

CONNECT AND PROTECT

EuropacPRO Rugged

05/2025

nVent
SCHROFF

Subracks – EuropacPRO Rugged

OVERVIEW

MAIN KATALOG

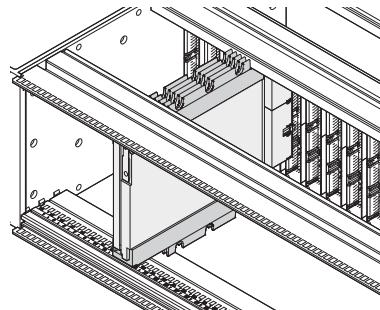
Cabinets	1
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06112020



"rugged" horizontal rail with 3 hole fixing for increased stability (+60 % compared to 2 hole fixing of "heavy" horizontal rail)



Special adaptor rails allow conducted cooled assemblies to be fitted



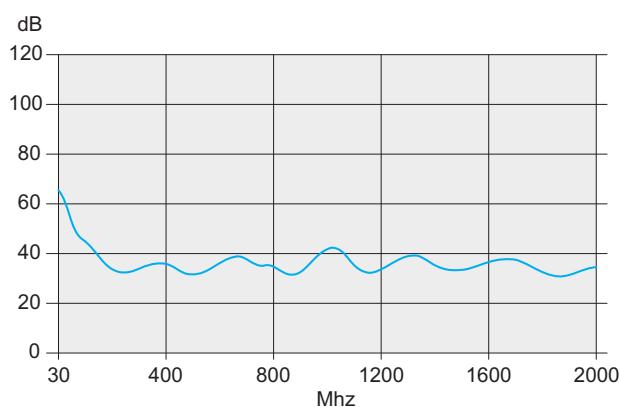
Shock and vibration resistant in all three axial directions

Standards/Approvals

- Internal and external dimensions in accordance with:
IEC 60297-3-100, -101, -102, -103, -104, -105,
IEEE 1101.1, IEEE 1101.10/11
- Type of protection IP 20, in accordance with IEC 60529
- EMC testing to IEC 61587-3
- Shock and vibration test report;
MIL 167, IEC 61587 DL 3,
MIL 810 G, MIL 901 D

Note

- Other finishes e.g. yellow chromated on request
- Subrack with telescopic slides can be adapted for cabinet mounting on request



EMC curve

06108081

Subracks – EuropacPRO Rugged

OVERVIEW

19" SUBRACKS

- Shock and vibration resistant up to 25 g
- Kits or individually configured subracks
- A product and accessory platform for the most different customers' requirements and applications
- Suitable for CompactPCI and VMEbus insertion and extractor handles
- EMC shielding can easily be retrofitted
- 3D PDF or CAD 3D data available for download



06112017

Kits

- All required parts are available under one part number, even partly assembled
- Most popular versions and dimensions available from stock
- For installed loads up to 25 kg
- Supplied as a space-saving flat pack

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Introduction 6.4

Kits 6.94

Individual configuration 6.97

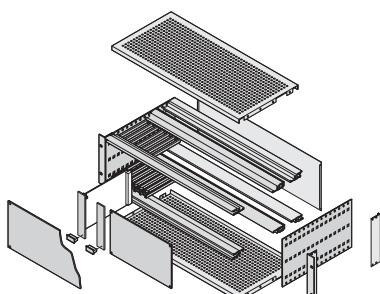
ServicePLUS 6.95

Application examples 6.71

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Subracks for mobile railway applications 6.70

europacPRO for industrial applications 6.86



06105058

ServicePLUS individual configuration

- Single parts may individually be configured, respectively assembled on request (from quantity 1)
- Wide range of variants in height, width and depth
- Guide rails for different applications
- EMC shielding material to improve EMC performance
- Other accessories and assembly kits

ServicePLUS

- e.g. modification (cut-outs)
- e.g. downloads (CAD drawings, user manuals, test reports)

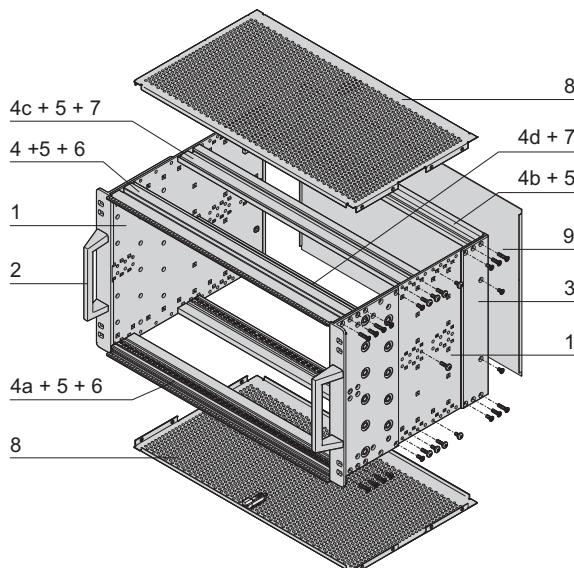
e.g. custom solutions (special depths, electromagnetically shielded applications)

Subracks – EuropacPRO Rugged

KIT, RUGGED, SHIELDED, FOR BACKPLANE MOUNTING

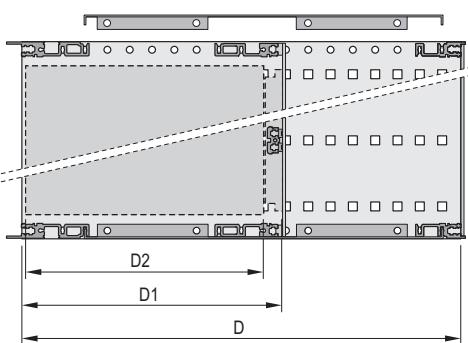


Illustration shows 3 U subrack



06112017

6 U



06112055

D = overall depth, D1 = insertion depth,
D2 = board depth = D1 - 15 mm



04400001

Rear horizontal rail for backplane mounting with insulation strip

- Subrack with robust side panel and horizontal rail, type R "rugged"
- Rear horizontal rail for backplane mounting with insulation strip
- Shielding typically 40 dB at 1 GHz, 30 dB at 2 GHz (as per VG 95373, part 15), on condition that the front is closed with sealed front panels
- Shock and vibration resistant to 25 g

DELIVERY COMPRISSES (Kit)

Item	Qty	3 U	6 U	Description
1	2	2		Side panel type R, Al, 3 mm, clear passivated, with 19" support bracket 3.5 mm (tox-cold welded); for EMC gasketing (textile)
2	2	2		Front handle incl. fixing material kit
3	2	2		Rear corner profile for EMC gasketing (textile)
4	1	-		Front horizontal rail (R-KD)
4a	1	2		Front horizontal rail (R-LD)
4b	2	2		Rear horizontal rail (H-KD)
4c	2	2		Rear horizontal rail, centre (R-ST)
4d	-	1		Rear horizontal rail, centre (ST)
5	6	8		Threaded insert (pre-fitted)
6	2	2		Perforated strip (pre-fitted)
7	2	4		Insulation strip (pre-fitted)
8	2	2		EMC cover plate, rugged, with top cover locking
9	1	1		EMC rear panel
10	1	1		EMC gasketing material, fixing material kit, user manual

ORDER INFORMATION

Height U	Width HP	Depth D mm	Depth D1 mm	Part no.
3	84	295	175	24567-149
6	84	295	175	24567-449

