RatiopacPRO Style

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SCHROFF

Desk-top cases – RatiopacPRO Style

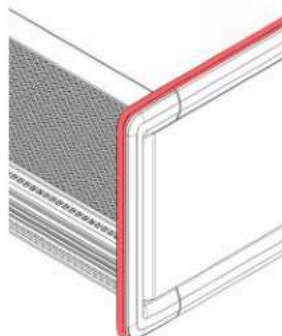**VARIETY OF FRONT AND REAR OPTIONS**

- Three different front and rear options embedded into the frame design, to provide a high level of protection and usability.
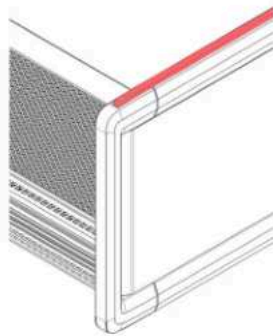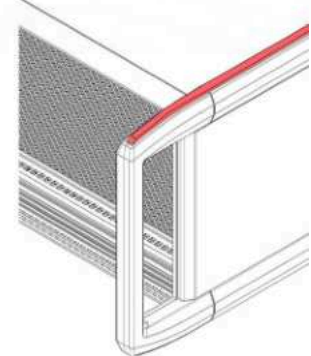
Version with Trim   Version with Trim, Circulating   Version with Handle
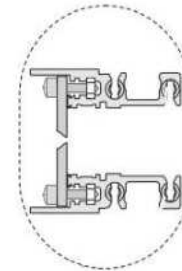
RatiopacPRO Style

Designed for insertion/extractor handles in accordance with IEC 60297-3-102 and IEEE 1101.10 for CompactPCI and VME64x applications

In addition to the front screwed front panels, also pre-configured version for a screwless front panels versions are offered for a clean case design.
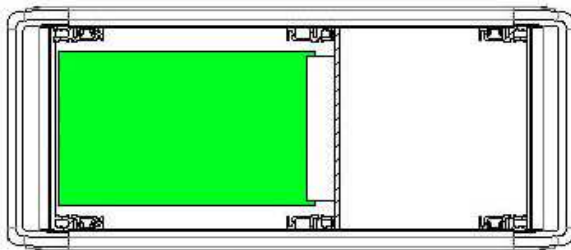
Standard Version: Screwless Version:
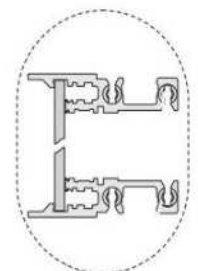
STANDARDS

- Inner dimensions in accordance with:
  IEC 60297-3-101 / IEEE 1101.1
  IEC 60297-3-102 / IEEE 1101.10/11

- For board depth 160 mm, 220 mm, 280 mm, and 340 mm

- Type of protection IP30 (with front- and rear panel) in accordance with IEC 60529

- Earthing connections in accordance with:
  DIN EN 50178 / VDE 0160
  DIN EN 62368-1 / VDE 0805
  DIN EN 61010-1 / VDE 0411 part 1

- EMC testing in accordance with VG 95373 part 15

Desk-top cases – RatiopacPRO Style

OVERVIEW

THE STYLISH CASE TO PROVIDE MAXIMUM FLEXIBILITY

- Desktop case with protective frame design and rubber strips
- Leverage proven platform to streamline the design process and minimize risks and delays.
- Achieve distinctive aesthetics through features like protective elements and stackability.
- Case for 19" components (guide rails) or proprietary components (mounting plate).
- For EMC-shielding, additional components need to be added, please refer to page 5.159
- No visible screws; cladding parts removable without tools

RatiopacPRO Style -
Front and Rear Trims /
Top & Bottom Rubber Strip

- Trim frame design on front and rear of desktop case for protection of connectors, jacks or plugs, when equipment is positioned vertically.
- Removeable rubber strip bottom and top of desktop case for extra protection of case and integrated stacking function

RatiopacPRO Style -
Front and Rear Trims /
Circulated Rubber Strip

- Trim frame design on front and rear of desktop case for protection of connectors, jacks or plugs, when equipment is positioned vertically.
- Non-Removable rubber strip all around the case to protect all corners, ideal for smaller mobile cases

RatiopacPRO Style -
Front Handle and Rear Trims /
Top & Bottom Rubber Strip

- Front handle frame design on front to easy carry desktop cases, ideal for larger equipment
- Trim frame design on rear to protect rear connectors, jacks or plugs
- Removable rubber strip bottom and top of desktop case for extra protection of case and integrated stacking function

Accessories
All accessories are compliant with RatiopacPRO Style, RatiopacPRO and RatiopacPRO Air

SERVICEPLUS
e.g. modifications (cut-outs, special colours)
e.g. custom solutions (special sizes)
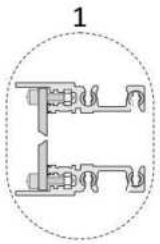**e.g. assembly service from 1 piece**
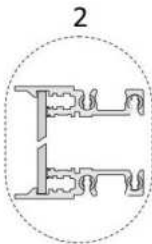
Desk-top cases – RatiopacPRO Style
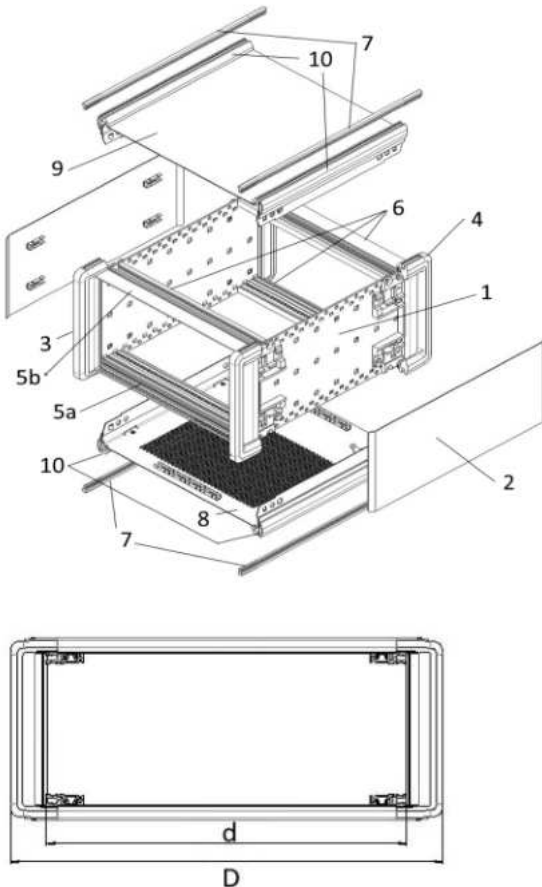
RatiopacPRO Style Case

Standard Version:
1

Screwless Version:
2

Delivery Comprise

Version with Trims front and rear side

- Desktop case with protective frame design and rubber strips on the top and bottom for a secure stand and with integrated stacking function
- Case for 19" components (guide rails) or proprietary components (mounting plate).
- To establish EMC-shielding, additional components need to be added out of page 5.159 to the enclosure.
- Available in two versions:
  Standard (1) - Front and rear side prepared for front panel mounting with collar screws and sleeves.
  Screwless (2) - Front side for front panel mounting without screws and rear side prepared for standard front panel mounting.

DELIVERY COMPRISES (in kit form)

Item	Qty Standard	Qty Screwless	Description
1	2	2	Side panel, Al, 2 mm, passivated
2	2	2	Side cover, Al, 1 mm, visible surface RAL 7016
3	2	2	Front Trim, die-cast zinc, RAL 9006
4	2	2	Rear Trim, die-cast zinc, RAL 9006
5a	1	-	Horizontal rail, type H-LD, Al, visible surfaces powder coated, RAL 7016, assembled on front side bottom, for IEEE application
5b	-	2	Horizontal rail, type H-LD, Al, visible surfaces powder coated, RAL 7016, assembled on front side bottom, for screwless front
6	3	2	Horizontal rail, type H-LD, Al, visible surfaces powder coated, RAL 7016,
7	4	4	Rubber strip, RAL 3000
8	1	1	Bottom cover with round perforation Ø 2.3mm, Al, 1 mm, internal surface conductive, visible surface RAL 7016, with GND/earthing connection
9	1	1	Top cover, Al 1 mm, Surface RAL 7016, with GND/earthing connection
10	4	4	Depth profile, Al-profile, RAL 9006
11	1	1	Fixing materials kit and user manual

ORDER INFORMATION

Height H U	Width W HP	Depth D mm	Depth d mm	Standard Part no.	Screwless Part no.
2	28	294.4	235.5	24582-210	24582-214
2	28	354.4	295.5	24582-211	24582-215
2	42	294.4	235.5	24582-220	24582-224
2	42	354.4	295.5	24582-221	24582-225
2	42	414.4	355.5	24582-222	24582-226
2	63	294.4	235.5	24582-230	24582-234
2	63	354.4	295.5	24582-231	24582-235
2	63	414.4	355.5	24582-232	24582-236
2	84	294.4	235.5	24582-240	24582-244
2	84	354.4	295.5	24582-241	24582-245
2	84	414.4	355.5	24582-242	24582-246
2	84	474.4	415.5	24582-243	24582-247
3	28	294.4	235.5	**24582-310**	24582-314
3	28	354.4	295.5	**24582-311**	24582-315
3	42	294.4	235.5	**24582-320**	24582-324
3	42	354.4	295.5	**24582-321**	24582-325
3	42	414.4	355.5	**24582-322**	24582-326
3	63	294.4	235.5	**24582-330**	24582-334
3	63	354.4	295.5	**24582-331**	24582-335
3	63	414.4	355.5	**24582-332**	24582-336
3	84	294.4	235.5	**24582-340**	24582-344
3	84	354.4	295.5	**24582-341**	24582-345
3	84	414.4	355.5	**24582-342**	24582-346
3	84	474.4	415.5	**24582-343**	24582-347

Remark:

4 U and 6 U version on the next page

Accessories:

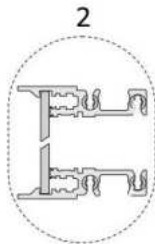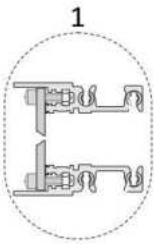- EMC shielding kits, page 5.159
- GND / grounding kit, page 5.163

Desk-top cases – RatiopacPRO Style
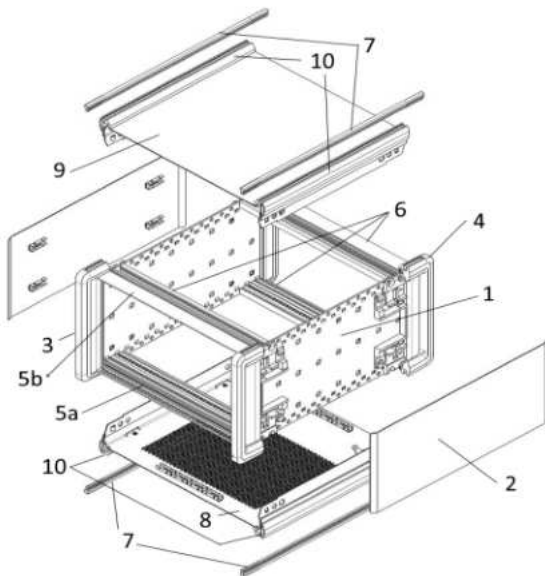
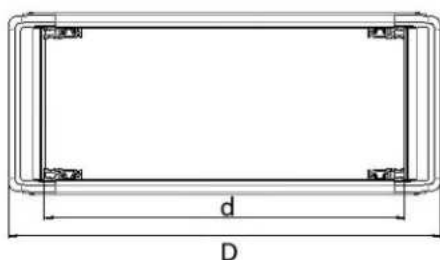**RatiopacPRO Style Case**

Standard Version:

1

Screwless Version:

2

Delivery Comprise

Side view

Version with Trims front and rear side

- Desktop case with protective frame design and rubber strips on the top and bottom for a secure stand and with integrated stacking function
- Case for 19" components (guide rails) or proprietary components (mounting plate).
- To establish EMC-shielding, additional components need to be added out of page 5.159 to the enclosure.
- Available in two versions:

Standard (1) - Front and rear side prepared for front panel mounting with collar screws and sleeves.

Screwless (2) - Front side for front panel mounting without screws and rear side prepared for standard front panel mounting.

