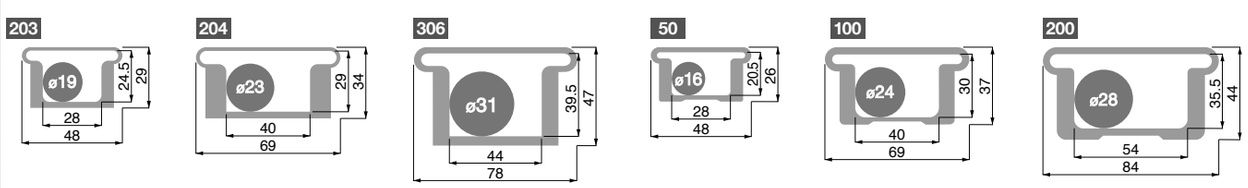


Size (Max. O.D. of cable/tube) (mm)

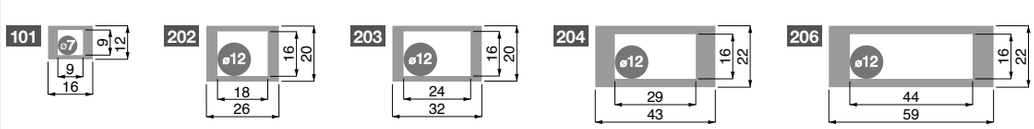


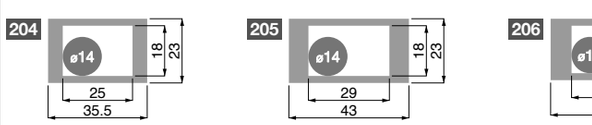






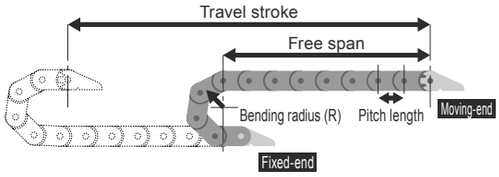
Size (Max. O.D. of cable/tube) (mm)

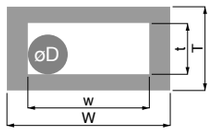




* ▬ Highlighted line indicates approximate positions where a divider can be installed.

Selection chart for Plarailchain series





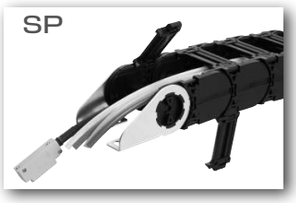
T : Height
W : Width
t : Inner height
w : Inner width
øD: Max. O.D. of cable/tube

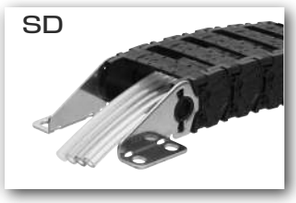
Low Abrasion, Low Noise, Open-Close Flap Type.

SP	SPO Fully-enclosed type	Bending radius (mm)	Pitch length (mm)	No. of links (/m)	Max. free span (m)*1	Max. travel stroke (m)	Max. contents weight (kg/m)	Max. travel speed (m/s)	Chain weight (kg/m)	Divider	Rack	Open/close system	
1520*2	—	30, 50, 75	25	40	1.25	2.4	2.2		0.36(0.35)	—	—		
2035*2	—	45	32	32	1.25	2.4	2.3		0.5(0.48)	●	—		
2550*2	—	50, 75, 100, 150	36	28	1.63	3.1	6.5		0.86(0.83)	●	—		
2560*2	—				1.75	3.3		3	0.85(0.82)	●	—	Snap open on either side (along the outer radius).	
2585*2	—	60, 75, 100, 150	43.5	23	1.88	3.6	8		1.05(1.01)	●	—		
3580	—	100, 125, 150, 175, 200	62.5	16	2.25	4.4	10		1.76	●	—		
35105	—				2.38	4.6	13		1.96	●	—		
4542	—	75, 100, 125, 150, 175, 200, 250 (75 and 100 are not available for SPO.)	67	15	2.13	4.2	32	3	2.3	●	●	Snap open on either side along both the inner radius and the outer radius.	
4575	4575								2.4[3]	●	●		
45100	45100								2.6[3.3]	●	●		
45115	—								2.7	●	●		
45125	45125								2.8[3.6]	●	—		
45150	45150								3.0[3.9]	●	—		
45175	—								3.1	●	—		
45200	—								3.2	●	—		
45250	—								3.5	●	—		
5575	5575	135, 150, 200, 250 (135 is not available for SPO.)	91	11	5	9.8	65	3	3.5[3.9]	●	—		
55100	55100								3.6[4]	●	—		
55125	55125								3.7[4.1]	●	—		
55150	55150								3.8[4.2]	●	—		
55175	—								3.9	●	—		
55200	—								4.0	●	—		
55250	—								4.1	●	—		
55300	—								4.2	●	—		
8075	—	150, 200, 250, 300, 350, 400	100	10	5	9.8	70	3	4.7	●	—		
80100	—								4.8	●	—		
80125	—								4.9	●	—		
80150	—								5.1	●	—		
80175	—								5.2	●	●		
80200	—								5.3	●	●		
80250	—								5.6	●	●		
80300	—								5.8	●	●		

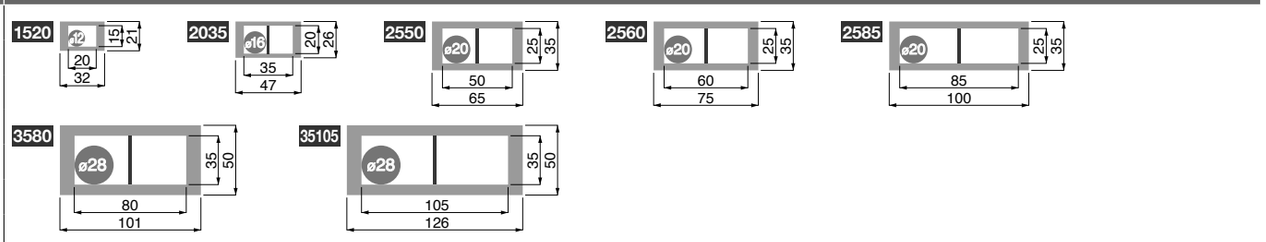
		Bending radius (mm)	Pitch length (mm)	No. of links (/m)	Max. free span (m)*1	Max. travel stroke (m)	Max. contents weight (kg/m)	Max. travel speed (m/s)	Chain weight (kg/m)	Divider	Open/close system	
SD High resistance, Low abrasion.	2550	50, 70, 100	25	40	2.2	4.3	7	4	0.9	●	Snap open on either side along both the inner radius and the outer radius.	
	2560								0.95	●		
	2580								1.07	●		

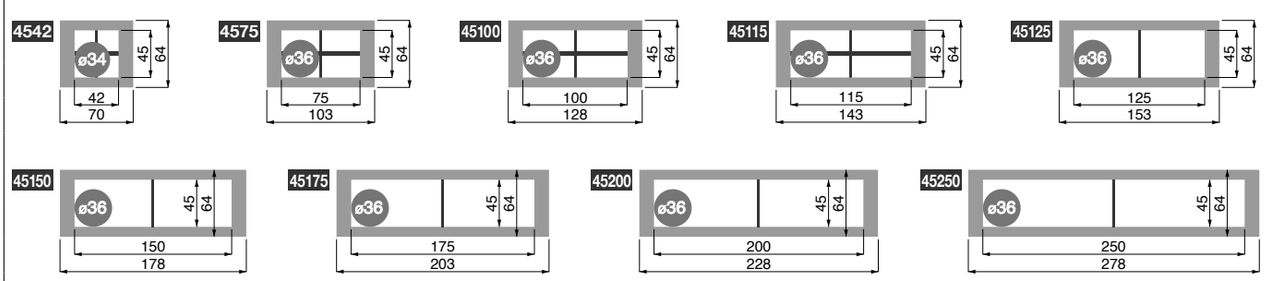
*1. Max. free span is the maximum length that the upper runs in straight line with no sag.
*2. Models available in Anti-static type.
*3. Weights in ( ) are for Anti-static type.
*4. Weights in [ ] are for SPO.

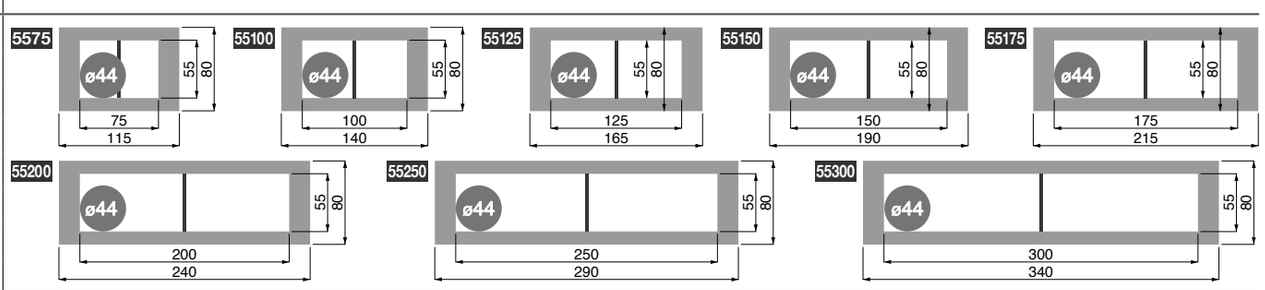


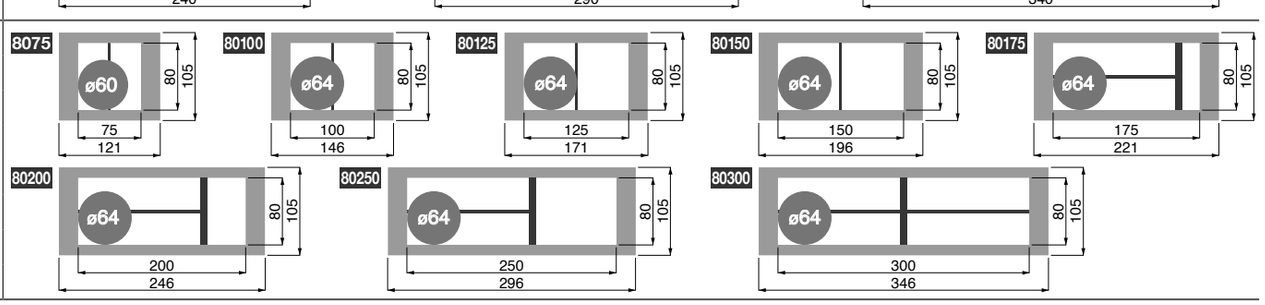


	Size (Max. O.D. of cable/tube) (mm)

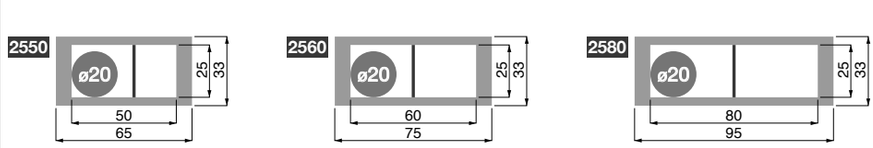






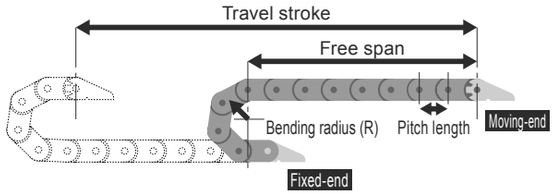


	Size (Max. O.D. of cable/tube) (mm)



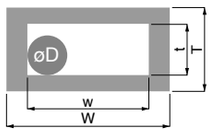
* ▬▬ indicates approximate positions where a divider and a rack can be installed.
SP80□ requires a shelf divider to install a shelf.

Selection chart for Plarailchain series



Open-Close Flap, Hinge Connection Type		Bending radius (mm)	Pitch length (mm)	No. of links (/m)	Max. free span (m)*	Max. travel stroke (m)	Max. contents weight (kg/m)	Max. travel speed (m/s)	Chain weight (kg/m)	Divider	Rack	Open/close system
SC Low noise, Low dust	1520	28, 34	18	56	1.1	2.15	1	4	0.34	–	–	Flap only opens on one side (either side)
	2040	31, 38, 58	20	50	1.4	2.75			0.7	●	–	
	2540	60, 85	30	33	1.5	2.9	3		0.77	●	●	
	2560	60							0.94	●	●	
	2580	60, 85							1.2	●	●	
	3560	75, 100	45	23	2	3.9	6		1.4	●	●	
	35100	75, 100, 115			1.8	3.5			2	●	●	
SCL Low noise, Low dust Space-saving type	2020	36	20	50	1.4	2.75	1	4	0.39	–	–	
	2050	31							0.58	●	–	
	2570	46, 64	30	33	1.5	2.9	3		0.96	●	●	
	3050	46			1.6	3.13			1.2	●	●	

*Max. free span is the maximum length that the upper runs in straight line with no sag.



T : Height
W : Width
t : Inner height
w : Inner width
øD: Max. O.D. of cable/tube

	Size (Max. O.D. of cable/tube) (mm)
SC Low noise, Low dust	1520: ø12 (15, 25; 20, 28) · 2040: ø16 (20, 33; 40, 50) · 2540: ø20 (25, 40; 40, 50) · 2560: ø20 (25, 40; 60, 70) · 2580: ø20 (25, 40; 80, 90) · 3560: ø28 (35, 55; 60, 73) · 35100: ø28 (35, 55; 100, 113)
SCL Low noise, Low dust Space-saving type	2020: ø16 (20, 30; 20, 28) · 2050: ø16 (20, 30; 50, 58) · 2570: ø20 (25, 36; 70, 80) · 3050: ø24 (30, 42; 50, 62)

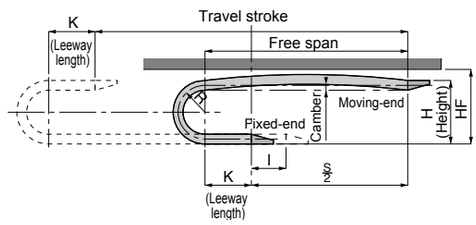
Plarailchain Number of Links Calculation

Number of links calculation

Number of links is to be calculated by the following formula.

$$n = \frac{\frac{S}{2} + a + l}{P}$$

n : Number of links (Round up after the decimal point)
S: Travel stroke
a : πR + 2K (R: Bending radius (mm), K: Leeway (mm))
l : Distance from mid point (mm) when the fixed-end is not in the middle of travel stroke. (When the travel stroke is in the mid point: 0).
P: Pitch length (mm)



*1. "HF" in the drawing above shows the installation height (clearance height) taking into account the camber (curve of upper run with no cables / hoses being accommodated)
*2. Please make inquiries for special travel conditions.

《Note》
Placing the fixed-end in the center point of travel stroke minimizes the number of Plarailchains required.

Series		R	P	H	HF	K	a
HPU	102	19	20	50	65	20	99.7
	202	25	25	70	85	25	128.5
		30		80	95		144.2
		45		110	125		191.3
	203	30	25	80	95	25	144.2
		45		110	125		191.3
	204,206	38	32	98	118	30	179.3
		50		122	142		217.0
	306	50	45	134	160	50	257.0
		100		234	260		414.0
		150		334	360		571.0
	408,412	50	45	140	170	50	257.0
		75		190	220		335.5
		100		240	270		414.0
		150		340	370		571.0
		200		440	470		728.0
	615	75	70	214	275	70	375.5
		100		264	325		454.0
		150		364	425		611.0
		200		464	525		768.0
HPO	202,203	30	20	80	95	25	144.2
		45		110	125		191.3
	204,206	38	26	98	118	30	179.3
		50		122	142		217.0
	408,412	70	45	180	210	50	319.8
		100		240	270		414.0
		150		340	370		571.0
		200		440	470		728.0
	512	100	60	260	320	60	434.0
	819	150	90	384	445	90	651.0
		200		484	545		808.0
		250		584	645		965.0
		300		684	745		1,122.0
		400		884	945		1,436.0
HPE	408,412	50	45	140	180	50	257.0
		75		190	230		335.5
		100		240	280		414.0
		150		340	380		571.0
		200		440	480		728.0
HPK	101	19	20	50	62	25	109.7
	202,203	30	25	80	95	25	144.2
		45		110	125		191.3
	204,206	38	32	98	118	30	179.3
		50		122	142		217.0
HPM	204,205	28	15	79	100	15	117.9
	206	30	22	80	95	25	144.2
		45		110	125		191.3
HPC	203	30	25	98	120	25	144.2
		45		128	150		191.3
		60		158	180		238.4
	204	50	32	146	165	30	271.0
		90		226	245		342.6
		150		346	365		531.0
	306	50	45	160	177	50	257.0
		100		260	277		414.0
		150		360	377		571.0
	50	60	25	152	206	90	368.4
	100	90	25	227	257	90	462.6
	200	105	25	260	295	90	509.7

You might find this helpful
The auto-calculator to help figure out the number of links is available on our website.

Series		R	P	H	HF	K	a
SP	1520	30	25	81	100	30	154.2
		50		121	140		217.0
		75		171	190		295.5
	2035	45	32	116	140	35	211.3
	2550, 2560	50	36	135	160	50	257.0
		75		185	210		335.5
		100		235	260		414.0
		150		335	360		571.0
	2585	60	43.5	155	180	50	288.4
		75		185	210		335.5
		100		235	260		414.0
		150		335	360		571.0
	35□	100	62.5	250	280	63	440.0
		125		300	330		518.5
		150		350	380		597.0
		175		400	430		675.5
		200		450	480		754.0
	45□	75	67	214	275	70	375.5
		100		264	325		454.0
		125		314	375		532.5
		150		364	425		597.0
		175		414	475		689.5
		200		464	525		754.0
		250		564	625		925.0
	55□	135	91	350	400	100	623.9
		150		380	430		671.0
		200		480	530		828.0
		250		580	630		985.0
	80□	150	100	406	495	106	683.0
		200		506	595		840.0
		250		606	695		997.0
		300		706	795		1,154.0
		350		806	895		1,311.0
		400		906	995		1,468.0
SPO	45□	125	67	314	375	70	532.5
		150		364	425		597.0
		175		414	475		689.5
		200		464	525		754.0
		250		564	625		925.0
	55□	150	91	380	430	100	671.0
		200		480	530		828.0
		250		580	630		985.0
SD	25□	50	25	133	150	28	213.0
		70		173	190		275.8
		100		233	250		370.0
SC	1520	28[26.3]	18	95	115	23	128.6
		34[31.3]		105	125		144.3
	L2020	36[34]	20	120	150	25	156.8
	2040	31[28.8]	20	115	145	30	150.4
		38[36.3]		130	160		174.0
		58[56.3]		170	200		236.8
	L2050	31[29]	20	110	140	25	141.1
	2540	60[57.8]	30	185	215	35	251.5
		85[82.8]		235	265		330.0
	2560	60[57.8]	30	185	215	35	251.5
	L2570	46[44]	30	150	180	35	208.2
		64[61.3]		185	215		262.5
	2580	60[57.8]	30	185	215	35	251.5
		85[82.8]		235	265		330.0
	L3050	46[44]	30	160	190	35	208.2
	3560, 35100	75[71.3]	45	240	270	50	323.9
		100[98.8]		295	325		410.2
	35100	115[113.8]	45	325	355	50	457.3

*As for SC Series, "R" value used for the calculation is inside [ ], which is different from "R" indication in the model code.

Plarailchain HPU

Cable/Tube Carrier With Snap Open Flap

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

*Bracket for moving-end and fixed-end must be ordered separately. For details, see the next page.

HP (1) U (2) 204 (3) – R50 (4) – (5)

(1) Plarailchain

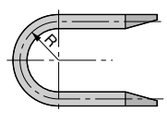
(2) Snap open flap type

(3) Size (Overall dimensions: H × W)

Code	102	202	203	204	206	306	408	412	615
Size (mm)	12×27	20×26	20×32	22×40	22×60	34×60	40×78	40×117	64×146

(4) Bending radius (R) (○: Available)

Code	R19	R25	R30	R38	R45	R50	R75	R100	R150	R200
102	○									
202		○	○		○					
203			○		○					
204, 206				○		○				
306						○		○	○	
408, 412						○	○	○	○	○
615							○	○	○	○



(5) Body color

Code	No code	W
Body color	Black	Light grey

Model Designatgion for Divider (Example)

SB (1) 4 (2)

(1) Divider for Plarailchain

(2) Applicable models

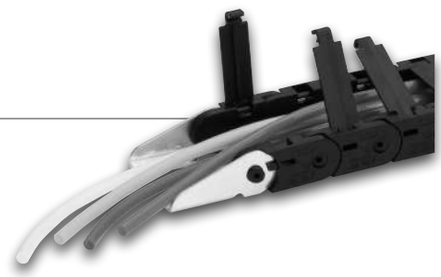
Code	4	6
Applicable models	HPU408, HPU412	HPU615

Model designation for flap (Example)

HPU (1) 204 (2) Flap

(1) Plarailchain HPU

(2) Model
[See Model Designation (3. Size)]



Characteristics

Flaps can be opened on either side.

Replacement or addition of cables is possible regardless of the installation direction.
Cables/hoses that go inside are visible.

Specifications

Series	102	202	203	204	206	306	408	412	615
Bending radius (mm)	19	25 30 45	30 45	38 50		50 100 150	50 75 100 150 200		75 100 150 200
Max. O.D. of cable/tube (mm)	7	11				19	19		36
Pitch length (mm)	20	25		32		45			70
No. of links (/m)	50	40		32		23			15
Max. free span (m)*	0.46	0.75		1		1.5			3
Max. travel stroke (m)	0.7	1.4		1.9		2.9			5.8
Max. contents weight (kg/m)	1.5	1.2		2		6	5		25
Max. travel speed (m/s)	2.5								
Chain weight (kg/m)	0.12	0.25	0.26	0.5	0.56	0.64	1.1	1.3	2.46
Chain material	PA6 GF20%								
Bracket material	SUS430	SPCC with Trivalent unichrome plating							
Divider material	—	—	—	—	—	—	PA6		
Operating temp. range (°C)	-10 to 80								
Operating environment	Avoid using in acid/alkaline atmosphere or in hot water.								

*Max. free span: Length that the upper runs in straight line with no sag.

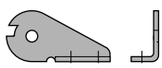
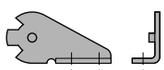
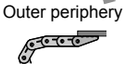
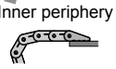
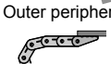
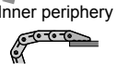
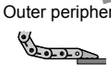
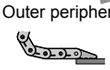
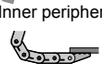
RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code
Snap open flap type HPU	HPU102-R19-5
	HPU202-R25-5
	HPU202-4-5
	HPU203-4-5
	HPU204-4-5
	HPU206-4-5
	HPU306-4
	HPU408-4
	HPU412-4
	HPU615-4

Notes
*1. For 4 in model code, please select a code for bending radius, for 5, please select a code for body color.
*2. See page 792 for size selection instructions.
*3. See page 797 for the calculation method of the number of links.

CAD data is available at PISCO website.

Mounting bracket for HPU series

Application	For moving-end				For fixed-end			
Type	 For moving-end (Holed type)				 For fixed-end (Boss type)			
Screwing position	Inside		Outside		Inside		Outside	
Orientation	Outer periphery 	Inner periphery 	Outer periphery 	Inner periphery 	Outer periphery 	Inner periphery	Outer periphery 	Inner periphery 
Type	Model code	Model code	Model code	Model code	Model code	Model code	Model code	Model code
HPU102	**U1-K**	**U1-K**	–	–	(*1)	(*1)	–	–
HPU202	**U2-MAO-S**	**U2-MAI-S**	**U2-MAO-S**	**U2-MAI-S**	**U2-FAO-S**	**U2-FAO-S**	**U2-FBO-S**	**U2-FBO-S**
HPU203								
HPU204	**U2-MAO**	**U2-MAI**	**U2-MAO**	**U2-MAI**	**U2-FAO**	**U2-FAO**	**U2-FBO**	**U2-FBO**
HPU206								
HPU306	**U3-MAO**	**U3-MAO**	**U3-MAO**	**U3-MAO**	**U3-FAO**	**U3-FAI**	**U3-FBO**	**U3-FBI**
HPU408	**U4-MAO**	**U4-MAO**	**U4-MAO**	**U4-MAO**	**U4-FAO**	**U4-FAI**	**U4-FBO**	**U4-FBI**
HPU412								
HPU615	**U6-MAO**	**U6-MAO**	**U6-MAO**	**U6-MAO**	**U6-FAO**	**U6-FAI**	–	–

Notes
*1. The brackets for HPU102 (U1-K), which are different shape from above drawing, come in a set of moving-end and fixed-end brackets.
*2. Two types of brackets are required, each for a fixed-end and a moving-end. Select best-suited bracket for your application from above selection. Moving-end (the hole type) and fixed-end (the pivot type) must be ordered separately when you need both of them.

Divider for HPU series

Type	Model code	Applicable models
SB4	SB4	HPU408, HPU412
	SB6	HPU615
SB6		

Flap for HPU series

Type	Model code
HPU□ Flap	HPU102Flap
	HPU202Flap
	HPU203Flap
	HPU204Flap
	HPU206Flap
	HPU306Flap
	HPU408Flap
	HPU412Flap
	HPU615Flap

Related product

Low Friction Polyurethane Tube

▶ P.94

Plarailchain HPO

Cable/Tube Carrier With Snap Open Flap, Fully-Enclosed Type

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

*Bracket for moving-end and fixed-end must be ordered separately. For details, see the next page.

HP (1) O (2) 204 (3) – R50 (4) – (5)

(1) Plarailchain HPO

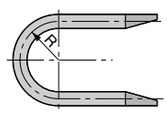
(2) Fully-enclosed snap open flap type

(3) Size (Overall dimensions: H × W)

Code	202	203	204	206	408	412	512	819
Size (mm)	20×26	20×32	22×40	22×60	40×78	40×117	60×117	84×190

(4) Bending radius (R) (○: Available)

Code	R30	R38	R45	R50	R70	R100	R150	R200	R250	R300	R400
202, 203	○		○								
204, 206		○		○							
408, 412					○	○	○	○			
512						○					
819							○	○	○	○	○



(5) Body color

Code	No code	W
Body color	Black	Light grey

Model Designatgion for Divider (Example)

SB (1) 4 (2)

(1) Divider for Plarailchain

(2) Applicable models

Code	4	5	8
Applicable models	HPO408, HPO412	HPO512	HPO819

Model designation for flap (Example)

HPO (1) 204 (2) Flap

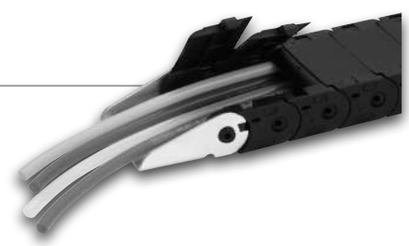
(1) Plarailchain HPO

(2) Model
[See Model Designation (3. Size)]

Characteristics

Fully-enclosed type protects cables well by preventing entry of dust.

Fully-enclosed type Plarailchain protect cables from dust or particles. The flaps capable of opening on either side make the replacement or addition of cables easier.



Specifications

Series	202	203	204	206	408	412	512	819
Bending radius (mm)	30 45		38 50		70 100 150 200		100	150 200 250 300 400
Max. O.D. of cable/tube (mm)	10		10		20		36	46
Pitch length (mm)	20		26		45		60	90
No. of links (/m)	50		39		23		17	11
Max. free span (m)*	0.75		0.75		1.75		4.5	2.5
Max. travel stroke (m)	1.4		1.4		3.4		8.8	4.6
Max. contents weight (kg/m)	1.9		2.5		10		30.6	35
Max. travel speed (m/s)	2.5							
Chain weight (kg/m)	0.28	0.31	0.5	0.6	1.36	1.7	2.15	4.4
Chain material	PA6 GF20%							
Bracket material	SPCC with Trivalent unichrome plating							
Divider material	—	—	—	—	PA6			
Operating temp. range (°C)	-10 to 80							
Operating environment	Avoid using in acid/alkaline atmosphere or in hot water.							

*Max. free span: Length that the upper runs in straight line with no sag.

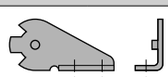
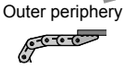
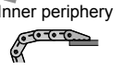
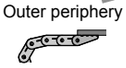
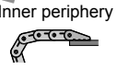
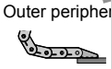
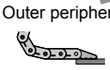
RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code
Fully-enclosed snap open flap type HPO	HPO202-4-5
	HPO203-4-5
	HPO204-4-5
	HPO206-4-5
	HPO408-4
	HPO412-4
	HPO512-4
	HPO819-4

Notes
*1. For 4 in model code, please select a code for bending radius, for 5, please select a code for body color.
*2. See page 792 for size selection instructions.
*3. See page 797 for the calculation method of the number of links.

CAD data is available at PISCO website.

Mounting bracket for HPO series

Application	For moving-end				For fixed-end			
Type	For moving-end (Holed type)				 For fixed-end (Boss type)			
Screwing position	Inside		Outside		Inside		Outside	
Orientation	Outer periphery 	Inner periphery 	Outer periphery 	Inner periphery 	Outer periphery 	Inner periphery	Outer periphery 	Inner periphery
Type	Model code	Model code	Model code	Model code	Model code	Model code	Model code	Model code
HPO202	**U2-MAO-S**	**U2-MAI-S**	**U2-MAO-S**	**U2-MAI-S**	**U2-FAO-S**	**U2-FAO-S**	**U2-FBO-S**	**U2-FBO-S**
HPO203								
HPO204	**U2-MAO**	**U2-MAI**	**U2-MAO**	**U2-MAI**	**U2-FAO**	**U2-FAO**	**U2-FBO**	**U2-FBO**
HPO206								
HPO408	**U4-MAO**	**U4-MAO**	**U4-MAO**	**U4-MAO**	**U4-FAO**	**U4-FAI**	**U4-FBO**	**U4-FBI**
HPO412								
HPO512	**U5-MAO**	**U5-MAO**	**U5-MAO**	**U5-MAO**	**U5-FAO**	**U5-FAO**	**U5-FBO**	**U5-FBO**
HPO819	**U8-MAO**	**U8-MAO**	**U8-MAO**	**U8-MAO**	**U8-FAO**	**U8-FAO**	**U8-FBO**	**U8-FBO**

Notes
*Two types of brackets are required, each for a fixed-end and a moving-end. Select best-suited bracket for your application from above selection. Moving-end (the hole type) and fixed-end (the pivot type) must be ordered separately when you need both of them.

Divider for HPO series

Type	Model code	Applicable models
SB4,5	SB4	HPO408, HPO412
	SB5	HPO512
SB8	SB8	HPO819

Flap for HPO series

Type	Model code
HPO□ Flap	HPO202 Flap
	HPO203 Flap
	HPO204 Flap
	HPO206 Flap
	HPO408 Flap
	HPO412 Flap
	HPO512 Flap
	HPO819 Flap

Related product

Low Friction Polyurethane Tube

▶ P.94

Plarailchain HPE

Cable/Tube Carrier With Gull-wing open Type

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

*Bracket for moving-end and fixed-end must be ordered separately. For details, see the next page.

HP (1) E (2) 408 (3) – R75 (4)

(1) Plarailchain

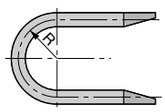
(2) Gull-wing open type

(3) Size (Overall dimensions: H × W)

Code	408	412
Size (mm)	40×78	40×117

(4) Bending radius (R) (○: Available)

Code	R50	R75	R100	R150	R200
408, 412	○	○	○	○	○



Model code for flap (Example)

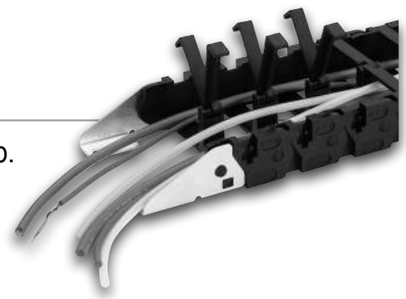
HPE (1) 408 (2) Flap

(1) Plarailchain HPE

(2) Model
[See Model Designation (3. Size)]

Characteristics

- The interior space comprises two halves, each of which has its own flap.
- No need to install a separate divider.



Specifications

Series	408	412
Bending radius (mm)	50 75 100 150 200	
Max. O.D. of cable/tube (mm)	19	
Pitch length (mm)	45	
No. of links (/m)	23	
Max. free span (m)*	1.5	
Max. travel stroke (m)	2.9	
Max. contents weight (kg/m)	2.5	
Max. travel speed (m/s)	2.5	
Chain weight (kg/m)	1.1	1.3
Chain material	PA6 GF20%	
Bracket material	SPCC with Trivalent unichrome plating	
Operating temp. range (°C)	-10 to 80	
Operating environment	Avoid using in acid/alkaline atmosphere or in hot water.	

*Max. free span: Length that the upper runs in straight line with no sag.

Related product

Low Friction Polyurethane Tube

▶ P.94

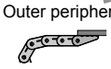
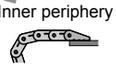
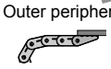
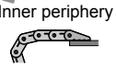
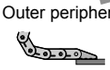
RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code
Gull-wing open Type HPE 	HPE408-4
	HPE412-4

Notes
*1. For 4 in model code, please select a code for bending radius.
*2. See page 792 for size selection instructions.
*3. See page 797 for the calculation method of the number of links.

CAD data is available at PISCO website.

Metal bracket for HPE series

Application	For moving-end				For fixed-end			
Type	For moving-end (Holed type)				For fixed-end (Boss type)			
Screwing position	Inside		Outside		Inside		Outside	
Orientation	Outer periphery 	Inner periphery 	Outer periphery 	Inner periphery 	Outer periphery	Inner periphery	Outer periphery 	Inner periphery
Type	Model code	Model code	Model code	Model code	Model code	Model code	Model code	Model code
HPE408 HPE412	**E4-MAO**	**E4-MAI**	**E4-MAO**	**E4-MAI**	**E4-FAO**	**E4-FAI**	**E4-FBO**	**E4-FBI**

Notes
*Two types of brackets are required, each for a fixed-end and a moving-end. Select best-suited bracket for your application from above selection. Moving-end (the holed type) and fixed-end (the boss type) must be ordered separately when you need both of them.

Flap for HPE

Type	Model code
HPE□Flap 	HPE408Flap
	HPE412Flap

Plarailchain HPC

Cable/Tube Carrier Low Noise Type

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

*Bracket for moving-end and fixed-end must be ordered separately. For details, see the next page.

HP (1) C (2) 203 (3) – R30 (4)

(1) Plarailchain

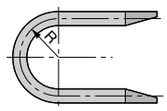
(2) Low noise type

(3) Size (Overall dimensions: H × W)

Code	203	204	306
Size (mm)	29×48	34×69	47×78

(4) Bending radius (R) (○: Available)

Code	R30	R45	R50	R60	R90	R100	R150
203	○	○		○			
204			○		○		○
306			○			○	○



Model Designation (Example) (Bracket common type)

*Bracket for moving-end and fixed-end must be ordered separately. For details, see the next page.

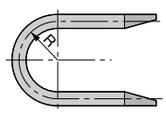
HP (1) C (2) 200 (3)

(1) Plarailchain

(2) Low noise type

(3) Size (Overall dimensions: H × W), **Bending radius** (R)

Code	50	100	200
Size (mm)	26×48	37×69	44×84
Bending radius (mm)	R=60	R=90	R=105



Characteristics

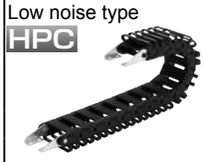
- The small pitch of the links and special engineering plastics contribute to the low noise.
- The flaps break open in the middle, so that you can add or remove cables simply by pushing in or pulling out.
  Upon receiving the chains, you need to cut the flaps along the middle with a cutter or nipper.

Specifications

Series	203	204	306	50	100	200
Bending radius (mm)	30 45 60	50 90 150	50 100 150	60	90	105
Max. O.D. of cable/tube (mm)	19	23	31	16	24	28
Pitch length (mm)	25	32	45	25		
No. of links (/m)	40	32	23	40		
Max. free span (m)*	0.9	1		1.06	1	
Max. travel stroke (m)	1.7	1.8		1.9	1.8	
Max. contents weight (kg/m)	2.5	4	6	5		
Max. travel speed (m/s)	2.5					
Chain weight (kg/m)	0.37	0.59	0.78	0.358	0.608	1.056
Chain material	PA6					
Bracket material	SPCC with Trivalent unichrome plating					
Operating temp. range (°C)	0 to 50					
Operating environment	Avoid using in acid/alkaline atmosphere or in hot water.					

*Max. free span: Length that the upper runs in straight line with no sag.

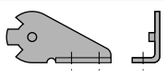
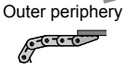
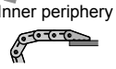
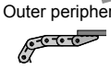
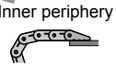
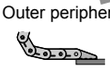
RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code
Low noise type HPC 	HPC203-4
	HPC204-4
	HPC306-4
	HPC50
	HPC100
	HPC200

Notes
*1. For 4 in model code, please select a code for bending radius.
*2. See page 792 for size selection instructions.
*3. See page 797 for the calculation method of the number of links.

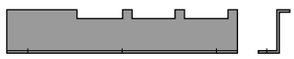
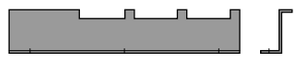
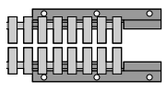
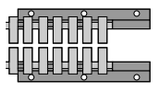
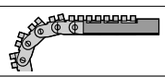
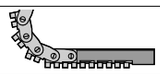
CAD data is available at PISCO website.

Mounting bracket for HPC203, 204 and 306

Application	For moving-end				For fixed-end			
Type	For moving-end (Holed type)				 For fixed-end (Boss type)			
Screwing position	Inside		Outside		Inside		Outside	
Orientation	Outer periphery 	Inner periphery 	Outer periphery 	Inner periphery 	Outer periphery	Inner periphery	Outer periphery 	Inner periphery
Type	Model code	Model code	Model code	Model code	Model code	Model code	Model code	Model code
HPC203	**U2-MAO-S**	**U2-MAI-S**	**U2-MAO-S**	**U2-MAI-S**	**U2-FAO-S**	**U2-FAO-S**	**U2-FBO-S**	**U2-FBO-S**
HPC204	**U2-MAO**	**U2-MAI**	**U2-MAO**	**U2-MAI**	**U2-FAO**	**U2-FAO**	**U2-FBO**	**U2-FBO**
HPC306	**U3-MAO**	**U3-MAO**	**U3-MAO**	**U3-MAO**	**U3-FAO**	**U3-FAI**	**U3-FBO**	**U3-FBI**

Notes
*Two types of brackets are required, each for a fixed-end and a moving-end. Select best-suited bracket for your application from above selection. Moving-end (the holed type) and fixed-end (the boss type) must be ordered separately when you need both of them.

Mounting bracket for HPC50, 100 and 200

Application	For moving-end		For fixed-end	
Type		For moving-end		For fixed-end
Screwing position		Outside		Outside
Orientation		Inner periphery		Inner periphery
Type	Model code		Model code	
HPC50	**HPC50-K**(*)		**HPC50-K**(*)	
HPC100	**HPC100-K**(*)		**HPC100-K**(*)	
HPC200	**HPC200-K**(*)		**HPC200-K**(*)	

Notes
HPC50-K, HPC100-K, and HPC200-K have common brackets for the moving/fixed end. Two sets are required for the moving-end and the fixed-end.

Related product

Low Friction Polyurethane Tube

▶ P.94

Plarailchain HPK

Cable/Tube Carrier Compact Type

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

*Two types of brackets are required, each for a fixed and a movable end. For details, see the table below.

HP (1) K (2) 204 (3) – R50 (4) – (5)

(1) Plarailchain

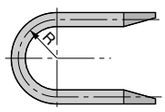
(2) No flap, Compact type

(3) Size (Overall dimensions: H × W)

Code	101	202	203	204	206
Size (mm)	12×16	20×26	20×32	22×43	22×59

(4) Bending radius (R) (○: Available)

Code	R19	R30	R38	R45	R50
101	○				
202, 203		○		○	
204, 206			○		○



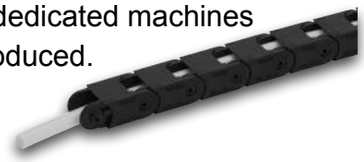
(5) Body color

Code	No code	W
Body color	Black	Light grey

Characteristics

The smallest chains in our series which may be used to store even just one cable.

Due to its lower price, this plarailchain is best suitable for dedicated machines that are mass-produced.



RoHS2 (2011/65/EU+EU2015/863) compliant

Specifications

Series	101	202	203	204	206
Bending radius (mm)	19	30 45		38 50	
Max. O.D. of cable/tube (mm)	7	12			
Pitch length (mm)	20	25		32	
No. of links (/m)	50	40		32	
Max. free span (m)*	0.5	0.75		0.75	0.86
Max. travel stroke (m)	0.8	1.4		1.4	1.6
Max. contents weight (kg/m)	1.5	3		4	4.5
Max. travel speed (m/s)	1			2.5	
Chain weight (kg/m)	0.105	0.222	0.24	0.45	0.51
Chain material	PA6 GF20%				
Bracket material	SUS430	SPCC with Trivalent unichrome plating			
Operating temp. range (°C)	-10 to 80				
Operating environment	Avoid using in acid/alkaline atmosphere or in hot water.				

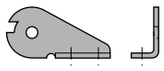
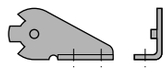
*Max. free span: Length that the upper runs in straight line with no sag.

Type	Model code
Compact type HPK	HPK101-R19-5
	HPK202-4-5
	HPK203-4-5
	HPK204-4-5
	HPK206-4-5

Notes
*1. For 4 in model code, please select a code for bending radius, for 5, please select a code for body color.
*2. See page 792 for size selection instructions.
*3. See page 797 for the calculation method of the number of links.

CAD data is available at PISCO website.

Mounting bracket for HPK series

Application	For moving-end				For fixed-end			
Type	 For moving-end (Holed type)				 For fixed-end (Boss type)			
Screwing position	Inside		Outside		Inside		Outside	
Orientation	Outer periphery	Inner periphery	Outer periphery	Inner periphery	Outer periphery	Inner periphery	Outer periphery	Inner periphery
Type	Model code	Model code	Model code	Model code	Model code	Model code	Model code	Model code
HPK101	**HPK101-K**	**HPK101-K**	—	—	(*1)	(*1)	—	—
HPK202	**U2-MAO-S**	**U2-MAI-S**	**U2-MAO-S**	**U2-MAI-S**	**U2-FAO-S**	**U2-FAO-S**	**U2-FBO-S**	**U2-FBO-S**
HPK203								
HPK204	**U2-MAO**	**U2-MAI**	**U2-MAO**	**U2-MAI**	**U2-FAO**	**U2-FAO**	**U2-FBO**	**U2-FBO**
HPK206								

Notes
*1. The brackets for HPK101 (HPK101-K), which are different shape from above drawing, come in a set of moving-end and fixed-end brackets.
*2. Two types of brackets are required, each for a fixed-end and a moving-end. Select best-suited bracket for your application from above selection. Moving-end (the holed type) and fixed-end (the boss type) must be ordered separately when you need both of them.

Plarailchain HPM

PISCO®

Cable/Tube Carrier Fully-Enclosed Type

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

*Two types of brackets are required, each for a fixed and a movable end. For details, see the table below.

HP (1) M (2) 204 (3) – R28 (4) – (5)

(1) Plarailchain

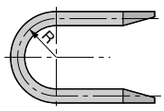
(2) No flap, Fully-enclosed type

(3) Size (Overall dimensions: H × W)

Code	204	205	206
Size (mm)	23×35.5	23×43	22×59

(4) Bending radius (R) (○: Available)

Code	R28	R38	R50
204, 205	○		
206		○	○



(5) Body color

Code	No code	W
Body color	Black	Light grey

Related product

Low Friction Polyurethane Tube

▶ P.94

Specifications

Series	204	205	206
Bending radius (mm)	28		38 50
Max. O.D. of cable/tube (mm)	14		13
Pitch length (mm)	15		22
No. of links (/m)	67		46
Max. free span (m)*	1		
Max. travel stroke (m)	1.8		
Max. contents weight (kg/m)	3		4.5
Max. travel speed (m/s)	2.5		
Chain weight (kg/m)	0.34	0.39	0.46
Chain material	PA6 GF20%		
Bracket material	SPCC with Trivalent unichrome plating		
Operating temp. range (°C)	-10 to 80		
Operating environment	Avoid using in acid/alkaline atmosphere or in hot water.		

*Max. free span: Length that the upper runs in straight line with no sag.

Characteristics

The Full-cover type Plarailchain protect cables from dust or particles.

Simple one-piece design and cost effective cable carrier.

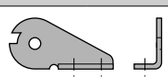
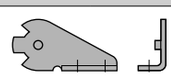
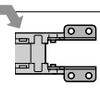
RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code
Fully-enclosed type HPM	HPM204-R28-5
	HPM205-R28-5
	HPM206-4-5

Notes
*1. For 4 in model code, please select a code for bending radius, for 5, please select a code for body color.
*2. See page 792 for size selection instructions.
*3. See page 797 for the calculation method of the number of links.

CAD data is available at PISCO website.

Mounting bracket for HPM series

Application	For moving-end				For fixed-end			
Type	 For moving-end (Holed type)				 For fixed-end (Boss type)			
Screwing position	Inside		Outside		Inside		 Outside	
Orientation	Outer periphery	Inner periphery	Outer periphery	Inner periphery	Outer periphery	Inner periphery	Outer periphery	Inner periphery
Type	Model code	Model code	Model code	Model code	Model code	Model code	Model code	Model code
HPM204	**M2-MAO**	**M2-MAO**	**M2-MAO**	**M2-MAO**	**M2-FAO**	**M2-FAO**	**M2-FBO**	**M2-FBO**
HPM205								
HPM206	**U2-MAO**	**U2-MAI**	**U2-MAO**	**U2-MAI**	**U2-FAO**	**U2-FAO**	**U2-FBO**	**U2-FBO**

Notes
*Two types of brackets are required, each for a fixed-end and a moving-end. Select best-suited bracket for your application from above selection. Moving-end (the holed type) and fixed-end (the boss type) must be ordered separately when you need both of them.

Plarailchain SP

Cable/Tube Carrier With Low Abrasion, Low Noise, Snap Open Flap Type

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

*Two types of brackets are required, each for a fixed and a movable end. For details, see page 810.

SP (1) 1520 (2) – R50 (3) (4)

(1) Low Abrasion, Low Noise, Snap Open Flap type Plarailchain

(2) Size (Overall dimensions: H × W)

Code	1520	2035	2550	2560	2585	3580	35105
Size (mm)	15×20	20×35	25×50	25×60	25×85	35×80	35×105

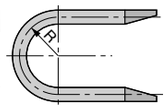
Code	4542	4575	45100	45115	45125	45150	45175	45200	45250
Size (mm)	45×42	45×75	45×100	45×115	45×125	45×150	45×175	45×200	45×250

Code	5575	55100	55125	55150	55175	55200	55250	55300
Size (mm)	55×75	55×100	55×125	55×150	55×175	55×200	55×250	55×300

Code	8075	80100	80125	80150	80175	80200	80250	80300
Size (mm)	80×75	80×100	80×125	80×150	80×175	80×200	80×250	80×300

(3) Bending radius (R) (○: Available)

Code	R30	R45	R50	R60	R75	R100	R125	R135	R150	R175	R200	R250	R300	R350	R400
1520	○		○		○										
2035		○													
2550			○		○	○			○						
2560			○		○	○			○						
2585				○	○	○			○						
35□						○	○		○	○	○				
45□					○	○	○		○	○	○	○			
55□								○	○		○	○			
80□									○		○	○	○	○	○



(4) Specifications (1520, 2035, 2550, 2560, 2585)

Code	No code	EG
Specifications	Standard	Anti-static (Volume resistance: 10^5 to $10^6\Omega$·m)

Model Designatgion for Divider (Example)

SB (1) 25 (2) – SP (3)

(1) Divider for Plarailchain

(2) Applicable models

Code	20	25	35	45	55	80
Applicable models	SP2035	SP25□	SP35□	SP45□	SP55□	SP80□

(3) Specifications (SB20, 25)

Code	No code	EG
Specifications	Standard	Anti-static

Model Designation for Shelf (Example)

TB (1) 4575 (2) – SP

(1) Shelf for Plarailchain

(2) Applicable models

Code	4542	4575	45100	45115	80146*
Applicable models	SP4542	SP4575	SP45100	SP45115	SP80175 or more

*Shelf divider is required to use TB80146.