Accessories

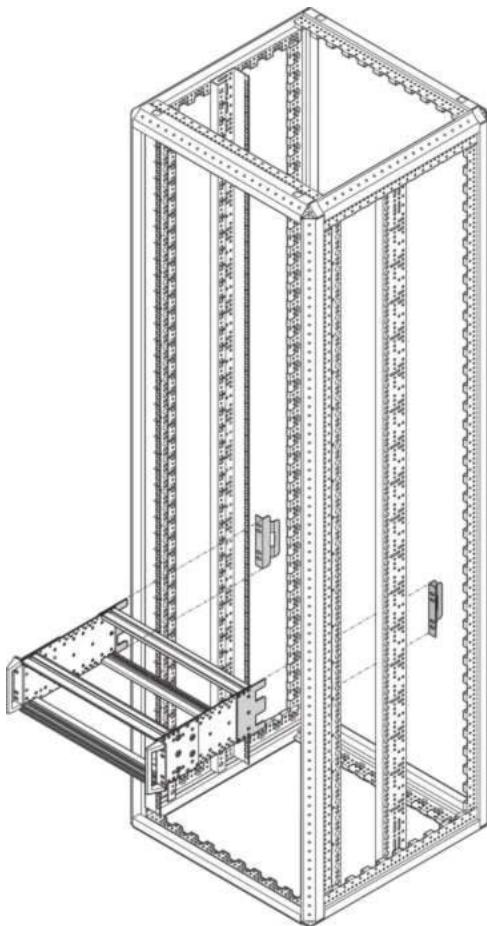
Guide rails, accessories, 160 mm deep PC, UL 94 V-0, red, groove width 2 mm, PU 10 pieces	24568-361
Torx panhead screw 2.5 x 9.3, zinc-plated, PU 100 pieces; torque max. 0.2 Nm	24560-141
ESD clip for guide rails PU 50 pieces	24560-255
Guide rail accessories for heavy PCBs, extra strong Al extrusion, groove width 2 mm, 160 mm deep, 1 piece (SPQ 10)	34562-881
Torx pan head screw 2.5 x 7.3, zinc flake coating, black, 100 pieces; torque max. 0.2 Nm	24560-157
Adaptor to accomodate conduction cooled assemblies (CCA) for VPX applications, 160 mm deep, PU 1 pair; includes fixing material kit	24566-004
Adaptor to accomodate conduction cooled assemblies (CCA) for CompactPCI applications, 160 mm deep, PU 1 pair; includes fixing material kit	24566-005
19" dual fixing materials kit suitable for a subrack with double fixing holes (bolts, washers and nuts), PU 1 kit	24566-109

NOTE

- Test reports online
- For further accessories see from page 6.19

Subracks – EuropacPRO Rugged

EUROPACPRO ADAPTER FOR REAR FIXING DL3 STANDARD IN A CABINET



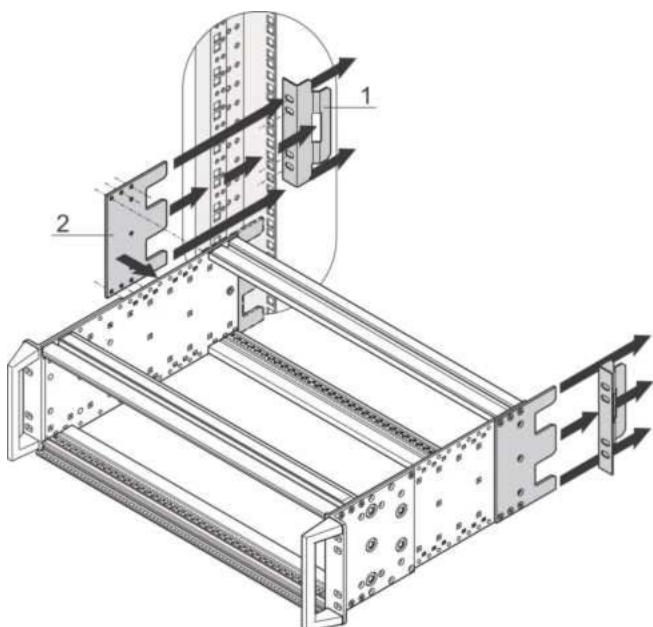
- Guarantees vibration resistance up to 25g as per IEC 61587 DL3
- Adapters for other cabinet models available on request
- Mounts onto rear of ruggedized subrack and to Varistar CP cabinet uprights

DELIVERY COMPRISSES (Kit)

Item	Qty	Description
	3 U	6 U
1	2	4
2	2	2
3	1	1
		Bracket, St, 1.5 mm, AlZn; mounts to Varistar CP cabinet uprights
		Plate, Al, 3 mm, anodized; mounts to subrack
		Fixing materials kit (19" dual fixing, adapter mounting, rugged subracks); user manual

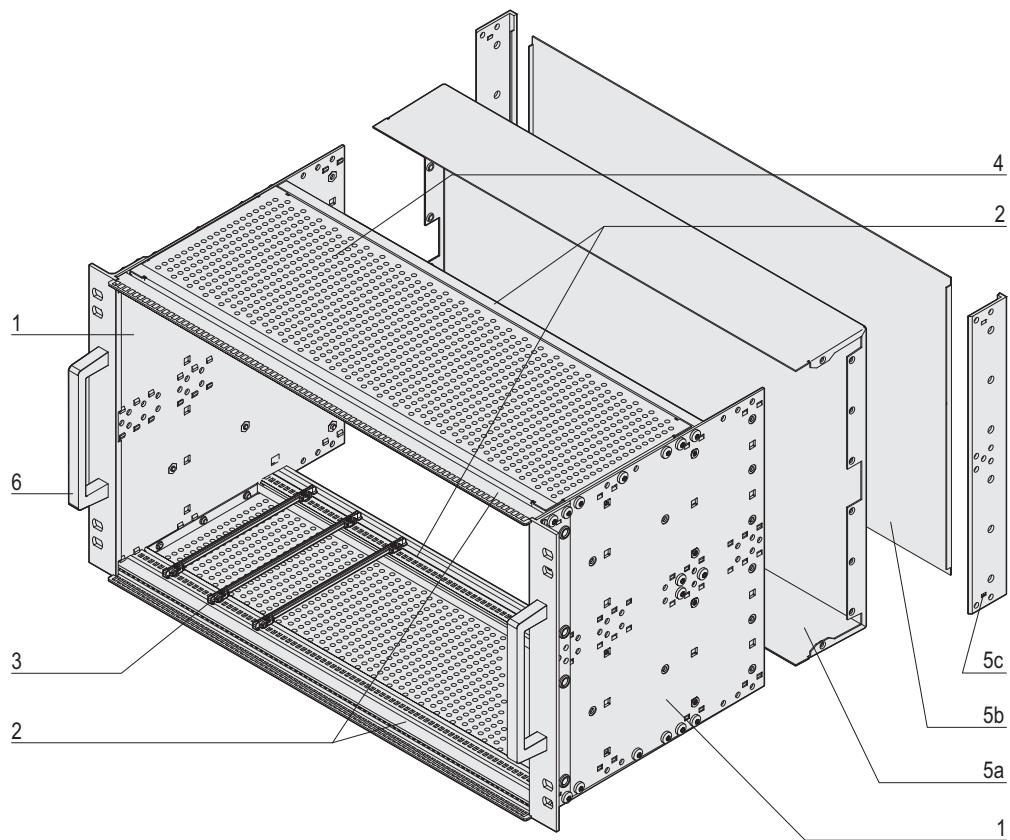
ORDER INFORMATION

Height	Part no.
U	
3	24568-198
6	24568-498



Subracks – EuropacPRO Rugged

OVERVIEW OF INDIVIDUAL COMPONENTS FOR SHIELDED OR UNSHIELDED SUBRACKS

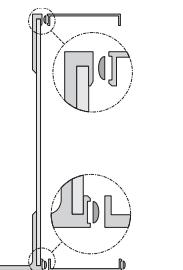
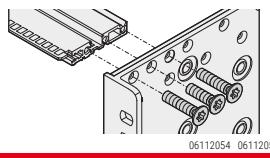
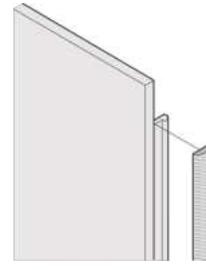
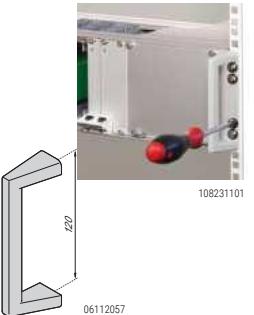


