

CONNECT AND PROTECT

RatiopacPRO

01/2024



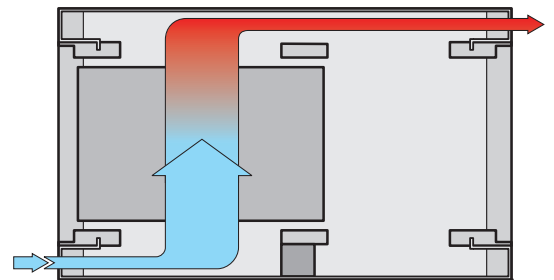
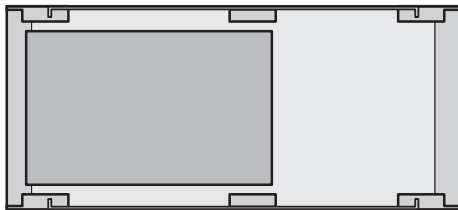
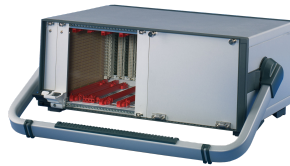
SCHROFF

# Desk-top cases – RatiopacPro

## OVERVIEW

### MAIN KATALOG

- Cabinets ..... 1
- Wall mounted cases ..... 2
- Accessories for cabinets and wall mounted cases .. 3
- Climate control .. 4
- Electronics cases ..... 5
- Subracks/ 19" chassis ..... 6
- Front panels, plug-in units ..... 7
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- Power supply units ..... 9
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- Connectors, front panel component system ..... 11
- Appendix ..... 12



### RATIOACPRO

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

### RATIOACPRO AIR

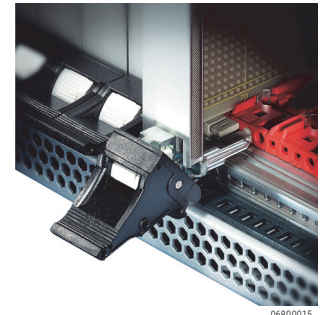
Designed for insertion/extractor handles in accordance with IEC 60297-3-102 and IEEE 1101.10 for CompactPCI and VME64x applications; 1 U extra for ventilation (1/2 U top, 1/2 U bottom)

### STANDARDS

- Inner and outer dimensions in accordance with:  
IEC 60297-3-101 / IEEE 1101.1  
IEC 60297-3-102 / IEEE 1101.10/11
- Type of protection IP20 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  
DIN EN 61010-1A2 / VDE 0411 part 1/A1
- EMC testing in accordance with VG 95373 part 15



Case with mounting plate



Prepared for CompactPCI and VME64x applications

# Desk-top cases – RatiopacPro

## OVERVIEW

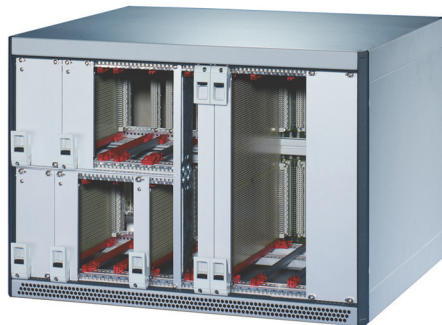
### THE UNIVERSAL CASE WITH 19" COMPATIBLE DIMENSIONS E.G. FOR COMPACTPCI, VME64X AND OTHER APPLICATIONS

- Base level of shielding in basic versions upwards, additional EMC shielding can be retrofitted
- Symmetrical construction, identical front and rear (identical board cage for ratiopacPRO and ratiopacPRO air)
- Converts simply from desktop to 19" rack-mounted case and back
- No visible screws; cladding parts removable without tools



#### RATIOPACPRO

- Case with cover strip, front handles or 19" brackets (height 2 U to 6 U)
- Complete case with cover strip and pre-mounted components, with basic shielding (height 3 U, 6 U), additional EMC shielding retrofittable
- Tower case (width 4 U)



06803002

#### RATIOPACPRO AIR

- ratiopacPRO air with additional 1 U height for ventilation
- Case with cover strips, front handles or 19" brackets (height 4 U, 5 U, 7 U)
- Complete case with cover strips and pre-mounted components, with basic shielding (height 4 U, 7 U), additional EMC shielding retrofittable

#### SERVICEPLUS

- e.g. modifications (special colours or sizes)**
- e.g. custom solutions (cut-outs in top cover, base plate or side panels)**
- e.g. assembly service from 1 piece**

Overview ..... 5.6

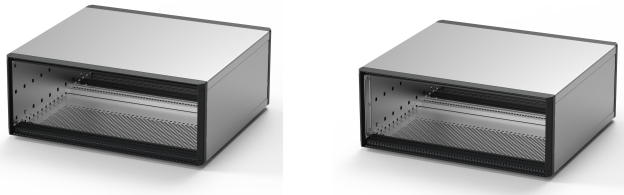
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ratiopacPRO air  
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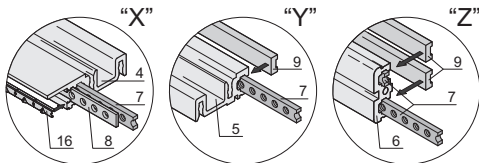
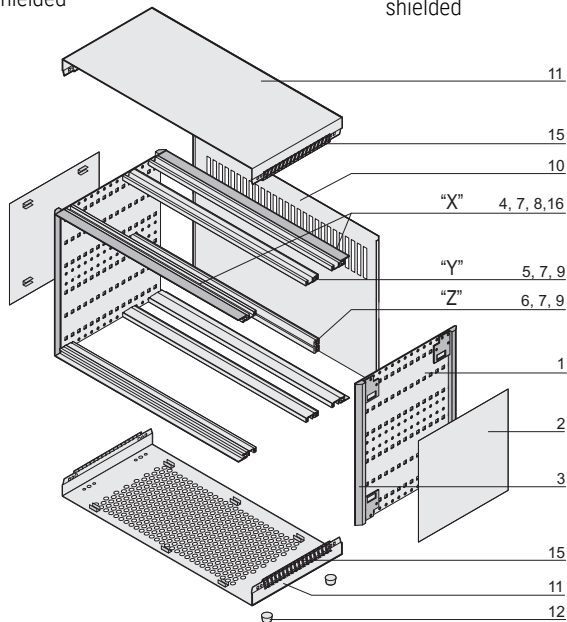
# Desk-top cases – RatiopacPro

## RATIOPACPRO COMPLETE CASES



unshielded

shielded

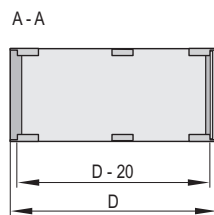
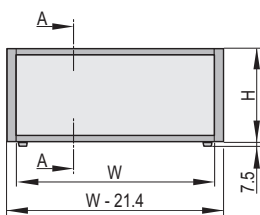


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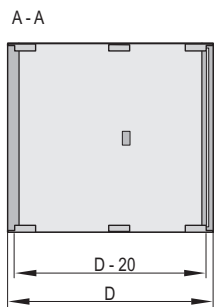
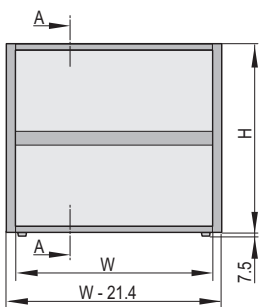
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3U



6U

- Desk-top enclosure with pre-configured components, in accordance to IEC 60297-3-101; prepared for 19" components, e.g. plug-in units and euroboards
- Ventilation slit in base plate
- Rear panel perforated

### DELIVERY COMPRISES (in kit form)

Item	Qty		Description
	without EMC	with EMC	
1	2	2	Side panel, Al, 2 mm, passivated
2	2	2	Side plate, Al, 1 mm, visible surfaces RAL 9006
3	4	4	Cover strip, Al die-cast, RAL 7016, pre-fitted only on EMC version
4	4	4	Horizontal rail, type H-LD, Al, visible surfaces RAL 7016
5	2	2	Horizontal rail, centre (top/bottom), type H-ST, Al
6	1	1	Horizontal rail, centre (on 6 U only), type ST, Al
7	6/8	6/8	3 U/6 U: threaded inserts, St, pre-mounted, for indirect backplane mounting with insulation strips
8	-	4	Perforated strip, Al, 1 mm, pre-fitted
9	4	4	Insulation strip, PBT, UL 94 V-0
10	1	1	Rear panel, perforated, Al, 2.5 mm
11	2	2	Top cover and base plate, Al, 1 mm, internal surfaces conductive, visible surfaces RAL 9006, with GND/earthing connection, base plate with honeycomb grid ventilation
12	4	4	Case foot with anti-slip protection, UL 94 V-0, PC black
14	-	1	EMC support profile for side panel, pre-mounted (kit)
15	-	4	EMC contact strip for cover plate, pre-mounted (kit)
16	-	4	EMC contact strip front panel - horizontal rails
17	1	1	GND/earthing kit, assembly kit