Model Designation for Shelf divider (Example)

TS80 (1) –SP

(1) Shelf divider for Plarailchain

Model designation for flap (Example)

SP (1) 1520 (2) Flap

(1) Plarailchain SP

(2) Model

Code	1520	2035	2550	2560	2585	3580	35105
Applicable models	SP1520	SP2035	SP2550	SP2560	SP2585	SP3580	SP35105

Code	4542	4575	45100	45115	45125	45150	45175	45200	45250
Applicable models	SP4542	SP4575	SP45100	SP45115	SP45125	SP45150	SP45175	SP45200	SP45250

Code	55(80)75	55(80)100	55(80)125	55(80)150	55(80)175	55(80)200	55(80)250	55(80)300
Applicable models	SP5575, SP8075	SP55100, SP80100	SP55125, SP80125	SP55150, SP80150	SP55175, SP80175	SP55200, SP80200	SP55250, SP80250	SP55300, SP80300

Characteristics

- Reduces abrasive wear on cable/tube.
- Excellent in durability.
- Special resin contribute to the low noise.
- There is only one type of bracket for both the moving and the fixed end.(except 55, 80 series)
- As for SP45□·55□·80□ type, snap open flap along the inner radius.
- Anti-static type, is provided where static electricity should be dissipated. (SP1520, 2035, 25□)

Specifications

Series	1520(EG)	2035(EG)	2550(EG)	2560(EG)	2585(EG)	3580	35105	4542	4575	45100	45115	45125	45150	45175	45200	45250
Bending radius (mm)	30 50 75	45	50 75 100 150	50 75 100 150	60 75 100 150	100 125 150 175 200		75 100 125 150 175 200 250								
Max. O.D. of cable/tube (mm)	12	16	20			28		34	36							
Pitch length (mm)	25	32	36	36	43.5	62.5		67								
No. of links (/m)	40	32	28	28	23	16		15								
Max. free span(m)*1	1.25	1.25	1.63	1.75	1.88	2.25	2.38	2.13								
Max. travel stroke (m)	2.4	2.4	3.1	3.3	3.6	4.4	4.6	4.2								
Max. contents weight (kg/m)	2.2	2.3	6.5	6.5	8	10	13	32								
Max. travel speed (m/s)	3															
Chain weight (kg/m)	0.36 (0.35)	0.5 (0.48)	0.86 (0.83)	0.85 (0.82)	1.05 (1.01)	1.76	1.96	2.3	2.4	2.6	2.7	2.8	3	3.1	3.2	3.5
Chain material	PA6 GF30%(PA6 GF15% CF7%)					PA6 GF30%		PA6 GF30%								
Bracket material	SPCC with Trivalent unichrome plating															
Divider material	—	PA6 GF30% (PA6 GF15% CF7%)				PA6 GF30%		PA6 GF30%								
Shelf material	—							PA6				—	—	—	—	—
Operating temp. range (°C)	-10 to 80															
Operating environment	Avoid using in acid/alkaline atmosphere or in hot water.															

Series	5575	55100	55125	55150	55175	55200	55250	55300	8075	80100	80125	80150	80175	80200	80250	80300
Bending radius (mm)	135 150 200 250								150 200 250 300 350 400							
Max. O.D. of cable/tube (mm)	44								60	64						
Pitch length (mm)	91								100							
No. of links (/m)	11								10							
Max. free span(m)*1	5								5							
Max. travel stroke (m)	9.8								9.8							
Max. contents weight (kg/m)	65								70							
Max. travel speed (m/s)	3															
Chain weight (kg/m)	3.5	3.6	3.7	3.8	3.9	4	4.1	4.2	4.7	4.8	4.9	5.1	5.2	5.3	5.6	5.8
Chain material	PA6 GF30%															
Bracket material	SPCC with Trivalent unichrome plating															
Divider material	PA6 GF30%															
Shelf material	—								—	—	—	—	PA6			
Operating temp. range (°C)	-10 to 80															
Operating environment	Avoid using in acid/alkaline atmosphere or in hot water.															

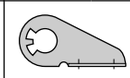
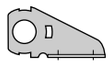
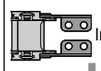
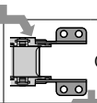
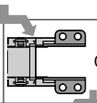
*1. Max. free span: Length that the upper runs in straight line with no sag.
*2. Series with (EG) is available in Anti-static grade.
*3. Weights and material in ( ) are for Anti-static type.

Plarailchain SP

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code
Low Abrasion, Low Noise, Snap Open Flap Type SP	SP1520-[3][4]
	SP2035-R45[4]
	SP2550-[3][4]
	SP2560-[3][4]
	SP2585-[3][4]
	SP3580-[3]
	SP35105-[3]
	SP4542-[3]
	SP4575-[3]
	SP45100-[3]
	SP45115-[3]
	SP45125-[3]
	SP45150-[3]
	SP45175-[3]
	SP45200-[3]
	SP45250-[3]
	SP5575-[3]
	SP55100-[3]
	SP55125-[3]
	SP55150-[3]
	SP55175-[3]
	SP55200-[3]
	SP55250-[3]
	SP55300-[3]
	SP8075-[3]
	SP80100-[3]
	SP80125-[3]
	SP80150-[3]
	SP80175-[3]
	SP80200-[3]
	SP80250-[3]
	SP80300-[3]

Mounting bracket for SP series

Application	For moving-end		For fixed-end	
Type	 For moving-end		 For fixed-end	
Screwing position	 Inside	 Outside	Inside	 Outside
Orientation	Outer periphery / Inner periphery	Outer periphery / Inner periphery	Outer periphery / Inner periphery	Outer periphery / Inner periphery

Type	Model code	Model code	Model code	Model code
SP1520	**SP15-M**	**SP15-M**	**SP15-F**	**SP15-F**
SP2035	**SP20-M**	**SP20-M**	**SP20-F**	**SP20-F**
SP25□	**SP25-M**	**SP25-M**	**SP25-F**	**SP25-F**
SP35□	**SP35-M**	**SP35-M**	**SP35-F**	**SP35-F**
SP4542	**SP45-MK**	**SP45-MK**	**SP45-FK**	**SP45-FK**
SP45□	**SP45-M**	**SP45-M**	**SP45-F**	**SP45-F**
SP55□	**SP55-A**	**SP55-B**	**SP55-A**	**SP55-B**
SP80□	**SP80-A**	**SP80-B**	**SP80-A**	**SP80-B**

Notes
*1. For [3] in model code, please select a code for bending radius from the Model designation (example) on page 808.
*2. See page 792 for size selection instructions.
*3. See page 797 for the calculation method of the number of links.
*4. Two types of brackets are required, each for a fixed-end and a moving-end. Select best-suited bracket for your application from above selection. Moving-end (the hole type) and fixed-end (the pivot type) must be ordered separately when you need both of them.
*5. Fixed-end brackets for SP15, SP20, SP25, SP35 are enclosed with End cap (Resin made). As for the handling, please refer to digital catalog on our website or handling manual. Be careful not to damage the item when opening the package or handling.
*6. Brackets for SP55, SP80 have different shape from above drawing. Two sets are required for the moving end and the fixed end.

CAD data is available at PISCO website.

Divider for SP series

SB20 SB25 SB35 SB45 SB55 SB80

Model code	Attachable Model
SB20-SP[4]	SP2035
SB25-SP[4]	SP25□
SB35-SP	SP35□
SB45-SP	SP45□
SB55-SP	SP55□
SB80-SP	SP80□

Shelf for SP55□, 80□

TB45□ TB80146

Model code	Attachable Model
TB4542-SP	SP4542
TB4575-SP	SP4575
TB45100-SP	SP45100
TB45115-SP	SP45115
TB80146-SP	SP80175 or more

Shelf divider for SP80□

TS80

Model code	Attachable Model
TS80-SP	SP80175 or more

Notes
*For [3] in model code, please select a code for bending radius.

Flap for SP series

SP□ Flap

Model code	Attachable Model
SP1520 Flap	SP1520
SP2035 Flap	SP2035
SP2550 Flap	SP2550
SP2560 Flap	SP2560
SP2585 Flap	SP2585
SP3580 Flap	SP3580
SP35105 Flap	SP35105
SP4542 Flap	SP4542
SP4575 Flap	SP4575
SP45100 Flap	SP45100
SP45115 Flap	SP45115
SP45125 Flap	SP45125
SP45150 Flap	SP45150
SP45175 Flap	SP45175
SP45200 Flap	SP45200
SP45250 Flap	SP45250
SP55(80)75 Flap	SP5575, 8075
SP55(80)100 Flap	SP55100, 80100
SP55(80)125 Flap	SP55125, 80125
SP55(80)150 Flap	SP55150, 80150
SP55(80)175 Flap	SP55175, 80175
SP55(80)200 Flap	SP55200, 80200
SP55(80)250 Flap	SP55250, 80250
SP55(80)300 Flap	SP55300, 80300

End-cap for SP1520, 2035, 25□, 35□

SP□EC

Model code	Attachable Model
SP15EC	SP1520
SP20EC	SP2035
SP25EC	SP25□
SP35EC	SP35□

R-cap for SP1520, 2035, 25□, 35□

SP□RC

Model code	Attachable Model
SP1520RC-[3]	SP1520
SP2035RC-[3]	SP2035
SP2550RC-[3]	SP2550
SP2560RC-[3]	SP2560
SP2585RC-[3]	SP2585
SP3580RC-[3]	SP3580
SP35105RC-[3]	SP35105

R-piece for SP45□

SP45R-piece

Model code	Attachable Model
SP45R-piece-[3]	SP45□

Joint Cap for SP55□, 80□

SP□Joint collar

Model code	Attachable Model
SP55 Joint Cap	SP55□
SP80 Joint Cap	SP80□

Plarailchain SPO

PISCO

Cable/Tube Carrier With Low Abrasion, Low Noise, Snap Open Flap, Fully-enclosed Type.

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

*Bracket for moving-end and fixed-end must be ordered separately. For details, see the next page.

SP (1) O (2) 4575 (3) – R125 (4)

(1) Low abrasion, Low noise, Snap Open flap type

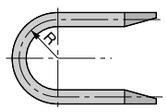
(2) Flap type
O: Fully enclosed

(3) Size (Storing dimensions: H × W)

Code	4575	45100	45125	45150	5575	55100	55125	55150
Size (mm)	45×75	45×100	45×125	45×150	55×75	55×100	55×125	55×150

(4) Bending radius (R) (○: Available)

Code	R125	R150	R175	R200	R250
45□	○	○	○	○	○
55□		○		○	○



Model Designatgion for Divider (Example)

SB (1) 45 (2) – SP

(1) Divider for Plarailchain

(2) Applicable models

Code	45	55
Applicable models	SPO45□	SPO55□

Model Designation for Shelf (Example)

TB (1) 4575 (2) – SP

(1) Shelf for Plarailchain

(2) Applicable models

Code	4575	45100
Applicable models	SPO4575	SPO45100

Flap Model designation for SPO45□ (Example)

SPO (1) 4575 (2) Flap T (3)

(1) Plarailchain SPO

(2) Applicable models

Code	4575	45100	45125	45150
Applicable models	SPO4575	SPO45100	SPO45125	SPO45150

(3) Orientation

Code	T	B
Orientation	Outer periphery	Inner periphery

Flap Model designation for SPO55□ (Example)

SP (1) 55(80)75 (2) Flap

*Flap for SPO55□ requires SPO55□ Flap and SPO55 Cover T or SPO55□ Cover B.

(1) Plarailchain SP

(2) Applicable models

Code	55(80)75	55(80)100	55(80)125	55(80)150
Applicable models	SPO5575	SPO55100	SPO55125	SPO55150

SPO (1) 5575 (2) Flap T (3) Cover

(1) Plarailchain SPO

(2) Applicable models

Code	5575	55100	55125	55150
Applicable models	SPO5575	SPO55100	SPO55125	SPO55150

(3) Orientation

Code	T	B
Orientation	Outer periphery	Inner periphery

Related product

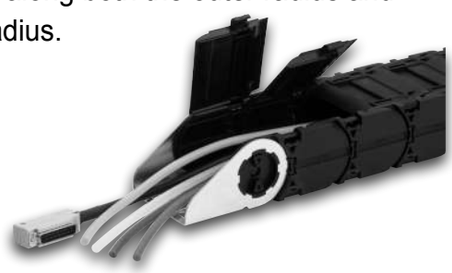
Low Friction Polyurethane Tube

▶ P.94

Plarailchain SPO

Characteristics

- Reduce wear between cables/tubes.
- Excellent in durability.
- Special resin contribute to the low noise.
- The Full-cover type Plarailchain protect cables from dust or particles.
- Snap open along both the outer radius and the inner radius.



RoHS2 (2011/65/EU+EU2015/863) compliant

Specifications

Series	4575	45100	45125	45150	5575	55100	55125	55150
Bending radius (mm)	125 150 175 200 250				150 200 250			
Max. O.D. of cable/tube (mm)	36				44			
Pitch length (mm)	67				91			
No. of links (/m)	15				11			
Max. free span(m)*	2.13				5			
Max. travel stroke (m)	4.2				9.8			
Max. contents weight (kg/m)	32				65			
Max. travel speed (m/s)	3							
Chain weight (kg/m)	3	3.3	3.6	3.9	3.9	4	4.1	4.2
Chain material	PA6 GF30%							
Bracket material	SPCC with Trivalent unichrome plating							
Divider material	PA6 GF30%							
Rack material	PA6	—	—	—				
Operating temp. range (°C)	-10 to 80							
Operating environment	Avoid using in acid/alkaline atmosphere or in hot water.							

*Max. free span: Length that the upper runs in straight line with no sag.

Type	Model code
Low abrasion, low noise, Fully-enclosed snap open flap type SPO	SPO4575-4
	SPO45100-4
	SPO45125-4
	SPO45150-4
	SPO5575-4
	SPO55100-4
	SPO55125-4
	SPO55150-4

CAD data is available at PISCO website.

Mounting bracket for SPO series

Application	For moving-end		For fixed-end	
Type	For moving-end		For fixed-end	
Screwing position	Inside	Outside	Inside	Outside
Orientation	Outer periphery / Inner periphery	Outer periphery / Inner periphery	Outer periphery / Inner periphery	Outer periphery / Inner periphery
Type	Model code	Model code	Model code	Model code
SPO45□	**SP45-M**	**SP45-M**	**SP45-F**	**SP45-F**
SPO55□	**SP55-A**	**SP55-B**	**SP55-A**	**SP55-B**

Divider for SPO series

SB45 SB55

Model code	Applicable models
SB45-SP	SPO45□
SB55-SP	SPO55□

R-piece for SPO45□

SP45R-pc

Model code	Applicable models
SP45R-pc-4	SPO45□

Shelf for SPO45□

TB45□

Model code	Applicable models
TB4575-SP	SPO4575
TB45100-SP	SPO45100

Joint Cap for SPO55□

SP□Joint collar

Model code	Applicable models
SP55Joint collar	SPO55□

Flap for SPO45□

SPO□FlapT
SPO□FlapB

Model code	Applicable models
SPO4575FlapT	SPO4575
SPO4575FlapB	
SPO45100FlapT	SPO45100
SPO45100FlapB	
SPO45125FlapT	SPO45125
SPO45125FlapB	
SPO45150FlapT	SPO45150
SPO45150FlapB	

Flap for SPO55□

SP□Flap

Model code	Applicable models
SP55(80)75Flap	SPO5575
SP55(80)100Flap	SPO55100
SP55(80)125Flap	SPO55125
SP55(80)150Flap	SPO55150

*Flap for SPO55□ requires SPO55□ Flap and SPO55□ Cover T or SPO55□ Cover B.

Flap cover for SPO55□

SPO□FlapTCover
SPO□FlapBCover

Model code	Applicable models
SPO5575FlapTCover	SPO5575
SPO5575FlapBCover	
SPO55100FlapTCover	SPO55100
SPO55100FlapBCover	
SPO55125FlapTCover	SPO55125
SPO55125FlapBCover	
SPO55150FlapTCover	SPO55150
SPO55150FlapBCover	

Notes

*1. For 4 in model code, please select a code for bending radius from the Model designation (example).
*2. See page 792 for size selection instructions.
*3. See page 797 for the calculation method of the number of links.
*4. Two types of brackets are required, each for a fixed and a moving-end. Select best-suited bracket for your application from above selection. Moving-end (the holed type) and fixed-end (the boss type) must be ordered separately when you need both of them.
*5. Brackets for SPO55 series have different shape from above drawing. Two sets are required for the moving-end and the fixed-end.
*6. T at the end of the model code for flap for SPO series represents flap for outer radius, and B represents flap for inner radius.

Plarailchain SD

PISCO

Cable/Tube Carrier With High Resistance, Low Abrasion, Low Noise, Snap Open Flap Type

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

*Bracket for moving-end and fixed-end must be ordered separately. For details, see the next page.

SD (1) 2550 (2) – R70 (3)

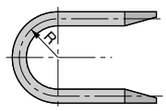
(1) Low abrasion, Low noise, Snap open flap type

(2) Size (Storing dimensions: H × W)

Code	2550	2560	2580
Size (mm)	25×50	25×60	25×80

(3) Bending radius (R)

Code	R50	R70	R100
Bending radius (mm)	50	70	100



Divider Model code

SB25-SD (1)

(1) Divider for Plarailchain SD

Model designation for flap (Example)

SD (1) 2550 (2) Flap

(1) Plarailchain SD

(2) Model
[See Model Designation (2. Size)]

Model Designation for Side plate (Example)

SD (1) 25 (2) – R70 (3) Side plate (R) (4)

(1) Plarailchain SD

(2) Model

(3) Bending radius(R)
[See Model Designation (3. Bending radius)]

(4) Orientation

Code	(L)	(R)
Installation direction	Left	Right

Characteristics

- Sturdy and durable enough even for high travel speed applications.
- Reinforced structure of the connecting part enables the load balance and achieves high durability.
  Increasing the contact area of the joints reduces rattling and misalignment. Moment load is decentralized and can be used for X-Y compound traveling.
- Increased resistance to sagging.
  The stopper of the side plate has a 25% larger area than the existing model. *In comparison with our Plarailchain SP.
- Longer lifetime is achieved by minimizing the bounce-up motion at the moments of stopping and starting to move.
  Smooth operation is achieved by shortening the pitch length between links.
- Wear-resistant resin is adopted. The friction factor and specific wear are drastically reduced to 1/2 and 1/26, respectively, compared with existing products.
  *In comparison with our Plarailchain SP
- Reduces as much unwanted abrasion wear as possible.
  By reducing the roughness on the inner surface of the chain, the abrasion wear resulting from friction between cables/hoses and chains will be decelerated.
- Only one type of bracket is required for each of the moving/fixed end, which allows for easy installation.
  High-speed, high-load operation is supported by the bracket made of stainless steel.
- Easy to insert or remove cables/hoses.
  The flap can be detached and opened/closed along both the inner or outer radius, on either side.
- UL94 V-0 equivalent flame retardant.

Plarailchain SD

Specifications

Series	2550	2560	2580
Bending radius (mm)	50 70 100		
Max. O.D. of cable/tube (mm)	ø20		
Pitch length (mm)	25		
No. of links (/m)	40		
Max. free span (m)*	2.2		
Max. travel stroke(m)	4.3		
Max. contents weight (kg/m)	7		
Max. travel speed (m/s)	4		
Chain weight (kg/m)	0.9	0.95	1.07
Chain material	PA10T GF40%		
Bracket material	SUS430		
Divider material	PA6 GF30%		
Operating temp. range (°C)	-10 to 80		
Operating environment	Avoid using in acid/alkaline atmosphere or in hot water.		

*Max. free span: Length that the upper runs in straight line with no sag.

Related product

Low Friction Polyurethane Tube

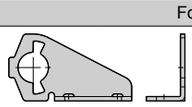
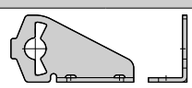
▶ P.94

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code
High resistant type SD	SD2550-3
	SD2560-3
	SD2580-3

Notes
*1. For 3 in model code, please select a code for bending radius from the Model designation (example).
*2. See page 792 for size selection instructions.
*3. See page 797 for the calculation method of the number of links.

Mounting bracket for SD series

Application	For moving-end		For fixed-end	
Type	 For moving-end		 For fixed-end	
Screwing position	Inside	Outside	Inside	Outside
Orientation	Outer periphery Inner periphery	Outer periphery Inner periphery	Outer periphery Inner periphery	Outer periphery Inner periphery
Type	Model code		Model code	
SD2550	**SD25-M**		**SD25-F**	
SD2560				
SD2580				

Notes
*Two types of brackets are required, each for a fixed-end and a moving-end. Bracket for moving-end and fixed-end must be ordered separately.

Divider for SD series

SB25

Model code	Applicable models
SB25-SD	SD25□

Flap for SD series

SD□Flap

Model code	Applicable models
SD2550Flap	SD2550
SD2560Flap	SD2560
SD2580Flap	SD2580

Side plate for SD series

SD□Side plate(L) SD□Side plate(R)

(L) (R)

Model code	Applicable models
SD25-3 Side plate(L)	SD25□
SD25-3 Side plate(R)	

Notes
*For 3 in model code, please select a code for bending radius (R) from the Model designation (example).

Plarailchain SC, SCL

PISCO®

Cable/Tube Carrier With Low Dust, Low Noise, One-side Open Flap, Hinge Connection Type

⚠ Safety instructions for this product
Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

*Bracket for moving-end and fixed-end must be ordered separately. For details, see page 817.

SC (1) 3560 (2) – R75 (3)

(1) Low dust, Low noise, One-side open flap, Hinge connection type

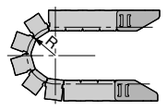
(2) Size (Storing dimensions: H × W)

Code	1520	2040	2540	2560	2580	3560	35100
Size (mm)	15×20	20×40	25×40	25×60	25×80	35×60	35×100

(3) Bending radius (R) (*The bending radius of SC type signifies minimum bending radius of cables inside.)

Code	R28	R31	R34	R38	R58	R60	R75	R85	R100	R115
1520	○		○							
2040		○		○	○					
2540						○		○		
2560						○				
2580						○		○		
3560							○		○	
35100							○		○	○

(○: Available)



Space-saving type Model designation (Example)

*Bracket for moving-end and fixed-end must be ordered separately. For details, see page 817.

SCL (1) 2570 (2) – R46 (3)

(1) Plarailchain with Low dust, Low noise, One-side open flap, Hinge connection, Space-saving type

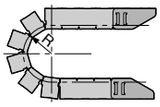
(2) Size (Storing dimensions: H × W)

Code	2020	2050	2570	3050
Size (mm)	20×20	20×50	25×70	30×50

(3) Bending radius (R) (*The bending radius of SCL type represents minimum bending radius of cables inside.)

Code	R31	R36	R46	R64
2020		○		
2050	○			
2570			○	○
3050			○	

(○: Available)



Model Designatgion for Divider (Example)

SB (1) 25 (2) – SC

(1) Divider for Plarailchain

(2) Applicable models

Code	20	25	30	35
Applicable models	SC2040, SCL2050	SC25□, SCL2570	SCL3050	SC35□

Model designation for flap (Example)

SC (1) 3560 (2) Flap

(1) Series

Code	SC	SCL
Series	Standard	Space-saving type

(2) Model
[See Model Designation (2. Size)]

Model Designation for Shelf (Example)

TB (1) 3560 (2) – SC

(1) Shelf for Plarailchain

(2) Applicable models

Code	2540	2560	2570	2580	3050	3560	35100
Applicable models	SC2540	SC2560	SCL2570	SC2580	SCL3050	SC3560	SC35100

Plarailchain SC, SCL

Characteristics

Connecting structure with no sliding parts, managed to minimize the generation of dust.

The bending part employs a hinge structure, and link increase and decrease are also possible.

Noise is reduced by using soft materials with low impact noise.

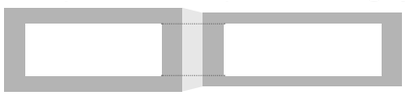
By adopting a frame structure, the inner parts in contact with cables, being made of soft material reduces the wear of cables where as the rigidity of the frame is maintained by the parts made of hard material.

Assembly structure of a hard resin frame combined with a soft resin frame prevents rigidity reduction, which is common to parts made of soft materials.

Flaps are made of the same material as SP series products, making it possible to further increase rigidity while decreasing cable abrasion.

The flaps are designed not only to open left or right as desired, but also to facilitate mounting/removal. They can also be placed in any direction.

Low profile and space-saving type is available.



SC SCL

The SCL type has a reduced body height compared to the standard type with the same storage height.

Three types of brackets are available: standard one-piece type brackets, separate type brackets for 16 different mounting methods, and low-cost, lightweight resin brackets.

Specifications

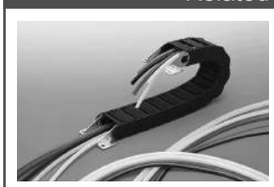
Series	**SC** (Standard)							**SCL** (Space-saving type)			
	1520	2040	2540	2560	2580	3560	35100	2020	2050	2570	3050
Bending radius (mm)	28 34	31 38 58	60 85	60	60 85	75 100	75 100 115	36	31	46 64	46
Max. O.D. of cable/tube (mm)	12	16	20		20	28		16	16	20	24
Pitch length (mm)	18	20	30		30	45		20	20	30	30
No. of links (/m)	56	50	33		33	23		50	50	33	33
Max. free span (m)*	1.1	1.4	1.5		1.5	2	1.8	1.4	1.4	1.5	1.6
Max. travel stroke (m)	2.15	2.75	2.9		2.9	3.9	3.5	2.75	2.75	2.9	3.13
Max. contents weight (kg/m)	1	1	3		3	6		1	1	3	3
Max. travel speed (m/s)	4							4			
Chain weight (kg/m)	0.34	0.7	0.77	0.94	1.2	1.4	2	0.39	0.58	0.96	1.2
Chain material	TPEE, PA6 GF30%										
One-piece type bracket material	SPCC with Trivalent unichrome plating							—			
Separate type bracket material	SUS304										
Resin bracket material	PA6 GF45%										
Divider material	—	PA6						—	PA6		
Rack sheet material	—	—	PA6 GF30%					—	—	PA6 GF30%	
Operating temp. range (°C)	-8 to 80										
Operating environment	Avoid using in acid/alkaline atmosphere or in hot water.										

*Max. free span: Length that the upper runs in straight line with no sag.

RoHS2 (2011/65/EU+EU2015/863) compliant

Series	Model code
Low dust, Low noise, One-side open, Hinge connection type SC	SC1520-3
	SCL2020-R36
	SC2040-3
	SCL2050-R31
	SC2540-3
	SC2560-R60
	SCL2570-3
	SC2580-3
	SCL3050-R46
	SC3560-3
	SC35100-3

Related product



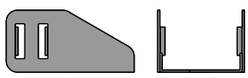
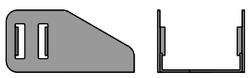
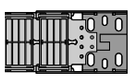
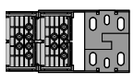
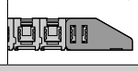
Low Friction Polyurethane Tube

▶ P.94

Notes
*1. For 3 in model code, please select a code for bending radius.
*2. See page 792 for size selection instructions.
*3. See page 797 for the calculation method of the number of links.

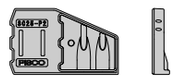
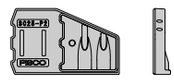
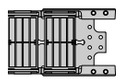
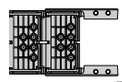
CAD data is available at PISCO website.

One-piece type bracket material for SC series (Standard type only)

Application	For moving-end	For fixed-end
Type	For moving-end 	For fixed-end 
Screwing position	 Inside	 Inside
Orientation	Outer periphery Inner periphery 	Outer periphery Inner periphery

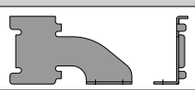
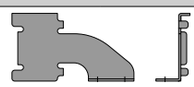
Type	Model code
SC1520	**SC1520-K**
SC2040	**SC2040-K**
SC2540	**SC2540-K**
SC2560	**SC2560-K**
SC2580	**SC2580-K**
SC3560	**SC3560-K**
SC35100	**SC35100-K**

Resin bracket for SC series

Application	For moving-end	For fixed-end
Type	For moving-end 	For fixed-end 
Screwing position	 Inside	 Inside
Orientation	Outer periphery Inner periphery	Outer periphery Inner periphery

Type	Model code
SC1520	**SC15-P**
SC2040	**SC20-P**
SC2540	**SC25-P**
SC2560	**SC25-P**
SC2580	**SC25-P**
SC3560	**SC35-P**
SC35100	**SC35-P**
SCL2020	**SCL20-P**
SCL2050	**SCL20-P**
SCL2570	**SCL25-P**
SCL3050	**SCL30-P**

Separate type bracket material for SC series

Application	For moving-end		For fixed-end	
Type	 For moving-end		 For fixed-end	
Screwing position	Inside	Outside	Inside	Outside
Orientation	Outer periphery Inner periphery	Outer periphery Inner periphery	Outer periphery Inner periphery	Outer periphery Inner periphery

Type	Model code	Model code	Model code	Model code
SC1520	**SC15-A**	**SC15-B**	**SC15-A**	**SC15-B**
SC20□	**SC20-A**	**SC20-B**	**SC20-A**	**SC20-B**
SC25□	**SC25-A**	**SC25-B**	**SC25-A**	**SC25-B**
SC35□	**SC35-A**	**SC35-B**	**SC35-A**	**SC35-B**
SCL2020	**SCL20-A**	**SCL20-B**	**SCL20-A**	**SCL20-B**
SCL2050	**SCL20-A**	**SCL20-B**	**SCL20-A**	**SCL20-B**
SCL2570	**SCL25-A**	**SCL25-B**	**SCL25-A**	**SCL25-B**
SCL3050	**SCL30-A**	**SCL30-B**	**SCL30-A**	**SCL30-B**

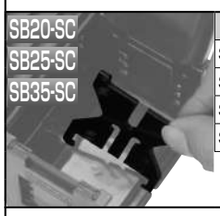
Notes

*1. Separate type bracket and one-piece bracket have common brackets for the moving/fixed-end. Two sets are required for the moving-end and the fixed-end.

*2. Two types of brackets are required, each for separate type bracket and one-piece bracket. Select best-suited bracket for your application from above selection. Moving-end and fixed-end must be ordered separately.

Plarailchain SC, SCL

Divider for SC series



Model code	Applicable models
SB20-SC	SC2040, SCL2050
SB25-SC	SC25□, SCL2570
SB30-SC	SCL3050
SB35-SC	SC35□

Shelf for SC series

Model code	Applicable models
TB2540-SC	SC2540
TB2560-SC	SC2560
TB2570-SC	SCL2570
TB2580-SC	SC2580
TB3050-SC	SCL3050
TB3560-SC	SC3560
TB35100-SC	SC35100

Flap for SC series

SC□Flap

Model code	Applicable models
SC1520Flap	SC1520
SCL2020Flap	SCL2020
SC2040Flap	SC2040
SCL2050Flap	SCL2050
SC2540Flap	SC2540
SC2560Flap	SC2560
SCL2570Flap	SCL2570
SC2580Flap	SC2580
SCL3050Flap	SCL3050
SC3560Flap	SC3560
SC35100Flap	SC35100

Main unit for SC series

SC□Main-body

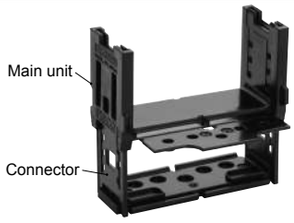
Model code
SC1520-R28Main-body
SC1520-R34Main-body
SC2040-R31Main-body
SC2040-R38Main-body
SC2040-R58Main-body
SC2540-R60Main-body
SC2540-R85Main-body
SC2560-R60Main-body
SC2580-R60Main-body
SC2580-R85Main-body
SC3560-R75Main-body
SC3560-R100Main-body
SC35100-R75Main-body
SC35100-R100Main-body
SC35100-R115Main-body
SCL2020-R36Main-body
SCL2050-R31Main-body
SCL2570-R46Main-body
SCL2570-R64Main-body
SCL3050-R46Main-body

Connector for SC series

SC□Joint

Model code
SC1520Joint
SC2040Joint
SC2540Joint
SC2560Joint
SC2580Joint
SC3560Joint
SC35100Joint
SCL2020Joint
SCL2050Joint
SCL2570Joint
SCL3050Joint

Unit connection drawing



Cable Clamp & Dividing Sheet

PISCO®

>>> https://www.pisco.co.jp/en/

Accessories for Plarailchain

⚠ Safety instructions for this product

Safety instructions, Common safety instructions for each product category and Detailed safety instructions for each product are in the end of this catalog and our website.

Model Designation (Example)

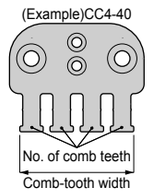
■ Cable clamp

CC (1) 4-40 (2)

(1) Cable clamp

(2) No. of Comb teeth / Comb-tooth width

Code	4-40	5-50	6-60	7-70	8-80	9-90	10-100
No. of Comb teeth	4 pcs.	5 pcs.	6 pcs.	7 pcs.	8 pcs.	9 pcs.	10 pcs.
Comb-tooth width (mm)	38.9	49.2	59.5	69.8	80.1	90.4	100.7



■ CC spacer

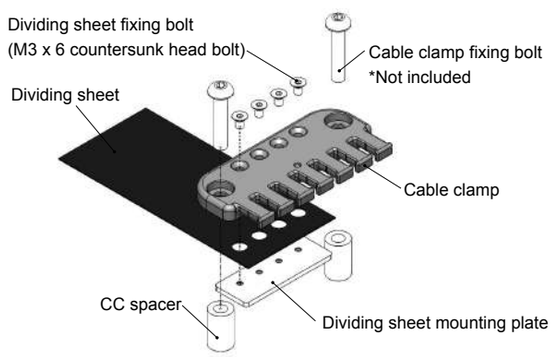
CCS (1) 10 (2)

(1) Spacer for Cable clamp

(2) Height

Code	10	13	16
Height (mm)	10	13	16

*CC spacers are a set of two.



■ Dividing sheet (Made-to-order product)

TS (1) 16 (2) - L1000 (3)

(1) Dividing sheet

(2) Dividing sheet width

Code	16	26	36	46	56	76
Sheet width (mm)	16	26	36	46	56	76
Applicable Cable clamp	CC4-40	CC5-50	CC6-60	CC7-70	CC8-80	CC10-100

(3) Dividing sheet length

Enter the length of the dividing sheet after "L".(Specify between 150 mm and 2,500 mm in 5 mm increments.)

*Length tolerances are listed below.

150mm to 1,000mm: ±2mm

1,000mm to 2,500mm: ±4mm

■ Dividing sheet mounting set

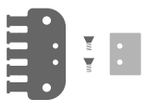
CC (1) 4-40 (2) - SET

(1) Cable clamp

(2) No. of Comb teeth / comb-tooth width

*See Cable clamp model designation

Components of Dividing sheet mounting set



- **Cable clamp (1 pc.)**
- **M3 x 6 countersunk head bolt**
  (See table on the right for quantities)
- **Dividing sheet mounting plate (1 pc.)**

Cable clamp model code	No. of countersunk head bolt	Guideline for applicable inner width (mm)
CC4-40	2	20
CC5-50	2	30
CC6-60	3	40
CC7-70	4	50
CC8-80	5	60
CC10-100	7	80

■ Dividing sheet mounting set + Dividing sheet (Made-to-order product)

CC (1) 4-40 (2) - SET - L1000 (3)

(1) Cable clamp

(2) No. of Comb-teeth / comb-tooth width

*See Cable clamp model designation

(3) Dividing sheet length

*See dividing sheet model designation

Components of Dividing sheet fixing set + Dividing sheet

- **Dividing sheet mounting set (2 sets)**
  *See components of Dividing sheet mounting set.
- **Dividing sheet (1 pc)**

Cable Clamp & Dividing Sheet

Characteristics

- Reduces strains such as pulling or protruding that may cause wear and tear.
- Tubes and cables are easily fixed by simply fastening with cable ties.
  Organizes the inside of the plastic rail chain. *Cable ties are to be prepared by the customer.
- Available in 7 types from 4 to 10 teeth depending on the width.
- By using spacers, cables and tubes can be organized into two layers.
- A set with dividing sheet is also available.

Usage example One layer

Usage example Two layers (in steps)

Usage example Two layers (parallel)

*Cable clamp fixing bolts are not included. Recommended screws; hexagon socket button bolts M5 (2 pcs)

Dividing sheet

- Convenient for organizing tubes and cables when using in two layers.
- Reduces wear between contents.
- Can be ordered in desired lengths in 5mm increments.

Specifications

■ Cable clamp

Body material	PA6 GF35%
Operating temp. range (°C)	-10 to 80
Operating environment	Avoid using in acid/alkaline atmosphere or in hot water.

■ Divider sheet material

Dividing sheet	Ultra-high-molecular-weight polyethylene (UHMW-PE)
CC spacer	Aluminum
Dividing sheet mounting plate	SUS430
Dividing sheet fixing bolt	Alloy Steel

RoHS2 (2011/65/EU+EU2015/863) compliant

Type	Model code	Type	Model code
Cable clamp CC	CC4-40	CC spacer CCS	CCS10
	CC5-50		CCS13
	CC6-60		CCS16
	CC7-70		
	CC8-80		
	CC9-90		
	CC10-100		

*CC spacers are a set of two.

Type	Model code	Applicable Cable clamp
Dividing sheet TS	TS16-L□	CC4-40
	TS26-L□	CC5-50
	TS36-L□	CC6-60
	TS46-L□	CC7-70
	TS56-L□	CC8-80
	TS76-L□	CC10-100

Type	Model code	Type	Model code
Dividing sheet mounting set CC□-SET	CC4-40-SET	Dividing sheet mounting set + Dividing sheet CC□-SET-L	CC4-40-SET-L□
	CC5-50-SET		CC5-50-SET-L□
	CC6-60-SET		CC6-60-SET-L□
	CC7-70-SET		CC7-70-SET-L□
	CC8-80-SET		CC8-80-SET-L□
	CC10-100-SET		CC10-100-SET-L□

CAD data is available at PISCO website.

Notes
*For □ in model code, please select a code for Dividing sheet length.
*For information on how to select dividing sheet length, please contact the nearest sales office.

Cable clamp compatibility table

Approximate inner width for Cable clamp application

Type		CC4-40	CC5-50	CC6-60	CC7-70	CC8-80	CC9-90	CC10-100
Approximate inner width (mm)	When using in one layer	20~50	30~60	40~70	50~80	60~90	70~100	80~110
	When using in two layers	20	30	40	50	60	70	80

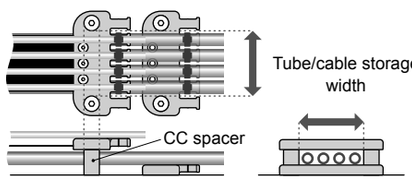
*Note that when using in 2 layers, CC spacers have to be used, which reduces the space on the lower layer and limits the number of cables/hoses stored.

When using in one layer

All comb-teeth can be used

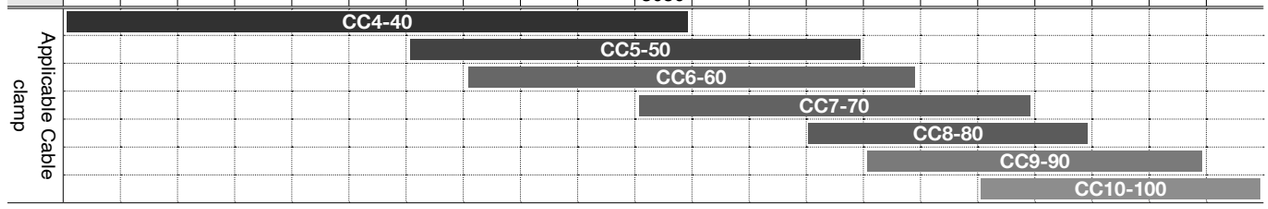
When using in two layers

Only the comb-teeth between the spacers can be used



When using in one layer Reference Table for Plarailchain and Cable clamps

Type	Plarailchain inner width (mm)																				
	20	22	24	25	28	29	35	40	42	44	50	54	58	60	70	75	80	85	97	100	105
HPU	203 204	–	–	–	–	–	–	206	–	306	–	–	408	–	–	–	–	–	412	–	–
HPO	203	204	–	–	–	–	–	–	206	–	–	–	408	–	–	–	–	–	412 512	–	–
HPK	–	–	203	–	–	204	–	–	–	206	–	–	–	–	–	–	–	–	–	–	–
HPM	–	–	–	204	–	205	–	–	–	206	–	–	–	–	–	–	–	–	–	–	–
HPC	–	–	–	–	203 50	–	–	204 100	–	306	–	200	–	–	–	–	–	–	–	–	–
HPE	–	–	–	–	–	–	–	–	–	–	–	–	408	–	–	–	–	–	412	–	–
SP	1520	–	–	–	–	–	2035	–	4542	–	2550	–	–	2560	–	4575 5575 8075	3580	2585	–	45100 55100 80100	35105
SPO	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4575 5575	–	–	–	45100 55100	–
SD	–	–	–	–	–	–	–	–	–	–	2550	–	–	2560	–	–	2580	–	–	–	–
SC	1520	–	–	–	–	–	–	2040 2540	–	–	–	–	–	2560 3560	–	–	2580	–	–	35100	–
SCL	2020	–	–	–	–	–	–	–	–	–	2050 3050	–	–	–	2570	–	–	–	–	–	–



When using in two layers Cable clamp + Dividing sheet compatibility guide table

Approximate inner width (mm)		20		30	40		50	60	80
Applicable Cable clamp		CC4-40		CC5-50	CC6-60		CC7-70	CC8-80	CC10-100
Dividing sheet width (mm)		16		26	36		46	56	76
Plarailchain inner width (mm)		20	22	30	40	42	50	60	80
Type	HPU	203 204	–	–	206	–	–	–	–
	HPO	203	204	–	–	206	–	–	–
	HPC	–	–	–	204 100	–	–	–	–
	SP	1520	–	–	–	–	2550	2560	3580
	SD						2550	2560	2580
	SC	1520	–	–	2040 2540	–	–	2560 3560	2580
	SCL	2020	–	–	–	–	2050 3050	–	–

Safety Instructions

⚠ Safety Instructions

This safety instructions aims to prevent personal injury and damage to properties by proper use of PISCO products. Be certain to follow ISO 4414 and JIS B 8370.

ISO 4414 : Pneumatic fluid power···General rules and safety requirements for systems and their components.

JIS B 8370: Pneumatic fluid power···General rules and safety requirements for systems and their components.

This safety instructions is classified into “Danger”, “Warning” and “Caution” depending on the degree of danger or damages caused by improper use of PISCO products.

⚠ **Danger**	Hazardous conditions. It can cause death or serious personal injury.
⚠ **Warning**	Hazardous conditions depending on usages. Improper use of PISCO products can cause death or serious personal injury.
⚠ **Caution**	Hazardous conditions depending on usages. Improper use of PISCO products can cause minor to moderate personal injury, or damage to or possible damage to property.

⚠ Warning

1. Selection of pneumatic products
   (1) A user who is a pneumatic system designer or has sufficient experience and technical expertise should select pneumatic equipments.
   (2) The products listed in this catalog have various conditions of use. Therefore, the suitability for the system should be determined by a person with sufficient knowledge and experience, such as a pneumatic system designer or a person who determines the specifications, after performing analysis and testing as necessary. The guarantee of the desired performance and safety of the system is also the responsibility of the person who has decided on the suitability of the system. All designers are required to fully understand the specifications of PISCO products based on the latest catalog or information and configure the systems considering the possible failure of the equipment.

2. Pneumatic equipment should only be handled by persons with sufficient knowledge and experience.
   (1) Compressed air is dangerous if handled improperly. Assembly, operation and maintenance of machines and equipment using pneumatic devices must be carried out by persons with sufficient knowledge and experience.

3. Never handle machinery/equipment or remove equipment until safety is confirmed.
   (1) Before inspecting or servicing machines/devices, make sure that workpiece fall prevention measures and runaway prevention devices are installed.
   (2) Before removing the equipment, make sure that the above safety measures are taken, shut off the supply of compressed air and the power supply of the corresponding equipment, and exhaust the compressed air in the system.
   (3) Restart the machines with care after ensuring that all preventive measures against sudden movements are taken.

Warranty

NIHON PISCO CO.,LTD and its subsidiaries and affiliated companies ("PISCO") warrants its product to be free from any defects in material and workmanship for one (1) year from shipment. All other warranties expressed or implied, whether oral or written, including but not limited to warranties for fitness or merchantability for a particular purpose are expressly excluded.
Liability of breach of this warranty in material and workmanship is limited to repair or replacement of defective parts if returned to PISCO with a written notification of the defect of within the period of this warranty.

Disclaimer

This warranty does not apply where the products have been subjected to abuse, misuse, damage, neglect, negligence, accident, improper installation, abnormal physical stress, modified, reconstructed, repaired or altered, or used with any third-party products, hardware.
PISCO shall not be liable for special, indirect, incidental or consequential damages, loss of profits or production or commercial loss in any way connected with the products or services.
In no event shall liability of PISCO exceed the purchase price of defective parts.

*Safety Instructions are subject to change without notice.

⚠ Common Safety Instructions for Products in This Catalog

PISCO products are designed and manufactured for use in general industrial machines. Be sure to read and follow the instructions below.

⚠ Danger

1. Do not use PISCO products for the following applications.
   (1) Equipment used for maintaining/handling human life and body.
   (2) Equipment used for moving/transporting human.
   (3) Equipment specifically used for safety purposes.

⚠ Warning

1. Do not use PISCO products under the following conditions.
   (1) Beyond the specifications or conditions stated in the catalog or the instructions.
   (2) In the direct sunlight or outdoors.
   (3) In locations subject to excessive vibration and shock.
   (4) In an atmosphere or in a place with exposure to or adhering to corrosive gases, inflammable gases, chemicals, seawater, water, or steam.
   *Some products can be used under the above conditions. Refer to the details of specifications and conditions of each product.

2. Do not disassemble or modify PISCO products, which affect the performance, function, and basic structure of the product.

3. Do not touch the release-ring of a push-in fitting when there is a working pressure. The lock may be released by the physical contact, and tube may fly out or slip out.

4. Frequent switchover of compressed air may generate heat. There is a risk of causing burn injury.

5. If PISCO product itself generates heat by an adiabatic compression or etc., be sure to use it within the operating temperature range, including the heat generated by the product.

6. Avoid any load on PISCO products, such as, a tensile strength, twisting and bending. Otherwise, there is a risk of causing damage to the products.