Item	Description	Description	page
Item 1	Side panels	Establish the height and depth of the subrack; Al, 3 mm, with universal hole positions for mounting of accessories	6.97
Item 2	Horizontal rails	Establish the width of the subrack; Al extrusion, with defined hole positions for guide rails, grooves for threaded inserts, M4 thread at front, functional rail shapes, basically differing with regard to their mechanical loading capacity: rugged loading up to 15 kg	6.98
Item 3	Guide rails	Guide rails act as interface between subracks and boards, for different board formats, are available in plastic or metal, optionally codable and optionally can be fitted with ESD clip to allow electrostatic discharge	6.105
Item 4	Cover plates	Provide mechanical protection and/or EMC shielding and are perforated	6.108
Item 5	Rear/front	Rear hood (5a) or front panel (5b) with corner profile (5c) as support for EMC shielding gaskets used in conjunction with shielded front panels; Note: rear hood and corner profile cannot be fitted simultaneously	6.49
Item 6	Handles	Handles can be mounted on the 19" brackets	6.97
-	EMC shielding (without illustration)	Extensive component range for specific shielding	6.110
-	Internal mounting (without illustration)	Universal assemblies, e.g. for horizontal and vertical mounting and for mounting plates	6.109 6.60

Subracks – EuropacPRO Rugged

SIDE PANEL TYPE R, EMC SEALING, CORNER PROFILE, FRONT HANDLE

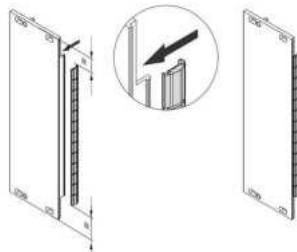
ORDER INFORMATION

	Side panel type R for textile gasket	EMC textile gasket	Corner profile, rugged	Front handle
	  06112054 06112056	 108230769	 107887390	 11043486
Height U	Depth mm			
3	175	24568-145	PU 10 pieces	PU 1 pair
3	235	24568-147	21101-853	21102-853
3	275	24568-143		
3	277.75	24568-144		24566-199
3	295	24568-149		24566-010
3	355	24568-151		
6	175	24568-445	21101-855	21102-855
6	235	24568-447		
6	275	24568-443		24566-499
6	277.75	24568-444		24566-010
6	295	24568-449		
6	355	24568-451		
CompactPCI Corner profile				
3	275	24568-143	21101-853	21102-853
6	275	24568-443	21101-855	21102-855
				24566-197
				24566-497
				24566-010

Fixing material kits see page 6.103

EMC gasket stainless steel

- Easy mounting by clipping the gasket onto the right front panel bracket
- Temperature Range: -200 bis +160°C



1 kit, EMC stainless steel gasket, for U-shaped front panel, 3U, 10x

21102-105

1 kit, EMC stainless steel gasket, for U-shaped front panel, 3U, 100x

21102-106

1 kit, EMC stainless steel gasket, for U-shaped front panel, 6U, 10x

21102-107

1 kit, EMC stainless steel gasket, for U-shaped front panel, 6U, 100x

21102-108

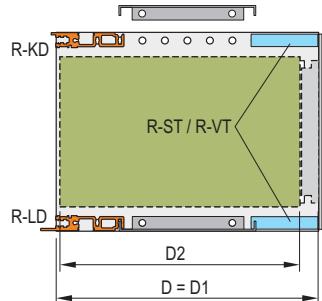
SIDE PANEL, TYPE R

- For high mechanical demands up to 25 g (vibration resistance, shock and vibration requirements to e.g. IEC 61587-DL 3)
- 19" bracket is fixed firmly to side panel (tox-cold welded)
- Height 3 U and 6 U
- Depths 175, 235, 275, 277.75, 295 and 355 mm
- EMC shielding concept for front/rear with EMC textile gasket
- Other dimensions on request

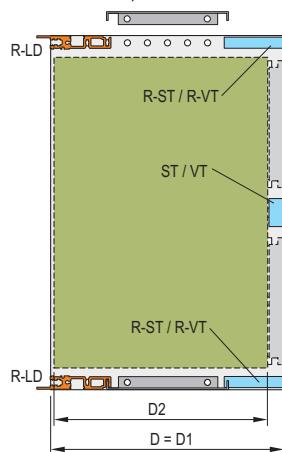
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MOUNTING POSITION OF HORIZONTAL RAIL/CENTRAL RAILS

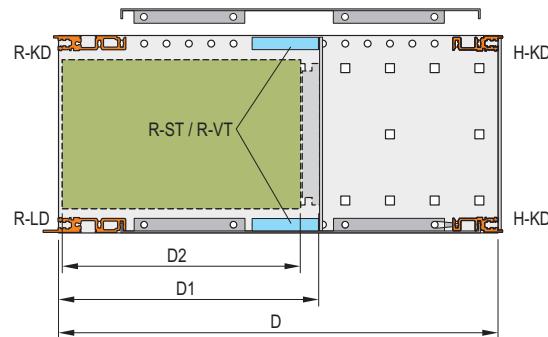
3 U (board depth 160, 220, 280 mm)



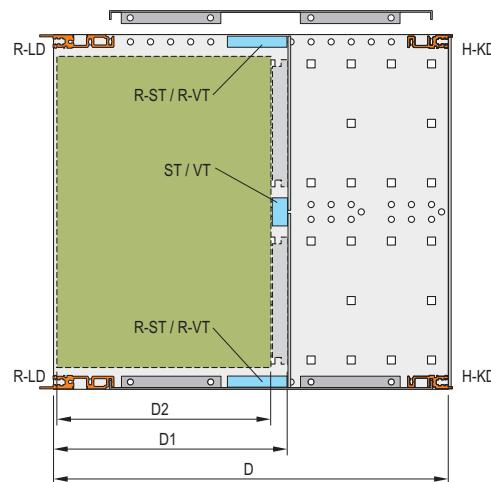
6 U (board depth 160, 220, 280 mm)



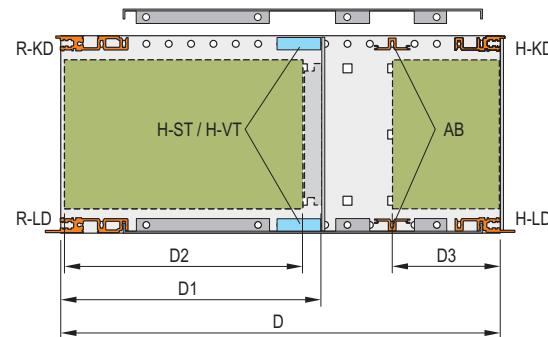
3 U (board depth 160, 220, 280 mm)



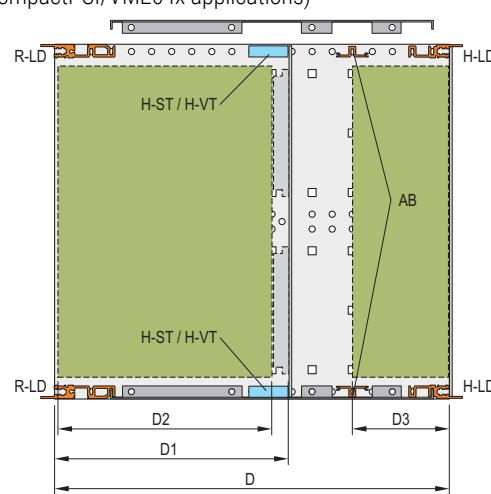
6 U (board depth 160, 220, 280 mm)



3 U (for CompactPCI/VME64x applications)



6 U (for CompactPCI/VME64x applications)



Horizontal rails

R-ST



R-VT



H-ST



H-VT



ST



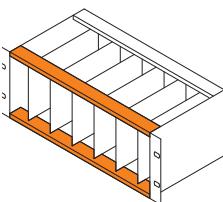
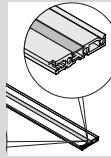
VT