### ORDER INFORMATION

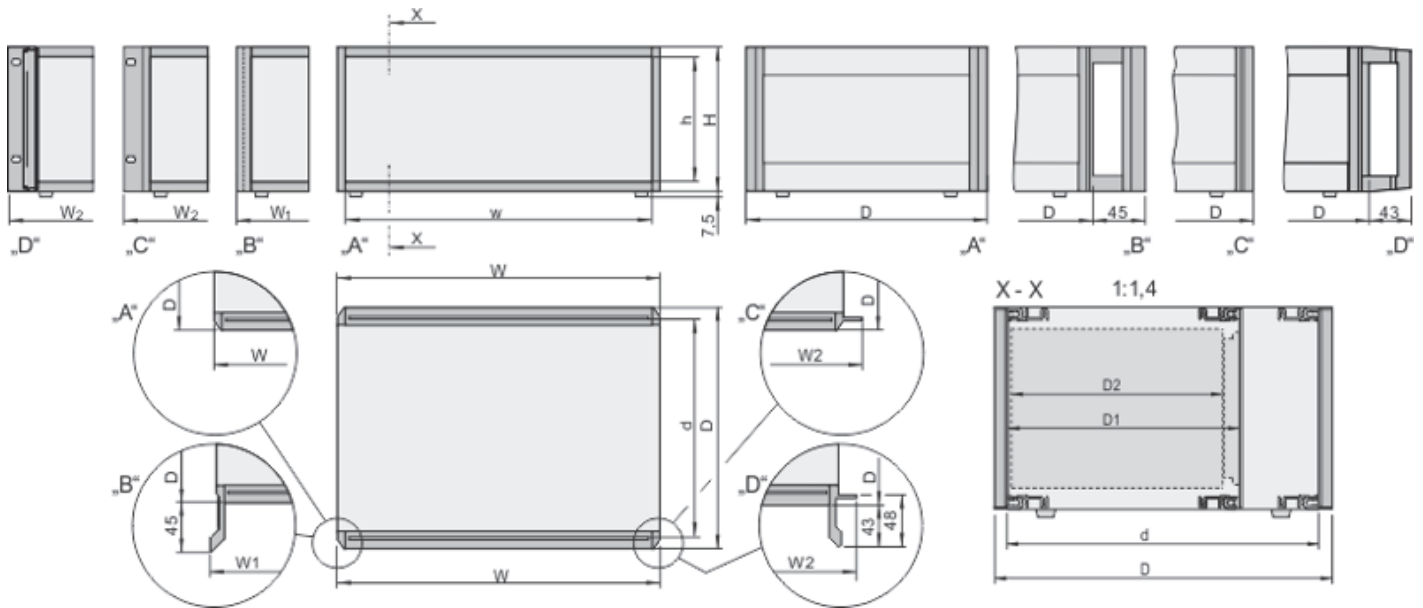
Height H	Width W	Depth D	Unshielded Part no.	EMC shielded Part no.
U	HP	mm		
3	28	255.5	<b>24572-001</b>	<b>24572-050</b>
3	42	255.5	<b>24572-002</b>	<b>24572-051</b>
3	42	315.5	<b>24572-003</b>	<b>24572-052</b>
3	63	315.5	<b>24572-004</b>	<b>24572-053</b>
3	84	315.5	<b>24572-005</b>	<b>24572-054</b>
3	84	375.5	<b>24572-006</b>	<b>24572-055</b>
3	84	435.5	<b>24572-007</b>	<b>24572-056</b>
6	42	315.5	<b>24572-015</b>	<b>24572-064</b>
6	63	315.5	<b>24572-016</b>	<b>24572-065</b>
6	84	315.5	<b>24572-017</b>	<b>24572-066</b>
6	84	375.5	<b>24572-018</b>	<b>24572-067</b>
6	84	435.5	<b>24572-019</b>	<b>24572-068</b>

### NOTE

- Horizontal rail at front bottom (3U) and bottom and top (6U) with perforation. Prepared for IEEE applications (insertion- / extraction handles).
- Dimension drawings and mounting depths see page 5.9
- Components see page 5.18
- Front handles and 19" mounting brackets from page 5.24
- Guide rails from page 5.40

# Desk-top cases – RatiopacPro

## DIMENSION DRAWINGS RATIOPACPRO



RatiopacPRO with A - bezel; B - front handle; C - 19" mounting bracket; D - 19" mounting bracket with front handle

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Dimensions table RatiopacPRO

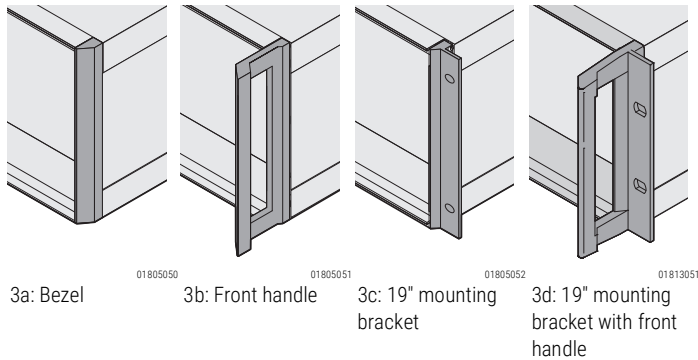
	Height		Width				
	H in U	h in mm	w in HP	W in mm	w1 in mm	w2 in mm	w in mm
2	88.10	67.90	28	164.42	177.62	198.12	142.82
			42	235.54	248.74	269.24	213.94
			63	342.42	355.42	375.92	320.62
			84	448.90	462.10	482.60	427.30
3	132.55	112.35	28	164.42	177.62	198.12	142.82
			42	235.54	248.74	269.24	213.94
			63	342.42	355.42	375.92	320.62
			84	448.90	462.10	482.60	427.30
4	177.00	156.80	28	164.42	177.62	198.12	142.82
			42	235.54	248.74	269.24	213.94
			63	342.42	355.42	375.92	320.62
			84	448.90	462.10	482.60	427.30
5	221.45	201.25	28	164.42	177.62	198.12	142.82
			42	235.54	248.74	269.24	213.94
			63	342.42	355.42	375.92	320.62
			84	448.90	462.10	482.60	427.30
6	265.90	245.70	28	164.42	177.62	198.12	142.82
			42	235.54	248.74	269.24	213.94
			63	342.42	355.42	375.92	320.62
			84	448.90	462.10	482.60	427.30

Components mountable in 15 mm depth grid

Depth			
D	d	D1	d2
Total depth in mm	Useable depth in mm	Plug-in depth in mm	Board depth in mm
255.5	235.5	175.5	160
		235.5	220
315.5	295.5	175.5	160
		235.5	220
		295.5	280
375.5	355.5	175.5	160
		235.5	220
		295.5	280
435.5	415.5	355.5	340
		175.5	160
		235.5	220
495.5	475.5	295.5	280
		355.5	340
		175.5	160

# Desk-top cases – RatiopacPro

## RATIOPACPRO CASE



- Cases for individual assembly with 19" standard components or specific internal mounting, e.g. with mounting plate
- Unshielded (EMC shielding retrofittable)
- Symmetrical design, identical front and rear side
- Four versions:
  - Bezels
  - Front handles
  - 19" mounting brackets
  - 19" mounting brackets with front handles
- For board depth 160 mm, 220 mm, 280 mm, and 340 mm (depending on case depth)

### DELIVERY COMPRISES (kit)

Item	Qty	Description
1	2	Side panel, Al, 2 mm, chromated
2	2	Side plate, Al, 1 mm, visible surfaces powder-coated, RAL 9006
3	2	Rear trim, Al die-cast, powder-coated, RAL 7016
3a	2	Bezel, Al die-cast, powder-coated, RAL 7016
3b	2	Front handle, Al die-cast, powder-coated, RAL 7016
3c	2	19" mounting bracket, Al diecast, powder-coated, RAL 7016
3d	2	19" mounting bracket with front handle, Al diecast, powder-coated, RAL 7016
4	4	Horizontal rail, type H-LD, Al, visible surfaces powder-coated, RAL 7016
11	2	Top cover and base plate, Al, 1 mm, inner sides conductive, visible surfaces powder-coated, RAL 9006, with GND/earthing connections, base plate with honeycomb grid ventilation
12	4	Case foot with anti-slip protection, UL 94 V-0, PC black
13	1	Fixing materials kit

3a, 3b, 3c or 3d according to selection

### NOTE

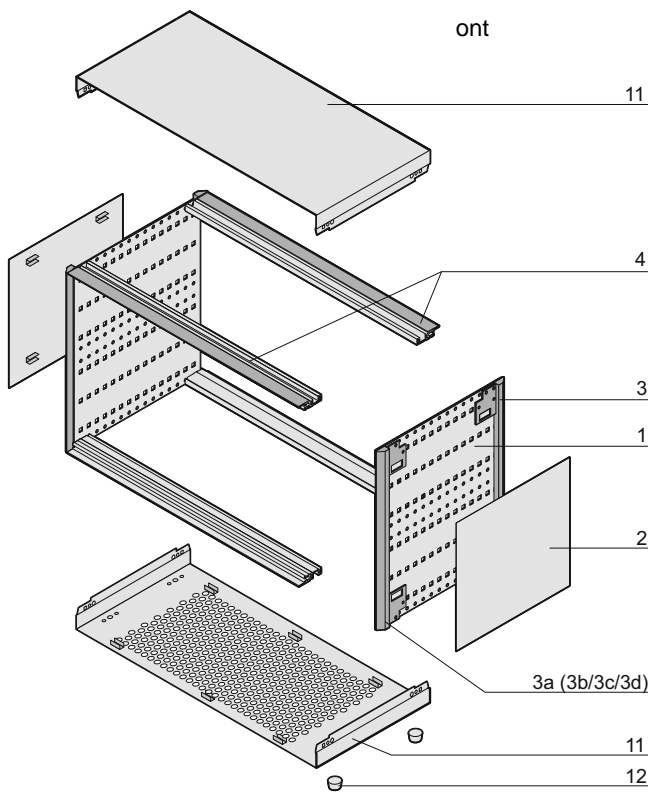
- Order information, see following page
- Horizontal rail at front bottom (3U + 4U) and bottom and top (6U) with perforation.  
Prepared for IEEE applications (insertion- / extraction handles).

### ORDER INFORMATION

Accessories	Part no.
Earthing kit CU wire, 1.5 mm <sup>2</sup> , PVC sleeve, green/yellow, 1 kit	<b>24571-380</b>



Plastic tip-up foot silver, similar to RAL 9006, PU 4 pieces	<b>20603-001</b>
Plastic tip-up foot anthracite, similar to RAL 7016, 4 pieces	<b>20603-002</b>
Stacking aid silver, similar to RAL 9006, PA, UL 94 V-0, PU 4 pieces	<b>20603-004</b>
Stacking aid anthracite, similar to RAL 7016, PA, UL 94 V-0, PU 4 pieces	<b>20603-003</b>



Drawing with front cover strip



Tip-Up Foot







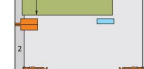

Stacking Aid

# Desk-top cases – RatiopacPro

## RATIOPACPRO CASE



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Width W HP	Depth D mm	Case height H					
		2 U Part no.	3 U Part no.	4 U Part no.	5 U (1-3-1 U) Part no.	5 U (2-3U) Part no.	6 U Part no.
							