DELIVERY COMPRISES (in kit form)

Item	Qty Standard		Qty Screwless		Description
	4U	6U	4U	6U	
1	2	2	2	2	Side panel, Al, 2 mm, passivated
2	2	2	2	2	Side cover, Al, 1 mm, visible surface RAL 7016
3	2	2	2	2	Front Trim, die-cast zinc, RAL 9006
4	2	2	2	2	Rear Trim, die-cast zinc, RAL 9006
5a	1	2	-	-	Horizontal rail, type H-LD, Al, visible surfaces powder coated, RAL 7016, assembled on front side bottom, for IEEE application
5b	-	-	2	2	Horizontal rail, type H-LD, Al, visible surfaces powder coated, RAL 7016, assembled on front side bottom, for screwless front
6	3	2	2	2	Horizontal rail, type H-LD, Al, visible surfaces powder coated, RAL 7016,
7	4	4	4	4	Rubber strip, RAL 3000
8	1	1	1	1	Bottom cover with round perforation Ø2.3mm, Al, 1 mm, internal surface conductive, visible surface RAL 7016, with GND/earthing connection
9	1	1	1	1	Top cover, Al 1 mm, Surface RAL 7016, with GND/ earthing connection
10	4	4	4	4	Depth profile, Al-profile, RAL 9006
11	1	1	1	1	Fixing materials kit and user manual

ORDER INFORMATION

Height H U	Width W HP	Depth D mm	Depth d mm	Standard Part no.	Screwless Part no.
4	42	294.4	235.5	**24582-420**	**24582-424**
4	42	354.4	295.5	**24582-421**	**24582-425**
4	42	414.4	355.5	**24582-422**	**24582-426**
4	63	294.4	235.5	**24582-430**	**24582-434**
4	63	354.4	295.5	**24582-431**	**24582-435**
4	63	414.4	355.5	**24582-432**	**24582-436**
4	84	294.4	235.5	**24582-440**	**24582-444**
4	84	354.4	295.5	**24582-441**	**24582-445**
4	84	414.4	355.5	**24582-442**	**24582-446**
4	84	474.4	415.5	**24582-443**	**24582-447**
6	42	294.4	235.5	24582- 620	24582- 624
6	42	354.4	295.5	24582- 621	24582- 625
6	42	414.4	355.5	24582- 622	24582- 626
6	63	294.4	235.5	24582- 630	24582- 634
6	63	354.4	295.5	24582- 631	24582- 635
6	63	414.4	355.5	24582- 632	24582- 636
6	84	294.4	235.5	24582- 640	24582- 644
6	84	354.4	295.5	24582- 641	24582- 645
6	84	414.4	355.5	24582- 642	24582- 646
6	84	474.4	415.5	24582- 643	24582- 647

Accessories:

- EMC shielding kits, page 5.159
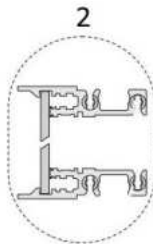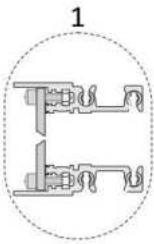- GND / grounding kit, page 5.163

nVent SCHROFF
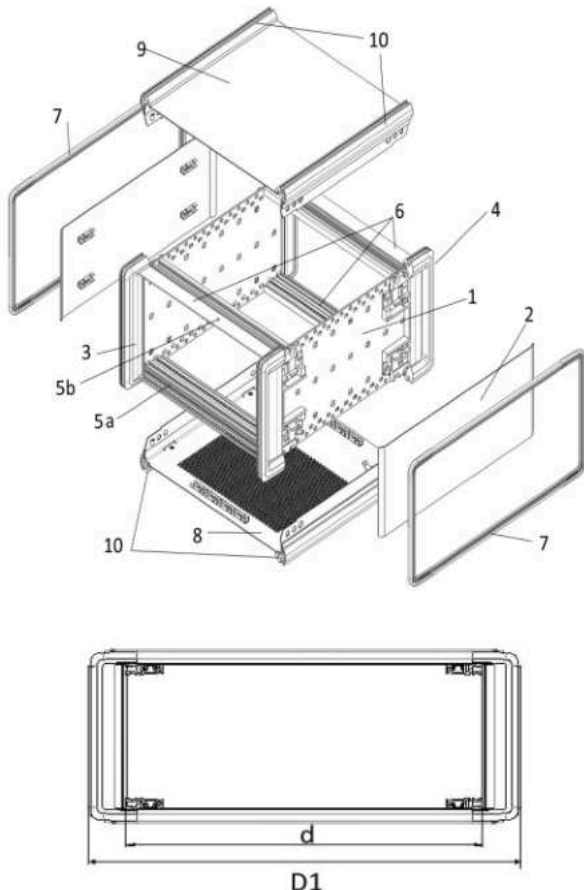
RatiopacPRO Style Case

Standard Version:

1

Screwless Version:

2

Delivery Comprise

Version with Trims front and rear side and circulation rubber strip

- Desktop case with protective frame design and rubber strips all around the frame, for even more protection.
- Case for 19" components (guide rails) or proprietary components (mounting plate).
- To establish EMC-shielding, additional components need to be added out of page 5.159 to the enclosure.
- Available in two versions:

  Standard (1) - Front and rear side prepared for front panel mounting with collar screws and sleeves.

  Screwless (2) - Front side for front panel mounting without screws and rear side prepared for standard front panel mounting.

DELIVERY COMPRISES (in kit form)

Item	Qty Standard	Qty Screwless	Description
1	2	2	Side panel, Al, 2 mm, passivated
2	2	2	Side cover, Al, 1 mm, visible surface RAL 7016
3	2	2	Front Trim, die-cast zinc, RAL 9006
4	2	2	Rear Trim, die-cast zinc, RAL 9006
5a	1	-	Horizontal rail, type H-LD, Al, visible surfaces powder coated, RAL 7016, assembled on front side bottom, for IEEE application
5b	-	2	Horizontal rail, type H-LD, Al, visible surfaces powder coated, RAL 7016, assembled on front side bottom, for screwless front
6	3	2	Horizontal rail, type H-LD, Al, visible surfaces powder coated, RAL 7016,
7	2	2	Rubber strip, RAL 3000
8	1	1	Bottom cover with round perforation Ø2.3mm, Al, 1 mm, internal surface conductive, visible surface RAL 7016, with GND/earthing connection
9	1	1	Top cover, Al 1 mm, Surface RAL 7016, with GND/ earthing connection
10	4	4	Depth profile, Al-profile, RAL 9006
11	1	1	Fixing materials kit and user manual

ORDER INFORMATION

Height H U	Width W HP	Depth D1 mm	Depth d mm	Standard Part no.	Screwless Part no.
2	28	298.4	235.5	24581-210	24581-214
2	28	358.4	295.5	24581-211	24581-215
2	42	298.4	235.5	24581-220	24581-224
2	42	358.4	295.5	24581-221	24581-225
2	42	418.4	355.5	24581-222	24581-226
2	63	298.4	235.5	24581-230	24581-234
2	63	358.4	295.5	24581-231	24581-235
2	63	418.4	355.5	24581-232	24581-236
2	84	298.4	235.5	24581-240	24581-244
2	84	358.4	295.5	24581-241	24581-245
2	84	418.4	355.5	24581-242	24581-246
2	84	478.4	415.5	24581-243	24581-247
3	28	298.4	235.5	**24581-310**	24581-314
3	28	358.4	295.5	**24581-311**	24581-315
3	42	298.4	235.5	**24581-320**	24581-324
3	42	358.4	295.5	**24581-321**	24581-325
3	42	418.4	355.5	**24581-322**	24581-326
3	63	298.4	235.5	**24581-330**	24581-334
3	63	358.4	295.5	**24581-331**	24581-335
3	63	418.4	355.5	**24581-332**	24581-336
3	84	298.4	235.5	**24581-340**	24581-344
3	84	358.4	295.5	**24581-341**	24581-345
3	84	418.4	355.5	**24581-342**	24581-346
3	84	478.4	415.5	**24581-343**	24581-347

Remark:

4 U and 6 U version on the next page

Accessories:

- EMC shielding kits, page 5.159
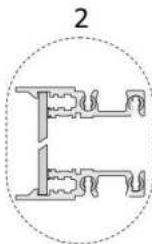- GND / grounding kit, page 5.163

Version with Trims front and rear side and circulation rubber strip

- Desktop case with protective frame design and rubber strips all around the frame, for even more protection.
- Case for 19" components (guide rails) or proprietary components (mounting plate).
- To establish EMC-shielding, additional components need to be added out of page 5.159 to the enclosure.
- Available in two versions:

  Standard (1) - Front and rear side prepared for front panel mounting with collar screws and sleeves.

  Screwless (2) - Front side for front panel mounting without screws and rear side prepared for standard front panel mounting.

Standard Version: Screwless Version:

Delivery Comprise

DELIVERY COMPRISES (in kit form)

Item	Qty Standard		Qty Screwless		Description
	4U	6U	4U	6U	
1	2	2	2	2	Side panel, Al, 2 mm, passivated
2	2	2	2	2	Side cover, Al, 1 mm, visible surface RAL 7016
3	2	2	2	2	Front Trim, die-cast zinc, RAL 9006
4	2	2	2	2	Rear Trim, die-cast zinc, RAL 9006
5a	1	2	-	-	Horizontal rail, type H-LD, Al, visible surfaces powder coated, RAL 7016, assembled on front side bottom, for IEEE application
5b	-	-	2	2	Horizontal rail, type H-LD, Al, visible surfaces powder coated, RAL 7016, assembled on front side bottom, for screwless front
6	3	2	2	2	Horizontal rail, type H-LD, Al, visible surfaces powder coated, RAL 7016,
7	4	4	4	4	Rubber strip, RAL 3000
8	1	1	1	1	Bottom cover with round perforation Ø 2.3mm, Al, 1 mm, internal surface conductive, visible surface RAL 7016, with GND/earthing connection
9	1	1	1	1	Top cover, Al 1 mm, Surface RAL 7016, with GND/earthing connection
10	4	4	4	4	Depth profile, Al-profile, RAL 9006
11	1	1	1	1	Fixing materials kit and user manual

ORDER INFORMATION

Height H U	Width W HP	Depth D1 mm	Depth d mm	Standard Part no.	Screwless Part no.
4	42	298.4	235.5	**24581-420**	**24581-424**
4	42	358.4	295.5	**24581-421**	**24581-425**
4	42	418.4	355.5	**24581-422**	**24581-426**
4	63	298.4	235.5	**24581-430**	**24581-434**
4	63	358.4	295.5	**24581-431**	**24581-435**
4	63	418.4	355.5	**24581-432**	**24581-436**
4	84	298.4	235.5	**24581-440**	**24581-444**
4	84	358.4	295.5	**24581-441**	**24581-445**
4	84	418.4	355.5	**24581-442**	**24581-446**
4	84	478.4	415.5	**24581-443**	**24581-447**
6	42	298.4	235.5	24581-620	24581-624
6	42	358.4	295.5	24581-621	24581-625
6	42	418.4	355.5	24581-622	24581-626
6	63	298.4	235.5	24581-630	24581-634
6	63	358.4	295.5	24581-631	24581-635
6	63	418.4	355.5	24581-632	24581-636
6	84	298.4	235.5	24581-640	24581-644
6	84	358.4	295.5	24581-641	24581-645
6	84	418.4	355.5	24581-642	24581-646
6	84	478.4	415.5	24581-643	24581-647

Accessories:

- EMC shielding kits, page 5.159
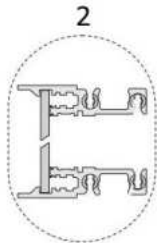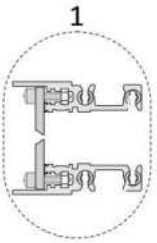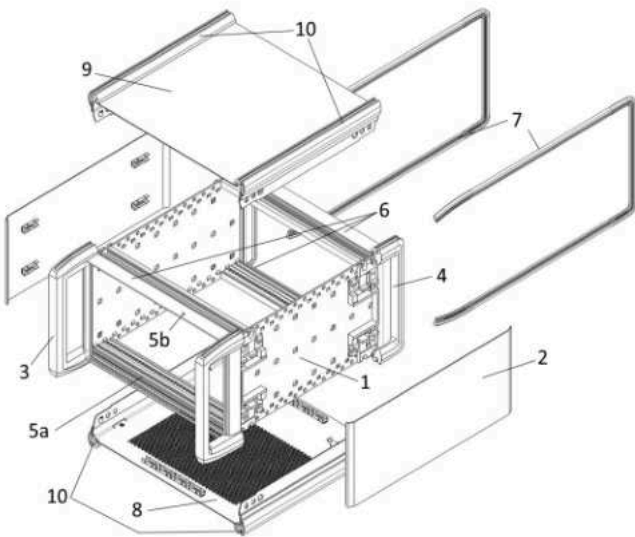- GND / grounding kit, page 5.163
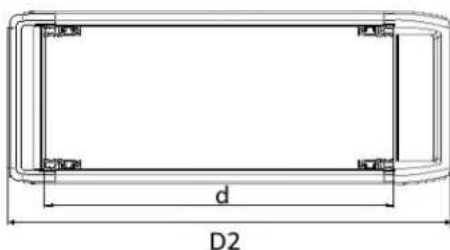
Standard Version:

Screwless Version:

Delivery Comprise

Side view

Version with Handles on front and trims on rear side

- Desktop case with protective frame design and front handles for a easy handling. Rear side with a circulating rubber strip to protect the enclosure during the transport.
- Case for 19" components (guide rails) or proprietary components (mounting plate).
- To establish EMC-shielding, additional components need to be added out of page 5.159 to the enclosure.
- Available in two versions:
  Standard (1) - Front and rear side prepared for front panel mounting with collar screws and sleeves.
  Screwless (2) - Front side for front panel mounting without screws and rear side prepared for standard front panel mounting.

