

CONNECT AND PROTECT

EuropacPRO

09/2022



nvent schroff

Subracks - EuropacPRO

OVERVIEW

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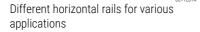
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The IEEE handles and shielded front panels are designed for the construction of CompactPCI and VME64x subrack systems



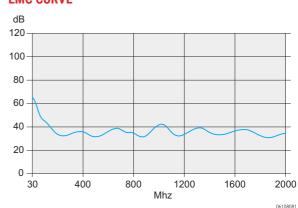
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Sequential numbering on horizontal rails (> 28 HP) and markings onthe guide rails provide quick optical positioning aids.
ESD clips can be used at front or rear, to protect electronics from electrostatic discharge

STANDARDS/CERTIFICATIONS

- Inner and outer dimensions meet: IEC 60297-3-100, -101, -102, -103, -104, -105
 IEEE 1101.1 and IEEE 1101.10/11
- Type of protection IP 20 to IEC 60529
- EMC testing to IEC 61587-3
- Shock and vibration test reports: German "Bahn" standards BN 411002, BN 411003; NF F 60002, NF F 67012 IEC 61587-2, EN 50155, part 12.2.11
- Nuclear plants KTA 1401

EMC CURVE



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OVERVIEW

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Kits

19" SUBRACKS

• Kits or i	ndividua	i contid	iuration
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- · One product and accessories platform for every kind of customer requirement and application
- Suitable for CompactPCI and VME64x insertion and extractor handles
- EMC shielding can easily be retrofitted if needed
- Shock and vibration resistant up to 5 q
- 3D PDF or CAD 3D data available for free download

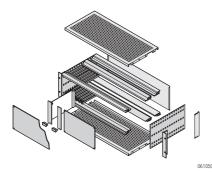


KITS

- All required parts available under one order number, some pre-fitted
- · Most popular dimensions and versions available from stock
- For installed loads up to 7.5 kg, up to 11 kg and up to 15 kg
- · As unshielded or shielded version
- · Supplied as space-saving flat-pack



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SERVICEPLUS INDIVIDUAL CONFIGURATION

- Single parts may individually be configured, respectively assembled on request (from quantity 1)
- Very wide range of variants in heigth, width and depth
- · Guide rails for different applications
- EMC shielding material to improve EMC performance
- Interior assembly options with mounting plate or combined mounting (3) + 6 U segments)
- Other accessories and assembly kits

SERVICEPLUS

- e.g. individual configuration and assembly
- e.g. modification (cut-outs)
- e.g. downloads (CAD drawings, user manuals, test reports)
- e.g. custom solutions

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ServicePLUS	
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industrial

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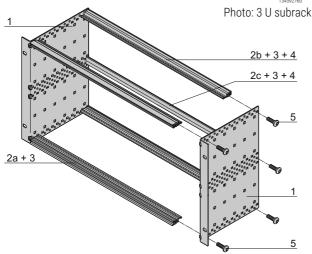
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europacPRO for rugged

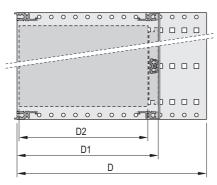


KIT, "LIGHT", UNSHIELDED, FOR BACKPLANE MOUNTING





6 U



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



Rear horizontal rail for backplane mounting with insulation strip

- Subrack with side panel type L ("light") with firmly fixed 19" brackets
- Rear horizontal rails for backplane mounting with insulation strip
- Installed load up to 7.5 kg
- · Cost-optimised

DELIVERY COMPRISES (Kit)

Item	Qty		Description
	3 U	6 U	
1	2	2	Side panel type L, Al, 2 mm, passivated, with built-in 19" support bracket
2a	2	2	Front horizontal rail (L-KD)
2b	2	2	Rear horizontal rail (L-ST)
2c	-	1	Rear horizontal rail centre (ST)
3	4	6	Threaded insert, front and rear (pre-fitted)
4	2	4	Insulation strip (pre-fitted)
5	1	1	Fixing material kit, user manual

ORDER INFORMATION

Height	Width	Depth D	Depth D1	Part no.
U	HP	mm	mm	
3	84	175	175	24564-131
3	84	235	175/235	24564-132
3	84	295	175/235/295	24564-133
6	84	175	175	24564-431
6	84	235	175/235	24564-432
6	84	295	175/235/295	24564-433

Accessories

Accessories				
	19" assembly kit (screw, washer, nut) (8 × screws, 8 × plastic washers, 8 × cage nuts)			
Trims for side pa	nels Type (19" angle	e) type L, 3 U, packaging	34561-197	
unit 1 piece				
Trims for side pa	34561-497			
unit 1 piece				
Sleeves PPO, blad	ck, to fix top cover to	o side panel, PU 100 pieces	21100-565	
Collar screw with	slot M6 x 16, St, ni	ckel-plated, PU 100 pieces	21100-566	
Guide rails (sta	andard), ESD clip	s		
Depth D2		Qty/PU	Part no.	
mm		piece		
160		10	24568-361	
220		10	24568-362	
280		10	24568-379	
ESD clips for guid	24560-255			
Cover plates for	or insertion in ho	rizontal rails (type L)		
Depth D2	Width	Qty/PU	Part no.	
mm	HP	piece		
160	84	2	24561-051	
220	84	2	24561-052	
	·		-	

NOTE

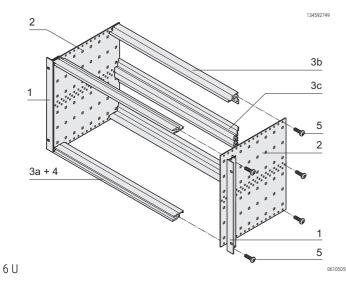
• Subrack is not prepared for shielding

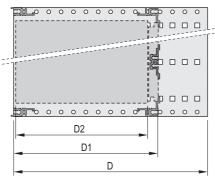
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KIT, "FLEXIBLE", UNSHIELDED, FOR CONNECTOR MOUNTING







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



Horizontal rail to rear for connector mounting

- Subrack with side panel type F ("flexible"), 19" bracket is depth-adjustable
- · Rear horizontal rails for connector mounting (IEC 60603-2 / DIN 41612)
- Installed load up to 11 kg

DELIVERY COMPRISES (kit)

Item	Qty		Description
	3 U	6 U	
1	2	2	19" support bracket, Al extrusion, for EMC gasket (St, stainless)
2	2	2	Side panel type F, Al, 2 mm
За	2	2	Front horizontal rail (L-KD)
3b	2	2	Rear horizontal rail (L-MZ) for connector mounting
3с	-	1	Centre horizontal rail (MZ)
4	2	2	Threaded insert to front (pre-fitted)
5	1	1	Fixing material kit, user manual

ORDER INFORMATION

Height U	Width HP	Depth D mm	Depth D1 mm	Part no.
3	84	175	175	24563-191
3	84	235	175/235	24563-192
3	84	295	175/235/295	24563-193
3	84	355	175/235/295/355	24563-194
6	84	175	175	24563-491
6	84	235	175/235	24563-492
6	84	295	175/235/295	24563-493
6	84	355	175/235/295/340	24563-494

Accessories

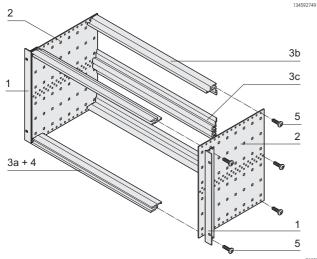
19" assembly kit (screw, washer, nut) (8 × screws, 8 × plastic washers, 8 × ca	ige nuts)	21100-435
Guide rails (standard), ESD clips		
Depth D2	Qty/PU	Part no.
mm	piece	
160	10	24568-361
220	10	24568-362
280	10	24568-379
340	10	24568-380
ESD clip for guide rails PU 50 pieces		24560-255
According to the contract of the boots		

Cover plates	for insertion in hor	izontal rails (type L)	
Depth D2	Width	Qty/PU	Part no.
mm	HP	piece	
160	84	2	24561-051
220	84	2	24561-052

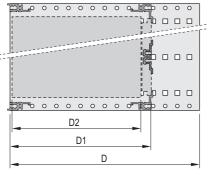


KIT, "FLEXIBLE", UNSHIELDED FOR CONNECTOR, ASSEMBLY ON SLIDE RAIL





6 U



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



Rear horizontal rail for connector mounting

- · Subrack can be used with slide rails
- Subrack with side panel type F ("flexible"), 19" bracket with notch for slide rail assembly
- Horizontal rails, rear, for connector mounting (IEC 60603-2 / DIN 41612)
- Installed load up to 11 kg

DELIVERY INCLUDES (Kit, flat pack)

Item	Qty		Description
	3 U	6 U	
1	2	2	19" support bracket, Al extrusion, for EMC sealing (St, stainless)
2	2	2	Side panel type F, Al, 2 mm
3a	2	2	Front horizontal rail (L-KD)
3b	2	2	Rear horizontal rail (L-MZ) for connector mounting
3с	-	1	Center horizontal rail (MZ)
4	2	2	Threaded insert to front (pre-fitted)
5	1	1	Fixing materials kit, user manual

ORDER INFORMATION

Height	Width	Depth D	Depth D1	Part no.
U	HP	mm	mm	
3	84	235	175/235	24553-192
3	84	295	175/235/295	24553-193
3	84	355	175/235/295/355	24553-194
6	84	235	175/235	24553-492
6	84	295	175/235/295	24553-493
6	84	355	175/235/295/355	24553-494

Accessories

19" fixing materi (8 × screws, 8 ×	21100-435		
Guide rails (st	andard), ESD clip	S	
Depth D2		Qty/PU	Part no.
mm		piece	
160		10	24568-361
220		10	24568-362
280		10	24568-379
ESD clip for guid	e rails Spring steel, t	tin-plated, silver, PU 50 pieces	24560-255
Cover plates f			
Depth D2	Width	Qty/PU	Part no.
mm	HP	piece	
160	84	2	24561-051
220	84	2	24561-052

NOTE

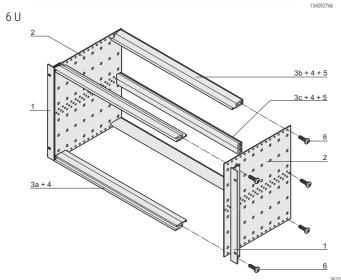
 Alternative product for legacy Europac Lab and Europac Rational subrack series

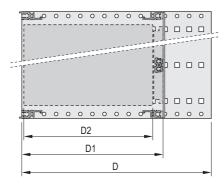
6.10 | nVent.com/SCHROFF



KIT, "FLEXIBLE", UNSHIELDED, FLEXIBLE FOR BACKPLANE, ASSEMBLY ON SLIDE RAIL







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



Rear horizontal rail for backplane mounting with insulation strip

- · Subrack can be used with slide rails
- Subrack with side panel type F ("flexible"), 19" bracket is depth-adjustable
- Rear horizontal rails for backplane mounting with insulation strip
- Installed load up to 11 kg

DELIVERY INCLUDES (Kit, flat pack)

Item	Qty		Description
	3 U	6 U	
1	2	2	19" support bracket, Al extrusion, for EMC sealing (St, stainless)
2	2	2	Side panel type F, Al, 2 mm
3а	2	2	Front horizontal rail (L-KD)
3b	2	2	Rear horizontal rail (L-ST) for backplane mounting
3с	-	1	Rear center horizontal rail (ST)
4	4	6	Threaded inserts, front and rear (pre-fitted)
5	2	4	Insulation strip (pre-fitted)
6	1	1	Fixing materials kit, user manual

ORDER INFORMATION

Height	Width	Depth D	Depth D1	Part no.
U	HP	mm	mm	
3	84	235	175/235	24553-132
3	84	295	175/235/295	24553-133
3	84	355	175/235/295/355	24553-134
6	84	235	175/235	24553-432
6	84	295	175/235/295	24553-433
6	84	355	175/235/295/355	24553-434
_	•			

Accessories

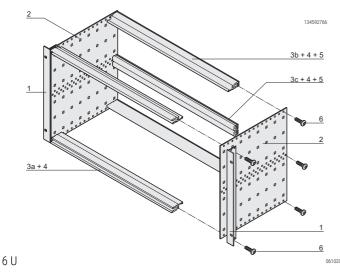
19" fixing mater (8 × screws, 8 ×	21100-435				
Guide rails (st	tandard), ESD clip	S			
Depth D2		Qty/PU	Part no.		
mm		piece			
160		10	24568-361		
220		10	24568-362		
280		10	24568-379		
340		10	24568-380		
ESD clip for guid	de rails Spring steel,	tin-plated, silver, PU 50 pieces	24560-255		
Cover plates 1	Cover plates for insertion into horizontal rail type L				
Depth D2	Width	Qty/PU	Part no.		
mm	HP	piece			
160	84	2	24561-051		
220	84	2	24561-052		

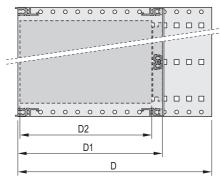
• Alternative product for legacy Europac Lab and Europac Rational subrack series



KIT, "FLEXIBLE", UNSHIELDED, FOR BACKPLANE MOUNTING







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



Rear horizontal rail for backplane mounting with insulation strip

- Subrack with side panel type F ("flexible"), 19" bracket is depth-adjustable
- Rear horizontal rail for backplane mounting with insulation strip
- · Installed load up to 11 kg

DELIVERY COMPRISES (kit)

Item	Qty		Description
	3 U	6 U	
1	2	2	19" support bracket, Al extrusion, for EMC stainless steel gasket
2	2	2	Side panel type F, Al, 2 mm
3a	2	2	Front horizontal rail (L-KD)
3b	2	2	Rear horizontal rail (L-ST) for backplane mounting
3c	-	1	Rear horizontal rail centre (ST)
4	4	6	Threaded insert, front and rear (pre-fitted)
5	2	4	Insulation strip (pre-fitted)
6	1	1	Fixing material kit, user manual

ORDER INFORMATION

Height	Width	Depth D	Depth D1	Part no.	
U	HP	mm	mm		
3	84	175	175	24563-131	
3	84	235	175/235	24563-132	
3	84	295	175/235/295	24563-133	
3	84	355	175/235/295/355	24563-134	
3	84	415	175/235/295/355	24563-135	
3	84	475	175/235/295/355	24563-136	
6	84	175	175	24563-431	
6	84	235	175/235	24563-432	
6	84	295	175/235/295	24563-433	
6	84	355	175/235/295/355	24563-434	
6	84	415	175/235/295/355	24563-435	
6	84	475	175/235/295/355	24563-436	
Accessories					

Accessories

19" assembly kit (screw, washer, nut) $(8 \times \text{screws}, 8 \times \text{plastic washers}, 8 \times \text{cage nuts})$ 21100-435

Guide rails (standard), ESD clips						
Depth D2	Qty/PU	Part no.				
mm	piece					
160	10	24568-361				
220	10	24568-362				
280	10	24568-379				
340	10	24568-380				
ESD clip for guide rails PU 50 pieces		24560-255				

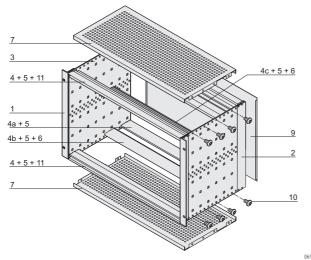
1 2							
Cover plates	Cover plates for insertion in horizontal rails (type L)						
Depth D2	Width	Qty/PU	Part no.				
mm	HP	piece					
160	84	2	24561-051				
220	84	2	24561-052				

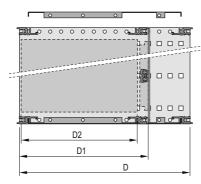
6.12 | nVent.com/SCHROFF



KIT, "FLEXIBLE", SHIELDED, FOR BACKPLANE MOUNTING







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

6 U



Rear horizontal rail for backplane mounting with insulation strip

- Subrack with side panel type F ("flexible"), 19" bracket is depth-adjustable
- Rear horizontal rail for backplane mounting with insulation
- Shielding typically 40 dB at 1 GHz, 30 dB at 2 GHz, assuming that the front is closed with shielded front panels
- Installed load up to 11 kg

DELIVERY COMPRISES ((kit))

Item	Qty		Description
	3 U	6 U	
1	2	2	19" support bracket for EMC textile gasket
2	2	2	Rear corner profile for EMC textile gasket
3	2	2	Side panel type F
4	2	2	Front horizontal rail (L-KD)
4 a	2	2	Rear horizontal rail (L-KD)
4 b	2	2	Rear horizontal rail (L-ST) for backplane mounting with insulation strip
4 c	-	1	Centre horizontal rail (ST)
5	6	8	Threaded insert (pre-fitted)
6	2	4	Insulation strip, fixed
7	2	2	EMC cover plate
8	1	1	EMC gasketing material (pre-fitted)
9	1	1	Rear panel
10	1	1	Fixing material kit
11	2	2	Perforated strip (pre-fitted)
12	1	1	User manual

ORDER INFORMATION

Height	Width	Depth D	Depth D1	Part no.
U	HP	mm	mm	
3	84	235	175	24563-142
3	84	295	175/235	24563-143
3	84	355	175/235/295	24563-144
3	84	415	175/235/295	24563-145
3	84	475	175/235/295	24563-146
6	84	235	175	24563-442
6	84	295	175/235	24563-443
6	84	355	175/235/295	24563-444
6	84	415	175/235/295	24563-445
6	84	475	175/235/295	24563-446