### Cover strips


 Image shows case,  
3U, 42HP, 315,5mm

28	255.5	24572-500	24571-002	24571-050	24572-117	24572-261	24571-098
28	315.5	24572-503	<b>24571-005</b>	24571-053	24572-120	24572-264	24571-101
42	255.5	24572-510	<b>24571-014</b>	24571-062	24572-129	24572-273	24571-110
42	315.5	<b>24572-513</b>	<b>24571-017</b>	24571-065	24572-132	24572-276	24571-113
42	255.5	24572-514	24571-018	24571-066	24572-133	24572-277	24571-114
63	255.5	24572-520	24571-026	24571-074	24572-141	24572-285	24571-122
63	315.5	24572-523	<b>24571-029</b>	24571-077	24572-144	24572-288	24571-125
63	375.5	24572-524	<b>24571-030</b>	24571-078	24572-145	24572-289	24571-126
84	255.5	24572-530	24571-038	24571-086	24572-153	24572-297	24571-134
84	315.5	24572-533	<b>24571-041</b>	24571-089	24572-156	24572-300	24571-137
84	375.5	24572-534	<b>24571-042</b>	24571-090	24572-157	24572-301	24571-138
84	435.5	24572-535	<b>24571-043</b>	<b>24571-091</b>	24572-158	24572-302	24571-139
84	495.5	24572-536	24571-044	24571-092	24572-159	24572-303	24571-140

### Front handles


 Image shows case,  
3U, 42HP, 315,5mm

28	255.5	-	<b>24571-702</b>	24571-750	24572-213	24572-357	24571-798
28	315.5	-	24571-705	24571-753	24572-216	24572-360	24571-801
42	255.5	24572-720	<b>24571-714</b>	24571-762	24572-225	24572-369	24571-810
42	315.5	24572-723	<b>24571-717</b>	24571-765	24572-228	24572-372	24571-813
42	375.5	-	24571-718	24571-766	24572-229	24572-373	24571-814
63	255.5	24572-730	24571-726	24571-774	24572-237	24572-381	24571-822
63	315.5	24572-733	<b>24571-729</b>	24571-777	24572-240	24572-384	24571-825
63	375.5	-	24571-730	24571-778	24572-241	24572-385	24571-826
84	255.5	-	24571-738	24571-786	24572-249	24572-393	24571-834
84	315.5	-	<b>24571-741</b>	24571-789	24572-252	24572-396	24571-837
84	375.5	-	<b>24571-742</b>	24571-790	24572-253	24572-397	24571-838
84	435.5	-	24571-743	<b>24571-791</b>	24572-254	24572-398	24571-839
84	495.5	-	24571-744	24571-792	24572-255	24572-399	24571-840

### 19" mounting brackets



84	255.5	24572-570	<b>24571-438</b>	<b>24571-486</b>	24572-201	24572-345	24571-534
84	315.5	<b>24572-573</b>	<b>24571-441</b>	24571-489	24572-204	24572-348	24571-537
84	375.5	<b>24572-574</b>	<b>24571-442</b>	24571-490	24572-205	24572-349	24571-538
84	435.5	<b>24572-575</b>	<b>24571-443</b>	<b>24571-491</b>	24572-206	24572-350	<b>24571-539</b>
84	495.5	24572-576	24571-444	<b>24571-492</b>	24572-207	24572-351	24571-540

### 19" mounting brackets with front handles



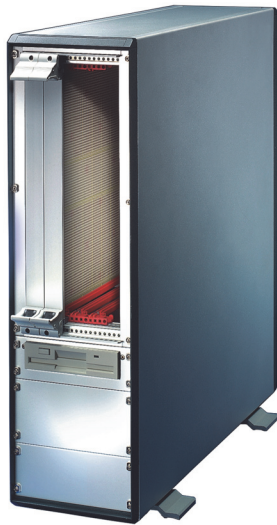
84	255.5	24572-620	<b>24572-630</b>	<b>24572-640</b>	-	-	24572-660
84	315.5	<b>24572-623</b>	<b>24572-633</b>	<b>24572-643</b>	-	-	<b>24572-663</b>
84	375.5	<b>24572-624</b>	<b>24572-634</b>	<b>24572-644</b>	-	-	<b>24572-664</b>
84	435.5	<b>24572-625</b>	<b>24572-635</b>	<b>24572-645</b>	-	-	<b>24572-665</b>
84	495.5	24572-626	<b>24572-636</b>	<b>24572-646</b>	-	-	24572-666

### NOTE

- Dimension drawings and mounting depths see page 5.9
- Components see page 5.18

# Desk-top cases – RatiopacPro

## RATIOPACPRO TOWER WITH 4 U WIDTH

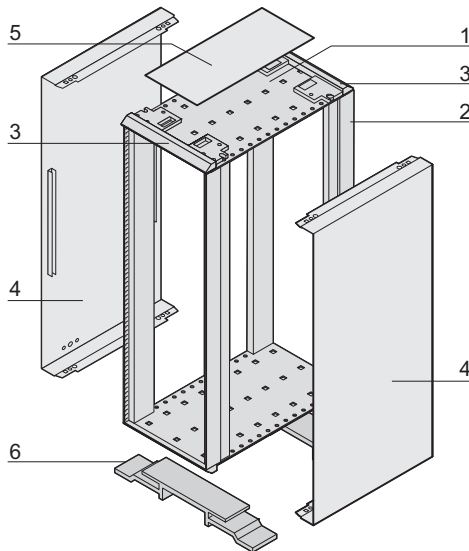


- Symmetrical design, identical front and rear side
- Mounting space 4 U, 84 HP, depth 475 mm
- Case based on ratiopacPRO
- Unshielded (EMC shielding retrofittable)

### DELIVERY COMPRISES (in kit form)

Item	Qty	Description
1	2	Base/top cover, Al, 2 mm, passivated
2	4	Horizontal rail, type H-LD, Al, visible surface powder-coated, RAL 7016
3	4	Cover, Al die-cast, RAL 7016
4	2	Lateral cover plate, Al, 1 mm, with GND/earthing connection, visible surfaces powder-coated, internal surface conductive, RAL 9006
5	1	Top cover plate, Al, 1 mm, visible surface powder-coated, RAL 9006
6	2	Case foot with anti-slip protection, Al, powder-coated, RAL 7016
7	1	Assembly kit

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### ORDER INFORMATION

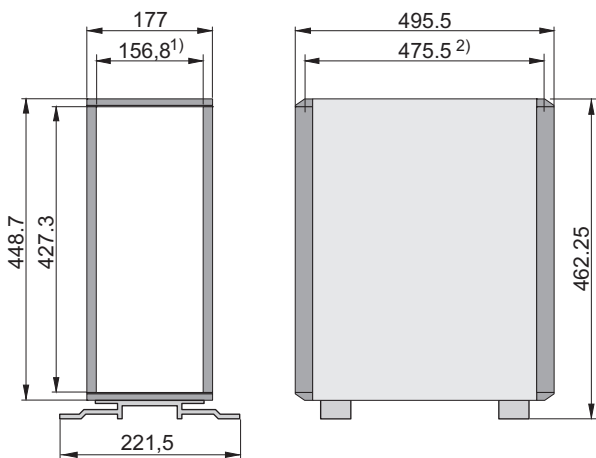
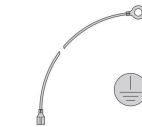
Width	Part no.
4 U	24571-395

### NOTE

- Components see page 5.18

### ORDER INFORMATION

Accessories	Part no.
Earthing kit CU wire, 1.5 mm <sup>2</sup> , PVC sleeve, green/yellow, 1 kit	<b>24571-380</b>



1) = open space between the horizontal rails mounting depth

2) = max.

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# Desk-top cases – RatiopacProAir

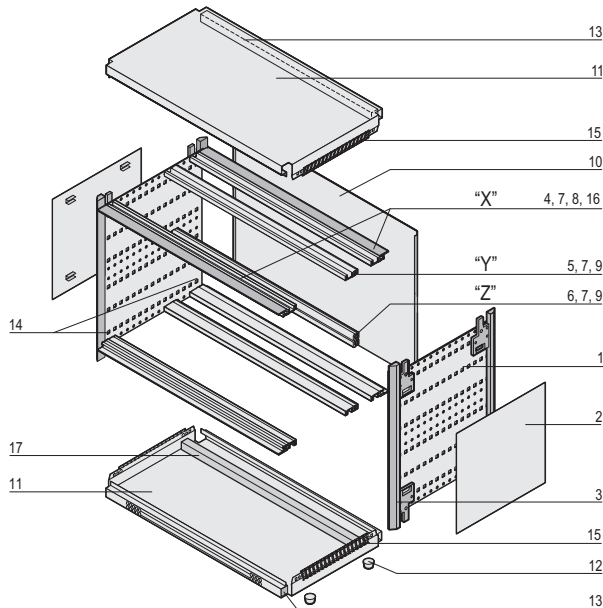
## RATIOPACPRO AIR COMPLETE CASES



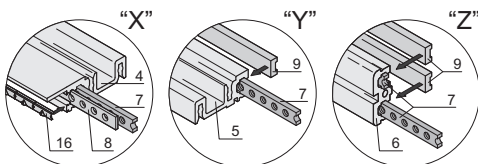
unshielded



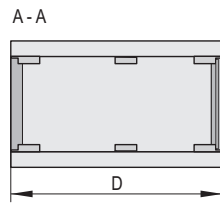
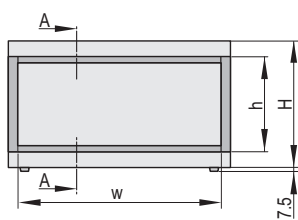
shielded



06811001

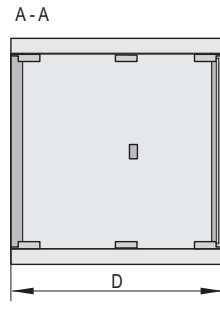
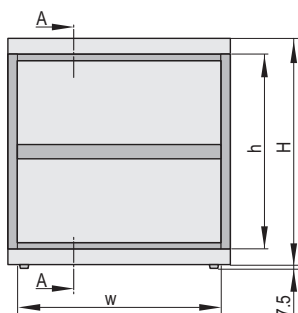


01802052



3 U

01808053



6 U

01808054

- The case has 2 x 1/2 U clearance for ventilation
- Case with cover strip; with pre-mounted components for euroboards and backplane with insulation strip; no visible screws
- Symmetrical design, identical front and rear honeycomb grid ventilation in top cover and base plate
- Available in two versions:
  - unshielded (EMC shielding retrofittable)
  - with EMC shielding fitted

