

# LED Digital Pressure Sensor

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)



### (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

Code	Tube O.D.(mm)			Metric thread	Direct mount type
	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.

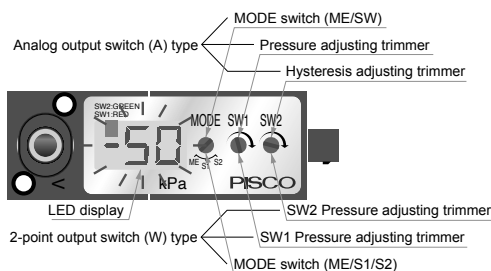
To enhance visibility, an LED display is used for the vacuum switch.

### 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 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 5V
	Zero-point voltage	1±0.1V
	Span voltage	4±0.1V
	Output current	1 mA max. (load resistance min.5 kΩ)
	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	Red LED turns on when pressure is above setting
	SW2: Green LED turns on when pressure is above setting	
Function	1. MODE selector switch (ME or S1 or S2)	1. MODE selector switch (ME or SW)
	2. S1 Setting trimmer (2/3-turn trimmer)	2. Setting trimmer (2/3-turn trimmer)
	3. S2 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	Type	Model code	Type	Model code
Push-in fitting type <b>VUS21</b>	VUS21[3][4]-4 VUS21[3][4]-6 VUS21[3][4]-8	Metric female thread type <b>VUS21</b>	VUS21[3][4]-M5	Direct mount type <b>VUS21</b>	VUS21[3][4]-F

## 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