Accessories

19" assembly kit (screw, washer, nut) (8 × screws, 8 × plastic washers, 8 × cage nuts)			
Qty/PU	Part no.		
piece			
10	24568-361		
10	24568-362		
10	24568-379		
	24560-255		
	Qty/PU piece 10		



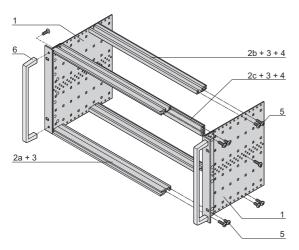
KIT, 'HEAVY', UNSHIELDED, FOR BACKPLANE MOUNTING

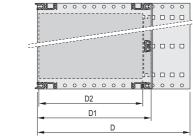




Without front handle

6 U

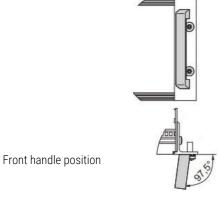




D = overall depth, D1 = insertion depth, D2 = board depth



Rear horizontal rail for backplane mounting with insulation strip



- Subrack with side panel type H ("heavy"), 19" bracket is firmly fixed to side panel (tox-cold welded)
- Rear horizontal rail for backplane mounting with insulation
- Shock and vibration resistance up to 5 g
- Installed load up to 15 kg
- · Versions with/without front handles

DELIVERY COMPRISES (Kit)

Item	Qty		Description
	3 U	6 U	
1	2	2	Side panel type H, Al, 2 mm, passivated, with 19" support bracket (tox-cold welded) for textile EMC gasket
2a	2	2	Front horizontal rail (H-KD)
2b	2	2	Rear horizontal rail (H-ST)
2c	-	1	Rear horizontal rail centre (H-ST)
3	4	6	Threaded insert, front and rear (pre-fitted)
4	2	4	Insulation strip (pre-fitted)
5	1	1	Fixing material kit, user manual
6	2	2	Front handle, angled version (on version with front handle only)

ORDER INFORMATION

Height U	Width HP	Depth D mm	Depth D1 mm	Part no. with front handle	Part no. without front handle
3	84	175	175	24567-161	24563-161
3	84	235	175/235	24567-162	24563-162
3	84	295	175/235/295	24567-163	24563-163
3	84	355	175/235/295/355	24567-164	24563-164
6	84	175	175	24567-461	24563-461
6	84	235	175/235	24567-462	24563-462
6	84	295	175/235/295	24567-463	24563-463
6	84	355	175/235/295/355	24567-464	24563-464
_	•				

Accessories							
	19" assembly kit (screw, washer, nut) (8 × screws, 8 × plastic washers, 8 × cage nuts)						
Guide rails (Guide rails (standard), ESD clips						
Depth D2		Qty/PU	Part no.				
mm		piece					
160		10	24568-361				
220		10	24568-362				
280		10	24568-379				
340		10	24568-380				
ESD clip for gu	ESD clip for guide rails PU 50 pieces						
	screw , for extra boltir J 100 pieces; torque m	ng of the guide rails, 2.5 × 9 nax. 0.2 Nm	^{9.3} , 24560-141				
Cover plates	for bolting to side	panel					
Depth D2	Width	Qty/PU	Part no.				
mm	HP	piece					
160	84	2	24560-078				
220	84	2	24560-079				
280	84	2	24560-080				
340	84	2	24560-081				

Remark:

- ServicePLUS from page 6.18
- The slightly angled front handles facilitate access to the fixing screws. (Screwing into a 19" Cabinet)

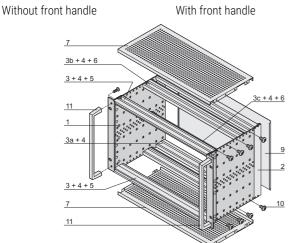
The handle are screwed from the rear side of the 19" bracket

6.14 | nVent.com/SCHROFF SCHROFF PRODUCT CATALOG 09 / 2022



KIT, "HEAVY", SHIELDED, FOR BACKPLANE MOUNTING





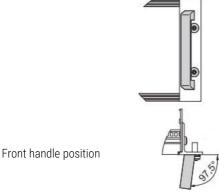
6 U

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



D1

Rear horizontal rail for backplane mounting with insulation strip



• Subrack with side panel type H ("heavy"), 19" bracket is firmly fixed to side panel (tox-cold welded)

- · Rear horizontal rail for backplane mounting with insulation
- Shielding typically 40 dB at 1 GHz, 30 dB at 2 GHz, assuming that the front is closed with sealed front panels
- Shock and vibration resistance up to 5 g
- · Installed load up to 15 kg
- · Versions with/without front handles

DELIVERY COMPRISES (Kit)

Item	Qty 3 U	6 U	Description
1	2	2	Side panel type H, Al, 2 mm, passivated, with 19" support bracket (tox-cold welded) for textile EMC gasket
2	2	2	Rear corner profile for textile EMC gasket
3	2	2	Front horizontal rail (H-KD)
3 a	2	2	Rear horizontal rail (H-KD)
3 b	2	2	Rear horizontal rail (H-ST)
3 c	-	1	Rear horizontal rail centre (ST)
4	6	8	Threaded insert (pre-fitted)
5	2	2	Perforated strip (pre-fitted)
6	2	4	Insulation strip (pre-fitted)
7	2	2	EMC cover plate
8	1	1	EMC gasketing material (pre-fitted)
9	1	1	EMC rear panel
10	1	1	Fixing material kit, user manual
11	2	2	Front handle, angled version (on version with front handle only)

ORDER INFORMATION

06111058

Height U	Width HP	Depth D mm	Depth D1 mm	Part no. with front handle	Part no. without front handle
3	84	235	175	24567-172	24563-172
3	84	295	175/235	24567-173	24563-173
3	84	355	175/235/295	24567-174	24563-174
6	84	235	175	24567-472	24563-472
6	84	295	175/235	24567-473	24563-473
6	84	355	175/235/295	24567-474	24563-474

Accessories		
19" assembly kit (screw, washer, nut) (21100-435
8 × screws, 8 × plastic washers, 8 × cage nut	s)	21100-433
Guide rails (standard), ESD clips		
Depth D2	Qty/PU	Part no.
mm	piece	
160	10	24568-361
220	10	24568-362
280	10	24568-379
ESD clip for guide rails PU 50 pieces		24560-255
Torx panhead screw, for extra bolting of the zinc-plated, PU 100 pieces; torque max. 0.2		³ , 24560-141

Remark:

- ServicePLUS from page 6.18
- The slightly angled front handles facilitate access to the fixing screws. (Screwing into a 19" Cabinet)

The handle are screwed from the rear side of the 19" bracket

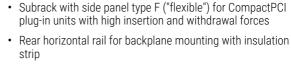


SCHROFF

KIT, "FLEXIBLE", FOR COMPACTPCI, FOR BACKPLANE MOUNTING, WITHOUT REAR I/O, SHIELDED



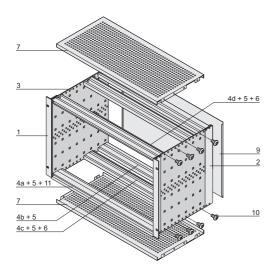
DELIVERY COMPRISES (kit)

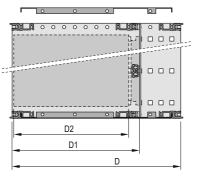


Shielding typically 40 dB at 1 GHz, 30 dB at 2 GHz, assuming that the front is covered with shielded front panels

• Installed load up to 11 kg

2 19" support bracket for EMC textile gasket 2 2 2 Rear corner profile for **EMC textile gasket** 2 Side panel type F 3 2 2 4 Front horizontal rail (H-KD) 1 2 Front horizontal rail IEEE (H-LD) 4 a 4 b 2 2 Rear horizontal rail (L-KD) Rear horizontal rail (H-ST), for backplane mounting 4 c 2 2 with insulation strip 4 d Centre horizontal rail (ST) 5 Threaded insert (pre-fitted) 6 8 6 2 4 Insulation strip (pre-fitted) 7 2 2 EMC cover plate 8 EMC gasketing material (pre-fitted) 1 1 Rear panel 10 Fixing material kit 2 Perforated strip (pre-fitted in item 4+4a) 11 2 User manual 12





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

6 U



Rear horizontal rail for backplane mounting with insulation strip

ORDER INFORMATION

• · · · · · · · · · · · · · · · · · · ·				
Height	Width	Depth D	Depth D1	Part no.
U	HP	mm	mm	
3	84	235	175	24563-152
6	84	235	175	24563-452
Accessori	es			
	ith coding, red 16 -0, groove width	50 mm deep, 2 mm, PU 10 piec	es	24568-356
	ith coding, grey 1 -0, groove width	60 mm deep, 2 mm, PU 10 piec	es	24568-358
Guide rail w PC, UL 94 V	24568-359			
ESD clip for	24560-255			
ESD clip for	alignment pin of	CPCI/VME64x ha	indle PU 50 pieces	24560-256
'	ad screw 2.5 × 9. es; torque max.	, , ,		24560-141
Coding peg	PC, UL 94 V-0, R	AL 7035, PU 100 p	pieces	20817-501
	ly kit (screw, was 8 × plastic wash	sher, nut) (ers, 8 × cage nuts))	21100-435

6.16 | nVent.com/SCHROFF SCHROFF PRODUCT CATALOG 09 / 2022



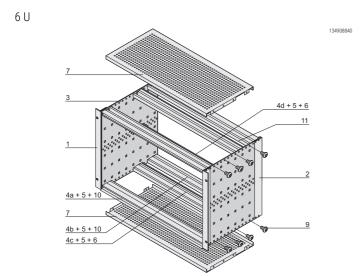
SUBRACK KIT, "FLEXIBLE", FOR COMPACTPCI, FOR BACKPLANE MOUNTING, FOR REAR I/O, SHIELDED

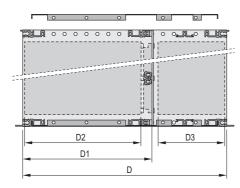


- Subrack with side panel type F ("flexible") for CompactPCI plug-in units with high insertion and withdrawal forces
- For rear I/O boards (depth 80 mm)
- Rear horizontal rail for backplane mounting with insulation
- Shielding typically 40 dB at 1 GHz, 30 dB at 2 GHz, assuming that the front is covered with shielded front panels
- · Installed load up to 11 kg

DELIVERY COMPRISES (kit)

Item	Qty		Description
	3 U	6 U	
1	2	2	19" support bracket for EMC textile gasket
2	2	2	Rear corner profile for EMC textile gasket
3	2	2	Side panel type F
4	1	-	Front horizontal rail (H-KD)
4 a	1	2	Front horizontal rail IEEE (H-LD)
4 b	2	2	Rear horizontal rail (H-KD)
4 c	2	2	Rear horizontal rail (H-ST), with insulation strip for backplane mounting
4 d	-	1	Centre horizontal rail (ST)
5	6	8	Threaded insert (pre-fitted)
6	2	4	Insulation strip, fixed
7	2	2	EMC cover plate
8	1	1	EMC gasketing material (pre-fitted)
9	1	1	Fixing material kit
10	2	2	Perforated strip (pre-fitted)
11	2	2	Horizontal rail type AB
12	1	1	User manual





D = overall depth, D1 = insertion depth, D2 = board depth = D1 - 15 mm, D3 = rear I/O board depth



Rear horizontal rail for backplane mounting with insulation strip

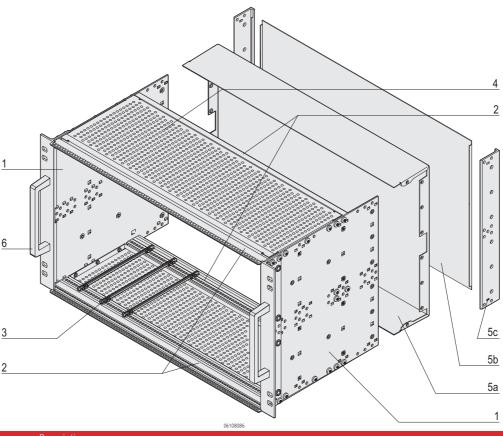
ORDER INFORMATION

Height	Width	Depth D	Depth D1	Depth D3	Part no.			
U	HP	mm	mm	mm				
3	84	275	175	80	24563-157			
6	84	275	175	80	24563-457			
Accesso	Accessories							
Guide rail	Guide rail with coding, red 160 mm deep,							
PC, UL 94	V-0, groove w	idth 2 mm, PU	10 pieces		24568-356			
Cuido roil	Cuido roil with goding, groy 160 mm doop							

Accessories	
Guide rail with coding, red 160 mm deep, PC, UL 94 V-0, groove width 2 mm, PU 10 pieces	24568-356
Guide rail with coding, grey 160 mm deep, PC, UL 94 V-0, groove width 2 mm, PU 10 pieces	24568-358
Guide rail with coding, green, offset 160 mm deep, PC, UL 94 V-0, groove width 2 mm, PU 10 pieces	24568-359
ESD clip for guide rails PU 50 pieces	24560-255
ESD clip for alignment pin of CPCI/VME64x handle PU 50 pieces	24560-256
Guide rail with coding, red 70 mm deep, PU 10 pieces	24568-357
Guide rail with coding, grey 70 mm deep, PU 10 pieces	24568-360
Torx panhead screw 2.5×9.3 , zinc-plated, PU 100 pieces; torque max. 0.2 Nm	24560-141
Coding peg PC, UL 94 V-0, RAL 7035, PU 100 pieces	20817-501
19" fixing material kit (screw, washer, nut) (8 × screws, 8 × plastic washers, 8 × cage nuts)	21100-435



OVERVIEW OF INDIVIDUAL COMPONENTS FOR SHIELDED OR UNSHIELDED SUBRACKS

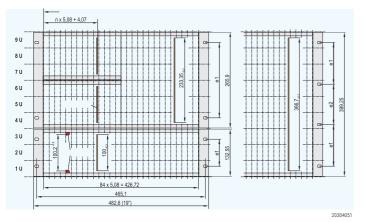


Item	Description	Description	page
Item 1	Side panel	Establishes the height and depth of the subrack; Al, 2 mm, with universal hole positions for assembly of accessories. Three versions: The "flexible" one with separate 19" brackets as well as two others with integrated 19" brackets for "light" and "heavy" applications.	6.21
Item 2	Horizontal rail	Establishes the width of the subrack; Al extrusion, with defined hole positions for guide rails, grooves for threaded inserts, M4 thread, functional rail shapes, basically differing with regard to their mechanical loading capacity: "light" (load up to 7.5 kg) and "heavy" (load > 7.5 kg).	6.29
Item 3	Guide rails	Act as interface between subracks and boards, for different board formats, are available in plastic or metal, optionally codable and can be fitted with ESD clips to allow electrostatic discharge, also optionally.	6.37
Item 4	Cover plates	Provide mechanical protection and/or EMC shielding and are perforated.	6.44
Item 5	Rear/front	Rear hood (5a) or front panel (5b) with corner profile (5c) act 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	Can be mounted on the 19" brackets.	6.27
_	EMC shielding (without illustration)	Extensive component range for specific shielding of subracks with respect to their application.	6.54
-	Interior assemblies (without illustration)	Universal assemblies, e.g. for horizontal and vertical assembly and for mounting plates.	6.59



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SUBRACK DIMENSIONS



- Dimensions in accordance with international standards EC 60297-3-100, IEEE 1101.1/.10/.11; please see the SCHROFF Standards Summary for details
- Side panels
 - Aluminium, 2 mm
 - Round holes for mounting horizontal rails (depth grid 15 mm)
 - Impressions on the inner side of the side panel act as an anti-rotation guard and positioning aid for the horizontal rails
 - Square holes (6 x 6 mm) provide universal fixing for components such as backplane shielding; version without square holes available on request



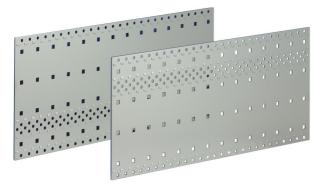
Depth grid

The depth grid is 15 mm, the mounting holes in the side panel are decisive for the configurability of individual components; thus any combination of various individual parts is possible



Side panel 3 U, 6 U and 9 U

3 and 6 U side panels have the same hole positions (the 6 U is a doubling vertically of the 3 U); thus subdivisions can be made in the vertical dimension (6 U: $2 \times 3 \text{ U}$; 9 U: $3 \times 3 \text{ U}$)



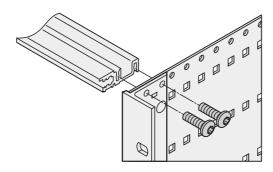
Side panel 4 U

4 U side panels have the same hole positions as 3 U and additionally 1 U (above or beneath the 3 U installation); this height allows the construction of a 3 U unit with 1 U clearance for cabling or airflow