### DELIVERY COMPRISES (in kit form)

Item	Qty without EMC	Qty with EMC	Description
1	2	2	Side panel, Al, 2 mm, passivated
2	2	2	Side plate, Al, 1 mm, visible surface RAL 9006
3	4	4	Cover, die-cast zinc, RAL 7016, pre-mounted on EMC version only
4	4	4	Horizontal rail, type H-LD, Al, visible surface RAL 7016
5	2	2	Horizontal rail, centre (top/bottom), type H-ST, Al
6	1	1	Horizontal rail, centre (on 6 U only), type ST, Al
7	6/8	6/8	4 U/7 U: threaded inserts, St, pre-mounted, for indirect backplane mounting with insulation strips
8	-	4	Perforated strip, pre-mounted
9	4	4	Insulation strip, PBT, UL 94 V-0
10	1	1	Rear panel, Al, 2.5 mm
11	2	2	Top cover and base plate with honeycomb grid ventilation, Al, 1 mm, internal surface conductive, visible surface RAL 9006, with GND/earthing connection
12	4	4	Case foot with anti-slip protection, UL 94 V-0, PC, black
13	2	2	Air filter
14	-	1	EMC support profile for side panel, fitted (kit)
15	-	4	EMC contact strip for cover plate, pre-mounted (kit)
16	-	4	EMC contact strip front panel - horizontal rails
17	1	1	Compartment seal, PE foam, self-adhesive, temperature range -20 °C ... +85 °C
18	1	1	GND/earthing kit, assembly kit

### ORDER INFORMATION

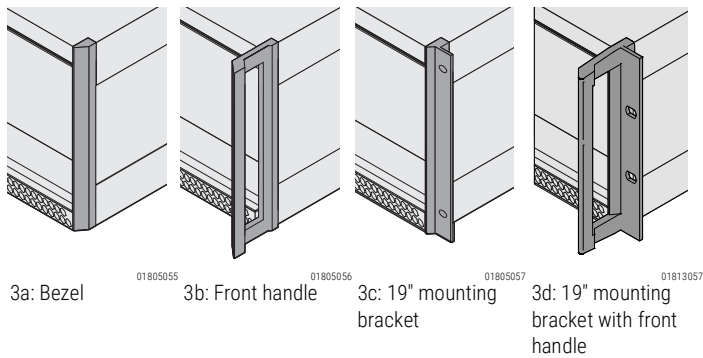
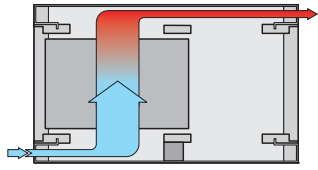
Case height H	PCB height h	Width w	Depth D	Unshielded Part no.	EMC shielded Part no.
4 U	3	28	255.5	<b>24572-025</b>	<b>24572-074</b>
4 U	3	42	255.5	<b>24572-026</b>	<b>24572-075</b>
4 U	3	42	315.5	<b>24572-027</b>	<b>24572-076</b>
4 U	3	63	315.5	<b>24572-028</b>	<b>24572-077</b>
4 U	3	84	315.5	<b>24572-029</b>	<b>24572-078</b>
4 U	3	84	375.5	<b>24572-030</b>	<b>24572-079</b>
4 U	3	84	435.5	<b>24572-031</b>	<b>24572-080</b>
7 U	6	42	315.5	<b>24572-040</b>	<b>24572-088</b>
7 U	6	63	315.5	<b>24572-041</b>	<b>24572-089</b>
7 U	6	84	315.5	<b>24572-042</b>	<b>24572-090</b>
7 U	6	84	375.5	<b>24572-043</b>	<b>24572-091</b>
7 U	6	84	435.5	24572-044	<b>24572-092</b>

### NOTE

- Horizontal rail at front bottom (3/4U) and bottom and top (6/7U) with perforation. Prepared for IEEE applications (insertion- / extraction handles).
- Dimension drawings and mounting depths see page 5.16
- Components see page 5.18
- Front handles and 19" mounting brackets from page 5.24
- Guide rails from page 5.40

# Desk-top cases – RatiopacProAir

## RATIOPACPRO AIR CASE



- The case has 2 x 1/2 U clearances for ventilation beneath and above the board cage
- Cases for individual assembly with 19" standard components or specific internal mounting, e.g. with mounting plate
- Unshielded (EMC shielding retrofittable)
- Symmetrical design, identical front and rear side
- For board depth 160 mm, 220 mm, 280 mm, and 340 mm (depending on case depth)
- Online download of 3D CAD data
- Four versions:
  - Bezels
  - Front handles
  - 19" mounting brackets
  - With 19" mounting brackets and front handles

### DELIVERY COMPRISES (in kit form)

Item	Qty	Description
1	2	Side panel, Al, 2 mm, chromated
2	2	Side plate, Al, 1 mm, visible surfaces powder-coated, RAL 9006
3	2	Rear trim, Al die-cast, powder-coated, RAL 7016
3a	2	Bezel, Al die-cast, powder-coated, RAL 7016
3b	2	Front handle, Al die-cast, powder-coated, RAL 7016
3c	2	19" mounting angle, Al die-cast, powder-coated, RAL 7016
3d	2	19" mounting bracket with front handle, Al diecast, powder-coated, RAL 7016
4	4	Horizontal rail, type H-LD, Al, visible surfaces powder-coated, RAL 7016
11	2	1 Top cover and base plate, Al, 1 mm, internal surfaces conductive, visible surfaces powder-coated, RAL 9006, with GND/earthing connection, top cover and base plate with ventilation comb
12	4	Case foot with anti-slip protection, UL 94 V-0, PC black
13	2	Air filters
14	1	Fixing materials kit

3a, 3b, 3c or 3d according to selection

### NOTE

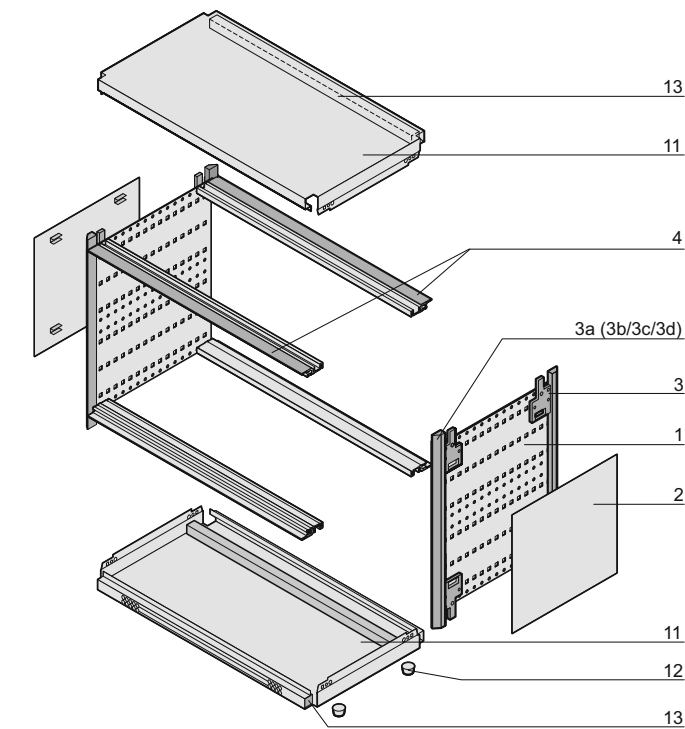
- Order information see following page
- Horizontal rail at front bottom (3/4U + 4/5U) and bottom and top (6/7U) with perforation. Prepared for IEEE applications (insertion- / extraction handles).

### ORDER INFORMATION

Accessories	Part no.
Earthing kit CU wire, 1.5 mm <sup>2</sup> , PVC sleeve, green/yellow, 1 kit	<b>24571-380</b>



Plastic tip-up foot silver, similar to RAL 9006, PU 4 pieces	<b>20603-001</b>
Plastic tip-up foot anthracite, similar to RAL 7016, 4 pieces	<b>20603-002</b>
Stacking aid silver, similar to RAL 9006, PA, UL 94 V-0, PU 4 pieces	<b>20603-004</b>
Stacking aid anthracite, similar to RAL 7016, PA, UL 94 V-0, PU 4 pieces	<b>20603-003</b>



Drawing with front cover strip



Tip-Up Foot

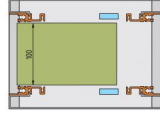
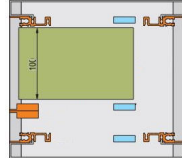
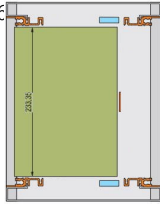



Stacking Aid

# Desk-top cases – RatiopacProAir



107888278

Width W	Depth D	Case height H		
		4 U	5 U	7 U
		PCB height h		
		3 U	4 U (3+1 U)	6 U
				