7. As for applications where threaded body or tubes swing/rotate, use Rotary Joints, High Rotary Joints or Multi-Circuit Rotary Block only. There is a risk of damage to the product due to swinging or rotation.

8. As for the condition requiring to dissipate static electricity or provide an antistatic performance, use antistatic products only, and do not use other PISCO products. There is a risk that static electricity may cause system failure or malfunction.

9. Do not use products other than those of spark-resistant (anti-spatter) or brass specifications in places where sparks may be generated. There is a risk of causing fire by sparks.

10. Turn off the power supply to PISCO products, and make sure there is no residual air pressure in the pipes and equipment before maintenance. Follow the instructions below in order to ensure the safety.
    (1) Make sure the safety of all systems related to PISCO products before maintenance.
    (2) Restart of operation after maintenance shall be proceeded with care after ensuring the safety of the system by preventive measures against unexpected movements of machines and devices where pneumatic equipment is used.
    (3) Keep enough space for maintenance and inspection when designing the circuit.

11. If there is a risk of damage to the machine or equipment or a disaster due to leakage of the fluid used, implement safety measures such as protective covers in advance.

12. Do not forcibly rotate or swing the product even its resin body rotates. It may cause damage to the product or leakage.

13. Do not run excessive dry air more than necessary. Deterioration of rubber parts may cause operation failure.

14. Do not clean or paint with solvents. It may cause damage to parts or malfunction due to painting.

15. Do not step on top of the product or place any objects on it. These may cause a fall, injury from the product tipping over or falling, or malfunction due to product damage.

16. The direction of air control varies depending on the product, check the instructions and the marking on the product before use. Installing the product with incorrect control direction may cause personal injury, damage to the equipment, or performance degradation.

⚠ Caution

1. Compressed air contains a large amount of condensate/drains (water, oxidized oil, tar, and foreign matter). Dehumidify the compressed air by using an after-cooler or a dryer and improve the air quality, since drains significantly reduce product performance. Also, place an air filter just upstream from the compressed air supply section.

2. Contamination by foreign matters may cause product failure, malfunction, or performance degradation. It is also recommended to flush the inside of the piping before use and every appropriate period of time. When flushing products with push-in fittings, attach nipples or short tubes. The sealing parts of the push-in fitting may fly out of the product.

3. When inserting an ultra-soft tube into a push-in fitting, be sure to place an Insert Ring into the tube from the tube edge to be installed. If not placed, it may cause the tube to slip out or leak.

4. Products using NBR as the rubber material for seal rubber, vacuum pads, and gaskets may crack under the influence of ozone, leading to failure. Ozone concentration is higher than normal near static elimination air, clean-room, and the high-voltage motors, etc. As a countermeasure, material change from NBR to HNBR or FKM is necessary. Consult with PISCO for more information.

5. Special option “Oil-free” products may cause a very small amount of a fluid leakage. Consult with PISCO for further information when a fluid medium is liquid or the products are required to be used with severe environments.

6. When using non-PISCO brand tubes, make sure the tolerance of the outer tube diameter and tube hardness are within the limits of Table 1.

Safety Instructions

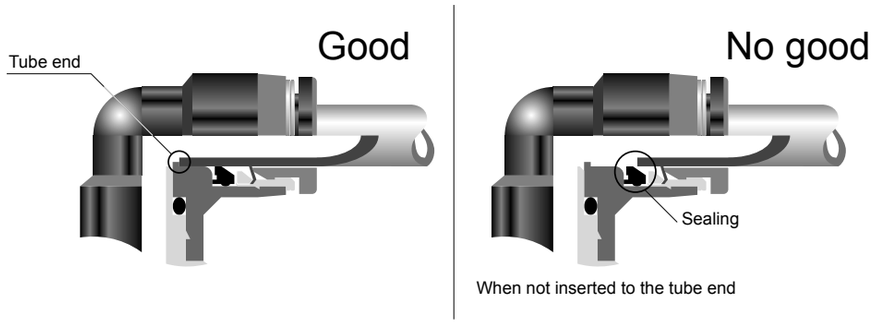
●Table 1. Tube O.D. Tolerance

mm size	Nylon tube (SHORE D63)	Polyurethane tube (SHORE A98)
ø1.8mm	—	±0.05mm
ø2mm	—	±0.05mm
ø3mm	—	±0.15mm
ø4mm	±0.1mm	±0.15mm
ø6mm	±0.1mm	±0.15mm
ø8mm	±0.1mm	±0.15mm
ø10mm	±0.1mm	±0.15mm
ø12mm	±0.1mm	±0.15mm
ø16mm	±0.1mm	±0.15mm

inch size	Nylon tube (SHORE D63)	Polyurethane tube (SHORE A98)
ø1/8	±0.1mm	±0.15mm
ø5/32	±0.1mm	±0.15mm
ø3/16	±0.1mm	±0.15mm
ø1/4	±0.1mm	±0.15mm
ø5/16	±0.1mm	±0.15mm
ø3/8	±0.1mm	±0.15mm
ø1/2	±0.1mm	±0.15mm
ø5/8	±0.1mm	±0.15mm

7. As for Push-In Fitting Type, the functional part where tube is inserted may slightly slide due to an internal pressure change, and this may generate dusts. Avoid using the products in the clean-room of ISO class from 1 to 5. Under operating conditions where the joint and tube are subject to swing, check the amount of dust generated by the actual operating condition before use.

8-1. Precautions for tube insertion (push-in fitting)



(1) Make sure that the cut end face of the tube is at a right angle without a scratch or flaws on the tube surface or without elliptical deformations.
(2) When installing the tube, if the tube is not inserted to the tube end (refer to Fig. Good), it may cause fluid leakage.
(3) After installation, pull the tube to make sure it will not come loose.
(4) The following phenomena may occur when the tube is attached, but it does not necessarily mean that the tube will slip out.
(i) When observing lock-claws from the front of the release-ring, it is difficult to see lock-claws.
(ii) There is no click feeling even if you press Release-ring.
The most common causes of tube disengagement are (1) shear drop of the tip of the lock-claws and (2) abnormal (smaller) tube diameter. Therefore, even if the above phenomena (i) and (ii) occur, install the tube according to Procedures (1) to (3).
(5) The oil-free specification product has a tighter tube fit than the standard type. Be sure to insert tube up to the tube end.

8-2. Precautions for Tube Insertion (Compression Fitting)
(1) Make sure that the cut end face of the tube is at a right angle without a scratch or flaws on the inner and outer surface.
(2) Insert the tube through the cap nut to the base of the barb. Next, use a spanner to tighten the outer hexagonal column of the cap nut that has been passed through the tube.
(3) When tightening the cap nut, refer to the tightening torque described in the connection/disconnection method of each product.
*Hold the tube when tightening the cap nut, since the tube may rotate along with the nut.
(4) Make sure that the cap nut is against and hit the metal body. If not fit, loosen the nut, remove the tube and start over again from the process (1).
(5) Make sure that there is no fluid leakage after tightening.
(6) After installation, pull the tube moderately to make sure it will not come loose.

9-1. Precautions for tube release (push-in fitting)
(1) Make sure that the pressure inside the tube is zero before releasing the tube.
(2) Push the release-ring of the push-in fitting evenly and all the way down to pull out the tube. If the release-ring is not pressed sufficiently, the tube may not come out, or the tube may be scratched and its debris may remain in the fitting.

9-2. Precautions for Tube Release (Compression Fitting)
(1) Make sure that the pressure inside the tube is zero before releasing the tube.
(2) Use a suitable tool on the hexagonal part of the cap nut to remove it. Then, disconnect/release the tube.

10. Precautions for installing product
(1) When installing the product, use an appropriate tool that does not interfere with performance, and tighten using the outer or inner hexagonal part or the outer square part. Also, when inserting a hex key into the inner hexagonal part, be careful not to let the tool come into contact with the lock-claws. Deformation at the tip of the lock-claws may reduce the holding function of the tube and cause the tube to slip out.
(2) When tightening the threaded body, refer to the tightening torque in the table on the next page and the allowable torque of the tool. Failure to tighten the threaded body with proper torque may result in damage to the product or tool, loosening of the thread, or leakage.
(3) Since the sealing performance of the thread is easily affected by the processing condition of the installation part, modify the installation part, use seal tape, or adjust the tightening torque according to the situation.
(4) For products whose piping direction cannot be changed by body rotation after tightening, adjust within the tightening torque range of the main body.
(5) Creep or distortion of the gasket may cause loosening of the threaded body. Periodically check the looseness of the threaded body and retighten it with tightening torque if necessary.

●Table 2. Tightening Torque, Sealock Color, and Gasket Material

Thread type	Thread size	Tightening torque	Sealock color	Gasket materials
Metric thread	M3×0.5	0.7N·m	—	SPCC+NBR SUS304+NBR
	M5×0.8	1 to 1.5N·m		
	M6×1	2 to 2.7N·m		
	M3×0.5	0.7N·m		POM
	M5×0.8	1 to 1.5N·m		
	M6×0.75	0.8 to 1N·m		
	M8×0.75	1 to 2N·m		
Taper pipe thread	R1/8	4.5 to 6.5N·m	White	—
	R1/4	7 to 9N·m		
	R3/8	12.5 to 14.5N·m		
	R1/2	20 to 22N·m		
Unified thread	No.10-32UNF	1 to 1.5N·m	—	SPCC+NBR, SUS304+NBR
National Pipe Thread Taper (American standard)	1/16-27NPT	4.5 to 6.5N·m	White	—
	1/8-27NPT	4.5 to 6.5N·m		
	1/4-18NPT	7 to 9N·m		
	3/8-18NPT	12.5 to 14.5N·m		
	1/2-14NPT	20 to 22N·m		

*These values may differ for some products. Refer to the precautions and specification for each product as well.

11. Instructions for removal
    (1) When removing the product, use an appropriate tool that does not interfere with performance, and tighten using the outer or inner hexagonal part or the outer square part. Also, when inserting a hex key into the inner hexagonal part, be careful not to let the tool come into contact with the lock-claws. Deformation at the tip of the lock-claws may reduce the holding function of the tube and cause the tube to slip out.
    (2) Remove the sealant or a foreign substance on the removed mating thread. If the sealant remains, it may get into the devices and cause a malfunction.

12. Plumbing should be made so that fittings and tubes are not subjected to twisting, tension, moment loads, vibration, or physical impact. It may cause damage to the tube, deforming of the tube, or the tube to burst or come off.

13. Instructions for handling products
    (1) Impact applied by falling or else may cause damage or fluid leakage.

Safety Instructions

⚠ Common Safety Instructions for Fittings

Be sure to read the followings before selecting or using PISCO products. Read the detailed precautions, instructions and specifications for individual series.

⚠ Warning

1. Do not use water to clean products that cannot be used with water. It may cause malfunction.

⚠ Caution

1. Tighten the bulkhead nut of the bulkhead fittings within the specified tightening torque range.

● Bulkhead nut tightening torque

Series	Fitting size (Tube O.D.)	Tightening torque Bulkhead Union (PM)	Tightening torque Bulkhead Union P (PMP), Bulkhead Union Elbow (PML)
Tube Fitting Standard	4	12.0 to 14.0N·m	0.4 to 0.6N·m
	6	18.0 to 21.0N·m	0.9 to 1.1N·m
	8	18.0 to 21.0N·m	1.1 to 1.3N·m
	10	19.0 to 21.0N·m	2.3 to 2.7N·m
	12	19.0 to 21.0N·m	2.7 to 3.3N·m
	16	42.0 to 54.0N·m	–
Tube Fitting Mini	1.8	0.8 to 1.0N·m	–
	2	0.8 to 1.0N·m	
	3	2.5 to 3.5N·m	
	4	5.0 to 7.0N·m	
	6	12.0 to 14.0N·m	

2. Bulkhead nut may become loose if an object between the nut is susceptible to deformation or it has oil on the surface.

Tube Fitting Standard Series

⚠ Detailed Safety Instructions

Warning

1. When the fluid medium is water, do not use fittings unless the operating environment meets all the described specifications in the catalog. Otherwise, it may cause damage to the products, the escape of tubes and a fluid leakage.

Caution

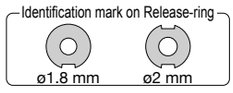
1. To adjust the direction of the elbow fitting after fixing PML (Bulkhead Union Elbow) type, turn it in the clock-wise (right) direction.
2. Attach a rubber washer to the aluminum nut side when installing PML (Bulkhead Union Elbow) type. The bulkhead parts may be loosened or the rubber washer may deform if attaching it to the hexagonal side.

Tube Fitting Mini Series

⚠ Detailed Safety Instructions

Caution

1. There is no tube size indication on release ring of ø1.8 mm and ø2 mm.
   Identification between ø1.8 mm and ø2 mm is as shown in the right figure.



Minimal Fitting

⚠ Detailed Safety Instructions

Caution

1. Make sure to insert the barb into a tube up to the barb end. Inadequate insertion may result in the escape of the tube and a fluid leakage.
2. Be sure to place Tube Clamp Sleeve on the edge of outer tube when using Vacuum Tube "UD" with this product. There is a possibility to cause the escape of tube and a fluid leakage without Tube Clamp Sleeve.
3. Tighten the nut by hand until it touches the metallic body. Inadequate tightening may result in the escape of the tube and a fluid leakage.
4. When using non-PISCO brand tubes, make sure the tolerance of the outer/inner tube diameter is within the limits of the following table.

● Tube O.D. & I.D. Tolerance table

Tube O.D. × I.D. (mm size)	Nylon Tube		Polyurethane Tube	
	Tube O.D.	Tube I.D.	Tube O.D.	Tube I.D.
3×2	–	–	ø3 mm ±0.1 mm	ø2 mm ±0.26 mm
4×2.5	ø4 mm ±0.1 mm	ø2.5 mm ±0.26 mm	ø4 mm ±0.1 mm	ø2.5 mm ±0.26 mm
6×4	ø6 mm ±0.1 mm	ø4 mm ±0.26 mm	ø6 mm ±0.1 mm	ø4 mm ±0.3 mm

Tube Fitting SUS316

⚠ Detailed Safety Instructions

Warning

1. Check chemical resistance before using the products, when the fluid medium is chemicals, solvent or mixed gases. Depending on the conditions, it may cause damage to the products, the escape of tubes, and a fluid leakage.
2. When the fluid medium is water or liquid, do not use fittings unless the operating environment meets all the described specifications in the catalog. Otherwise, it may cause damage to the products, the escape of tubes and a fluid leakage.
3. Be sure to place Insert Ring into the tube edge under the following usage conditions:
   1) where fluid medium temperature or operating temperature varies sharply.
   2) where the product is used under high temperature.
   Otherwise it may cause the escape of tubes and a fluid leakage.

Caution

1. Taper thread is not coated with Sealock. When coating the thread with seal tape or sealant, do not coat 1.5 to 2 screw ridges from the tip of the thread.
2. The level of corrosion and dust emission from the fittings varies by operating conditions. If there is a possibility of negative effects on machines or facilities due to these conditions, evaluate the suitability of the products in advance.

SUS316 Compression Fitting Series

⚠ Detailed Safety Instructions

Warning

1. Check chemical resistance before using the products, when the fluid medium is chemicals, solvent or mixed gases. Depending on the conditions, it may cause damage to the products, the escape of tubes, and a fluid leakage.

Caution

1. Taper thread is not coated with Sealock. When coating the thread with seal tape or sealant, do not coat 1.5 to 2 screw ridges from the tip of the thread.
2. The level of corrosion of the fittings varies by operating conditions. If there is a possibility of negative effects on machines or facilities due to these conditions, evaluate the suitability of the products in advance.
3. Be sure to tighten a cap nut properly referring to the right table. Excessive tightening may break or deform the fitting part. Inadequate tightening may result in the escape of the tube and a fluid leakage.
4. When using non-PISCO brand tubes, make sure the tolerance of the outer/inner tube diameter is within the limits of the following table.

● Tightening torque table of Tightening nut

Tube O.D.	Tightening torque
ø4 mm	20N · m max.
ø6 mm, ø1/4	25N · m max.
ø8 mm	27.5N · m max.
ø10 mm, ø3/8	30N · m max.
ø12 mm, ø1/2	32.5N · m max.
ø16 mm	35N · m max.

● Tube O.D. & I.D. Tolerance table

Tube O.D. × I.D. (mm size)	Nylon Tube		Polyurethane Tube	
	Tube O.D.	Tube I.D.	Tube O.D.	Tube I.D.
4×2.5	ø4 mm ±0.1 mm	ø2.5 mm ±0.26 mm	ø4 mm ±0.1 mm	ø2.5 mm ±0.26 mm
6×4	ø6 mm ±0.1 mm	ø4 mm ±0.26 mm	ø6 mm ±0.1 mm	ø4 mm ±0.3 mm
8×5	—	—	ø8 mm ±0.1 mm	ø5 mm ±0.4 mm
8×6	ø8 mm ±0.1 mm	ø6 mm ±0.3 mm	—	—
10×6.5	—	—	ø10 mm ±0.1 mm ø10 mm ±0.15 mm	ø6.48 mm ±0.48 mm
10×7.5	ø10 mm ±0.1 mm	ø7.5 mm ±0.3 mm	—	—
12×8	—	—	ø12 mm ±0.1 mm ø12 mm ±0.15 mm	ø7.98 mm ±0.53 mm
12×9	ø12 mm ±0.1 mm	ø9 mm ±0.36 mm	—	—
16×11	—	—	ø16 mm ±0.1 mm	ø10.98 mm ±0.63 mm
16×13	ø16 mm ±0.1 mm	ø13 mm ±0.4 mm	—	—

Tube O.D. × I.D. (inch size)	Nylon Tube		Polyurethane Tube	
	Tube O.D.	Tube I.D.	Tube O.D.	Tube I.D.
6.35×4.15	—	—	ø6.35 mm ±0.1 mm	ø4.15 mm ±0.3 mm
6.35×4.57	ø6.35 mm ±0.1 mm	ø4.57 mm ±0.26 mm	—	—
9.53×5.99	—	—	ø9.53 mm ±0.1 mm ø9.53 mm ±0.15 mm	ø5.97 mm ±0.49 mm
9.53×6.99	ø9.53 mm ±0.1 mm	ø6.99 mm ±0.3 mm	—	—
12.7×8.5	—	—	ø12.7 mm ±0.1 mm ø12.7 mm ±0.15 mm	ø8.48 mm ±0.53 mm
12.7×9.56	ø12.7 mm ±0.1 mm	ø9.56 mm ±0.36 mm	—	—

Tube Fitting Stainless SUS304 Series

⚠ Detailed Safety Instructions

Warning

1. Check chemical resistance before using the products, when the fluid medium is chemicals, solvent or mixed gases. Depending on the conditions, it may cause damage to the products, the escape of tubes, and a fluid leakage.

Safety Instructions

2. When the fluid medium is water or liquid, do not use fittings unless the operating environment meets all the described specifications in the catalog. Otherwise, it may cause damage to the products, the escape of tubes and a fluid leakage.

Caution

1. The level of corrosion of the fittings varies by operating conditions. If there is a possibility of negative effects on machines or facilities due to these conditions, evaluate the suitability of the products in advance.

Tube Fitting Stainless SUS303 Equivalent Corrosivity Series

⚠ Detailed Safety Instructions

Warning

1. When the fluid medium is water or liquid, do not use fittings unless the operating environment meets all the described specifications in the catalog. Otherwise, it may cause damage to the products, the escape of tubes and a fluid leakage.
2. 2. This series can not be used if a fluid medium is a chemical. Select a suitable product after checking the chemical resistance.

Caution

1. The level of corrosion of the fittings varies by operating conditions. In case there is a possibility of negative effects on machines or facilities due to these conditions, evaluate the suitability of the products in advance.

Minimal Fitting Stainless SUS303 Equivalent Corrosivity Series

⚠ Detailed Safety Instructions

Caution

1. PPS resin has a characteristic of color change by being exposed to sunlight, fluorescent light, mercury lamp, high temperatures and etc. for a long period of time. The color change will not affect product performance.
2. Be sure to insert the barb into a tube up to the barb end. Inadequate insertion may result in the escape of the tube and a fluid leakage.
3. Be sure to place Tube Clamp Sleeve (LS) on the edge of outer tube when using Vacuum Tube "UD" with this product. There is a possibility to cause the escape of tube and a fluid leakage without Tube Clamp Sleeve.
4. The level of corrosion of the fittings varies by operating conditions. If there is a possibility of negative effects on machines or facilities due to these conditions, evaluate the suitability of the products in advance.
5. When using non-PISCO brand tubes, make sure the tolerance of the outer/inner tube diameter is within the limits of the following table.

● Tube O.D. & I.D. Tolerance table

Tube O.D. × I.D. (mm size)	Nylon Tube		Polyurethane Tube	
	Tube O.D.	Tube I.D.	Tube O.D.	Tube I.D.
3×2	—	—	ø3 mm ±0.1 mm	ø2 mm ±0.26 mm
4×2.5	ø4 mm ±0.1 mm	ø2.5 mm ±0.26 mm	ø4 mm ±0.1 mm	ø2.5 mm ±0.26 mm
6×4	ø6 mm ±0.1 mm	ø4 mm ±0.26 mm	ø6 mm ±0.1 mm	ø4 mm ±0.3 mm

Tube Fitting Chemical

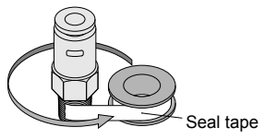
⚠ Detailed Safety Instructions

Warning

1. Check chemical resistance before using the products, when the fluid medium is chemicals, solvent or mixed gases. Depending on the conditions, it may cause damage to the products, the escape of tubes, and a fluid leakage.
2. When the fluid medium is water or liquid, do not use fittings unless the operating environment meets all the described specifications in the catalog. Otherwise, it may cause damage to the products, the escape of tubes and a fluid leakage.
3. This series has seal rubber material options, but there is no identification by material. Store each product properly not to mix up, after opening their packages.

Caution

1. PPS resin has a characteristic of color change by being exposed to sunlight, fluorescent light, mercury lamp, high temperatures and etc. for a long period of time. The color change will not affect product performance.
2. Taper thread is not coated with Sealock. When coating the thread with seal tape or sealant, do not coat 1.5 to 2 screw ridges from the tip of the thread. See the right figure.



3. Tighten taper thread by hand until it stops, then use a wrench to tighten it about 2 or 3 more turns. Excessive tightening may break the thread part. Inadequate tightening may cause a loosened thread or a fluid leakage.
4. Resin type taper thread may have a fluid leakage or get loosened caused by “creep phenomena”, due to a long term use of the thread. Check the tightening condition periodically and re-torque the thread to prevent leaks. If re-torque of the thread does not solve a leakage problem, replace it with a new one.
5. Due to the resin-made collet, there is a possibility that the hard type tubes and the stem type of non-Chemical Series may have a problem of escape. Verify the matching of connections before using the products.
6. Unequal Union Stem (APIG) is the specialized stem type for Tube Fitting Chemical Series only. Since PPS of this series contains 30% of GF (glass fiber), it may have a problem of escape with non-Chemical Series.
7. Tube insertion into this product is tighter than that of Tube Fitting Standard Series due to its oil-free specification. Be sure to insert tube up to tube end. When inserting a tube, put a liquid like water on the tube, which does not affect the product and the tube. It will improve the smoothness of tube insertion.
8. The seal rubber material EPDM is not suitable for general air pipings, due to its inferior durability against mineral oil.

Tube Fitting PP/SUS304

⚠ Detailed Safety Instructions

Warning

1. Check chemical resistance before using the products, when the fluid medium is chemicals, solvent or mixed gases. Depending on the conditions, it may cause damage to the products, the escape of tubes, and a fluid leakage.
2. When the fluid medium is water or liquid, do not use fittings unless the operating environment meets all the described specifications in the catalog. Otherwise, it may cause damage to the products, the escape of tubes and a fluid leakage.
3. This series has seal rubber material options, but there is no identification by material. Store each product properly not to mix up, after opening their packages.
4. Resin can be deteriorated by being exposed to direct sunlight or ultraviolet rays.
5. Max operating pressure varies depending on operating temperature range. Be sure to check the chart "Relation of Operating Temp. & Max. Operating Pressure" and use the products within the indicated range.

Caution

1. The seal rubber material EPDM is not suitable for general pneumatic circuit, due to its inferior durability against mineral oil.
2. When coating the thread with seal tape or sealant, do not coat 1.5 to 2 screw ridges from the tip of the thread.
3. Tighten taper thread by hand until it stops, then use a wrench to tighten it about 2 or 3 more turns. Excessive tightening may break the thread part. Inadequate tightening may cause a loosened thread or a fluid leakage.
4. Resin type thread may have a fluid leakage or get loosened caused by “creep phenomena”, due to a long term use of the thread. Check the tightening condition periodically and re-torque the thread to prevent leaks. If re-torque of the thread does not solve a leakage problem, replace it with a new one.
5. Tube insertion into this product is tighter than that of Tube Fitting Standard Series due to its oil-free specification. Be sure to insert tube up to tube end. When inserting a tube, put a liquid like water on the tube, which does not affect the product and the tube. It will improve the smoothness of tube insertion.
6. Tighten a bulkhead nut of Bulkhead Union P (PPMP) type with tightening torque shown in the table below. A fluid leakage may be caused by "creep phenomena" due to a long term use of the resin thread. Check the tightening condition periodically and re-torque the thread to prevent leaks. If re-torque of the thread does not solve a leakage problem, replace it with a new one.

● Bulkhead nut tightening torque table

Type	Thread size	Tightening torque
PPMP4	M12×1.5	0.5 to 0.7N · m
PPMP6	M14×1.5	0.7 to 0.9N · m
PPMP8	M16×1.5	0.8 to 1.0N · m
PPMP10	M20×2	1.5 to 1.9N · m
PPMP12	M24×2	2.2 to 2.8N · m

7. The level of corrosion and dust emission from the fittings varies by operating conditions. If there is a possibility of negative effects on machines or facilities due to these conditions, evaluate the suitability of the products in advance.

Tube Fitting PP/SUS303 Equivalent Corrosivity Series

⚠ Detailed Safety Instructions

Warning

1. Check chemical resistance before using the products, when the fluid medium is chemicals or mixed gases. Depending on the conditions, it may cause damage to the products, the escape of tubes, and a fluid leakage.
2. When the fluid medium is water or liquid, do not use fittings unless the operating environment meets all the described specifications in the catalog. Otherwise, it may cause damage to the products, the escape of tubes and a fluid leakage.
3. Resin can be deteriorated by being exposed to direct sunlight or ultraviolet rays.
4. Max operating pressure varies depending on operating temperature range. Be sure to check the chart "Relation of Operating Temp. & Max. Operating Pressure" and use the products within the indicated range.

Caution

1. The seal rubber material EPDM is not suitable for general pneumatic circuit, due to its inferior durability against mineral oil.
2. When coating the thread with seal tape or sealant, do not coat 1.5 to 2 screw ridges from the tip of the thread.
3. Tighten taper thread by hand until it stops, then use a wrench to tighten it about 2 or 3 more turns. Excessive tightening may break the thread part. Inadequate tightening may cause a loosened thread or a fluid leakage.
4. Resin type thread may have a fluid leakage or get loosened caused by “creep phenomena”, due to a long term use of the thread. Check the tightening condition periodically and re-torque the thread to prevent leaks. If re-torque of the thread does not solve a leakage problem, replace it with a new one.
5. Tube insertion into this product is tighter than that of Tube Fitting Standard Series due to its oil-free specification. Be sure to insert tube up to tube end. When inserting a tube, put a liquid like water on the tube, which does not affect the product and the tube. It will improve the smoothness of tube insertion.
6. Tighten a bulkhead nut of Bulkhead Union P (SPPMP) type with tightening torque shown in the table below. A fluid leakage may be caused by "creep phenomena" due to a long term use of the resin thread. Check the tightening condition periodically and re-torque the thread to prevent leaks. If re-torque of the thread does not solve a leakage problem, replace it with a new one.

● Bulkhead nut tightening torque table

Model code	Thread size	Tightening torque
SPPMP4	M12×1.5	0.5 to 0.7N·m
SPPMP6	M14×1.5	0.7 to 0.9N·m
SPPMP8	M16×1.5	0.8 to 1.0N·m
SPPMP10	M20×2	1.5 to 1.9N·m
SPPMP12	M24×2	2.2 to 2.8N·m

7. The level of corrosion and dust emission from the fittings varies by operating conditions. If there is a possibility of negative effects on machines or facilities due to these conditions, evaluate the suitability of the products in advance.

Safety Instructions

Tube Fitting Anti-Static

⚠ Detailed Safety Instructions

Caution

1. Use an earth wire to release a static electricity after installing Tube Fitting Anti-Static series. Otherwise, the electricity may remain on the fitting and tube.
2. Use anti-static tube for Tube Fitting Anti-Static series.

Tube Fitting Anti-spatter (Flame resistant)

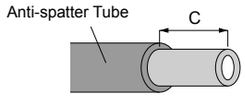
⚠ Detailed Safety Instructions

Warning

1. When the fluid medium is water, do not use fittings unless the operating environment meets all the described specifications in the catalog. Otherwise, it may cause damage to the products, the escape of tubes and a fluid leakage.

Caution

1. When using Anti-spatter Tube, peel the cover as specified in the following table. If the tube is not peeled properly, it may cause the escape of a tube, a fluid leakage or make it impossible to insert the tube into Push-In Fitting. *PISCO product Tube Stripper for Anti-spatter tube (TSC) can help you to peel the cover easily.



Fitting size (Tube O.D.)	ø4 mm	ø6 mm	ø8 mm	ø10 mm	ø12 mm
Peeled length (C)	15.5 mm	16.5 mm	17.5 mm	20 mm	23.5 mm

*PISCO product Tube Stripper for Anti-spatter tube can help you to peel the cover easily.

2. Spatter may accumulate on the release ring when using Plug (PP) type.

Tube Fitting Brass

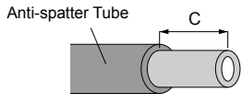
⚠ Detailed Safety Instructions

Warning

1. When the fluid medium is water or heat medium oil, do not use fittings unless the operating environment meets all the described specifications in the catalog. Otherwise, it may cause damage to the products, the escape of tubes and a fluid leakage.
2. This series has seal rubber material options, but there is no identification by material. Store each product properly not to mix up, after opening their packages.
3. Thread body of some types in Tube Fitting Brass series is rotatable. Do not rotate and swing it forcibly or continuously. It may cause damage to the products and a fluid leakage.
4. Select seal rubber material considering sufficient margin to the operating temperature range. Seal rubber material can be worn out by heat and may cause a fluid leakage. Perform maintenance periodically and in case leaks are found, replace the product with a new one promptly.
5. Solidified heat medium oil on the release ring or the guide ring may cause trouble with the ring's release/lock function. Make sure that heat medium oil does not adhere on the release ring and the guide ring when using the product. Also, make sure that the tube does not escape when re-inserting it into the product.

Caution

1. When using Anti-spatter Tube for Release ring cover type, peel the cover of the tube as specified in the following table. If the tube is not peeled properly, it may cause the escape of a tube, a fluid leakage or make it impossible to insert the tube into Push-In Fitting. *PISCO product Tube Stripper for Anti-spatter tube (TSC) can help you to peel the cover easily.



Fitting size (Tube O.D.)	ø4 mm	ø6 mm	ø8 mm	ø10 mm	ø12 mm
Peeled length (C)	15.5 mm	16.5 mm	17.5 mm	20 mm	23.5 mm

* PISCO product Tube Stripper for Anti-spatter tube can help you to peel the cover easily.

2. Spatter may accumulate on the release ring when using Plug (PP) type.

Brass Compression Fitting

⚠ Detailed Safety Instructions

Warning

1. Check chemical resistance before using the products, when the fluid medium is chemicals or mixed gases. Depending on the conditions, it may cause damage to the products, the escape of tubes, and a fluid leakage

Caution

1. Taper thread is not coated with Sealock. When coating the thread with seal tape or sealant, do not coat 1.5 to 2 screw ridges from the tip of the thread.
2. The level of corrosion of the fittings varies by operating conditions. If there is a possibility of negative effects on machines or facilities due to these conditions, evaluate the suitability of the products in advance.
3. Special brass without surface treatment has a characteristic of color change by being exposed to high humidity or by sebum when touched. The color change will not affect product performance.
4. When using non-PISCO brand tubes, make sure the tolerance of the outer/inner tube diameter is within the limits of the following table.

● Tube O.D. & I.D. Tolerance table

Tube O.D. × I.D. (mm size)	Nylon Tube		Polyurethane Tube	
	Tube O.D.	Tube I.D.	Tube O.D.	Tube I.D.
4×2.5	ø4 mm ±0.1 mm	ø2.5 mm ±0.26 mm	ø4 mm ±0.1 mm	ø2.5 mm ±0.26 mm
6×4	ø6 mm ±0.1 mm	ø4 mm ±0.26 mm	ø6 mm ±0.1 mm	ø4 mm ±0.3 mm
8×5	—	—	ø8 mm ±0.1 mm	ø5 mm ±0.4 mm
8×6	ø8 mm ±0.1 mm	ø6 mm ±0.3 mm	—	—
10×6.5	—	—	ø10 mm ±0.1 mm ø10 mm ±0.15 mm	ø6.48 mm ±0.48 mm
10×7.5	ø10 mm ±0.1 mm	ø7.5 mm ±0.3 mm	—	—
12×8	—	—	ø12 mm ±0.1 mm ø12 mm ±0.15 mm	ø7.98 mm ±0.53 mm
12×9	ø12 mm ±0.1 mm	ø9 mm ±0.36 mm	—	—
16×11	—	—	ø16 mm ±0.1 mm	ø10.98 mm ±0.63 mm
16×13	ø16 mm ±0.1 mm	ø13 mm ±0.4 mm	—	—

Die Temperature Control Fitting

⚠ Detailed Safety Instructions

Warning

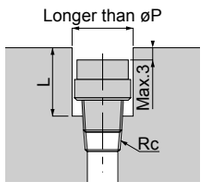
1. When the fluid medium is water or heat medium oil, do not use fittings unless the operating environment meets all the described specifications in the catalog. Otherwise, it may cause damage to the products, the escape of tubes and a fluid leakage.
2. Before uncoupling the plug, make sure there is no pressure in the pipe, and the temperature of fluid such as water and heat medium oil is 30°C and under. Otherwise, there is a possibility that the plug jumps out and cause injury or burns.
3. Do not touch the sleeve when a compressed fluid still remains in the pipe. There is a possibility that plug can be pulled out unexpectedly by touching it physically.
4. When a plug is installed in a socket, push the plug into the socket to fix properly until it stops. It may cause a disconnection of the plug if it is installed incompletely. After installing, pull the plug toward oneself moderately to make sure it is connected properly.
5. As for barb type, use the I.D.6.3 mm (1/4 in.) heat-proof hose for ID06 and the I.D.9.5 mm (3/8 in.) heatproof hose for ID09. Usage of improper size of hoses may result in a poor connection, the escape of hose and a fluid leakage, etc.
6. Be sure to insert the barb into hose up to the barb end and fix it by a hose band which is commercially available. There is a possibility of the hose escape or a fluid leakage by a poor connection of the barb or without the hose band.
7. Select seal rubber material considering sufficient margin to the operating temperature range. Seal rubber material can be worn out by heat and may cause a fluid leakage. Perform maintenance periodically and in case leaks are found, replace the product with a new one promptly.

Caution

1. When the socket is embedded in a molding die, the top surface of the socket must be 3 mm (0.12 in.) deep at maximum from the surface of the die. If the depth is more than 3 mm (0.12 in.), it can be difficult or impossible to uncouple the plug. *Refer to "Die Processing Dimension" .

● Die Processing Dimension

Drill a molding die as the referential dimensions “øP” and “L” in order to embed a socket.



Unit: mm

Model code	Rc	L	øP
AK 08-01S	Rc1/8	14.5	15
AK 08-02S	Rc1/4	14	15
AK (AS) 10-01S	Rc1/8	17	18
AK (AS) 10-02S	Rc1/4	17	18
AK (AS) 10-03S	Rc3/8	16.5	18
AK 10-04S	Rc1/2	18	22

* (S) in model code means AS (Socket only stop valve built-in type).

2. Make sure that the knurling part of stop valve built-in type fitting is not loosened before use. Also, do not apply load on the part toward loosening direction during use.

Tube Fitting Long

⚠ Detailed Safety Instructions

Warning

1. When the fluid medium is water, do not use the fitting unless the operating environment meets all the described specifications in the catalog. Otherwise, it may cause damage to the products, the escape of tubes and a fluid leakage.

Stop Fitting

⚠ Detailed Safety Instructions

Warning

1. Be careful when disconnecting a tube from a fitting while the compressed air remains in the tube. The tube may fly out due to the internal pressure.
2. Check the direction of air stop function by the indicated symbol on the products. Note that the air does not stop if the opposite side of tube is pulled out wrongly.

Safety Instructions

Rotary Joint

⚠ Detailed Safety Instructions

Caution

1. Avoid excessive radial load. It may reduce the lifetime of the products. The performance and lifetime of the product may be affected.
2. Use polyurethane tube for the high rotation applications. Hard tubes like nylon base may cause radial load to the fitting.
3. Tightening with excessive torque may cause a deformation of the metal hexagonal-column, leading to a poor rotation or a fluid leakage.

High Rotary Joint

⚠ Detailed Safety Instructions

Caution

1. High Rotary Joint series can bear a certain amount of radial load. However it may reduce the lifetime of the product. Be sure to verify the resistance when the load is large.
2. Use polyurethane tube for the high rotation applications. Hard tubes like nylon base may cause radial load to the fitting.
3. Tightening with excessive torque may cause a deformation of the metal hexagonal-column, leading to a poor rotation or a fluid leakage.

Rotary Joint SUS304

⚠ Detailed Safety Instructions

Warning

1. When fluid leakage occurs, immediately close the valve to stop the fluid and stop using the product. Continued use with fluid leakage may cause a serious incident.
2. Check chemical resistance before using the products, when the fluid medium is chemicals, solvent or mixed gases. Depending on the usage conditions, it may cause damage to the fitting body, disengagement of the tube, or leakage.
3. This product is available in different seal rubber materials, but there is no identification based on seal material. Be sure not to mix the product with other seal materials when opening the packaging. Mixture may cause unexpected situations.
4. PP resin can be deteriorated by being exposed to direct sunlight or ultraviolet rays.
5. Install a filter or strainer on the secondary side of the product to prevent possible contamination of seal material wear debris.
6. Use the product applicable to the fluid to be used. Use of fluids other than those specified may cause damage to the product or leakage.

Caution

1. PPS resin has the property of discoloring when exposed to direct sunlight, fluorescent light, mercury light, and high temperature atmospheres for a long period of time, but discoloration does not affect performance.
2. Note that EPDM (sealing rubber material) is not suitable for piping in general pneumatic circuits due to its inferior resistance to mineral oil-based oils.
3. No sealock (thread sealant) is coated on taper pipe thread, so be careful when installing them. When using sealing tape, sealing agent, etc. on the thread, wrap or apply it leaving 1.5 to 2 threads from the thread point.
4. Tube connection into a tube fitting is harder than that of standard spec. due to its oil-free specification. When using, make sure that the tube is inserted all the way to the tube end of the fitting. When inserting a tube, apply a liquid that is not problem to use on the tube surface to improve smoothness of tube connection.
5. The corrosive and dusting properties of the fitting depend on the operating environment. If there is concern about adverse effects on machinery or equipment, evaluate the adoption of the product in accordance with the operating conditions in advance.
6. Do not apply a radial load. It may shorten the service life.
7. For violent oscillations or swings, use polyurethane tubes. Rigid (hard) tubes, such as nylon tubes, can be a source of radial loading.
8. Over-tightening with excessive torque can deform the metal hexagonal column and cause structural rotational failure and leakage.
9. Use clean fluid, as foreign matter on the rotating seal surface may cause a decrease in product life. Remove foreign matter from the piping when piping.
10. Rotational torque may vary depending on the used fluid and operating conditions.
11. Do not leave any liquid residue inside the product when the machine is not operated for a long period of time. It may affect the function and life of the product.
12. This product generates heat by rotation and may become hot depending on the operating pressure and rotation speed. When touching the product, make sure that the temperature has cooled down sufficiently after the rotation is stopped.
13. When using this product in the opposite rotation of the screw tightening direction, the screws may loosen, and periodic maintenance and retightening should be conducted.

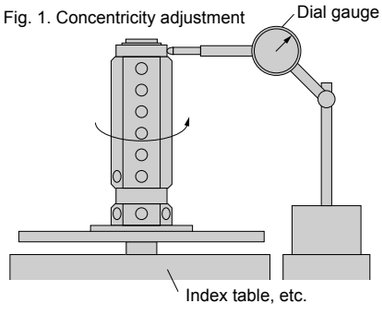
Multi-Circuit Rotary Block

⚠ Detailed Safety Instructions

Caution

1. When installing Rotary Block on index table, be sure to adjust each axis (concentric of tolerance: max. 0.1 mm). This product does not have any groove to fix the center positioning. Use a dial gauge to fix it. Refer to the right figure.
2. This product permits some air leakage. Do not use it for the applications which require no leakage. (tolerance of leakage: positive pressure: max. 5 cc/min, negative pressure: max. -1.33 kPa/10 min)
3. Be careful not to apply excessive radial load to the rotation part by piping forcibly. It may reduce the lifetime or increase the rotary torque force.
4. Rotary torque force in the specification is the value from stable rotation when applying 0.8 MPa of air pressure. Pressure change or starting time of the operation may change the rotary torque force. Note that the rotary torque force can be temporarily higher, especially when restarting after a long rest.
5. Depending on conditions, this product may not be suitable for use. Consult us.

Fig. 1. Concentricity adjustment



Before piping, adjust the centering gap between Rotary Block and index table by rotating them together.

Main Block

⚠ Detailed Safety Instructions

Warning

1. When many blocks are connected or bending load is applied on them, use Bracket. Connected equipment side or main block can be damaged without Bracket.

Caution

1. Use the main block assembling wrenches when assembling or disassembling. It may cause a difficulty to assemble or deformation of Main Block without using these wrenches.
2. Refer to the following tightening torque for assembly.

Connecting thread size	Tightening torque
M8×1	3.0 to 5.0N·m
M12×1	5.0 to 10.0N·m
M14×1	10.0 to 20.0N·m
M18×1	10.0 to 20.0N·m
M30×1.5	20.0 to 30.0N·m
R3/4	20.0 to 22.0N·m
R1	20.0 to 22.0N·m

2-Circuit Junction Block

⚠ Detailed Safety Instructions

Warning

1. When the fluid medium is water, do not use fittings unless the operating environment meets all the described specifications in the catalog. Otherwise, it may cause damage to the products, the escape of tubes and a fluid leakage.
2. Be sure to fix the blocks with bolts or a bracket. Improper fixing may cause the separation of the blocks or a fluid leakage.

Caution

1. As for connecting each block, insert the block properly until a block body is fixed. Improper insertion may cause a fluid leakage.

Connector

⚠ Detailed Safety Instructions

Warning

1. Insert male connector fully into female connector until it stops and turn a lock-pin to lock it properly. Improper lock may cause the separation of connectors, personal injury or a fluid leakage.

Caution

1. Use a flathead screw driver or a hex key to turn a lock-pin. Otherwise, it may cause the separation of connectors, damage of the lock-pin or inseparable connectors.

Light Coupling

⚠ Detailed Safety Instructions

Warning

1. When the fluid medium is water, do not use fittings unless the operating environment meets all the described specifications in the catalog. Otherwise, it may cause damage to the products, the escape of tubes and a fluid leakage.
2. Before uncoupling a plug except check valve built-in type and silencer type, make sure that there is no air pressure in the tube and water temperature is low. If the pressure still remains in the tube or water temperature is high, it may cause personal injury or a burn.
3. Do not touch the sleeve on the socket side while the compressed air is supplied. The plug side can come off by physical contact.
4. Use coupling module (QMC) with Bracket, when many modules are connected or bending load is applied on them. Connected equipment side or coupling module can be damaged without Bracket.

Caution

1. To lock the coupling, push the plug into the socket until it stops. It may cause the disconnection of the plug if it is installed incompletely. After locking, pull the plug toward oneself moderately to make sure it fixes properly.
2. When uncoupling the plug with a check valve or a silencer, be careful that the plug may jump out due to internal pressure, causing personal injury.
3. Use the main block assembling wrenches when assembling or disassembling. It may cause a difficulty to assemble or deformation of Main Block without using these wrenches.

Color Cap

⚠ Detailed Safety Instructions

Caution

1. Since Color Cap and Color Lock Cap are very small, be careful not to lose or drop it into facilities when attaching or detaching them.
2. Color Lock Cap has the front and the back. Make sure that PISCO logo comes the top side. Oval shape cap is produced for the oval shape release ring. Make sure the direction of attachment is correct.
3. Do not press the corners on the latches (circled positions in the drawing) when disconnecting tube with a CAPH cap on.

4. Color cap can not be attached to release rings made of materials other than POM, PBT or PP. Be sure to check construction drawing for each product in advance.

Safety Instructions

⚠ Common Safety Instructions for Tubes

Be sure to read the followings before selecting or using PISCO products. Read the detailed precautions, instructions and specifications for individual series.

⚠ Warning

1. Do not apply any load to the tube, such as pulling, twisting, extreme bending, over-tightening or binding. These may cause the tube to collapse, burst or slip out.

2. Avoid scratching the tube by rubbing or twisting it. It may cause the tube to burst.

3. The burst pressure of Tubes is a reference value calculated from the hoop stress. The burst pressure decreases with increasing temperature, make sure you understand the operating pressure in the specifications and have a sufficient margin of safety.

4. The minimum bending radius and the minimum installation radius are reference values at 20°C and 65% RH, not guaranteed values. Use the minimum bending radius value when the tube is wrapped around a mandrel (round bar), otherwise use the minimum installation radius value as a guide. Since these values vary depending on operating environments or the tube length, carefully consider the suitability of tubes by carrying out the operation test at the user's actual application before use.

5. Abnormal temperature increases due to adiabatic compression may cause damage to Tubes.

6. When using the product in fluids, conditions, or environments other than those described in the specifications, or when using the product outdoors, the person who decides to use the product should thoroughly examine the suitability of the product for actual use and take safety measures.

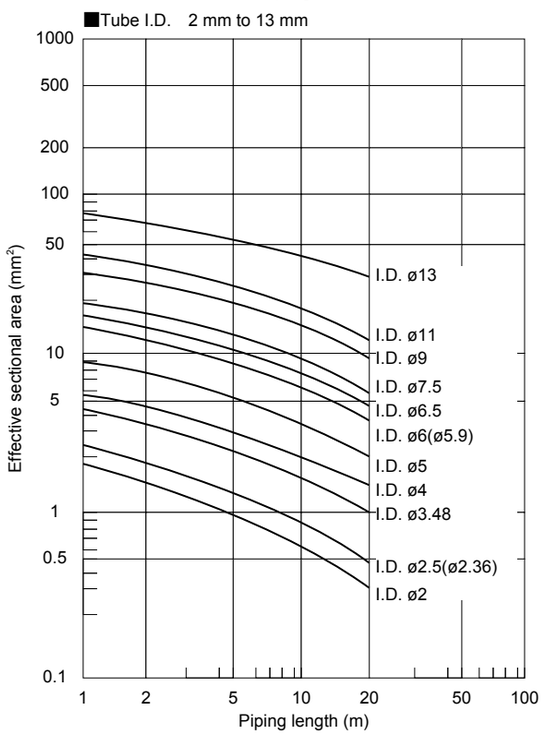
7. Do not use water to clean products that cannot be used with water. It may cause malfunction.