6.20 | nVent.com/SCHROFF

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SIDE PANELS



Side panel - horizontal rail assembly

- Aluminium
- Round holes for mounting horizontal rails (depth grid 15 mm)
- Impressions on the inner side of the side panel act as an anti-rotation guard and positioning aid for the horizontal rails
- Square holes (6 x 6 mm) provide universal fixing for components such as backplane shielding; version without square holes available on request
- Only one type of screw driver (T20) is needed for the assembly Torx panhead screw, M4 x 14; Torque side panel - horizontal rail 2.4 Nm; Torque side panel - cover plate 1.3 Nm
- 4 versions of the side panel:
- Type F = flexible
- Type H = heavy
- Type L = light
- Type R = rugged



Type F (flexible)

- Universal version: 19" bracket (please order separately) can be fitted variably to front, rear or depth-offset
- Heights: 3, 4, 6 and 9 U Depths: 175, 235, 275, 277.75, 295, 355, 415 and 475 mm; Other dimensions on request
- 2 EMC shielding concepts for the front/rear: stainless steel or textile EMC gasket

· Installed load up to 11 kg



Type H (heavy)

- 19" bracket is tox-cold welded to side panel; particularly designed for mechanically demanding environments (vibration resistance, applications requiring high levels of shock and vibration, e.g. IEC 61587-2)
- · Heights: 3 and 6 U Depths: 175, 235, 295 and 355 mm Other dimensions on request

- 2 EMC shielding concepts for the front/rear: with stainless steel or textile EMC gasekt
- Installed load up to 15 kg



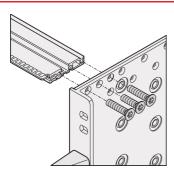
Type L (light)

- · Side panel with moulded 19" bracket, for standard applications, unshielded
- · Particularly cost-effective version (not suitable for EMC applications)
- · Heights: 3 and 6 U Depths: 175, 235 and 295 mm Other dimensions on request

· Installed load up to 7.5 kg

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SIDE PANELS



<u>Example shows:</u> Side panel type rugged to horizontal rail type rugged



- Aluminium
- Round holes for mounting horizontal rails (depth grid 15 mm)
- Impressions on the inner side of the side panel act as an anti-rotation guard and positioning aid for the horizontal rails
- Square holes (6 x 6 mm) provide universal fixing for components such as backplane shielding; version without square holes available on request
- Only one type of screw driver (T20) is needed for the assembly. Torx countersunk screw, M4 x 18; (with thread locking compound) Torque side panel - horizontal rail 2.4 Nm; Torque side panel - cover plate 1.3 Nm)

Type R (rugged)

- 19" bracket (3,5mm) is tox-cold welded to side panel (3mm); particularly designed for mechanically demanding environments.
- Shock and vibration tested in compliance with:
 DIN EN 61587 -DL3 up to 25g
 MIL 167,
 MIL 810G,
 MIL 901D.
 Shock and vibration resistant in all three axial directions.
- Heights: 3 and 6 U
 Depths: 175, 235, 275, 277,75, 295 and 355 mm.
 Other dimensions on request
- One EMC shielding concepts for front/rear side: Textile EMC gasket (-40°C up to +85°C)
- Installed load up to 25 kg



SIDE PANELS TYPE F FOR STAINLESS STEEL GASKET

ORDER INFORMATION

Side panel type F	19" bracket without handle holes	19" bracket with handle holes	19" bracket depth- adjustable	EMC gasket (stainless steel)	Rear angle	Side panel connection
06197003	bza45819	06106050	06102501)) BBA45750	BZA46573	BPA45867
without 19" bracket, Al, 2 mm, passivated, please order 19" bracket and corner profile separately	with lateral grooves for stainless steel EMC gasket, Al extrusion, rear side etched, front anodised	with lateral grooves for stainless steel EMC gasket, Al extrusion, rear side etched, front anodised please order front handles separately,	Al extrusion, passivated	inserted laterally into the grooves of the front panel	Al extrusion, surface clear passivated; with lateral grooves for stainless steel EMC gasekt; rear hood cannot be mounted simultaneously	Zn die-cast, incl. fixing material kit, for connecting two by two side panels (on top of each other)
	DII 1 main	DU 1 main	DII 1 main	DI 10 -i	DII 1 main	DII 4 minne
•	Pu i pair	Pu i pair	PU I pair	PU TU pieces	PU I pair	PU 4 pieces
	24560-197	24560-198	24560-199	21101-705	24561-198	21101-954
34560-195						
34560-289						
34560-291	24560-297	24560-298	24560-299	21101-713	24561-298	21101-954
34560-293						
34560-295						
34560-485						
34560-487						
34579-038						
34579-012						
34560-489	24560-497	24560-498	24560-499	21101-707	24561-498	21101-954
34560-491						
34560-493						
34560-495						
34560-496						
34560-785						
34560-787						
34560-789	24560-797	24560-798	24560-799	21101-709	24561-798	21101-954
34560-791						
34560-793						
24560-130	24560-130	24560-130	24560-130	-	24560-130	-
24560-155	24560-155	24560-155	24560-155	-	24560-155	-
	without 19" bracket, Al, 2 mm, passivated, please order 19" bracket and corner profile separately 1 piece 34560-185 34560-187 34579-002 34560-189 34560-191 34560-193 34560-285 34560-287 34560-283 34560-293 34560-293 34560-295 34560-485 34560-487 34579-012 34560-489 34560-491 34560-491 34560-493 34560-496 34560-785 34560-787 34560-789 34560-791 34560-793	without 19" bracket, Al, 2 mm, passivated, please order 19" bracket and corner profile separately 1 piece PU 1 pair 2 4560-185 3 4560-185 3 4560-187 3 4560-191 3 4560-193 3 4560-291 3 4560-293 3 4560-293 3 4560-295 3 4560-496 3 4560-496 3 4560-496 3 4560-791 3 4560-793 2 4560-130	without 19° bracket, Al extrusion, rear side etched, front anodised please order front handles separately 1 piece PU 1 pair PU 1 pair 2 piece PU 1 pair 2 piece PU 1 pair 2 provided the please order front handles separately. 2 piece PU 1 pair 2 provided the please order front handles separately. 2 piece PU 1 pair 2 provided the please order front handles separately. 2 piece PU 1 pair 2 provided the please order front handles separately. 2 piece PU 1 pair 2 provided the please order front handles separately. 2 piece PU 1 pair 2 provided the please order front handles separately. 2 piece PU 1 pair 2 provided the please order front handles separately. 2 piece PU 1 pair 2 provided the please order front handles separately. 2 piece PU 1 pair 2 provided the please order front handles separately. 2 piece PU 1 pair 2 provided the please order front handles separately. 2 piece PU 1 pair 2 provided the please order front handles separately. 2 piece PU 1 pair 2 provided the please order front handles separately. 2 piece PU 1 pair 2 provided the please order front handles separately. 2 provided the please order front handles separately. 2 provided the please order front handles separately. 2 provided the please order front handles statel please order front handles please order front handles statel please order front handles statel please order front handles please order front	without to the place order to the place order profile separately with and corner profile separately to the place order to the p	without handle holes with lateral grooves for stainless steel EMC gasket, Al extrusion, passivated, please order 19' bracket, and corner profile separately PU 1 pair PU 10 pieces 34560-185 34560-185 34560-193 34560-295 34560-291 34560-291 34560-491 34560-793 24560-797 24560-130 24560-130 24560-130 ——	without handle holes handle holes depth adjustable steel) with lateral with lateral growers for sturies steel bell of the front parel bell of the front parel bell of the front anodised please order places order front handles separately. I piece PU 1 pair PU 1 pair PU 1 pair PU 1 pair PU 10 pieces PU 1 pair PU 1 pair PU 10 pieces

¹⁾ CompactPCI 2) VME64x 3) Grid holes of side panel 3 + 1 U

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[•] View of side panels 3, 4, 6, 9 U see page 6.20



SIDE PANELS TYPE F FOR TEXTILE EMC GASKET

ORDER INFORMATION

OIL	DER INFURMATION						_	
	tration shows standard assembly, not or CompactPCI bus with rear I/O	Side panel	19" bracket	19" bracket	19" bracket	EMC gasket	Rear angle	Side panel
VIVIE	or compacted bus with real 1/0	type F	without	with	depth-	(textile)		connection
			handle holes	handle holes	adjustable			
'HF	3	135					. / .	oon on o
Ц	à À	1.4.5.5.5.5.5.5					\sim 1	Con on on on
	$\Pi\Pi$		M	M			<u> </u>	
				امًا				المارية
		1, 2, 3, 3, 3						
		1 2, 2, 3, 3, 3, 5,	Ja -	33				To Use of Superior
		06197003	bza45819	06106050	06102501	04602054	BZA46573	BPA45867
	(Ihn)	without	Al extrusion	Al extrusion	Al extrusion,	textile gasket,	Al extrusion,	Zn die-cast,
	Y Y I J	19" bracket, Al, 2 mm,	for textile EMC gasket	for textile EMC gasket,	passivated	core: foam, sleeve: textile	etched; for textile	incl. fixing material kit,
l lit		passivated,	rear side etched,	rear side etched,		cladding with	EMC gasket	for connecting
		please order 19" bracket	front anodised	front anodised, please order		CuNi coating, UL 94 V-0		two by two side panels
		and corner profile		front handles		OL 94 V-0		(on top of each
		separately		separately,				other)
				see page 6.27				
	06108054 06108062							
Heig	ght Depth							
U	mm	1 piece	PU 1 pair	PU 1 pair	PU 1 pair	PU 10 pieces	PU 1 pair	PU 4 pieces
3	175	34560-185						
3	235	34560-187						
3	275 1)	34579-300						
3	277.75 2)	34579-002	24564-197	24564-198	24560-199	21101-853	24564-199	21101-954
3	295	34560-189						
3	355	34560-191						
3	415	34560-193						
3	475	34560-195						
4	175 3) 235 3)	34560-285						
4	235 3) 295 3)	34560-287 34560-289						
4	355 3)	34560-291	24564-297	24564-298	24560-299	21101-858	24564-299	21101-954
4	415 3)	34560-293						
4	475 3)	34560-295						
6	175	34560-485						
6	235	34560-487						
6	275 1)	34579-038						
6	- /	34579-012						
6	295	34560-489	24564-497	24564-498	24560-499	21101-855	24564-499	21101-954
6	355	34560-491						
6	415	34560-493						
6	475	34560-495						
6	970	34560-496						
9	175	34560-785						
9	235	34560-787						
9	295	34560-789	24564-797	24564-798	24560-799	21101-859	24564-799	21101-954
9	355	34560-791						
9	415	34560-793						
	ew, M4 x 14, PU 100 pieces, for	24560 120	24560 120	24560 120	24560 120		24560 120	_
	ening horizontal rail to panel	24560-130	24560-130	24560-130	24560-130	_	24560-130	_
	ew, M4 x 10, required if							
	de rails are screwed to slot 1,	24560-155	24560-155	24560-155	24560-155	_	24560-155	-
	100 pieces							
	compactPCI 2) VME64x 3) Grid	halaa af aida nanal	2 . 1					

¹⁾ CompactPCI 2) VME64x 3) Grid holes of side panel 3 + 1 U



SIDE PANELS TYPE H FOR STAINLESS STEEL EMC GASKET

ORDER INFORMATION

	K INFURMATIU		Side panel type H fo	r stainless steel EMC ga	asket	Rear angle	Side panel
			without	with	EMC gasket	angle	connection
			handle holes	handle holes	(stainless steel)		
AT.	Χ		1,0,0		20	, a	00000000
			06197004	06107001	9 BGA45760	BZA46573	BPA45867
Heigh		06108070 06108062	for high mechanical demands, 19" bracket, tox-cold welded, Al, 2 mm, clear passivated, front anodised	for high mechanical demands, 19" bracket, tox-cold welded, Al, 2 mm, clear passivated, front anodised, please order front handles separately see page 6.27	inserted laterally into the grooves of the front panel	Al extrusion, surface clear passivated; with lateral grooves for stainless steel EMC gasekt; rear hood cannot be mounted simultaneously	Zn die-cast, incl. fixing material kit, for connecting two by two side panels (on top of each other)
U	mm		PU 1 pair	PU 1 pair	PU 10 pieces	PU 1 pair	PU 4 pieces
3	175		24566-125	24567-125			
3	235		24566-127	24567-127			
3	275	1)	-	-			
3	277.75	2)	-	-	01101 705	04564 400	01101 054
3	295		24566-129	24567-129	21101-705	24561-198	21101-954
3	355		24566-131	24567-131			
3	415		-	-			
3	475		-	-			
4	175	3)					
4	235	3)					
4	295	3)					
4	355	3)	_	_	_	_	_
4	415	3)					
4	475	3)					
6	175	0)	24566-425	24567-425			
6	235		24566-427	24567-427			
6	275	1)	_	_			
6	277.75	2)	_	_			
6	295	۷)	24566-429	24567-429	21101-707	24561-498	21101-954
6	355		24566-431	24567-431	21101-707	27JU1-470	21101-934
6	415		27300-431 -	_			
6	475		_	_			
6	970		_				
9	175		_	_			
9	235						
9	295		_	_	_	_	_
9	355						
9	415						
fasten side p			24560-130	24560-130	-	24560-130	-
	, M4 x 10, required if						
	rails are screwed to	slot 1,	24560-155	24560-155	-	24560-155	-
PU 10	0 pieces						

¹⁾ CompactPCI 2) VME64x 3) Grid holes of side panel 3 + 1 U

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SIDE PANELS TYPE H FOR TEXTILE EMC GASKET

ORDER INFORMATION

Illustration shows standard assembly, not VME or CompactPCI bus with rear I/O	Side panel type H 1 without handle holes for high mechanical	for textile EMC gasket with handle holes ostorout for high mechanical demands, 19" bracket,	EMC gasket (textile) textile gasket, core: foam, sleeve: textile cladding with CuNi coating, UL 94 V-0	Rear angle Al extrusion, etched; for textile EMC gasket	Side panel connection Application and the part of the panel side
Height Depth		2014	DI 10		
U mm	PU 1 pair	PU 1 pair	PU 10 pieces	PU 1 pair	PU 4 pieces
3 175	24564-145	24566-145			
3 235	24564-147	24566-147			
3 275 1) 3 277.75 2)	_	-			
3 277.75 2)	24564-149	24566-149	21101-853	24564-199	21101-954
3 355	24564-151	24566-151			
3 415	_	_			
3 475	_	_			
4 175 3)					
4 235 3)					
4 295 3)					
4 355 3)	_	_	_	_	_
4 415 3)					
4 475 3)					
6 175	24564-445	24566-445			
6 235	24564-447	24566-447			
6 275 1)	-	-			
6 277.75 2)	-	-			
6 295	24564-449	24566-449	21101-855	24564-499	21101-954
6 355	24564-451	24566-451			
6 415	-	-			
6 475	-	-			
6 970	_	_			
9 175					
9 235 9 295					_
9 295	_		_	_	_
9 355					
Screw, M4 x 14, PU 100 pieces, for					
fastening horizontal rail to side	24560-130	24560-130	-	24560-130	-
panel					
Screw, M4 x 10, required if					
guide rails are screwed to slot 1, PU 100 pieces	24560-155	24560-155	-	24560-155	-

¹⁾ CompactPCI 2) VME64x 3) Grid holes of side panel 3 + 1 U



SIDE PANELS TYPE L

ORDER INFORMATION

Side panel connection
- Incodon
or or or or or
Section of Care
D D D D D D D D D D D D D D D D D D D
0 0000000000000000000000000000000000000
BPA45867
In die-cast,
ncl. fixing naterial kit,
or connecting
wo by two side panels
on top of each
other)
201.4
PU 4 pieces
21101-954
_
21101-954
_
-
n mic with the second s

¹⁾ CompactPCI 2) VME64x 3) Grid holes of side panel 3 + 1 U

6.26 | nVent.com/SCHROFF SCHROFF



FRONT HANDLES, WALL-MOUNTING BRACKETS

ORDER INFORMATION

ONDL	K INFURIN	Allon	ı			_	
Front h				Front handle	Libration and the side	described to a	Wall-mounting bracket
	rusion, anodi:	sed / bla	ck,	clear anodised, straight version	black anodised, straight version	clear anodised, angled version	
load-c	12.2mm, arrying capa	city 30 kg	n	Straight version	Straight version	angieu version	
.044.0	arrymig capa		9				
**	3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	100 m					
Height	Land to the state of the state	ф 12.2 = A = H	- E	8			Al, 2.5 mm, passivated; bolted to subrack in place of the 19" bracket
U	mm	mm	mm	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾	PU 1 pair
3	175	102	88.0	T piece (Si Q 10)	F 222 (2 4 2)	T piece (Si Q To)	το τραιι
3	235	102	88.0				
3	275	102	88.0				
3	277.75	102	88.0	10501-005			
3	295	102	88.0		10501-026	10501-020	24562-197
3	355	102	88.0				
3	415	102	88.0				
3	475	102	88.0				
4	175	146	133.4				
4	235	146	133.4				
4	295	146	133.4				
4	355	146	133.4	10501-018	- 10501-021		24562-297
4	415	146	133.4				
4	475	146	133.4				
6	175	249	235.0				
6	235	249	235.0				
6	275	249	235.0				
6	277.75	249	235.0				
6	295	249	235.0	10501-008	10501-029	10501-022	24562-497
6	355	249	235.0				
6	415	249	235.0				
6	475	249	235.0				
6	970	249	235.0				
9	175	249	235.0				
9	235	249	235.0				
9	295	249	235.0	10501-00	10501-029	10501-022	24562-797
9	355	249	235.0				
9	415	249	235.0				
	M5 x 12, PU			24560-183	24560-183	24560-183	_
	M5 x 12, PU			24560-18:	24560-182	24560-182	-
Screw,	M4 x 14, PU	100 piec	ces	_	_		24560-130