DELIVERY COMPRISES (in kit form)

| Item	Qty Standard	Qty Screwless	Description
1	2	2	Side panel, Al, 2 mm, passivated
2	2	2	Side cover, Al, 1 mm, visible surface RAL 7016
3	2	2	Front Handle, die-cast zinc, RAL 9006
4	2	2	Rear Trim, die-cast zinc, RAL 9006
5a	1	-	Horizontal rail, type H-LD, Al, visible surfaces powder coated, RAL 7016, assembled on front side bottom, for IEEE application
5b	-	2	Horizontal rail, type H-LD, Al, visible surfaces powder coated, RAL 7016, assembled on front side bottom, for screwless front
6	3	2	Horizontal rail, type H-LD, Al, visible surfaces powder coated, RAL 7016,
7	2	2	Rubber strip, RAL 3000
8	1	1	Bottom cover with round perforation Ø 2.3mm, Al, 1 mm, internal surface conductive, visible surface RAL 7016, with GND/earthing connection
9	1	1	Top cover, Al 1 mm, Surface RAL 7016, with GND/ earthing connection
10	4	4	Depth profile, Al-profile, RAL 9006
11	1	1	Fixing materials kit and user manual

ORDER INFORMATION

Height H U	Width W HP	Depth D2 mm	Depth d mm	Standard Part no.	Screwless Part no.
3	28	321.9	235.5	**24580-310**	24580-314
3	28	381.9	295.5	**24580-311**	24580-315
3	42	321.9	235.5	**24580-320**	24580-324
3	42	381.9	295.5	**24580-321**	24580-325
3	42	441.9	355.5	**24580-322**	24580-326
3	63	321.9	235.5	**24580-330**	24580-334
3	63	381.9	295.5	**24580-331**	24580-335
3	63	441.9	355.5	**24580-332**	24580-336
3	84	321.9	235.5	**24580-340**	24580-344
3	84	381.9	295.5	**24580-341**	24580-345
3	84	441.9	355.5	**24580-342**	24580-346
3	84	501.9	415.5	**24580-343**	24580-347
4	42	321.9	235.5	24580-420	24580-424
4	42	381.9	295.5	24580-421	24580-425
4	42	441.9	355.5	24580-422	24580-426
4	63	321.9	235.5	24580-430	24580-434
4	63	381.9	295.5	24580-431	24580-435
4	63	441.9	355.5	24580-432	24580-436
4	84	321.9	235.5	24580-440	24580-444
4	84	381.9	295.5	24580-441	24580-445
4	84	441.9	355.5	24580-442	24580-446
4	84	501.9	415.5	24580-443	24580-447

Accessories:

- EMC shielding kits, page 5.159
- GND / grounding kit, page 5.163

Desk-top cases – RatiopacPRO Style

DIMENSION DRAWINGS RATIOPACPRO Style
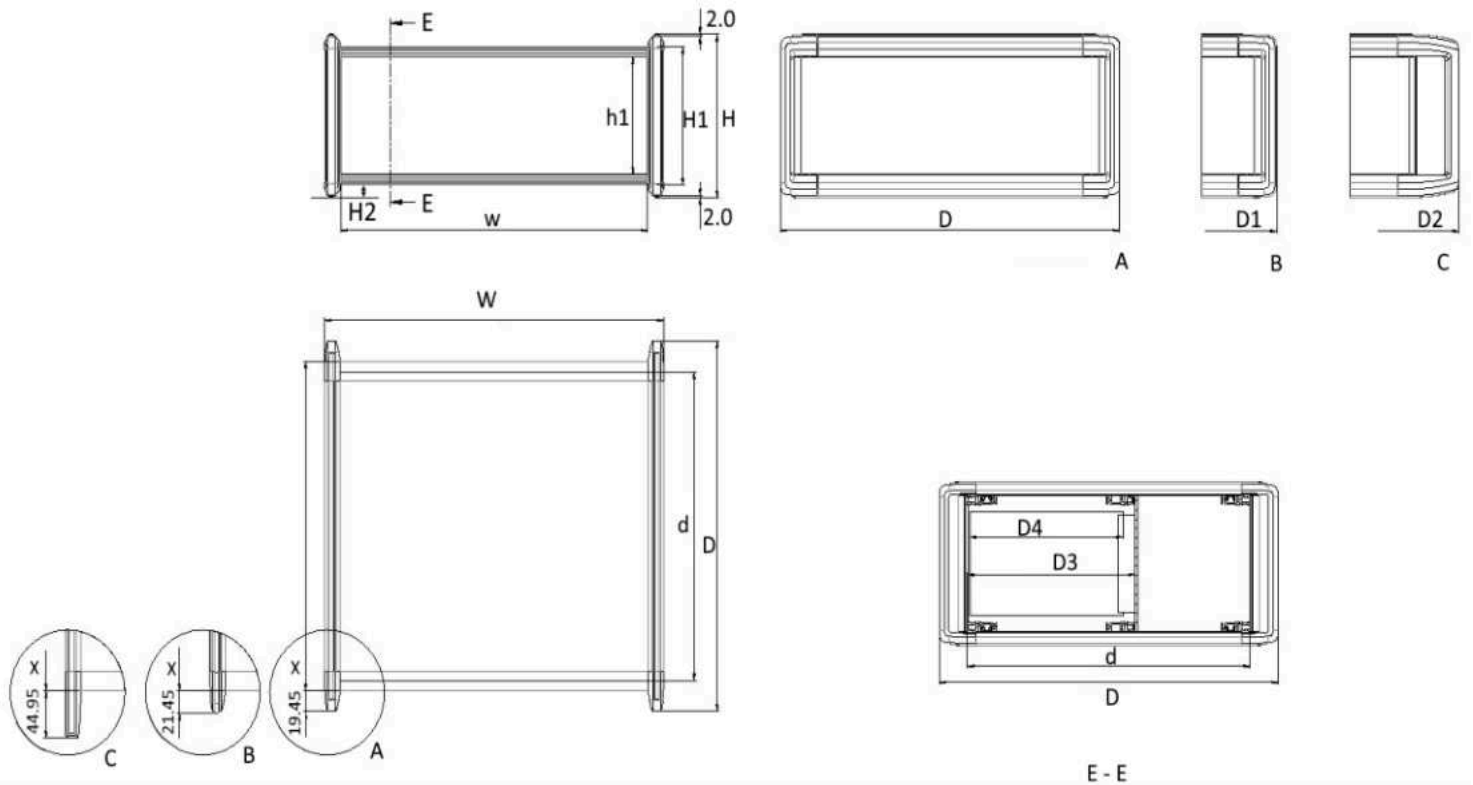
H2 = 12.0mm

RatiopacPRO Style:

With Trim = A ; With Trims and Circualting Rubber inlay = B; With Front Handle = C

Dimensions Table RatiopacPRO Style

	Height			Width		
in U	H in mm	H1 in mm	h1 in mm	in HP	w in mm	W in mm
2	112.10	88.10	67.90	28	142.82	176.42
				42	213.94	247.54
				63	320.62	354.22
				84	427.30	460.90
3	156.55	132.55	112.35	28	142.82	176.42
				42	213.94	247.54
				63	320.62	354.22
				84	427.30	460.90
4	201.00	177.00	156.80	28	142.82	176.42
				42	213.94	247.54
				63	320.62	354.22
				84	427.30	460.90
6	289.90	265.90	245.70	28	142.82	176.42
				42	213.94	247.54
				63	320.62	354.22
				84	427.30	460.90

|	Depth			D3	D4
d Useable depth in mm	D in mm	D1 in mm	D2 in mm	Plug-in Unit depth in mm	Board depth in mm
235.5	294.40	298.40	321.90	175.5	160
				235.5	160/220
295.5	354.40	356.40	381.90	175.5	160
				235.5	160/220
				295.5	160/220/280
355.5	414.40	418.40	441.90	175.5	160
				235.5	160/220
				295.5	160/220/280
				355.5	160/220/280/340
415.5	474.40	478.40	501.90	175.5	160
				235.5	160/220
				295.5	160/220/280
				355.5	160/220/280/340

X = d +19.80mm

Components mountable in 15 mm depth grid

Drawing is only for visualization

RatiopacPRO Platform Accessories

EMC-SHIELDING & EARTHING
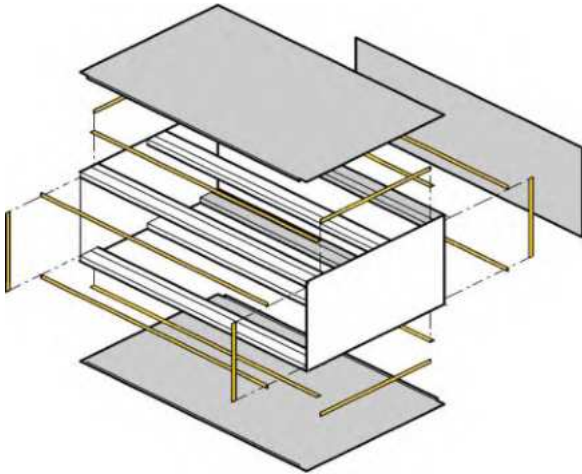
By adding following components to the RatiopacPRO Style case, a superior RF-shielding can be established:

- EMC sealing front/ rear panel to side panel, page 5.159
- EMC sealing side panel to cover plate, page   5.159
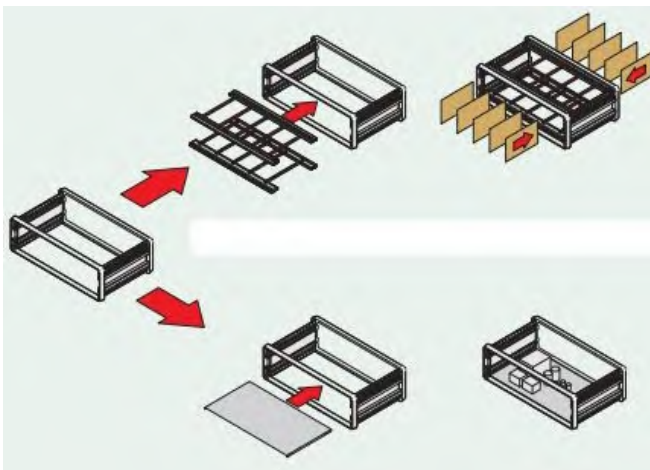- Front and rear panels with EMC sealing, page   5.160 to 5.163

AIR-COOLING ACCESSORIES

Air Baffles and Air Filters:
- Air Filter, page   5.164
- Air Baffles, page 5.164

CARD CAGE MECHANICS

Horizontal rails, Chassis plates, Guide rails
- Horizontal rails, page   5.165 to 5.169
- Threaded inserts, perforated strip, insulation strip, page 5.170
- Divider plate / Chassis plate, page   5.172 to 5.173
- Horizontal board mounting / Combined mounting, page 5.174 to 5.175
- Guide rails, page   5.176 to 5.181

SERVICE PLUS

Service Plus
- Configuration, page 5.182
- Modification, page   5.183

RatiopacPRO Platform Accessories

EMC SEALING FRONT/REAR PANEL TO SIDE PANEL

rppr6639

Drawing is only for visualization. Accessories are compliant with RatiopacPRO Style, RatiopacPRO and RatiopacPRO Air
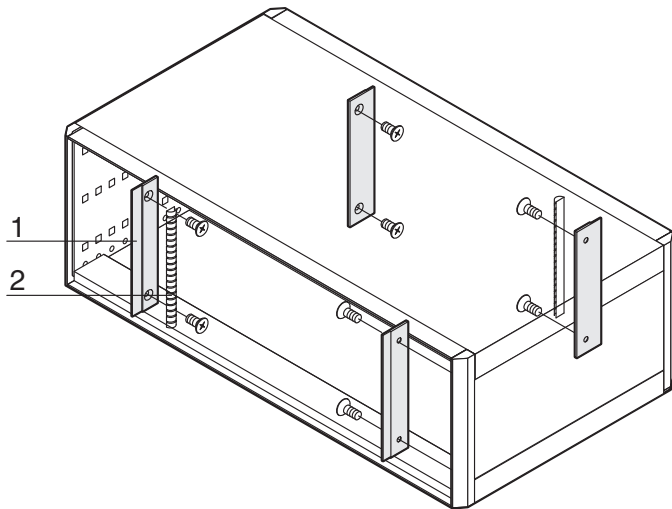
- For vertical EMC shielding between sub-assemblies and side panel
- Scope of delivery sufficient for one case

DELIVERY COMPRISES (kit)

Item	Qty	Description
1	4	EMC support profile, Al extrusion
2	2	EMC sealing (textile), core: foam, sleeve: textile cladding with CuNi coating
3	1	Assembly kit

ORDER INFORMATION

For case height U	Part no.
2	**24571-334**
3	**24571-331**
4	**24571-332**
6	**24571-333**

EMC SEALING SIDE PANEL TO COVER PLATE

RPPR6640

Drawing is only for visualization. Accessories are compliant with RatiopacPRO Style, RatiopacPRO and RatiopacPRO Air
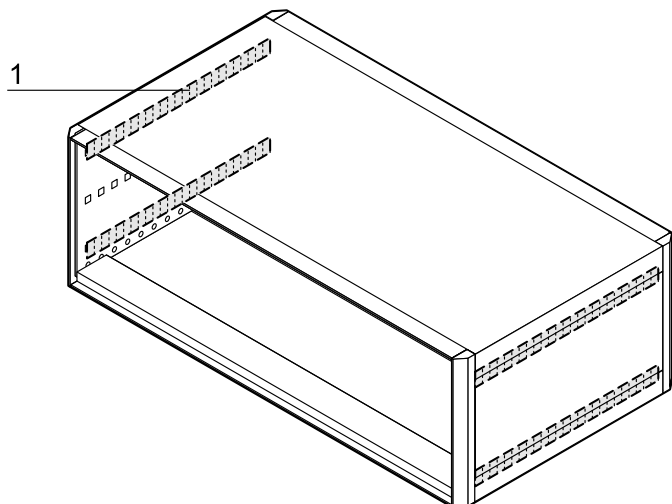
- For horizontal EMC shielding between side panels and cover plates
- Scope of delivery sufficient for one case