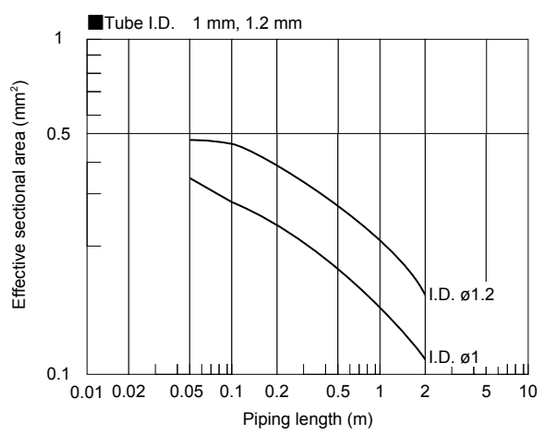
⚠ Caution

1. When plumbing the tube, allow sufficient margin in consideration of changes in length.

2. Note that the effective cross-sectional area varies depending on the tube length. For long plumbing, refer to "Effective Area of Piping".

● Effective Sectional Area of Piping

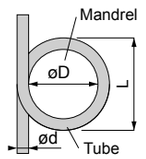




Minimum Bending Radius & Minimum Installation Radius

1. Measurement method

● Minimum Bending Radius (JIS method)

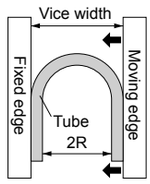


$$n = \left(1 - \frac{L-D}{2d}\right) \times 100$$

JIS method (based on JIS B8381)
Minimum Bending Radius is measured by winding a tube tightly around a mandrel. Minimum Bending Radius is the value when the deformation ratio of the tube O.D. reaches 25%.

Measurement condition: 20ºC 65%RH
n = Deforming ratio (%) · Standard: Under 25%
d = Tube O.D.
L = Measurement value (mm)
D = Mandrel diameter (mm)

● Minimum Installation Radius (Vice method)



Fix the tube as shown in the left figure. Slowly move the moving edge toward the fixed edge. Measure R before the tube develops a crimp.
Measurement condition: 20ºC 65%RH

Vacuum Tube

⚠ Detailed Safety Instructions

Caution

1. The minimum installation radius is the value with no load. When using the tube in a vacuum, allow a margin for the minimum installation radius, as the tube is likely to be crushed. (Approximate allowance: minimum installation radius × 1.3)

Nylon Tube

⚠ Detailed Safety Instructions

Caution

1. Due to the nature of the tube, additives and other substances contained in the tube material may bleed onto the tube surface over time.

Soft Nylon Tube

⚠ Detailed Safety Instructions

Caution

1. Due to the nature of the tube, additives and other substances contained in the tube material may bleed onto the tube surface over time.

Multi-colored Ribbon Tube

⚠ Detailed Safety Instructions

Caution

1. If it is difficult to separate individual tubes, use a cutter to make a 5 mm cut between the tubes and peel it off.

Soft Multi-colored Ribbon Tube

⚠ Detailed Safety Instructions

Caution

1. If it is difficult to separate individual tubes, use a cutter to make a 5 mm cut between the tubes and peel it off.

Spiral Coiled Polyurethane Tube

⚠ Detailed Safety Instructions

Caution

1. Due to the nature of the tube, additives and other substances contained in the tube material may bleed onto the tube surface over time.
2. The L1 and ød dimensions may change over time.

Spiral Coiled Nylon Tube

⚠ Detailed Safety Instructions

Caution

1. Due to the nature of the tube, additives and other substances contained in the tube material may bleed onto the tube surface over time.
2. The L1 and ød dimensions may change over time.

Safety Instructions

Twin Spiral Coiled Tube

⚠ **Detailed Safety Instructions**

Caution

1. The L1 and ød dimensions may change over time.
2. When the tubes are difficult to split into each core, cut the tube edge between each core around 5 mm with a cutter.

Coiling Tube with Twist-proof Joint

⚠ **Detailed Safety Instructions**

Warning

1.Since the Twist-proof Fitting is not designed to bear continuous swing and rotation, do not use it for the applications which have such movement continuously. The joint may get damaged in these applications.

Caution

1. L1 dimension and outer dimension of the coiling may change over time.

Fluoropolymer (PFA) Tube

⚠ **Detailed Safety Instructions**

Warning

1. Check the chemical resistance before use when the fluid medium is a chemical, solvent or mixed gas. Depending on the usage conditions, it may cause damage to the fitting body, disengagement of the tube, or leakage.

Fluoropolymer (FEP) Tube

⚠ **Detailed Safety Instructions**

Warning

1. Check the chemical resistance before use when the fluid medium is a chemical, solvent or mixed gas. Depending on the usage conditions, it may cause damage to the fitting body, disengagement of the tube, or leakage.
2. Even if the chemical resistance data indicates that the FEP material can be used with no or little effect, since problems may occur due to physical effects of temperature, pressure and stress, carefully consider the suitability of tubes by carrying out the operation test at the user's actual application before use. In particular, when using organic solvents, be sure to evaluate the product on the actual application, as it may not be guaranteed depending on the operating conditions.
3. Avoid using in areas prone to vibrations.
4. For long-term use, it is recommended to use Compression Fittings. Due to material degradation over time, leaks may occur. Perform regular maintenance, and promptly replace the product if any leaks are detected.

Polyolefin Tube

⚠ **Detailed Safety Instructions**

Warning

1. Check the chemical resistance before use when the fluid medium is a chemical, solvent or mixed gas. Depending on the usage conditions, it may cause damage to the fitting body, disengagement of the tube, or leakage.
2. Since this product has low hardness and the surface is easily scratched, press down the release-ring of the push-in fitting when installing.

Soft Polyolefin Tube

⚠ **Detailed Safety Instructions**

Warning

1. Check the chemical resistance before use when the fluid medium is a chemical, solvent or mixed gas. Depending on the usage conditions, it may cause damage to the fitting body, disengagement of the tube, or leakage.
2. Since this product has low hardness and the surface is easily scratched, press down the release-ring of the push-in fitting when installing.

Anti-spatter Tube

⚠ **Detailed Safety Instructions**

Caution

1. Due to the nature of the tube, additives and other substances contained in the tube material may bleed onto the tube surface over time.

Tube binder

⚠ **Detailed Safety Instructions**

Caution

1. Do not bend the hinge more than necessary. Repeated extreme bending and stretching may cause damage to the hinges.

Insert ring

⚠ Detailed Safety Instructions

Caution

1. This product may fall off or be difficult to insert due to variations within the tolerance range of the inner diameter of the tube to be inserted, but it may be resolved by changing the part of the tube used. Implement specific countermeasures in advance, for the case that it flows down into pipes and may cause a problem.

Tube cutter

⚠ Detailed Safety Instructions

Warning

1. Do not touch the cutting edge. It may cause injury.
2. Tighten the fixing screws securely to prevent them from loosening. If the fixing screw is loosened, the blade may fall off and cause injury.

Caution

1. When not in use, keep the unit in a locked position. Do not carry the device in your pocket, etc., as vibrations or shocks may cause the device to unlock.
2. The cutter is specially designed for PISCO tubes. Do not use on electrical wires or steel pipes.

Tube shears

⚠ Detailed Safety Instructions

Warning

1. Blades are very sharp. Please handle with care when using.
2. When not in use, be sure to lock it in a closed position.
3. Do not carry it in your pocket, etc. Vibrations or shock may cause the lock to be released unexpectedly and could result in personal injury.
4. When you grip the handles hard, the cutting blade passes the receiving blade and the blade tip is exposed. Be careful not to touch the exposed blade tip that is very dangerous.

Caution

1. The product is specially designed for PISCO tubes. Do not use on electrical wires or steel pipes.
2. The product is coated in rust preventive oil. Be careful when using it in the oil-free environment.

Tube Stripper for Anti-spatter Tube

⚠ Detailed Safety Instructions

Warning

1. It has a built-in blade. If any damage such as a crack, a fracture, or a chip is found on the resin part, stop using the product immediately as there is a risk of injury.

Caution

1. This product is specially designed for PISCO's Anti-spatter Tube. Do not use this product for any purpose other than stripping outer cover of the Anti-spatter Tube.
2. Use of excessively bent or crushed tube may result in the product not functioning to its full potential.
3. Note that if the cover is stripped with the discharged port blocked, the stripped cover material may become stuck in the body and cannot be stripped any further.
4. If the stripped cover gets stuck in the body, it must be removed by inserting a tool through the side window.
5. It is not possible to correct a failed stripping tube, so please cut off the missed section and then strip the cover again.
6. If fine chips are generated on the cover stripped surface of inner tube, they should be removed to avoid contamination of the piping system.

Tube reel

⚠ Detailed Safety Instructions

Warning

1. Do not wind heavy objects other than tubing onto the reel. The reel may be damaged and heavy objects may fall.

Caution

1. Do not use this product in an environment that exceeds the operating temperature range (-10 to 50°C). There is a risk of product deformation, disassembly, damage, etc.
2. This product is made of resin and should be handled with care.
3. Tube Reel is specially designed for PISCO tubes.

Safety Instructions

⚠ Common Safety Instructions for Controllers

Be sure to read the followings before selecting or using PISCO products. Read the detailed precautions, instructions and specifications for individual series.

⚠ Warning

1. Knurling locknut needs to be tightened firmly by hand without using any tool. Using tools to tighten the nut may cause damage to the nut or the product. Inadequate tightening may loosen the locknut and the initial setting may be changed.
2. Do not use water to clean products that cannot be used with water. It may cause malfunction.

⚠ Caution

1. Do not use a lubricator on products.
2. Refer to “Common Safety Instructions for Products in This Catalog” and “Common Safety Instructions for Fittings” for handling fitting part.
3. Orifice Fitting Series and Orifice Flow Speed Controller Series with orifice holes have deviation of flow rate. Consult with PISCO for applications with severe flow requirements.
4. When operating the actuator at low speed, the stick-slip phenomenon is likely to occur. Perform a thorough operation test with actual operating condition before use.
5. If the stainless steel needle is repeatedly over tightened, the mating part between the needle and the metal body may be damaged, resulting in a feeling of scuffing resistance.

Speed Controller

⚠ Detailed Safety Instructions

Warning

1. To adjust the speed of the actuator, gradually turn the needle from the fully closed position to increase the air volume. If the needle is open, there is a risk of the actuator move suddenly and violently. Turning the needle clockwise closes the valve, while turning it counter-clockwise opens it.
2. When adjusting the flow rate of the equipment, the needle should be turned to open gradually from the fully closed position. If the needle is in open position, a high flow rate will be instantly applied to the equipment and there is a risk of damage to it.

Caution

1. Leakage is allowed for the control flow even when the needle is fully closed position and should not be used in such a way that zero leakage is required.

Speed Controller Push-lock type with Indicator

⚠ Detailed Safety Instructions

Warning

1. When adjusting the speed of the actuator, the needle, inside the product, should be gradually opened from the closed position near the dial indication "0". When the needle is open, a large flow of compressed air is instantly supplied and there is a danger of the actuator moving suddenly and violently. The operation based on the direction of rotation of the adjustment knob is as follows. Clockwise (- direction): the needle valve closes, the control flow decreases and the actuator speed decreases. Counter-clockwise (+ direction): the needle valve opens and the control flow increases and the actuator speed increases.
2. When adjusting the position of Elbow and Free type fittings, do not apply pressure to the inside of the product.
3. When adjusting the direction of the dial display window on Union-type models, do not apply pressure to the inside of the product.
4. Do not shake or rotate the fitting of the Free type forcibly. It may cause damage to the product or leakage.

Caution

1. 1. Leakage is allowed for the control flow even when the dial indication is "0". This product should not be used in such a way that zero leakage is required. "0" indicating position may slightly deviates from its original position depending on needle tightening.
2. Flow rate characteristics are reference values for the product alone and vary depending on piping, circuit, pressure conditions, etc.
3. The adjustment knob is locked when pushed and released when pulled. Be sure to lock it after adjustment. Do not hold the side of the knob too tightly when operating as it may cause trouble unlocking the adjustment knob.
4. Be sure to lock it after adjusting the flow rate. If used without locking, the adjustment knob may rotate and the flow rate may change.
5. When pushing down the adjustment knob, depending on the adjusting position, it may stop in a half-locked position. As the knob is not fully locked in this state, make sure that the adjustment knob is pushed down completely into the locked position.
6. If the adjustment knob is forcibly rotated while it is in locked position, the lock mechanism may be damaged.
7. Do not turn the adjustment knob excessively counter-clockwise (+ direction) from the fully open position or clockwise (- direction) from the fully closed position. It may cause damage to the adjustment knob and the product.
8. The control range varies depending on the size. When adjusting the flow rate, check the current dial reading and adjust it within the indicator adjusting range shown in the following Table.

● Adjusting range table

Elbow type Free type	Thread type and size	Straight thread (Unified & Metric)	Taper pipe thread
		10-32UNF, M3×0.5, M5×0.8	1/8NPT, 1/4NPT, 3/8NPT, 1/2NPT, R1/8, R1/4, R3/8, R1/2
	Adjusting range (Turns)	0 to 8	0 to 12

Union Straight type	Tube fitting size	Tubing O.D. (mm)				
		ø4, ø5/32	ø6, ø1/4	ø8, ø5/16	ø10, ø3/8	ø12, ø1/2
	Adjusting range (Turns)	0 to 8	0 to 12			

9. The direction of the dial indication window on Union type should only be adjusted after ensuring that the wrench is securely applied to the hexagonal-column. There is a risk of deformation or interference with the adjustment knob.

Speed Controller Large-flow type

⚠ Detailed Safety Instructions

Warning

1. To adjust the speed of the actuator, gradually turn the needle from the fully closed position to increase the air volume. If the needle is open, there is a risk of the actuator move suddenly and violently. Turning the needle clockwise closes the valve, while turning it counter-clockwise opens it.
2. When adjusting the flow rate of the equipment, the needle should be turned to open gradually from the fully closed position. If the needle is in open position, a high flow rate will be instantly applied to the equipment and there is a risk of damage to it.

Caution

1. Leakage is allowed for the control flow even when the needle is fully closed, and the product should not be used in such a way that zero leakage is required.
2. Since this product is designed to give priority to securing a large flow rate, if it is used in such a way that surge pressure is applied in the control flow direction, depending on the conditions, the diaphragm may turn-up and the control function may be lost.

Speed Controller Low-flow type

⚠ Detailed Safety Instructions

Warning

1. To adjust the speed of the actuator, gradually turn the needle from the fully closed position to increase the air volume. If the needle is open, there is a risk of the actuator move suddenly and violently. Turning the needle clockwise closes the valve, while turning it counter-clockwise opens it.
2. When adjusting the flow rate of the equipment, the needle should be turned to open gradually from the fully closed position. If the needle is in open position, a high flow rate will be instantly applied to the equipment and there is a risk of damage to it.
3. After the threaded body is tightened, the resin body must be rotated in a clockwise direction when adjusting the tube fitting port position, as the screws may loosen.

Caution

1. Leakage is allowed for the control flow even when the needle is fully closed position, and the product should not be used in such a way that zero leakage is required.

Slot-head Speed Controller

⚠ Detailed Safety Instructions

Warning

1. To adjust the speed of the actuator, gradually turn the needle from the fully closed position to increase the air volume. If the needle is open, there is a risk of the actuator move suddenly and violently. Turning the needle clockwise closes the valve, while turning it counter-clockwise opens it.
2. When adjusting the flow rate of the equipment, the needle should be turned to open gradually from the fully closed position. If the needle is in open position, a high flow rate will be instantly applied to the equipment and there is a risk of damage to it.
3. Use a speed controller with a locking mechanism since the needle may rotate and the flow rate may change when using this product in a place where there is excessive vibration or shock.
4. The needle is equipped with a stopper mechanism when fully open, but be careful not to over turn the needle or deform it with a screwdriver, as this may cause damage. If the needle is damaged, it may pop out.

Caution

1. Leakage is allowed for the control flow even when the needle is fully closed position, and the product should not be used in such a way that zero leakage is required. Also, if the needle is tightened more than necessary to achieve zero leakage, it may be damaged.

2-Stage Speed Controller

⚠ Detailed Safety Instructions

Warning

1. When adjusting the speed of the cylinder, refer to the speed adjustment method in the digital catalog or instruction manual. If the correct procedure is not followed, there is a risk of the cylinder moving violently.

Caution

1. When adjusting the flow rate of the equipment, the needle should be turned to open gradually from the fully closed position. If the needle is in open position, a high flow rate will be instantly applied to the equipment and there is a risk of damage to it.
2. Leakage is allowed for the control flow even when the needle is fully closed position, and the product should not be used in such a way that zero leakage is required.
3. Note that while air remains in the cylinder during the second speed transfer, the cylinder thrust will be reduced due to back pressure.
4. Air leakage around the cylinder may affect the speed setting.
5. Do not block the exhaust ports during the adjustment and operation.
6. In the following cases, be aware that the preset shock absorbing may not work properly as desired. (1) If the cylinder position changes due to its own weight, etc. after the residual pressure in the cylinder is released, the shock absorbing function may not work on first stroke when air is reapplied. *BJSU uses the air in the product or cylinder as conventional speed controller does. Therefore, the above may occur in the first operation without back pressure. (2) Depending on the cylinder performance (piston sliding property, cylinder airtightness), shock absorbing function may not work satisfactorily: the shock absorbing start point could possibly deviate.
7. The shock absorbing start point may shift from the default setting depending on the operating conditions (quality of the fluid used, standby time, etc.). The shock absorbing start point should be set with sufficient margin based on the individual operating conditions, and should be reset if necessary.
8. Depending on the setting of EX1 or EX2 and various conditions such as supply air pressure, the back pressure of the exhaust air may cause the main valve to chatter momentarily and generate abnormal noise.

9. In the exhaust side control mechanism, the material of the needle mating part is resin. If the needle is tightened with more torque than required, the resin mating part may be deformed and the flow characteristic may change.

Speed Control Valve SUS316 Stainless Steel

⚠ Detailed Safety Instructions

Warning

1. When setting the speed of actuators, open the air gradually by turning the needle from the fully-closed position. Otherwise, the actuators can pop or cause unplanned movements. Turn the needle clockwise to close and counterclockwise to open.
2. When adjusting the flow rate of the equipment, the needle should be turned to open gradually from the fully closed position. If the needle is in open position, a high flow rate will be instantly applied to the equipment and there is a risk of damage to it.
3. Do not use the product under conditions where the fitting part is subject to shaking or impact. It may cause damage to the product or the screw to loosen.

Caution

1. Leakage is allowed for the control flow even when the needle is fully closed, and the product should not be used in such a way that zero leakage is required.
2. As no Sealock (thread sealant) is coated on taper thread, be careful with the installation. When applying sealing tape or agent on the thread, wrap or apply it leaving 1.5 to 2 thread ridges from the tip of the thread unapplied.
3. The corrosivity and dust emission depend on the operating environment. If there is concern about adverse effects on the machinery or the equipment, evaluate the adoption of the product in advance in accordance with the operating conditions.
4. The material of the retainer is PBT, the diaphragm is HNBR and the core cylinder is special stainless steel (Austenitic or Ferritic). Do not use the product when there is any concern for the materials.

Speed Controller SUS303 Equivalent Corrosivity

⚠ Detailed Safety Instructions

Warning

1. To adjust the speed of the actuator, gradually turn the needle from the fully closed position to increase the air volume. If the needle is open, there is a risk of the actuator move suddenly and violently. Turning the needle clockwise closes the valve, while turning it counter-clockwise opens it.
2. When adjusting the flow rate of the equipment, the needle should be turned to open gradually from the fully closed position. If the needle is in open position, a high flow rate will be instantly applied to the equipment and there is a risk of damage to it.

Caution

1. Leakage is allowed for the control flow even when the needle is fully closed, and the product should not be used in such a way that zero leakage is required.
2. The corrosive properties of the fittings depend on the operating environment. If there is concern about adverse effects on machinery or equipment, evaluate the adoption of the product in accordance with the operating conditions in advance.

Speed Controller PP

⚠ Detailed Safety Instructions

Warning

1. To adjust the speed of the actuator, gradually turn the needle from the fully closed position to increase the air volume. If the needle is open, there is a risk of the actuator move suddenly and violently. Turning the needle clockwise closes the valve, while turning it counter-clockwise opens it.
2. When adjusting the flow rate of the equipment, the needle should be turned to open gradually from the fully closed position. If the needle is in open position, a high flow rate will be instantly applied to the equipment and there is a risk of damage to it.
3. Resin can be deteriorated by being exposed to direct sunlight or ultraviolet rays.

Caution

1. Leakage is allowed for the control flow even when the needle is fully closed, and the product should not be used in such a way that zero leakage is required.
2. Note that EPDM (sealing rubber material) is not suitable for piping in general pneumatic circuits due to its inferior resistance to mineral oil-based oils.
3. As no sealock (thread sealant) is coated on taper pipe thread, be careful when installing them. When using sealing tape, sealing agent, etc. on the thread, wrap or apply it leaving 1.5 to 2 thread from the thread point.
4. Tube connection into a tube fitting is harder than that of standard spec. due to its oil-free specification. When using, make sure that the tube is inserted all the way to the tube end of the fitting. When inserting a tube, apply a liquid that is not problem to use on the tube surface to improve smoothness of tube connection.
5. Basket is made of PBT. Avoid use in areas where PBT may cause problems.
6. For the small union straight type, the check valve opening pressure may be higher than indicated, depending on the applied pressure in the control flow direction, applied time, and ambient temperature.
7. The corrosive and dusting properties depend on the operating environment. If there is concern about adverse effects on machinery or equipment, evaluate the adoption of the product in accordance with the operating conditions in advance.

Speed Controller Anti-spatter

⚠ Detailed Safety Instructions

Warning

1. To adjust the speed of the actuator, gradually turn the needle from the fully closed position to increase the air volume. If the needle is open, there is a risk of the actuator move suddenly and violently. Turning the needle clockwise closes the valve, while turning it counter-clockwise opens it.
2. When adjusting the flow rate of the equipment, the needle should be turned to open gradually from the fully closed position. If the needle is in open position, a high flow rate will be instantly applied to the equipment and there is a risk of damage to it.

Caution

1. Leakage is allowed for the control flow even when the needle is fully closed, and the product should not be used in such a way that zero leakage is required.
2. Always place the cover after adjusting the actuator speed. Spark and molten residue can cause operating problems.
3. When using Anti-spatter Tube, cut the outer cover tube to the specified size. (See Detailed Safety Instructions of Tube Fitting Anti-spatter in this catalog.) Cutting outside of the specified dimensions may cause the tube to come loose, leak, or cannot be inserted properly. *Tube Stripper for Anti-spatter tube (TSC) makes it easy to peel the cover.

Speed Controller Brass

⚠ Detailed Safety Instructions

Warning

1. To adjust the speed of the actuator, gradually turn the needle from the fully closed position to increase the air volume. If the needle is open, there is a risk of the actuator move suddenly and violently. Turning the needle clockwise closes the valve, while turning it counter-clockwise opens it.
2. When adjusting the flow rate of the equipment, the needle should be turned to open gradually from the fully closed position. If the needle is in open position, a high flow rate will be instantly applied to the equipment and there is a risk of damage to it.
3. When using the product in a high temperature environment, select the seal material after taking a sufficient safety factor. The sealing material may leak due to thermal degradation, etc. Regular maintenance should be carried out and the product should be replaced as soon as possible if leakage is detected.
4. The product has rubber material options, but there is no identification by seal material. When opening the package, do not mix it with other seal materials. Mixing of different material models may cause a situation that is different from the user's intention.

Caution

1. Leakage is allowed for the control flow even when the needle is fully closed, and the product should not be used in such a way that zero leakage is required.
2. When using Anti-spatter tube with the fitting with cover, cut the outer cover of tube to the specified size. (See Detailed Safety Instructions of Tube Fitting Brass in this catalog.) Cutting outside of the specified dimensions may cause the tube to come loose, leak, or cannot be inserted properly. *Tube Stripper for Anti-spatter tube (TSC) makes it easy to peel the cover.

Orifice Flow Speed Controller

⚠ Detailed Safety Instructions

Caution

1. Before using the product, be sure to check the orifice bore size marked on the outer hexagonal column. Note that different orifice diameters will result in different actuator speeds.
2. Since the speed varies depending on the variation of component dimensions, the type of cylinder used, the load, and the piping, measure with actual operation and use the best one for speed control that requires accuracy.
3. Note that no plating is treated for the inside orifice bore of ø0.1 mm and ø0.2 mm.

Throttle (Needle) Valve

⚠ Detailed Safety Instructions

Warning

1. To adjust the speed of the actuator, gradually turn the needle from the fully closed position to increase the air volume. If the needle is open, there is a risk of the actuator move suddenly and violently. Turning the needle clockwise closes the valve, while turning it counter-clockwise opens it.
2. When adjusting the flow rate of the equipment, the needle should be turned to open gradually from the fully closed position. If the needle is in open position, a high flow rate will be instantly applied to the equipment and there is a risk of damage to it.

Caution

1. Leakage is allowed for the control flow even when the needle is fully closed, and the product should not be used in such a way that zero leakage is required.

Throttle (Needle) Valve SUS316

⚠ Detailed Safety Instructions

Warning

1. Check the chemical resistance before use when the fluid medium is a chemical, solvent or mixed gas. Depending on the usage conditions, it may cause damage to the fitting body, disengagement of the tube, or leakage.
2. Do not use the product if it does not satisfy all the conditions listed in the specifications when the fluid medium is water or liquid. It may cause damage to the fitting body, disengagement of the tube, or leakage.
3. When setting the speed of actuators, open the air gradually by turning the needle from the fully-closed position. Otherwise, the actuators can pop or cause unplanned movements. Turn the needle clockwise to close and counterclockwise to open.
4. When adjusting the flow rate of the equipment, the needle should be turned to open gradually from the fully closed position. If the needle is in open position, a high flow rate will be instantly applied to the equipment and there is a risk of damage to it.
5. Be sure to use Insert Ring under the following conditions of use. Use without Insert Ring may cause disengagement of tubing and air leakage.
   · When the temperature of fluid medium and environment of use fluctuates intensely
   · When using at high temperature
6. Do not use under conditions where the fitting part is subject to shaking or impact. It may cause damage to the product or the screw to loosen.

Safety Instructions

Caution

1. Leakage is allowed for the control flow even when the needle is fully closed, and the product should not be used in such a way that zero leakage is required.
2. As no Sealock (thread sealant) is coated on taper thread, be careful with the installation. When applying sealing tape or agent on the thread, wrap or apply it leaving 1.5 to 2 thread ridges from the tip of the thread unapplied.
3. The corrosivity and dust emission depend on the operating environment. If there is concern about adverse effects on the machinery or the equipment, evaluate the adoption of the product in advance in accordance with the operating conditions.

Throttle (Needle)Valve PP

⚠ Detailed Safety Instructions

Warning

1. Check the chemical resistance before use when the fluid medium is a chemical or mixed gas. Depending on the usage conditions, it may cause damage to the fitting body, disengagement of the tube, or leakage.
2. Do not use the product if it does not satisfy all the conditions listed in the specifications when the fluid medium is water or liquid. It may cause damage to the fitting body, disengagement of the tube, or leakage.
3. To adjust the speed of the actuator, gradually turn the needle from the fully closed position to increase the air volume. If the needle is open, there is a risk of the actuator move suddenly and violently. Turning the needle clockwise closes the valve, while turning it counter-clockwise opens it.
4. When adjusting the flow rate of the equipment, the needle should be turned to open gradually from the fully closed position. If the needle is in open position, a high flow rate will be instantly applied to the equipment and there is a risk of damage to it.
5. Resin can be deteriorated by being exposed to direct sunlight or ultraviolet rays.

Caution

1. Leakage is allowed for the control flow even when the needle is fully closed, and the product should not be used in such a way that zero leakage is required.
2. Note that EPDM (sealing rubber material) is not suitable for piping in general pneumatic circuits due to its inferior resistance to mineral oil-based oils.
3. As no sealock (thread sealant) is coated on taper pipe thread, be careful when installing them. When using sealing tape, sealing agent, etc. on the thread, wrap or apply it leaving 1.5 to 2 thread from the thread point.
4. Tube connection into a tube fitting is harder than that of standard spec. due to its oil-free specification. When using, make sure that the tube is inserted all the way to the tube end of the fitting. When inserting a tube, apply a liquid that is not problem to use on the tube surface to improve smoothness of tube connection.
5. The corrosive and dusting properties depend on the operating environment. If there is concern about adverse effects on machinery or equipment, evaluate the adoption of the product in accordance with the operating conditions in advance.

Throttle (Needle) Valve Brass

⚠ Detailed Safety Instructions

Warning

1. To adjust the speed of the actuator, gradually turn the needle from the fully closed position to increase the air volume. If the needle is open, there is a risk of the actuator move suddenly and violently. Turning the needle clockwise closes the valve, while turning it counter-clockwise opens it.
2. When adjusting the flow rate of the equipment, the needle should be turned to open gradually from the fully closed position. If the needle is in open position, a high flow rate will be instantly applied to the equipment and there is a risk of damage to it.
3. Do not use this product unless all the conditions described in this specification are satisfied if the fluid medium is water. It may cause damage to the product, disengagement of the tube, or leakage.
4. When using the product in a high temperature environment, select the seal material after taking a sufficient safety factor. Thermal degradation and the like of seal material may lead to leaking. Regular maintenance should be carried out and the product should be replaced as soon as leakage is detected.
5. The product has rubber material options, but there is no identification by seal material. When opening the package, do not mix it with other seal materials. Mixing of different material models may cause a situation that is different from the user's intention.

Caution

1. Leakage is allowed for the control flow even when the needle is fully closed, and the product should not be used in such a way that zero leakage is required.
2. When using Anti-spatter tube with the fitting with cover, cut the outer cover of tube to the specified size. (See Detailed Safety Instructions of Tube Fitting Brass in this catalog.) Cutting outside of the specified dimensions may cause the tube to come loose, leak, or cannot be inserted properly. *Tube Stripper for Anti-spatter tube (TSC) makes it easy to peel the cover.

Quick Exhaust Valve

⚠ Detailed Safety Instructions

Warning

1. To adjust the speed of the actuator by an exhaust throttle model, gradually turn the needle from the fully closed position to increase the amount of air exhausted. If the needle is open, there is a risk of the actuator move suddenly and violently. Also, except for exhaust throttle type, check the safety before operating.

Caution

1. Clogged element of a silencer increases the exhaust resistance. It may cause a deterioration of the entire system due to clogging.
2. When using it as a shuttle valve, be sure to provide a differential pressure. Insufficient differential pressure may cause malfunction.
3. After replacing the element, securely tighten the silencer cover by hand. Note that it is not possible to replace the element of the mini-type quick exhaust valve.
4. For products whose piping direction cannot be changed by body rotation after tightening, adjust within the tightening torque range of the main body.
5. In the case of the exhaust throttle type (EQH), the exhaust port (hexagonal surface) may become dirty or black depending on the usage conditions and frequency, but this is not abnormal.

Exhaust Port Needle Valve (Speed Control Muffler)

⚠ Detailed Safety Instructions

Warning

1. To adjust the speed of the actuator, gradually turn the needle from the fully closed position to increase the air volume. If the needle is open, there is a risk of the actuator move suddenly and violently. Turning the needle clockwise closes the valve, while turning it counter-clockwise opens it.
2. When adjusting the flow rate of the equipment, the needle should be turned to open gradually from the fully closed position. If the needle is in open position, a high flow rate will be instantly applied to the equipment and there is a risk of damage to it.
3. Clogged element increases the exhaust resistance. It may cause a deterioration of the entire system due to clogging.
4. If the function deteriorates due to clogging of the element, replace the unit. Note that it is not possible to replace the element only.

Caution

1. Leakage is allowed for the control flow even when the needle is fully closed, and the product should not be used in such a way that zero leakage is required.

Orifice Fitting

⚠ Detailed Safety Instructions

Caution

1. Before using the product, be sure to check the orifice bore size marked on the outer hexagonal column. Note that different orifice diameters will result in different flow rate.
2. Even with the same orifice diameter, the flow rate varies piece-to-piece, so for flow control where accuracy is required, measure with actual operation and use the best available orifice.
3. Note that no plating is treated for the inside orifice bore of ø0.1 mm and ø0.2 mm.

Pressure Regulator Push-lock type

⚠ Detailed Safety Instructions

Warning

1. Do not use the product in such a way that the pressure on the secondary side fluctuates greatly and the pressure exceeds the set value. It is not designed as a relief valve and may cause damage to the equipment or malfunction. In such a case, install a separate safety device.

Caution

1. The pressure setting must be set in the upward (increasing) direction (clockwise). Accurate settings cannot be made in the downward (decreasing) direction (counterclockwise).
2. Do not turn the pressure control knob excessively counterclockwise from the fully open position or clockwise from the fully closed position. It may cause damage to the pressure control knob and the product. In addition, sticking of the pressure regulating screw and the pressure regulating nut may cause the torque of the pressure regulating knob to increase.
3. The pressure control knob is locked when pushed and released when pulled. Be sure to lock it after pressure adjustment. If used without locking, the knob may rotate and the pressure may change.
4. When pushing down the pressure control knob, depending on the adjusting position, it may stop in a half-locked position. As the knob is not fully locked in this state, make sure that the pressure control knob is pushed completely into the locked position.
5. If the pressure control knob is forcibly rotated while it is in locked position, the lock mechanism may be damaged.
6. The direction of the gauge on models with gauge can be rotated to any desired direction. If excessive force is applied to the gauge cap, it may cause damage to the gauge or poor indication.
7. The accuracy of the pressure gauge is ±5% (F.S.). If accuracy is required, check and adjust the pressure separately with an appropriate gauge.
8. When the secondary side is released into the atmosphere, sympathetic vibration may occur due to the influence of the flow. Avoid prolonged use with the secondary side open to the atmosphere, as this may cause internal damage and other malfunctions.

Compact Pre-set In-Line Regulator

⚠ Detailed Safety Instructions

Warning

1. The product does not have a relief function. If used in the system in which the pressure of outlet side is likely to become higher than the inlet pressure, it can cause malfunction.

Caution

1. Do not use the products in applications where accuracy is required.
2. Depending on the operating pressure and flow rate, chattering of the valve plug may cause abnormal noise.

Pressure Controller

⚠ Detailed Safety Instructions

Warning

1. To adjust the pressure of the actuator, gradually turn the needle from the fully closed position to increase the air volume. If the needle is open, there is a risk of the actuator move suddenly and violently. Turning the needle clockwise closes the valve, while turning it counter-clockwise opens it.
2. Do not use Pressure Controller in the place of a device which requires the accuracy such as a safety valve. This series is not designed for the safety control.

Caution

1. The pressure setting should be made by turning the needle counterclockwise from the fully closed position. Since it does not have a relief mechanism, it cannot be set from the fully open position. Also, before resetting the pressure, release the pressure on the secondary side.
2. Since the secondary side pressure will also fluctuate due to fluctuations in the primary side pressure, be careful when the fluctuation of the primary side pressure is large.

Check Valve

⚠ Detailed Safety Instructions

Warning

1. Frequent switching of the valve plug may cause the unit to heat up, which may result in thermal burns. Consult with PISCO if the operation frequency is high.

Caution

1. When tightening the threaded body, be sure to follow the instructions "10. Precautions for installing product" of "Common Safety Instructions for Products in This Catalog". Over-tightening may cause malfunction of the valve plug.
2. If the valve is used under conditions where the differential pressure between the primary and secondary sides is extremely large (e.g., the secondary side is open to the atmosphere), the impact during operation may cause the valve plug to break, and in the worst case, the fragments may flow into downstream.
3. Depending on the operating pressure and flow rate, chattering of the valve plug may cause abnormal noise.
4. Do not use the product in such a way that requires zero leakage as it allows for leakage.

Check Valve with Low Cracking Pressure

⚠ Detailed Safety Instructions

Warning

1. Frequent switching of the valve plug may cause the unit to heat up, which may result in thermal burns. Consult with PISCO if the operation frequency is high.

Caution

1. If the valve is used under conditions where the differential pressure between the primary and secondary sides is extremely large (e.g., the secondary side is open to the atmosphere), the impact during operation may cause the valve plug to break, and in the worst case, the fragments may flow into downstream.
2. Depending on the operating pressure and flow rate, chattering of the valve plug may cause abnormal noise.
3. Be sure to provide a differential pressure of 10 kPa or more in the check direction. Differential pressure below 10 kPa may cause leakage.
4. When pressure is applied continuously in the reversing (checking) direction, it may become higher than the minimum operating pressure indicated, depending on ambient temperature and application time.
5. Do not use the product in such a way that requires zero leakage as it allows for leakage.
6. Due to the structure of this product, intrusion of foreign matter may result in a check leak. Be sure to install a filter on the upstream side of the piping.

Check Valve PP with Low Cracking Pressure

⚠ Detailed Safety Instructions

Warning

1. Frequent switching of the valve plug may cause the unit to heat up, which may result in thermal burns. Consult with PISCO if the operation frequency is high.
2. Check chemical resistance before using the products, when the fluid medium is chemicals, solvent or mixed gases. Depending on the usage conditions, it may cause damage to the fitting body, disengagement of the tube, or leakage.
3. Do not use the product if it does not satisfy all the conditions listed in the specifications when the fluid medium is water or liquid. It may cause damage to the fitting body, disengagement of the tube, or leakage.
4. Resin can be deteriorated by being exposed to direct sunlight or ultraviolet rays.
5. The max. operating pressure of the product varies depending on the operating temperature. Be sure to check the "Relation of Operating Temperature & Max. Operating Pressure" in this catalog. and use within that range.

Caution

1. If the valve is used under conditions where the differential pressure between the primary and secondary sides is extremely large (e.g., the secondary side is open to the atmosphere), the impact during operation may cause the valve plug to break, and in the worst case, the fragments may flow into downstream.
2. Depending on the operating pressure and flow rate, chattering of the valve plug may cause abnormal noise.
3. Note that EPDM (sealing rubber material) is not suitable for piping in general pneumatic circuits due to its inferior resistance to mineral oil-based oils.
4. Tube connection into a tube fitting is harder than that of standard spec. due to its oil-free specification. When using, make sure that the tube is inserted all the way to the tube end of the fitting. When inserting a tube, apply a liquid that is not problem to use on the tube surface to improve smoothness of tube connection.
5. Be sure to provide a differential pressure of 10 kPa or more in the check direction. Differential pressure below 10 kPa may cause check leakage.
6. When pressure is applied continuously in the reversing (checking) direction, it may become higher than the minimum operating pressure indicated, depending on ambient temperature and application time.
7. The corrosive property depends on the operating environment. If there is concern about adverse effects on machinery or equipment, evaluate the adoption of the product in accordance with the operating conditions in advance.
8. Do not use the product in such a way that requires zero leakage as it allows for leakage.
9. Due to the structure of this product, intrusion of foreign matter may result in a check leak. Be sure to install a filter on the upstream side of the piping.
10. When this product is used with water, depending on the water quality and operating environment, water stains may adhere to the inside of the product, causing the check valve to leak. In the case of a check leak caused by water stains, depending on the extent of the stain, ultrasonic cleaning may improve the leak. If the leak persists after cleaning, the product should be replaced accordingly.

Silencer

⚠ Detailed Safety Instructions

Caution

1. Clogged element increases the exhaust resistance. It may cause a deterioration of the entire system due to clogging.
2. Refer to the following table for tightening the screws. Tighten the threaded body until they are slightly tight, then further tighten them using the appropriate tool on the outer hexagonal column. Knurling locknut needs to be tightened firmly by hand without using any tool. Since the main body is made of resin or the outer circumference is knurled, it may cause damage to the screws or the main body if not tightened properly.

● Tightening torque table

(Outer hexagonal column)

Thread type	Thread size	Tightening torque
Metric thread	M3×0.5	0.7N·m
	M5×0.8	1 to 1.5N·m
	M6×1	2 to 2.7N·m
Taper pipe thread	R1/8	4.5 to 6.5N·m
	R1/4	7 to 9N·m
	R3/8	12.5 to 14.5N·m
	R1/2	20 to 22N·m
Unified thread	No.10-32UNF	1 to 1.5N·m
National pipe thread tapered	1/16-27NPT	4.5 to 6.5N·m
	1/8-27NPT	4.6 to 6.5N·m
	1/4-18NPT	7 to 9N·m
	3/8-18NPT	12.5 to 14.5N·m
	1/2-14NPT	20 to 22N·m
British pipe thread parallel	G3/8	Further 1/2 to 1 rotation after hand tightening
	G1/2	

(Knurling locknut)

Thread type	Thread size	Tightening torque
Metric thread	M5×0.8	Further 1/6 rotation after hand tightening
	M6×1	
	M10×1	
British pipe thread parallel	G3/8	Further 1/2 to 1 rotation after hand tightening
	G1/2	

3. If the function deteriorates due to clogging of the element, replace the unit. Note that it is not possible to replace the element only.

Safety Instructions

⚠ Common Safety Instructions for In-line type Filter

Be sure to read the followings before selecting or using PISCO products. Read the detailed precautions, instructions and specifications for individual series.

⚠ Warning

1. Perform periodical maintenance and inspection of the filter element. Clogging of the element may cause poor performance or trouble. When replacing the element, be sure to understand the dust removal method and the filter replacement element in the instructions, and make sure that the internal pressure of the filter is released to atmospheric pressure before replacement to ensure safety.
2. Do not wash with water. It may cause malfunction.

⚠ Caution

1. Refer to “Common Safety Instructions for Products in This Catalog” and “Common Safety Instructions for Fittings” for handling fitting part.
2. Do not use a lubricator on products.
3. When connecting the piping, check the arrows for the air flow direction marked on the body. Reverse connection does not satisfy the filter function.
4. After removing dust and replacing the element, fix the case securely and make sure there is no fluid leakage.

In-line Air Filter

⚠ Detailed Safety Instructions

Warning

1. Since the material of the filter transparent cover is PCTG, avoid using it in the atmosphere of the chemicals in the following table or in a place where it adheres, as it may be damaged.

●Chemical name

Chemical name	
Thinner	Cyclohexane
Carbon tetrachloride	Trichloroethylene
Chloroform	Sulfuric acid
Acetate ester	Lactic acid
Aniline	Soluble cutting oil (Alkaline)

*There can be other chemicals that cannot be used in the same environment. For specific applications and/or chemicals, contact our sales office.

2. Always use the slide lock in the locked position. Also, if the joint body is rotated in the locked state or if excessive force is applied to the slide lock, the slide lock may break down and the joint body and the filter cover may be separated and cause injury.

Caution

1. When used in a circuit that applies vacuum and blow-off (vacuum breaking) air alternately, note that the dust removed by the element may be discharged by the breaking air.
2. When disassembling and reassembling for maintenance, make sure the O-ring is not damaged. Use of a damaged O-ring may cause leakage or other problems.

Hollow Fiber Membrane Filter

⚠ Detailed Safety Instructions

Warning

1. Perform regular maintenance and inspection of the hollow fiber membrane of MFU filter. Clogging of the hollow fiber membrane may result in poor performance or trouble. Replace the product with a new one after one year of use or when the pressure loss becomes 0.1MPa or more.
2. Do not use or store it outdoors or in direct sunlight. Direct sunlight and ultraviolet rays may deteriorate the hollow fiber membrane and potting agent, which may significantly reduce the filter performance.
3. The explosion-proof function of this product is to prevent splashing when the filter case is damaged, not to prevent the filter case from being damaged.
4. Do not use in the following fluids or operating atmospheres: Corrosive gases, organic solvents, chemicals, water (steam), excessive humidity, dust, air or nitrogen containing oil mist, etc.

Caution

1. Be sure to flush the inside of the pipe with clean air before piping. Dust, rust, sealing tape, etc. in the piping may cause clogging. Also, when connecting pipes, etc., be sure to flush from the air inflow direction with clean air in order to reduce the effect of dust emission from the connection.
2. The filter element of this product cannot be replaced.
3. Depending on the usage conditions, the hollow fibers may be disordered, but this will not affect the performance.

⚠ Common Safety Instructions for Fiber Dry Series and Dry Unit Series

Be sure to read the followings before selecting or using PISCO products. Read the detailed precautions, instructions and specifications for individual series.

⚠ Warning

1. When installing the product, be sure to provide adequate support and fix it securely. Looseness or dropping off of the products may cause injuries.
2. Do not use the product without the explosion-proof case (bowl guard). There is a risk of injury from flying debris when the bowl is broken.
3. Be sure to set the lock lever on the filter, mist filter and micro-mist filter to the locked position before use. There is a risk that the explosion-proof case and bowl may come off and cause injury.
4. Perform periodical maintenance and inspection of the filter element. Clogging of the element may cause poor performance or trouble. When replacing the element, be sure to understand the dust removal method and the filter replacement element in the instructions, and make sure that the internal pressure of the filter is released to atmospheric pressure before replacement to ensure safety.
5. Do not wash with water unless otherwise instructed. It may cause malfunction.

⚠ Caution

1. Do not use a lubricator on the air supply unit.
2. The air filter, mist filter, micro mist filter and filter regulator must be mounted vertically with the drain cock facing downwards. Improper installation may cause drainage failure.
3. Manual drain type of air filter, mist filter and micro mist filter self-discharges at a pressure of 0.05 MPa and auto-drain type at a pressure of 0.15 MPa or less. Install the unit taking into consideration that air and condensate will be discharged.
4. The dryer requires 10 to 20 minutes of initial drying operation (idling) before it reaches the specified performance.
5. When the manual drain type is selected, discharge drain before it reaches to the “MAX. DRAIN LEVEL” . It may cause drainage to flow to the secondary side.
6. Do not operate Fiber Dry with Purging Flow Adjustment Dial “Zero”. It results in poor dehumidification performance. For dehumidification performance, refer to the performance data given in the instructions.
7. Do not apply back pressure to the purge outlet of the dryer. It may cause performance degradation.

Fiber Dry

⚠ Detailed Safety Instructions

Caution

1. Be sure to turn the purge adjustment dial of the Fiber Dry (DMP, FDT) in the direction of the arrow. Turning in the opposite direction may cause damage.
2. Follow the basic piping instructions strictly in order to ensure stable performance and prolong the service life of the Fiber Dry.
3. When connecting a Fiber Dry directly from the compressor, be sure to use a Dry Unit (dryer and filter set) (or install a filter just before).

Dry Unit

⚠ Detailed Safety Instructions

Caution

1. Be sure to adjust the regulator in the direction of increasing pressure, and be sure to push the handle to lock it after adjusting the pressure.
2. Until the supply pressure rises to 0.05 MPa for manual drain type and 0.15 MPa for auto drain type, air will be discharged from the drain outlet, but this is not a malfunction. At this timing, turning the drain knob will not stop the air flow. (If it takes a long time for the supply pressure to rise to 0.15 MPa, please consult with PISCO.)
3. The drainage knob must be operated with the fingertips.
4. Use nylon tubing with an internal diameter of ø6 mm when piping tubing to the joint of the manual drain cock. The tube should not be bent immediately after the fitting.
5. The joint of the manual drain cock rotates freely and there is no need to remove the tube when draining manually.
6. Refer to the corresponding pages of Safety Instructions related to Digital Pressure Sensor and Digital Pressure Gauge in this catalog.

Air Filter FTA, Mist Filter FTD, Micromist Filter FTM

⚠ Detailed Safety Instructions

Caution

1. Until the supply pressure rises to 0.05 MPa for manual drain type and 0.15 MPa for auto drain type, air will be discharged from the drain outlet, but this is not a malfunction. At this timing, turning the drain knob will not stop the air flow. (If it takes a long time for the supply pressure to rise to 0.15 MPa, please consult with PISCO.)
2. The drainage knob must be operated with the fingertips.
3. Use nylon tubing with an internal diameter of ø6 mm when piping tubing to the joint of the manual drain cock. The tube should not be bent immediately after the fitting.
4. The joint of the manual drain cock rotates freely and there is no need to remove the tube when draining manually.