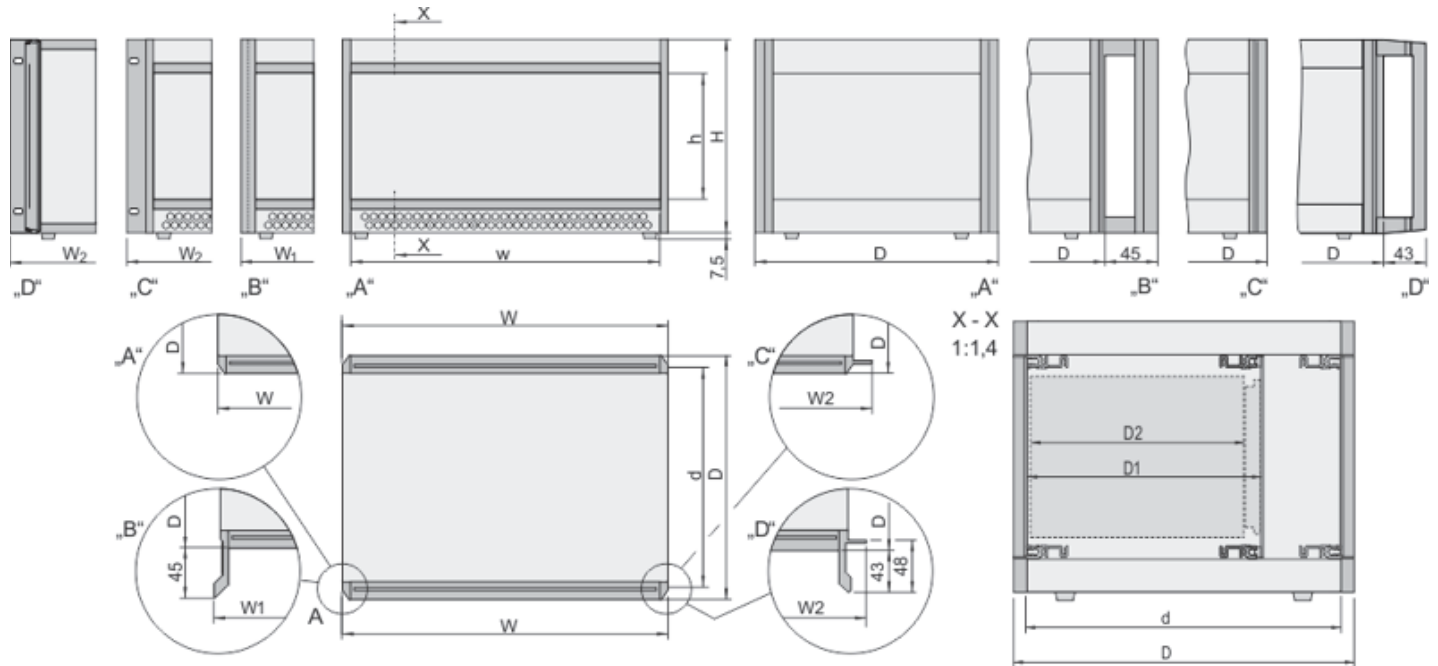
	HP	mm	Part no.	Part no.	Part no.
<b>Bezels</b>  	28	255.5	24571-146	24571-194	24571-242
	28	315.5	24571-149	24571-197	24571-245
	42	255.5	24571-158	24571-206	24571-254
	42	315.5	24571-161	24571-209	24571-257
	42	375.5	24571-162	24571-210	24571-258
	63	255.5	24571-170	24571-218	24571-266
	63	315.5	24571-173	24571-221	24571-269
	63	375.5	24571-174	24571-222	24571-270
	63	435.5	24571-175	24571-223	24571-271
	84	255.5	24571-182	24571-230	24571-278
	84	315.5	24571-185	24571-233	24571-281
	84	375.5	24571-186	24571-234	24571-282
	84	435.5	24571-187	24571-235	24571-283
	84	495.5	24571-188	24571-236	24571-284
<b>Front handles</b>  	28	255.5	24571-846	24571-894	24571-942
	28	315.5	24571-849	24571-897	24571-945
	42	255.5	24571-858	24571-906	24571-954
	42	315.5	24571-861	24571-909	24571-957
	42	375.5	24571-862	24571-910	24571-958
	42	435.5	24571-863	24571-911	24571-959
	63	315.5	24571-873	24571-921	24571-969
	63	375.5	24571-874	24571-922	24571-970
	63	435.5	24571-875	24571-923	24571-971
	84	255.5	24571-882	24571-930	24571-978
	84	315.5	24571-885	24571-933	24571-981
	84	375.5	24571-886	24571-934	24571-982
	84	435.5	24571-887	24571-935	24571-983
	84	495.5	24571-888	24571-936	24571-984
<b>19" mounting brackets</b>  	84	255.5	<b>24571-582</b>	24571-630	24571-678
	84	315.5	<b>24571-585</b>	24571-633	24571-681
	84	375.5	24571-586	24571-634	<b>24571-682</b>
	84	435.5	24571-587	24571-635	24571-683
	84	495.5	24571-588	<b>24571-636</b>	24571-684
<b>With 19" mounting brackets and front handles</b>  	84	255.5	<b>24572-670</b>	-	24572-690
	84	315.5	<b>24572-673</b>	-	<b>24572-693</b>
	84	375.5	<b>24572-674</b>	-	<b>24572-694</b>
	84	435.5	<b>24572-675</b>	-	<b>24572-695</b>
	84	495.5	<b>24572-676</b>	-	24572-696

**NOTE**

- Dimension drawings and mounting depths see page 5.16
- Components see page 5.18

# Desk-top cases – RatiopacProAir

## RATIO PACPRO AIR DIMENSION DRAWINGS



01805058

RatiopacPRO air with A - bezel; B - front handle; C - 19" mounting bracket; D - 19" mounting bracket with front handle

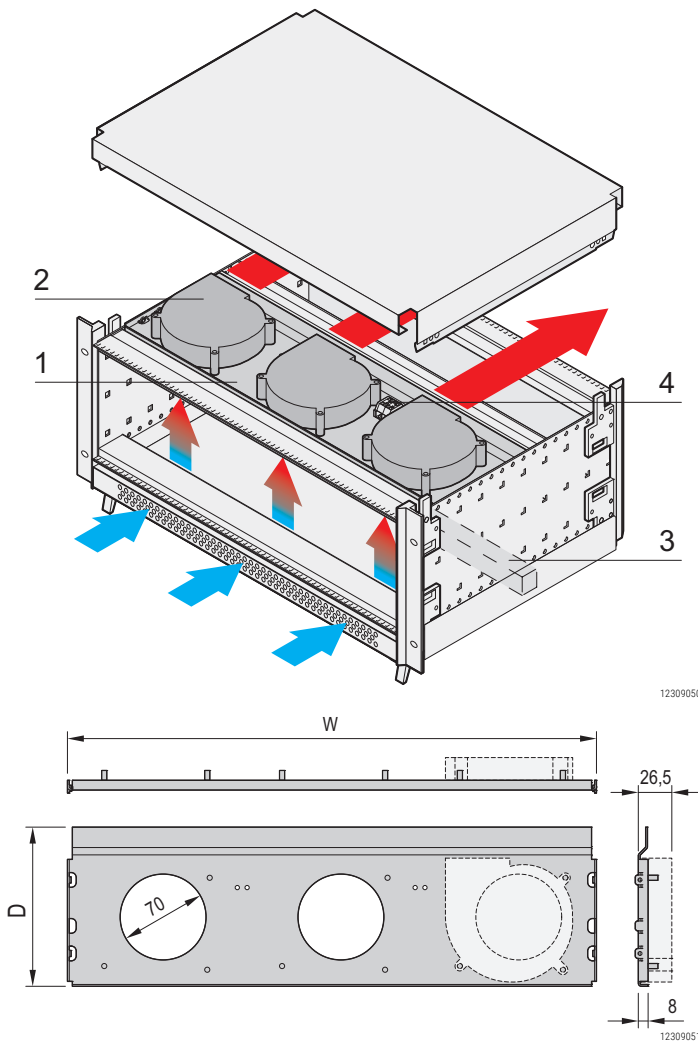
Dimensions table RatiopacPRO air							
Height		Width					
in U	H in mm	H in mm	W in HP	W in mm	W1 in mm	W2 in mm	w in mm
4	177.00	112.35	28	164.42	177.62	198.12	142.82
			42	235.54	248.74	269.24	213.94
			63	342.42	355.42	375.92	320.62
			84	448.90	462.10	482.60	427.30
5	221.45	156.80	42	235.54	248.74	269.24	213.94
			63	342.42	355.42	375.92	320.62
			84	448.90	462.10	482.60	427.30
7	310.35	245.70	42	235.54	248.74	269.24	213.94
			63	342.42	355.42	375.92	320.62
			84	448.90	462.10	482.60	427.30

Depth			
D	d	D1	d2
Total depth in mm	Usable depth in mm	Plug-in depth in mm	Board depth in mm
255.5	235.5	175	160
		235	220
315.5	295.5	175	160
		235	220
		295	280
375.5	355.5	175	160
		235	220
		295	280
		355	340
435.5	415.5	175	160
		235	220
		295	280
495.5	475.5	175	160
		235	220
		295	280
		355	340

Components mountable in 15 mm depth grid

# Desk-top cases – RatiopacProAir

## RADIAL FAN UNIT FOR RATIOACPRO AIR



Depth D: 129.8 / 189.9 mm for 160 mm / 220 mm euroboards

- Only 1/2 U height
- Ball-bearing radial fans
- Fan holder in 4 widths and 2 depths
- Air capacity 36 m<sup>3</sup>/h (free blowing) per fan
- Air exhaust via perforation in cover plate
- No mechanical modification to case necessary
- Simple mounting
- No restriction to rear mounting space

### DELIVERY COMPRISES (Kit)

Item	Qty	Description
1	1	Fan support, Al, 1.5 mm, with crimp sockets for mounting the fans
2	1-3	Radial fan, ball bearing, 12 V <sub>DC</sub> ; airflow volume (50 Hz) 36 m <sup>3</sup> /h, free blowing; power consumption 6.7 W; connecting cable 300 mm, without plug (AWG 26); noise level in dB (A): 47.0; max. static pressure in Pa: 190; max. ambient temperature: 60 °C; fan housing and rotor: UL 94 V-0
3	1	Compartment seal, PE foam, UL 94, self-adhesive, temperature range -20 °C ... +85 °C
4	1	Terminal clamp, UL 94 V-0
5	1	Assembly kit

### ORDER INFORMATION

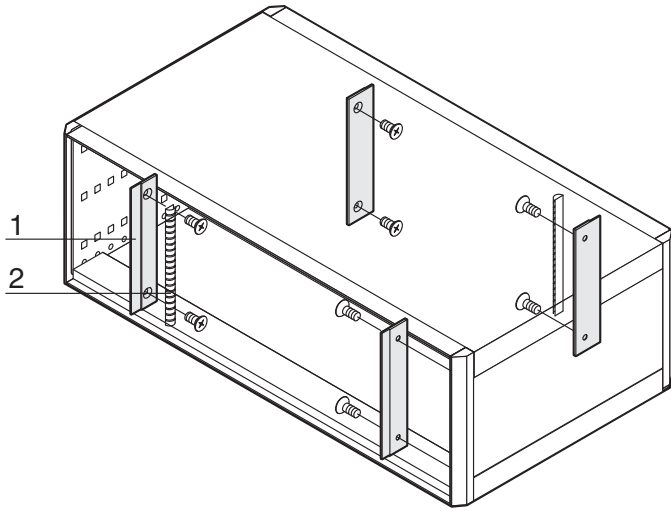
Width HP	Width mm	Number of fans	Part no. for PCB depth	
			160 mm	220 mm
28	146.87	1	24572-404	24572-408
42	218.00	1	24572-405	24572-409
63	324.67	2	24572-406	24572-410
84	431.35	3	<b>24572-407</b>	<b>24572-411</b>

### NOTE

- Further configurations available on request
- Fans with tacho signal available on request

# Desk-top cases – RatiopacPro/ -air

## EMC SEALING FRONT/REAR PANEL TO SIDE PANEL



rppr6639

- For vertical EMC shielding between sub-assemblies and side panel
- Scope of delivery sufficient for one case