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



HORIZONTAL RAILS

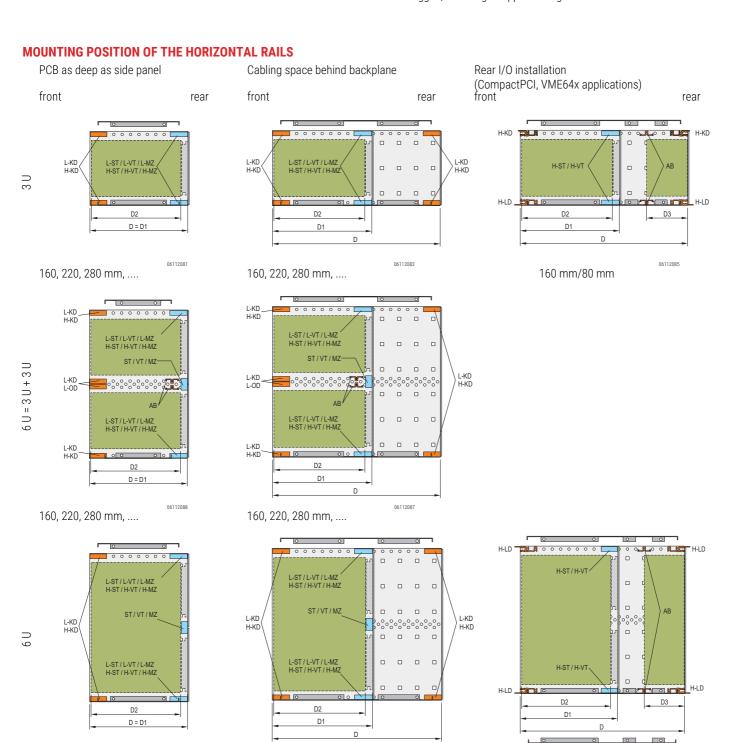
160, 220, 280 mm,



- Aluminium profile, surface anodised, conductive contact surfaces for EMC gaskets
- The horizontal rail is marked with sequential numbering (for sizes > 28 HP) to facilitate positioning of the guide rails
- Horizontal rails are fixed to the side panel using M4 bolts with torx 20 drive
- There are 3 different horizontal rails for different loading levels

160 mm/80 mm

- light, for up to 7.5 kg
- heavy, for 7.5 kg to 15 kg
- rugged, for 15 kg to approx. 25kg

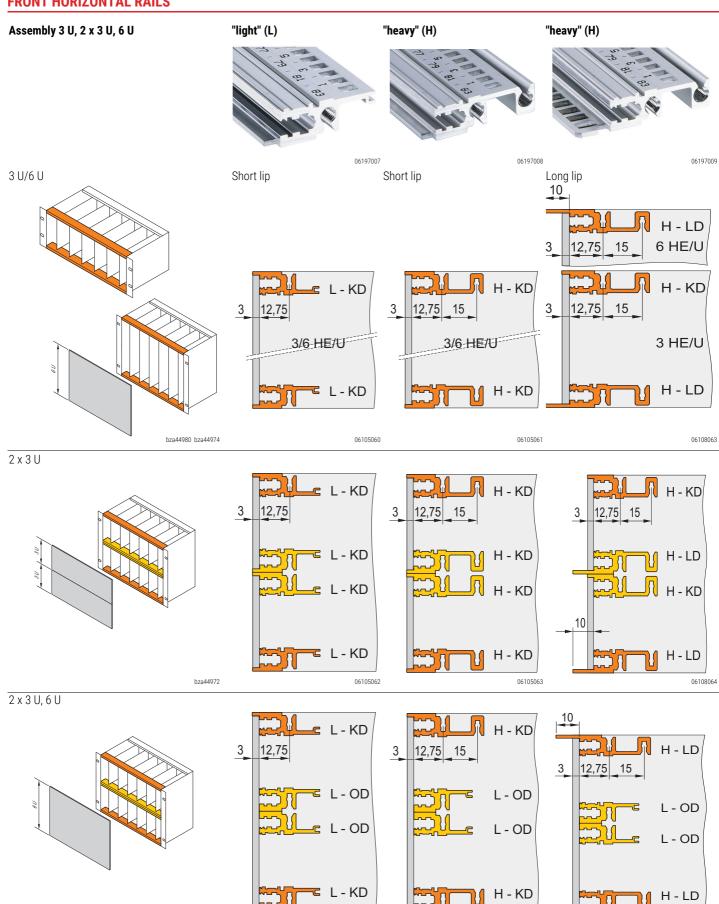


6.28 | nVent.com/SCHROFF

160, 220, 280 mm,



FRONT HORIZONTAL RAILS





FRONT HORIZONTAL RAILS

ORDER INFORMATION

					With long lip for insertion/
					extraction of CompactPCI and VME64x boards
		"light"	"light"	"heavy"	"heavy"
		Type L-OD	Type L-KD	Type H-KD	Type H-LD
		without lip	short lip	short lip	long lip
		Without hp	Short lip	Short iip	long ip
	bza4498	061970	06197	7007 0619700	06197009
With HP markings f Al extrusion, anodis conductive contact	ed finish,	Al extrusion, anodised finish, conductive contact surface, with printed HP markings	Al extrusion, anodised finish, conductive contact surface, with printed HP markings	Al extrusion, anodised finish, conductive contact surface, with printed HP markings	Al extrusion, anodised finish, conductive contact surface, with printed HP markings
		without lip: 2 x 3 U installation and continuous 6 U front panel	short lip: horizontal rail and front panel form a single plane	short lip: horizontal rail and front panel form a single plane	long lip: for insertion/extraction of CompactPCI or VME64x boards
Usable length	Length	1 piece (SPQ 10) ¹⁾			
HP	mm				
20	106.68	34560-020	34560-120	34560-220	34560-320
28	147.32	34560-028	34560-128	34560-228	34560-328
40	208.28	34560-040	34560-140	34560-240	34560-340
42	218.44	34560-042	34560-142	34560-242	34560-342
63	325.12	34560-063	34560-163	34560-263	34560-363
84	431.80	34560-084	34560-184	34560-284	34560-384
-	1000	34560-001	34560-101	34560-201	34560-301
Screw, M4 x 14, PU	100 pieces	24560-130	24560-130	24560-130	24560-130
Screw, M4 x 10, req guide rails are screv PU 100 pieces		-	-	24560-155	24560-155
Threaded inserts se	00 0000	6.35	6.35	6.35	6.35

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 "light": loading capacity up to approx. 7.5 kg; "heavy": loading capacity > 7.5 kg

NOTE

- 1000 mm version without M4 thread to front, without printed markings and without notch for 19"-bracket
- Rugged horizontal rails with 3 fixing holes see section "Rugged Subracks", page 6.99

6.30 | nVent.com/SCHROFF SCHROFF PRODUCT CATALOG 09 / 2022



REAR HORIZONTAL RAILS

Indirect backplane mounting Direct backplane mounting Connector fitting with Z (with insulation strip) 04400001 12,75 12,75 12,75 L-ST L - MZ 9,75 "light" ST ΜZ L-ST L - VT L - MZ 06105072 06105073 06105071 12,75 15 12,75 15 12,75 H-ST "heavy" ST ΜZ H-ST H - VT H - MZ 06108067 06108068 06108066 VT = depth-offset, L = light, H = heavy ST = standard, L = light, H = heavy MZ = with Z-rail, L = light, H = heavy



REAR HORIZONTAL RAILS, TOP AND BOTTOM

ORDER INFORMATION

OKDEK INFORM	MATION						
For indirect backplane m with insulation strip		a		For direct fixing of connectors in accordance with EN 60603-2 (DIN 41612)			
			04400001		0440002		Q p 0 0 0 4 0 0 0 0 4 0 0 0 0 0 0 0 0 0 0
		"light"	"heavy"	"light"	"heavy"	"light"	"heavy"
		Type L-ST	Type H-ST	Type L-VT	Type H-VT	Type L-MZ	Type H-MZ
		standard	standard	+ 3 mm	+ 3 mm	with Z-rail	with Z-rail
	06105074	06197010	06197011	06197011	06197013	06197014	06197015
With HP markings froi extrusion, anodised fi conductive surface		Al extrusion, anodised surface, conductive contact surface, with printed HP markings					
Usable length HP	Length mm	1 piece (SPQ 10) ¹⁾					
20	106.68	34560-420	34560-520	34560-620	34560-720	34560-820	34560-920
28	147.32	34560-428	34560-528	34560-628	34560-728	34560-828	34560-928
40	208.28	34560-440	34560-540	34560-640	34560-740	34560-840	34560-940
42	218.44	34560-442	34560-542	34560-642	34560-742	34560-842	34560-942
63	325.12	34560-463	34560-563	34560-663	34560-763	34560-863	34560-963
84	431.80	34560-484	34560-584	34560-684	34560-784	34560-884	34560-984
-	1000	34560-401	34560-501	34560-601	34560-701	34560-801	-
Screw, M4 x 14, PU fastening horizonta side panel	al rail to	24560-130	24560-130	24560-130	24560-130	24560-130	24560-130
Screw, M4 x 10, rec guide rails are scre PU 100 pieces		-	24560-155	-	24560-155	_	24560-155
Perforated rail for omounting with insusee page	llation strip	6.36	6.36	-	-	-	-
Z-rail for connector without insulation s	strip see page	6.36	6.36	-	-	-	-
Insulation strips se		6.35	6.35	-	-	-	-
Threaded inserts s	ee page	6.35	6.35	6.35	6.35	6.35	6.35

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 "light": loading capacity up to approx. 7.5 kg; "heavy": loading capacity > 7.5 kg

NOTE

- 1000 mm version without M4 thread to front, without printed markings and without notch for 19"-bracket
- Rugged horizontal rails with 3 fixing holes see section "Rugged Subracks", page 6.99

6.32 | nVent.com/SCHROFF SCHROFF PRODUCT CATALOG 09 / 2022



REAR HORIZONTAL RAILS, CENTRE, FOR 6 U

ORDER INFORMATION

Al extrusion, anodised surface, conductive contact surface, conductive contact surface, without printed markings Usable length Length HP mm 20 106.68 34561-020 34561-120 34561-220 34561-228 40 208.28 34561-040 34561-140 34561-240 34561-242					
Typ ST Typ VT Typ MZ Al extrusion, anodised surface, conductive contact surface, conductive contact surface, without printed markings Usable length				For direct backplane mounting	in accordance with
Al extrusion, anodised surface, conductive contact surface, without printed markings Usable length			04400001	04400022	0440003
Al extrusion, anodised surface, conductive contact surface, conductive contact surface, without printed markings Usable length Length HP mm 20 106.68 34561-020 34561-120 34561-220 34561-228 40 208.28 34561-040 34561-140 34561-240 34561-242		0	Typ ST	Typ VT	Typ MZ
HP mm 34561-020 34561-120 34561-220 28 147.32 34561-028 34561-128 34561-228 40 208.28 34561-040 34561-140 34561-240 42 218.44 34561-042 34561-142 34561-242		06108090	Al extrusion, anodised surface, conductive contact surface,	Al extrusion, anodised surface, conductive contact surface,	conductive contact surface,
20 106.68 34561-020 34561-120 34561-220 28 147.32 34561-028 34561-128 34561-228 40 208.28 34561-040 34561-140 34561-240 42 218.44 34561-042 34561-142 34561-242	· · · · · · · · · · · · · · · · · · ·		1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾
28 147.32 34561-028 34561-128 34561-228 40 208.28 34561-040 34561-140 34561-240 42 218.44 34561-042 34561-142 34561-242			34561-020	34561-120	34561-220
40 208.28 34561-040 34561-140 34561-240 42 218.44 34561-042 34561-142 34561-242					
42 218.44 34561-042 34561-142 34561-242					
	42	218.44	34561-042	34561-142	
63 325.12 34561-063 34561-163 34561-263	63	325.12	34561-063	34561-163	34561-263
84 431.80 34561-084 34561-184 34561-284	84	431.80	34561-084	34561-184	34561-284
- 1000 34561-001 34561-101 34561-201	-	1000	34561-001	34561-101	
Screw, M4 x 14, PU 100 pieces, for fastening horizontal rail to side panel 24560-130 24560-130 24560-130	fastening horizontal r side panel	ail to		24560-130	24560-130
Insulation strips see page 6.35 – –				-	
Threaded inserts see page 6.35 6.35 6.35	Threaded incerts see	page	6.35	6.35	6.35

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 "light": loading capacity up to approx. 7.5 kg; "heavy": loading capacity > 7.5 kg

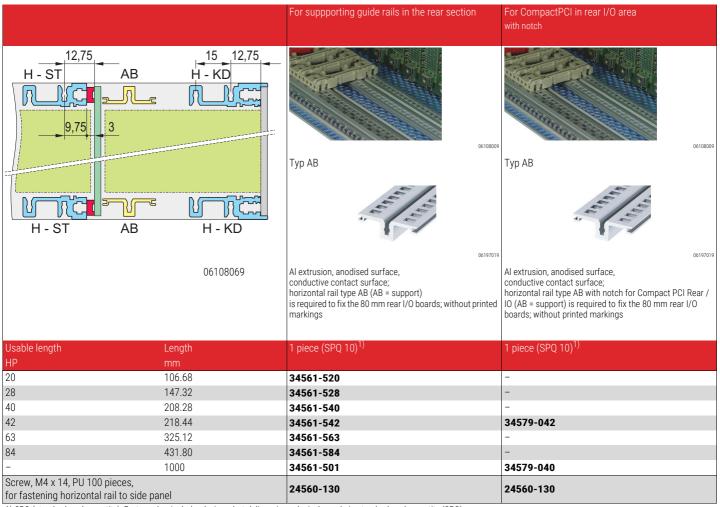
NOTE

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



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

ORDER INFORMATION



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

NOTE

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

6.34 | nVent.com/SCHROFF

[&]quot;light": loading capacity up to approx. 7.5 kg; "heavy": loading capacity > 7.5 kg



THREADED INSERTS, PERFORATED STRIPS, INSULATION STRIPS

ORDER INFORMATION

		Threaded insert		Perforated strip			Insulation strip	
		M2.5	M3		(item 1)			
				100056 127685783			428.64 83 x 5.08 = 421.64	
		g the front panel to the se collar screw 12.3 mn	horizontal rail;	for centring shi	elded plug-in units, Al, 1 mm, ub screw (torque: 0,37Nm)	for insulated bac PC, UL 94 V-0, gr	kplane mounting;	
	Threaded inser	†		Perforated st	rin	Insulation strip		
Usable length	Length			Length		Length		
HP	mm	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾	mm	1 piece (SPQ 10) ¹⁾	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	
34	431.30	34561-384	34561-484	431.60	30845-253	428.64	24560-884	
196	1000.26	34565-196	-	1000.56	34565-396		-	
Accessories		- 1						
Grub screw M2.5	x 8,PU 100 pieces	21100-276	-		-		-	
Grub screw M2.5 PU 100 pieces	x 9, Torx 8	-	-		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

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



Z-RAILS, PERFORATED RAILS

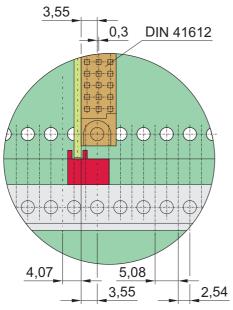
ORDER INFORMATION

		Z-rail for connectors DIN EN 60603-2, DIN 41612 item 1	31-pin, DIN 41617	Perforated rail EN 606032, DIN 41612 item 1
		172.5	172.5 3 3 BZA45849	175.5 BZA45850 BZA45848
		3	06708063	3
		for connector mounting on ST horizontal rails, please order threaded inserts and screw separately	for connector mounting on ST horizontal rails, please order threaded inserts and screw separately	for connector mounting on VT horizontal rails, please order threaded inserts and screw separately
Usable length	Length			
HP .	mm	1 piece	1 piece	PU 4 pieces
4	20.32	30822-166	-	20822-052
8	40.64	30822-170	-	20822-053
20	101.60	30822-025	-	20822-051
28	142.24	30822-033	-	20822-049
40	203.20	30822-045	30819-763	20822-046
42	213.36	30822-047	-	20822-050
60	304.80	30822-065	30819-783	20822-047
84	426.72	30822-089	30819-808	20822-048
PU 100 pieces	rforated rail,, M2.5 × 7,	24560-147	24560-147	24560-147
Item3, torx panhead s to fix perforated rails PU 100 pieces	screw, to horizontal rail, M2.5 × 10,	-	-	24560-148

6.36 | nVent.com/SCHROFF

SCHROF

GUIDE RAILS



Front view: position of guide rails to connector (EN 60603-2/ DIN 41612)

Guide rails form the interface between the subrack mechanics and the sub-assemblies (PCBs, plug-in units, frame-type plug-in units, ...).