Safety Instructions

Regulator RVF

⚠ Detailed Safety Instructions

Caution

1. When the secondary side is released into the atmosphere, sympathetic vibration may occur due to the influence of the flow. Avoid prolonged use with the secondary side open to the atmosphere, as this may cause internal damage and other malfunctions.
2. Be sure to adjust the regulator in the direction of increasing pressure, and be sure to push the handle to lock it after adjusting the pressure.
3. Refer to the corresponding pages of Safety Instructions related to Digital Pressure Sensor and Digital Pressure Gauge in this catalog.

Filter and Regulator Combination Unit

⚠ Detailed Safety Instructions

Caution

1. When the secondary side is released into the atmosphere, sympathetic vibration may occur due to the influence of the flow. Avoid prolonged use with the secondary side open to the atmosphere, as this may cause internal damage and other malfunctions.
2. Be sure to adjust the regulator in the direction of increasing pressure, and be sure to push the handle to lock it after adjusting the pressure.
3. Refer to the corresponding pages of Safety Instructions related to Digital Pressure Sensor and Digital Pressure Gauge in this catalog.
4. Until the supply pressure rises to 0.05 MPa for manual drain type and 0.15 MPa for auto drain type, air will be discharged from the drain outlet, but this is not a malfunction. At this timing, turning the drain knob will not stop the air flow. (If it takes a long time for the supply pressure to rise to 0.15 MPa, please consult with PISCO.)
5. The drainage knob must be operated with the fingertips.
6. Use nylon tubing with an internal diameter of ø6 mm when piping tubing to the joint of the manual drain cock. The tube should not be bent immediately after the fitting.
7. The joint of the manual drain cock rotates freely and there is no need to remove the tube when draining manually.

Air Tank

⚠ Detailed Safety Instructions

Warning

1. Do not apply load such as pulling, twisting, bending, dropping, or excessive impact to the product. Do not step on top of the product or place any objects on it. It may result in injury or damage to the product as a result of fall accident, tipping or dropping.
2. Use it within the specification range of pressure, temperature or fluid. Using outside the specification range may result in unexpected accidents or malfunctions.
3. When the air tank is fully closed, internal pressure may rise due to temperature rise or distortion (such as crushing). In addition, use of pressure exceeding the operating pressure range may cause damage to the tank. Use a pressure sensor or similar device and take safety measures to keep the internal pressure within the specification range.
4. For use in Japan, when the pressure inside the air tank is 1 MPa or more at room temperature, the "High Pressure Gas Safety Act" applies. However, use within its specifications of this product is outside the scope of the "High Pressure Gas Safety Act" in Japan.
5. If the product is to be used outside of Japan, check the laws and regulations of the country of use and confirm that they are applicable.
6. Avoid using fluids outside specifications. This may cause deterioration or damage to the unit.
7. Do not apply an external pressure greater than atmospheric pressure. It may cause damage to the product.
8. Perform maintenance and inspection only after turning off the air, and confirming that the pressure inside the piping has become zero.
9. Unexpected accidents may occur due to external damage or internal corrosion caused by drains. Periodically check for breakage and damage on the outside and corrosion on the inside, or use a plate thickness gauge to check the extent of decrease in plate thickness.
10. If condensate accumulates in the air tank, it may lead to internal corrosion and drainage outflow into the piping. Drain the condensate according to the usage conditions.

Caution

1. Do not install the air tank in a moving or vibrating area. It may cause material fatigue, loosening of the mounting part, or damage.
2. When tightening the threaded body of the connecting fittings, refer to the tightening torque in following table and the allowable torque of the tool. Failure to tighten the threaded body with proper torque may result in damage to the product or tool, loosening of the thread, or leakage.

● Tightening torque table

Thread type	Thread size	Tightening torque
G-thread	G1/4	12 to 14N·m
	G3/8	22 to 24N·m
	G1/2	28 to 30N·m
	G1	65 to 70N·m

3. This product is intended for use only with compressed air and nitrogen (fluid group 2: PED 2014/68/EU).
4. Make sure that all compressed air in the system has been exhausted before installation.
5. The inside of the air tank still contains an oxide film from the manufacturing process. When using the product in a clean environment, provide a filter that meets the specifications between the tank and the equipment used.
6. When installing the connection fitting, use the appropriate tool using the hexagonal-column of the fitting.
7. When mounting, please use the 4 or 2 mounting holes on the bottom of the product (ATS-0.4 and ATS-0.75 are attached with a fixing clip) to fix the product securely.
8. When a fitting is connected to the drain outlet of a 5 liter or larger model, it may interfere with the floor depending on the fitting to be connected. Use the mounting method that allows the fitting to avoid contact.
9. Use the optional dedicated G thread fitting for the connection.
10. Visual inspection and leak check should be performed once a year, and if there is external damage or corrosion, the product should be replaced. If there is a leak, check the connections and connecting parts, or replace them if necessary.

⚠ Common Safety Instructions for Pressure Sensor

Be sure to read the followings before selecting or using PISCO products. Read the detailed precautions, instructions and specifications for individual series.

⚠ Warning

1. Do not use in flammable, explosive gases, liquids, dusty environments or atmospheres. This product is not designed to be explosion-proof and may cause fire or explosion.
2. Do not wash with water. It may cause malfunction.

⚠ Caution

1. Do not use a lubricator on products.
2. The pressure sensor and the vacuum generator with pressure sensor should be installed at the end of the vacuum line as far as possible. If the distance between the pressure sensor and the end of the vacuum line is long, the pipe resistance may increase and the degree of vacuum in the sensor may be high even when there is no suction, which may cause the pressure sensor to malfunction. Be sure to evaluate the products in an actual system.
3. Use a stable DC power supply.
4. This product shall not be used in the temperature higher than the specified range thus generating heat. There is a risk of causing sensor failure.
5. Do not short-circuit the output terminals to the power supply or COM terminals. If a short circuit occurs, there is a risk of causing sensor failure.
6. Include a surge voltage absorbing circuit when connecting (relays, valves, etc.) to output terminals or power supply terminals. Do not use the power supply in such a way that it exceeds its rating.
7. When using a unit power source such as a switching power supply, be sure to ground the FG terminal.
8. Do not provide loads such as twisting, prying or tensile force between fitting and sensor case. The wiring should be long enough so that no tensile load is applied to the sensor body. The joint body and sensor case connection may be damaged.
9. If the product is wired or used in such a way that noise or the like is applied, it may cause a malfunction.
10. Do not apply 0.2 MPa or higher pressure to the product constantly during a blow-off (vacuum breaking). If applied constantly, it may cause damage to the sensor.
11. Do not subject the lead wires to strong tensile forces or extreme bending. It may cause disconnection or damage to the connector.
12. It is recommended to use a filter as foreign matter may get inside.
13. Do not use in areas exposed to water, oil or dust. Since it is not drip-proof or explosion-proof, it may cause malfunction. Take appropriate protective measures when using.
14. For handling of the fitting part, refer to the "Common Safety Instructions for Fittings", and for mounting and removal of the direct mounting type product with thread, refer to the "10. Precautions for installing product" and "11. Instructions for removal" of "Common Safety Instructions for Products in This Catalog".

Pressure Gauge

⚠ Detailed Safety Instructions

Caution

1. The orientation of GPU or GPM type gauge can be changed by turning the hexagonal column of the gauge body with an appropriate tool. Directly turning the gauge cap may damage the gauge or cause reading failure.
2. Tolerance of gauge is ± 5% FS (full scale). If accuracy is required, check and adjust the pressure separately with an appropriate gauge.

Digital Pressure Gauge

⚠ Detailed Safety Instructions

Warning

1. Never use with corrosive or flammable gases or liquids.
2. Do not use in an environment with corrosive or explosive gases as it is not explosion-proof.

Caution

1. When handling, do not drop, strike or subject it to strong shocks. Even if it is not damaged in appearance, it may be damaged inside.
2. If there is a risk of water, dust, etc. entering the main unit through the atmospheric release port, connect a tube, etc. to the atmospheric release port and extend the other end to a safe place (where water, etc. will not be splashed). Be careful not to bend the tube or block the end.
3. When using, connect the air filter immediately before the product.
4. The atmospheric release port must always be open to the atmosphere.
5. Use the specified battery. The use of non-specified batteries may cause malfunction.
6. The batteries must be inserted in the correct direction. Incorrect orientation of the battery may cause the battery to explode or leak, resulting in a malfunction or accident. When not in use for a long time, always remove the batteries and store them separately to prevent leakage.
7. This product cannot be calibrated and should not be used for commercial transactions.

Handy Manometer

⚠ Detailed Safety Instructions

Warning

1. The product is not explosion-proof. Do not use in place where explosive-proof is required.
2. The product is not drip-proof or dust-proof.
3. The product is intended to measure target and does not have any control function for the purpose of accident prevention or other safety assurance.

Safety Instructions

Caution

1. The applicable media of GPH-V/-S are air and non-corrosive gas. Use with water or corrosive fluids may result in failure. The applicable medium of GPH-B is gas and liquid that do not corrode SUS316L. Use on corrosive media may cause injury or failure. Also, do not use flammable gas as it is not explosion-proof.
2. The measuring pressure should be within the specified pressure range. Applying more than the maximum pressure may cause a malfunction.
3. Be careful not to allow foreign matter to enter the pressure port. If any foreign matter gets inside, it may cause malfunction or air leakage. If there is a possibility of contamination, please use through a filter or similar.
4. Be careful of accidents caused by the strap. When using with the strap attached, intentionally swinging the product by holding the strap may result in an unexpected accident, injury, or damage to the product. When using the product, hold the main body firmly in your hand.
5. When tightening and fixing the push-in fitting to the pressure port, use a tightening torque of 1 to 1.5 N-m.
6. When using the analogue output function, applying voltage or signals to the CAL terminal due to mis-wiring of the connector, etc. may cause a malfunction. Also, be careful not to lose the battery compartment lid.
7. The protective cover is made of silicone rubber. Do not use in media that corrode the silicone rubber. The protective cover is also used to protect the unit from leaks when attaching and detaching fittings and tubes.
8. Perform regular maintenance and inspections. Before using the product, make sure that the product operates properly. Unexpected malfunction or failure of the product may result in the failure to display normal readings or to provide adequate functionality.
9. Use the specified battery. The use of non-specified batteries may cause malfunction.
10. The batteries must be inserted in the correct direction. Incorrect orientation of the battery may cause the battery to explode or leak, resulting in a malfunction or accident. When not in use for a long time, always remove the batteries and store them separately to prevent leakage.
11. Wipe off any stains on the product with a soft cloth. If the product gets dirty, wipe it off with a cloth soaked in neutral detergent diluted with water and wrung out well, then finish with a dry cloth. While cleaning, make sure that the neutral detergent solution does not get into the pressure port or inside the unit. It may cause malfunction.
12. When storing the protective cover, keep it in a dark place at normal temperature and humidity. Prolonged exposure to ultraviolet rays may cause deterioration and discoloration.

8 mm width LED Digital Pressure Sensor

⚠ Detailed Safety Instructions

Caution

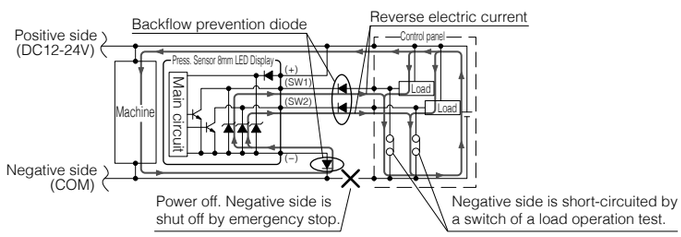
1. Do not press the setting buttons with a sharp tip. It may damage the setting buttons.
2. Do not apply excessive force to the setting buttons. It may cause damage to the button or the product itself.
3. For DIN rail mounting, use 35 mm wide DIN rails.
4. When mounting on DIN rail, install commercially available DIN rail terminal blocks on both sides of the product. Excessive vibrations and shocks may cause the product to detach from the DIN rail.
5. Do not apply excessive load to the DIN rail release lever. It may damage the release lever. In particular, when installing or removing the tube with the sensor mounted on the DIN rail, hold the unit by hand to prevent any load being applied to the release lever.
6. Do not press hard on the pressure display with your fingers. It may damage the display screen or cause the panel to come off.
7. The surface of the LED display is covered with a protective film at the time of shipment. Peel off and use as required.
8. By removing the lock pin, the cartridge fitting can be disconnected. Make sure that the lock pin is securely inserted when using.

LED Digital Pressure Sensor

⚠ Detailed Safety Instructions

Caution

1. When setting the pressure and differential response, use a small screwdriver and gently turn the trimmer within its rotation range without applying excessive force. Applying excessive force may cause damage to the trimmer and to the circuit board.
2. To mount the sensor body, use the mounting through holes for M2.5 screws and tighten them with the tightening torque 0.3 to 0.31Nm.
3. If other devices are connected to the same power supply as this sensor, and the SW output terminal is short-circuited with minus (-) terminal by a load operation test switch or the like while the minus (-) terminal (COM) is disconnected, the reverse current will flow to switch output circuit and the sensor will be damaged. When using this type of circuit, install a diode to prevent reverse current on the minus (-) side power supply line or on the SW output line in the direction shown in the following figure.

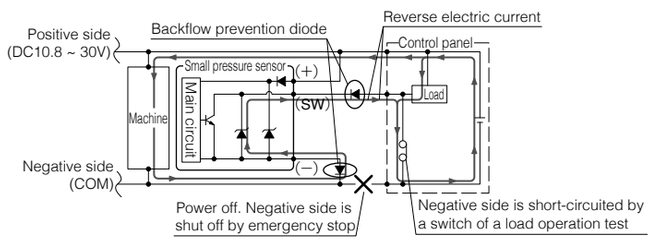


Compact Pressure Sensor 11

⚠ Detailed Safety Instructions

Caution

1. When adjusting the pressure of the 11 series sensor with switch output, use the small screwdriver supplied and turn gently without excessive force. Applying excessive force may cause damage to the product.
2. For the sensor head of the display unit (SED-31), use type VUS11...A, VUS12...A or SEU11...A. If the specifications of the sensor head are different, the display accuracy may not meet the specifications.
3. If other devices are connected to the same power supply as this sensor, and the SW output terminal is short-circuited with minus (-) terminal by a load operation test switch or the like while the minus (-) terminal (COM) is disconnected, the reverse current will flow to switch output circuit and the sensor will be damaged. When using this type of circuit, install a diode to prevent reverse current on the minus (-) side power supply line or on the SW output line in the direction shown in the following figure.



4. When setting the pressure and differential response, use a small screwdriver and gently turn the trimmer within its rotation range without applying excessive force. Applying excessive force may cause damage to the trimmer and to the circuit board.
5. Precautions for mounting the main unit (Thread type small pressure sensor 11 & 12 series) (1) Tighten the thread using the hexagonal-column of the main unit with an appropriate tool. (2) When tightening the threaded body, refer to the tightening torque in the table below and the allowable torque of the tool. Failure to tighten the threaded body with proper torque may result in damage to the product or tool, loosening of the thread, or leakage.

● Tightening torque table

Thread type	Thread size	Tightening torque
Metric thread	M5×0.8	1.0 to 1.5N·m
Taper pipe thread	R1/8	4.5 to 6.5N·m

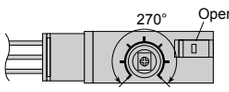
6. Precautions for removing the main unit (Thread type small pressure sensor 11 & 12 series) (1) Remove the main unit by using the hexagonal-column of the main unit and using an appropriate tool. (2) Remove the sealant or a foreign substance on the removed mating thread. If the sealant adheres to the peripheral device, it may get into the devices and cause a malfunction.
7. Since the sensor head connector ACPG-31-CN1 is a crimp terminal, it is not necessary to remove the lead wire insulation when wiring. Wiring with the insulation removed may result in a short circuit.

Compact Pressure Sensor 12

⚠ Detailed Safety Instructions

Caution

1. For the sensor head of the display unit (SED-31), use type VUS11...A, VUS12...A or SEU11...A. If the specifications of the sensor head are different, the display accuracy may not meet the specifications.
2. When adjusting the pressure of the 12 series sensors with switch output, refer to the Fig. 1 and use the supplied small screwdriver to gently turn the sensor without applying excessive force.
3. If other devices are connected to the same power supply as this sensor, and the SW output terminal is short-circuited with minus (-) terminal by a load operation test switch or the like while the minus (-) terminal (COM) is disconnected, the reverse current will flow to switch output circuit and the sensor will be damaged. When using this type of circuit, install a diode to prevent reverse current on the minus (-) side power supply line or on the SW output line in the direction shown in the Fig. 2.



Stop strength of trimmer	Max. 8mN·m
Thrust force of trimmer	Max. 3N

Fig. 1 Mechanical angle of the trimmer

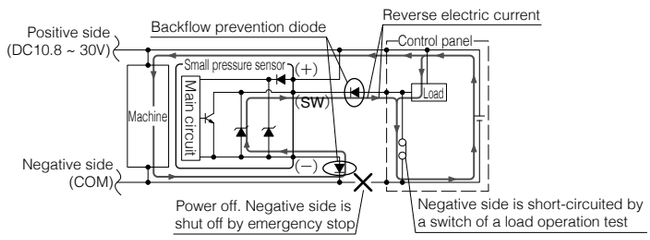


Fig. 2

4. When setting the pressure and differential response, use a small screwdriver and gently turn the trimmer within its rotation range without applying excessive force. Applying excessive force may cause damage to the trimmer and to the circuit board.
5. Precautions for mounting the main unit (Thread type Compact Pressure Sensor 11 & 12 series) (1) Tighten the thread using the hexagonal-column of the main unit with an appropriate tool. (2) When tightening the threaded body, refer to the tightening torque in the table below and the allowable torque of the tool. Failure to tighten the threaded body with proper torque may result in damage to the product or tool, loosening of the thread, or leakage.

● Tightening torque table

Thread type	Thread size	Tightening torque
Metric thread	M5×0.8	1.0 to 1.5N·m
Taper pipe thread	R1/8	4.5 to 6.5N·m

6. Precautions for removing the main unit (Thread type Compact Pressure Sensor 11 & 12 series) (1) Remove the main unit by using the hexagonal-column of the main unit and using an appropriate tool. (2) Remove the sealant or a foreign substance on the removed mating thread. If the sealant adheres to the peripheral device, it may get into the devices and cause a malfunction.
7. Since the sensor head connector ACPG-31-CN1 is a crimp terminal, it is not necessary to remove the lead wire insulation when wiring. Wiring with the insulation removed may result in a short circuit.

Indicator for Analog output type Compact Pressure Sensor 11/12

⚠ Detailed Safety Instructions

Warning

1. Incorrect wiring may cause damage, failure, or malfunction of the sensor.

Caution

1. For the sensor head of the display unit (SED-31), use type VUS11...A, VUS12...A or SEU11...A. If the specifications of the sensor head are different, the display accuracy may not meet the specifications.

Digital Pressure Sensor 31 & 32 Series with 3-color dual display

⚠ Detailed Safety Instructions

Warning

1. Incorrect wiring may cause damage, failure, or malfunction of the sensor.

Flow Sensor 21 with 2-color dual digital display

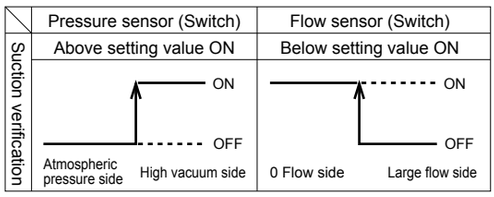
⚠ Detailed Safety Instructions

Warning

1. This product cannot be used as a business meter.
2. Use dry gas which does not contain corrosive elements such as chlorine, sulfur or acids, and clean gas which does not contain dust or oil mist. Depending on the fluid, retaining the fluid for long periods could adversely affect the performance. Do not seal the fluid in the system for long periods of time. Also, if foreign objects such as dusts, water droplets, oil-mist is drawn in the system, it can affect the accuracy of the measurements and cause malfunction. To avoid such contaminations, install a filter, air dryer and an oil mist filter on the primary side (upstream side) of the product.
3. When using a valve on the primary side of this product, use only an oil-prohibited specification valve. This sensor could malfunction or fail if exposed to splattering grease, oil, etc. As friction powder may be generated depending on the valve, mount a filter to prevent the powder from entering the sensor.
4. When using liquefied gas such as carbon dioxide, always vaporize it first. Failure may result if liquefied gas enters the product.

Caution

1. Although the sensor can handle an overflow double the measurement range, do not use it under condition beyond the specified range.
2. Applications exceeding the max. working pressure and specified flow rate range may result in faults. If energized in a vacuum state of –0.09 MPa or less, the sensor's heat dissipation will suffer, leading to degradation of the sensor. Even within the pressure range, the excessive flow may occur due to pressure difference between upstream and downstream sides and the sensor may operate abnormally. Especially when using with high pressure, provide a bypass circuit or restrictor so that excessive flow is not applied to the sensor.
3. The needle valve permits minute leakage. Do not use the products for the application that requires no leakage.
4. The flow path is not completely free of dust generation. Use Hollow Fiber Membrane Filter together if dust generation could be a problem.
5. Be aware of the following points when using for suction verification, etc. 1. Mount an air filter upstream from suction in compliance with the working status to prevent the entry of foreign matter. 2. Consider the atmospheric dew point and the product's ambient temperature, and use the product under conditions in which dew does not condense in pipes. 3. When using it for vacuum applications such as air intake, do not bend it near the push-in fitting. If stress is applied to the tube near the push-in fitting, insert the Insert-ring into the tube and then insert it into the push-in fitting. 4. When the suction confirmation sensor is switched from a pressure sensor (switch) to a flow rate sensor (switch), sensor output (switch output) logic will be reversed. Refer to the drawing below. Note that the PLC sequence program must be changed or revised. If source pressure or vacuum source is not supplied when device power is turned ON, "flow rate 0" = "sensor output (switch output) ON" status is set at the flow rate sensor (switch). Make sure that this is not a problem with the PLC sequence program, etc. 5. Select the flow rate range based on the operating vacuum pressure and suction nozzle size. Response speed may be delayed by the piping volume between the suction nozzle and this product. In that case, take countermeasures to reduce piping capacity.



6. The case is made of resin. Do not use solvent, alcohol or detergent in cleaning, since the resin could absorb it. There is a risk of affecting the resin. Wipe off dirt with a rag soaked in a diluted neutral detergent solution and wrung out well.
7. The accuracy may vary from the initial status depending on the working environment or operating conditions. It is recommended to check the operation of the product periodically. Also, the sensor chip will degrade when used for long periods of time and cause the detected flow rate to fluctuate. Inspect the sensor chip periodically.

8 mm width Flow Sensor

⚠ Detailed Safety Instructions

Warning

1. Never use the product in an explosive gas atmosphere. Since it is not an explosion-proof structure, it may cause an explosion or fire.
2. Do not use in corrosive gas atmospheres such as sulphurous gas.
3. Never use with flammable fluids.
4. Wiring must be carried out with the power switched off.
5. Use a stabilized DC power supply within the rating, insulated from the AC power supply. An uninsulated power supply may cause an electric shock hazard. If the power supply is not stabilized, the peak voltage value may exceed the rating, which may damage the product or deteriorate the accuracy.

Caution

1. This product does not conform to the Measurement Act and should not be used for commercial transactions. Use as an industrial sensor.
2. When using this product for suction confirmation, be sure to install an air filter upstream of the suction side to prevent foreign matter from being sucked.
3. When using for suction confirmation or the like, use it under conditions that do not cause condensation in the piping, taking into account the dew point in the air and the ambient temperature of the product.
4. When using it for vacuum applications such as air intake, do not bend it near the push-in fitting. If stress is applied to the tube near the push-in fitting, insert the Insert-ring into the tube and then insert it into the push-in fitting.
5. If vibration or impact of 100 m/sec^2 or more is applied when using or transporting the product, the flow rate to analog output voltage characteristics may fluctuate or the product may fall off from the holder. Therefore, do not apply excessive vibration or impact.
6. Install this product and wiring as far away from noise such as strong power lines.
7. Surge currents or reverse currents, if generated, may cause damage to the product.
8. Do not apply repeated bending or tensile force to the lead wires. It may cause wiring disconnection.
9. The flow rate to analog output voltage characteristics of this product may fluctuate when external force is applied. Do not apply any external force such as pinching to the product when using it.
10. Do not apply stress to the connector during use. The internal circuit board and body may be deformed, causing output changes and external leakage.
11. Ambient temperature and fluid temperature must be within the range 0 to 50°C. Even within the temperature range, do not use in areas where the ambient temperature or fluid temperature may change rapidly and condensation may occur.
12. Use within the specification range, as use above or below the maximum or minimum operating pressure or outside the operating flow rate range may cause failure.
13. Do not install in a place with moisture, salt, dust and chips, and in a pressurized or depressurized environment. This product is not suitable for use in areas of extreme temperature change or high humidity, where condensation inside the unit may cause damage.
14. Applicable fluids are air and nitrogen gas. Do not use other fluids, as the specifications cannot be guaranteed.
15. Use dry gas that does not contain corrosive components such as chlorine, sulfur, or acid, and clean gas that does not contain dust or oil mist.
16. Compressed air from the compressor contains condensate (water, oxidized oil, foreign matter, etc.), therefore a filter, oil mist filter and air dryer should be installed on the primary side (IN side) of the sensor. The mesh (wire mesh) inside the sensor is used to rectify the flow in the pipe. Be sure to install a filter as the mesh(wire mesh) is not a filter for removing foreign matter.
17. If a valve is used on the primary side (IN side) of the sensor, use a valve with a non-lubricant specification. Some valves may generate abrasive dust, so install a filter before use.
18. The output accuracy is affected by the temperature characteristics as well as the self-heating caused by the current flow. When using the product, be sure to provide a standby time (at least 5 minutes) after energization.
19. Check the unit at least once a year to make sure it is working properly. The output voltage is ± 6% F.S. in one direction and ± 3% F.S. in bi-direction from the initial value under our measurement conditions. (This is the definition of the amount of change in the results of our reliability tests.) It is recommended to check the operation periodically.
20. The case is made of resin. Do not use solvents, alcohol or cleaning agents to remove dirt or other contaminants. There is a risk of damaging the resin.

Safety Instructions

⚠ Common Safety Instructions for Valve Series

Be sure to read the followings before selecting or using PISCO products. Read the detailed precautions, instructions and specifications for individual series.

⚠ Warning

1. Do not operate manual valves by machine. There is a risk of damage to the product.
2. Do not use water to clean products that cannot be used with water. It may cause malfunction.

⚠ Caution

1. Refer to “Common Safety Instructions for Products in This Catalog” and “Common Safety Instructions for Fittings” for handling fitting part.

Change Valve

⚠ Detailed Safety Instructions

Caution

1. Do not use a lubricator on products.
2. When operating the handle, be sure to turn it 90°. Inadequate turning may cause poor continuity and insufficient flow due to insufficient switching. Excessive turning may damage the unit.
3. Check the arrow on the handle to confirm the valve position before actually turning on the air.
4. When using under negative pressure, install a vacuum filter on the suction side. Dust sucked in may cause malfunction.

Hand Valve

⚠ Detailed Safety Instructions

Caution

1. Do not use a lubricator on products.
2. When operating the cap lever, be sure to turn it 90° until it stops. Inadequate turning may cause poor continuity and insufficient flow due to insufficient switching.
3. To identify a 2-way or 3-way valve, check the engraving on the top of the cap lever.
4. When using under negative pressure, install a vacuum filter on the suction side. Dust sucked in may cause malfunction.

Ball Valve Mini type (10 series)

⚠ Detailed Safety Instructions

Caution

1. Do not use a lubricator on products.
2. When using under negative pressure, install a vacuum filter on the suction side. Dust sucked in may cause malfunction.

Ball Valve (20 & 60 series)

⚠ Detailed Safety Instructions

Warning

1. For the 20 and 60 series, do not use them unless all the conditions stated in the specification are met when the fluid medium is water. It may cause damage to the product, disengagement of the tube, or leakage.

Caution

1. Do not use a lubricator on products.
2. When operating the 20 and 60 series, turn the handle until it stops at 90°. Inadequate turning may cause poor continuity and insufficient flow due to insufficient switching.
3. When using under negative pressure, install a vacuum filter on the suction side. Dust sucked in may cause malfunction.
4. Do not pull out the lock pin, as this will cause the unit to separate. Also, make sure that the lock pin is securely inserted when using.

Ball Valve SUS304

⚠ Detailed Safety Instructions

Warning

1. Check chemical resistance before using the products, when the fluid medium is chemicals, solvent or mixed gases. Depending on the usage conditions, it may cause damage to the valve body, disengagement of the tube, or leakage.
2. Do not use the product if it does not satisfy all the conditions listed in the specifications when the fluid medium is water or liquid. It may cause damage to the valve body, disengagement of the tube, or leakage.

Caution

1. Do not use a lubricator on products.
2. When operating, turn the handle until it stops at 90°. Inadequate turning may cause poor continuity and insufficient flow due to insufficient switching.
3. When using under negative pressure, install a vacuum filter on the suction side. Dust sucked in may cause malfunction.
4. Do not pull out the lock pin, as this will cause the unit to separate. Also, make sure that the lock pin is securely inserted when using.

5. The corrosive properties of the valves depend on the operating environment. If there is concern about adverse effects on machinery or equipment, evaluate the adoption of the product in accordance with the operating conditions in advance.
6. Precautions for mounting the union type fixing holder
   When tightening the countersunk head screw, refer to the tightening torque in the following table.
   If not tightened with the proper torque, the holder may come off due to breakage or deformation of the screw part or loosening of the screw.

●Tightening torque table for Union type fixing holder

Type	Thread size	Tightening torque
BVUH20	M3×0.5	0.5 to 0.7N·m
BVUH60	M4×0.7	0.8 to 1.0N·m

7. Precautions when using Lockout (Misoperation Preventive Cap)
   This product can be easily cut and destroyed with a utility knife, nippers, etc.
   This product is designed to prevent mishandling in a simple manner. If further reliability is required, consider alternative methods.
8. Precautions when using the co-rotating stopper for Elbow type
   Do not rotate the stopper with a torque greater than the handle operation. Excessive torque may cause the stopper to fail to engage.

Ball Valve SUS316 Equivalent (10 series)

⚠ Detailed Safety Instructions

Warning

1. Check chemical resistance before using the products, when the fluid medium is chemicals, solvent or mixed gases. Depending on the usage conditions, it may cause damage to the valve or leakage.
2. Do not use the product if it does not satisfy all the conditions listed in the specifications when the fluid medium is water or liquid. It may cause damage to the valve or leakage.
3. Do not use this product under conditions where it is subject to shaking or impact. It may cause damage to the valve or leakage.
4. Before use, be sure to check for leaks by using soapy water or the like.
5. Even after installation, perform periodic leak inspections and maintenance at a frequency that takes into account the frequency of use, temperature, flow rate, pressure, fluid type, and other environmental factors of the installed equipment. There are life-threatening hazards such as lack of oxygen.
6. Do not retighten at high temperatures or under pressure. There is a risk of deformation or damage, resulting in fluid blowout or valve damage. Be sure to return to room temperature and set the pressure to zero before retightening.
7. Do not use the product outside the scope of its specifications. There is a risk of liquid leakage or accidents such as piping disengagement.
8. If the valve is opened or closed while pressure is applied, liquid or pressure may remain in the space inside the product. If the pressure of the remaining fluid increases due to a rise in temperature, etc., and exceeds the maximum operating pressure, there is a risk of fluid blowout or damage to the valve. When removing the product from the piping, for example, take measures such as opening the valve halfway and discharging the residual pressure.
9. If the fluid is a high-temperature, high-speed liquid or a two-phase fluid mixed with solid particles, there is a risk that the ball seat may deform and wear, resulting in leakage. In such cases, verify the conditions of use carefully before using the product.
10. The handle should always be used in the fully open or fully closed position. Use in the intermediate position may cause the ball seat to be damaged by fluid or ball edges, resulting in leakage and reduced life.
11. The nominal pressure of the ball valve body is the specification value of the ball valve alone. When used with a push-in fitting, the specifications are those of the push-in fitting.
12. For SUS316 push-in fitting for 10 series, check chemical resistance before using the products, when the fluid medium is chemicals, solvent or mixed gases. Depending on the usage conditions, it may cause damage to the fitting body, disengagement of the tube, or leakage.
13. For SUS316 push-in fitting for 10 series, do not use the product if it does not satisfy all the conditions listed in the specifications when the fluid medium is water or liquid. It may cause damage to the fitting body, disengagement of the tube, or leakage.
14. For SUS316 push-in fitting for 10 series, be sure to use the insert ring under the following operating conditions. If not used, it may cause the tube to slip out or leak.
    · For use in fluids and environments with drastic temperature changes.
    · For use at high temperatures.

Caution

1. Do not disassemble or modify the 1-piece type valve except to replace the lever. There is a risk that the original function may be impaired.
2. Do not touch the surface of the product in environments where the product is exposed to high temperatures.
3. The wetted parts are made of casting material equivalent to SUS316, but some parts other than the wetted parts are made of SUS304. Check the environment and fluid to be used, and understand the characteristics of the material before use.
4. When installing the product, take into account the effects of loads from the pipework. It may cause deformation or leakage.
5. Over-tightening the piping with excessive torque may cause deformation of the body or ball seat. Refer to the tightening torque of the fitting.
6. When tightening the piping to the valve, check the installation instruction and apply a wrench or a similar tool to the appropriate position. Tools such as wrenches must be used in the correct position or they may lead to loosening of parts.
7. Although it is an oil-free specification, there is a possibility that unintended oil content has adhered. Note that we cannot guarantee that there will be no oil deposits.
8. The corrosive and dusting properties of the valve depend on the operating environment. If there is concern about adverse effects on machinery or equipment, evaluate the adoption of the product in accordance with the operating conditions in advance.
9. Depending on the operating conditions, such as fluid medium and frequency of opening and closing of valve, the PTFE seal at the sliding part may be worn out and dust may be generated. If contamination of abrasion dust into the fluid is a problem, take measures such as installing a filter downstream of the valve.
10. When using under negative pressure, install a vacuum filter on the suction side. Dust sucked in may cause malfunction.
11. SUS316 push-in fitting for 10 series is exclusive to the NSBVF10 series. If used with other female threads, leakage may occur.
12. If SUS316 push-in fitting for 10 series is repeatedly tightened to the ball valve, the threads may gall each other and become unusable.
13. When tightening SUS316 push-in fitting for 10 series to the ball valve, refer to the tightening torque in the table on the next page.
14. The corrosive and dusting properties of SUS316 push-in fitting for 10 series depends on the operating environment. If there is concern about adverse effects on machinery or equipment, evaluate the adoption of the product in accordance with the operating conditions in advance.

Safety Instructions

Installation instructions

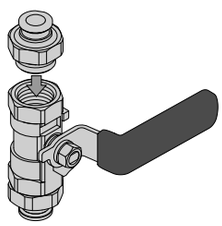
· Before installation, use air blow or water to clean valve internal.
· IN/OUT flow can be connected to both sides of valve. Choose side that is easy to install and operate.
· Consider the load from the piping when installing valve.
· Follow the tightening torque for tube fitting.
· Consider operating temperature and fluid medium before selecting pipe seal material (sealing tape or sealant).
· When tightening pipe to the valve, be sure to hold End cap on mated side for 30 series, hexagonal body part of 10 series, or octagonal opposite side of 30 series with a wrench or a similar tool.
· After installation, open the valve and flush to remove dust and foreign matter in the piping.

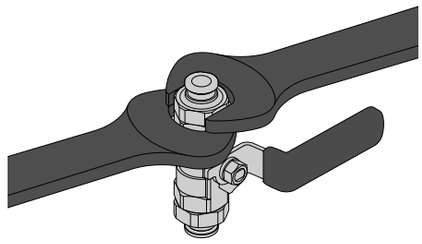
How to tighten Dedicated SUS316 Push-in Fitting

· Refer to the Tightening torque table below to connect the dedicated SUS316 Push-in Fitting to Ball Valve SUS316 Equivalent using proper tools. There may be a gap between valve and the fitting at the connection, but it does not cause leakage.

● Table 1. Tightening Torque for Dedicated SUS 316 Push-in Fitting.

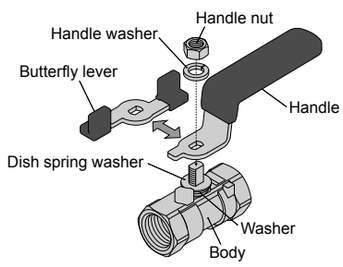
Model code	Torque (N·m)
NSBV10-44, 66	7 to 9
NSBV10-88, 1010	12.5 to 14.5
NSBV10-1212, 1616	20 to 22





How to fix Butterfly Lever

1. Loosen handle nut by a wrench and separate handle and handle washer. Be sure not to take out washer and dish spring washer.
2. Replace handle with butterfly lever, place handle washer and tighten handle nut by a wrench referring to the tightening torque table for Butterfly Lever. Check and adjust lever torque and leakage.



● Table 2. Tightening torque table for Butterfly Lever

Model code	Torque (N·m)
NSBL10-02	1.5 to 2.0
NSBL10-03	2.5 to 4.5
NSBL10-04	4.0 to 6.0

Ball Valve SUS316 Equivalent (30 series)

⚠ Detailed Safety Instructions

Warning

1. Check chemical resistance before using the products, when the fluid medium is chemicals, solvent or mixed gases. Depending on the usage conditions, it may cause damage to the valve or leakage.
2. Do not use the product if it does not satisfy all the conditions listed in the specifications when the fluid medium is water or liquid. It may cause damage to the valve or leakage.
3. Do not use this product under conditions where it is subject to shaking or impact. It may cause damage to the valve or leakage.
4. Before use, be sure to check for leaks by using soapy water or the like.
5. Even after installation, perform periodic leak inspections and maintenance at a frequency that takes into account the frequency of use, temperature, flow rate, pressure, fluid type, and other environmental factors of the installed equipment. There are life-threatening hazards such as lack of oxygen.
6. Do not retighten at high temperatures or under pressure. There is a risk of deformation or damage, resulting in fluid blowout or valve damage. Be sure to return to room temperature and set the pressure to zero before retightening.
7. Do not use the product outside the scope of its specifications. There is a risk of liquid leakage or accidents such as piping disengagement.
8. If the valve is opened or closed while pressure is applied, liquid or pressure may remain in the space inside the product. If the pressure of the remaining fluid increases due to a rise in temperature, etc., and exceeds the maximum operating pressure, there is a risk of fluid blowout or damage to the valve. When removing the product from the piping, for example, take measures such as opening the valve halfway and discharging the residual pressure.
9. If the fluid is a high-temperature, high-speed liquid or a two-phase fluid mixed with solid particles, there is a risk that the ball seat may deform and wear, resulting in leakage. In such cases, verify the conditions of use carefully before using the product.
10. The handle should always be used in the fully open or fully closed position. Use in the intermediate position may cause the ball seat to be damaged by fluid or ball edges, resulting in leakage and reduced life.

Caution

1. Do not disassemble or modify the 1-piece type valve except to replace the lever. There is a risk that the original function may be impaired.
2. Do not touch the surface of the product in environments where the product is exposed to high temperatures.
3. The wetted parts are made of casting material equivalent to SUS316, but some parts other than the wetted parts are made of SUS304. Check the environment and fluid to be used, and understand the characteristics of the material before use.
4. When installing the product, take into account the effects of loads from the pipework. It may cause deformation or leakage.
5. Over-tightening the piping with excessive torque may cause deformation of the body or ball seat. Refer to the tightening torque of the fitting.
6. When tightening the piping to the valve, check the installation instructions of 30 Series and apply a wrench or similar tool to the appropriate position. Tools such as wrenches must be used in the correct position or they may lead to loosening of parts.
7. Although it is an oil-free specification, there is a possibility that unintended oil content has adhered. Note that we cannot guarantee that there will be no oil deposits.
8. The corrosive and dusting properties of the valve depend on the operating environment. If there is concern about adverse effects on machinery or equipment, evaluate the adoption of the product in accordance with the operating conditions in advance.
9. Depending on the operating conditions, such as fluid medium and frequency of opening and closing of valve, the PTFE seal at the sliding part may be worn out and dust may be generated. If contamination of abrasion dust into the fluid is a problem, take measures such as installing a filter downstream of the valve.
10. When using under negative pressure, install a vacuum filter on the suction side. Dust sucked in may cause malfunction.

Mechanical Valve

⚠ Detailed Safety Instructions

Warning

1. The push pins and rollers must not be loaded beyond the limit stroke by mechanical operation. There is a risk of damage to the product.
2. Avoid using it in situations where a cam or dog starts suddenly. There is a risk that shocking loads may cause damage to the unit.
3. Do not mechanically operate the air switch type or foot switch type. There is a risk of damage to the product.
4. Make sure that the mechanical valve operates properly at startup, especially in applications that require reliability. There is a risk of system failure or malfunction due to faulty operation.
5. Avoid using the product in places where it is exposed to water droplets, oil drops, or dust. As it is not a drip-proof and dust-proof structure, it may cause malfunction.

Caution

1. Consult with PISCO if the operation frequency is high.
2. The number of ports and direction of continuity should be confirmed by the markings on the unit.
3. Note that the effective cross-sectional area of the microswitch and panel-mounted types varies with the stroke. Insufficient stroke can cause insufficient flow.
4. Be sure to push the push pin of air switch type or the upper lid of foot switch type completely until it stops. Insufficient push can cause poor continuity and insufficient flow due to insufficient switching.

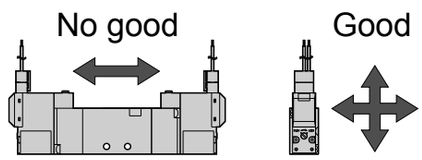
Safety Instructions

⚠ Common Safety Instructions for Solenoid Valve Series

Be sure to read the followings before selecting or using PISCO products. Read the detailed precautions, instructions and specifications for individual series.

⚠ Warning

1. When piping, flush both the air pressure source side and the actuator side, and install an air filter (with a filtration of 5 μm or better) on the upstream side near the valve.
   Drain or dust can cause malfunction.
2. Do not use in areas exposed to water, oil or dust.
   Since it is not drip-proof or explosion-proof, it may cause malfunction.
   Take appropriate protective measures when using.
3. When a solenoid valve is operated under a vibration of 50m/s^2 or less, install it in a way that the vibration direction is perpendicular to the spool valve.



4. Do not wash with water. It may cause malfunction.

⚠ Caution

1. When using the valve on the manifold, be aware that the back pressure may cause the actuator (such as a single-acting cylinder, etc.) to malfunction. In such a case, take measures such as inserting a check valve in the exhaust port.
2. Three-position valves should not be used for intermediate stops on cylinders where accuracy is required. Precise position stop is difficult due to the compressibility of air. In addition, the valve may not be able to hold the stop position for a long time because it allows leakage.
3. Do not apply strong tensile force or extreme bending to the individual plug-in connector (cable). It may cause disconnection or damage to the connector.
4. The model of 24 VDC is equipped with a surge absorber as standard to protect against surges, but surges are not completely absorbed. If there is a risk of malfunction due to surge, take additional measures.
5. When activating the valve, ensure that the leakage current is less than 1mA. Leakage current may cause malfunction.
6. If the valve is energized in the following conditions (1) to (3), the coil will generate heat. Heat generation may shorten the product life and lead to malfunction. It may also cause thermal burns and affect peripheral equipment. Consult with PISCO if the power is supplied under the following conditions (1) to (3).
   (1) The power is continuously on for more than 2 hours.
   (2) High cycle energization.
   (3) Even with intermittent energization, if the cumulative energized time per day is larger than non-energized time.
7. Do not use a lubricator on products.
8. Do not use the valve in a way that requires zero leakage, as it allows for leakage.
9. The valve should not be used for high volume air blowing. Due to the internally piloted design, a drop in internal pressure may cause malfunction.
10. When the valve is switched by manual operation, the connected actuator, etc. will be activated. Check the safety before operating.
11. Be sure to turn off the power during wiring and piping. Also, before turning on the power or supplying air, make sure that there is no incorrect wiring or piping.
12. Check each port of the valve according to the markings on it before starting piping.
13. Be sure to turn off the power, turn off the air, and confirm that the pressure inside the piping has become zero before performing maintenance and inspection. Note that pressurized air remains between the valve and actuator in the 3-position closed center type.
14. Clogged silencer element on a manifold increases the exhaust resistance. Perform maintenance and inspection periodically as it may lead to a deterioration of the function of the entire system.
15. When replacing the silencer element, carefully read the instruction manual and replace it with enough understanding.
16. Read the instruction manual carefully for proper installation and removal of valves. Also, keep the instruction manual.
17. When wiring Sub-D connector, Individual plug-in Connector and Flat Cable, refer to the electric circuits in the instruction manual.
18. Include a surge voltage absorbing circuit in relays, solenoid valves, etc. that are connected to output or power terminals. Do not use the power supply in such a way that it exceeds its rating.
19. If the product is wired or used in ways that noise or the like is applied, it may cause malfunction.

Solenoid Valve SVB

⚠ Detailed Safety Instructions

Caution

1. When the manual cover of the Series 10 is closed, the manual button cannot be operated manually or locked.

Solenoid Valve SVA

⚠ Detailed Safety Instructions

Caution

1. Carefully read and understand the instruction manual on how to replace and pipe cartridge fittings.
2. The cartridge fitting can be attached and detached by removing the lock pin, but make sure that the lock pin is securely inserted before use.

Solenoid Valve SVR

⚠ Detailed Safety Instructions

Caution

1. The cartridge fitting can be attached and detached by removing the lock pin, but make sure that the lock pin is securely inserted before use.
2. Carefully read the below instructions on how to replace the cartridge fittings and how to pipe the ø8 mm tube compression fittings.

[Replacement of the cartridge fitting]

All piping connection ports are replaceable.

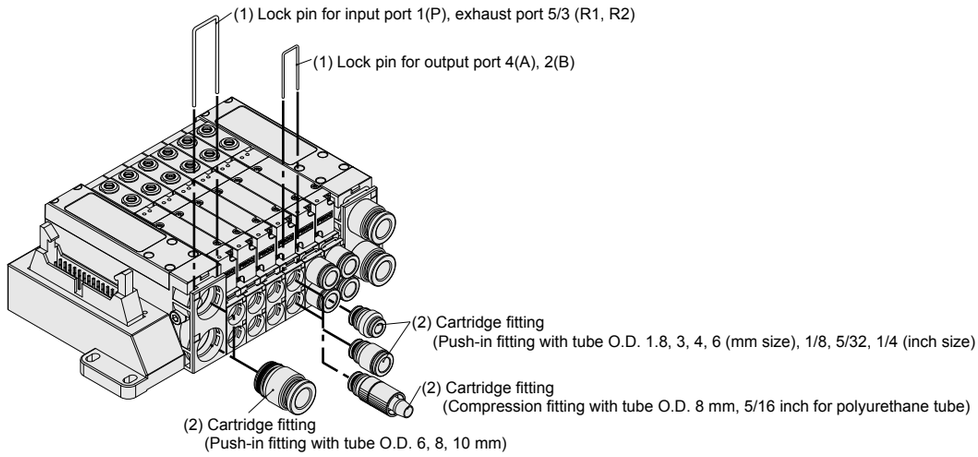
■ Example: Input port 1(P), output port 4/2 (A/B), exhaust port 5/3 (R1/R2) (below figure)

(1) Pull out Lock pins with flat head screwdrivers.