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FRONT HORIZONTAL RAILS

ORDER INFORMATION

	With long lip for insertion/ extraction of CompactPCI and VME64x boards	With long lip for insertion/ extraction of CompactPCI and VME64x boards	With short lip	With short lip
	"rugged" Type R-LD long lip 	"heavy" Type H-LD long lip 	"rugged" Type R-KD short lip 	"heavy" Type H-KD short lip 
With HP markings from 28 HP, Al extrusion, anodised finish, conductive contact surface	bza44980	Al extrusion, anodised finish, conductive contact surface, with HP markings	06112004	06197009
Usable length HP	Length mm	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾
20	106.68	34566-320	34560-320	34566-220
28	147.32	34566-328	34560-328	34566-228
40	208.28	34566-340	34560-340	34566-240
42	218.44	34566-342	34560-342	34566-242
63	325.12	34566-363	34560-363	34566-263
84	431.80	34566-384	34560-384	34566-284
–	1000	34566-301	34560-301	34566-201
Cover strips to cover the horizontal rail perforations Al, untreated, 0.8 mm, length 431.5 mm, 1 piece (SPQ 10)		34566-184	–	34566-184
Threaded inserts see page	6.104	6.104	6.104	6.104
Fixing material kits see page	6.103	6.103	6.103	6.103

1) SPQ (standard pack quantity): Part number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ);
please order at least the SPQ quantity or a multiple
"heavy" load > 7.5 kg; "rugged" load > 15 kg;

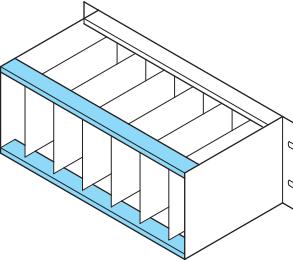
NOTE

- 1000 mm version without M4 thread to front,
without printing and without notch for 19"-bracket
- EMC gasket see page 6.56
- For further horizontal rails see 6.29

Subracks – EuropacPRO Rugged

REAR HORIZONTAL RAILS

ORDER INFORMATION

	For indirect backplane fixing with insulation strip	For direct backplane fixing	For direct fixing of connectors in accordance with EN 60603-2 (DIN 41612)		
	 04400001	 04400002	 04400003		
06105074 With HP markings from 28 HP, Al extrusion, anodised finish, conductive contact surface	"rugged" Type R-ST Standard  06112005	"heavy" Type H-ST standard  06197011	"rugged" Type R-VT recessed installation  06112006	"heavy" Type H-VT recessed installation  06197013	"heavy" Type H-MZ with Z-rail  06197015
Usable length HP	Length mm	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾
20	106.68	34566-520	34560-520	34566-720	34560-720
28	147.32	34566-528	34560-528	34566-728	34560-728
40	208.28	34566-540	34560-540	34566-740	34560-740
42	218.44	34566-542	34560-542	34566-742	34560-742
63	325.12	34566-563	34560-563	34566-763	34560-763
84	431.80	34566-584	34560-584	34566-784	34560-784
–	1000	34566-501	34560-501	34566-701	34560-701
Insulation strips see page		6.104	6.104	–	–
Threaded inserts see page		6.104	6.104	6.104	6.104
Fixing material kits see page		6.103	6.103	6.103	6.103

1) SPQ (standard pack quantity): Part number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple
"heavy" load > 7.5 kg; "rugged" load > 15 kg;

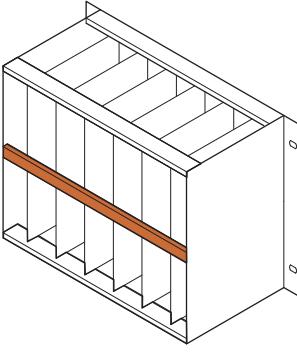
NOTE

- 1000 mm version without M4 thread to front, without printing and without notch for 19"-bracket
- EMC gasket see page 6.56
- For further horizontal rails see page 6.29

Subracks – EuropacPRO Rugged

REAR HORIZONTAL RAILS, CENTRE, FOR 6 U

ORDER INFORMATION

	For indirect backplane fixing with insulation strip	For direct backplane fixing	For direct fixing of connectors in accordance with EN 60603-2 (DIN 41612)
	 Type ST 0440001	 Type VT 0440002	 Type MZ 0440003
06108090	Al extrusion, finish anodised, conductive contact surface; without markings 06197016	Al extrusion, finish anodised, conductive contact surface; without markings 06197017	Al extrusion, finish anodised, conductive contact surface; without markings 06197018
Usable length HP	Length mm	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾
20	106.68	34561-020	34561-120
28	147.32	34561-028	34561-128
40	208.28	34561-040	34561-140
42	218.44	34561-042	34561-142
63	325.12	34561-063	34561-163
84	431.80	34561-084	34561-184
–	1000	34561-001	34561-101
Insulation strips see page	6.104	–	–
Threaded inserts see page	6.104	6.104	6.104
Fixing material kits see page	6.103	6.103	6.103

1) SPQ (standard pack quantity): Part number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple
"heavy" load > 7.5 kg; "rugged" load > 15 kg;

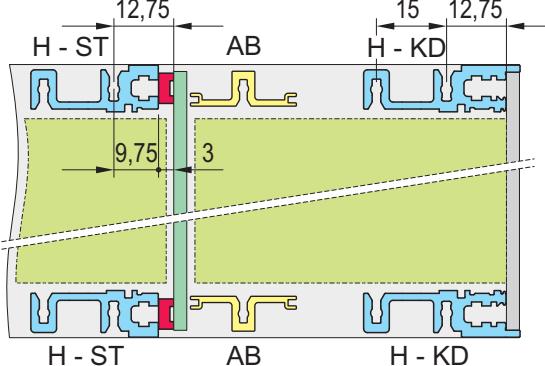
NOTE

- All horizontal rails without printed markings
- 1000 mm version without M4 thread to front

Subracks – EuropacPRO Rugged

HORIZONTAL RAILS (TYPE AB) FOR REAR I/O APPLICATIONS

ORDER INFORMATION

		For CompactPCI in rear I/O area	For CompactPCI in rear I/O area with notch
	06108069	 Type AB	 Typ AB, with notch
		Al extrusion, finish anodised, conductive contact surface; horizontal rail type AB (AB = support) is required to fix the guide rails for the 80 mm rear I/O boards; without markings	Al extrusion, finish anodised, conductive contact surface; horizontal rail type AB (AB = support) is required to fix the guide rails for the 80 mm rear I/O boards; without markings
Usable length HP	Length mm	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾
20	106.68	34561-520	
28	147.32	34561-528	
40	208.28	34561-540	
42	218.44	34561-542	34579-042
63	325.12	34561-563	
84	431.80	34561-584	34579-040
-	1000	34561-501	
Fixing material kits see page		6.103	6.103

1) SPQ (standard pack quantity): Part number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple
 "heavy" load > 7.5 kg; "rugged" load > 15 kg;

NOTE

- All horizontal rails without printed markings
- 1000 mm version without M4 thread in end

Subracks – EuropacPRO Rugged

SCREWS OVERVIEW

	Description	Material	Dimension	Qty/PU	Part no.
	Countersunk screw, with thread locking compound Application: Rugged side panel to horizontal rail; for area of tox-cold welded brackets and corner profiles except when guide rail is fitted to slot 1	Stainless steel	M4 x 18	100	24566-100
137813741					
	Countersunk screw, with thread locking compound Application: Rugged side panel to horizontal rail; for area of tox-cold welded brackets and corner profiles if guide rail is fitted to slot 1	Stainless steel	M4 x 14	100	24566-101
137813739					
	Panhead screw, with thread locking compound Application: Rugged side panel to horizontal rail; not for area of tox-cold welded brackets and corner profiles except when guide rail is fitted to slot 1	Stainless steel	M4 x 14	100	24566-102
137813734					
	Panhead screw, with thread locking compound Application: Rugged side panel to horizontal rail; not for area of tox-cold welded brackets and corner profiles if guide rail is fitted to slot 1	Stainless steel	M4 x 10	100	24566-103
137813736					
	Panhead screw, with thread locking compound Application: Rugged side panel to cover plate, not for area of tox-cold welded brackets and corner profiles	Stainless steel	M4 x 8	100	24566-104
137813737					
	Torx countersunk screw, with thread locking compound Application: Rugged side panel to cover plate, for area of tox-cold welded brackets and corner profiles	Stainless steel	M4 x 10	100	24566-106
137813742					
	Torx countersunk screw, with thread locking compound Application: Rugged side panel to corner profile; in EMC-shielded subracks and to increase robustness	Stainless steel	M4 x 7	100	24566-105
137813740					
	Square nut Application: Rugged side panel to corner profile; in EMC-shielded subracks and to increase robustness	Zinc-plated steel	M4	100	24560-140
137813738					