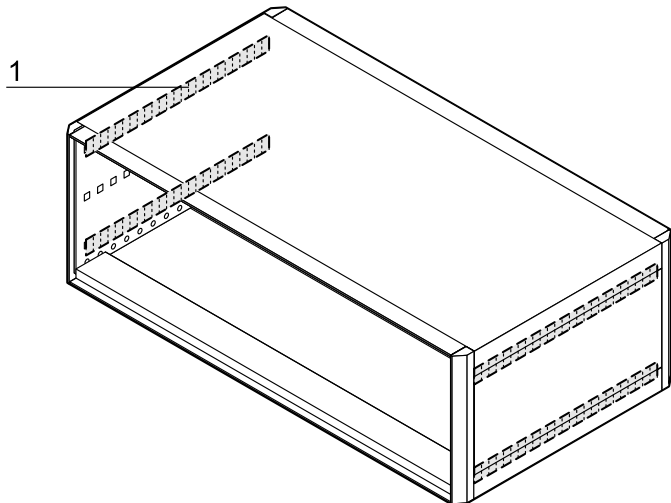
### DELIVERY COMPRISES (kit)

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	Part no.
U	
2	<b>24571-334</b>
3, 3/4-air	<b>24571-331</b>
4, 4/5-air	<b>24571-332</b>
6, 6/7-air	<b>24571-333</b>
5	<b>24571-335</b>

## EMC SEALING SIDE PANEL TO COVER PLATE



RPPR6640

- For horizontal EMC shielding between side panels and cover plates
- Scope of delivery sufficient for one case

### DELIVERY COMPRISES (kit)

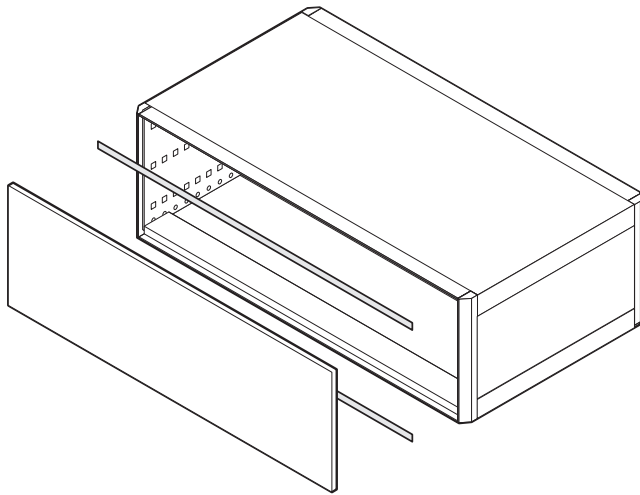
Item	Qty	Description
1	4	Contact strip, stainless steel

### ORDER INFORMATION

Depth mm	Part no.
255	<b>24571-338</b>
315	<b>24571-339</b>
375	<b>24571-340</b>
435	<b>24571-341</b>
495	<b>24571-342</b>

# Desk-top cases – RatiopacPro/ -air

## EMC SEALING FRONT/REAR PANEL TO HORIZONTAL RAIL



rpp6739

- 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

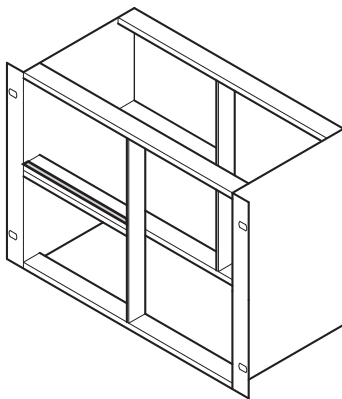
### DELIVERY COMPRISES

Item	Qty	Description
1	10/100	Stainless steel EMC gasket

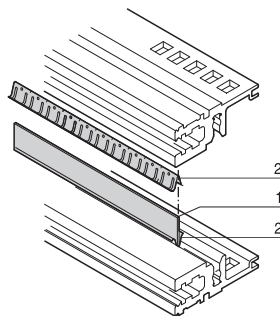
### ORDER INFORMATION

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

## EMC SEALING HORIZONTAL RAIL TO HORIZONTAL RAIL



BPA46548



BZA45877

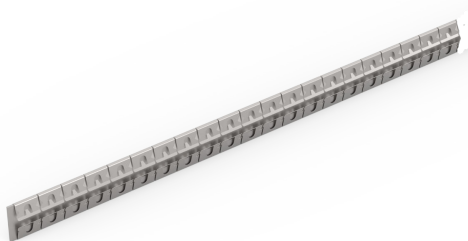
- For shielding of two horizontal rails located directly above each other with vertical division of the mounting height

### DELIVERY COMPRISES

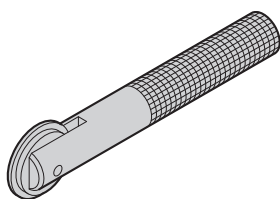
Item	Qty	Description
1	1	Cover strip, Al, 1 mm
2	2	Contact spring, St, stainless

### ORDER INFORMATION

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



135485455

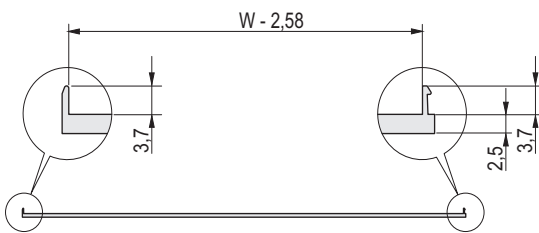
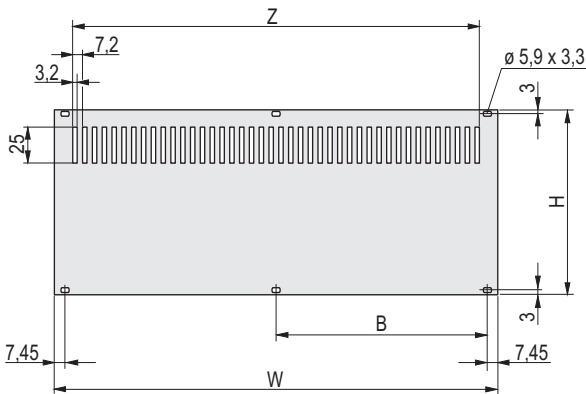


aza45937

Assembly tool

# Desk-top cases – RatiopacPro/ -air

## REAR PANELS WITH VENTILATION SLOTS



Shieldable

01802055



Unshielded

01804050

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

### DELIVERY COMPRISES

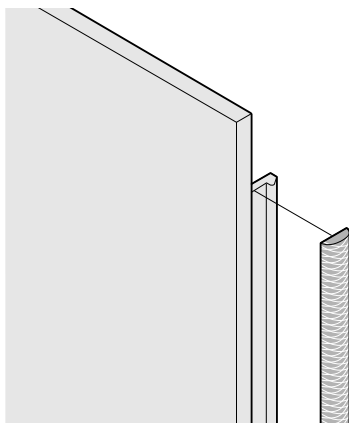
Item	Qty	Description
1	1	Rear panel, Al, 2.5 mm, front: anodised, rear: iridescent green chromated; unshielded or shieldable with EMC seal (textile)

### ORDER INFORMATION

Height U	H mm	Width W HP mm	B mm	unshielded Part no.	shieldable Part no.
2	84	28 141.9	-	<b>30849-007</b>	20848-679
2	84	42 213	101.6	<b>30849-014</b>	20848-680
2	84	63 319.7	157.5	<b>30849-015</b>	20848-681
2	84	84 426.4	208.3	<b>30849-016</b>	20848-682
3, 3/4-air	128.4	28 141.9	-	<b>30849-008</b>	<b>20848-633</b>
3, 3/4-air	128.4	42 213	101.6	<b>30849-021</b>	20848-634
3, 3/4-air	128.4	63 319.7	157.5	<b>30849-022</b>	20848-635
3, 3/4-air	128.4	84 426.4	208.3	<b>30849-023</b>	<b>20848-636</b>
4, 4/5-air	172.9	28 141.9	-	<b>30849-009</b>	20848-656
4, 4/5-air	172.9	42 213	101.6	<b>30849-028</b>	20848-657
4, 4/5-air	172.9	63 319.7	157.5	<b>30849-029</b>	20848-658
4, 4/5-air	172.9	84 426.4	208.3	<b>30849-030</b>	20848-659
5	217.3	28 141.9	-	<b>30849-011</b>	20848-744
5	217.3	42 213	101.6	<b>30849-171</b>	20848-745
5	217.3	63 319.7	157.5	<b>30849-172</b>	20848-746
5	217.3	84 426.4	208.3	<b>30849-173</b>	20848-747
6, 6/7-air	261.8	28 141.9	-	<b>30849-010</b>	20848-640
6, 6/7-air	261.8	42 213	101.6	<b>30849-035</b>	<b>20848-641</b>
6, 6/7-air	261.8	63 319.7	157.5	<b>30849-036</b>	20848-642
6, 6/7-air	261.8	84 426.4	208.3	<b>30849-037</b>	<b>20848-643</b>

- Please order textile EMC seals separately
- 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

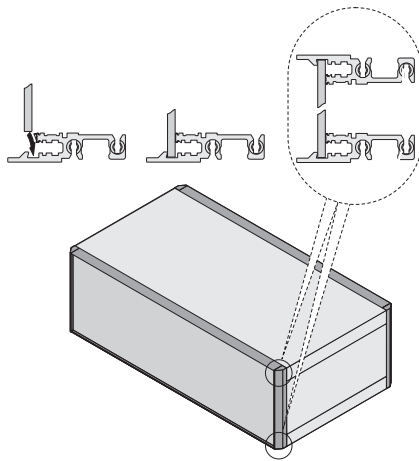
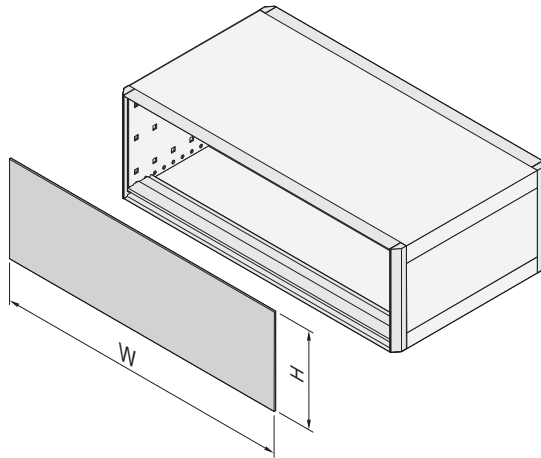
### ORDER INFORMATION