(2) Pull out cartridge fittings (push-in fitting or compression fitting) in the direction of tube connection.

*Make sure dust or fuzz is not on O-rings before installing cartridge fittings.

*When replacing output ports of 3-position valve, remove the valve before the replacement.



[Piping of compression fitting for ø8 mm polyurethane tube]

■ Perform piping for the compression fitting joint for piping connections (4 (A) port, 2 (B) port) as shown below.

(1) Separate the compression fitting from the manifold body. (Refer to "Replacement of the cartridge fitting").

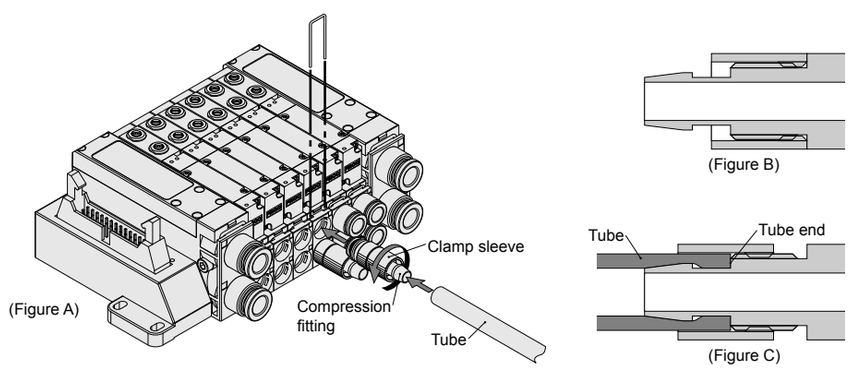
(2) Turn until the clamp sleeve hits the compression fitting (Figure B).

(3) Insert the end of the tube into the sleeve (Figure C). (Use urethane tubes for the compression fitting joint.)

(4) Turn the sleeve 6 to 8 times counterclockwise by hand or by radio pliers.

(5) Connect the compression fitting to the manifold.

*After connecting to the manifold, be sure to insert the lock pin.



3. The exhaust check valve is used to reduce the circulate pressure from the exhaust circuit. Note that it is not completely airtight in the reverse direction.

Sub-D connector

⚠ Detailed Safety Instructions

Warning

1. Do not use in areas exposed to water or oil. As it is not drip-proof, it may cause a short circuit due to water or oil.
2. Do not subject the lead wires to strong tensile forces or extreme bending. It may cause disconnection or damage to the connector.

Safety Instructions

Caution

1. Securely fasten the socket side and pin side with screws.
2. When wiring, be sure to understand the connector terminal numbers and cable core identification according to the table below and prevent wrong wiring.

● Wire Color/Terminal no.

Terminal no.	Insulator color	Printing Mark
1	Black	(No marking)
2	Brown	(No marking)
3	Red	(No marking)
4	Orange	(No marking)
5	Yellow	(No marking)
6	Pink	(No marking)
7	Blue	(No marking)
8	Purple	White Dot
9	Gray	Black Dot
10	White	Black Dot
11	White	Red Dot
12	Yellow	Red Dot
13	Orange	Red Dot
14	Yellow	Black Dot
15	Pink	Black Dot
16	Blue	White Dot
17	Purple	(No marking)
18	Gray	(No marking)
19	Orange	Black Dot
20	Red	White Dot
21	Brown	White Dot
22	Pink	Red Dot
23	Gray	Red Dot
24	Black	White Dot
25	White	(No marking)

⚠ Common Safety Instructions for Mechanical Pressure Sensor

Be sure to read the followings before selecting or using PISCO products. Read the detailed precautions, instructions and specifications for individual series.

⚠ Warning

1. Do not use in areas exposed to water, oil or dust. Since the mechanical pressure sensor is not drip-proof or dust-proof, it may cause malfunction.
2. Applying 0.5 MPa instantaneously to a mechanical vacuum sensor does not affect on its performance, but do not apply a pressure of 0.2 MPa or more constantly. There is a risk of damage to the switch if it is constantly applied.
3. Do not wash with water. It may cause malfunction.

⚠ Caution

1. Be sure to turn off the power before wiring the mechanical pressure sensor. When wiring, check the color of the lead wires to avoid incorrect wiring.
2. Do not apply strong tensile force or extreme bending to the lead wires. There is a risk of wire breakage.
3. Do not use a lubricator on products.

⚠ Common Safety Instructions for Vacuum Series

Be sure to read the followings before selecting or using PISCO products. Read the detailed precautions, instructions and specifications for individual series.

⚠ Warning

1. Fall prevention measures must be taken in advance to ensure safety where a dropping workpiece can cause danger.
2. Do not apply constant pressure of 0.1 MPa and more to the vacuum circuit. Since vacuum generators are not explosion-proof, there is a risk of damage to the products.
3. Be careful not to drop the vacuum pressure due to trouble with the supply air or power supply. Take safety measures to prevent workpiece from falling due to reduced suction force.
4. In a vacuum circuit where two or more pads are connected to a single vacuum generator, there is a risk that if one pad causes suction failure (leakage), the other pads will detach due to a drop in vacuum pressure.
5. Do not block the exhaust port of the vacuum generator or use the vacuum generator in such a way that the exhaust resistance increases. It may cause no vacuum or drop of vacuum pressure.
6. Do not wash with water unless otherwise instructed. It may cause malfunction.

⚠ Caution

1. Abnormal noise (buzzing noise) may be produced at the supply pressure just before the vacuum reaches its peak. In this abnormal noise state, the characteristics are unstable and the noise becomes loud. Reset the supply pressure as this may affect the sensor and cause trouble.
   * Pressure range in which abnormal noise (buzzing noise) occurs is affected by atmospheric pressure.
2. The effective cross-sectional area of the supply pressure side of the vacuum generator should be three times the nozzle cross-sectional area as a guide when selecting piping and equipment. Insufficient supply flow rate may cause poor performance.
3. Do not use a lubricator on products.
4. Check each port of the vacuum generator according to the outline dimensional drawing in the instructions and the indication on the product, and carry out the plumbing . Incorrect plumbing may cause damage to the product.
5. The pressure sensor and the vacuum generator with pressure sensor should be installed at the end of the vacuum line as much as possible. If the distance between the pressure sensor and the end of the vacuum line is long, the pipe resistance may increase and the degree of vacuum in the sensor may be high even when there is no suction, which may cause the pressure sensor to malfunction. Be sure to evaluate the products in an actual system.
6. The vacuum plumbing should be as short as possible and the internal diameter as large as possible. Longer pipes and narrower internal diameters may cause delays in the response time during suctioning and vacuum breaking and may not secure the required suction flow.
7. Keep the piping for vacuum, centralized exhaust, pilot exhaust, and supply as short as possible. The original performance of the vacuum equipment may not be fully demonstrated due to piping resistance.
8. The use of a vacuum filter is recommended due to the possibility of foreign particles entering through the vacuum port (V).
9. Since the vacuum characteristics are based on our measurement conditions, it may not be possible to secure the suction flow rate specifications depending on the vacuum piping conditions.
10. The nozzle and diffuser of the vacuum generator should be cleaned regularly as clogging reduces its performance. When cleaning, be sure to understand the removal/installation and cleaning instructions given in the instructions.
11. Periodically perform maintenance and inspection of the silencer element of the vacuum generator and the filter element of the vacuum filter. Clogged element may result in poor performance or cause problems.
12. When replacing the element, be sure to understand the instructions for replacing the element.
13. Do not use in areas exposed to water, oil or dust. Since it is not drip-proof or explosion-proof, it may cause malfunction. Take appropriate protective measures when using.
14. For handling of the fitting part, refer to the "Common Safety Instructions for Fittings", and for mounting and removal of the direct mounting type product with thread, refer to the "10. Precautions for installing product" and "11. Instructions for removal" of "Common Safety Instructions for Products in This Catalog".
15. For handling of electronic pressure sensors, refer to "Common Safety Instructions for Pressure Sensors" and individual "Detailed Safety Instructions" of each series.
16. For the handling of mechanical pressure sensors, refer to "Common Safety Instructions for Mechanical Pressure Sensor".
17. The transparent filter covers of the VG, VK, VJ, VZ, VX, VJP, VZP, VXP/VXPT, VFU2 and VFU3 series are made of PCTG and should not be used in atmospheres where chemicals (refer to the following table) are present or in places where they may adhere.

● Table. Chemical Names

Chemical Name	Chemical Name	Chemical Name
Acetone	Silicone oil	Methyl alcohol (Methanol)
Aniline	Ammonium hydroxide	Lacquer
Hydrogen chloride gas	Ammonium hydroxide concentrated	Sulfuric acid (10% 20°C)
Chloroform	Trichloroethylene (Trichlene)	Sulfuric acid concentrated (20°C)
Ethyl acetate	Toluene	Sulfuric acid concentrated (70°C)
Carbon tetrachloride	Ethylene dichloride	
Cyclohexane	Lactic acid (high temperature)	
Dimethylformamide (DMF)	Lactic acid (low temperature)	
Nitric acid (61% 20°C) (concentrated nitric acid solution)	Phenol	
Silicone grease	Benzene (Benzol)	

*Some chemicals other than those listed may not be used, therefore consult with PISCO for more information.

18. The transparent filter covers of the VQ, VQP, VFU0, and VFU1 series are made of PA and should not be used in atmospheres where chemicals (refer to the following table) are present or in places where they may adhere.

● Table. Chemical Names

Chemical Name	Chemical Name	Chemical Name
Aniline	Chromic acid (10% 70°C)	Water vapor (260°C or higher)
Ethylene chlorohydrin	Chromic acid (25% 70°C)	Tetrachloroethane
Epichlorohydrin	Chlorosulfonic acid	Tetrahydrofuran
Chloroethyl (Chloroethane)	Chlorotoluene	Trichloroethylene (Trichlene)
Thionyl chloride	Chlorobenzene	Ethylene dichloride
Benzyl chloride	Chloroform	Methylene dichloride
Methyl chloride	Acetic acid (Acetic anhydride)	Nitrobenzene
Hydrochloric acid (20% 80°C)	Hypochlorous acid	Carbon disulfide
Hydrochloric acid (37% 20°C)	Calcium hypochlorite	Perchloroethylene
Aqua regia	Calcium hypochlorite (5% 70°C)	Phenol
Ozone	Ethane tetrachloride	Benzyl chloride
Sodium peroxide	Carbon tetrachloride	Acetic anhydride
Caustic soda (30% 70°C)	Dichlorobenzene	Mono-chlorobenzene (Chlorobenzene)
Potassium permanganate	Dimethylformamide (DMF)	Mono-chloroethanoic acid (Chloroethanoic acid)
Formic acid (50% 20°C)	Hydrobromic Acid (20% 20°C)	Sulfuric acid concentrated (20°C)
Formic acid (90% 20°C)	Hydrobromic Acid (40% 20°C)	Sulfuric acid concentrated (Oleum)
Cresol	Bromine	Phosphoric acid concentrated
Chromic acid (2% 70°C)	Water vapor (204°C to 260°C)	
Chromic acid (2% 50°C)	Water vapor (204°C or lower)	

*Some chemicals other than those listed may not be used, therefore consult with PISCO for more information.

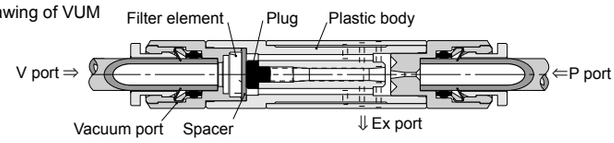
Vacuum Generator Simple type VU, VUM

⚠ Detailed Safety Instructions

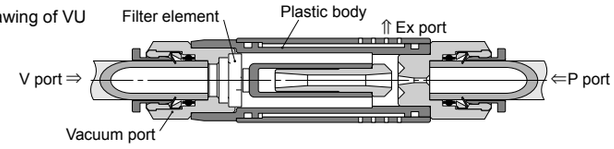
Caution

1. In the assembly after the maintenance of filter element of VUM, confirm the plug is installed in the right position as shown in the following sectional drawing first, and then install the spacer and filter element. It is not necessary to remove the plug for maintenance.
2. After maintenance of VU and VUM type filter elements, install them without leaving any gap between the resin body and the vacuum port body as shown in the following sectional drawing. Note that the product performance will not be satisfied unless it is installed in the proper position.

●Sectional drawing of VUM



●Sectional drawing of VU



Vacuum Generator Simple type VY

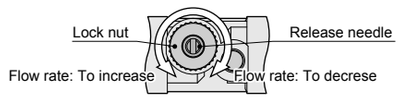
⚠ Detailed Safety Instructions

Warning

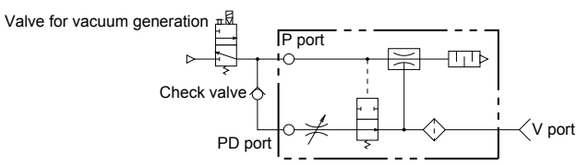
1. Before installing VY type, thoroughly read this instruction for piping method of VY Vacuum Generator. Wrong piping may cause personal injury and damage to equipments.
2. Resin body of VY vacuum filter is made of PP. Material deterioration may be caused by exposure to direct sunlight or ultra-violet rays.
3. Knurling locknut needs to be tightened firmly by hand without using any tool. Using tools to tighten the nut may cause damage to the nut or the product. Inadequate tightening may loosen the locknut and the initial setting may be changed.

Caution

1. How to adjust releasing air on Vacuum Generator VY
   In order to decrease flow rate, rotate release needle to right (clockwise) using a proper slotted screwdriver. To increase flow rate, rotate the needle to left (counterclockwise). When flow rate is adjusted, be sure to tighten the needle to keep the adjustment.



2. The vacuum filter for the vacuum generator VY cannot be replaced by the filter element alone. If the filter needs to be replaced for maintenance or inspection, the filter itself must be replaced.
3. If different pressures are used for the supply air for vacuum generation and blow-off (vacuum breaking) of the vacuum generator VY, the pressure of the supply air for blow-off (vacuum breaking) must be set below the pressure of the supply air for vacuum generation. If the supply air pressure for blow-off (vacuum breaking) is higher than the supply air pressure for vacuum generation, it may lead to leakage.
4. When the vacuum generator VY is used in the piping method shown in the following figure, blow-off air from the check valve turns around and the blow-off air comes out of the V (vacuum) port, although it is instantaneous until the shut-off valve is completely switched off.



5. Do not apply excessive force when attaching a tube to the vacuum filter for the vacuum generator VY. The filter may be damaged.

Vacuum Generator Simple type VC

⚠ Detailed Safety Instructions

Caution

1. Note that the direction of piping cannot be changed after installation for the pad direct mounting straight type (VC) with thread sizes of M5 x 0.8 and M6 x 1.

Vacuum Generator VRL

⚠ Detailed Safety Instructions

Caution

1. Granules, powders, fibers etc. may not be conveyed by the vacuum generator VRL under certain conditions. Contact PISCO for further information.
2. If the exhaust port is a push-in fitting for a tube O.D. ø 16 mm, please use a tube with an internal diameter of ø 12 mm or larger.

Vacuum Generator VVV

⚠ Detailed Safety Instructions

Caution

1. If the silencer (VVSR06L) is not used or if centralized exhaust piping is used, air may flow back through the exhaust port (EX) when operation is stopped, and dust in the air or piping may enter the product, affecting product performance.
2. When using a silencer with an elbow adapter, the suction flow rate will be about 15% lower than the specification value.

Vacuum Generator VLM

⚠ Detailed Safety Instructions

Caution

1. If the silencer is not used or if centralized exhaust piping is used, air may flow back through the exhaust port (EX) when operation is stopped, and dust in the air or piping may enter the product, affecting product performance.
2. Reducing the number of silencers results in reduced performance.
3. Do not allow positive pressure, such as blow-off (vacuum breaking) air, exceeding 0.3 MPa to the vacuum circuit. It may cause damage to the check (non-return) packing.

Safety Instructions

⚠ Common Safety Instructions for Vacuum Generator Complex type & External Vacuum Controller

Be sure to read the followings before selecting or using PISCO products. Read the detailed precautions, instructions and specifications for individual series.

⚠ Warning

1. Fall prevention measures must be taken in advance to ensure safety where a dropping workpiece can cause danger.
2. Do not apply constant pressure of 0.1 MPa and more to the vacuum circuit. Since vacuum generators are not explosion-proof, there is a risk of damage to the products.
3. Be careful not to drop the vacuum pressure due to trouble with the supply air or power supply. Take safety measures to prevent workpiece from falling due to reduced suction force.
4. In a vacuum circuit where two or more pads are connected to a single vacuum generator, there is a risk that if one pad causes suction failure (leakage), the other pads will detach due to a drop in vacuum pressure.
5. Do not block the exhaust port of the vacuum generator or use the vacuum generator in such a way that the exhaust resistance increases. It may cause no vacuum or drop of vacuum pressure.
6. Make sure the leakage current is 1mA or less when operating the solenoid valve. There is a risk of malfunction due to leakage current.
7. The vacuum generators with vacuum retention function or with check valve allow vacuum leakage, so separate safety measures must be taken if vacuum retention is required for long periods.
8. Use caution where pipe resistance is high or where the required blow off flow rate is high. It may cause trouble due to insufficient flow rate. Be sure to evaluate the products in an actual system.
9. Do not wash with water unless otherwise instructed. It may cause malfunction.

⚠ Caution

1. Abnormal noise (buzzing noise) may be produced at the supply pressure just before the vacuum reaches its peak. In this abnormal noise state, the characteristics are unstable and the noise becomes loud. Reset the supply pressure as this may affect the sensor and cause trouble.
   * Pressure range in which abnormal noise (buzzing noise) occurs is affected by atmospheric pressure.
2. The effective cross-sectional area of the supply pressure side of the vacuum generator should be three times the nozzle cross-sectional area as a guide when selecting piping and equipment. Insufficient supply flow rate may cause poor performance.
3. Do not use a lubricator on products.
4. Check each port of the vacuum generator according to the outline dimensional drawing in the instructions and the indication on the product, and carry out the plumbing . Incorrect plumbing may cause damage to the product.
5. The vacuum plumbing should be as short as possible and the internal diameter as large as possible. Longer pipes and narrower internal diameters may cause delays in the response time during suctioning and vacuum breaking and may not secure required suction flow.
6. Periodically perform maintenance and inspection of the silencer element of the vacuum generator and the filter element of the vacuum filter. Clogged element may result in poor performance or cause problems.
7. When replacing the element, be sure to understand the instructions for replacing the element.
8. Do not use in areas exposed to water, oil or dust. Since it is not drip-proof or explosion-proof, it may cause malfunction. Take appropriate protective measures when using.
9. For handling of the fitting part, refer to the "Common Safety Instructions for Fittings", and for mounting and removal of the direct mounting type product with thread, refer to the "10. Precautions for installing product" and "11. Instructions for removal" of "Common Safety Instructions for Products in This Catalog".
10. For the handling of mechanical pressure sensors, refer to "Common Safety Instructions for Mechanical Pressure Sensor".
11. The transparent filter covers of the VG, VK, VJ, VZ, VX, VJP, VZP, VXP/VXPT, VFU2 and VFU3 series are made of PCTG and should not be used in atmospheres where chemicals (refer to the following table) are present or in places where they may adhere.

● Table. Chemical Names

Chemical Name	Chemical Name	Chemical Name
Acetone	Silicone oil	Methyl alcohol (Methanol)
Aniline	Ammonium hydroxide	Lacquer
Hydrogen chloride gas	Ammonium hydroxide concentrated	Sulfuric acid (10% 20°C)
Chloroform	Trichloroethylene (Trichlene)	Sulfuric acid concentrated (20°C)
Ethyl acetate	Toluene	Sulfuric acid concentrated (70°C)
Carbon tetrachloride	Ethylene dichloride	
Cyclohexane	Lactic acid (high temperature)	
Dimethylformamide (DMF)	Lactic acid (low temperature)	
Nitric acid (61% 20°C) (Concentrated nitric acid solution)	Phenol	
Silicone grease	Benzene (Benzol)	

*Some chemicals other than those listed may not be used, therefore consult with PISCO for more information.

12. The transparent filter covers of the VQ, VQP, VFU0, and VFU1 series are made of PA and should not be used in atmospheres where chemicals (refer to the following table) are present or in places where they may adhere.

● Table. Chemical Names

Chemical Name	Chemical Name	Chemical Name
Aniline	Chromic acid (10% 70°C)	Water vapor (260°C or higher)
Ethylene chlorohydrin	Chromic acid (25% 70°C)	Tetrachloroethane
Epichlorohydrin	Chlorosulfonic acid	Tetrahydrofuran
Chloroethyl (Chloroethane)	Chlorotoluene	Trichloroethylene (Trichlene)
Thionyl chloride	Chlorobenzene	Ethylene dichloride
Benzyl chloride	Chloroform	Methylene dichloride
Methyl chloride	Acetic acid (Acetic anhydride)	Nitrobenzene
Hydrochloric acid (20% 80°C)	Hypochlorous acid	Carbon disulfide
Hydrochloric acid (37% 20°C)	Calcium hypochlorite	Perchloroethylene
Aqua regia	Calcium hypochlorite (5% 70°C)	Phenol
Ozone	Ethane tetrachloride	Benzyl chloride
Sodium peroxide	Carbon tetrachloride	Acetic anhydride
Caustic soda (30% 70°C)	Dichlorobenzene	Mono-chlorobenzene (Chlorobenzene)
Potassium permanganate	Dimethylformamide (DMF)	Mono-chloroethanoic acid (Chloroethanoic acid)
Formic acid (50% 20°C)	Hydrobromic Acid (20% 20°C)	Sulfuric acid concentrated (20°C)
Formic acid (90% 20°C)	Hydrobromic Acid (40% 20°C)	Sulfuric acid concentrated (Oleum)
Cresol	Bromine	Phosphoric acid concentrated
Chromic acid (2% 70°C)	Water vapor (204°C to 260°C)	
Chromic acid (2% 50°C)	Water vapor (204°C or lower)	

*Some chemicals other than those listed may not be used, therefore consult with PISCO for more information.

13. If the solenoid valve is energized in the following conditions (1) to (3), the coil will generate heat. Heat generation may shorten the product life and lead to malfunction. It may also cause thermal burns and affect peripheral equipment. Consult with PISCO if the power is being supplied under the following conditions (1) to (3).
    (1) The power is continuously on for more than 2 hours.
    (2) High cycle energization.
    (3) Even with intermittent energization, if the cumulative energized time per day is larger than non-energized time.
14. Be sure to turn off the power during wiring and piping. Also, before turning on the power or supplying air, make sure that there is no incorrect wiring or piping.
15. When wiring, check the color of the lead wire, terminal number, etc., and do not short-circuit the output terminal, power supply terminal, and COM terminal. In the event of a short circuit, there is a risk of causing a pressure sensor failure.
16. Do not operate the solenoid valve for blow-off (vacuum breaking) when vacuum is being generated or supplied.
17. When replacing cartridge fittings on supply and vacuum ports, remove any deposits from the seal part, replace the fittings and ensure that the retainer pins are securely inserted.
18. Read and understand the instructions carefully to adjust the flow rate of the blow-off (vacuum breaking) air.
19. Include a surge voltage absorbing circuit in relays, solenoid valves, etc. that are connected to output or power terminals. Do not use the power supply in such a way that it exceeds its rating.
20. If the product is wired or used in such a way that noise or the like is applied, it may cause malfunction.
21. Do not subject the lead wires to strong tensile forces or extreme bending. It may cause disconnection or damage to the connector.
22. With the manifold type, the number of units that can be operated simultaneously is limited by various conditions such as the air supply volume (supply port size, pipe length, pressure reducing valve flow rate, etc.) and the air consumption of the vacuum generator (vacuum characteristics). Consult with PISCO if you intend to use a manifold type with simultaneous actuation.

Vacuum Generator Complex type VG

⚠ Detailed Safety Instructions

Warning

1. All screws must be tightened to the correct torque referring to the digital catalog. The tightening torques for the mounting of the product is given in "How to fix the product", and for the unit in "Replacement Element". Failure to tighten to the correct torque may result in air leaks, product detachment and damage to parts of the product.

Vacuum Generator Complex type VK

⚠ Detailed Safety Instructions

Warning

1. All screws must be tightened to the correct torque. The tightening torques for the mounting of the product is given in "How to fix the product", and for the element cover in "How to replace silencer elements of Manifold Type" in the digital catalog in our website. Failure to tighten to the correct torque may result in air leaks, product detachment and damage to parts of the product.

Safety Instructions

Vacuum Generator Complex type VJ

⚠ Detailed Safety Instructions

Warning

1. For the double-piloted valve type, the state of the switching valve is neutral when the supply of both pilot air to the switching valve for vacuum generation is stopped, or at the beginning of use after shipment. When resupplying pilot air, be sure to input a signal to the pilot valve or manually operate to position the switching valve in the required state before using it.
2. When using the double-piloted valve type in vibration, install it so that the vibration direction is perpendicular to the operating direction of the switching valve (main valve).
3. All screws must be tightened to the correct torque referring to the digital catalog in our website. The tightening torque for the mounting of the product is given in "How to fix the product", and for the element cover in "Replacement Element". Failure to tighten to the correct torque may result in air leaks, product detachment and damage to parts of the product.

Vacuum Generator Complex type VX

⚠ Detailed Safety Instructions

Warning

1. When using the double-piloted valve type in vibration, install it so that the vibration direction is perpendicular to the operating direction of the switching valve (main valve).
2. All screws must be tightened to the correct torque referring to the digital catalog in our website. The tightening torques for the mounting of the product is given in "How to fix the product", for the vacuum port in "How to replacement Filter Elements", for the DIN rail fixing screw in "How to fix the product". Failure to tighten to the correct torque may result in air leaks, product detachment and damage to parts of the product.
3. For the double-piloted valve type, the state of the switching valve is neutral when the supply of both pilot air to the switching valve for vacuum generation is stopped, or at the beginning of use after shipment. When resupplying pilot air, be sure to input a signal to the pilot valve or manually operate to position the switching valve in the required state before using it.

Vacuum Generator Complex type VQ

⚠ Detailed Safety Instructions

Warning

1. For the double-piloted valve type, the state of the switching valve is neutral when the supply of both pilot air to the switching valve for vacuum generation is stopped, or at the beginning of use after shipment. When resupplying pilot air, be sure to input a signal to the pilot valve or manually operate to position the switching valve in the required state before using it.
2. All screws must be tightened to the correct torque referring to the digital catalog in our website. The tightening torques for the mounting of the product is given in "How to fix the product", and for the tightening silencer cover in "Replacement of Silencer Element". Failure to tighten to the correct torque may result in air leaks, product detachment and damage to parts of the product.
3. When using the double-piloted valve type in vibration, install it so that the vibration direction is perpendicular to the operating direction of the switching valve (main valve).

Vacuum Generator Complex type VZ

⚠ Detailed Safety Instructions

Warning

1. For the double-piloted valve type, the state of the switching (main) valve is neutral when the supply of both pilot air to the switching valve for vacuum generation is stopped, or at the beginning of use after shipment. When resupplying pilot air, be sure to input a signal to the pilot valve or manually operate to position the switching valve in the required state before using it.
2. When using the double-piloted valve type in vibration, install it so that the vibration direction is perpendicular to the operating direction of the switching valve (main valve).
3. All screws must be tightened to the correct torque referring to the digital catalog in our website. The tightening torques for detaching the unit is shown in "How to install and uninstall Mounting Unit", and for the tightening silencer cover in "How to replace Silencer Elements". Failure to tighten to the correct torque may result in air leaks, product detachment and damage to parts of the product.

Caution

1. When mounting each unit on the manifold base, remove and clean any deposits on the seal area and secure it with screws. Read the "Safety Rules for Use" in the instructions carefully before use.
2. When wiring Sub-D connector and Flat Cable connector, refer to the electric circuit diagram in the instructions.

Vacuum Generator Complex type VN

⚠ Detailed Safety Instructions

Warning

1. If the product is energized continuously for about 15 minutes or more, the frequency of continuous energizing should not exceed 10 times per day.
2. The solenoid valve of this product uses a current limit circuit, which is a feature that reduces the current value when the coil is kept energized. Do not use in environments subject to vibrations or shocks outside the specifications. It may lead to troubles such as valve malfunction.
3. All screws must be tightened to the correct torque referring to the digital catalog in our website. The tightening torques for the mounting of the product is given in "How to fix Stand-alone/Manifold type", and for the solenoid valve in "How to replace silencer elements". Failure to tighten to the correct torque may result in air leaks, product detachment and damage to parts of the product.

Caution

1. This product is not equipped with a vacuum filter. Be sure to use PISCO vacuum filter series together. If a vacuum filter is not used, dust and dirt can accumulate inside the product, causing poor vacuum performance, leaks and malfunctioning of the solenoid valve. (Recommended vacuum filters: VFU series, VFJ series)

External Vacuum Controller VJP

⚠ Detailed Safety Instructions

Warning

1. For the double-piloted valve type, the state of the switching valve is neutral when the supply of both pilot air to the switching valve for vacuum generation is stopped, or at the beginning of use after shipment. When resupplying pilot air, be sure to input a signal to the pilot valve or manually operate to position the switching valve in the required state before using it.
2. When using the double-piloted valve type in vibration, install it so that the vibration direction is perpendicular to the operating direction of the switching valve (main valve).
3. All screws must be tightened to the correct torque referring to the digital catalog in our website. The tightening torque for the mounting of the product is given in "How to fix External Vacuum Controller VJP", and for the filter cover, refer to "How to replace the filter element" in the Instruction Manual. Failure to tighten to the correct torque may result in air leaks, product detachment and damage to parts of the product.

Caution

1. When replacing a supply port block, be sure not to lose the seal rubber and remove any foreign deposits in the vicinity, and securely tighten the screws with a torque of 0.27 to 0.3 Nm.

External Vacuum Controller VXP, VXPT

⚠ Detailed Safety Instructions

Warning

1. All screws must be tightened to the correct torque referring to the digital catalog in our website. The tightening torques for the mounting of the product is given in "How to fix body", and for the solenoid valve is given in " How to replace Valve Filter Elements". Failure to tighten to the correct torque may result in air leaks, product detachment and damage to parts of the product.

External Vacuum Controller VQP

⚠ Detailed Safety Instructions

Warning

1. All screws must be tightened to the correct torque referring to the digital catalog in our website. The tightening torques for the mounting of the product is given in "How to fix body" and for the filter cover, refer to " How to replace Filter Elements" of Vacuum Generator Complex type VQ. Failure to tighten to the correct torque may result in air leaks, product detachment and damage to parts of the product.

External Vacuum Controller VZP

⚠ Detailed Safety Instructions

Warning

1. All screws must be tightened to the correct torque referring to the digital catalog in our website. The tightening torque of the solenoid valve is given in "How to install and uninstall Mounting Unit "of Vacuum Generator Complex type VZ. Failure to tighten to the correct torque may result in air leaks, product detachment and damage to parts of the product.

Caution

1. When mounting each unit on the manifold base, remove and clean any deposits on the seal area and secure it with screws. Read the "Safety Rules for Use "of Vacuum Generator Complex type VZ on the digital catalog in our website carefully before use.
2. When wiring Sub-D connector and Flat Cable connector, refer to the electric circuit diagram in the digital catalog of Vacuum Generator Complex type VZ in our website.
3. The vacuum performance may deteriorate or problems may occur depending on the operating conditions. Be sure to understand the "Safety Rules for Use "of Vacuum Generator Complex type VZ in the digital catalog in our website.

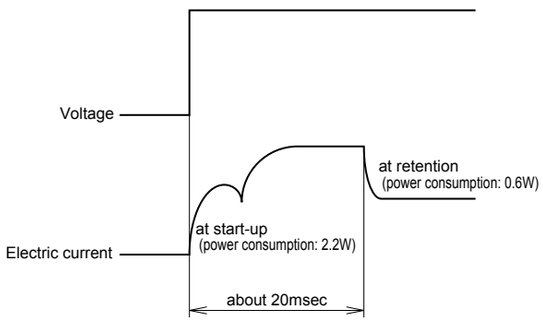
External Vacuum Controller VNP

⚠ Detailed Safety Instructions

Warning

1. All screws must be tightened to the correct torque referring to the digital catalog in our website. The tightening torques for the mounting of the product is given in "How to fix Stand-alone/Manifold type", and for the solenoid valve in "How to replace Filter Elements". Failure to tighten to the correct torque may result in air leaks, product detachment and damage to parts of the product.
2. If the product is energized continuously for about 15 minutes or more, the frequency of continuous energizing should not exceed 10 times per day.
3. The solenoid valve of this product uses a current limit circuit, which is a feature that reduces the current value when the coil is kept energized. Do not use in environments subject to vibrations or shocks outside the specifications. It may lead to troubles such as valve malfunction.

Safety Instructions



Electric current and voltage waveform at valve excitation

Caution

1. This product is not equipped with a vacuum filter. Be sure to use PISCO vacuum filter series together. If a vacuum filter is not used, dust and dirt can accumulate inside the product, causing poor vacuum performance, leaks and malfunctioning of the solenoid valve. (Recommended vacuum filters: VFU series, VFJ series)

External Vacuum Controller VIP

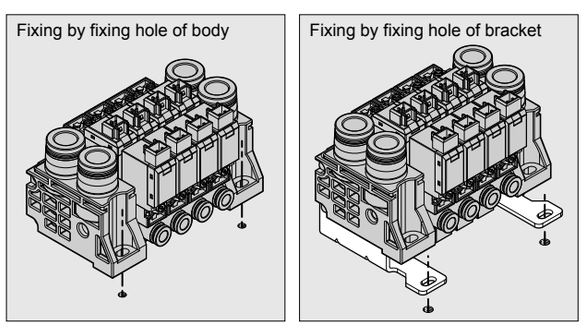
⚠ Detailed Safety Instructions

Warning

1. All screws must be tightened to the correct torque referring to the figures and the instructions below. Failure to tighten to the correct torque may result in air leaks, product detachment and damage to parts of the product.

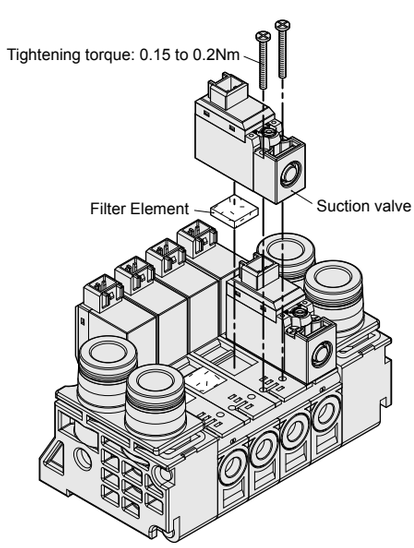
■How to fix body

Tighten M3 threads with tightening torque 0.3 to 0.35 Nm through fixing holes of the body or the bracket to fix the body. Failure to tighten to the correct torque may result in air leaks, product detachment and damage to parts of the product.
(Contact us to check the fixing holes pitch.)



■How to replace Filter Elements

● Use a Phillips screwdriver and remove a suction valve in order to replace a filter element (Model code: VN013B19).
Be sure not to lose seal rubbers of Suction valve before tightening the fixing threads with the tightening torque 0.15 to 0.2 Nm.



Caution

1. This product is not equipped with a vacuum filter. Be sure to use PISCO vacuum filter series together. If a vacuum filter is not used, dust and dirt can accumulate inside the product, causing poor vacuum performance, leaks and malfunctioning of the solenoid valve. (Recommended vacuum filters: VFU series, VFJ series)

Vacuum Regulator Push-lock type

⚠ Detailed Safety Instructions

Warning

1. If positive pressure is to be applied to the regulator, do not use one with a ø30 mm negative pressure gauge or one with a digital pressure gauge for vacuum. When applying positive pressure within the operating pressure range, use a model with a dual display digital pressure sensor. Applying excessive positive pressure may damage the equipment.
2. Before use, read the instructions manual of the vacuum source to be connected carefully and perform sufficient tests in advance.

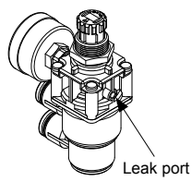
Caution

1. The pressure setting must be set in the upward (vacuum level increasing) direction (clockwise). Accurate settings cannot be made in the downward (vacuum level decreasing) direction (counterclockwise).
2. Do not apply excessive loads or shocks to the pressure gauge, pressure sensor or gauge port. There is a risk of damage to the equipment and inaccuracy of the display.
3. When attaching gauges, pipes, etc. to the gauge port, use an appropriate tool and the hexagonal-column (10 mm width across flats) of the gauge port to tighten. When tightening to the M5 x 0.8 port, refer to the tightening torque in the following table. There is a risk of damage to the equipment or leakage that may cause a loss of display accuracy.

● Table. Tightening torque

Thread size (mm)	Tightening torque
M5×0.8	1.0 to 1.5N·m

4. Be sure to install a vacuum filter on the pressure regulating side (work-piece side) of the vacuum regulator if there is a possibility of sucking in dust or particles. There is a risk of malfunction due to suction of foreign objects.
5. Do not block the leak port, as this may cause unstable secondary pressure.
6. When positive pressure is applied to the regulator, air will flow out of the leak port. Use caution when using in clean rooms.



7. When applying blow-off (Vacuum breaking) air, the amount of leakage from the leak port must be taken into account.
8. Do not turn the pressure control knob excessively counterclockwise from the fully open position or clockwise from the fully closed position. It may cause damage to the pressure control knob and the product. (Fully closed when the product is shipped.)
9. The pressure control knob is locked when pushed and released when pulled. Be sure to lock it after pressure adjustment. If used without locking, the knob may rotate and the pressure may change.
10. When pushing in the pressure control knob, depending on the adjusting position, it may stop in a half-locked position. As the knob is not fully locked in this state, make sure that the pressure control knob is pushed completely into the locked position.
11. If the pressure control knob is forcibly rotated while it is in locked position, the lock mechanism may be damaged.
12. Do not use ø30 mm negative pressure gauges in areas with high pressure fluctuations or in high cycles.
13. For the handling of Pressure Sensor with dual digital display and Digital Pressure Gauge, refer to the "Common Safety Instructions for Pressure Sensors" and individual "Detailed Safety Instructions" of each series.
14. When fixing the product, carefully read the product fixing instructions in the accompanying instruction manual and tighten the product at the appropriate points with the specified torque. There is a risk of damage to the unit if it is tightened in other areas or with more than the specified torque.
15. The gauge position of the elbow type should be adjusted at the tightening position. All parts except the tube fitting and pressure control knob do not rotate. Forced rotation may cause damage to the unit.

Vacuum Release Unit

⚠ Detailed Safety Instructions

Warning

1. Make sure that the direction of air control is correct by referring to the digital catalog in our website before use. Installing the product with incorrect control direction may cause personal injury and damage to the equipment.
2. Do not use with fluids other than air. Contact us regarding the use of fluids other than air.
3. When tightening the lock nut, be sure to tighten it by hand without using any tools. Using tools to tighten the nut may cause damage to the nut or the product. Inadequate tightening may loosen the locknut and the initial setting may be changed.
4. Do not use the product in such a way that the internal pressure always exceeds 0.2 MPa. It may cause damage to the vacuum generator.

Caution

1. Read the instructions on the digital catalog in our web site carefully to adjust the flow rate and the pressure of the blow-off (vacuum breaking) air.
2. Use caution where pipe resistance is high or where the required blow off flow rate is high. It may cause trouble due to insufficient flow rate. Please check the specifications carefully before use.
3. Be sure to attach a vacuum filter to the workpiece side port [limited to a filter that can apply positive pressure for blow-off (vacuum breaking)]. Otherwise, product performance may not be satisfied due to contamination with foreign matter.

Safety Instructions

Vacuum Filter VFU

⚠ Detailed Safety Instructions

Warning

1. Small union type and union type VFU and small plug-in type VFJ are vacuum filters. Do not use these products in a place where pressure is constantly applied. Since the filters are not explosion-proof, there is a risk of personal injury due to damage of the product.

Caution

1. Perform regular maintenance and inspection of the filter element of the vacuum filter. Clogging of the element may result in poor performance or trouble. When replacing the element, read the instructions of the replacement of element in the digital catalog in our website. Make sure that the internal pressure of the filter is released to atmospheric pressure before replacement to ensure safety. However, the small plug-in type VFJ element cannot be replaced by itself, and it must be replaced with a new one.
2. When connecting the piping, check the digital catalog in our website or the arrows for the air flow direction marked on the main unit. Reverse connection does not satisfy the filter function.
3. After removing dust and replacing the element, fix the case securely and make sure there is no vacuum leakage.

Vacuum Filter VFB

⚠ Detailed Safety Instructions

Warning

1. Never apply positive pressure for blow-off (vacuum breaking) to the vacuum filters of large capacity union types VFB and VFR. It is not explosion-proof. In addition, since the pressure resistance is low, there is a risk of personal injury due to damage of the product.

Caution

1. Perform regular maintenance and inspection of the filter element of the vacuum filter. Clogging of the element may result in poor performance or trouble. When replacing the element, read the instructions of the replacement of element in the digital catalog in our web site. Make sure that the internal pressure of the filter is released to atmospheric pressure before replacement to ensure safety. However, the small plug-in type VFJ element cannot be replaced by itself, and it must be replaced with a new one.
2. When connecting the piping, check the digital catalog in our website or the arrows for the air flow direction marked on the main unit. Reverse connection does not satisfy the filter function.
3. After removing dust and replacing the element, fix the case securely and make sure there is no vacuum leakage.

Vacuum Filter VFR

⚠ Detailed Safety Instructions

Warning

1. Never apply positive pressure for blow-off (vacuum breaking) to the vacuum filters of large capacity union types VFB and VFR. It is not explosion-proof. In addition, since the pressure resistance is low, there is a risk of personal injury due to damage of the product.

Caution

1. Perform regular maintenance and inspection of the filter element of the vacuum filter. Clogging of the element may result in poor performance or trouble. When replacing the element, read the instructions of the replacement of element in the digital catalog in our web site. Make sure that the internal pressure of the filter is released to atmospheric pressure before replacement to ensure safety. However, the small plug-in type VFJ element cannot be replaced by itself, and it must be replaced with a new one.
2. When connecting the piping, check the digital catalog in our website or the arrows for the air flow direction marked on the main unit. Reverse connection does not satisfy the filter function.
3. After removing dust and replacing the element, fix the case securely and make sure there is no vacuum leakage.

Vacuum Filter VFJ

⚠ Detailed Safety Instructions

Warning

1. Small union type and union type VFU and small plug-in type: VFJ are vacuum filters. Do not use these products in a place where pressure is constantly applied. Since the filters are not explosion-proof, there is a risk of personal injury due to damage of the product.
2. The filter body of the small plug-in type VFJ is made of PP, and the resin may deteriorate due to direct sunlight and ultraviolet rays. If the product is to be used in an atmosphere where chemicals are present or adhere to the product, refer to our chemical resistance data and check whether the material is affected before use.

Caution

1. Perform regular maintenance and inspection of the filter element of the vacuum filter. Clogging of the element may result in poor performance or trouble. When replacing the element, read the instructions of the replacement of element in the digital catalog in our web site. Make sure that the internal pressure of the filter is released to atmospheric pressure before replacement to ensure safety. However, the small plug-in type VFJ element cannot be replaced by itself, and it must be replaced with a new one.
2. For the piping connection of the small plug-in type VFJ, connect the stem with the vacuum generator side port and the push-in fitting with the workpiece side port. They can also be used reversed, but the filter surface area will be smaller. In addition, clogging of elements cannot be monitored.
3. Do not apply excessive force when attaching the tube to the small plug-in type vacuum filter VFJ. The filter may be damaged.

Vacuum Filter VFL

⚠ Detailed Safety Instructions

Warning

1. Since this product is not explosion-proof, do not apply positive pressure other than instantaneous blow-off (vacuum breaking) air. There is a risk of personal injury due to damage of the product.
2. The bowl is made of polycarbonate. Do not use the chemicals or use in those atmospheres listed in the following table. There is a risk of personal injury due to damage to the bowl.

● Table: Chemicals to be avoided

Chemical type	Classification	Chemicals (Major chemicals only)	Applications
Inorganic compound	Acid	Hydrochloric acid, Sulfuric acid, Nitric acid, Hydrofluoric acid, Chromic acid, etc.	Metal pickling solution, Acid cleaning liquid, Coating treatment liquid, etc.
	Alkali	Alkaline substances like Sodium hydroxide, Caustic potash, Slaked lime, Aqueous ammonia, Sodium carbonate, etc.	Alkaline cleaning liquid for metal
Organic compound	Inorganic salt	Sodium sulphide, Potassium nitrate, Potassium bichromate, Sodium nitrate, etc.	
	Aromatic hydrocarbon	Benzene, Toluene, Xylene, Ethylbenzene, Styrene, etc.	Contained in paint thinner (Benzene, Toluene, Xylene)
	Aliphatic hydrocarbon chloride	Methyl chloride, Ethylene chloride, Methylene chloride, Acetylene chloride, Chloroform, Triclene, Perchloroethylene, Carbon tetrachloride, etc.	Organic solvent-based cleaning liquid for metal (Triclene, Perchloroethylene, Carbon tetrachloride, etc.)
	Aromatic hydrocarbon chloride	Chlorobenzene, Dichlorobenzene, Benzenehexachloride (B.H.C), etc.	Agrochemical
	Petroleum components	Solvent, Naphtha, Gasoline	
	Alcohol	Methyl alcohol, Ethyl alcohol, Cyclohexanol, Benzyl alcohol	Used as anti-freezing agent
	Phenol	Carbolic acid, Cresol, Naphthol, etc.	Disinfectants
	Ether	Methyl ether, Methyl ethyl ether, Ethyl ether, etc.	Brake oil additive
	Ketone	Acetone, Methyl ethyl ketone, Cyclohexanone, Acetophenone, etc.	
	Carboxylic acid	Formic acid, Acetic acid, Butyric acid, Acrylic acid, Oxalic acid, Phthalic acid, etc.	Yeing agent, Oxalic acid for treatment agent of Aluminum, Phthalic acid for paint plasticizer
	Organophosphate	Dimethyl phthalate (DMP), Diethyl phthalate (DEP), Dibutyl phthalate (DBP), Dioctyl phthalate (DOP)	Grease, Synthetic hydraulic oil, Rust preventive oil additive, Used as synthetic resin plasticizer.
	Oxoacid	Glycolic acid, Lactic acid, Malic acid, Citric acid, Tartaric acid	
	Nitro compound	Nitromethane, Nitroethane, Nitroethylene, Nitrobenzene, etc.	
	Amine	Methylamine, Dimethylamine, Ethyl amine, Aniline, Acetaniline, etc.	Brake oil additive
	Nitrile	Acetonitrile, Acrylic nitrile, Benzonitrile, Aceto isonitrile, etc.	Material of Nitrile rubber

*There is some possibilities that other chemicals not listed in the table above may not be used. Please be sure to carry out sufficient evaluation before use.

Caution

1. Perform regular maintenance and inspection of the filter element. Clogging of the element may result in poor performance or trouble. When replacing the element, read "How to remove the dust in bowl and replace a filter element" in the digital catalog in our website. Make sure that the internal pressure of the filter is released to atmospheric pressure before replacement to ensure safety.
2. After removing the dust and replacing the element, make sure that the bowl is securely fixed and that there is no vacuum leakage.
3. When connecting the piping, check the digital catalog in our website or the arrows for the air flow direction marked on the main unit. Reverse connection does not satisfy the filter function.
4. Drainage (dust or moisture) accumulation must be kept below the "MAX. DRAIN LEVEL" indicated on the bowl. The airflow can wind up the drainage and significantly reduce the life of the filter element.
5 .When tightening a fitting to each port of this product, grasp the hexagonal-column of each port with an appropriate tool and tighten it so that it does not rotate together. For the tightening torque, refer to the torque in the following table and tighten so that there is no leakage.