19" Dual fixing material kit, page 6.104 **24566-109**

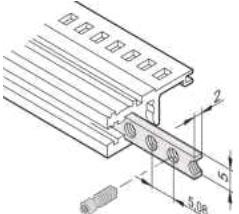
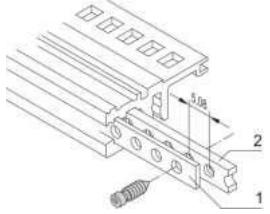
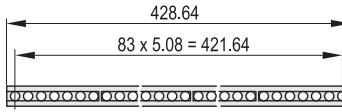
NOTE

- Stainless steel screws; with organic surface layer (silver)

Subracks – EuropacPRO Rugged

THREADED INSERTS, PERFORATED STRIPS, INSULATION STRIPS

ORDER INFORMATION

	Threaded insert M2.5	M3	Perforated strip Item 1	Insulation strip			
	 <p>required for fixing the front panel to the horizontal rail; St, zinc-plated; use collar screw 12.3 mm, see page 6.66</p>	06103056	 <p>for centring shielded plug-in units, Al, 1 mm, please order grub screw separately</p>	127685783	 <p>428.64 83 x 5.08 = 421.64</p>	B26749	
Usable length HP	Threaded insert Length mm	1 piece (SPQ 10) ¹⁾	Perforated strip Length mm	1 piece (SPQ 10) ¹⁾	Insulation strip Length mm	PU 10 pieces	
20	106.18	34561-320	–	106.48	30845-189	101.50	24560-820
28	146.82	34561-328	–	147.12	30845-197	144.20	24560-828
40	207.78	34561-340	–	208.08	30845-209	205.12	24560-840
42	217.94	34561-342	–	218.24	30845-211	210.40	24560-842
63	324.62	34561-363	–	324.92	30845-232	316.88	24560-863
84	431.30	34561-384	34561-484	431.60	30845-253	428.64	24560-884
196	1000.26	34565-196	–	1000.26	34565-396	–	–

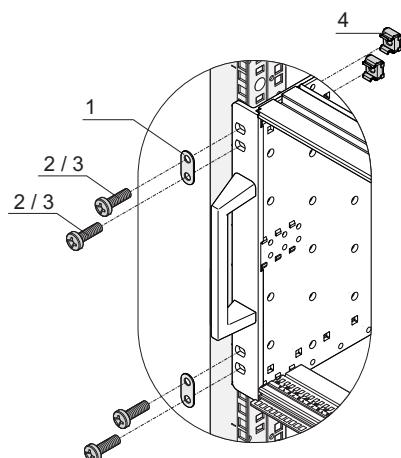
Accessories

Grub screw M2.5 x 8, PU 100 pieces	21100-276	–	–	–	–	–
Grub screw M2.5 x 9, Torx 8, PU 100 pieces	–	–	–	21102-980	–	–
Grub screw M3 x 8, PU 100 pieces	–	21100-646	–	–	–	–

1) SPQ (standard pack quantity): Part number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ);
please order at least the SPQ quantity or a multiple

Part no. includes one packing unit (PU); delivery is exclusively made in PU

19" DUAL FIXING MATERIALS KIT



- For fixing a subrack with dual fixing holes to 19" mounting brackets (e.g. rugged and railroad subracks)

DELIVERY COMPRISSES

Item	Qty	Description
1	4	Double washer, stainless steel
2	8	M6 x 16 (Torx 30 drive) + Nomel washer
3	8	M6 x 16 (Pozidrive) + Nomel washer
4	8	Cage nut KM6
1	4	User manual

ORDER INFORMATION

Description	Part no.
19" dual fixing materials kit	24566-109

06113052

Subracks – EuropacPRO Rugged

ADAPTOR TO ACCOMMODATE CONDUCTION COOLED ASSEMBLIES (CCA)

ORDER INFORMATION

	Adaptor to accomodate conduction cooled assemblies (CCA) in subracks	
	 Al die-cast, silver, can be screw-fixed, 0.8" pitch; suitable for heavy and rugged horizontal rails, incl. fixing material kit	06112022
Board length mm	VPX PU 1 pair	CompactPCI PU 1 pair
160	24566-004	24566-005

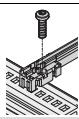
2) Part no. includes one packing unit (PU); delivery is exclusively made in PU

GUIDE RAILS FOR PLUG-IN UNITS AND FRAME TYPE PLUG-IN UNITS, ONE-PIECE, GROOVE WIDTH 2 MM AND 2.5 MM

ORDER INFORMATION

	For plug-in units and frame type plug-in units "Standard"		
Assembly Plastic guide rail - can be clipped into Al extruded horizontal rails - can be clipped into 1.5 mm thick plates	 up to 220 mm length, PC, UL 94 V-0; from 280 mm length, multi-piece, end piece PC, UL 94 V-0, central section Al extrusion	136815561	
Storage temperature from -40 °C ... 130 °C		PC, UL 94 V-0	
Board length mm	Groove width mm	Colour mm	
		PU 10 pieces ²⁾	1 piece (SPQ 50) ¹⁾
70	2	red	34568-230
70	2	grey	—
160	2	red	64568-001
220	2	red	64568-002
280	2	red	—
340	2	red	—
160	2.5	red	64568-096
220	2.5	red	64568-098

Accessories

Retention screw, PU 100 pieces; Torque max. 0.2 Nm	 24560-141	24560-141
ESD clip, PU 50 pieces	24560-255	24560-255

1) SPQ (standard pack quantity): Part number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple

2) Part no. includes one packing unit (PU); delivery is exclusively made in PU

Description of accessories see from page 6.107

Subracks – EuropacPRO

GUIDE RAILS TYPE "ACCESSORY", ONE-PIECE, GROOVE WIDTH 2 MM AND 2.5 MM

ORDER INFORMATION

			Guide railsType Accessory	Guide railsType Accessory strengthened	for heavy modules, Al extrusion, silver, robust version
Assembly - can be clipped into Al extruded horizontal rails - can be clipped into 1.5 mm thick plates					 06102005
Storage temperature from -40 °C ... +130 °C			up to 280 mm length, PC, UL 94 V-0; > 280 mm length, multi-piece, end piece PC, UL 94 V-0, middle section Al extrusion	PC, UL 94 V-0, red; support beam of guide rails adds to strengthening	Al extrusion; is screwed to horizontal rail "heavy" with retention screws
Board length mm	Groove width mm	Colour	PU 10 pieces ²⁾	1 piece (SPQ 50)	PU 10 pairs ²⁾
100	2	red	–	64568-082	–
160	2	red	24568-363	64568-005	64568-076
160	2	grey/silver	–	64568-055	–
220	2	red	24568-364	64568-006	64568-078
220	2	grey/silver	–	64568-166	–
280	2	red/silver	24568-381	–	64568-080
340	2	red/silver	24568-382	–	–
400	2	red/silver	–	–	–
160	2.5	red/silver	–	64568-100	64568-118
220	2.5	red/silver	–	64568-102	64568-119
280	2.5	red/silver	–	–	64568-120
340	2.5	silver	–	–	–
400	2.5	silver	–	–	34564-885
160	2.5	red/silver	–	64568-100	34564-881
220	2.5	red/silver	–	64568-102	34564-882
280	2.5	red/silver	–	–	34564-883
340	2.5	silver	–	–	34564-884
400	2.5	silver	–	–	34564-885

Accessories

Retention screw, PU 100 pieces; torque max. 0.2 Nm		24560-141		24560-141		24560-157
ESD clip, PU 50 pieces	24560-255	24560-255	–	24560-255	–	–
Board locking C, red, PU 10 pieces	24560-377	24560-377	–	24560-377	–	–
Board handle C, red, PU 10 pieces	24560-378	24560-378	–	24560-378	–	–
Identification strips for board handle, red, PU 1 sheet = 438 pieces	60817-228	60817-228	6.43	60817-228	–	–
Coding see page						–