DELIVERY COMPRISES (kit)

Item	Qty	Description
1	4	Contact strip, stainless steel

ORDER INFORMATION

Depth d mm	Part no.
255	**24571-338**
315	**24571-339**
375	**24571-340**
435	**24571-341**

RatiopacPRO Platform Accessories

EMC SEALING FRONT/REAR PANEL TO HORIZONTAL RAIL

Drawing is only for visualization. Accessories are compliant with RatiopacPRO Style, RatiopacPRO and RatiopacPRO Air

rppr6739
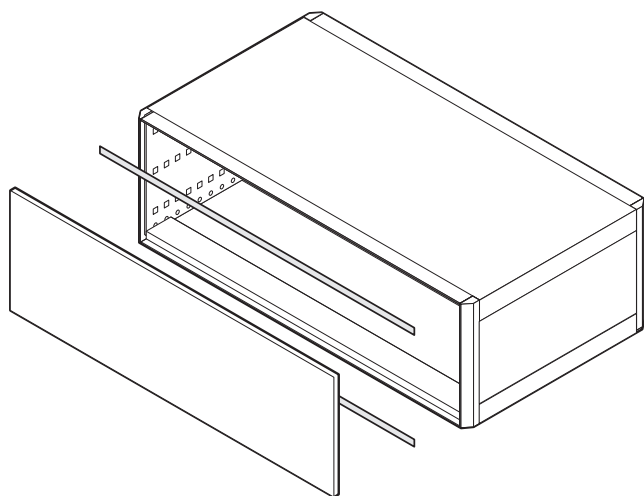
- The contact strip is clipped onto the horizontal rail and sets up the contact to front panel or rear panel
- Can be used for rear horizontal rails (H-VT, L-VT) and all front horizontal rails

DELIVERY COMPRISES

Item	Qty	Description
1	10/100	Stainless steel EMC gasket

ORDER INFORMATION

Width HP	Width mm	Qty/PU	Part no.
28	131.78	10	**24560-229**
42	202.9	10	**24560-231**
63	304.8	10	**24560-233**
84	416.3	10	**24560-235**
84	416.3	100	**24560-236**
Assembly tool for EMC sealing, St, stainless (horizontal rails front side),1 piece			**24560-270**

EMC SEALING HORIZONTAL RAIL TO HORIZONTAL RAIL
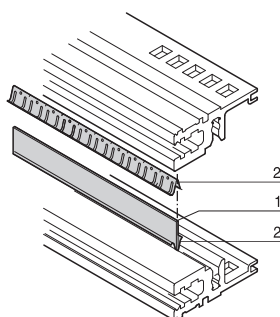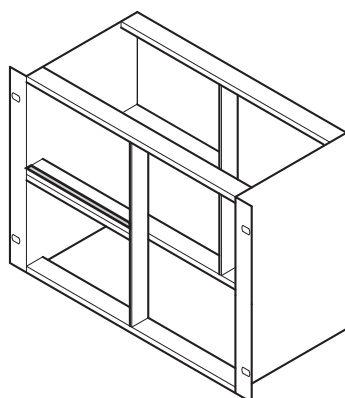
BPA46548 BZA45877

- For shielding of two horizontal rails located directly above each other with vertical division of the mounting height

DELIVERY COMPRISES

Item	Qty	Description
1	1	Cover strip, Al, 1 mm
2	2	Contact spring, St, stainless

ORDER INFORMATION

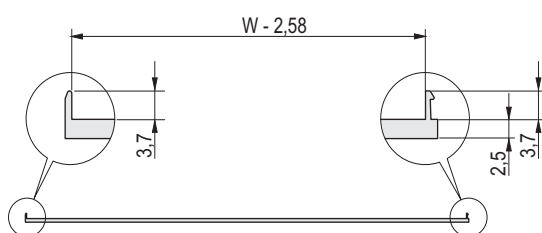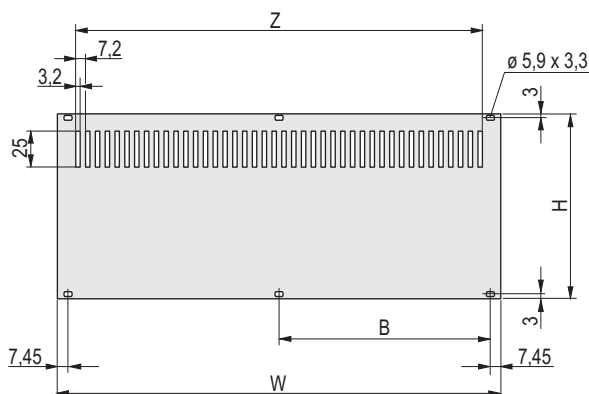| Length HP	Part no.
20	**24562-520**
28	**24562-528**
40	**24562-540**
42	**24562-542**
63	**24562-563**
84	**24562-584**
Assembly tool for EMC sealing, St, stainless (horizontal rails),1 piece	**24560-271**

135485455
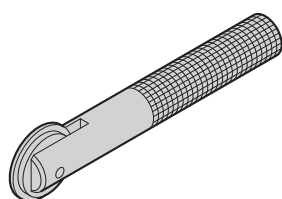
Assembly tool

aza45937

RatiopacPRO Platform Accessories

REAR PANELS WITH VENTILATION SLOTS

01802055

Shieldable

01804050

Unshielded

- Two versions:
  unshielded, Al, 2.5 mm;
  shieldable, Al extrusion (textile EMC seal, retrofittable)
- Mounting on horizontal rails (top and bottom)

DELIVERY COMPRISES

Item	Qty	Description
1	1	Rear panel, Al, 2.5 mm, front: anodised, rear: iridescent green chromated; unshielded (flat) or shieldable (U-shaped) with EMC seal (textile)

ORDER INFORMATION

Height U	H mm	Width W HP	W mm	B mm	unshielded Part no.	shieldable Part no.
2	84	28	141.9	–	**30849-007**	20848-679
2	84	42	213	101.6	**30849-014**	20848-680
2	84	63	319.7	157.5	**30849-015**	20848-681
2	84	84	426.4	208.3	**30849-016**	20848-682
3	128.4	28	141.9	–	**30849-008**	**20848-633**
3	128.4	42	213	101.6	**30849-021**	20848-634
3	128.4	63	319.7	157.5	**30849-022**	20848-635
3	128.4	84	426.4	208.3	**30849-023**	**20848-636**
4	172.9	28	141.9	–	**30849-009**	20848-656
4	172.9	42	213	101.6	**30849-028**	20848-657
4	172.9	63	319.7	157.5	**30849-029**	20848-658
4	172.9	84	426.4	208.3	**30849-030**	20848-659
6	261.8	28	141.9	–	**30849-010**	20848-640
6	261.8	42	213	101.6	**30849-035**	**20848-641**
6	261.8	63	319.7	157.5	**30849-036**	20848-642
6	261.8	84	426.4	208.3	**30849-037**	**20848-643**

- Assembly parts see page Chapter 7, Front panels
- Rear/front panels without perforation see Chapter 7, Front panels
- Rear panels with fan available on request

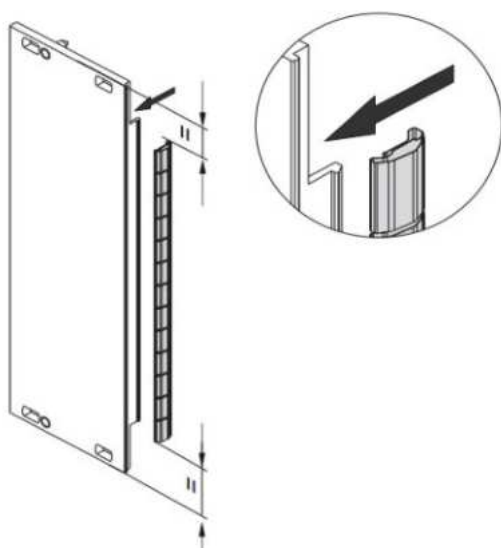## TEXTILE EMC SEALS
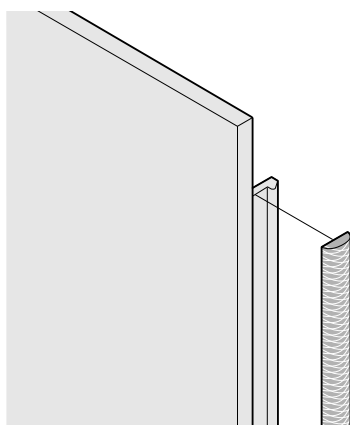
04602054

DELIVERY COMPRISES

Item	Qty	Description
1	10/100	Textile EMC seal, core: foam, sleeve: textile cladding with CuNi coating

ORDER INFORMATION

Height U	Height mm	Qty/PU pieces	Part no.
2	52	10	**21101-857**
3	97	100	**21101-854**
3	97	10	**21101-853**
4	142	10	**21101-858**
6	232	100	**21101-856**
6	232	10	**21101-855**

RatiopacPRO Platform Accessories

STAINLESS STEEL EMC GASKET FOR U-SHAPED FRONT PANEL

- The stainless steel EMC-gasket for SCHROFF U-shaped front panels, offers excellent performance in shielding effectiveness and an enormous temperature range from -200 to +160°C.
- Easy mounting by clipping the gasket onto the right front panel bracket
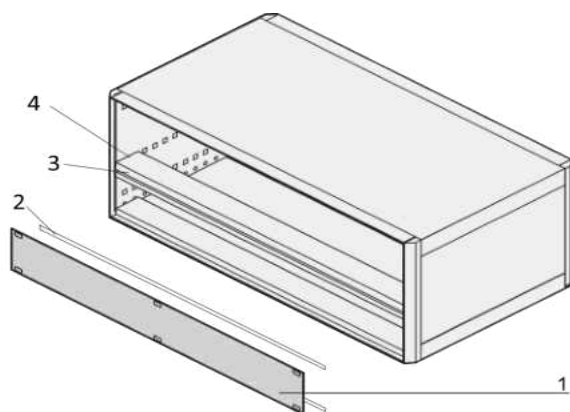
DELIVERY COMPRISES

Item	Qty	Description
1	10/100	EMC gasket (stainless steel)

ORDER INFORMATION

Height U	Height mm	Qty/PU piece	Part no.
2	52	10	**21102-115**
3	97	10	**21102-105**
3	97	100	**21102-106**
4	142	10	**21102-113**
6	232	10	**21102-107**
6	232	100	**21102-108**

Handschutz benutzen!
Use Hand Protection!
Utilisez une protection des mains!

FRONT PANEL, 1 U, UNSHIELDED, FOR 4 U CASE, FOR MOUNTING ON HORIZONTAL RAILS

05806064
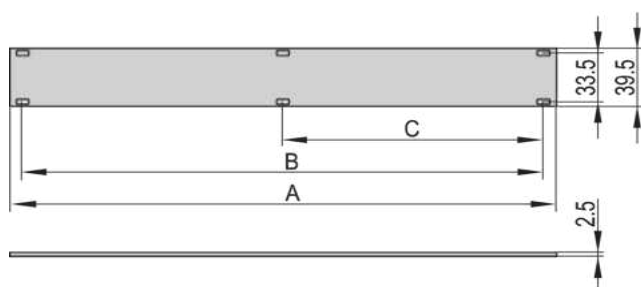
Drawing is only for visualization. Accessories are compliant with RatiopacPRO Style, RatiopacPRO and RatiopacPRO Air

DELIVERY COMPRISES

Item	Qty	Description
1	1	Front panel, Al, 2.5 mm, front anodised, rear iridescent green chromated

ORDER INFORMATION

Width HP	A mm	B mm	C mm	Front panel Part no.
28	141.9	127.0	–	**20850-423**
42	213.0	198.1	101.6	**20850-424**
63	319.7	304.8	157.5	**20850-425**
84	426.4	411.5	203.2	**20850-426**
Accessories				
Pozidrive/slotted collar screw M2.5 x 12.3, St, nickel-plated, PU 100 pieces				**21101-101**
Plastic sleeve, PA, grey PU 100 pieces				**21100-464**

NOTE
- Please order items 2, 3 and 4 listed below separately

Width	Item 2 EMC gasket, front panel/horizontal rail PU 10 pieces	Item 3 EMC gasketing kit horizontal rails, 1 piece	Item 4 Horizontal rail type H-KD, 1 piece (SPQ 10)[1]
HP	Part no.	Part no.	Part no.
28	**24560-229**	**24562-528**	**34560-228**
42	**24560-231**	**24562-542**	**34560-242**
63	**24560-233**	**24562-563**	**34560-263**
84	**24560-235**	**24562-584**	**34560-284**