● Table: Tightening torque (Reference)

Thread type	Thread size	Tightening torque
Taper pipe thread	R3/8	12.5 to 14.5N·m
	R1/2	20 to 22N·m
	R3/4	30 to 35N·m
Parallel pipe thread	G3/8	Follow the tightening torque of G1/2 male thread.
	G1/2	
	G3/4	

6. When installing and fixing the product, mount the bowl downward and vertically.
7. The fixing screws for the bracket and the product must be regularly retightened.

Safety Instructions

⚠ Common Safety Instructions for Rotary Vacuum Pump

Before selecting or using PISCO products, read the following instructions. Read the detailed instructions for individual series as well as the instructions below.

⚠ Danger

1. Never vacuum up inflammable, explosive gases. Never use the product in the potentially flammable atmosphere, such as inflammable or explosive gas. Otherwise, it may cause explosion or fire.

⚠ Warning

1. Fall prevention measures must be taken in advance to ensure safety where a dropping workpiece can cause danger.
2. Do not operate the pump with the exhaust piping blocked. Electrical overload may cause the motor to stop, resulting in motor burnout, burns, or fire.
3. Never touch the rotational parts with your fingers or any object. It may cause an injury or a breakage failure.
4. Do not insert your fingers or any object into the intake port. It may cause an injury or a breakage failure.
5. Turn off the power when abnormality such as unusual noise or odor or smoke is detected. If operation is continued under such abnormal conditions, It may cause an electric shock and fire.
6. Do not pour water on a rotary vacuum pump and a motor directly or wash it with water. Moreover, do not use it in the areas where it will come in contact with liquid. It may cause an electric shock, fire, and failure.
7. Do not touch electrical wire. It may cause electric shock or fire.
8. Connect the ground wire to the nearest ground terminal. Incomplete grounding could result in electric shock in the event of failure or electric leakage.
9. When wiring to the motor, connect the wires by following the enclosed motor handling instruction manual so that thermal protector activates. Use of wiring without thermal protector activation may cause fire.
10. Do not damage, bend, pull, or bind the power cord. Do not place heavy objects on it nor let it get caught or pinched. Damage to the cord result in electric shock or fire.
11. Install a Earth Leakage Circuit Breaker by a qualified contractor or electrician. Failure to heed this requirement will result in electrical shock or fire.
12. Do not operate the product outside the voltage range specified for the motor. Operation with any voltage other than the rated voltage specified for the motor may result in failure or accident.
13. Do not vacuum compressed air or gases by the rotary vacuum pump. It may cause damage to the pump.
14. Since the rotary vacuum pump is a delicate and precision equipment, be sure to install a vacuum filter with filtration of 5 μm or less on vacuum port in order to prevent water mist, dust or particles entering the pump. It may shorten the service life or cause damage to the pump if they enter.
15. Do not lubricate the rotary vacuum pump.

⚠ Caution

1. Install the rotary vacuum pump with motor axis becomes horizontal.
2. Do not use in a closed environment where the motor temperature may increase. This may result in a shorter service life of the product.
3. Push-in fittings tolerate a leakage. Use compression fittings if there is any problem in usage.
4. When transporting the pump, do not hold the sealed connector part or power box at the top of the pump. It may cause damage to the pump.
5. The final vacuum and the pumping speed described in the specification are confirmed at the time of delivery inspection according to our standard. If the unit is operated for a certain period of time under normal operating conditions, it may reach the values shown in "Table. Final vacuum and pumping speed based on the running period".

● Table. Final vacuum and pumping speed based on the running period

Type	Operation period	Final vacuum		Pumping speed
RPV062 RPV063 RPV064	3 years	50Hz	12kPa abs -89.3kPa G	-20% compared with specification value
		60Hz	10kPa abs -91.3kPa G	
RPV06A	1 year	50Hz	1.2kPa abs -100.1kPa G	-20% compared with specification value
		60Hz	1.0kPa abs -100.3kPa G	

*The values are based on our operating conditions. The product life varies depending on the operating conditions and suctioned gases (moisture, dust) etc.

Rotary Vacuum Pump RPV06A Medium vacuum, 30L single phase 100VAC motor with a built-in power switch type

⚠ Detailed Safety Instructions

Warning

1. Connect the power cable used for the pump with a built-in power switch to 3-conductive electrical outlet. When using 3-prong to 2-prong electrical adapter, be sure to connect the ground wire to the ground terminal near the outlet.
2. As for the pump with a built-in power switch, connect the power cable to the inlet port on the back of the product. Make sure that the power switch is off, and connect the power cable to the outlet.
3. The motor of the power switch built-in type is equipped with an automatic reset type thermal protector. Thermal protector activates and stops the motor when the temperature inside the motor exceeds the prescribed temperature. Operation restarts automatically when the temperature of the motor drops to safety level. To prevent a danger by unexpected restart, be sure to turn off the main power supply before maintenance and inspection.

Rotary Vacuum Pump RPV062 Low vacuum, 60L single phase 100VAC motor with a built-in power switch type

⚠ Detailed Safety Instructions

Warning

1. Connect the power cable used for the pump with a built-in power switch to 3-conductive electrical outlet. When using 3-prong to 2-prong electrical adapter, be sure to connect the ground wire to the ground terminal near the outlet.
2. As for the pump with a built-in power switch, connect the power cable to the inlet port on the back of the product. Make sure that the power switch is off, and connect the power cable to the outlet.
3. The motor of the power switch built-in type is equipped with an automatic reset type thermal protector. Thermal protector activates and stops the motor when the temperature inside the motor exceeds the prescribed temperature. Operation restarts automatically when the temperature of the motor drops to safety level. To prevent a danger by unexpected restart, be sure to turn off the main power supply before maintenance and inspection.

Rotary Vacuum Pump RPV064 Low vacuum, 120L type

⚠ Detailed Safety Instructions

Warning

1. The motor of the power switch built-in type is equipped with an automatic reset type thermal protector. Thermal protector activates and stops the motor when the temperature inside the motor exceeds the prescribed temperature. Operation restarts automatically when the temperature of the motor drops to safety level. To prevent a danger by unexpected restart, be sure to turn off the main power supply before maintenance and inspection.

Safety Instructions

⚠ Common Safety Instructions for Vacuum Pad (Suction cup)

Be sure to read the followings before selecting or using PISCO products. Read the detailed precautions, instructions and specifications for individual series.

⚠ Warning

1. Fall prevention measures must be taken in advance to ensure safety where a dropping workpiece can cause danger.
2. Be sure to install a vacuum pad holder securely. Looseness may cause trouble.
3. When performing swivel transport with the pad fixed with a pad screw or bulkhead holder, be sure to fix it securely. There is a risk of trouble if the screw loosens due to turning.
4. Be sure to perform maintenance and inspection regularly. There is a risk of problems such as leakage and clogging in the vacuum circuit, as well as wear, cracks and deterioration of the pad, galling of the sliding part of the pad holder, and loosening of other connection parts.
5. Take acceleration, impact, and wind pressure into consideration when using pads to transport workpieces. There is a risk that the workpiece may detach during transport.
6. The small vacuum pad holders are smaller and lighter with less load-bearing strength than conventional vacuum pad holders. Be sure to perform suction test on the actual operating condition after allowing sufficient margin for the load setting.
7. Do not wash with water unless otherwise instructed. It may cause malfunction.

⚠ Caution

1. When setting the pad diameter, the number of pads, and the lifting position, read the theoretical suction force in the digital catalog carefully for through understanding and allow enough margin for the setting.
2. The appropriate pad rubber material and pad shape will vary depending on the application and the shape of the workpiece. Select a vacuum pad by referring to the "Vacuum Pad Selection Guide" and the features described in the digital catalog.
3. Spring-loaded holders are suitable for workpieces of varying heights and for workpieces that are easily damaged by external forces. Select the suitable holder type, by checking the spring force and stroke specifications in the digital catalog before use.
4. When using a spring-loaded holder, make sure that the lateral force on the sliding part is minimized. It may shorten the life of the holder or cause malfunction.
5. To replace the pad, check the pad connection method and then follow the instructions below.
   (1) In the case of the mount type or the insert type, make sure that it is installed by hand and that it does not fall off.
   (2) In the case of the screw type, refer to the tightening torque in the following table, and tighten with the appropriate tool, and make sure that there is no loosening.

● Table. Tightening torque

Vacuum pad holder	Standard	Small
Pad screw size (mm)	Tightening torque (N·m)	
M4×0.7	0.5 to 1.0	0.9 to 1.1
M6×1	2 to 2.7	
M10×1.5	5 to 7	–
M20×2	9 to 10	–

6. When changing the pad adapter of soft, soft bellows or flat type pads, check the vacuum pad configuration drawing, use the appropriate tool with reference to the tightening torque in the following table, tighten using the outer hexagonal column of the holder, and make sure that there is no loosening.

● Table. Tightening torque

Pad screw size (mm)	Tightening torque (N·m)
M4×0.7	0.7 to 0.8
M6×1	1.5 to 2.0

7. When mounting the pad holder to the actual equipment using the bulkhead part, refer to the tightening torque in the following table and use the appropriate tool to tighten the pad holder using the outer hexagonal column. Make sure that there is no loosening. Over-torguing may deform the bulkhead and prevent the shaft from working properly.

● Table. Small type pad holder tightening torque per nut size (N·m)

Pad holder type	VPMA	VPMC, VPMD	VPME
M3×0.5	—	—	0.7
M4×0.5	1 to 1.2	—	—
M5×0.5	1.5 to 2	—	—
M5×0.8	—	—	1 to 1.5
M6×0.75	2 to 3		—
M8×0.75	2.5 to 3.5		—
M10×1	5 to 7	4 to 6	—

● Table. Standard type pad holder tightening torque per nut size (N·m)

Pad holder type	VPA	VPC, VPD, VPF, VPHC, VPHD, VPHDW	VPE	VPKE
M3×0.5	—	—	0.7	0.7
M4×0.7	1 to 1.2	—	—	0.9 to 1.1
M5×0.5	1.5 to 2	—	—	—
M5×0.8	—	—	1 to 1.5	1 to 1.5
M6×0.75	2 to 3	—	—	—
M8×0.75	2.5 to 3.5	1.8 to 2.4	—	—
M8×1	—	1.8 to 2.4	—	—
M10×1	5 to 7	4.5 to 6	—	—
M12×1	12 to 14	8 to 10	—	—
M14×1	18 to 21	4.5 to 6	—	—
M16×1	18 to 21 (*)	2 to 3	—	—
M20×1	19 to 21	—	—	—
M22×1	19 to 21 (*)	16 to 20	—	—
M24×2	40 to 50	—	—	—
M30×2	—	42 to 54	—	—

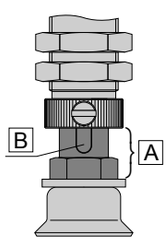
* The values are for the pad holder for Vacuum Pad for Packaging Bag.

8. When replacing the pad rubber of the standard series pad diameter: ø80, ø100, ø150, ø200 mm and the bellows series pad diameter: ø80, ø100 mm, check the configuration drawing, use the appropriate tool with reference to the tightening torque in the following table, and make sure that there is no loosening by using the outer hexagonal column of the holder.

● Table. Tightening torque

Thread size (mm)	Tightening torque (N·m)
M4×0.7	0.5 to 0.7
M5×0.8	

9. To replace the filter element of the pad with a filter, check the vacuum pad configuration drawing in the digital catalog.
10. Refer to “Common Safety Instructions for Products in This Catalog” and “Common Safety Instructions for Fittings” for handling fitting part.
11. When installing the spring-loaded pad holder, do not apply a wrench to the shaft (refer to part A in the following figure). When replacing the pad, use a wrench or similar tool to hold the hexagonal bolt of the shaft. The key groove on the shaft (refer to part B of the following figure) may be deformed, causing a failure in operation.



12. Due to the characteristics of the rubber, the additives contained in the rubber of the vacuum pad may rise to the surface in the form of powder over time, but this is not abnormal. Consider the possibility of adhesion to workpieces and equipment before using the product.
13. When using a conductive vacuum pad, be sure to select the vacuum pad holder carefully and take measures to dissipate static electricity by mounting a metal plate or similar. Static electricity can remain charged in the vacuum pad. Some holders themselves are not conductive.
14. Pad frames of pad diameter of ø80 mm or larger are not conductive. When using a vacuum pad made of static dissipative rubber, conductive rubber (low resistance), or conductive NBR (low resistance), take measures to allow electricity to escape directly from the pad rubber.
15. When using a vacuum pad made of conductive material with a Ball Swivel Joint or filter as an optional setting, please be sure to take measures to allow electricity to escape directly from the rubber pad.

Vacuum Pad Standard Type (Small type)

⚠ Detailed Safety Instructions

Caution

1. For the installation of small vacuum pads with a pad diameter of ø0.7, ø1 or ø1.5 mm, the load should be set in a way that no more than 0.4 N is applied to the lip during vacuum suction. If too much load is applied to the lip, the inner diameter of the pad will crush due to rubber elasticity and the workpiece will not be picked up, which may cause a malfunction of the pick-up confirmation signal.

Vacuum Pad Soft Type

⚠ Detailed Safety Instructions

Caution

1. The VPHC type pad holder is not conductive. When using a vacuum pad made of a conductive material, take measures to allow electricity to escape directly from the pad rubber.

Safety Instructions

Vacuum Pad Soft Bellows Type

⚠ Detailed Safety Instructions

Caution

1. For the soft bellows pads, use the allowable pressing stroke as a guide so as not to crush the bellows too much. Excessive crushing may cause premature wear of the bellows, cracking of the lip, and deformation due to strain, which may result in suction failure.
2. When selecting a product, pay attention to the following point and perform the suction test on the actual application.
   (1) Due to the characteristics of the material, the bellows may stick to each other and deform depending on the usage conditions.
3. The VPHC type pad holder is not conductive. When using a vacuum pad made of a conductive material, take measures to allow electricity to escape directly from the pad rubber.

Vacuum Pad Bellows Type

⚠ Detailed Safety Instructions

Warning

1. Be sure to use our Vacuum Pad Bellows Type as the pad rubber to attach the Mark-free Resin Attachment. If the shape of the Resin Attachment and pad rubber is not appropriate, Resin Attachment may come loose or leak a large amount.

Caution

1. For the bellows type pads, use the allowable pressing stroke as a guide so as not to crush the bellows too much. Excessive crushing may cause premature wear of the bellows, cracking of the lip, and deformation due to strain, which may result in suction failure.
2. When selecting a product, pay attention to the following points and perform the suction test on the actual application. (1) Due to the characteristics of the material, the bellows may stick to each other and deform depending on the usage conditions. (2) Since the lip of the Mark-free Resin Attachment is made of hard resin, it reduces suction marks compared to rubber vacuum pads, but it does not completely prevent suction marks. The degree of reduction of suction marks varies depending on the environment and the workpiece. (3) Compared to rubber vacuum pads, the Mark-free Resin Attachment has a significant effect on suction performance due to leakage from the suction surface. Ensure that the flow rate of the vacuum source is as large as possible. Also, it cannot be used to hold a vacuum.
3. Be sure to clean the suction surface of the vacuum pad before use. Deposits may remain as suction marks. When cleaning, be careful not to scratch the suction surface, and do not use organic solvents.
4. Select a pad rubber material suitable for the operating conditions to install the Mark-free Resin Attachment.

Vacuum Pad Multi-bellows Type

⚠ Detailed Safety Instructions

Caution

1. For the multi-bellows pads, use the allowable pressing stroke as a guide so as not to crush the bellows too much. Excessive crushing may cause premature wear of the bellows, cracking of the lip, and deformation due to strain, which may result in suction failure.
2. When selecting a product, pay attention to the following point and perform the suction test on the actual application.
   (1) Due to the characteristics of the material, the bellows may stick to each other and deform depending on the usage conditions.

Vacuum Pad for Packaging bag

⚠ Detailed Safety Instructions

Warning

1. When installing the bulkhead type vacuum pad holder to the actual equipment, refer to the following table of the tightening torque of the bulkhead mounting nut of pad holder and tighten it using the appropriate tool, and make sure that there is no loosening.

● Table. Tightening torque

Nut size	Tightening torque (N·m)
M12×1	12 to 14
M14×1	18 to 21
M16×1	18 to 21
M20×1	19 to 21
M22×1	19 to 21

2. When installing direct mount type pad holder, check the following tightening torque table, tighten it using the appropriate tool, and make sure that there is no loosening.

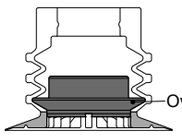
● Table. Tightening torque

Thread type	Thread size	Tightening torque (N·m)
Metric thread	M5×0.8	1 to 1.5
	M6×1	2 to 2.7
	M8×1	2.5 to 3.5
	M14×1	18 to 21
Taper pipe thread	G1/8	7 to 9
	G1/4	12 to 14
	G3/8	22 to 24
	G1/2	28 to 30

3. For the direct mount vacuum pad holder, parallel pipe thread type and M8 or M14 metric thread type are sealed with an O-ring, and M5 or M6 metric thread type is sealed with a gasket. When installing the unit on the actual equipment, make sure that the contact area of the O-ring and gasket on the machine surface is smooth and free of scratches and dents.
4. Due to its characteristics, the theoretical suction force of this product may exceed the physical strength of the pad itself, depending on the degree of vacuum, a safety factor of at least 1/16 for horizontal lifting and 1/25 for vertical lifting should be used. Be sure to perform the adsorption test on the actual operating condition.

Caution

1. For the pads for packaging bag, use the allowable pressing stroke as a guide so as not to crush the bellows too much. Excessive crushing may cause premature wear of the bellows, cracking of the lip, and deformation due to strain, which may result in suction failure.
2. Be sure to attach the over-suction preventing adapter to this product. If used without the over-suction preventing adapter, the vacuum pad may be deformed and cause suction failure.
3. When attaching or detaching the over-suction preventing adapter to or from the product, excessive pulling on the lip may cause damage to the lip.
4. Since the suction flow rate is structurally reduced with the over-suction preventing adapter with stainless steel mesh, perform the suction test on the actual operating condition.
5. Regularly check for clogging with the over-suction preventing adapter with stainless steel mesh. Clogging may cause poor performance or trouble. Clean or replace with new one if necessary.
6. Install the over-suction preventing adapter in the proper position referring to the following figure. If not installed in the proper position, suction failure may occur.


Over-suction preventing adapter

7. The spherical over-suction preventing adapter is mounted deeper than the pad suction surface, so the ribs on the pad suction surface fall in one direction when the workpiece that is flat and difficult to deform is lifted, and a rotational load is applied. This rotational force can lead to loosening of the screw or damage to the mounting part. When suctioning a flat workpiece that is difficult to deform, use the flat suction prevention adapter.

Vacuum Pad Metal detectable type

⚠ Detailed Safety Instructions

Caution

1. When selecting a product, perform the suction test on the actual application.
2. Metal powder is mixed in the vacuum pad material for Metal detectable type.
3. When selecting a pad, consider the weight of work-piece or pressing force. Suction of heavy work-piece or excessive pressing impairs durability of the vacuum pad.
4. Due to the material characteristics, color of vacuum pads may be uneven, but it does not affect the product performance.

Vacuum Pad Ultrathin Type

⚠ Detailed Safety Instructions

Warning

1. When selecting a product, pay attention to the following point and perform the suction test on the actual application.
   (1) Due to the characteristics of the material, the pad may stick to the workpiece depending on the usage conditions.

Vacuum Pad Flat Large Suction Flow type

⚠ Detailed Safety Instructions

Caution

1. This product allows leakage from the lip. When selecting a product, pay attention to the following points and perform the suction test on the actual application.
   (1) Workpieces that are porous, breathable or easily deformed by their own weight during suction may be difficult to lift and transport.

Vacuum Pad Mark-free Type

⚠ Detailed Safety Instructions

Caution

1. This product allows leakage in the lip part. When selecting a product, pay attention to the following points and perform the suction test on the actual application.
   (1) Since the lip of the mark-free pad is made of hard resin, it reduces suction marks compared to rubber vacuum pads, but it does not completely prevent suction marks. The degree of reduction of suction marks varies depending on the environment and the workpiece.
   (2) Ensure that the flow rate of the vacuum source is as large as possible. Also, it cannot be used to hold a vacuum.
   (3) Select a sensor suitable for the operating conditions.
   (4) The inside of the flexible swing joint of this product may wear out due to its structure, depending on usage. When using Vacuum Pads Mark-free Series in clean-room, make sure that the dust emission from the abrasion does not affect the product and production line before use.
2. This product has a flexible swing joint with a stroke of 1 mm, but it is only intended to follow the subtle inclination of the workpiece. If a buffer function is required, it should be used in conjunction with a spring-loaded holder. When using a spring-loaded holder, please minimize the lateral force on the sliding part. Wear of the holder may cause malfunction and dust.

Safety Instructions

3. There is no anti-rotation structure between the flexible swing joint and the resin pad. Note that this product is not suitable for rotary transport.
4. Be sure to clean the suction surface of the vacuum pad before use. Deposits may remain as suction marks. When cleaning, be careful not to scratch the suction surface, and do not use organic solvents.
5. Special stainless steel used in this product is not for the purpose of rust prevention. Rust may be generated depending on the operating environment.
6. When attaching the flexible swing joint to the actual equipment or pad holder, refer to the tightening torque in the following table, tighten it using the appropriate tool, and make sure that there is no loosening.

● Table. Tightening torque

Thread size	Tightening torque
M4×0.7	0.7 to 0.8N·m
M6×1	1.5 to 2.0N·m

7. The resin pad mounting screws to the flexible swing joint may loosen due to creep. Check regularly and retighten with the tightening torque shown in the following table. If there is no improvement by retightening, replace it with a new resin pad.

● Table. Tightening torque

Vacuum Pad Material	Thread size	Tightening torque
PEEK	M5×0.8	1.4 to 2.1N·m
Conductive PEEK	M5×0.8	2.0 to 2.3N·m
POM	M5×0.8	0.6 to 0.7N·m

Vacuum Pad Sponge Type

⚠ Detailed Safety Instructions

Caution

1. When replacing pads with a diameter of ø10 to ø30 mm, tighten the pads by hand securely until they butt against the end face. Also, when installing the pad frame, tighten it with a torque of 0.45 to 0.55 Nm using an appropriate tool, and make sure there is no loosening.

Vacuum Pad Oval Type

⚠ Detailed Safety Instructions

Warning

1. When installing the pad frame, check the configuration diagram of the oval pad, use a tool that does not damage the frame, and tighten with a torque of 0.27 to 0.33 Nm, and make sure there is no loosening.

Caution

1. The adapter for oval pad is not conductive. When using a vacuum pad made of a conductive material, take measures to allow electricity to escape directly from the pad rubber.

Vacuum Pad with Mechanical Release Function

⚠ Detailed Safety Instructions

Warning

1. Suctioning foreign matter may significantly reduce performance. Keep the work-piece and operating environment clean.

Caution

1. The pin protrusion load is 1N or less (when using 0.2 MPa). However, if there is any concern that the workpiece may be damaged or scratched due to contact, lower the blow-off (vacuum breaking) pressure and check with the actual operating condition before use.
2. When installing the product, refer to the tightening torque in the following table. Failure to tighten with the proper torque may result in faulty operation, reduced life and loosening.

● Tightening torque to mount Vacuum pad with Mechanical release function

Thread size	Tightening torque (N·m)
M3×0.5	0.7
M4×0.7	0.9 to 1.1
M5×0.8	1.0 to 1.5

Vacuum Cylinder

⚠ Detailed Safety Instructions

Warning

1. Do not apply any lateral force to the ejector or shaft of this product. It may cause damage to the product.
2. When mounting the vacuum cylinder by using bulkhead to the actual equipment, use an appropriate tool and tighten it with a tightening torque of 2 to 3 Nm, and make sure that there is no loosening. Also, over-tightening will cause deformation of the spring loaded holder, which will result in malfunction of the shaft.

Caution

1. Note that the silencer element cannot be replaced.
2. Refer to "Common Safety Instructions for Vacuum Series" and "Common Safety Instructions for Vacuum Pads" for handling the ejector and vacuum pads.
3. When selecting, be sure to understand the details of cylinder (lifting) thrust in the digital catalog, and perform a suction test on the actual operating condition.

Vacuum Pen

⚠ Detailed Safety Instructions

Caution

1. Do not use a machine to operate a push button for a built-in valve type. It may cause damage to the push button.
2. The filter element can be replaced by removing the ejector (without valve type: VTA) or pad holder (with built-in valve type: VTB). Be sure to perform maintenance and inspection periodically. Clogging of the element may result in poor performance.
3. Note that the silencer element with built-in valve type cannot be replaced.
4. Use a Spiral Coiled tube for Vacuum Pen to minimize the load on the tube fitting.

Fall Prevention Valve

⚠ Detailed Safety Instructions

Warning

1. Since it is not a check valve, it cannot be used to hold a vacuum unless there is a vacuum retention function on the vacuum source side.
2. The Fall Prevention Valve is designed to minimize vacuum leakage and to allow multiple vacuum pads to be mounted on one ejector, but should only be used after a suction test has been carried out on the actual application.
3. Under conditions where the vacuum leak from the pad exceeds the required suction flow rate for valve operation, such as when a sponge pad is used, the valve element operates to reduce the suction flow rate, which may cause the workpiece to fall.

Caution

1. Caution for installation and removal of the main unit
   (1) Use the appropriate tools when installing and removing the product.
   (2) When installing, refer to the tightening torque shown in the following table and tighten.

● Table. Tightening torque

Thread size	Tightening torque (N·m)
M3×0.5	0.7
M4×0.7	0.9 to 1.0
M5×0.8	1.0 to 1.5
M6×1	1.8 to 2.3
M10×1.5	5.0 to 7.0
R1/8	4.5 to 6.5

2. Note on the thread tightening position of the body
   (1) When mounting the male thread to the device or holder, tighten the thread using the hexagonal-column of the male thread side and make sure it is not loose. Tighten the thread referring to the tightening torque shown in the above table.
   (2) When mounting the device or pad on the female thread side, tighten using the hexagonal-column of the female thread side, making sure that it is not loose. Tighten the thread referring to the tightening torque shown in the above table.
   *When inserting a tool into the hexagonal hole of the pad screw, be careful not to insert the tool too far. It may pierce the inside of the fall prevention valve and cause damage.
3. Since the pressure drop of this product is very small even when the workpiece is not lifted, when checking suction with a pressure sensor, etc., use the product after thoroughly checking it on the actual operating condition. Due to the clogging of the filter element, the pressure drop when the workpiece is not lifted is even smaller, so pay close attention to the pressure sensor setting.

Ball Swivel Joint for Vacuum Pad mounting

⚠ Detailed Safety Instructions

Warning

1. This product should not be used in any combination other than with PISCO brand vacuum pads and direct mounting filters, or for any other purpose. This product is designed for use with PISCO brand vacuum pads and may cause damage to the unit depending on how it is used.

Caution

1. Pay attention to the position of the product when it is suctioning. Depending on the weight or the acceleration and impact of the transport, the position after suction will change.
2. When installing or replacing this product, refer to the tightening torques shown in the following table and tighten with the appropriate tool using the two parallel planes on the periphery.

● Table. Tightening torque

Thread size (mm)	Tightening torque (N·m)
M4×0.7	0.6 to 0.7
M6×1	1.5 to 2
M10×1.5	5 to 8

Safety Instructions

Flexible Swing Joint for Vacuum Pad mounting

⚠ Detailed Safety Instructions

Caution

1. The inside of the product may wear out due to its structure, depending on usage. When using this product in clean-room, make sure that the dust emission from the abrasion does not affect the product and production before use.
2. There is no anti-rotation structure between this product and the vacuum pad. Note that this product is not suitable for rotary transport.
3. Special stainless steel used in this product is not for the purpose of rust prevention. Rust may be generated depending on the operating environment.
4. When attaching the product to the actual equipment or pad holder, refer to the tightening torque in the following table, tighten it using the appropriate tool, and make sure that there is no loosening.

● Table. Tightening torque

Thread size	Tightening torque (N·m)
M4×0.7	0.7 to 0.8
M5×0.8	1 to 1.5
M6×1	1.5 to 2.0

Vacuum Filter Pad Direct Mounting Type

⚠ Detailed Safety Instructions

Warning

1. Perform periodical maintenance and inspection of the filter element. Clogging of the element may result in poor performance or trouble. When replacing the element, be sure to read the dust removal method and the filter replacement element in the digital catalog and make sure that the internal pressure of the filter is released to atmospheric pressure before replacement to ensure safety.

Caution

1. Caution for installation and removal of the main unit
   (1) Use the appropriate tools when installing and removing the product.
   (2) When installing, refer to the tightening torque shown in the right table and tighten.

● Table. Tightening torque

Thread size	Tightening torque (N·m)
M4×0.7	0.6 to 0.7
M6×1	1.5 to 2

2. For the usage environment of the vacuum filter, be sure to read the caution of the "Common Safety Instructions for Vacuum Series".

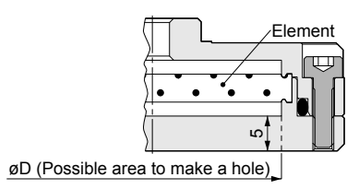
Multiple Pad Holder

⚠ Detailed Safety Instructions

Warning

1. Perform regular maintenance and inspection of the filter element inside this product. Clogging of the element may result in poor performance or trouble.
2. When replacing the element, be sure to understand the instructions of the dust removal method and the replacement element of vacuum filter, and make sure that the internal pressure of the multiple pad holder is released to atmospheric pressure before replacement to ensure safety. When tightening, use an appropriate tool and tighten the body fixing screw with a torque of 1.0 to 1.8 Nm.
3. For blank holder (no thread holes), perform additional thread working under the following conditions.
   (1) Perform additional thread working within the øD dimension range.
   (2) The length of the male thread to be attached to the additionally worked female thread should be 6 mm or less to avoid interference with the element.
   (3) Remove the upper part of the holder by loosening the bolts before additional processing, then reassemble it to the original state after processing by following the procedure for replacing the element.

Blank body size (mm)	øD (mm)
ø35	15
ø43	23
ø50	30
ø55	37
ø75	57



Caution

1. When mounting the multiple pad holder, refer to the tightening torques in the following table and tighten using the hexagonal-column of the thread with the appropriate tool. Make sure there is no loosening. Check the thread looseness periodically, and retighten it to the tightening torque if necessary.

● Tightening torque to mount multiple pad holder

Thread size	Tightening torque (N·m)
M5×0.8	1.0 to 1.5
M6×1	2 to 2.7
M8×1.25	2.5 to 3.5
M10×1.5	5 to 7
M12×1.75	12 to 14
M14×2	18 to 21
G1/8	7 to 9
G1/4	12 to 14

2. When installing or replacing pads, check "Common Safety Instructions for Vacuum Pads".
3. When inserting the tool into the pad screw hexagonal hole, please do not insert the tool too far. It may pierce the internal filter element and cause damage.

⚠ Common Safety Instructions for Actuators

Be sure to read the followings before selecting or using PISCO products. Read the detailed precautions, instructions and specifications for individual series.

⚠ Warning

1. Pay attention to the moving parts while the actuator is operating. Also, if there is a risk of danger to the human body, provide safety measures such as protective covers.
2. Take safety measures if there is a risk of personal injury or equipment damage due to performance degradation caused by trouble with power supply or air pressure source.
3. Do not use in areas exposed to water, oil or dust. It may cause malfunction.
4. Do not wash with water unless otherwise instructed. It may cause malfunction.

⚠ Caution

1. Do not use a lubricator on products.

⚠ Common Safety Instructions for Angular Gripper

Be sure to read the followings before selecting or using PISCO products. Read the detailed precautions, instructions and specifications for individual series.

⚠ Warning

1. When gripping a workpiece with the closing gripper series, note that the gripping force varies depending on the gripping point. Also, if the gripping point is away from the lever fulcrum of the Angular gripper and the fingers are heavy, it may reduce the service life and cause damage to the main unit. Consult with PISCO if you use the product in this way.
2. Use a model that has sufficient gripping force for the workpiece weight. Insufficient gripping force may cause the workpiece to fall.
3. Check the dimension table of the gripper carefully and use it within the specified dimensions. Using outside the dimensions may lead to reduced life and unsteady gripping.
4. Pay attention to the moving parts while the Angular gripper is operating. Also, if there is a risk of danger to the human body, provide safety measures such as protective covers.
5. Do not wash with water unless otherwise instructed. It may cause malfunction.

⚠ Caution

1. When attaching a finger blank to the master finger, refer to the tightening torque in the following table and use an appropriate tool to attach it so that it is not misaligned with the master finger. Failure to tighten with the proper torque or misalignment may cause operation failure, misalignment of the gripping position, or workpiece drop.

● Tightening torque table

Thread size (mm)	Tightening torque (N·m)
M2×0.4	0.6 to 0.8
M2.5×0.45	1.3 to 1.5

2. Do not allow lateral loads or shocks to act on the master finger. It may cause destruction of the fingers or loss of accuracy.
3. Use the types with floating mechanism within the specified stroke range. Loading beyond the specified stroke may cause damage to the gripper.
4. When performing light press-fitting work with the work stopper of the opening gripper series, use a press-fitting force no more than those shown in the following table. Applying more force than the values in the following table may cause damage to the product.

● Press-fitting force table

Cylinder diameter (mm)	Press-fitting force (N)
ø8	900
ø11	1000

5. When piping the panel mount type with floating mechanism, be sure to use the outer hexagonal column of the main body and tighten it with an appropriate tool. Tightening using any other part of the body may result in damage to the body.
6. Do not use a lubricator on products.

⚠ Common Safety Instructions for Parallel Gripper

Be sure to read the followings before selecting or using PISCO products. Read the detailed precautions, instructions and specifications for individual series.

⚠ Warning

1. Product Handling

1-1. Installation Environment

The gripper has a built-in magnet. Attention is needed when using the gripper in the environment where magnetic material should be avoided (such as iron powder deposits, peripheral sensors or works.)

*Use Parallel gripper single-acting type (CHA08/CHA10) in such a environment.

Safety Instructions

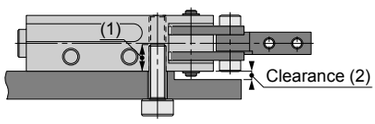
1-2. Product Installation

Use tapped fixing holes on the gripper to install it to Pick and place unit (P&P) or Robot.

- Tighten screw with the tightening torque shown below. Excessive tightening may cause a performance drop or shorten the product lifetime.

Thread size (mm)	Tightening torque (N·m)
M2.6	0.39
M3	0.88
M4	1.7

- If the surface on which the gripper is installed is not flat, the gripper cylinder may get deformed.
- For side installation, use the tapped fixing holes on the side. Using longer screw than necessary may deform the gripper cylinder. See the table in Fig. 1 for the valid screw length. [Fig. 1 (1)]
- The part near finger is prone to deformation at side installation. Allow for a clearance so that the components do not come in contact. [Fig.1 (2)]
- The tapped fixing holes for side installation on the gripper are through-holes, but do not clamp the gripper body with a small diameter fixing screw. It may cause a performance malfunction, as well as an unstable installation. (Fig. 2)



Thread size	Valid screw length (1)
M3	5mm max.
M4	8mm max.

Fig. 1

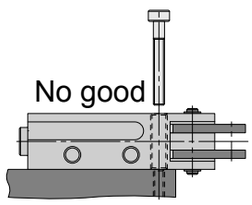


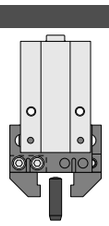
Fig. 2

2. Attachment Handling

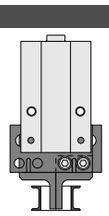
- The installation position of the attachment to be installed onto the fingers depends on the gripping type. Check the installing directions in Fig. 3-1 to Fig. 3-4.

Single acting	Gripping by air	Closing gripper (Normally open)	Refer to Figure 3-1
		Opening gripper (Normally closed)	Refer to Figure 3-2
	Spring force gripping	Opening gripper (Normally closed)	Refer to Figure 3-3
		Closing gripper (Normally open)	Refer to Figure 3-4
Double acting	Closing gripper (Normally open)		Refer to Figure 3-1
	Opening gripper (Normally closed)		Refer to Figure 3-2

Gripping by air

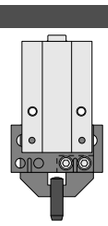


Closing gripper (Normally open)
Fig. 3-1

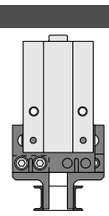


Opening gripper (Normally closed)
Fig. 3-2

Spring force gripping



Opening gripper (Normally closed)
Fig. 3-3



Closing gripper (Normally open)
Fig. 3-4

- The attachment should be as light and short as possible and not exceed maximum gripping size. The gripping point should be positioned between the fingers as much as possible when gripping a workpiece.

● Maximum gripping distance

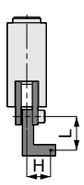
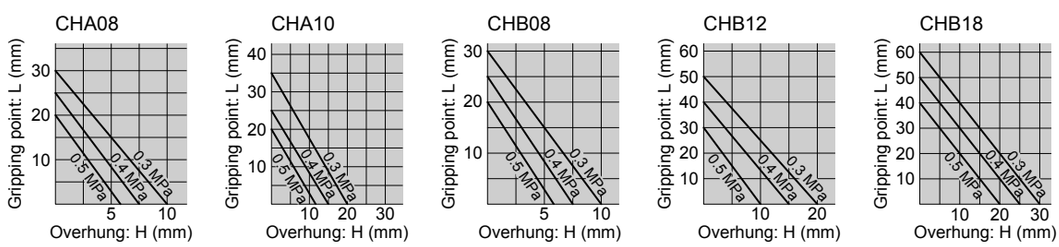


Fig. 4



• The end of attachment fixing screw must be within the finger installing face that length is A. If the screw is longer, it will push the finger on the other side and may cause damage. (Fig. 5)

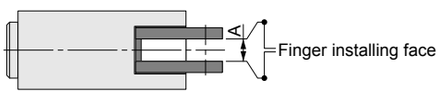


Fig. 5

Model code	A (mm)
CHA08	3
CHA10	4
CHB08	3
CHB12	4
CHB18	6

• Use finger installing face and fixing holes to install the attachment. Do not apply any excessive force on a finger. It may cause malfunction or shorten the product lifetime. Hold the fingers with a spanner or a vise and do not apply force to the gripper body while installing the attachment. (Fig. 6)

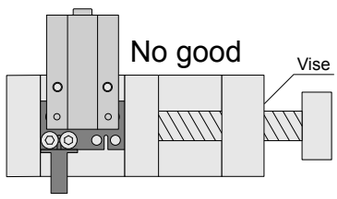


Fig. 6

• A centering slot on the finger can be used for attachment positioning. When an attachment is prepared by user, insert a parallel pin type B (JIS B 1354-1988) (Fig. 7) into the attachment, and then fix the attachment on the finger. Avoid any impact or excessive force at the pin insertion. The pin is not included.

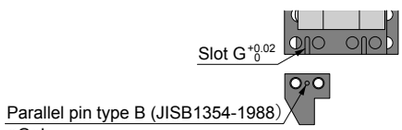


Fig. 7

Model code	G (mm)	L (mm)
CHA08	1.2	4
CHA10		
CHB08	1.2	4
CHB12		5
CHB18	1.5	8

• The finger locating faces are shown below. Clearance is necessary so that the attachment dose not touch another finger on the opposite side. After the attachment installation, operate the gripper manually to make sure its smooth motion.

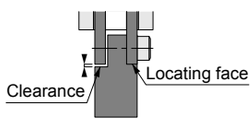


Fig. 8

• For the attachment installation, use a cap screw specified below. Apply screw locking adhesive to the screw. The agent may adhere to the finger or gripper body and cause malfunction, if applied too much.

Model code	Screw	Tightening torque (N·m)
CHA08	M2	0.315
CHA10	M3	1.14
CHB08	M2	0.315
CHB12	M3	1.14
CHB18	M4	2

• When installing an end tool as shown in Fig. 9, hold the end tool with a spanner (or wrench) to avoid a load applied to the gripper body. Holding the main body to install an end tool may result in damage or malfunction.

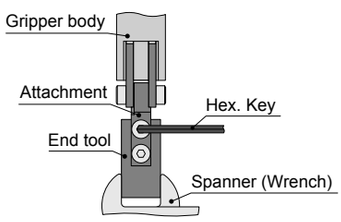


Fig. 9

3. Plumbing method

3-1. Plumbing

A single-acting type has one air port, and a multi-acting type has two. For air plumbing, install a fitting as shown in Fig. 10, then connect a tube.

• Use barb fitting basically. Push-in fitting, which is larger and heavier, may touch parts on the body or sensors.

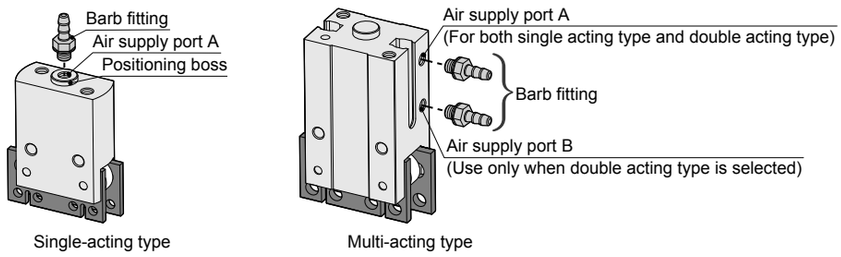


Fig. 10

Single acting type

Install a fitting to Air supply port A only. Air through port A will push the piston, then the drive roller will push the fingers to close. (Fi. 11)

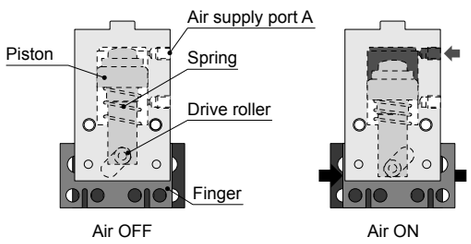


Fig. 11

Double acting type

Install fittings to Air supply port A and B. Air through port A will push the piston and the drive roller will push the finger to close. Air through port B will push back the piston and the drive roller to open the finger.

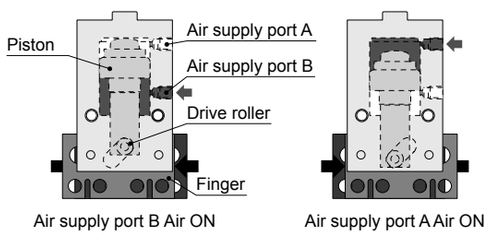


Fig. 12

3-2. Notes for plumbing

• For efficient use of air pressure, keep the tube as short as possible. Be sure to install speed controllers close to the gripper.

• For the Parallel Gripper single-acting types and single-acting models of Parallel Gripper multi-acting type, use a meter-in control speed controller. Also for the double-acting models of Parallel Gripper multi-acting type, as the original exhaust flow rate is small and adjustment is difficult due to its structure, use a meter-in control speed controller and adjust the gripper motion speed as slow as possible.

4. Operation

4-1. Motion check

To check the gripper motion after the installation to P&P or robot, be sure to turn off the power and air supply first and operate the valve manually. Pay attention not to get caught in fingers or so.

4-2. Operation

After the motion check, turn on the power and air supply to check the gripper motion by system controller. Debug the installation and repeat the motion check if necessary.

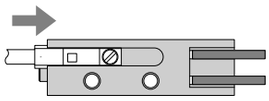
• Depending on the plumbing conditions, the gripping force of the spring gripper type may not go up to the expected level within the expected time. Be sure to check the motion carefully during the adjustment.

• Long standby time with air supply may cause a delay in the first response of the gripper. Warm up the gripper for a few cycles first before starting operation.

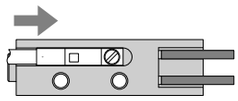
5. Installing a sensor

Insert a sensor into a sensor installing slot on the gripper body. Slide the sensor along the slot and tighten the screw at the central position in the sensing range.

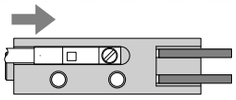
● Sensor installation (Example)



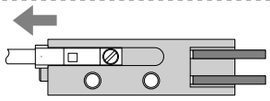
A LED turns on as sliding the sensor along the slot toward arrowed direction.



Slide the sensor 0.3mm further toward arrowed direction from the position the LED turns on, and fix it with a sensor fixing screw.



A LED turns on as sliding the sensor along the slot toward arrowed direction. Slide it further until LED turns off.



Slide back the sensor toward arrowed direction until LED turns on again. Slide the sensor 0.3mm further toward arrowed direction from the position the LED turns on, and fix it with a sensor fixing screw.

• Use a precision screw driver to fix the sensor. Tightening torque : 0.1 to 0.2N·m.

Parallel Gripper with 3-finger

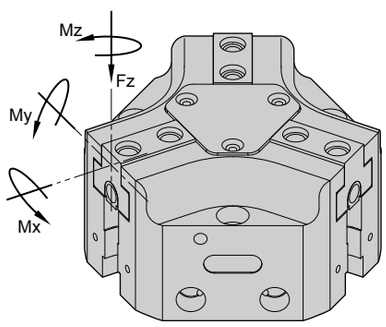
⚠ Detailed Safety Instructions

Caution

1. The gripper body has a built-in magnet. Be aware of magnetic influences (e.g. iron powder deposits, malfunction of surrounding cylinder sensors, workpieces).
2. When installing the product, refer to the tightening torque in the following table. Failure to tighten with the proper torque may result in faulty operation, reduced life and loosening.

Thread size	Tightening torque (N·m)
M4×0.7	1.5
M5×0.8	2.9
M6×1	5.2

3. Mount the gripper on a flat surface. If the mounting surface is not flat, the cylinder may be deformed, resulting in operation failure.
4. The allowable moment and allowable load on the fingers are shown in the following table. Applying more force than the values in the table may cause damage to the product.



Model code	Mx max. (N·m)	My max. (N·m)	Mz max. (N·m)	Fz max. (N)
CHT34-D	15	15	8	700
CHT44-D	50	45	35	1200

5. Pay attention to the color of the lead wire when connecting. Incorrect wiring will result in the destruction of the sensor switch.
6. Do not subject the lead wires to strong tensile forces or extreme bending.
7. To prevent malfunction, keep the unit away from strong external magnetic fields.
8. Do not use in environments where the product will be exposed to chemicals.
9. When two or more 2-wire switches are connected in an AND (series) connection, there will be an internal voltage drop for the number of switches connected, which may cause the load to operate improperly.
10. When 2-wire switches are connected in OR (parallel) connection, the leakage current increases with the number of switches connected, which may cause the load to operate improperly.

Safety Instructions

HARMO Robot Parts Angular Gripper

⚠ Detailed Safety Instructions

Caution

1. Use clean and dry air to supply to Gripper.
2. Slower and gentler gripping leads to more accurate performance and stable repeatability.
3. Avoid using in a way that applies lateral load on the jaws.
4. Install lightest and shortest possible finger tools on the jaws.
5. There is a M3 tapped screw hole for a sensor dog on the port-side jaw of the sprue gripper.
6. Do not use M3 screw hole for any purpose other than mounting the sensor dog.