1) SPQ (standard pack quantity): Part number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple

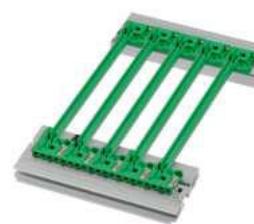
2) Part no. includes one packing unit (PU); delivery is exclusively made in PU

Description of accessories see from page 6.43

Subracks – EuropacPRO Rugged

GUIDE RAILS FOR HEAVY ASSEMBLIES, COMPACTPCI, VME64X

ORDER INFORMATION

			For CompactPCI, VME64x with coding In accordance with IEEE 1101.10 and IEC 60297-3-103	Offset 0.1" for power supply units in accordance with IEEE 1101.10 and IEC 60297-3-103	For heavy modules, Al extrusion, silver, robust version	
Assembly	 124624426		 124675998		 107888345	
Storage temperature						
Board length	Groove width	Colour	PU 10 pieces. ²⁾	PU 10 pieces. ²⁾	1 piece (SPQ 10) ¹⁾	
mm	mm	mm				
70	2	red	24568-357	–	–	
70	2	grey	24568-360	–	–	
160	2	red	24568-356	–	–	
160	2	grey	24568-358	–	34562-881	
160	2	green	–	24568-359	–	
220	2	grey	–	–	34562-882	
220	2	green	–	–	34562-883	
160	2.5	grey	–	–	34564-881	
220	2.5	red	–	–	–	
220	2.5	grey	–	–	34564-882	
280	2.5	red	24568-331	–	–	
280	2.5	grey	24568-341	–	34564-883	

Accessories

ESD clips, PU 50 pieces	24560-255	–	–
ESD clips, for alignment pin, PU 50 pieces	24560-256	24560-256	–
Retention screw, PU 100 pcs.; torque max. 0.2 Nm	24560-141	24560-141	24560-157
Coding peg, PU 100 pieces	20817-501	20817-501	–

1) SPQ (standard pack quantity): Order number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple thereof

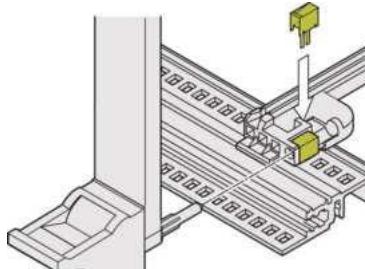
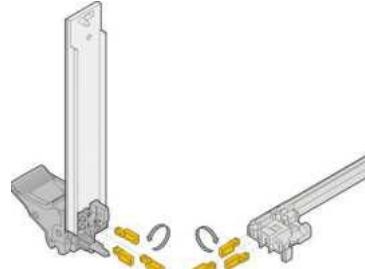
2) Order number includes one packaging unit (PU); delivery is exclusively made in PU

Description of accessories see from page 6.107

Subracks – EuropacPRO Rugged

GUIDE RAIL ACCESSORIES

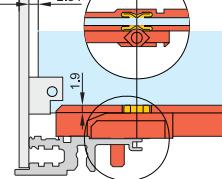
ORDER INFORMATION

	ESD clips, CompactPCI/VME 64 alignment pin for guide rails	Coding for plug-in components Keying/coding for CompactPCI, VME64x handles to IEEE 1011.10 and IEC 60297-3-103
		
	108230497 Spring steel, tin-plated, ESD clip, for alignment pin in accordance with IEEE; can be plugged into the guide rails with coding and into the keying/coding block; provides conductive contact between the guide pin of the inserter/extractor handle (IEL or IET handle) and the horizontal rail	135276437 Keying/coding peg, PC, UL 94 V-0, RAL 7035: The keying/coding pegs prevent plug-in units to be mounted in wrong slots. They are inserted in the chambers of the codable card guides as well as in the insertion/extraction handles (EL or IET) (4 possible positions), resulting in 64 codings per card guide; when coding the upper and lower card guide, 4096 codings will result.
Assembly	. PU 50 pieces. ²⁾ .	
At the top/ at the bottom	24560-256	20817-501

2) Part no. includes one packing unit (PU); delivery is exclusively made in PU

GUIDE RAIL ACCESSORIES

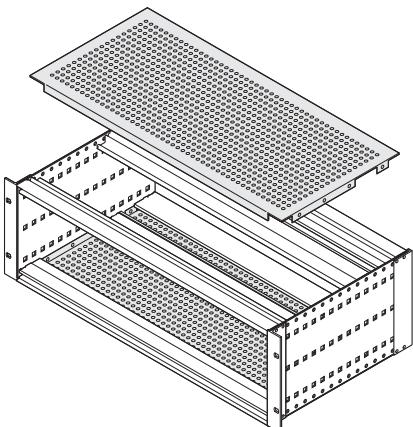
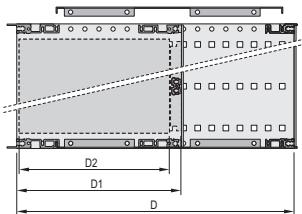
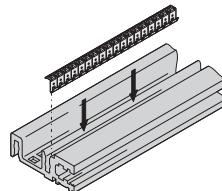
ORDER INFORMATION

	ESD clip for guide rails	
		04503050
	Spring steel, tin-plated, ensures conductive contact between board and horizontal rail, on both the solder side and the component side	
Assembly	Colour silver PU 50 pieces	
above/below	24560-255	

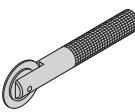
Subracks – EuropacPRO Rugged

COVER PLATES FOR BOLTING TO RUGGED SIDE PANEL

ORDER INFORMATION

			Cover plate for bolting to side panel	Stainless steel EMC gasket, between cover plate and horizontal rail	
			 06112054 Perforated Al plate, 1.2 mm, hole diameter 4.0 mm, passivated, perforation ratio 58 %, incl. retention screws; 4 stainless steel EMC contact strips per subrack are required for shielding, please order separately		 06106052 Stainless steel EMC gasket, clips into the horizontal rail and forms the contact with the cover plate; suitable for all horizontal rails
Width HP	Depth D mm	Application	PU 1 pair	PU 10 pieces	PU 100 pieces
84	175	160 mm board depth (D2)	24568-004		
84	235	220 mm board depth (D2)	24568-008		
84	295	280 mm board depth (D2)	24568-012		
84	275	160 mm board depth (D2) CompactPCI, 80 mm rear I/O	24568-032		
84	277.75	160 mm board depth (D2) VME, VME64, 80 mm rear I/O	24568-036		
84	295	160 mm board depth (D2), approx. 120 mm clearance behind backplane	24568-016		
84	355	220 mm board depth (D2), approx. 120 mm clearance behind backplane	24568-020		

Accessories

Cover Plate Fixing Kit	 108230785  107888015	24566-007	-	-
Assembly tool, to fit EMC gasket, stainless steel, for horizontal rails, 1 piece		-	24560-271	24560-271

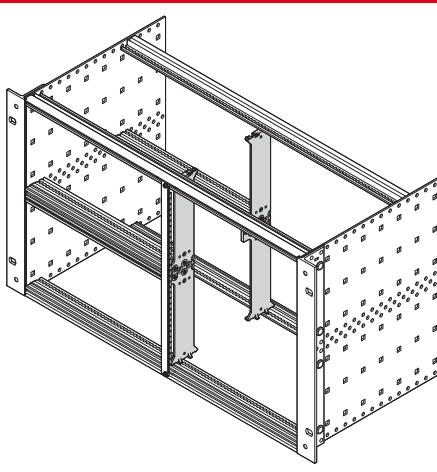
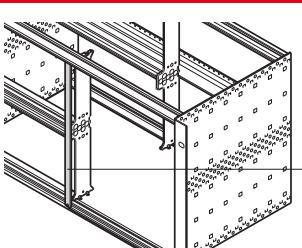
NOTE

- Cover plates without perforation available on request
- Mounting position of horizontal rails, see page 6.98

Subracks – EuropacPRO Rugged

COMBINED MOUNTING (6 U AND 2 X 3 U ONE ABOVE THE OTHER)