Guide rails for standard applications are 2 HP wide. Guide rails with coding (e.g. for CompactPCI or VME64bus applications) are 4 HP wide.

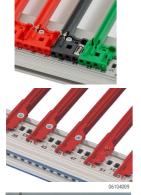
There are groove widths of 2 mm and 2.5 mm.

The guide rails are clipped into the rectangular cut-outs of the horizontal rails. They can additionally be bolted to the horizontal rail (type H only) for higher shock and vibration requirements.

The printed HP markings on the horizontal rail (28 HP and above) allow the rails to be fitted in the correct position easily (position of sub-assembly = "number in viewing window" or in front of the arrow marking on the guide rails).









Applications for guide rails

For plug-in units and frame-type plug-in units (with front panels) (standard type)

For plug-in units and frame type plug-in units or for PCBs without their own front panel (accessory type or robust version)

For CompactPCI or VME64x plug-in units (type IEEE with coding; frame-type plug-in units cannot be fitted)

For plug-in drive unit modules or PCBs in 4.4" (111.7 mm) height (type 4.4")

Rugged guide rails to accommodate conduction cooled assembly (CCA) adaptor

Accessories:

- ESD clip
- Keying/coding pegs
- Board locking



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

ORDER INFORMATION

			For plug-in units and frame type plug-in un Type: Standard	its	Type Standard , with DIN connector fixing
Assembly - can be clipped in horizontal rails - can be clipped in 1.5 mm thick plane.	nto	ruded			
Storage tempera from -40 °C 13	0°C		political in the second		
Colors of Plastic red: RAL 3000 grey: RAL 7016	material		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	PC, UL 94 V-0	PBT, UL 94 V-0, red, connector is clipped directly onto the guide rails; for euroboards only, 100 x 160 mm or 100 x 220 mm
Board length	Groove width	e Colour			
mm	mm	mm	PU 10 pieces ²⁾	1 piece (SPQ 50) ¹⁾	1 pair (SPQ 10) ¹⁾
70	2	red	-	34568-230	-
70	2	grey	-	-	-
160	2	red	24568-361	64568-001	64560-074
220	2	red	24568-362	64568-002	64560-075
280	2	red / silver	24568-379	_	
340	2	red /silver	24568-380	-	-
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	24560-141
ESD clip, PU 50 pieces	24560-255	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

Description of accessories see from page 6.43

6.38 | nVent.com/SCHROFF

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



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

ORDER INFORMATION

			Guide railsType Acce	essory				
			,	Type " Accessory " with DIN connector mounting	Type Accessory , strengthened	for heavy modules, Al extrusion, silver, robust version		
Assembly - can be clipped into AI extruded horizontal rails - can be clipped into 1.5 mm thick plates Storage temperature from -40 °C +130 °C Colors of Plastic Material red: RAL 3000 grey: RAL 7016			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		PBT, UL 94 V-0, connector is bolted directly onto the guide rails, only suitable for euroboards 100 x 160 mm or 100 x 220 mm	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	Groove width	Colour						
mm	mm		PU 10 pieces ²⁾	1 piece (SPQ 50)	PU 10 pairs ²⁾	1 piece (SPQ 50)	1 piece (SPQ 10) ¹⁾	
100	2	red	-	64568-082	-	-	-	
160	2	red	24568-363	64568-005	24560-274	64568-076	-	
160	2	grey/silver	-	64568-055	24560-276	-	34562-881	
220	2	red	24568-364	64568-006	24560-275	64568-078	-	
220	2	grey/silver	-	64568-166	24560-277	_	34562-882	
280	2	red/silver	24568-381	-	-	64568-080	34562-883	
340	2	red/silver	24568-382	-	-	-	34562-884	
400	2	red/silver	-	-	-	-	34562-885	
160	2.5	red/silver	-	64568-100	-	64568-118	34564-881	
220	2.5	red/silver	-	64568-102	-	64568-119	34564-882	
280	2.5	red/silver	-	-	-	64568-120	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	24560-141	24560-141	24560-157
ESD clip, PU 50 pieces	24560-255	24560-255	24560-255	24560-255	-
Board locking C, red, PU 10 pieces	24560-377	24560-377	24560-377	24560-377	-
Board handle C, red, PU 10 pieces	24560-378	24560-378	24560-378	24560-378	-
Identification strips for board handle, red, PU 1 sheet = 438 pieces	60817-228	60817-228	60817-228	60817-228	-
Coding see page		6.43			_

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

Description of accessories see from page 6.43

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



GUIDE RAILS FOR COMPACTPCI, VME64X WITH CODING, 4.4" PCBS, GROOVE WIDTH 2 MM AND 2.5 MM

ORDER INFORMATION

		Type with Coding, for VME64x application. I IEEE 1101.10 and IEC	n accordance with	Type with Coding, 0.1" OFFSET for power supply units. lin accordance with IEEE 1101.10 and IEC 60297-3-103		Type. 4.4" PCBs		
Assembly - can be clipped into Al extruded horizontal rails - can be clipped into1.5 mm thick plates Storage temperature from -40 °C 130 °C Colors of Plastic Material red: RAL 3000 grey: RAL 7016 green: RAL 6024			One-piece for groove width 2 mm, PC, UL 94 V-0;	PC, UL 94 V-0	PC, UL 94 V-0, for installation of power supplies in CompactPCI systems or		One-piece, PBT, UL 94 V-0; for 4.4" PCBs or drive unit modules	
green: RAL 602	24		multi-piece at groove width 2,5 mm, end-piece PC, UL 94 V- 0, center piece Al profile		plug-in units with SMD p	lacement		
Board length	Groove width	Colour	PU 10 pieces	1 piece (SPQ 50) ¹⁾	PU 10 pieces	1 piece (SPQ 50) ¹⁾	PU 10 pieces	1 piece (SPQ 50) ¹⁾
mm	mm	mm						
70	2	red	24568-357	64568-085	-	-	-	-
70	2	grey	24568-360	64568-086	-	-	-	-
160	2	red	24568-356	64568-089	_	-	24560-361	64560-143
160	2	grey	24568-358	64568-090	-	-	-	-
160	2	green		-	24568-359	64568-071	_	-
220	2	red	-	64568-091	-	-	24560-362	64560-144
220	2	grey	_	64568-092	-	-	-	-
220	2	green	-	-	-	64568-072	-	-
160	2.5	red	-	64568-109	-	-	-	64560-145
160	2.5	grey	-	64568-110	-	-	-	-
220	2.5	red	-	64568-111	-	-	-	64560-146
220	2.5	grey	-	64568-112	-	-	-	-
280	2.5	red / silver	24568-331	-	-	-	-	-
280	2.5	grey / silver	24568-341	-	-	-	-	-
340	2.5	red / silver	24568-332	-			-	-
340	2.5	grey / silver	24568-342	_	-	-	_	_

Accessories

ESD clip, PU 50 pieces	24560-255	24560-255	-	-	-	-
ESD clips, for alignment pin, PU 50 pieces	24560-256	24560-256	24560-256	24560-256	-	-
Retention screw, PU 100 pieces; torque max. 0.2 Nm	24560-141	24560-141	24560-141	24560-141	24560-158	24560-158
Coding peg, PU 100 pieces	20817-501	20817-501	20817-501	20817-501	-	-

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

Description of accessories see from page 6.43

6.40 | nVent.com/SCHROFF

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



GUIDE RAILS, MULTI-PIECE, GROOVE WIDTH 2 MM

ORDER INFORMATION

			standard type		Accessories type		For 4.4" PCBs	end piece, PBT, UL 94 V-0, middle extrusion (PVC, RAL 7035) 1 piece (SPQ 10) ¹⁾ 1 piece (SPQ 10) ¹⁾ 560-057 64560-057 560-891 34564-891 560-892 34564-892 560-893 34564-893 560-894 –	
PCBs: Fixed lengths for 160, 220, 280, 340 mm; length 1000 mm for special dimen- sions									
Mounting: pluggable int tal rails	o horizon-		061060	004	061060	05	06106	006	
Storage temperature : End piece -40°C +130 PVC profile 0°C +60°C			end piece, PC, UL 94 V-0,middle sectionAl extrusion	end piece, PBT, UL 94 V-0, middle section plastic extrusion (PVC, RAL 7035)	end piece, PC, UL 94 V-0,middle sectionAl extrusion	end piece, PBT, UL 94 V-0, middle section plastic extrusion (PVC, RAL 7035)	end piece, PC, UL 94 V-0,middle sectionAl extrusion	UL 94 V-0, middle section plastic extrusion	
Description	Length mm	Groove width mm	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾		
End piece, red, 1 pair		2	64560-004	64560-004	64560-008	64560-008	64560-057	64560-057	
extrusion, for 160 mmboard lengthAl	95	2	34560-891	34564-891	34560-891	34564-891	34560-891	34564-891	
extrusion, for 220 mm board lengthAl	155	2	34560-892	34564-892	34560-892	34564-892	34560-892	34564-892	
extrusion, for 280 mm board lengthAl	215	2	34560-893	34564-893	34560-893	34564-893	34560-893	34564-893	
extrusion, for 340 mm board length	275	2	34560-894	-	34560-894	-	34560-894	-	
extrusion,for any board lengthPlastic	1000	2	34560-900	34564-900	34560-900	34564-900	34560-900	34564-900	
Description	Length mm	Groove width mm	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾			
End piece, red, 1 pair		2.5	64560-014		64560-018				
extrusion, for 160 mmboard lengthAl	95	2.5	34562-813	-	34562-813	-			
extrusion, for 220 mm board lengthAl	155	2.5	34562-814	-	34562-814	_			
extrusion, for 280 mm board lengthAl	215	2.5	34562-815	-	34562-815	-			
extrusion, for 340 mm board length	275	2.5	34562-816	-	34562-816	-			
extrusion,for any board lengthPlastic	1000	2.5	34562-822	-	34562-822	-			

ESD clip, PU 50 pieces	24560-255	24560-255	24560-255	24560-255	-	-
Retention screw, PU 100 pieces; torque max. 0.2 Nm	24560-141	24560-141	24560-141	24560-141	24560-158	24560-158
Board locking C, red, PU 10 pieces	-	-	24560-377	24560-377	-	-
Board handle C, red, PU 10 pieces	-	-	24560-378	24560-378	-	-
Identification strips for board handle, red, PU 1 sheet = 438 pieces	-	-	60817-228	60817-228	-	-
Coding see page	-	-	see page	e 6.43	-	-

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

Description of accessories see from page 6.43

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



GUIDE RAILS, MULTI-PIECE, GROOVE WIDTH 2 MM

			Coding (IEEE) type					
				red	(grey	greer	n, 0,1" Offset
PCBs:								
Fixed lengths for 160, 22 340 mm;	20, 280,							
s40 mm, length 1000 mm for spe	cial dimen:	sions						11
Mounting: pluggable int					THE ST			
Storage temperature :			A. C.		ALL.	105010400		135313710
End piece -40°C+130°				135313686		135313698		133313710
PVC profile 0°C +60°C	2		end piece, PC,	end piece, PBT,	end piece, PC,	end piece, PBT,	end piece, PC,	end piece, PBT,
red = similar RAL 30	,		UL 94 V-0,middle sectionAl extrusion	UL 94 V-0, middle section	UL 94 V-0,middle sectionAl extrusion	UL 94 V-0, middle section	UL 94 V-0,middle sectionAl extrusion	UL 94 V-0, middle section
grey = similar RAL 70 green = similar RAL 60				plastic extrusion (PVC, RAL 7035)		plastic extrusion (PVC, RAL 7035)		plastic extrusion (PVC, RAL 7035)
g. sen ommarivic of	~_ ·	Groove	1 pioco	(. 10,10.2.7000)	1 piece	(1 piece	(. 10,10 (2 7 000)
	mm	width	1 piece (SPQ 10) ¹⁾	1 piece	1 piece (SPQ 10) ¹⁾	1 piece	1 piece (SPQ 10) ¹⁾	1 piece
- · · · · ·		mm		(SPQ 10) ¹⁾	64560.004	(SPQ 10) ¹⁾		(SPQ 10) ¹⁾
End piece, 1 pair extrusion, for 160		2	64568-093	64568-093	64568-094	64568-094	64568-095	64568-095
mmboard lengthAl	95	2	34560-891	34564-891	34560-891	34564-891	34560-891	34564-891
extrusion, for 220 mm	155	2	34560-892	34564-892	34560-892	34564-892	34560-892	34564-892
ooard lengthAl	100		0.000 072	0.001.052	0.000 072	0.001.072	0.1000 072	0.001.072
extrusion, for 280 mm board lengthAl	215	2	34560-893	34564-893	34560-893	34564-893	34560-893	34564-893
extrusion, for 340 mm	275	2	24560 004		34560-894		34560-894	
board length	2/5		34560-894	_	34560-894	_	34360-894	_
extrusion,for any	1000	2	24560.000		24560,000		24560.000	
board lengthPlastic	1000	۷	34560-900	34564-900	34560-900	34564-900	34560-900	34564-900
Description	Length	Groove						
	mm	width mm	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾	1 piece (SPQ 10) ¹⁾
End piece, 1 pair		2.5	64568-093	(31 & 10)	64568-094	(31 Q 10)	64568-095	(31 & 10)
extrusion, for 160	95	2.5	34562-813	_	34562-813	_	34562-813	-
mmboard lengthAl	30	2.0	34302-013		34302-013		34302-013	
extrusion, for 220 mm board lengthAl	155	2.5	34562-814	-	34562-814	-	34562-814	_
extrusion, for 280 mm	215	2.5	24562 015		34562-815	_	24542 015	_
board lengthAl	213	2.3	34562-815		34302-613		34562-815	
extrusion, for 340 mm board length	275	2.5	34562-816	-	34562-816	_	34562-816	_
board length								
extrusion,for any board lengthPlastic	1000	2.5	34562-822	_	34562-822	_	34562-822	-
Accessories							_	
ESD clip, PU 50 pieces			24560-255	24560-255	24560-255	24560-255	24560-255	24560-255
ESD clips, for alignment		pieces	24560-256	24560-256	24560-256	24560-256	24560-256	24560-256
Retention screw, PU 100 torque max. 0.2 Nm) pieces;		24560-141	24560-141	24560-141	24560-141	24560-141	24560-141
Coding peg			20817-501	20817-501	20817-501	20817-501	20817-501	20817-501

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

- (*) only for groove width 2.0mm
- Headpieces with coding can be used for be used for groove width 2.0mm as well as for 2.5mm

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



DIMENSION DRAWINGS OF GUIDE RAILS

Standard **Robust version** D2 В D D bza45808 06105074 For accessories For accessories, strengthened D2 D2 В В D D bza45808 CompactPCI, VME64x 4.4" (111.7 mm) D2 D2 В В D D 06105068 06105069

Dimensions table					Dimensions			
Board length	А	A1	A2	A3	Dimensions A4	В	С	D
mm	mm	mm	mm	mm	mm	mm	mm	mm
70	71.5	47.9	59.39	63	49	45	30	60
100	101.5	77.9	89.39	93	79	75	60	90
160	161.5	137.9	149.39	153	139	135	120	150
220	221.5	197.9	209.39	213	199	195	180	210
280	281.5	257.9	269.39	273	259	255	240	270
340	341.5	317.9	322.39	333	319	315	300	330
400	401.5	377.9	389.39	393	379	375	360	390

A, A1, A2, A3, A4: Length of rail

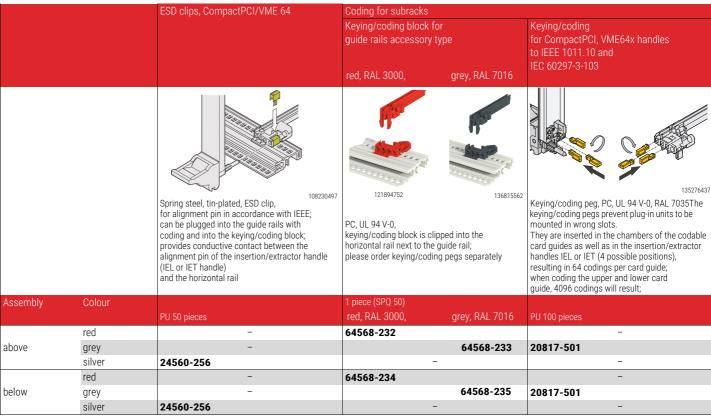
- B: Pitch of snap-in fixing
- C: Pitch of guide rail retention screws
- D: Pitch of horizontal rail retention screws

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GUIDE RAIL ACCESSORIES

ORDER INFORMATION



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

GUIDE RAIL ACCESSORIES

		ESD clips for guide rails	Board locking C for PCBs without front panel; for accessory type guide rails	PCB handle C for board locking; for accessory type guide rails	Identification strips
		O4503050 Spring steel, tin-plated, provides conductive contact between board and horizontal rail, on both the solder side and the component side	PBT, UL 94 V-0, red, to fix the PCB in the subrack (also slot 1), can also be used without board handle, minimum distance 3 HP	PBT, UL 94 V-0, red, insertion/extraction function with connection to board locking (also slot 1), mounting directly behind front panel (above and below), minimum distance 3 HP	Polyester film, 31 x 4 mm, self-adhesive, white/matt (1 A4 sheet contains 438 pieces)
Assembly	Colour	silver	red	red	white/matt
mm		PU 50 pieces	PU 10 pieces	PU 10 pieces	1 piece
above/below		24560-255	24560-377	24560-378	60817-228