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

RatiopacPRO Platform Accessories

EMC FRONT / REAR PANEL, SCREWLESS, SHIELDED
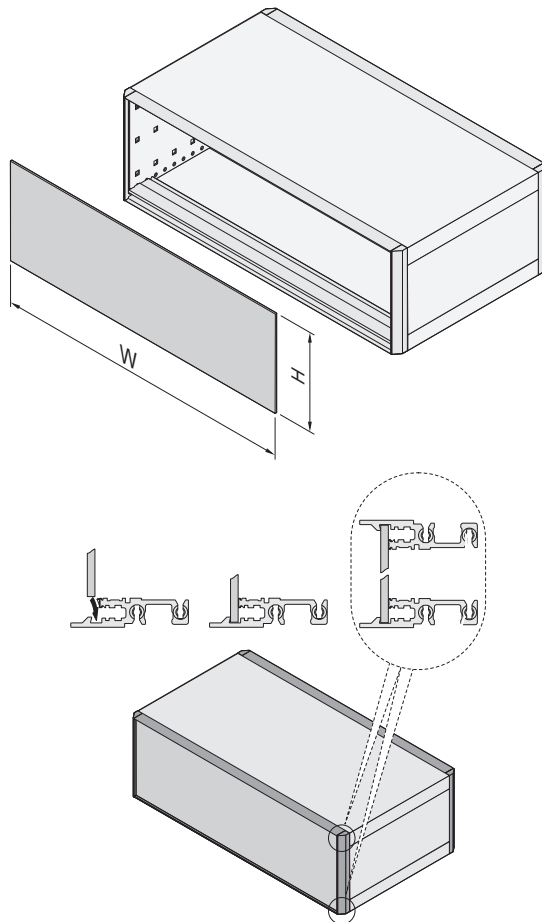
01811055

Front panel/horizontal rail

01811056

Drawing is only for visualization. Accessories are compliant with RatiopacPRO Style, RatiopacPRO and RatiopacPRO Air

- **No screws** required for fixing
- Special horizontal rails **(included in screwless case type)** cover the edges of the front panel (top and bottom) and prevent bowing of the front panel

DELIVERY COMPRISES (Kit)

Item	Qty	Description
1	1	Full-width front panel, Al, 2.5 mm, front: anodised, rear: colour passivated

Please order the EMC gaskets (textile), the front to side panel gasket kit and the horizontal rail to front panel EMC gasket kit, separately

ORDER INFORMATION

For case height U	Height H mm	For case width HP	Width W mm	Part no.
2	84.0	28	141.9	34572-199
2	84.0	42	213.2	34572-200
2	84.0	63	319.7	34572-201
2	84.0	84	426.4	34572-202
3	128.4	28	141.9	**34572-203**
3	128.4	42	213.2	**34572-204**
3	128.4	63	319.7	**34572-205**
3	128.4	84	426.4	**34572-206**
4	172.9	28	141.9	34572-207
4	172.9	42	213.2	34572-208
4	172.9	63	319.7	34572-209
4	172.9	84	426.4	34572-210
6	261.8	28	141.9	34572-223
6	261.8	42	213.2	34572-224
6	261.8	63	319.7	34572-225
6	261.8	84	426.4	34572-226

NOTE

To obtain a shielded case, all EMC sealings must be fitted (front panel/rear panel - side panel; side panel - cover plate; front panel/ rear panel - horizontal rail; horizontal rail - horizontal rail)

REMARK:

Please order the EMC gaskets (textile) separately

Flat front panels, EMC front panels (flat with groove for EMC gasket) or U-shaped (for textile gasket) you will find in chapter 7.

All need accessories (sleeves, collar screws, etc.) you will find as well in chapter 7.

EARTHING KIT

aza43284
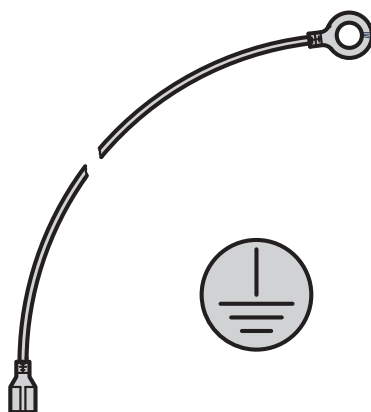
- Forms the GND/earthing connections between side panels, base plate, top cover and rear panel
- Protective GND/earthing connections in accordance with:
  - DIN EN 50178/VDE 0160
  - DIN EN 62368-1/VDE 0805
  - DIN EN 61010-1/VDE 0411 part 1
  - DIN EN 61010-1A2/VDE 0411 part 1/A1
- VDE tested

ORDER INFORMATION

Description	Part no.
GND/earthing kit, Cu wire 1.5 mm^2, PVC sleeve, green/yellow	**24571-380**

RatiopacPRO Platform Accessories

AIR FILTERS FOR RatiopacPRO Style

rppr6658

Drawing is only for visualization. Accessories are compliant with RatiopacPRO Style, RatiopacPRO and RatiopacPRO Air
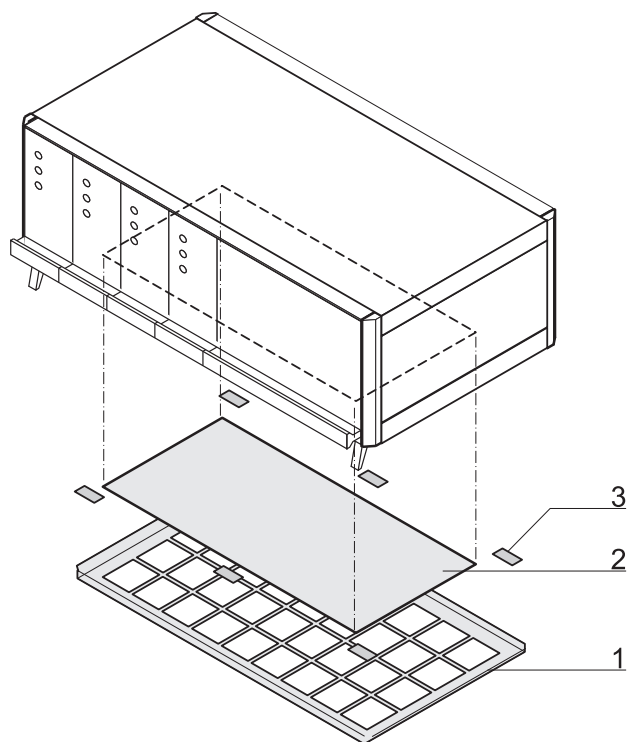
- Retrofit mounting without reworking and tools
- Filter replacement without opening the case, IP protection retained

DELIVERY COMPRISES (kit)

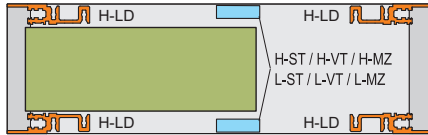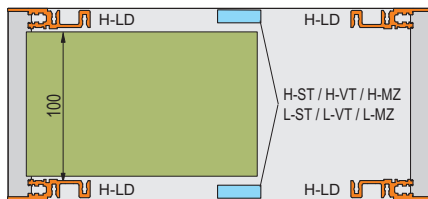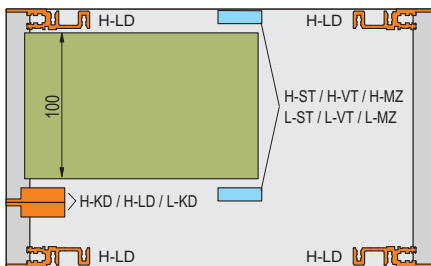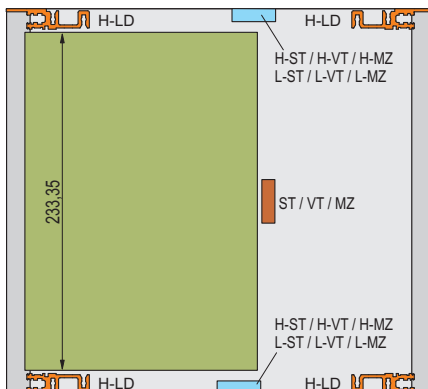| Item	Qty	Description
1	1	Filter holder, Al, 1 mm, powder-coated, RAL 9006
2	1	Filter mat, synthetic fibre
3	1	Self-adhesive fixings
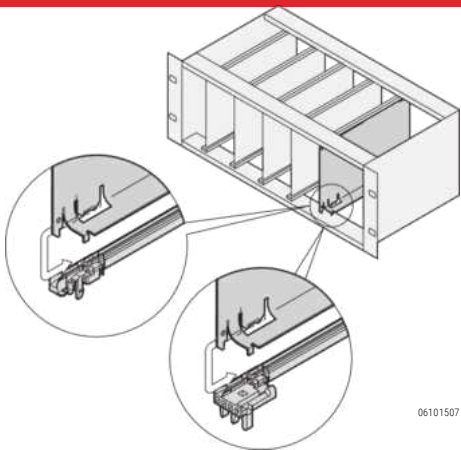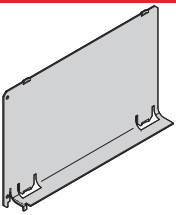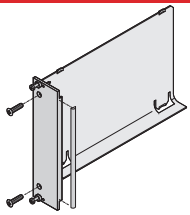
ORDER INFORMATION

For case width	Air filter	Replacement filter 1 piece
HP	Part no.	Part no.
28	24571-325	64571-033
42	24571-326	64571-034
63	24571-327	64571-035
84	24571-328	64571-036

AIR BAFFLE FOR SLOTS

ORDER INFORMATION

	Air baffle without front panel	Air baffle with front panel U front panel for textile EMC gasket
 06101507	 06108085 Al, 1 mm, incl. assembly kit; prevents an air short circuit in unoccupied slot positions; is pushed into the groove of the guide rails	 06108088 Air deflector, Al, 1 mm, front panel, Al extrusion, 2.5 mm, front anodised, rear conductive; EMC gasket (textile); fixing material kit prevents an air short-circuit where slots are unoccupied; is pushed into the groove of the guide rails

Depth	Width	Height		
mm	HP	U	1 piece	1 piece
160	4	3	34562-823	20848-728
160	4	6	34562-826	20848-736
220	4	3	34562-824	20848-729
220	4	6	34562-827	20848-737

NOTE

- Air baffle for other dimensions for example 280 mm deep, or 8 HP and 12HP width or for 80 mm rear I/O boards available on request

RatiopacPRO Platform Accessories

MOUNTING POSITION RatiopacPRO Style HORIZONTAL RAILS / CENTRAL RAILS

2 U

front　　　middle　　rear

Drawing are only for visualization. Accessories are compliant with RatiopacPRO Style, RatiopacPRO and RatiopacPRO Air
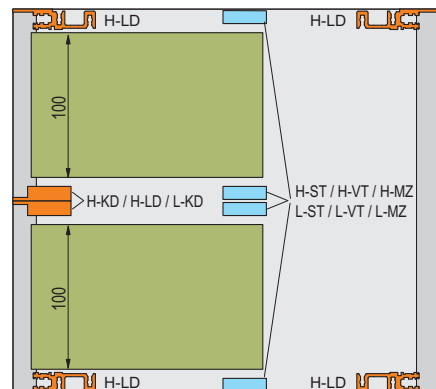

H-LD　H-LD

H-ST / H-VT / H-MZ
L-ST / L-VT / L-MZ

H-LD　H-LD

3 U

H-LD　H-LD

100

H-ST / H-VT / H-MZ
L-ST / L-VT / L-MZ

H-LD　H-LD

01802057

4 U (3 U + 1 U)

H-LD　H-LD

100

H-ST / H-VT / H-MZ
L-ST / L-VT / L-MZ

H-KD / H-LD / L-KD

H-LD　H-LD

6 U

H-LD　H-LD

H-ST / H-VT / H-MZ
L-ST / L-VT / L-MZ

233,35

ST / VT / MZ

H-ST / H-VT / H-MZ
L-ST / L-VT / L-MZ

H-LD　H-LD

01802059

6 U (2 x 3

H-LD　H-LD

100

H-KD / H-LD / L-KD

H-ST / H-VT / H-MZ
L-ST / L-VT / L-MZ

100

H-LD　H-LD

01802060

H-LD　H-ST　L-ST　ST　VT　MZ

H-KD　H-VT　L-VT

L-KD　H-MZ　L-MZ
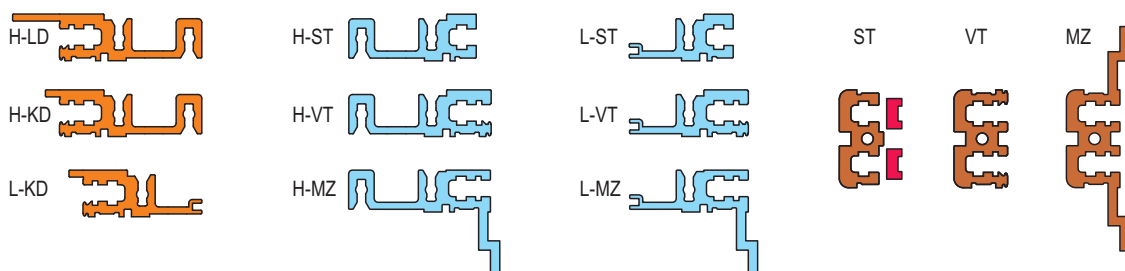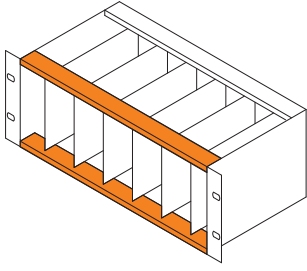
Horizontal rails can be bolted on in 15 mm depth grid