ORDER INFORMATION

	Rugged struts for combined mounting	Front panel for textile EMC gasket, 6 U, 2 HP . Item. 6.
 06112076	 6 U, die-cast zinc, fixing material kit 06112077	 6 Al, 2.5 mm, U-profile with notch, 6 U, 2 HP bpa46550
Height U 6	PU 2 pieces 24566-400	1 piece (SPQ 5) ¹⁾ 30849-140

Accessories

Pozidrive/slotted collar screw M2.5 x 12.3, St, nickel-plated, PU 100 pieces	–	21101-101
Pozidrive/slotted collar screw M2.5, black, zinc-plated, PU 100 pieces	–	21101-102
Washer 2.7 x 5 x 1, PA 6, PU 100 pieces	–	21101-121
Textile gasket, core: foam, sleeve: textile cladding with CuNi coating, UL 94 V-0, PU 10 pieces	–	21101-855

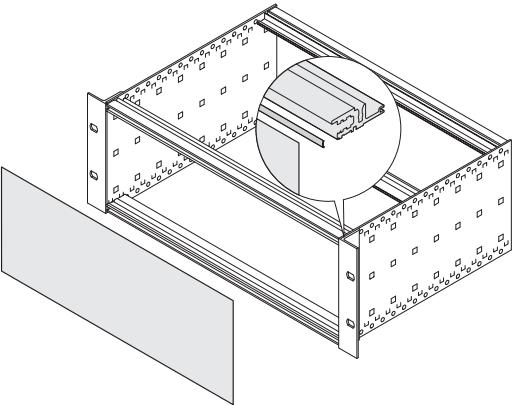
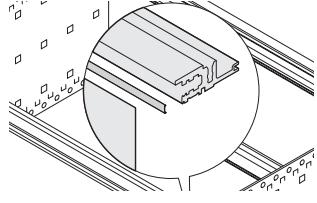
NOTE

- Rugged horizontal rails in various lengths, see page 6.99

Subracks – EuropacPRO Rugged

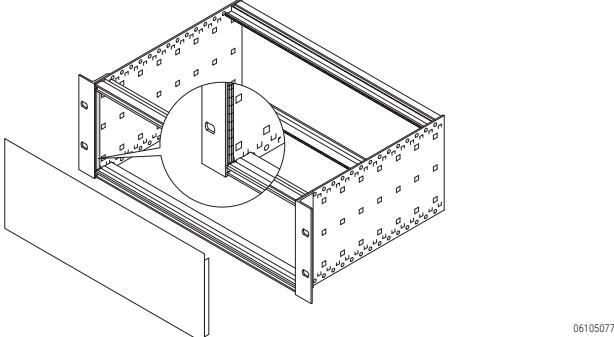
EMC GASKETS BETWEEN FRONT/REAR PANEL AND HORIZONTAL RAIL

ORDER INFORMATION

		Stainless steel EMC gasket between front panel/rear panel and horizontal rail	
			
Width HP	Depth mm	PU 10 pieces	PU 100 pieces
28	131.8	24560-229	–
42	202.9	24560-231	–
63	304.5	24560-233	–
84	416.6	24560-235	24560-236

EMC GASKETS BETWEEN FRONT PANEL AND 19" BRACKET/CORNER PROFILE

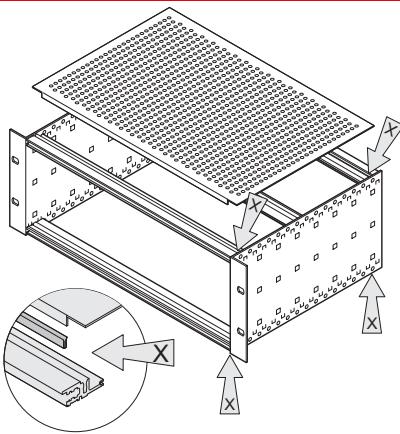
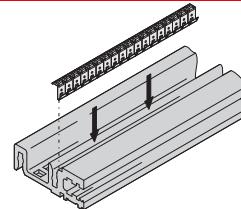
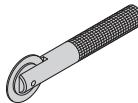
ORDER INFORMATION

		Textile EMC gasket between front panel/rear panel and 19" bracket/corner profile	
			
Height U	Depth mm	PU 10 pieces	PU 100 pieces
3	97.5	21101-853	21101-854
6	232.5	21101-855	21101-856
Height U	Depth mm	PU 10 pieces	PU 100 pieces
3	97.5	21102-853	21102-854
6	232.5	21102-855	21102-856
Height U	Depth mm	PU 10 pieces	PU 100 pieces
3	97.5	21102-105	21102-106
6	232.5	21102-107	21102-108

Subracks – EuropacPRO Rugged

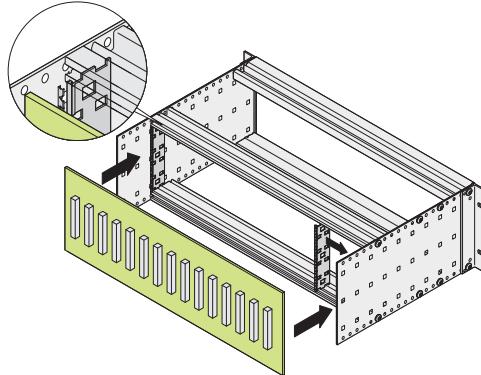
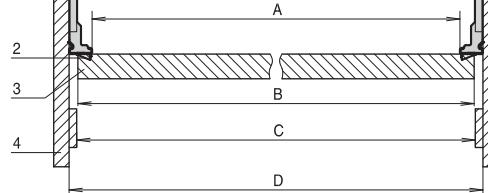
EMC GASKET BETWEEN HORIZONTAL RAIL AND COVER PLATE

ORDER INFORMATION

		Stainless steel EMC gasket, between cover plate and horizontal rail	
	06102052		06106052
Width HP	Depth mm	PU 10 pieces	PU 100 pieces
42	202.9	24560-241	–
84	416.6	24560-245	24560-246
Assembly tool, to fit EMC gasket, stainless steel, for horizontal rails, 1 piece		24560-271	24560-271

EMC GASKET BETWEEN BACKPLANE AND SIDE PANEL

ORDER INFORMATION

		Stainless steel EMC gasket between backplane and side panel (depth-offset installation)	
	06108078		bpa45916
Height U	Depth mm	PU 1 kit	
3	97.5	24561-199	
6	187.5	24561-499	
Torx countersunk screw M4 x 7, St, zinc-plated, PU 100 pieces	24566-105		
Square nut M4, St, zinc-plated, PU 100 piece	24560-140		

With appropriate design, the backplane can be used as shielded rear wall of the rack; in this case a rear horizontal rail (L-type VT or H-VT) must be used for deeper installation to ensure the horizontal contact.

For vertical contact the support profile can be fixed in the standard way to the europacPRO side panel (depth grid 30 mm)

Subracks – EuropacPRO

PLATFORM-BASED STANDARD SOLUTIONS FOR INDIVIDUAL REQUIREMENTS

Practical technology without time-consuming assembly. The modular europacPRO product platform allows a wide range of possible applications with only a few components. The intelligent design of all components results in remarkably simple and fast management in assembly and components.

Simple assembly with europacPRO kits:



06107001

Delivered in space-saving flat packs. The threaded inserts or EMC gasket (depending on selected kit) are already pre-mounted on the horizontal rail.