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

SHIELDING FOR TOP AND BOTTOM

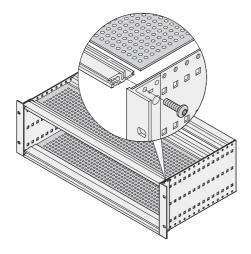


Cover plates can be used for electromagnetic shielding (with EMC contact springs) or as mechanical protection (without EMC springs)

Cover plates for mechanical protection

• Cover plates are inserted into the grooves of the front and rear horizontal rails, type L "light"

see page 6.45

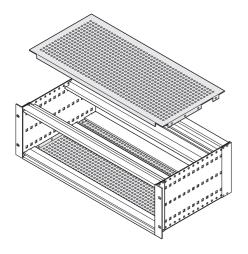


06108077

Cover plates with EMC shielding and mechanical protection EMC cover plates for top and bottom

- Inserted in the groove of the front and rear horizontal rails; shielding with contact springs, lateral contact by bolting the bracket to the side panel
- Used when standard-depth PCBs (160, 220, 280, ...) are fitted

see page 6.46

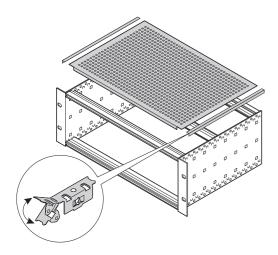


06102084

Universal EMC cover plates for top and bottom

- Inserted in the groove of the front and rear horizontal rails; shielding with contact springs, lateral contact by bolting to the side panel with special contact springs
- Used when PCBs with special dimensions are fitted

see page 6.47



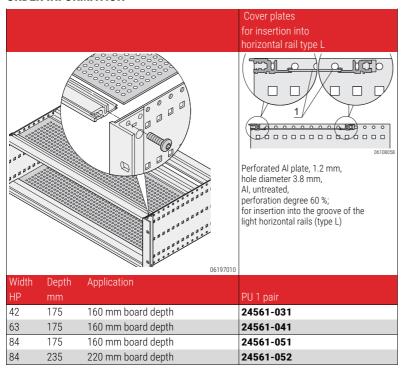
06105082

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COVER PLATES FOR MECHANICAL PROTECTION (INSERTION INTO HORIZONTAL RAIL TYPE L)

ORDER INFORMATION



NOTE

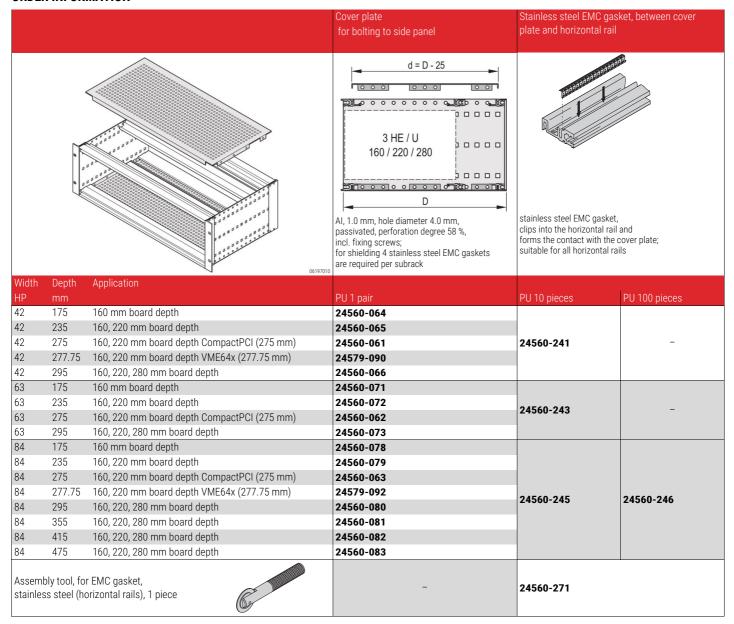
· Other dimensions on request



EMC COVER PLATES AND MECHANICAL PROTECTION

- · Cover plate for bolting to side panel
- Used when standard-depth PCBs (160, 220, 280, ...) are fitted

ORDER INFORMATION



NOTE

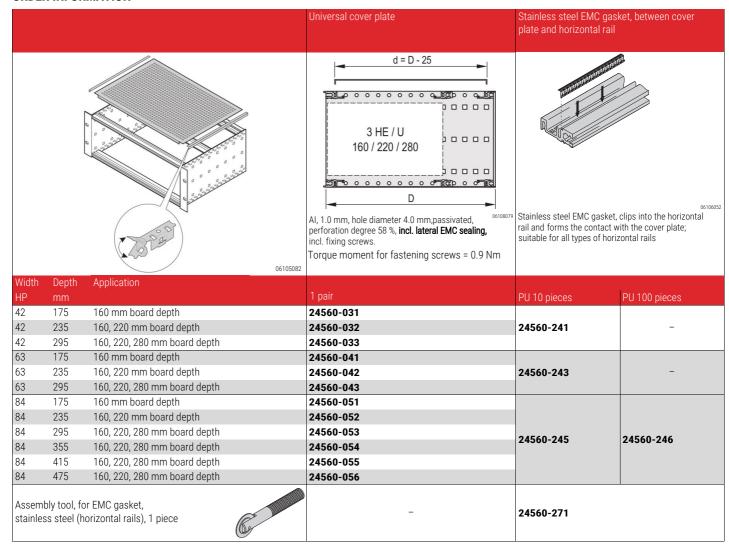
· Cover plates without perforation available on request

6.46 | nVent.com/SCHROFF



UNIVERSAL EMC COVER PLATES AND MECHANICAL PROTECTION

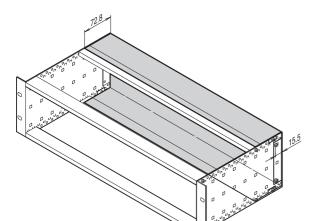
· Used when PCBs with special dimensions are fitted





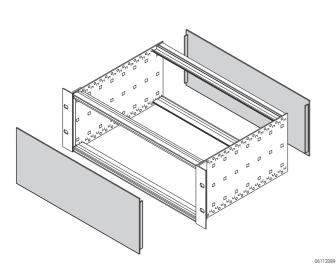


- The front and rear sides of the subrack can be shielded by a hinged front panel or by a fixed front panel and 19" brackets
- The rear can be shielded with a front panel and a corner profile



Rear hood

BZA45814



Front panel for front and rear

Front panel, hinged/pivoted







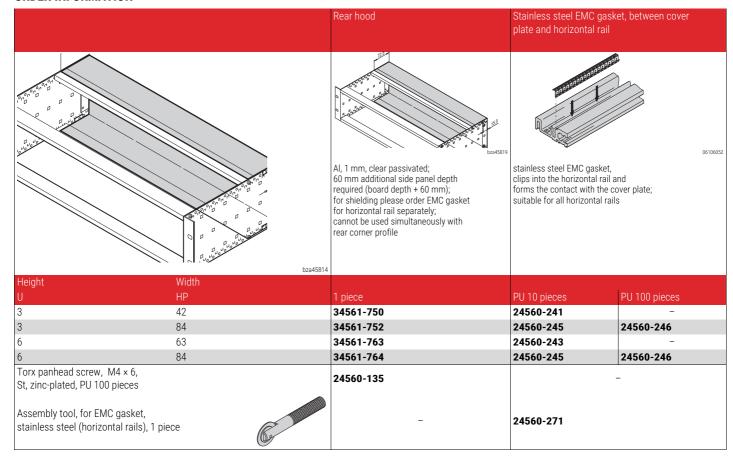
135842093 135842160 135842160 135842107

6.48 | nVent.com/SCHROFF



REAR HOOD FOR 3 U AND 6 U SUBRACKS (FOR STAINLESS STEEL EMC GASKET)

ORDER INFORMATION



NOTE

• Other dimensions of rear hood available on request



FRONT/REAR PANELS, UNSHIELDED

ORDER INFORMATION

			Front panel					
			pre-anodised, cut edges plain		anodised		Front anodised rear iridescent chromated	
		0.	Al, 2.5 mm		Al, 2.5 mm		Al, 2.5 mm	
eight	Height	Width		la i		la i		la i
	mm	HP	1 piece	1 piece (SPQ 5) ¹⁾	1 piece	1 piece (SPQ 5) ¹⁾	1 piece	1 piece (SPQ 5) ¹⁾
	44.45	28	-	-	-	-	20850-423	-
	44.45	42	-	-	-	-	20850-424	-
	44.45	63	-	-	-	-	20850-425	-
	44.45	84	-	-	-	-	20850-426	-
	84.0	84	30818-271	-	30807-416	-	30847-461	-
	128.4	2	-	30810-433	-	30810-432	-	30847-470
	128.4	3	-	30818-272	-	30807-508	-	30847-471
	128.4	4	-	30818-273	-	30807-481	-	30838-043
	128.4	5	-	30818-274	-	30807-510	-	30838-044
	128.4	6	-	30818-275	-	30807-482	-	30838-045
	128.4	7	-	30818-276	-	30807-509	-	30838-046
	128.4	8	-	30818-277	-	30807-484	-	30838-047
	128.4	10	-	30818-279	-	30807-483	-	30838-049
	128.4	12	-	30818-281	-	30807-485	-	30838-051
	128.4	14	_	30818-282	-	30807-501	-	30838-053
	128.4	21	-	30818-289	-	30807-487	-	30838-060
	128.4	28	-	30818-296	-	30807-496	-	30838-067
	128.4	42	30818-310	_	30807-494	_	30838-081	-
	128.4	63	30818-331	-	30808-067	_	30838-102	_
	128.4	84	30818-352	-	30807-506	_	30838-123	-
	172.9	42	_	_	_	_	30847-463	_
	172.9	63	_	_	-	_	30847-464	-
	172.9	84	30818-434	-	30807-596	_	30847-465	_
	261.8	2	-	30818-747	-	30818-741	-	30847-472
	261.8	4	-	30818-518	_	_	-	30838-124
	261.8	5	-	-	-	_	-	30838-125
	261.8	6	-	-	_	_	-	30838-126
	261.8	7	-	-	-	_	-	30838-127
	261.8	8	-	30818-522	_	_	-	30838-128
	261.8	10	-	30818-524	-	30807-753	_	30838-130
	261.8	12	_	30818-526	_	-	_	30838-132
	261.8	14	-	30818-528	-	30807-758	-	30838-134
	261.8	16	-	30818-530	-	-	-	30838-136
	261.8	21	-	30818-535	-	30807-757	-	30838-141
	261.8	28	-	30818-542	-	30807-766	-	30838-148
	261.8	42	30818-556	-	30807-764	-	30838-162	-
	261.8	63	30818-577	-	30807-771	-	30838-183	-
	261.8	84	30818-598	-	30807-776	_	30838-204	-
	395.1	4	-	_	-	_	-	30847-476
	395.1	8	-	_	-	-	-	30847-480
	395.1	10	-	_	_	_	-	30847-482
	395.1	12	-	-	-	-	-	30847-484
	395.1	84	_	_	_	_	30847-556	-

 $[\]bullet \text{Front panel assembly kits, sleeves, collar screws, quick-release fasteners see page } 6.65 \\$

6.50 | nVent.com/SCHROFF

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



FRONT/REAR PANELS SHIELDABLE WITH STAINLESS STEEL EMC GASKET

			Front panel				
			Front panel		Stainless steel EMC	gasket	
				IC gasket (stainless steel)			
			Al, 2.5 mm, front anodiz alignment pins pressed	ed, rear iridescent green chromated, 2 -in, St, stainless	inserted laterally into the suited for temperatures	ne grooves of the front panel, s above 70 °C	
leight	Height	Width					
	mm	HP	1 piece	1 piece (SPQ 5) ¹⁾	PU 10 pieces	PU 100 pieces	
	84	84	30846-588	-	21101-775	21101-776	
	128.4	2	-	30846-864			
	128.4	3	-	20846-425			
	128.4	4	-	20846-426			
	128.4	5	-	20846-427			
	128.4	6	-	20846-428			
	128.4	7	-	20846-429		21101-706	
	128.4	8	-	20846-430			
	128.4	10	-	20846-431	21101-705		
	128.4	12	-	20846-432			
	128.4	14	-	20846-433			
	128.4	21	-	20846-434			
	128.4	28	-	20846-436			
	128.4	42	20846-437	-			
 	128.4	63	20846-438	_			
}	128.4	84	30846-676	_			
	172.9	42	30846-681	_			
	172.9	63	30846-682	_	21101-713	21101-714	
	172.9	84	30846-683	_	21101-713	21101-714	
	261.8	2	-	30846-865			
	261.8	4	_	20846-443			
	261.8	5	_	20846-444			
		6	_				
	261.8 261.8	7	_	20846-445			
			_	20846-446			
	261.8	8	-	20846-447			
	261.8	10		20846-448	04404 707	04404 700	
	261.8	12	-	20846-449	21101-707	21101-708	
	261.8	14	-	20846-450			
	261.8	16	-	20846-456			
	261.8	21	-	20846-451			
	261.8	28	-	20846-452			
	261.8	42	20846-453	-			
1	261.8	63	20846-454	-			
j .	261.8	84	30846-771	-			
)	395.1	84	30846-859	_	21101-709	21101-710	

[•]Front panel assembly kits, sleeves, collar screws, quick-release fasteners see page 6.65

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



FRONT/REAR PANELS SHIELDABLE WITH TEXTILE EMC GASKET

ORDER INFORMATION

			Front panel				
			Front panel for shielding with EN	IC sealing (textile)	Textile EMC gasket		
			Al extrusion, 2.5 mm, fr with alignment pin (not	ont anodised,rear conductive; 3, 6 U 84 HP)	textile gasket, core: foa sleeve: textile cladding UL 94 V-0		
Height	Height	Width				ı	
U	mm	HP	1 piece	1 piece (SPQ 5) ¹⁾	PU 10 pieces	PU 100 pieces	
2	84	84	20848-262	-	-	21101-856	
3	128.4	2	-	30849-001			
3	128.4	3	-	30849-004			
3	128.4	4	-	30848-354			
3	128.4	5	-	30848-378			
3	128.4	6	-	30848-380			
3	128.4	7	-	30848-382			
3	128.4	8	-	30848-356	21101-853		
3	128.4	10	-	30848-386		21101-854	
3	128.4	12	-	30848-358			
3	128.4	14	-	20848-013			
3	128.4	21	-	20848-020			
3	128.4	28	-	20848-027			
3	128.4	42	20848-047	-			
3	128.4	63	20848-068	-			
3	128.4	84	20848-097	-			
4	172.9	28	-	20848-268			
4	172.9	42	20848-269	-	21101-858	_	
4	172.9	63	20848-270	-			
4	172.9	84	20848-271	-			
6	261.8	2	-	30849-002			
6	261.8	4	-	30848-355			
6	261.8	5	-	30848-379			
6	261.8	6	-	30848-381			
6	261.8	7	-	30848-383			
6	261.8	8	-	30848-357			
6	261.8	10	-	30848-387			
6	261.8	12	-	30848-359	21101-855	21101-856	
6	261.8	14	-	20848-106			
6	261.8	16	-	20848-108			
6	261.8	21	-	20848-113			
6	261.8	28	-	20848-120			
6	261.8	42	20848-139	-			
6	261.8	63	20848-160	-			
6	261.8	84	20848-189	-			
9	395.1	84	20848-280	-	21101-859	21101-904	

 $[\]bullet \textit{Front panel assembly kits, sleeves, collar screws, quick-release fasteners see page \ 6.65 \\$

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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



FRONT PANELS, HINGED AND PIVOTED

ORDER INFORMATION

		Front pa	anel, bottom-hinged	Front panel, pivoted
		shielded	unshielded	
		Al, 2.5 mm,front anodised,rear conductive; textile EMC gasket hinge, Zn die-cast, nickel-plated; 2 / 3 x sleeve, PA; 2 / 3 x knurled screws or collar screws m2.5x12,3, St, nickel plated	Al, 2.5 mm, anodised, cut edges plain; hinge, Zn die-cast, nickel-plated; 2 / 3 x sleeve, PA; 2 / 3 knurled screws or collar screws M2.5 x 12.3, St, nickel-plated	Al, 2.5 mm, front anodised, rear conductive; hinge, die-cast zinc, chrome-plated; textile EMC gasket; 2/3 xsleeve, PA; 2/3 knurled screws or collar screws M2.5 x 12.3, St, nickel-plated
Height	Width HP	1 - 1	1 -1	1 -:
3	28	1 piece 20848-608	1 piece 20838-280	1 piece
3	42	20848-599	20838-230	_
3	63	20848-600	20838-272	_
3	84	20848-601	20838-273	20848-611
4	42	20848-605	20838-277	-
4	63	20848-606	20838-278	-
4	84	20848-607	20838-279	-
6	28	20848-696	-	-
6	42	20848-602	20838-274	-
6	63	20848-603	20838-275	-
6	84	20848-604	20838-276	20848-617

NOTE

• Front panel can be removed in opened position (> 135°)