01808050

FRONT HORIZONTAL RAILS

ORDER INFORMATION

	With short lip	With long lip for insertion/extraction of CompactPCI and VME64x boards
bza44980	"heavy" Type H-KD short lip 06197008 Al extrusion, anodised finish, contact surface conducting, with printed HP markings	"heavy" Type H-LD long lip 06197009 Al extrusion, anodised finish, contact surface conducting, with printed HP markings

Usable length HP	Length mm	1 piece (SPQ 10)[1]	1 piece (SPQ 10)[1]
28	147.32	**34560-228**	**34560-328**
42	218.44	**34560-242**	**34560-342**
63	325.12	**34560-263**	**34560-363**
84	431.80	**34560-284**	**34560-384**
M4 × 14, St, zinc-plated, PU 100pcs		**24571-371**	**24571-371**
M4 × 10, St, zinc-plated, necessary if guide rail is screwed to slot 1, PU 100 pieces		**24571-372**	**24571-372**
Threaded inserts see page		5.170	5.170

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

Horizontal rail type "heavy": loading capacity > 7.5 kg

ORDER INFORMATION

	For indirect backplane fixing with insulation strip	For direct backplane fixing	For direct fixing of connectors to EN 60603-2 (DIN 41612)
	04400001 "heavy" Type H-ST standard	04400002 "heavy" Type H-VT long lip	04400003 "heavy" Type H-MZ with Z-rail
06105074	06197011 Al extrusion, anodised finish, contact surface conducting, with printed HP markings	06197013 Al extrusion, anodised finish, contact surface conducting, with printed HP markings	06197015 Al extrusion, anodised finish, contact surface conducting, with printed HP markings

Usable length HP	Length mm	1 piece (SPQ 10)[1]	1 piece (SPQ 10)[1]	1 piece (SPQ 10)[1]
28	147.32	**34560-528**	**34560-728**	**34560-928**
42	218.44	**34560-542**	**34560-742**	**34560-942**
63	325.12	**34560-563**	**34560-763**	**34560-963**
84	431.80Torx	**34560-584**	**34560-784**	**34560-984**
Torx panhead screw, 4 x 14, 100pcs		**24571-371**	**24571-371**	**24571-371**
Torx panhead screw, 4 x 10, 100pcs		**24571-372**	**24571-372**	**24571-372**
Perforated rail for connector mounting with insulation strip see page		5.170	–	–
Z-rail for connector mounting without insulation strip see page		5.170	–	–
Insulation strips see page		5.170	–	–
Threaded inserts see page		5.170	5.170	5.170
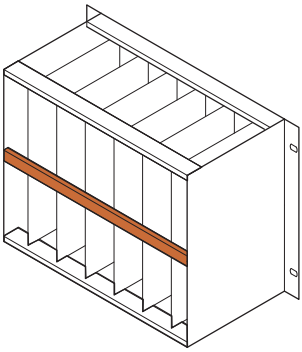
1) SPQ (standard pack quantity): Order number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple thereof

Horizontal rail type "heavy": loading capacity > 7.5 kg

RatiopacPRO Platform Accessories

ORDER INFORMATION

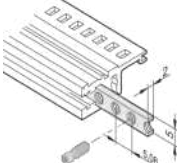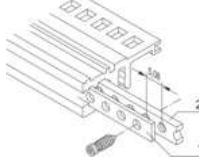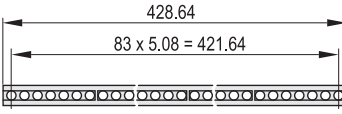|		For indirect mounting of backplanes via insulation strip	For direct backplane mounting	For direct fixing of connectors to EN 60603-2 (DIN 41612)
		Type ST	Type VT	Type MZ
		Al extrusion, finish anodised, conductive contact surface; horizontal rail type AB (AB = support) is required to fix the 80 mm rear I/O boards; without marking	Al extrusion, finish anodised, conductive contact surface; horizontal rail type AB (AB = support) is required to fix the 80 mm rear I/O boards; without marking	Al extrusion, finish anodised, conductive contact surface; horizontal rail type AB (AB = support) is required to fix the 80 mm rear I/O boards; without marking
Usable length HP	Length mm	1 piece (SPQ 10)[1]	1 piece (SPQ 10)[1]	1 piece (SPQ 10)[1]
28	147.32	34561-028	34561-128	34561-228
42	218.44	34561-042	34561-142	34561-242
63	325.12	34561-063	34561-163	34561-263
84	431.80	34561-084	34561-184	34561-284
Torx panhead screw, 4 x 14, 100 pcs		24571-371	24571-371	24571-371
Torx panhead screw, 4 x 10, 100 pcs		24571-372	24571-372	24571-372
Insulation strips see page		5.170	–	–
Threaded inserts see page		5.170	5.170	5.170

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

RatiopacPRO Platform Accessories

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

ORDER INFORMATION

	For CompactPCI in rear I/O area

06108069

For CompactPCI in rear I/O area

06108009

Type AB

06197019

Al extrusion, finish anodised, conductive contact surface; horizontal rail type AB (AB = support) is required to fix the 80 mm rear I/O boards; without marking

Usable length HP	Length mm	1 piece (SPQ 10)[1]
20	106.68	**34561-520**
28	147.32	**34561-528**
40	208.28	**34561-540**
42	218.44	**34561-542**
63	325.12	**34561-563**
84	431.80	**34561-584**
–	1000.00	**34561-501**
Screw, M4 x 14, PU 100 pieces, for fastening horizontal rail to side panel		**24571-371**

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

NOTE
- All **AB type** horizontal rails without print
- 1000 mm version without M4 thread in end

RatiopacPRO Platform Accessories

THREADED INSERTS, PERFORATED STRIPS, INSULATION STRIPS

		Threaded insert		Perforated strip		Insulation strip	
		M2.5	M3	(item 1)			
		06103056		127685783		BZ6749	
		Required for fixing the front panel to the horizontal rail; St, zinc-plated; use collar screw 12.3 mm, see page 6.66		For centring shielded plug-in units, Al, 1 mm, please order fixing grub screw (torque 0,37Nm) separately		For insulated mounting of backplane; PC, UL 94 V-0, grey	
Usable length HP	Length mm	M2.5 1 piece (SPQ 10)[1)	M3 1 piece (SPQ 10)[1)	Length	1 piece (SPQ 10)[1)	Length mm	PU 10 pieces[2)
28	146.82	34561-328	–	147.12	30845-197	144.20	24560-828
42	217.94	34561-342	–	218.24	30845-211	210.40	24560-842
63	324.62	34561-363	–	324.92	30845-232	316.88	24560-863
84	431.30	34561-384	34561-484	431.60	30845-253	428.64	24560-884
Accessories							
Grub screw M2.5 x 8, PU 100 pieces		21100-276	–		–		–
Grub screw M2.5 x 9, PU 100 pieces		–	–		21102-980		–
Grub screw M3 x 8, PU 100 pieces		–	21100-646		–		–
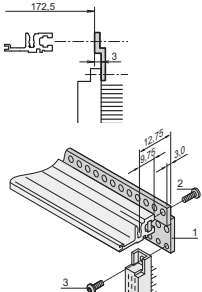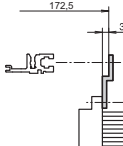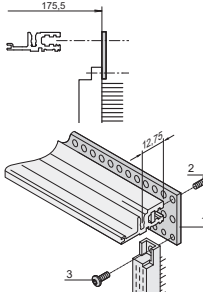
1) SPQ (standard pack quantity): Order number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple thereof

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

Z-RAILS, PERFORATED RAILS

		Z-rail for connectors DIN EN 60603-2, DIN 41612 item 1	31-pin, DIN 41617	Perforated rail EN 606032, DIN 41612 item 1
		BZA45849 06708063	BZA45850	BZA45848 06708051
		For connector mounting with ST horizontal rails, please order threaded insert and screw separately	For connector mounting with ST horizontal rails, please order threaded insert and screw separately	For connector mounting with VT horizontal rails, please order threaded insert and screw separately
Usable length HP	Length 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
Item 2, torx panhead screw to fix connector to perforated rail,, M2.5 × 7, PU 100 pieces		24560-147	24560-147	24560-147
Item3, torx panhead screw, to fix perforated rails to horizontal rail, M2.5 × 10, PU 100 pieces		–	–	24560-148

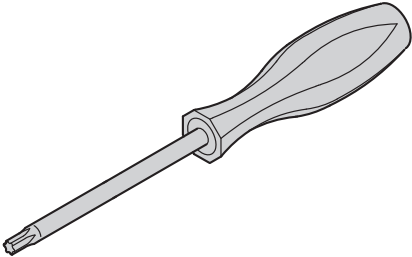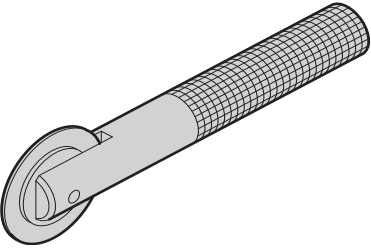# RatiopacPRO Platform Accessories
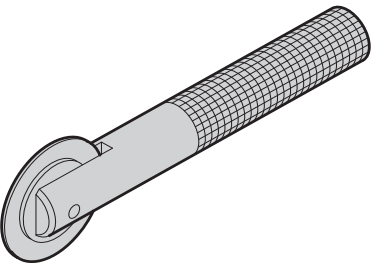
TORX PANHEAD SCREWS

ORDER INFORMATION

	Description	Application	Material	Dimension	Qty/PU	Part no.
	Panhead screw with Torx	For horizontal rail to side panel, with GND/earthing function	St, zinc-plated	M4 x 14	100	**24571-371**
	Panhead screw with Torx	For horizontal rail to side panel, if guide rail is bolted onto slot 1	St, zinc-plated	M4 x 10	100	**24571-372**
	Countersunk screw with Torx	For fixing the top covers to the case frame	St, zinc-plated	M4 x 14	100	**24571-373**

NUT

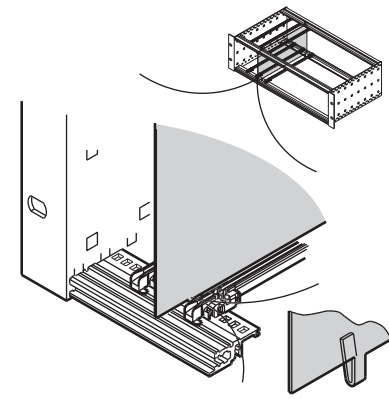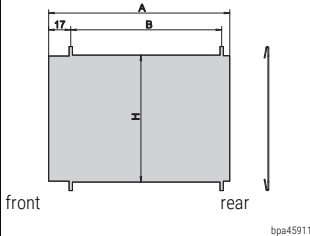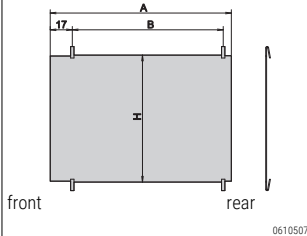|	Application	Material	Dimension	Qty/PU	Part no.
Square nut	For fixing: parts to side panels, support profiles, mounting plates	St, zinc-plated	M4	100	**24560-140**

ASSEMBLY TOOLS

ORDER INFORMATION

ORDER INFORMATION

	Description	Application	Dimension	Qty/PU	Part no.
	Torx screwdriver		T8	1	**64560-026**
			T20	1	**64560-027**
	Assembly tool for horizontal rails	Exclusively to fix stainless steel EMC gaskets in horizontal rails	–	1	**24560-271**
	Assembly tool for front panels	For mounting stainless steel EMC contact strips on front panels with lateral slot	–	1	**24560-270**

AZA45925

aza45938

aza45937

RatiopacPRO Platform Accessories

DIVIDER PLATES
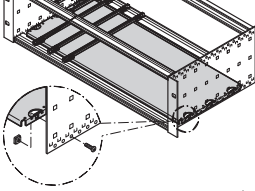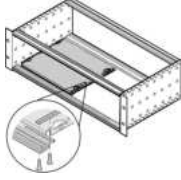
ORDER INFORMATION

	Divider plates	
	Mounting position for stainless steel EMC gasket	Mounting position for textile EMC gasket

front ... rear bpa45911 · front ... rear 06105078

Stainless steel, 1 mm, is mounted by clipping onto horizontal rail, space requirement on component side 2 mm; mounting direction varies with shielding design (EMC stainless steel or textile gasket); retrofitting the divider plate in an already-assembled subrack/case will first require dismantling of the horizontal rails; where front panels are unshielded, both mounting directions are possible

Height U	Depth mm	A mm	B mm	H mm	1 piece
3	160	158.3	135.0	113.5	**34562-761**
3	220	218.3	195.0	113.5	**34562-762**
6	160	158.3	135.0	246.9	**34562-763**
6	220	218.3	195.0	246.9	**34562-764**