Two ways of reaching your desired product:

- Kits
- Individual configuration

Individual configuration:

	Side panel type F	19" bracket without handle holes	19" bracket with handle holes	19" bracket depth-adjustable	EMC sealing (St, stainless)	Rear angle	Side panel connection
Weight U	without 19" bracket: 46.2 mm, base panel: 1.5 mm, top panel: 1.5 mm, top rail: 1.5 mm, side panel: 1.5 mm, side rail: 1.5 mm, handle: 1.5 mm, handle rail: 1.5 mm, handle profile: 1.5 mm	with lateral grooves for EMC stainless steel rail, side panel: 1.5 mm, side rail: 1.5 mm, handle: 1.5 mm, handle rail: 1.5 mm, handle profile: 1.5 mm	with lateral grooves for EMC stainless steel rail, side panel: 1.5 mm, side rail: 1.5 mm, handle: 1.5 mm, handle rail: 1.5 mm, handle profile: 1.5 mm	with lateral grooves for EMC stainless steel rail, side panel: 1.5 mm, side rail: 1.5 mm, handle: 1.5 mm, handle rail: 1.5 mm, handle profile: 1.5 mm	inserted laterally into the slots of the front panel	A) recessed, surface base panel: 1.5 mm, side panel: 1.5 mm, top panel: 1.5 mm, top rail: 1.5 mm, handle: 1.5 mm, handle rail: 1.5 mm, handle profile: 1.5 mm, B) recessed, surface base panel: 1.5 mm, side panel: 1.5 mm, top panel: 1.5 mm, top rail: 1.5 mm, handle: 1.5 mm, handle rail: 1.5 mm, handle profile: 1.5 mm	2m side rail, max. assembly height: 2000 mm, for breaking free by hand, for horizontal rail, optional side rail profile
Height U	1 piece	PU 1 pair	PU 1 pair	PU 1 pair	PU 10 pieces	PU 1 pair	PU 4 pieces
0	34560-185						
1	34560-187						
2	34579-300						
3	34579-003	24560-197	24560-198	24560-199	31101-705	34560-198	31101-934
4	34560-189						
5	34560-191						
6	34560-192						
7	34560-195						

06109052

You design your subrack as you wish, then receive it fully assembled via our ServicePLUS assembly service (even for orders of just one). We can also carry out individual modifications and cut-outs; and when time is short can do so very fast via ServicePLUS express.

HORIZONTAL RAILS AND SIDE PANELS FOR DIFFERENT LOAD-CARRYING CLASSES



Light

06197007

Heavy

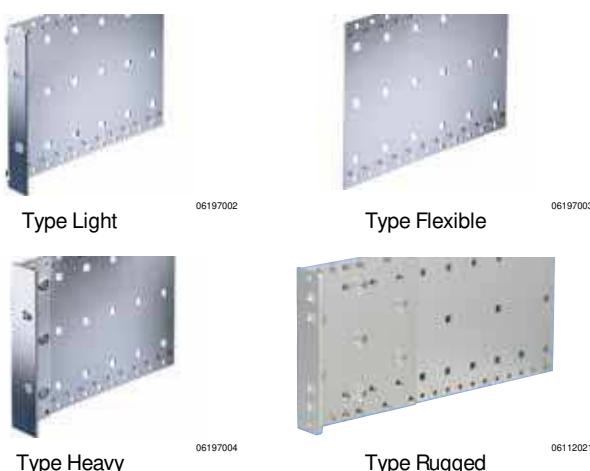
06197008

Rugged

06112004

Horizontal rails are available for three load classes:

- "light" (load up to approx. 7.5 kg)
- "heavy" (load > 7.5 kg)
- "rugged" (load 15 kg)

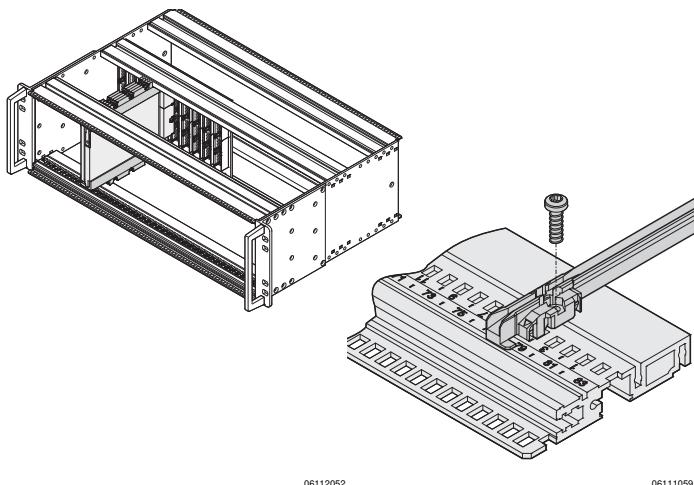


Side panels for 4 different load classes

- Light: low-cost version with built-in 19" mounting bracket
- Flexible: with separate, depth-adjustable 19" mounting bracket
- Heavy: with integrated, tox-cold welded 19" mounting bracket, e.g. for shock and vibration environments up to 5 g
- Rugged: with integrated, tox-cold welded 19" mounting bracket and higher material thicknesses for extreme mechanical stresses, e.g. for increased shock and vibration environments up to 25 g
- The combination of the 3 horizontal rail variants with the 4 types of side panel results in an almost unlimited variety of potential applications for various market requirements

Subracks – EuropacPRO

GUIDE RAILS FROM PLASTIC AND ALUMINIUM PROFILES



Guide rails form the interface between the subrack mechanics and the assemblies (boards, plug-in units, frame type plug-in units, drive unit modules, ...).

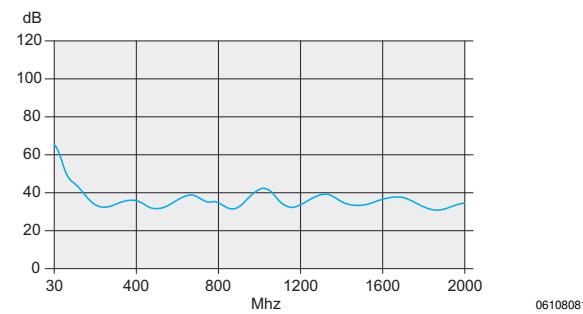
Robust snap-in fixings on the plastic rails assure a secure grip, even when exposed to vibrations. In the case of H and R-type horizontal rails the guide rails can also be bolted on. For extreme stresses, guide rails in aluminium extrusion are used.

To ensure that the wrong subassembly is not inserted into the wrong space we offer a mechanical coding to IEEE 1101.10/11 and IEC 60297-3-103.

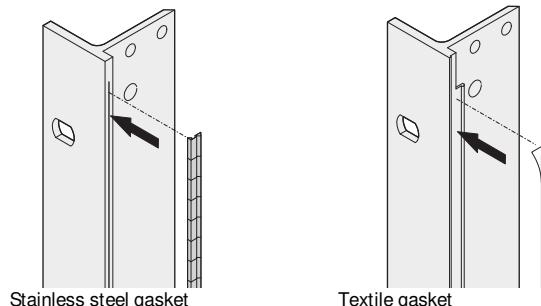
The continuous numbering on the horizontal rail (from 28 HP) and the markings on the guide rails facilitate quick fitting in the correct position.

We offer the appropriate adaptors for accommodating VPX or CompactPCI boards with strengthening frame or conduction-cooled assemblies (CCA) installed in a subrack.

ELECTROMAGNETIC SHIELDING AND ESD



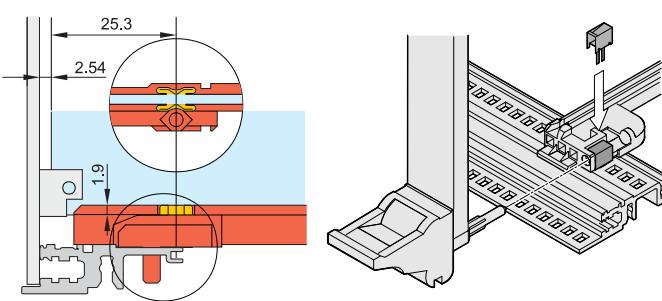
The product platform europacPRO offers a variety of off-the-shelf solutions to assure electromagnetic compatibility (EMC) and to avoid electrostatic discharge (ESD).



Two shielding concepts
It can't be more secure!

Two types of shielding concepts to front/rear of the subrack allow the use all Schroff frontpanels.

The shielding at the front of the subrack is by means of stainless steel or textile EMC gaskets.



ESD (electrostatic discharge)

To avoid electrostatic discharge when inserting PCBs, ESD contacts are clipped into the guide rails. These establish a conductive connection between PCB and subrack-earth. Under IEC 60297-3-101 two ESD areas are defined on the euroboard. The ESD clips of the guide rail of the europacPRO subrack allow the assembly of both following variants:

- ESD area (bottom and top) over the complete board length
- ESD area (bottom/top) begins at the front from 70 mm to end of board)

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