SHIELDING IS REQUIRED BETWEEN THE FOLLOWING COMPONENTS OF A SUBRACK

- Front panel/rear panel and horizontal rail, see page 6.55
- Front panel and 19" bracket/corner profile or in case of depth-offset installation, see page 6.55
- · Cover plate/horizontal rail, see page 6.44
- Cover plate/side panel, see from page 6.44
- Horizontal rail/horizontal rail in combined mounting (3 U + 3 U and 6 U), see page 6.59
- Shielding for backplane and side panel see page 6.55

EMC shielding concepts

- · Shielding concepts in accordance with IEEE and IEC
- Shielding effectiveness has been determined in various series of measurements in accordance with IEC 61587-3 and can be found online together with the relevant standard product
- The combined use of stainless steel and textile EMC gaskets is functionally possible without any problems

EMC shielding concept with EMC textile gaskets

- The seal is affixed to the left-hand side of the subrack (viewed from front) or to the front panel profile, respectively
- An EMC gasket with CuNi coating assures a long-term high level of shielding, typically 40 dB at 2 GHz
- Temperature-resistant adhesive layer is protected by a removable film
- · Rear shielding is obtained using front panels or a rear hood
- Temperature range -40° C to +70° C or -40° C to +85° C
- Note: rear hood and corner profile cannot be used simultaneously

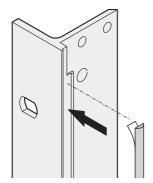
EMC shielding concept with stainless steel EMC gaskets)

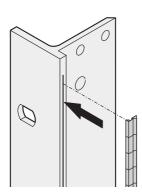
- Symmetrical arrangement of EMC gaskets on the left and right hand sides of subrack and front panel
- · Shielding: typically 40 dB at 2 GHz
- Can be used for temperatures above +70° C
- Note: rear hood and corner profile cannot be used simultaneously

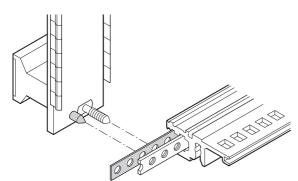
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Front panel shielding concept

- Front panels are available for textile or stainless steel EMC gasket options
- Alignment pins are pressed-in in the front panel to position the gaskets securely and to compress them evenly
- An alignment pin positions the perforated strip in the horizontal rail
- Alignment pin and perforated strip provide an optimal positioning of the shielded assemblies; the front panels are not forced sideways by the shielding elements (SCHROFF patent)







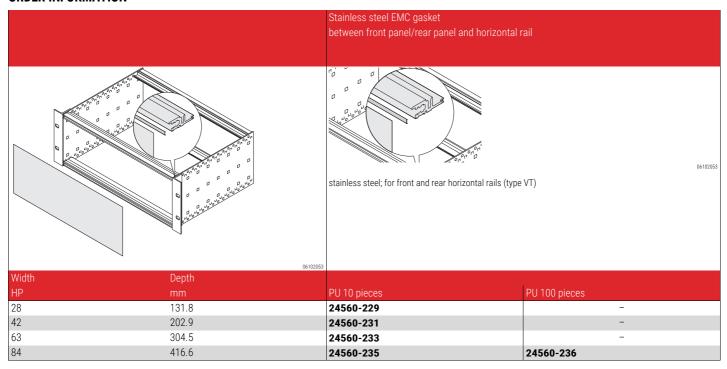
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6.54 | nVent.com/SCHROFF

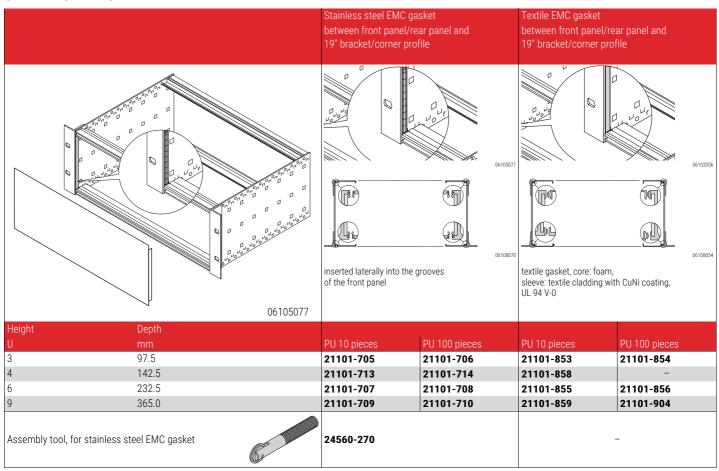


EMC GASKETS BETWEEN FRONT/REAR PANEL AND HORIZONTAL RAIL

ORDER INFORMATION



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





EMC GASKETS BETWEEN HORIZONTAL RAIL AND HORIZONTAL RAIL

ORDER INFORMATION



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

EMC GASKETS BETWEEN FRONT PANEL AND SIDE PANEL (DEPTH-OFFSET INSTALLATION)

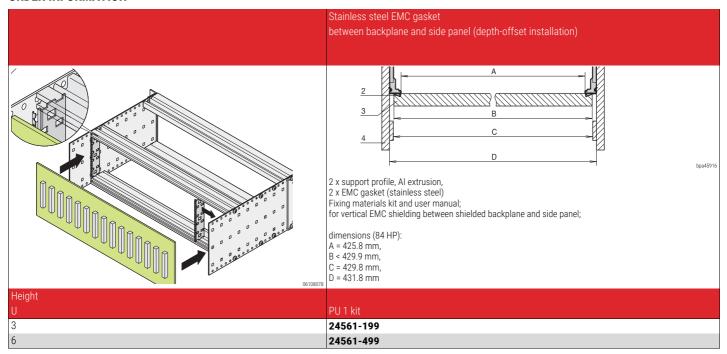
ORDER INFORMATION

OKDEK INFORMA			
		Stainless steel EMC gasket	Textile EMC gasket
		between front panel and side panel	between front panel and side panel
		(depth-offset installation)	(depth-offset installation)
		Item 1: 2 x support profiles, Al extrusion; item 2: 2 x stainless steel EMC gasket; fixing material kit for vertical EMC shielding between depth-offset shielded front panels and side panel	Item 1: 2 x support profiles, Al extrusion; item 2: 1 x EMC textile gasket; fixing material kit for vertical EMC shielding between depth-offset shielded front panels and side panel
Height	Depth		
U	mm	PU 1 kit	PU 1 kit
3	97.5	24562-199	24560-180
4	142.5	24562-299	24560-280
6	187.5	24562-499	24560-480
Assembly tool, for sta EMC gasket	ainless steel	24560-270	-

6.56 | nVent.com/SCHROFF



EMC GASKETS BETWEEN BACKPLANE AND SIDE PANEL



- With an appropriate design the backplane can be used as shielding rear panel; for that purpose a rear horizontal rail (type L-VT or H-VT) for depth-offset installation must be used to ensure the horizontal contact
- For vertical contact the support profile can be fixed to the europacPRO side panel (depth grid 30 mm)

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SPECIAL INTERIOR MOUNTING PARTS

- Horizontal board mounting, see page 6.58
- Combined mounting: 3 U + 3 U and 6 U, see page 6.59
- Mounting plates, see page 6.60
- Central locking for PCBs, see page 6.61
- Divider plates, see page 6.61
- Air baffles, see page 6.62
- Telescopic slides, see page 6.63
- Fixing parts (bolts, nuts, assembly tools), see page 6.63

HORIZONTAL BOARD MOUNTING IN 3 OR 4 U SUBRACK

ORDER INFORMATION

Horizontal board mounting in 3 or 4 U subrack						
	Board cage	Front frame for EMC shielding	Front frame, unshielded			
		Livio Silielaling				
	Struts, die-cast zinc; horizontal rails front and rear; threaded inserts, St, zinc-plated; fixing material kit; for horizontal mounting of double-height euroboards in 3 or 4 U high subracks/cases; 54 HP space required; please order front frame for EMC shielding separately	2 horizontal covers, AI 2.5 mm, front anodised, rear iridescent green chromated; 2 vertical trims, AI extrusion, passivated; stainless steel EMC gasket; front frame provides the contact between subrack and the sub-assemblies	Al, 2.5 mm, clear anodised; front frame with cut-out, clear internal width w = 266.35 mm			
bpa45914						
Height Usable Mounting variants U height h Horizontal rail, front Horizontal rail, rear HP	PU 1 kit	PU 1 kit	1 piece			
3 20	24564-117	24564-109	34564-108			
3 20	24564-118	24564-109	34564-109			
4 28	24564-217	24564-209	34564-208			
Assembly tool, for stainless steel EMC gasket	-	24560-270	-			

^{*} For direct backplane mounting

NOTE

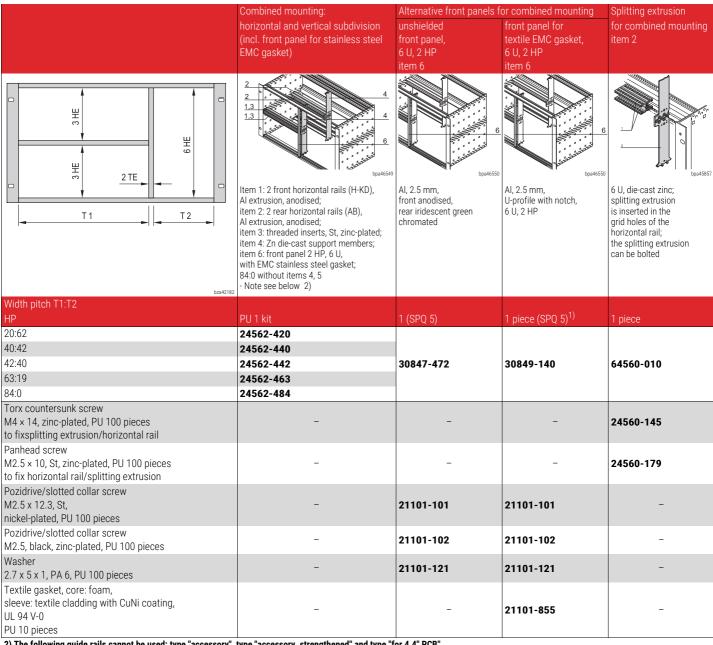
• Please order front frame for EMC shielding separately

6.58 | nVent.com/SCHROFF



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

ORDER INFORMATION



- 2) The following guide rails cannot be used: type "accessory", type "accessory, strengthened" and type "for 4.4" PCB"
 - · Subdivision of the 6 U assembly area into:
 - 2 x 3 U
 - 1x6U
 - · Designed to accomodate euroboards (100 mm high) and double euroboards (233.35 mm high)

NOTE

- Please order EMC gasketing kit for horizontal rails separately, see page 6.56
- Please order perforated strips for horizontal rails separately, see page 6.35
- Please order rear centre horizontal rail separately, see page 6.33



MOUNTING PLATES

ORDER INFORMATION

				Mounting plate	Mounting plate	
				can be used in combination with cover plate	for use without cover plate	Fixing strip for partial widths
Mounting p	late for use with	hout cover plate	2			
	plate for use with		135395116			bpa46557
		-9	135395129	AI, 1.5 mm; 1082205 mounting is only possible over the entire width between the side panels; width of mounting plate = W - 9.71 mm Torque moment for fastening screws = 1,5 Nm	for mounting over partial width, please order fixing strips separately. Torque moment for fastening screws = 1,5 Nm	
Width W	W	Depth	Board length			
HP	mm	mm	mm	1 piece	1 piece	1 piece
28	146.88	112.5	160	34563-001	34562-745	30840-021
28	146.88	172.5	220	34563-009	34562-749	30840-033
28	146.88	232.5	280	_	34562-753	30840-045
28	146.88	292,2	340	-	34562-757	30840-057
42	217.99	112,5	160	34563-002	34562-746	30840-021
42	217.99	172,5	220	34563-014	34562-750	30840-033
42	217.99	232,5	280	_	34562-754	30840-045
42	217.99	292,2	340	-	34562-758	30840-057
63	324.67	112,5	160	34563-003	34562-747	30840-021
63	324.67	172,5	220	34563-019	34562-751	30840-033
63	324.67	232,5	280	_	34562-755	30840-045
63	324.67	292,2	340	-	34562-759	30840-057
84	431.35	112,5	160	34563-004	34562-748	-
84	431.35	172,5	220	34563-024	34562-752	-
84	431.35	232,5	280	34563-026	34562-756	-
84	431.35	292,2	340	34563-028	34562-760	-
84	431.35	352,5	400	34563-042	34562-870	-
84	431.35	412,5	460	34563-044	34562-871	-
	kit for mountir tersunk screw	ng plate, PU 1				
zinc-plated screw M4 x square nut	, 16 pieces; c 6, St, zinc-pla M4, St, zinc-p	ated, 14 piece lated, 14 piec	ces)	24560-184	24560-184	-
plates			I width mounting PU 100 pieces	-	-	24560-146

NOTE

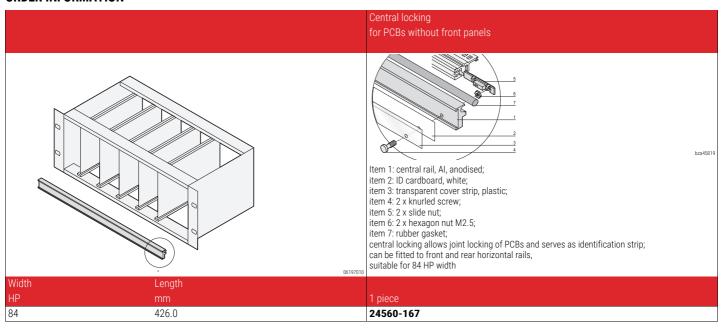
- For installation and fixing of heavy components
- In addition to the mounting plate, (EMC) cover plates can also be fitted to the subrack
- The mounting plate is as wide as the subrack or system case and is fixed to the side panels
- A guide rail can be fitted on the first and last slot
- Guide rails type "4.4" and type "strengthened" cannot be used

6.60 | nVent.com/SCHR0FF

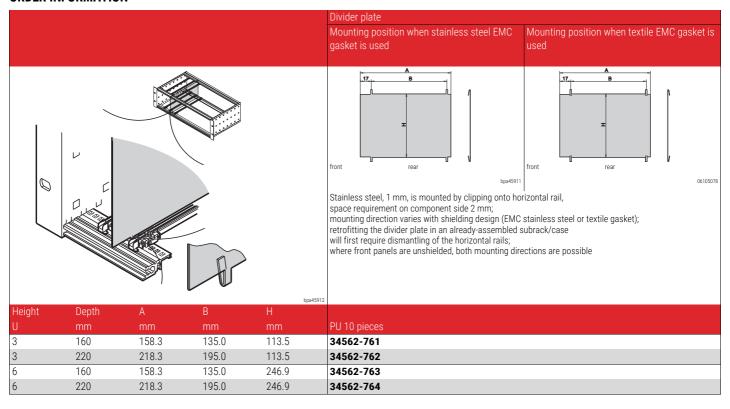


CENTRAL LOCKING

ORDER INFORMATION



DIVIDER PLATE





AIR BAFFLES FOR SLOTS

ORDER INFORMATION

	FURMATION				
			Air baffle	Air baffle with front panel	
			without front panel	Front panel with lateral groov	
				for stainless steel EMC gaske	et een een een een een een een een een e
			Al, 1 mm, incl. fixing material kit, prevents an air short circuit in unused slot positions; is pushed into the groove of the guide rail	Air baffle, Al, 1 mm; front panel, Al, 2.5 mm, front anodised, rear conductive; stainless steel EMC gasket; fixing material kit prevents an air short circuit in unused slot positions; is pushed into the groove of the guide rail	Air baffle, Al, 1 mm, front panel, Al extrusion, 2.5 mm, front anodised, rear conductive; textile EMC gasket, fixing material kit prevents an air short circuit in unused slot positions; is pushed into the groove ofthe guide rail
D 1	VAP 101		101507		
Depth	Width	Height	1 =:===	1 =:	1
mm 160	HP 4	<u>U</u> 3	1 piece 34562-823	1 piece 20848-712	1 piece 20848-728
160	4	6			
	4	3	34562-826	20848-720	20848-736
220	•		34562-824	20848-713	20848-729
220	4	6	34562-827	20848-721	20848-737
Assembly to for stainless 1 piece	ool s steel EMC gasket,		_	24560-270	-

NOTE

• Air baffle for 280 mm deep and for 80 mm rear I/O boards or other width (HP) available on request

6.62 | nVent.com/SCHROFF



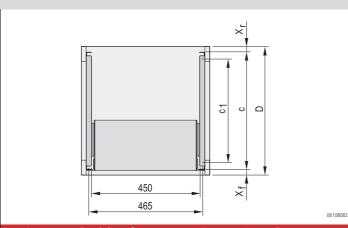
SIMPLE TELESCOPIC SLIDE FOR ASSEMBLY OF SUBRACKS IN CABINETS



- For mounting 84 HP wide subracks in the 19" plane
- · Loading capacity: 25 kg per pair
- The guiding profile is matched to the fixing dimension in the cabinet (it is bolted to the 19" profile of the cabinet); the adaptor rail is matched to the depth and fixing dimension on the subrack (it is inserted into the guiding profile like a telescopic slide)
- No protection against extraction, no stop at full extension