HARMO Robot Parts Parallel gripper

⚠ Detailed Safety Instructions

Caution

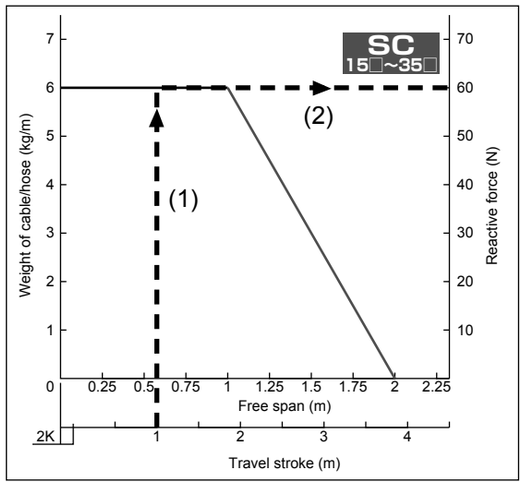
1. Use clean and dry air to supply to Gripper.
2. Slower and gentler gripping leads to more accurate performance and stable repeatability.
3. Avoid using in a way that applies lateral load on the jaws.
4. Install lightest and shortest possible finger tools on the jaws.

⚠ Common Safety Instructions for Plarailchain

Be sure to read the followings before selecting or using PISCO products. Read the detailed precautions, instructions and specifications for individual series.

⚠ Warning

1. Make sure that the Plarailchain does not move when connecting, disconnecting, opening and closing flaps, or performing maintenance. There is a risk of injury if it runs or falls over under its own weight.
2. Tighten the bracket securely so that it does not loosen. Any loosening could result in damage to the entire system.
3. Depending on the specifications of the system, inertia, mass loading, and reaction forces (forces that cause the Plarailchain to expand) are applied to the mounting area of the Plarailchain. When designing the mounting area, be sure to ensure sufficient strength. If the mounting area is not strong enough, there is a risk of damage to the entire system. The reaction force can be calculated from the capability diagram of each Plarailchain.



(1) Trace the travel stroke value straight upward on the capability diagram of the target model. (The graph shows the case where the travel stroke value of the system is 1 m.)
(2) Trace toward the reactive force axis from the point of intersection where the capability curve is crossed with the upward line from the desired travel stroke value. The reached axis value is the maximum reaction force. (For this case in the graph, it is 60N.)

4. Do not wash with water. It may cause malfunction.
5. The cables and tubes to be stored in the Plarailchain should be fastened as close as possible to the end brackets. If not fastened, the cable or tubing may burst out of the unit or cause tension, resulting in excessive wear that lead to damaging the entire system.
6. The cables and tubes stored in the Plarailchain should not be subjected to tension, twisting, extreme bending, or excessive fastening or binding. It may cause the cable to crush or break, or the tube to crush, burst, or come loose.
7. Use Divider, Rack, and Dividing sheets to prevent the cables and tubes stored in the Plarailchain from being rubbed or entangled and scratched. It may cause the cable to break or the tube to burst.

⚠ Caution

1. Carefully check the "Plarailchain Capability Diagram" in the digital catalog to select the most suitable Plarailchain. There are many possible factors that may affect using this product, test it before use.
2. The Plarailchain is set to expand to the outer circumference when the contents are not stored, in order to prevent drooping when the contents are stored.
3. The length of the Plarailchain can be adjusted by increasing or decreasing the number of links. At the time of design or when length adjustment is required, check the link calculation formula in the instructions and calculate the required number of links.
4. When installing the Plarailchain on the equipment, the brackets of the moving-end and the fixed-end must be mounted parallel to each other along the axis of travel. Also, running with torsion or twisting may cause damage to the entire installation system.
5. Use cables and tubes with excellent flexibility and abrasion resistance that are suitable for driving. Also, do not use items with wire blade exteriors as they may be easily damaged.
6. Depending on the conditions such as when the cable or tube is heavy and the running speed or acceleration is fast, the area around the bent part may expand due to inertia at the start-up or immediately after stopping. When designing, secure sufficient HF dimensions. (HF: possible expanding height that plarailchain can pass through when using at free span length)
7. The total volume of contents (tube, hose or cable) to be fitted into Plarailchain should be arranged not to exceed 60% (70% for SP and SC type) of its inside capacity of each model.
8. When storing in a Plarailchain, the contents (cables and tubes) should be laid out as horizontally as possible and should not cross each other.
9. The contents should be arranged in a well-balanced manner in the vertical and horizontal directions, especially if they are of different diameters, so that they do not ride up and cross each other.
10. Do not put an excessive load on the brackets.
11. When storing different contents (such as air tubes, water tubes, electrical cables, etc.) together, the bending radius of the Plarailchain should be selected according to the largest bending radius of the items to be stored.

Safety Instructions

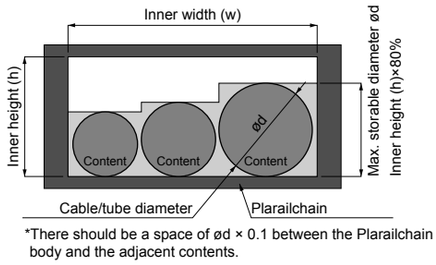
How to fix storage items (tubings/cables)

Be sure to read the followings before selecting or using PISCO products. Read the detailed precautions, instructions and specifications for individual series.

This instruction is just some examples to decrease the wear and tear of tubings/cables inside the Plarailchain, and do not guarantee the effect for all types. Please conduct test before actual operation.

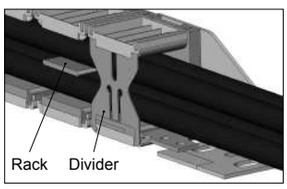
1. Storage of tubings/cables

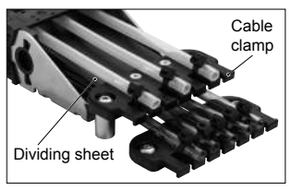
1. Please select tubings/cables whose size is less than the minimum-bending radius of Plarailchain. In addition, please fix crook of tubings/cables before installing in Plarailchain.
2. The amount of cables/tubes to be stored should be within 60% (70% for SP and SC) of the inner height (h) x inner width (w). (Refer to the ■ part in the figure on the right.)
3. Select a type of cable/tubes whose diameter is within 80% of the inner height (h) of the Plarailchain. (Refer to the figure on the right.)



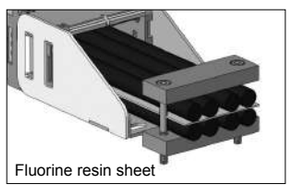
*There should be a space of ød × 0.1 between the Plarailchain body and the adjacent contents.

4. When containing many tubings/cables, please use "Divider", "Rack" or "Dividing sheet" inside in order to avoid spiral twist of the contents.



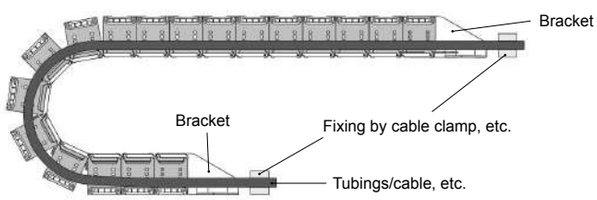


5. Partition by a sheet with low surface sliding resistance such as fluorine resin sheet or equivalent can be used besides partition by divider or rack. The sheet with 0.3 to 0.5 mm thickness is recommended. Thinner sheet might stretch and result in wavelike block, bending, overlapping, tear, and unnecessary load to storage items that could cause troubles.
   Furthermore, when the sheet is too thick or the sheet tension is stronger than that of storage items, the sheet might rub them undesirably against inner wall of Plarailchain and cause early wear and tear.

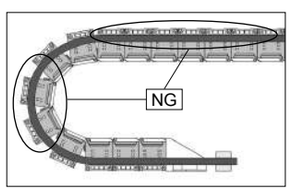


6. Please maintain adequate length of tubings/cables so as not to be overloaded inside Plarailchain.

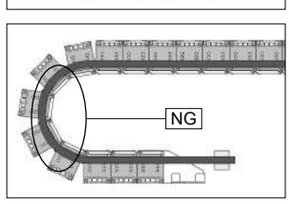
Adequate length of tubings/cables



(1). Troubles caused by too long tubings/cables
- Abrasion (wire disconnection, etc.) by excessive contact with the outer periphery wall inside Plarailchain.
- Entanglement of Tubings/cables
- Protrusion of tubings/cables from the clearance between flaps of Plarailchain.



(2). Troubles caused by too short tubings/cables
- Abrasion (wire disconnection, etc.) by excessive contact with the outer periphery wall inside Plarailchain.



►Countermeasure (1)

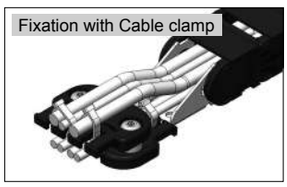
After storing tubings/cables at the stroke end condition in the installed device, please make sure that they are not too long or too short in the range of full travel stroke.

►**Countermeasure (2)**

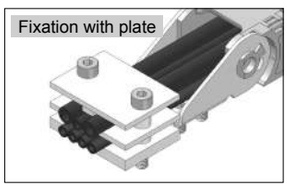
To get a rough idea, fix tubings/cables by a cable clamp, etc. at one side of fixing bracket, and then pull them lightly at the other side to keep no loosening condition (Tubings/cables are touching the inner wall of Plarailchain). From that position, loosen the tubings/cables about 5 mm to 10 mm (0.197 to 0.394 in.) toward the direction to which the tubings/cables naturally slacken, and fix them by cable clamps, etc. to get the approximate adequate length. However, there are exceptions depending on the types of tubings/cables.

2. Fixing of tubings/cables

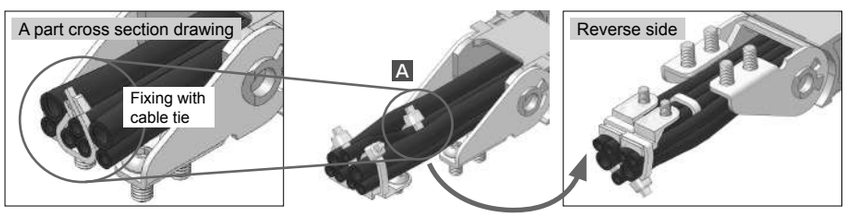
1. Please fix tubings/cables as close as possible to the fixing bracket at both ends. Fixing far apart from the bracket causes looseness of the tubings/cables.
2. When using cable clamps, fix them close to the bracket and secure cables/tubes one by one with cable ties.



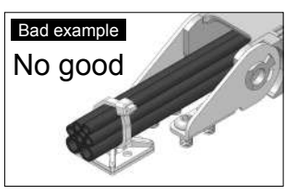
3. Applying metal or resin plates with large surface friction resistance as fixture is acceptable. Place tubings/cables between base part and plate as shown below.



4. When bundling a number of tubings/cables by a cable tie, please fix them one by one. If it is not possible due to space shortage, try to make a bundle of few tubings/cables.



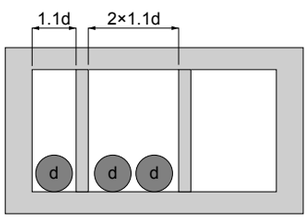
*When a number of tubings/cables are fixed by a cable tie together as shown below, some of them might not be touched and fixed by the band and become loose.



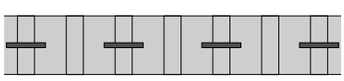
3. Installation of dividers

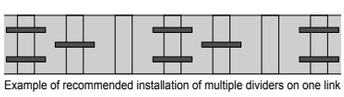
Arrangement of contents is maintained by attaching dividers. This is highly effective against wear and abrasion.

(1) Install dividers at intervals of at least 1.1 times the cable/tube diameter (d).



(2) We recommend that dividers be placed every other link or two links. If multiple dividers are required per link, please make sure that the dividers are not placed side by side. When dividers and shelves are used together, they should be installed alternately on every other link or two links.


Example of recommended installation of one divider per link


Example of recommended installation of multiple dividers on one link

Safety Instructions

Installing guide rails and safety devices

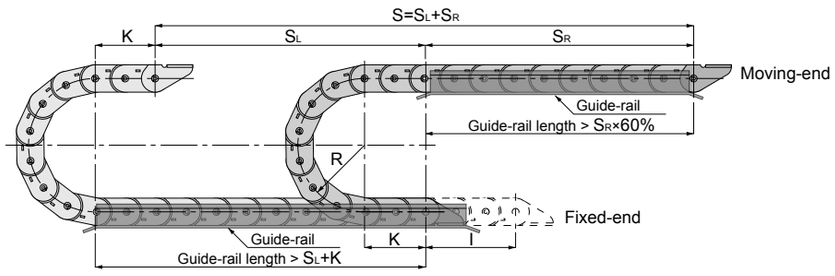
Be sure to read the followings before selecting or using PISCO products. Read the detailed precautions, instructions and specifications for individual series.

When Plarailchain is used in long stroke or for long time even within the acceptable value of the free-span, the installation of safety device such as guide-rail can prevent sagging or loosening of Plarailchain. (However, the moving speed and acceleration speed are limited by the installation.) Moreover, since the following instruction is only rough indication, please contact us for details.

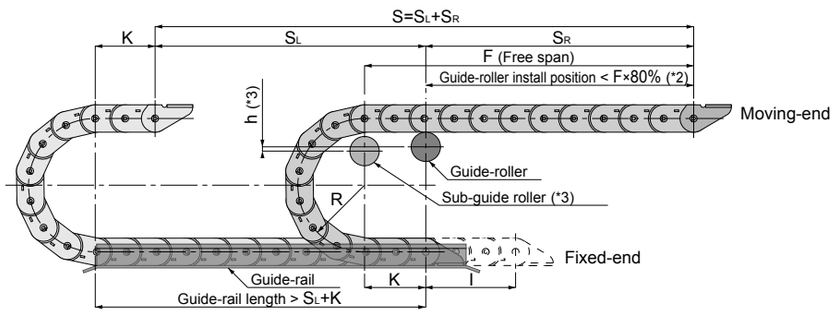
1. Installation of guide-rail and guide-roller

*Do not use guide-roller for the application of more than 1m/s moving speed. Please consider installing guide-rail instead.

Installation of guide-rail



Installation of guide-roller



S: travel stroke

S_L : $\frac{S}{2}$ (When the fixed-end is in the middle of the travel stroke)

S_R : $\frac{S}{2}$ (When the fixed-end is in the middle of the travel stroke)

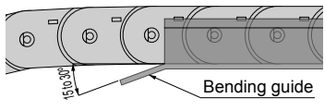
K: Leeway length

I: Distance from the midpoint when the fixed-end is not at the midpoint of the travel stroke.

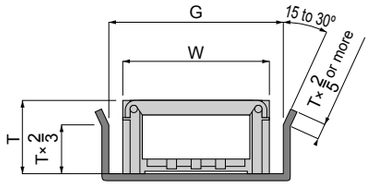
*1. Please create bending guide and avoid edge shape at the end of guide-rail.

*2. Multiple guide-rollers are required for the application using more than allowable free-span value. In this case, please contact us.

*3. We recommend installing sub-guide-roller in order to put Plarailchains smoothly on the guide-roller when the moving-end moves from S_L side to S_R side. Since the installation dimension differs by specification, please contact us.



2. Rough dimensions for guide-rail design



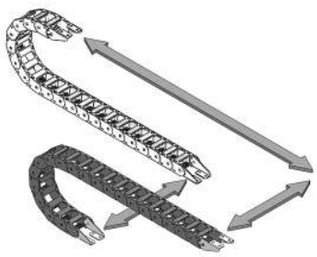
● Estimation of G dimension

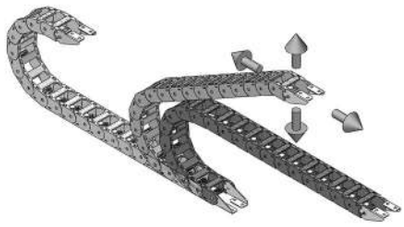
W < 100mm	W > 100mm
G=W+5 to 10mm	G=W+15 to 20mm

*As the above dimensions are only rough and they differ by the specification, please contact us for details.

3. Operation of multiple movements

When biaxial running or multiple movements are operated as shown below, please check the specification and contact us.



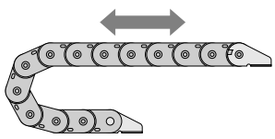


4. Other safety instructions for long stroke and multiple movements operation

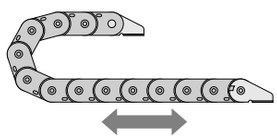
1. Using safety devices such as guide-rail or guide-roller cause abrasion where the devices and Plarailchain contact. As such, please apply material made of low surface sliding resistance for the safety devices.
   Taping low friction sheet (such as super-high-molecular polyethylene sheet) to the all-contact face reduces the dust from abrasion and longer operating life is expected.
2. As for long stroke, Plarailchain is affected by the cables, etc. inside and might cause twist. Therefore, please insert cables with no winding or twisting.
3. The cables inside are easy to tangle for long stroke use. As such, please use divider or rack to divide room inside in order to avoid spiral twist of tubings/cables.
4. Long stroke or multiple movement operation leads to accident such as protrusion of cables from middle part of Plarailchain due to pull-in effect. In order to prevent this, please fix cables firmly at the outlet of Plarailchain.
5. In the case of special operations, installation of safety device such as guide-rail may differ depending on the specification. Please contact us for details.

● Installation example

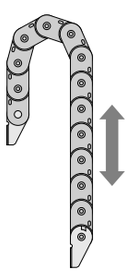
(a) Horizontal slide mounting (top slide)



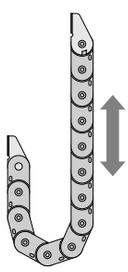
(b) Horizontal slide mounting (bottom slide)



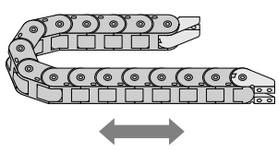
(c) Vertical slide mounting (inverted U-shape)



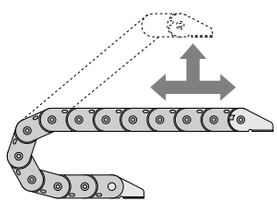
(d) Vertical slide mounting (U-shape)



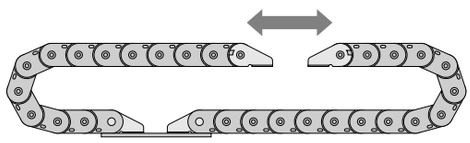
(e) Side slide mounting



(f) Compound slide mounting



(g) Counter-slide mounting



*In the installation examples (b) to (f), the max. cable/tube weight may not be applicable for travel speeds exceeding 1 m/s, etc. In such cases, please contact our sales office near you with detailed specifications.

Make to Order Production

Order Production Index

Based on the standard products, "Special specification option" on parts for matching operating environment or "Special appearance option" for matching a color for operating environment can be selected and ordered by just adding prearranged extension code of options.

*PISCO welcomes an inquiry of custom-made product, which is not listed in this catalog. Please feel free to contact nearest PISCO office.

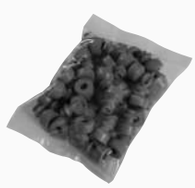
PISCO flexibly corresponds to non standard products that meet the needs of our customers.

Visit PISCO web site for video about Non-standard products.
https://www.pisco.co.jp/en/product/special/

Tube penetration type Tube Fitting

Tube Fitting unequal port combinations

Multiple Coupling


Bulk Packaging (Tube Fitting, Control, Vacuum Pad)

Make to Order Production

G thread spec.

Fittings with mm size tube diameter and parallel pipe thread are available.
Contact us for inquiry.

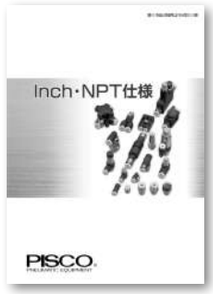
● Applicable model

Fitting	Tube Fitting, Tube Fitting Mini

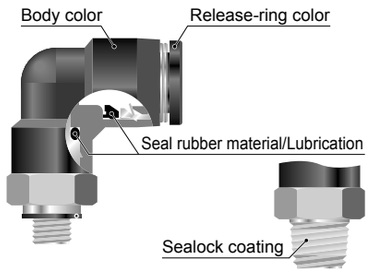
Inch NPT spec.

● Applicable model

Fitting	Tube Fitting, Tube Fitting Mini, Die Temperature Control Fitting, Rotary Joint, High Rotary Joint, Connector, Light Coupling
Control	Speed Controller, Speed Controller Large-flow type, Orifice Flow Speed Controller, Throttle (Needle) Valve, Quick Exhaust Valve, Orifice Fitting, Pressure Regulator Push-lock type, Pressure Controller, Check Valve, Pressure Gauge
Valve	Change Valve, Hand Valve, Ball Valve, Mechanical Valve



Special options



▶ Color option
Light-gray color option for resin body and release-ring.

▶ Seal rubber material option
Seal Rubber Selection: FKM, EPDM or HNBR.

▶ Oil-free option
Assembled without intentional use of oil, oil contamination into fluid medium can be prevented.

▶ Non-purple option
Restraining generation of Cu ion or F ion from the product.
*With this option, Check Valve and Stop Fitting, etc. do not have marking on the brass parts. Be careful when piping.

▶ Release-ring color option
Changeable to Red Color

Model Designation (Example)

PL6−01	W	−F	−D	
(1)	(2)	(3)	(4)	(5)

(1) Model code (See the next page for available products.)

(2) Body color (Resin body color)

Code	W	No code
Color	Light gray	Standard

*When light-gray (W) is selected for body color, the metric (mm) size release-ring color is light-gray even for combination with any other options (except when red release-ring is specified). The color of release-ring of inch tube dia. is always white.

(3) Seal rubber material

Code	−F	−E	−HN	No code
Material	FKM	EPDM (Oil-free)	HNBR	Standard seal rubber

*1. For FKM (-F) specification, the color of metric (mm) size release-ring is brown, while inch tube dia. is white. FKM (-F) specification is not available with non-purple (-P) specification.
*2. For EPDM (-E) specification, the product is assembled as oil-free specification. The color of metric (mm) release-ring is yellow.
*3. EPDM (-E) specification can not be selected for the products with M3 or M6 threads or with inch tube dia.

(4) Lubrication

Code	−D	−P	No code
Option	Oil-free	Non-purple	Standard

*1. The metric (mm) size release-ring color of oil-free (-D) specification is yellow, while inch tube dia. is white.
*2. The product with oil-free (-D) specification is assembled without intentional use of lubrication in standard process. Therefore the problem of reducing airtightness or increasing frictions of rubber parts may be resulted.
*3. Non-purple (-P) option is not available with seal rubber material FKM. No Sealock coating for Non-purple option.

(5) Release-ring color

Code	−RR	No code
Color	Red	Standard

Reference Chart of Special Options

○: Available, ×: Not available

Product series	Standard specification						Special specification						
	Body color and Packaging/ Cleaning option	Resin body color	Release-ring color	Seal rubber material	Lubrication	Thread sealing	(1) Body color	(2) Seal rubber material			(3) Lubrication		(4) Release-ring color
							Light gray	FKM	EPDM	HNBR	Oil-free option	Non-purple	Red
							W*1	-F*2	-E*3	-HN	-D*4	-P*2	-RR
Tube fitting	Standard	Black	Black	NBR	Turbin oil	Sealock coating	×	○*5	○	○	○	○	○
	Light gray	Light gray	Light gray				Standard spec.	○					
	Clean-room pkg.	Light gray	Light blue		Fluorine-based grease		×		○*6		○*6	×	×
	Light gray + Clean-room pkg.	Light gray	Light gray				Standard spec.		○		○		
	Clean wash + Clean-room pkg.	Light gray	Light blue		Oil-free option		×	×	○*6		Standard spec.		○
Tube fitting Mini	Standard	Black	Black	NBR	Turbin oil	Sealock coating	×	○*5,*10	○*10	○*10	○	○	○
	Light gray	Light gray	Light gray				Standard spec.	○*10					
	Clean-room pkg.	Light gray	Light blue		Fluorine-based grease		×		○*6,*10		○*6	×	
	Light gray + Clean-room pkg.	Light gray	Light gray				Standard spec.		○*10		○		×
Tube Fitting SUS304	Standard	Black	Dark blue	FKM	Turbin oil	Sealock coating	×	Standard spec.	○*7	○	○*7	×	△*17
Tube Fitting Stainless SUS303 equivalent corrosivity	Standard	Black	Dark blue	HNBR	Turbin oil	Sealock coating	○	○	○*7,*15	Standard spec.	○*7	○	○
	Clean wash + Clean-room pkg.	Black	Dark blue		Oil-free option		×	×			Standard spec.	×	
Tube Fitting Anti-static	Standard	Black	Black	NBR	Turbin oil	Sealock coating	×	○	○*8	○	○*8	○	△*17
Tube fitting Brass	Standard	—	—	HNBR	Turbin oil	Sealock coating	×	—	×	Standard spec.	○	○	×
				FKM				Standard spec.		—			
Tube fitting Long	Standard	—	Black	NBR	Turbin oil	Sealock coating	×	○*5	○	○	○	○	○
Main block	Standard	Black	Black	NBR	Turbin oil	Sealock coating	×	○*5	○	○	△*17	×	○
	Light gray	Light gray	Light gray				Standard spec.	○					
Connector	Standard	Black	Black	NBR	Turbin oil	—	×	○*5	○	○	○	×	○
Speed controller*14	Standard	Black	Black	NBR	Turbin oil	Sealock coating	×	○*13	○*10	○ *10,*11	△*17	○	○
	Light gray	Light gray	Light gray				Standard spec.	○ *10,*11,*12					
	Clean-room pkg.	Light gray	Light blue		Fluorine-based grease		×		○*6,*10			×	
	Light gray + Clean-room pkg.	Light gray	Light gray				Standard spec.		○*10				×
Speed controller SUS303 equivalent corrosivity	Standard	Black	Dark blue	HNBR	Turbin oil	Sealock coating	○	○*11,*12	○*7	Standard spec.	△*17	○	○
Needle valve	Standard	Black	Black	NBR	Turbin oil	Sealock coating	×	○*5,*12	○	○	△*17	○	○
	Light gray	Light gray	Light gray				Standard spec.	○*12					
	Clean-room pkg.	Light gray	Light blue		Fluorine-based grease		×		○*6			×	
	Light gray + Clean-room pkg.	Light gray	Light gray				Standard spec.		○				×
Orifice fitting	Standard	Black	Black	NBR	Turbin oil	Sealock coating	○	○	○	○	○	○*16	○*9
Check valve (Metal type) Check valve (Resin type)	Standard	—	Black	NBR	Turbin oil	Sealock coating	×	○	×	×	△*17	○	○
		Light gray	Light gray				Standard spec.						
Check Valve for Low Operating Pressure	Standard	Light gray	Light gray	HNBR (Elastic sleeve)	Turbin oil	—	Standard spec.	○ (Elastic sleeve)	○ (Elastic sleeve)	Standard spec.	○	×	○
				FKM (Valve packing)				Standard spec.	× (Valve packing)	× (Valve packing)			

*1. When light-gray (-W) is selected for body color, the release-ring color of metric (mm) tube dia. is light-gray even for combination with any other options, except when Red color (-RR) is selected. The color of release-ring of inch tube dia. Is always white.
*2. Non-purple (-P) option is not available with seal rubber material FKM.
*3. For EPDM (-E) specification of sealing material, the product is assembled as oil-free specification. The color of release-ring of metric (mm) tube size is yellow, except the combination with light-gray specification, which has light-gray release-ring. EPDM (-E) specification is not available for the products with M3 or M6 threads or inch tube dia.
*4. Release-ring color: Yellow (When with light-gray specification, the release-ring color is light-gray.)
*5. Release-ring color: Brown
*6. Release-ring color: Light-blue
*7. Release-ring color: Dark-blue
*8. Release-ring color: Black
*9. Release-ring color: Red is not available with body color Light-gray.
*10. Not available for Tube dia. ø1.8 mm and ø2 mm.
*11. Not available for Low cracking pressure type.
*12. Not available for the products with M3 thread.
*13. See *5, *10, *11 and *12.
*14. Applicable types: JSC, JSS and JSM for Standard series, JSC-H for High Flow series, JSC-L and JSS-L for Low Flow series, JKC and JKL for Constant Flow series.
*15. Gasket material for Metric thread : PPS
*16. Orifice bore 0.1 mm and 0.2 mm is not available.
*17. Contact us for inquiry.

*Consult PISCO for any inquiry of special-made product, which is not listed in this catalog.

Make to Order Production

Reference Chart of Appearance Color Combination with Special Options (Fitting with Metal body)

Product series	Resin color or Option	Tube dia. size		Seal rubber material		Lubrication	Release-ring color
				-F	-E	-D	-RR
				FKM	EPDM	Oil-free option	Red
Tube fitting Tube fitting Mini	–	mm size					
		inch size					
	Light gray	mm size					
	Clean-room pkg.	mm size					
		inch size					
	Light gray + Clean-room pkg.	mm size					
Tube fitting	Clean wash + Clean-room pkg.	mm size				Standard specification	
		inch size				Standard specification	
Tube Fitting SUS304	–	mm size		Standard specification			
Tube Fitting Stainless SUS303 equivalent corrosivity	–	mm size					
	Light gray	mm size					
	Clean wash + Clean-room pkg.	mm size				Standard specification	

Reference Chart of Appearance Color Combination with Special Options (Fitting with Resin body)

Product series	Resin color or Option	Tube dia. size		Seal rubber material		Lubrication	Release-ring color
				-F	-E	-D	-RR
				FKM	EPDM	Oil-free option	Red
Tube fitting Tube fitting Mini	–	mm size					
		inch size					
	Light gray	mm size					
		inch size					
	Clean-room pkg.	mm size					
		inch size					
	Light gray + Clean-room pkg.	mm size					
Tube fitting	Clean wash + Clean-room pkg.	mm size				Standard specification	
		inch size				Standard specification	
Tube Fitting SUS304	–	mm size		Standard specification			
Tube Fitting Stainless SUS303 equivalent corrosivity	–	mm size					
	Light gray	mm size					
	Clean wash + Clean-room pkg.	mm size				Standard specification	

Make to Order Production

Reference Chart of Appearance Color Combination with Special Options (Controllers)

Product series	Resin color or Option	Tube dia. size		Seal rubber material		Release-ring color
				-F	-E	-RR
				FKM	EPDM	Red
Speed controller Throttle (needle) valve	–	mm size				
		inch size				
	Light gray	mm size				
		inch size				
	Clean-room pkg.	mm size				
		inch size				
	Light gray + Clean-room pkg.	mm size				

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VXPT ····· External Vacuum Controller VXP, 3 port valve type ····· P.340
VXV□B□ ····· Filter element or Silencer element for Vacuum Generator Complex type VX, External Vacuum Controller VXP ····· P.299, P.301, P.339, P.340
VY ····· Vacuum Generator VY Blow-off mechanism equipped type ··· P.262
VYB ····· Bracket for Vacuum Generator VY ····· P.262
VYF ····· Vacuum Filter for Vacuum Generator VY ····· P.262
VYR ····· EOAT Direct Mountable Material Handling Vacuum Generator VYR ··· P.769
VZ ····· Vacuum Generator Complex type VZ ····· P.316
VZ010B□ ····· Filter element or Silencer element for Vacuum Generator Complex type VZ, External Vacuum Controller VZP ····· P.316, P.354
VZP ····· External Vacuum Controller VZP ····· P.354

W

WR ····· Insert Ring ····· P.111

Z

ZE ····· Parallel Gripper Multi-acting type Sensor switch ····· P.784

Others

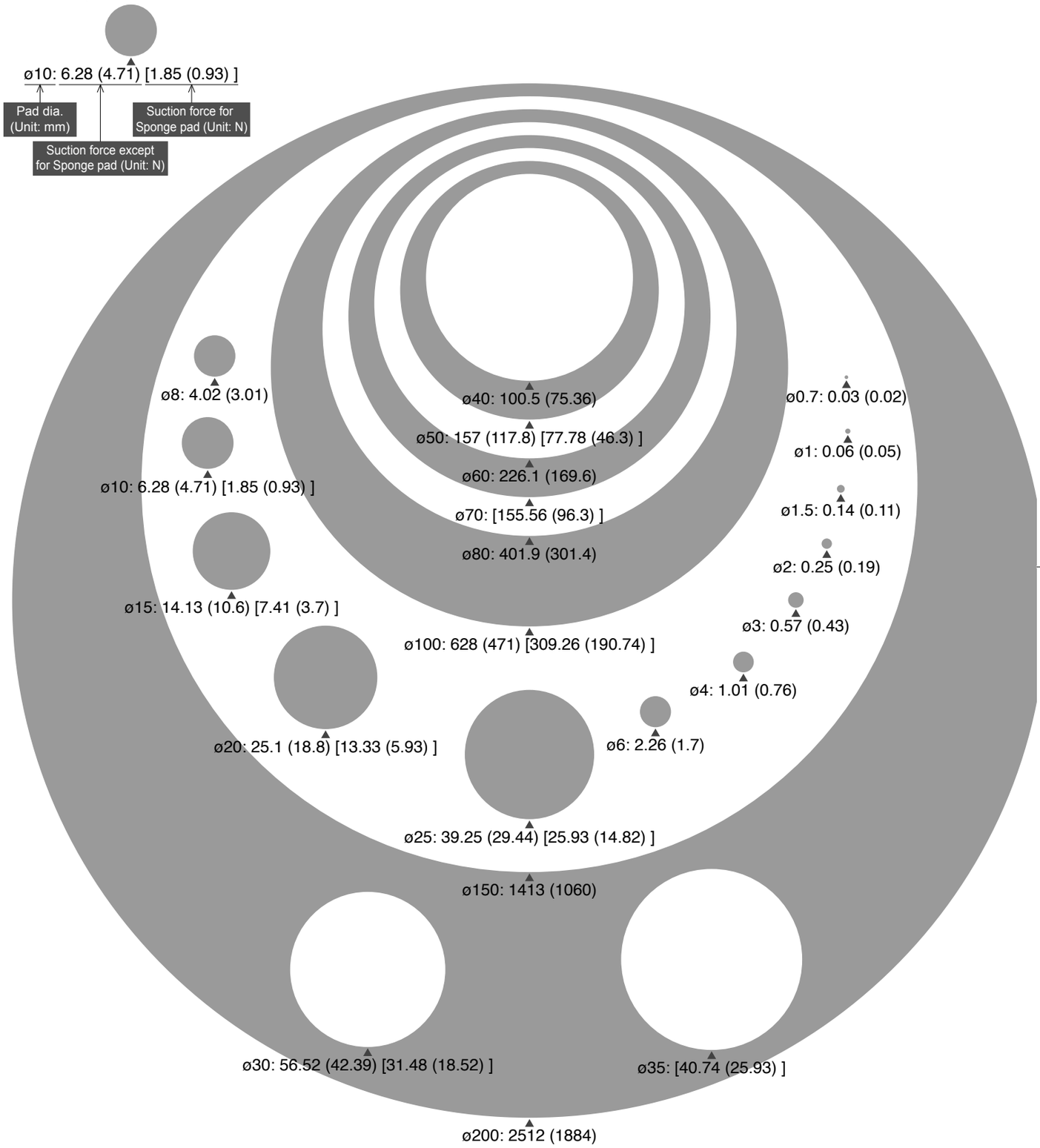
22×1.5 ····· O-ring for Standard type Vacuum Pad ····· P.443
60×2 ····· O-ring for Vacuum Filter VFL ····· P.363
□×□ (NBR70) ··· O-ring for Multiple Pad Holder ····· P.728
□×□ (VMQ) ····· O-ring for Vacuum Pad Packaging bag type ····· P.589
Assembling wrench set ·· Assembling Wrench Set for Main Block ····· P.75

Quick Reference of Pad Diameter & Suction Force

Useful tools

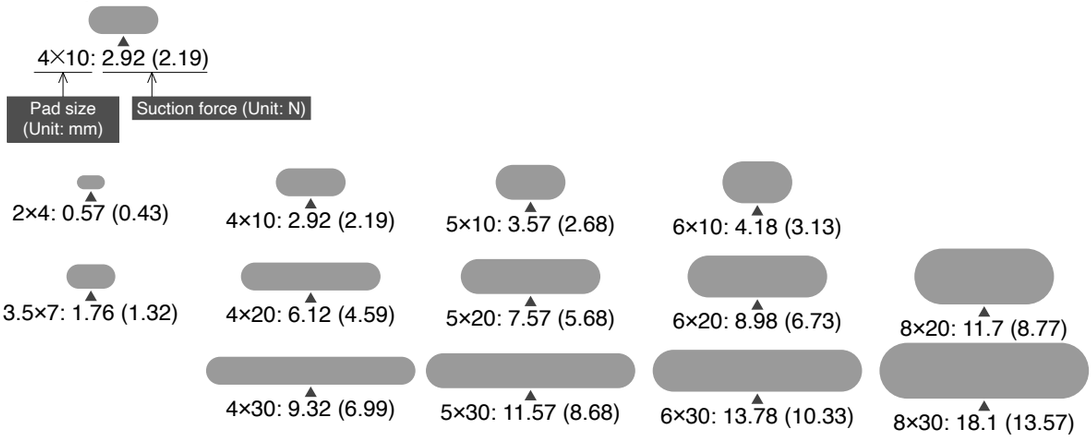
■ For round pad

＜Example＞



■ For oval pad

＜Example＞



■ How to read Suction force

＜Example＞

6.4 (3.73) [1.85 (0.93)]
(1) (2) (3) (4)

(1). Suction force of pad (excluding sponge pad) with H (high vacuum) or E (high vacuum with low supply pressure) vacuum characteristic ejector.
(2). Suction force of pad (excluding sponge pad) with L (large suction flow) vacuum characteristic ejector.
(3). Suction force of Sponge pad with H (high vacuum) or E (high vacuum with low supply pressure) vacuum characteristic ejector.
(4). Suction force of Sponge pad with L (large suction flow) vacuum characteristic ejector.

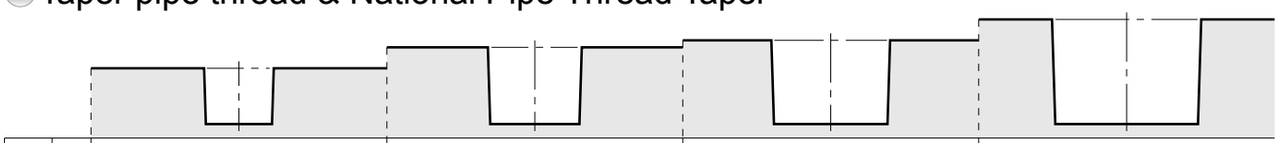
*1. Vacuum level reference:
H (high vacuum) & E (high vacuum with low pressure): -80kPa., L (large flow): -55kPa
*2. Please refer to our website for the performance detail of each vacuum generator final vacuum level, etc.
*3. The suction force of this quick reference does not include safety margin. Please apply the safety ratio 1/4 for horizontal lifting and 1/8 for vertical lifting.

Thread and Tube size Full scale chart

Useful tools

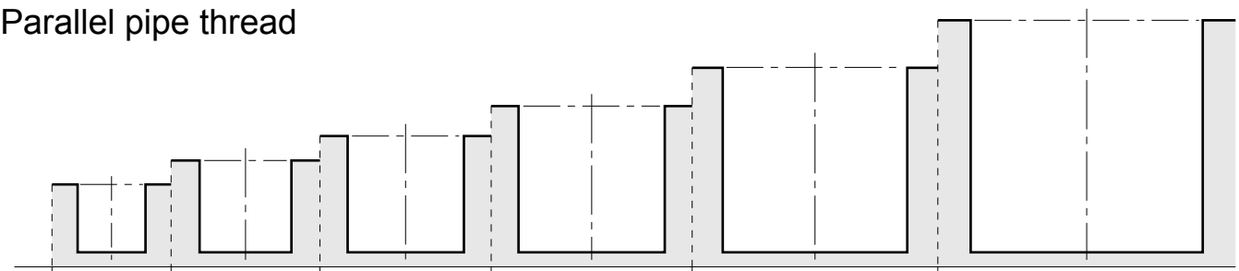
■ If you do not know exact size of your equipment, confirm it by using the reference table below.

Taper pipe thread & National Pipe Thread Taper



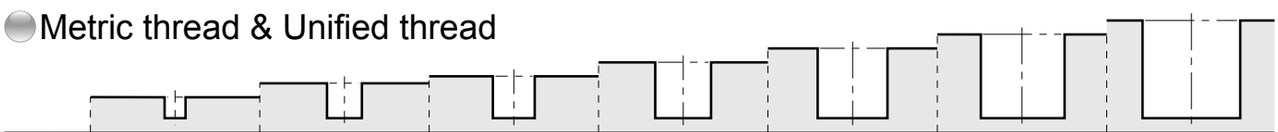
Taper pipe thread	Size	R1/8	R1/4	R3/8	R1/2
	Code	**01**	**02**	**03**	**04**
National Pipe Thread Taper	Size	NPT1/8	NPT1/4	NPT3/8	NPT1/2
	Code	**N1**	**N2**	**N3**	**N4**

Parallel pipe thread



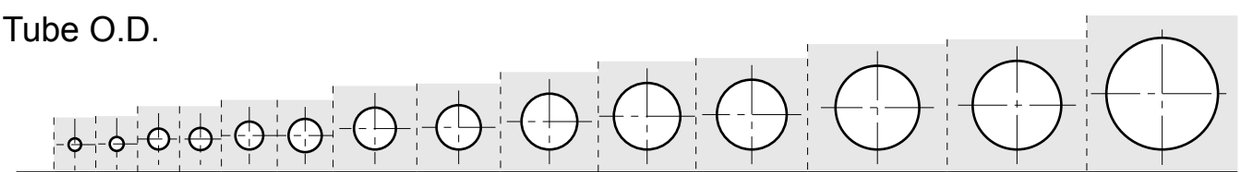
Size	G1/8	G1/4	G3/8	G1/2	G3/4	G1
Code	**G1**	**G2**	**G3**	**G4**	**G6**	**G8**

Metric thread & Unified thread



Metric thread	Size	M3×0.5	M5×0.8	M6×0.75 M6×1	M8×0.75	M10×1	M12×1	M14×1
	Code	**M3**	**M5**	**M6**	**M8**	—	—	**M14**
Unified thread	Size	—	No.10-32UNF	—	—	—	—	—
	Code	—	**U10**	—	—	—	—	—

Tube O.D.



mm	ø1.8	ø2	ø3		ø4		ø6		ø8		ø10	ø12		ø16
Code	**180**	**2**	**3**		**4**		**6**		**8**		**10**	**12**		**16**
inch				1/8	5/32	3/16		1/4	5/16	3/8			1/2	5/8
Code				1/8	5/32	3/16		**1/4**	**5/16**	**3/8**			**1/2**	**5/8**

Memo

Memo

PISCO Network

CORPORATE HEADQUARTER & PLANT
3-9-32 OSACHIIZUHAYA, OKAYA, NAGANO, 394-0089, JAPAN
TEL: +81-266-28-6072 FAX: +81-266-28-7349
Website: https://www.pisco.co.jp/company/

INA SECOND PLANT
3884-1 MINAMIMINOWA, KAMIINA, NAGANO, 399-4587, JAPAN
TEL: +81-265-74-8801 FAX: +81-265-74-8802

OVERSEAS SALES DEPARTMENT
INA SECOND PLANT, 3884-1 MINAMIMINOWA, KAMIINA, NAGANO, 399-4587, JAPAN
TEL: +81-265-76-7751 FAX: +81-265-76-3305
Website: https://www.pisco.co.jp/en/
E-mail: intl@pisco.co.jp

OVERSEAS ASSOCIATED COMPANIES

PISCO USA, INC.
1180 PRATT BLVD, ELK GROVE VILLAGE, ILLINOIS, 60007, U.S.A.
TEL: +1-630-993-3500
Website: https://www.pisco.co.jp/usa/
E-mail: inquiry@pisco.com

PISCO TAIWAN CO., LTD.
NO.117-41, LIUAN JIALI DIST., TAINAN CITY, 722012, TAIWAN
TEL: +886-(0)6-726-5762 FAX: +886-(0)6-726-5752
Website: https://www.pisco.co.jp/tw/
E-mail: P8638@ms16.hinet.net

NIHON PISCO TAIWAN CO., LTD.
No.117-39, LIUAN, JIALI DIST., TAINAN CITY, 72242, TAIWAN
TEL: +886-(0)6-726-4520 FAX: +886-(0)6-726-1526

PISCO KOREA CO., LTD.
42 SEOUNSANDAN-RO 2-GIL, GYEYANG-GU, INCHEON, REPUBLIC OF KOREA, 21072
TEL: + 82-32-327-9795 FAX: +82-32-327-0385
Website: https://www.pisco.co.jp/kr/
E-mail: webmaster@pisco.co.kr

PISCO VIETNAM CO., LTD.
NO.1 CN6, SMALL AND MEDIUM INDUSTRIAL COMPLEX, MINH KHAI WARD, BAC TU LIEM DISTRICT, HANOI CITY, VIETNAM
TEL: +84-24-3200-0310 FAX:+84-24-3200-5331
Website: https://www.pisco.co.jp/vn/
E-mail: piscovn@pisco-vn.com

PISCO CHINA CO., LTD.
ROOM 605, NEW TOWN CENTER BUILDING 6F, 83 LOU SHAN GUAN RD., SHANGHAI, PEOPLE'S REPUBLIC OF CHINA, 200336
TEL: +86-21-31232755
Website: https://www.pisco.co.jp/cn/
E-mail: ribenpisco@gmail.com

OVERSEAS REPRESENTATIVE OFFICES

NIHON PISCO CO., LTD. BANGKOK REPRESENTATIVE OFFICE
2 JASMINE BLDG., NO.5, 12TH FLOOR, SOI PRASARNMITR (SUKHUMVIT 23), SUKHUMVIT RD., NORTH KLONGTOEY, WATTANA, BANGKOK 10110, KINGDOM OF THAILAND
TEL: +66-2-612-7366 FAX: +66-2-612-7399
E-mail: piscobkk@pisco.co.jp

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Product catalog 8-02

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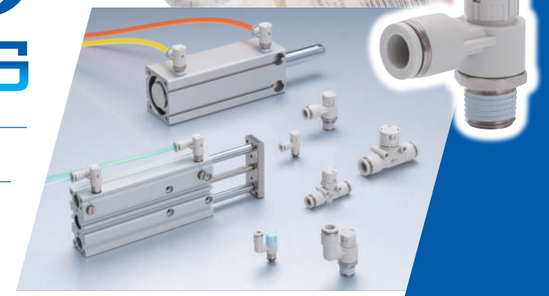

Tube fitting
Tube
Controller/Air preparation
Pressure gauge/Sensor
Valve
Vacuum equipment
Vacuum pad
Robot Accessories
Actuator
Plarailchain

>>> https://www.pisco.co.jp/en/

PISCO *aims to build a sustainable factories and manufacturing*

Keep supporting the industries of all fields by manufacturing reliable products in large variations.

PISCO has provided many products that are suitable for customers' equipment, and each of them is well balanced for the quality and price.
With highly efficient production line, products are delivered to customers speedily and securely.
We promise to offer the best solution beyond your needs, based on our flexible teamwork that can develop the products with required specifications that our standard product range does not cover.

Quality

ISO 9001 certified

Quality Management System (1994. 9)

Quality Policy - Slogan

"To win customer's trust and satisfaction."

Based on the ideology "Manufacturing with customer-friendly approach" since the foundation, PISCO acquired the certification of ISO 9001.

Environment

ISO 14001 certified

Environmental Management System (1998. 9)

Environment Policy - Slogan

"PISCO, resource innovation, achieving balance with nature."

For the protection of the global environment and contributing to continuous development, PISCO promotes environmental control activities by all staff participation and acquired the certification of ISO 14001.

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Ina 2nd Plant
Ina 3rd Plant
Ina 4th Plant

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