Height U	Height mm	Qty/PU pieces	Part no.
2	52	10	<b>21101-857</b>
3, 3/4-air	97	100	<b>21101-854</b>
3, 3/4-air	97	10	<b>21101-853</b>
4, 4/5-air	142	10	<b>21101-858</b>
5	187	10	<b>21101-978</b>
6, 6/7-air	232	100	<b>21101-856</b>
6, 6/7-air	232	10	<b>21101-855</b>



# Desk-top cases – RatiopacPro/ -air

## EMC FRONT/REAR PANEL, SLOTTED, SHIELDED



Front panel/horizontal rail

- No screws required for fixing
- Special horizontal rails 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
2	2	Horizontal rail, front; special for this front panel
3	4	EMC support profile
4	2	Contact strip horizontal rail - front panel
5	3	EMC textile gasket
6	1	Fixing material kit, user manual

### ORDER INFORMATION

01811055

For case height	Height H	For case width	Width W	Part no.
U	mm	HP	mm	
2	84.0	28	141.9	24572-599
2	84.0	42	213.2	24572-600
2	84.0	63	319.7	24572-601
2	84.0	84	426.4	24572-602
3, 3/4 air	128.4	28	141.9	<b>24572-603</b>
3, 3/4 air	128.4	42	213.2	<b>24572-604</b>
3, 3/4 air	128.4	63	319.7	<b>24572-605</b>
3, 3/4 air	128.4	84	426.4	<b>24572-606</b>
4, 4/5 air	172.9	28	141.9	24572-607
4, 4/5 air	172.9	42	213.2	24572-608
4, 4/5 air	172.9	63	319.7	24572-609
4, 4/5 air	172.9	84	426.4	24572-610

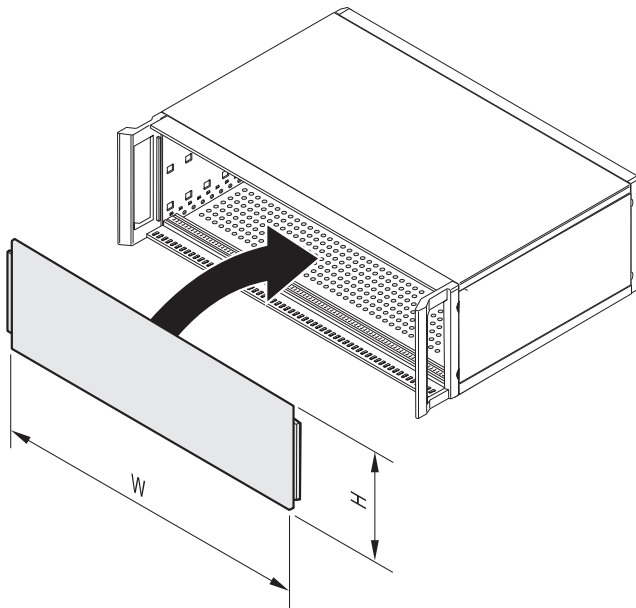
### NOTE

01811056

- 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)
- EMC sealing see from page 5.18

# Desk-top cases – RatiopacPro/ -air

## FULL-WIDTH FRONT PANEL, SLOTTED, UNSHIELDED



06801502



135395629

- Front panels can also be used as rear panels
- No screws required for fixing
- Inserted between side panel and castings such as trim, 19" mounting bracket or handle

### DELIVERY COMPRISES

Item	Qty	Description
1	1	Front panel, Al, 2.5 mm, front: anodised, rear: colour passivated

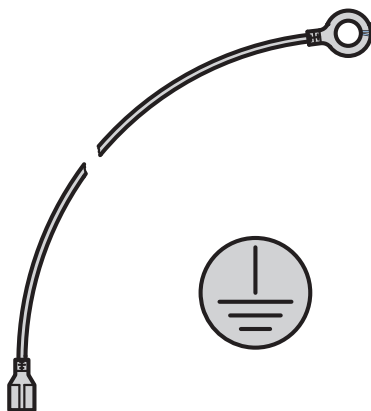
### ORDER INFORMATION

For case height U	Height H mm	For case width HP	Width W mm	Part no.
2	84	28	141.9	34571-617
2	84	42	213.2	34571-618
2	84	63	319.7	34571-619
2	84	84	426.4	<b>34571-620</b>
3, 3/4-air	128.4	28	141.9	<b>34571-605</b>
3, 3/4-air	128.4	42	213.2	<b>34571-606</b>
3, 3/4-air	128.4	63	319.7	<b>34571-607</b>
3, 3/4-air	128.4	84	426.4	<b>34571-608</b>
4, 4/5-air	172.9	28	141.9	34571-609
4, 4/5-air	172.9	42	213.2	34571-610
4, 4/5-air	172.9	63	319.7	34571-611
4, 4/5-air	172.9	84	426.4	<b>34571-612</b>
5	217.3	28	141.9	34571-621
5	217.3	42	213.2	34571-622
5	217.3	63	319.7	34571-623
5	217.3	84	426.4	34571-624
6, 6/7-air	261.8	28	141.9	34571-613
6, 6/7-air	261.8	42	213.2	34571-614
6, 6/7-air	261.8	63	319.7	34571-615
6, 6/7-air	261.8	84	426.4	<b>34571-616</b>

### NOTE

- Screw-fixed front panels see chapter Front panels, page 7.4

## EARTHING KIT



aza43284

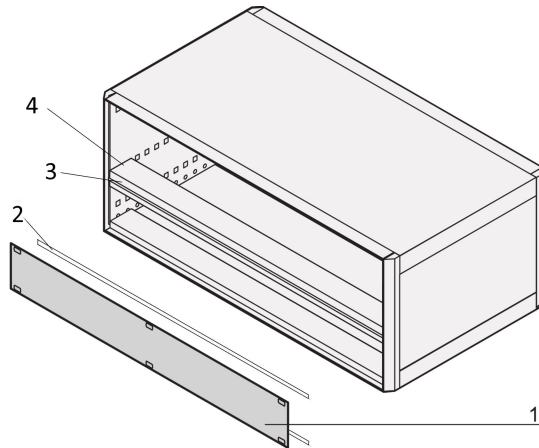
- Forms the GND/earthing connections between side panels, base plate, top cover and rear panel
- Protective GND/earthing connections in accordance with:
  - DIN EN 50178/VDE 0160
  - DIN EN 62368-1/VDE 0805
  - DIN EN 61010-1/VDE 0411 part 1
  - DIN EN 61010-1A2/VDE 0411 part 1/A1
- VDE tested

### ORDER INFORMATION

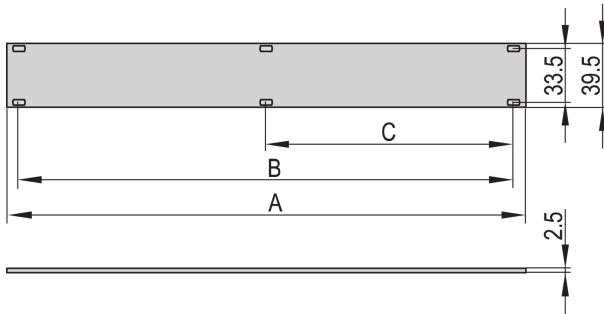
Description	Part no.
GND/earthing kit, Cu wire 1.5 mm <sup>2</sup> , PVC sleeve, green/yellow	<b>24571-380</b>

# Desk-top cases – RatiopacPro

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



05806064



05806065

### 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	-	<b>20850-423</b>
42	213.0	198.1	101.6	<b>20850-424</b>
63	319.7	304.8	157.5	<b>20850-425</b>
84	426.4	411.5	203.2	<b>20850-426</b>

### Accessories

Pozidrive/slotted collar screw M2.5 x 12.3, St, nickel-plated, PU 100 pieces	<b>21101-101</b>
Plastic sleeve, PA, grey PU 100 pieces	<b>21100-464</b>

### NOTE

- Please order items 2, 3 and 4 separately

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

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

## TIP-UP FEET AND STACKING AID/DESIGN ELEMENT

- Can be used instead of standard feet
- Carrying capacity: 25 kg per foot
- Mounting holes in bottom of casing

### DELIVERY COMPRISES (kit)

Item	Qty	Description
1	4	Foot, PA, UL 94 V-0
2	4	Anti-slip protection, TPE
3	2	Tip-up device, PA, UL 94 V-0
4	1	Assembly kit

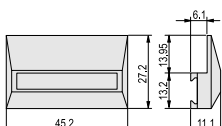
### ORDER INFORMATION

Description	Part no.
Tip-up foot, silver, similar to RAL 9006	<b>20603-001</b>
Tip-up foot, anthracite, similar to RAL 7016	<b>20603-002</b>
Stacking aid/design element silver, similar to RAL 9006, PA, UL 94 V-0, PU 4 pieces	<b>20603-004</b>
Stacking aid/design element anthracite, similar to RAL 7016, PA, UL 94 V-0, PU 4 pieces	<b>20603-003</b>

### NOTE

- Tip-up feet are required to mount the stacking aid

Tip-up foot

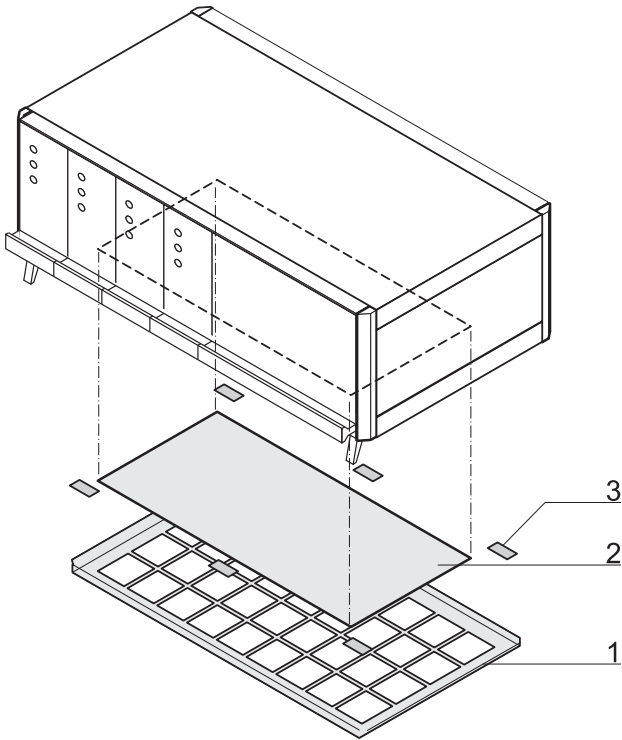


Stacking aid/design element

01802076

# Desk-top cases – RatiopacPro/ -air

## AIR FILTERS FOR RATIOPACPRO



rppr6658

- Retrofit mounting without reworking and tools
- Filter replacement without opening the case, IP protection retained