Order Information

Telescopic slides with guiding profile for fitting in cabinets

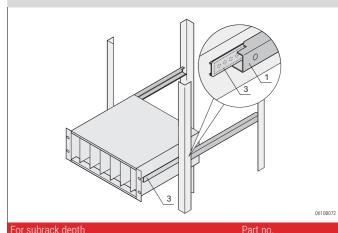


Description	Depth D	xf		С	c1	Part no.
	mm	mm	mm	mm	mm	
VARISTAR	600	50	50	500	368,8	24562-464
VARISTAR	800	50	50	700	568,8	24562-466
VARISTAR	900	50	50	800	668,8	24562-467
VARISTAR	1000	50	50	900	768,8	24562-468
VARISTAR	1100	50	50	1000	868,8	24562-472
VARISTAR	1200	50	50	1100	968,8	24562-473
eurorack	600	60	60	480	397	24562-449
eurorack	800	60	60	680	597	24562-451
eurorack	900	60	60	780	697	24562-452
NOVASTAR	500	33	60	407	350	24562-460
NOVASTAR	600	33	60	507	450	24562-461
NOVASTAR	800	33	60	707	650	24562-474
Lab rack	250	0	0	250	162	24562-446

- x_f, x_r: Distance of 19" plane to cabinet edge (front, rear)
- c: Distance of 19" planes from each other,
- c1: Fixing dimension of guiding profile on 19" panel/slide mounts

Order Information

Telescopic slides with adaptor rail for subracks

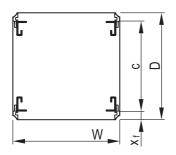


For subrack depth mm	Part no.	
175	24562-453	
235	24562-454	
295	24562-455	
355	24562-456	
415	24562-457	
475	24562-458	



TELESCOPIC SLIDE, NARROW, FOR SUBRACK





C dimensions: Varistar 500 mm and 700 mm, Novastar 507 mm to 707 mm

- Suitable for 84 HP width subracks (type F, type H, type L)
- · Locks at full extension
- Hinged
- Extension length > 100 %
- Rail width 7.5 mm
- Maximum clear width of extension/drawer w = 84 HP (435 mm)

DELIVERY INCLUDES

Item	Qty	Description
1	2	Telescopic slide, St, zinc-plated

ORDER INFORMATION

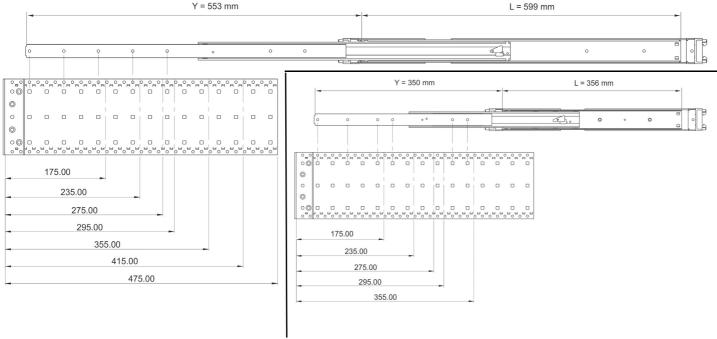
Length L	Extension length Y	ngth Y Load-carry- ing capacity P				
mm	mm	kg				
356	See table Technical data	15	60110-441			
559	See table Technical data	15	60110-440			
Accessori	es					
Fixing mat PU 1 kit	Fixing materials kit for Varistar, to mount 2 telescopic slides, PU 1 kit					
Fixing mat PU 1 kit	scopic slides,	21120-194				
Delivery: su	Delivery: supplied loose with cabinet or frame					

Technical data

Length L	Extension length Y		
	Varistar SL/HD	Novastar SL	Novastar HD
mm	mm	mm	mm
356	350	362	352
559	553	565	555

NOTE

- To mount on 19" plane please order assembly kit separately
- Telescopic rail cannot be combined with BGTR with corner profile (rear)



Screw-on position for telescopic slide on side panel of subrack

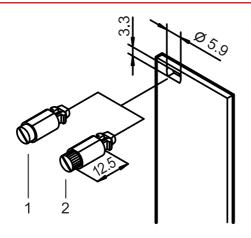
21120-193



ASSEMBLY PARTS

- · Quick-release fasteners
- Sleeves
- Screws
- · Cage nuts
- Tools

QUICK-RELEASE FASTENERS



- · Vibration and shock proof
- 1/4 rotary lock with defined stop
- Detection of locking position through slot position

DELIVERY COMPRISES

Qty	Description
1	Locking pin, St, locking, Zn die-cast
1	Press-in sleeve, POM

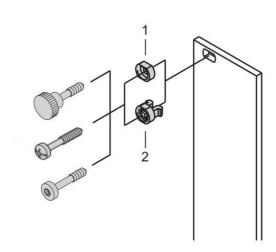
ORDER INFORMATION

Item	Description	Qty/PU	Part no.
1	With slotted head, grey	100	21101-847
1	With slotted head, black	100	21101-848
2	With knurled and slotted head, grey	100	21101-849
2	With knurled and slotted head, black	100	21101-850

NOTE

Quick-release fasteners: mounting without threaded inserts

SLEEVES



Item	Description	Qty/PU	Part no.
2	Plastic sleeve, PA, grey	100	21100-464
2	Plastic sleeve, PA, black	100	21100-591
1	Metal sleeve, brass, nickel-plated	10	21100-659
1	Metal sleeve, brass, nickel-plated	100	21100-660
1	Metal sleeve, brass, black	10	21100-885
1	Metal sleeve, brass, black	100	21100-886
1	Metal sleeve, stainless steel	10	21100-661
1	Metal sleeve, stainless steel	100	21100-662

- Metal sleeves must be pressed-in in front panels
- Sleeve does not fit in 2 HP wide front panels



COLLAR SCREWS

ORDER INFORMATION

	Description	Application	Material	Dimension	Qty/PU	Part no.
	Collar screw with Philips drive/slot		St, nickel-plated	M2.5 x 12.3	100	21102-026
	Collar screw with pozidrive/slot	For mounting of front panels when using threaded inserts	St, nickel-plated	M2.5 x 12.3	100	21101-101
			St, zinc-plated, black	M2.5 x 12.3	100	21101-102
aza45929			Stainless steel	M2.5 x 12.3	100	21101-906
	Torx collar screw	For mounting of front panels when using threaded inserts	St, nickel-plated	M2.5 x 12.3	100	21101-782
AZA45941			St, zinc-plated, black	M2.5 x 12.3	100	21101-783
3.5 12.3		For mounting of front panels when using threaded inserts	Brass, nickel-plated	M2.5 x 12.3	100	21101-749
13 123	Collar screw with knurled head	For mounting of front panels when using threaded inserts for horizontal rails with long lip	Brass, nickel-plated	M2.5 x 12.3	100	21101-909

TORX SCREWS, SELF-FORMING

ORDER INFORMATION

	Description	Application	Material	Dimension	Qty/PU	Part no.
06707058	Torx panhead screw, self-forming	For extra-robust Al guide rails; torque max. 0.2 Nm	St, zinc flake coating, black	2.5 x 7.3	100	24560-157
06707058	Torx countersunk screw, self-forming	For 4.4" board height, guide rail on horizontal rail, europacPRO, ratiopacPRO; torque max. 0.2 Nm	St, zinc-plated	2.5 x 7.7	100	24560-158
06707058	Torx panhead screw, self-forming	For plastic guide rail on horizontal rail; for panel bracket on horizontal rail; torque max. 0.2 Nm	St, zinc-plated	2.5 x 9.3	100	24560-141
06707058	Torx panhead screw, self-locking	For plastic guide rails on horizontal rails	St, zinc-plated	2.5 × 9.3	100	21500-039
06707058	Torx panhead screw	For 6 U support member, backplane mounting, centre horizontal rail	St, zinc-plated	2.5 × 10	100	24560-179

6.66 | nVent.com/SCHROFF schroff product catalog 09 / 2022



COUNTERSUNK SCREWS

ORDER INFORMATION

	Description	Application	Material	Dimension	Qty/PU	Part no.
Finding 1	T	For support profiles europacPRO, ratiopacPRO	St, zinc-plated	M4 x 5	100	24560-139
135482	Torx screw	For mixed board assembly and assembly of shortened horizontal rail on support member, with GND/earthing function	St, zinc-plated	M4 x 14	100	24560-145

TORX PANHEAD SCREWS

ORDER INFORMATI	Description	Application	Material	Dimension	Qty/PU	Part no.
Santanamin		For Z-rails and connector assembly	St, nickel-plated	M2.5 x 7	100	24560-147
13548544	Torx panhead	For perforated rails	St, nickel-plated	M2.5 x 10	100	24560-148
Sometiment	screw	For backplane mounting	St, nickel-plated	M2.5 x 12	100	24560-161
13548545	50	To backplane mounting	St, nickel-plated	M2.5 x 14	100	24560-162
aza45178	Washer	For insulated backplane mounting	Plastic, PA	2.8 x 6.3 x 2	100	21101-964
aza45940	Screw + plastic washer (PA)	For backplane mounting	St, nickel-plated	M2.5 x 12	100	21100-777
		To bolt on support bracket, rear hood, corner profile on side panel, lengthening bracket and connecting bracket	St, zinc-plated	M4 x 6	100	24560-135
		To bolt-on cover plate or mounting plate, with GND/earthing function	St, zinc-plated	M4 x 6	100	24560-151
135482269		To bolt-on cover plate or mounting plate, with GND/earthing function, self-forming thread	St, zinc-plated	M4 × 6	100	21101-884
06707058	Torx panhead screw	For horizontal rail on side panel if guide rails are bolted to slot 1	St, zinc-plated	M4 x 10	100	24560-155
		For horizontal rail on side panel, with GND/earthing function	St, zinc-plated	M4 × 14	10	24560-131
135482266		For horizontal rail on side panel, with GND/earthing function	St, zinc-plated	M4 x 14	100	24560-130



GRUB SCREWS

ORDER INFORMATION

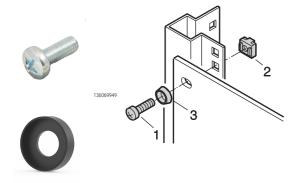
	Description	Application	Material	Dimension	Qty/PU	Part no.
		For threaded inserts M2.5 and perforated strips Torque: 0,37Nm	Stainless steel	M2.5 x 9, Torx8	100	21102-980
	Grub screw	For threaded inserts M2.5	St, nickel-plated	M2.5 x 8	100	21100-276
	135545261	For threaded inserts M3	St, zinc-plated	M3.0 x 8	100	21100-646

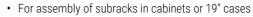
SQUARE NUTS

ORDER INFORMATION

	Description	Application	Material	Dimension	Qty/PU	Part no.
AZA45921	Square nut	For fixing: parts to side panels, support profiles, mounting plates	St, zinc-plated	M4	100	24560-140

ASSEMBLY KITS





 For assembly of desk-top cases in cabinets by means of 19" brackets

DELIVERY COMPRISES (kit)

Item	Qty	Description
1	1	Pozidrive screw M6 × 16, zinc-plated
2	1	Plastic washer, ABS, black
3	1	Cage nut M6, steel nickel plated

SC128XXX

ORDER INFORMATION

Description	Part no.
PU = 8 × screw, washer, nut	21100-435
PU = 50 each of M6 screw, washer and cage nut	21101-809
PU = 100 each of M6 screw, washer and cage nut	21101-810

 For 19" brackets with material thickness of 1.5 mm, see "Assembly kits" in chapter Cabinet accessories

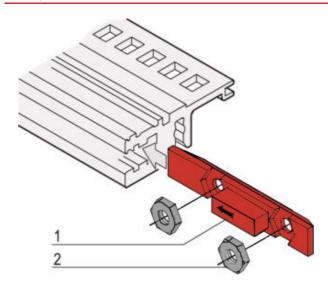
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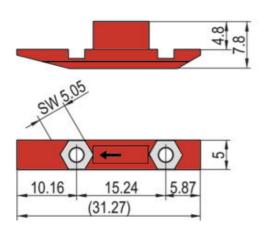
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6.68 | nVent.com/SCHROFF SCHROFF



SLIDE, TO ACCOMODATE 2 NUTS





The slide is pushed into the groove of the horizontal rail to front or rear (type VT)

DELIVERY COMPRISES (kit)

Item	Qty	Description	
1	1	Slide, PBT, red, UL 94 V-0	
2	2	Nut, M2.5, St, acier nickelé	

ORDER INFORMATION

Description		Part no.
Slide nut kit 1	100 slides/200 nuts	24560-165
Slide nut kit 2	12 slides/24 nuts	24560-166

NOTE

- Nuts used in item 3 suitable for:
 - · hinged front panels, 84 HP
 - front or rear panels, 84 HP
- Nuts used in item 4 suitable for:
 - hinged front panels
- Nuts used in item 3 and 4 suitable for:
 - two front panels



ASSEMBLY TOOLS

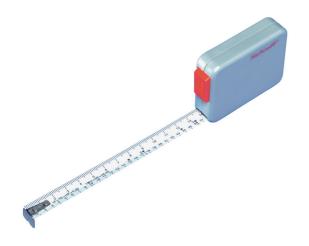
ORDER INFORMATION

ORDER INFORMATION					
	Description	Application	Dimension	Qty/PU	Part no.
		T 8 torx	Т8	1	64560-026
	Torx screwdriver	To fix the top cover locking	T10	1	64560-230
	AZA45925	T 20 torx	T20	1	64560-027
	Assembly tool	Exclusively to fix stainless steel EMC gaskets in horizontal rails	-	1	24560-271
	Assembly tool	To fix stainless steel EMC gaskets on front panels with lateral slots	-	1	24560-270
	135542978				

NOTE

 Assembly tool to insert keying/coding pegs in guide rails is available on request

TAPE MEASURE



- Measuring tape with cm, U-, HP-division (length 2 m)
- Plastic housing, metal measuring tape with automatic collection

ORDER INFORMATION

Description	Qty/PU	Part no.
	ріесе	
Tape measure	1	89009-001

3250600

6.70 | nVent.com/SCHROFF



APPLICATION EXAMPLES

Application: Transportation/defense sectors



· Mounting frame to accomodate a 36 HP wide railway subrack, frame from stainless steel



06103001

06108003

- 06108006 · Robust assembly by double bolt-on fixing
 - · Lateral ducting in cabinet
 - Combined mounting 6 U+ 2 x 3 U

Application: Measurement, control and instrumentation sectors



- Combined mounting with 2 x 3 U in 6 U
- Divider plate to separate different sections
- · Installation with strengthened guide rails



- · Subrack with additional telescopic fan unit
- · Adaptation at bottom and top integrated into the side panel





- · Shielded subrack for special applications with mounting plate, cover and base plate
- · Mounting plate for heavy assemblies



- Subrack with plastic cable ducting for fibre optic cables
- · Terminal area at top



Part number in bold face type: ready for shipping within 2 working days Part number in normal type: ready for shipping within 10 working days



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:



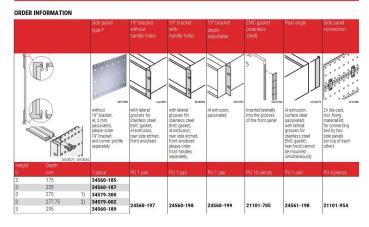
Delivered in space-saving flat packs. The threaded inserts or EMC gasket (depending on selected kit) are already pre-mounted on the horizontal rail.

Two ways of reaching your desired product:

- Kits
- · Individual configuration

Individual configuration:

SIDE PANELS TYPE F FOR STAINLESS STEEL GASKET



0610905

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.

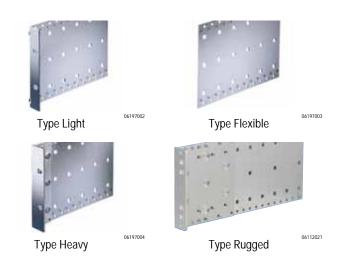
HORIZONTAL RAILS AND SIDE PANELS FOR DIFFERENT LOAD-CARRYING CLASSES

06107001



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)



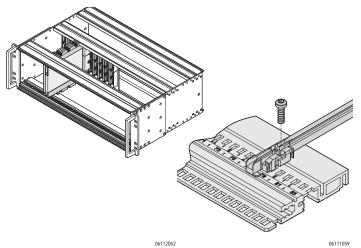
Side panels for 4 different load classes

- 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

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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, ...).

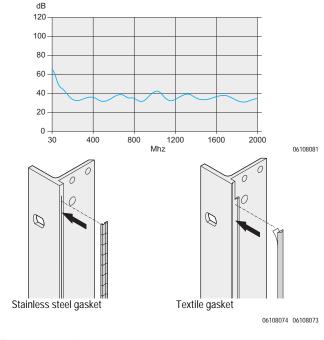
Robust snap-in fixings on the plastic rails assure a secure grip, even when exposed to vibrations. In the case of H and R-type horizontal rails the guide rails can also be bolted on. For extreme stresses, guide rails in aluminium extrusion are used.

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



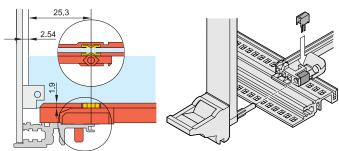
The product platform europacPRO offers a variety of off-the-shelf solutions to assure electromagnetic compatibility (EMC) and to avoid electrostatic discharge (ESD).

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)

04503050 06103052

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