ORDER INFORMATION

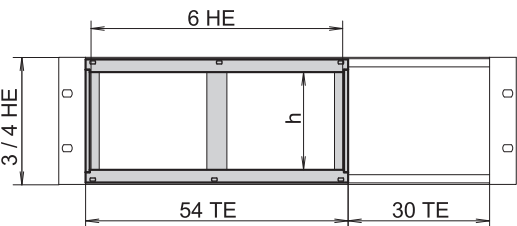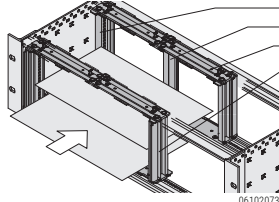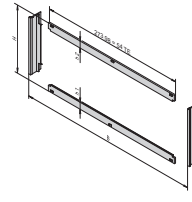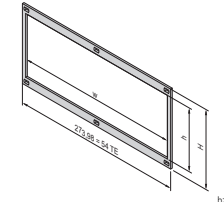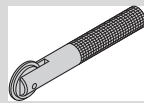|			Mounting plate, total width	Mounting plate, partial width
			bpa45875	
			Al, 1.5 mm;	Al, 1.5 mm;
			Please order mounting kit for total width separtely	Please order mounting kit for partial width separtely
			Torque Moment: 1.5Nm	Torque Moment: 1.5Nm and 0,37Nm
Width HP	**Width (W) mm**	**Board lengths mm**	**1 piece**	**1 piece**
28	146.88	160	**34562-745**	**34562-745**
28	146.88	220	**34562-749**	**34562-749**
28	146.88	280	**34562-753**	**34562-753**
28	146.88	340	**34562-757**	**34562-757**
42	217.99	160	**34562-746**	**34562-746**
42	217.99	220	**34562-750**	**34562-750**
42	217.99	280	**34562-754**	**34562-754**
42	217.99	340	**34562-758**	**34562-758**
63	324.67	160	**34562-747**	**34562-747**
63	324.67	220	**34562-751**	**34562-751**
63	324.67	280	**34562-755**	**34562-755**
63	324.67	340	**34562-759**	**34562-759**
84	431.35	160	**34562-748**	–
84	431.35	220	**34562-752**	–
84	431.35	280	**34562-756**	–
84	431.35	340	**34562-760**	–
84	431.35	400	**34562-870**	–
84	431.35	460	**34562-871**	–
Assembly kit for mounting plate, total width PU 1 kit (Torx countersunk screw M4 x 5, St, zinc-plated, 16 pieces; screw M4 x 6, St, zinc-plated, 14 pieces; M4 square nut, St, zinc-plated, 14 pieces)			**24560-184**	–
Assembly kit for mounting plate, partial width 2 x St, threaded inserts 13HP, 5,0 x 2,0 mm, zinc plated; M2,5mm, 6 x screw M2,5x6, (0,37Nm) 5 x square nut M4, 5 x screw M4x6 (1,5Nm) 1 x User manual			–	**24560-127**

06812002
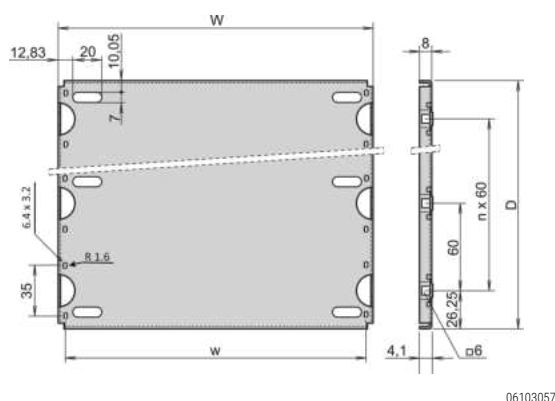
06103057

NOTE
- Please order fixing material for assembly of mounting plate separately
- A guide rail can be mounted on the first and last slot position
- 4.4" and "reinforced" guide rails cannot be used

Drawing is only for visualization. Accessories are compliant with RatiopacPRO Style, RatiopacPRO and RatiopacPRO Air

RatiopacPRO Platform Accessories

HORIZONTAL BOARD INSTALLATION

ORDER INFORMATION

			Horizontal board installation		
			Board cage	Front frame for EMC shielding	Front frame, unshielded
			06102073	bpa45913	bza43061
			Struts die-cast zinc; horizontal rails front and rear; threaded insert, St, zinc-plated; fixing material kit; for horizontal mounting of double-height euroboards in 3 or 4 U high subracks/cases; 54 TE space required; **please order front frame for EMC shielding separately**	2 horizontal covers, Al, 2.5 mm, front anodised, rear iridescent green chromated; 2 vertical trims, Al extrusion, clear passivated; stainless steel EMC gasket; front frame forms 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 U	Usable height h HP	Other dimensions and options	PU 1 kit	PU 1 kit	1 piece
		Horizontal rail, front Horizontal rail, rear			
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 mounting the EMC gasket (stainless steel)			–	**24560-270**	–

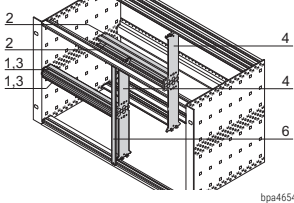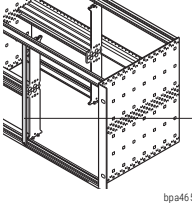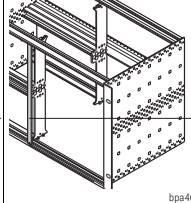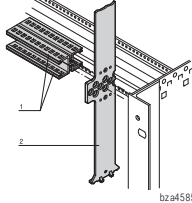* For direct backplane mounting
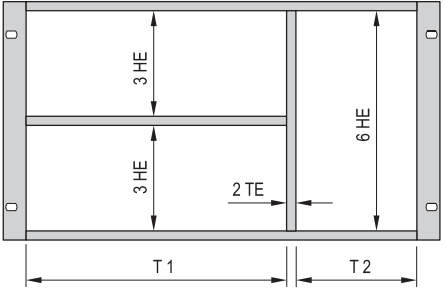
NOTE

- Please order front frame separately

RatiopacPRO Platform Accessories

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

ORDER INFORMATION

		Combined mounting Horizontal and vertical subdivision (incl. front panel for stainless steel EMC gasket)	Alternative front panels for combined mounting		Splitting extrusion For combined mounting Item 2
			Unshielded front panel, 6 U, 2 HP item 6	Front panel for textile EMC gasket, 6 U, 2 HP item 6	
		  Item 1: 2 front horizontal rails (H-KD), Al extrusion, anodised; item 2: 2 rear horizontal rails (AB), Al extrusion, anodised; item 3: threaded insert, St, zinc-plated; item 4: Zn diecast support member; item 6: front panel 2 HP, 6 U, shielded; with EMC stainless steel gasket (84:0 without items 4, 6)	 Al, 2.5 mm, front anodised, rear iridescent green chromated	 Al, 2.5 mm, U-profile with notch, 6 U, 2 HP	 6 U, die-cast zinc; splitting extrusion is inserted in the grid holes of the horizontal rail; the splitting extrusion can be bolted
Width pitch T1:T2 **HP**		**PU 1 kit**	**1 (SPQ 5)**	**1 piece (SPQ 5)[1]**	**1 piece**
20:62		**24562-420**			
40:42		**24562-440**			
42:40		**24562-442**	**30847-472**	**30849-140**	**64560-010**
63:19		**24562-463**			
84:0		**24562-484**			
Countersunk screw with Torx M4 × 14, zinc-plated, PU 100 pieces fixing splitting extrusion/horizontal rail		–	–	–	**24560-145**
Panhead screw M2.5 × 10, St, zinc-plated, PU 100 pieces fixing horizontal rail/splitting extrusion		–	–	–	**24560-179**
Pozidrive/slotted collar screw M2.5 x 12.3, St, nickel-plated, PU 100 pieces		–	**21101-101**	**21101-101**	–
Pozidrive/slotted collar screw M2.5, black, zinc-plated, PU 100 pieces		–	**21101-102**	**21101-102**	–
Washer, 2.7 x 5 x 1, plastic PA 6, PU 100 pieces		–	**21101-121**	**21101-121**	–
Textile gasket, core: foam, sleeve: textile cladding with CuNi coating, UL 94 V-0, PU 10 pieces		–	–	**21101-855**	–

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

- Subdivision of the 6 U assembly area into:
  - 2 x 3 U
  - 1 x 6 U
- Designed to accept Euroboards (100 mm high) and double Euroboards (233.35 mm high)
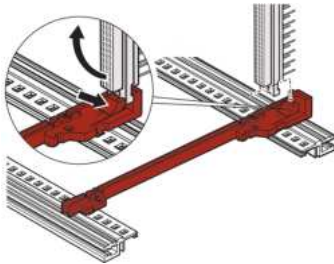
NOTE

- Please order EMC gasketing kit for horizontal rails separately, see page 5.160
- Please order perforated strips for horizontal rails separately, see page 5.170
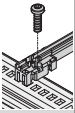- Please order rear centre horizontal rail separately, see page 5.168

RatiopacPRO Platform Accessories

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 units Standard	With DIN connector fixing as standard
Assembly - can be clipped into Al extruded horizontal rails - can be clipped into 1.5 mm sheet metal **Storage temperature** from -40 °C ... 130 °C	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	PBT, UL 94 V-0, red, connector is clipped directly onto the guide rails; for euroboards 100 x 160 mm or 100 x 220 mm only 06101501

Board lengths	Groove width	Colour		
mm	mm	mm	PU 10 pieces[2]	1 pair (SPQ 10)[1]
70	2	red	–	–
70	2	grey	–	–
160	2	red	**24568-361**	**64560-074**
220	2	red	**24568-362**	**64560-075**
280	2	red	**24568-379**	–
340	2	red	**24568-380**	–
160	2.5	red	–	–
220	2.5	red	–	–

Accessories

Retention screw, PU 100 pieces	**24560-141**
ESD clip, PU 50 pieces	**24560-255**

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

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

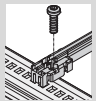**Description of accessories see from page 6.43 in the EuropacPRO catalog**

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

ORDER INFORMATION

			Guide rail type "Accessories"	"Accessories" strengthened	For heavy modules, Al extrusion, silver, robust version
Assembly - can be clipped into horizontal rails in Al extrusion - can be clipped into 1.5 mm sheet metal **Storage temperature** from -40 °C ... +130 °C			 Up to 220 mm length, PC, UL 94 V-0;> 280 mm length, multi-piece,end piece PC, UL 94V-0, middle section Al extrusion	 PC UL 94V-0, red; supportbeam of guide rails adds to strengthening (reinforced)	 Al extrusion; is screwed to horizontal rail "heavy" with retention screws
Board lengths mm	Groove width mm	Colour mm	PU 10 pieces[2]	1 piece (SPQ 50)[1]	1 piece (SPQ 10)[1]
100	2	red	–	–	–
160	2	red	**24568-363**	**64568-076**	–
160	2	grey	–	–	**34562-881**
220	2	red	**24568-364**	**64568-078**	–
220	2	grey	–	–	**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	–	**64568-118**	**34564-881**
220	2.5	red/silver	–	**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

	Guide rail type "Accessories"	"Accessories" strengthened	For heavy modules
Retention screw, PU 100 pieces	**24560-141**	**24560-141**	**24560-157**
ESD clip, PU 50 pieces	**24560-255**		–
Board locking C, red, PU 10 pieces	**24560-377**		–
Board handle C, red, PU 10 piecesdescription	**24560-378**		–
Identification strips for board handle, red, PU 1 sheet = 438 pieces	**60817-228**		–
Keying / coding peg, see page	**5.176**		–

1) SPQ (standard pack quantity): Order number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple thereof
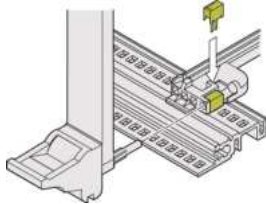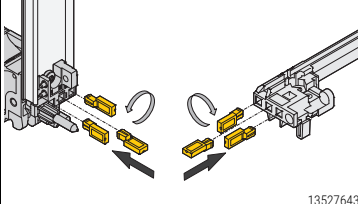
2) Part no. includes one packing unit (PU); delivery is exclusively made in PU

Description of accessories see from page 6.43 in the EuropacPRO catalog

RatiopacPRO Platform Accessories
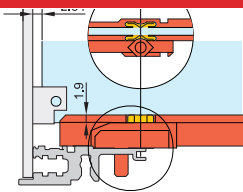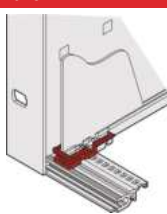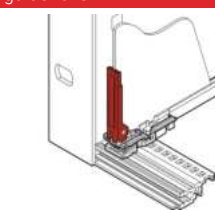
SCHROFF

GUIDE RAIL ACCESSORIES

ORDER INFORMATION
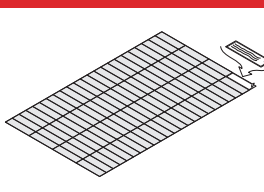
	ESD clips, CompactPCI/VME 64	Coding for subracks		
		Keying/coding block for guide rails accessory type		Keying/coding for CompactPCI, VME64x handles to IEEE 1011.10 and IEC 60297-3-103
		red, RAL 3000, grey, RAL 7016		
	108230497 Spring steel, tin-plated, ESD clip, for alignment pin in accordance with IEEE; can be plugged into the guide rails with coding and into the keying/coding block; provides conductive contact between the alignment pin of the insertion/extractor handle (IEL or IET handle) and the horizontal rail	121894752 136815562 PC, UL 94 V-0, keying/coding block is clipped into the horizontal rail next to the guide rail; please order keying/coding pegs separately		135276437 Keying/coding peg, PC, UL 94 V-0, RAL 7035 The keying/coding pegs prevent plug-in units to be mounted in wrong slots. They are inserted in the chambers of the codable card guides as well as in the insertion/extractor handles IEL or IET (4 possible positions), resulting in 64 codings per card guide; when coding the upper and lower card guide, 4096 codings will result;

Assembly	Colour		1 piece (SPQ 50)		
		PU 50 pieces	red, RAL 3000, grey, RAL 7016		PU 100 pieces
above	red	–	**64568-232**		–
	grey	–		**64568-233**	**20817-501**
	silver	**24560-256**	–		–
below	red	–	**64568-234**		–
	grey	–		**64568-235**	**20817-501**
	silver	**24560-256**	–		–

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
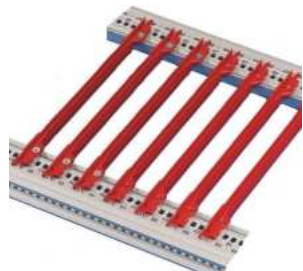
GUIDE RAIL ACCESSORIES

ORDER INFORMATION

	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
	04503050 Spring steel, tin-plated, provides conductive contact between board and horizontal rail, on both the solder side and the component side	04805050 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	04805051 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	06108076 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**

RatiopacPRO Platform Accessories

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

ORDER INFORMATION

			For CompactPCI, VME64x with coding In accordance with IEEE 1101.10 and IEC 60297-3-103		Offset 0.1" for power supply units in accordance with IEEE 1101.10 and IEC 60297-3-103	For 4.4" PCBs
Assembly - can be clipped into Al extruded horizontal rails - can be clipped into 1.5 mm thick plates **Storage temperature** from -40 °C ... 130 °C			One-piece for groove width 2 mm, PC, UL 94 V-0; multi-piece at groove width 2,5 mm, end-piece PC, UL 94 V-0,center piece Al profile		PC, UL 94 V-0, for installation of power supplies in CompactPCI systems or plug-in units with SMD placement	One-piece, PBT, UL 94 V-0; for 4.4" PCBs or drive units
Board lengths mm	Groove width mm	Colour mm	PU 10 pieces[2]	1 piece (SPQ 50)[1]	PU 10 pieces[2]	PU 10 pieces
70	2	red	**24568-357**		–	–
70	2	grey	**24568-360**		–	–
160	2	red	**24568-356**		–	**24560-361**
160	2	grey	**24568-358**		–	–
160	2	green	–		**24568-359**	–
220	2	red	–		–	**24560-362**
220	2	grey	–		–	–
220	2	green	–		–	–
160	2.5	red		**64568-109**	–	–
160	2.5	grey		**64568-110**	–	–
220	2.5	red		**64568-111**	–	–
220	2.5	grey		**64568-112**	–	–
280	2.5	red	**24568-331**		–	–
280	2.5	grey	**24568-341**		–	–
340	2.5	red	**24568-332**		–	–
340	2.5	grey	**24568-342**		–	–

Accessories

ESD clip, PU 50 pieces	**24560-255**	–	–
ESD clips, for alignment pin, PU 50 pieces	**24560-256**	**24560-256**	–
Retention screw, PU 100 pieces	**24560-141**	**24560-141**	**24560-158**
Coding peg, PU 100 pieces	**20817-501**	**20817-501**	–

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

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

Description of accessories see from page 6.43 in the EuropacPRO catalog

ORDER INFORMATION

PCBs:
Fixed lengths for 160, 220, 280, 340 mm;
length 1000 mm for special dimensions
Mounting: pluggable into horizontal rails

Storage temperature :
End piece -40°C ...+130°C
PVC profile 0°C ... +60°C

red = similar RAL 3000,
grey = similar RAL 7016,
green = similar RAL 6024

			Coding (IEEE) type					
			red		grey		green, 0,1" Offset	
			135313686		135313698		135313710	
			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	end piece, PBT, UL 94 V-0, middle section plastic extrusion (PVC, RAL 7035)
	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]	1 piece (SPQ 10)[1]
End piece, 1 pair		2	**64568-093**	**64568-093**	**64568-094**	**64568-094**	**64568-095**	**64568-095**
Al extrusion, for 160 mm board length	95	2	**34560-891**	**34564-891**	**34560-891**	**34564-891**	**34560-891**	**34564-891**
Al extrusion, for 220 mm board length	155	2	**34560-892**	**34564-892**	**34560-892**	**34564-892**	**34560-892**	**34564-892**
Al extrusion, for 280 mm board length	215	2	**34560-893**	**34564-893**	**34560-893**	**34564-893**	**34560-893**	**34564-893**
Al extrusion, for 340 mm board length	275	2	**34560-894**	–	**34560-894**	–	**34560-894**	–
Al extrusion,for any board length	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]	1 piece (SPQ 10)[1]	1 piece (SPQ 10)[1]
End piece, 1 pair		2.5	**64568-093**		**64568-094**		**64568-095**	
Al extrusion, for 160 mm board length	95	2.5	**34562-813**	–	**34562-813**	–	**34562-813**	–
Al extrusion, for 220 mm board length	155	2.5	**34562-814**	–	**34562-814**	–	**34562-814**	–
Al extrusion, for 280 mm board length	215	2.5	**34562-815**	–	**34562-815**	–	**34562-815**	–
Al extrusion, for 340 mm board length	275	2.5	**34562-816**	–	**34562-816**	–	**34562-816**	–
Al extrusion,for any board length	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 pin, PU 50 pieces			**24560-256**	**24560-256**	**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**	**24560-141**	**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

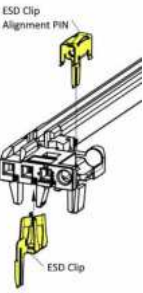2) Part no. includes one packing unit (PU); delivery is exclusively made in PU

NOTE
- End pieces with coding can be used for groove width 2.0mm as well as for 2.5mm

RatiopacPRO Platform Accessories

GUIDE RAILS FOR COMPACTPCI, VME64X WITH CODING, PREASSEMBLED ESD CLIPS, GROOVE WIDTH 2 MM

ORDER INFORMATION

Type **with Coding**, forCompactPCI, VME64x application. In accordance with IEEE 1101.10 and IEC 60297-3-103

ESD CLIPS preassembled

	red colour	grey colour

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

Remark:
At least one guide rail with ESD clips is required per slot, to avoid electrostatic discharges

red colour: One-piece for groove width 2 mm, PC, UL 94 V-0; ESD Clip and ESD Clip for Alignment PIN preassembled. Picture shows 160mm long guide rail, mounting position bottom

grey colour: One-piece for groove width 2 mm, PC, UL 94 V-0; ESD Clip and ESD Clip for Alignment PIN preassembled. Picture shows 160mm long guide rail, mounting position bottom

Board length	Groove width	Colour	Mounting Position	PU 10 pieces	PU 10 pieces
mm	mm	mm			
70	2	red	bottom	24568-855	
70	2	red	top	24568-853	
160	2	red	bottom	24568-847	
160	2	red	top	24568-850	
70	2	grey	bottom		24568-856
70	2	grey	top		24568-854
160	2	grey	bottom		24568-848
160	2	grey	top		24568-851

Accessories

Retention screw, PU 100 pieces; torque max. 0.2 Nm		24560-141	24560-141
Coding peg, PU 100 pieces		20817-501	20817-501

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

Description of accessories see from page 6.43 in the EuropacPRO catalog

RatiopacPRO Platform Service Plus

Configurator

Our online chassis configurator supports countless different configuration options.

To configure a chassis, users can:
- Select the basics of the chassis, such as height, width, depth, EMC, and air cooling.
- Choose the design style of the chassis, including the color of the top/bottom/side covers, side frame, rubber strip, and graphics.
- Design the frame of the chassis, including the front frame design and rear frame design.
- Choose the board mechanics of the chassis, such as front panels, mounting front, rear panels, and mounting rear.

Link to the configurator: **https://configurators.schroff.biz/ratiopacpro-style**

APPLICATION EXAMPLES

RatiopacPRO Style with card cage for 19 boards

RatiopacPRO Style full-width screwless front panel and mounting plate

Easy stackable by removing rubber stips from lower chassis

Custom print and design available on request

Desk-top cases – Introduction

CASE TYPES: DESK-TOP ENCLOSURE/19" CASE

Desk-top enclosure,
RatiopacPRO Style

19" case, comptec

02202004

Desk-top enclosures
Our desk-top cases are used to house PCBs (euroboards) or individual components

The choice is yours:

* RatiopacPRO Style or RatiopacPRO / Pro Air, the universal case with 19" compatible dimensions and high EMC shielding, e.g. for CompactPCI and VME64x applications
* PropacPRO, the robust case with high EMC shielding for 19"-compatible or custom electronics assemblies
* CompacPRO, Desk-top or portable case for unshielded applications

19" cases
Our comptec cases are comparable with small cabinets and are used to house 19" components such as subracks, 19" fan trays or 19" front panels

All desk-top enclosures have a very low weight owing to the materials used and are also suitable for mobile use
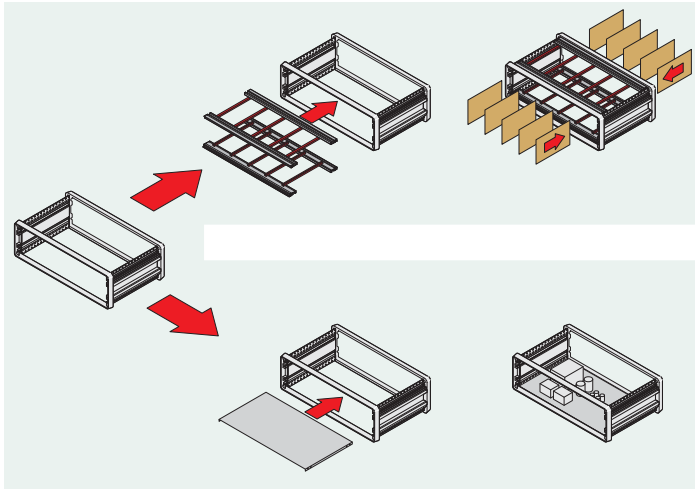
APPLICATIONS FOR DESK-TOP ENCLOSURES

The most important user domains for desk-top enclosures are:

* Fitting with euroboards in accordance with IEC 60297

* Fitting with individual electrical or mechanical components, e.g.on mounting plates

ONE PRODUCT PLATFORM AND EXTENSIVE ACCESSORIES

* Practical technology without time-consuming assembly. The modular product platform of these cases allows a wide range of possible uses with only a small number of components.

  The intelligent design of all components results in an astonishingly quick and easy assembly of the components.

  With our PRO product platform we offer you full compatibility of all individual components and accessories, also with our europacPRO subracks.

 Standard desk-top enclosures can also be adapted easily and with little effort for mobile applications.

Supplied in space-saving packs. Simply unpack parts and screw together - done.

Depending on the kit chosen the threaded insert, the perforated rail or the EMC gasket is pre-assembled on the horizontal rail.

We offer you three forms of delivery:

- Pre-assembled empty case kit for individual configuration, frame assembled, cladding parts supplied loose.

- Ready assembled cases to your specifications. With our ServicePLUS option you can order ready-assembled cases, with drilled holes and cutouts and individual front panels
 - if necessary even by express service -.

Flat pack delivery to save space
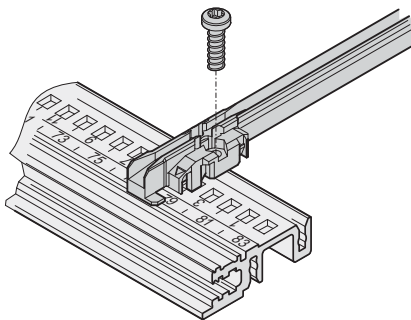
- Guide rails form the interface between the mechanics of the case and the electronics assembled (PCBs, plug-in units, frame type plug-in units, drive unit modules, etc.).

  Robust snap-in fixings on the plastic rails assure that the components are held securely, even when exposed to vibrations.

  Guide rails can also be screwed on.

06108084
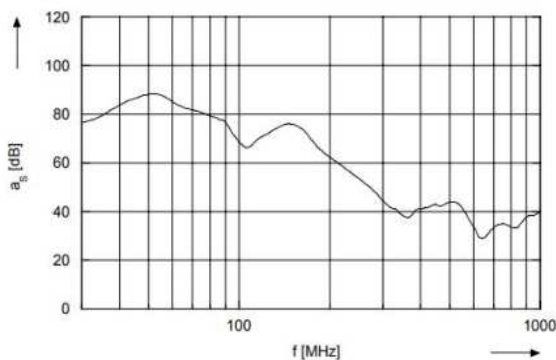
- Our case product platforms offer standard solutions for achieving electromagnetic compatibility (EMC) and to avoid electrostatic interference (ESD)

- Shielding on the front and rear of the case is effected by front panels with EMC gaskets

- To prevent electrostatic discharge when inserting PCBs, ESD contacts are clipped into the guide rails. These provide a conductive connection between board and case earth/ground

- Test reports are available on our website for download

Shielding
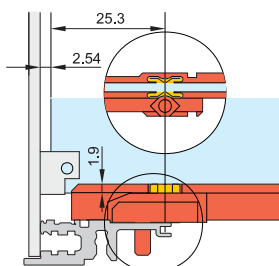
Position of the ESD clip

04503050

North America

Warwick, RI, USA
Tel +1.401.738.1722
San Diego, CA, USA
Tel +1.858.740.2400

Europe, Middle East & India

Straubenhardt, Germany
Tel +49 7082 794 0
Betschdorf, France
Tel +33 3 88 90 64 90
Warsaw, Poland
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