### DELIVERY COMPRISES (kit)

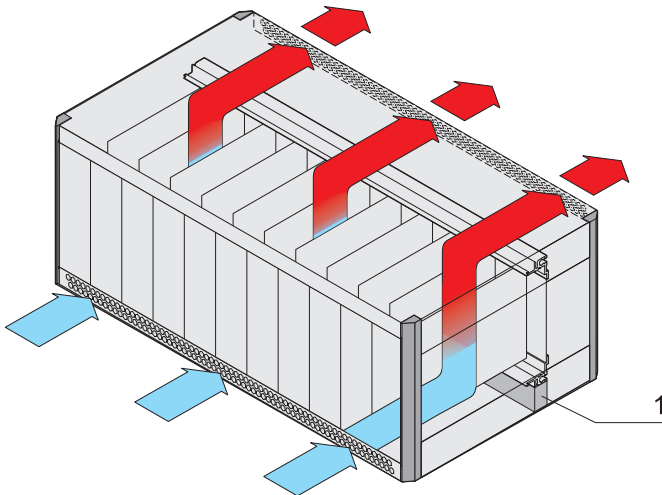
Item	Qty	Description
1	1	Filter holder, Al, 1 mm, powder-coated, RAL 9006
2	1	Filter mat, synthetic fibre
3	1	Self-adhesive fixings

### ORDER INFORMATION

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

- To optimise the air supply, tip-up feet must be fitted to the case, see page 5.23

## AIR BAFFLES FOR RATIOPACPRO AIR



01805059

- The air baffle (item 1) closes the space (1/2 U) between the rear horizontal rail and base plate

### DELIVERY COMPRISES (in kit form)

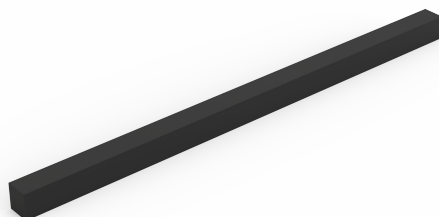
Item	Qty	Description
1	1	Compartment seal, PE foam, UL 94 HF 1 + HF 2, self-adhesive, temperature range: -40 °C ... +85 °C

### ORDER INFORMATION

For case width	Length	Part no.
HP	mm	
42	218.4	<b>20833-351</b>
63	325.1	<b>20833-352</b>
84	431.8	<b>20833-353</b>

### NOTE

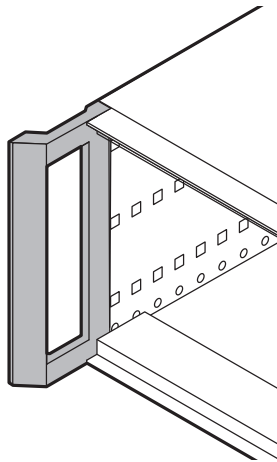
- Fan rear panel available on request
- Radial fan unit see page 5.17



185395173

# Desk-top cases – RatiopacPro

## FRONT HANDLES FOR RETROFITTING


RPPR6651

- For conversion of cases with cover strip, 19" mounting bracket or 19" mounting bracket with front handle

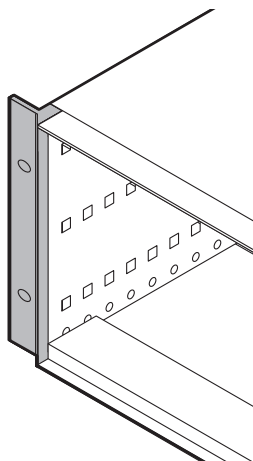
### DELIVERY COMPRISES

Item	Qty	Description
1	2	Front handle, Al die-cast, powder-coated, RAL 7016

### ORDER INFORMATION

Front handle for	Part no.
RatiopacPRO 2 U	<b>24572-708</b>
RatiopacPRO 3 U	<b>24571-301</b>
RatiopacPRO 4 U	<b>24571-302</b>
RatiopacPRO 5 U	24571-993
RatiopacPRO 6 U	<b>24571-303</b>
RatiopacPRO air 3/4 U	<b>24571-304</b>
RatiopacPRO air 4/5 U	<b>24571-305</b>
RatiopacPRO air 6/7 U	<b>24571-306</b>

## 19" MOUNTING BRACKETS FOR RETROFITTING


RPPR6652

- For conversion of cases with cover strip, front handle or 19" mounting bracket with front handle

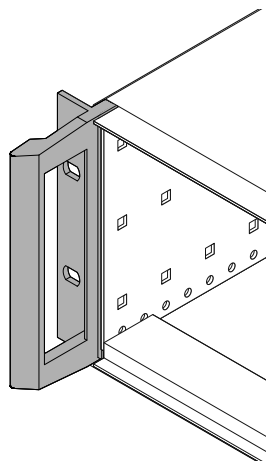
### DELIVERY COMPRISES

Qty	Description
2	19" mounting bracket, Al diecast, powder-coated, RAL 7016

### ORDER INFORMATION

19" mounting angle	Part no.
RatiopacPRO 2 U	<b>24571-994</b>
RatiopacPRO 3 U	<b>24571-295</b>
RatiopacPRO 4 U	<b>24571-296</b>
RatiopacPRO 5 U	<b>24571-992</b>
RatiopacPRO 6 U	<b>24571-297</b>
RatiopacPRO air 3/4 U	<b>24571-298</b>
RatiopacPRO air 4/5 U	<b>24571-299</b>
RatiopacPRO air 6/7 U	<b>24571-300</b>

## 19" MOUNTING BRACKET WITH FRONT HANDLE FOR CONVERSION


01812056

- For conversion of cases with cover strip, front handle or 19" mounting bracket

### DELIVERY COMPRISES

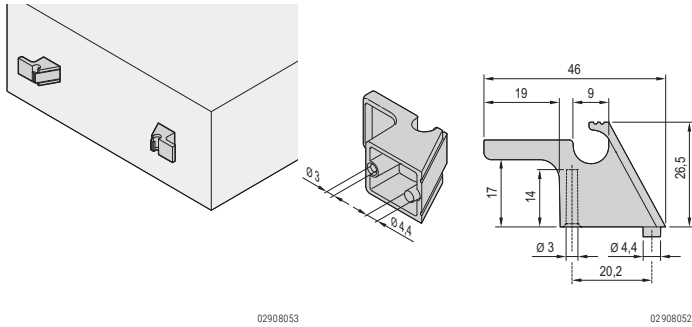
Qty	Description
2	19" mounting bracket with front handle, Al diecast, powder-coated, RAL 7016

### ORDER INFORMATION

19" mounting angle	Part no.
RatiopacPRO 2 U	<b>24572-700</b>
RatiopacPRO 3 U	<b>24572-701</b>
RatiopacPRO 4 U	<b>24572-702</b>
RatiopacPRO 6 U	<b>24572-704</b>
RatiopacPRO air 3/4 U	<b>24572-705</b>
RatiopacPRO air 6/7 U	<b>24572-707</b>

# Desk-top cases – RatiopacPro/ -air

## CABLE HOLDER



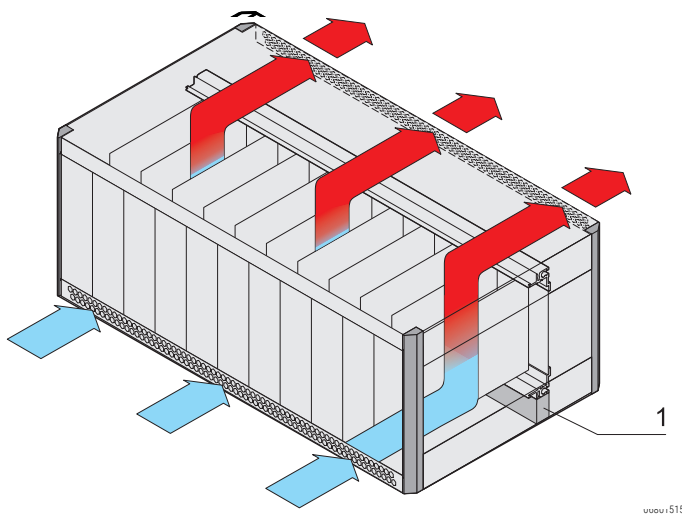
### DELIVERY COMPRISES

Item	Qty	Description
1	2	Cable bracket, ABS, UL V-94 0, RAL 7016, detent for cables between 8 mm and 12 mm
2	1	Drilling template, two drilled holes each per bracket are needed in rear panel
3	1	Assembly kit

### ORDER INFORMATION

Description	Part no.
Cable holder	<b>24575-800</b>

## STRAP HANDLES



- Retrofittable without mechanical modifications to the case
- Static load-carrying capacity 20 kg

### DELIVERY COMPRISES (kit)

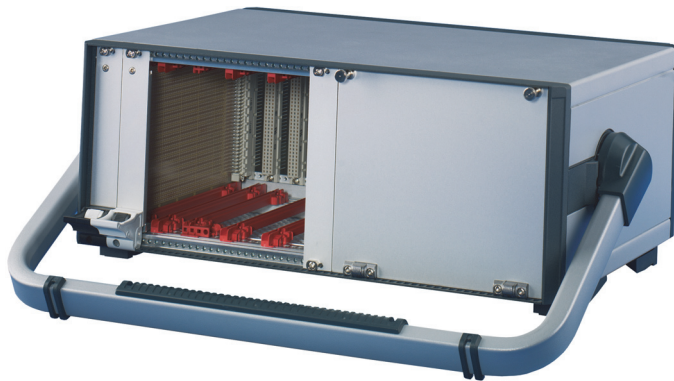
Item	Qty	Description
1	1	Handle, steel spring, plastic-sheathed (flexible plastic), RAL 7016
2	1	Side plate, Al, visible surfaces powder-coated, RAL 9006
3	2	Adaptor, Al die-cast
4	1	Assembly kit

### ORDER INFORMATION

For case depth mm	For case height 3 U, 4 U air Part no.	For case height 4 HE, 5 U air Part no.
315	<b>24571-308</b>	<b>24571-314</b>
375	<b>24571-309</b>	<b>24571-315</b>
435	<b>24571-310</b>	<b>24571-316</b>

# Desk-top cases – RatiopacPro/ -air

## TIP-UP CARRYING HANDLES



06803006

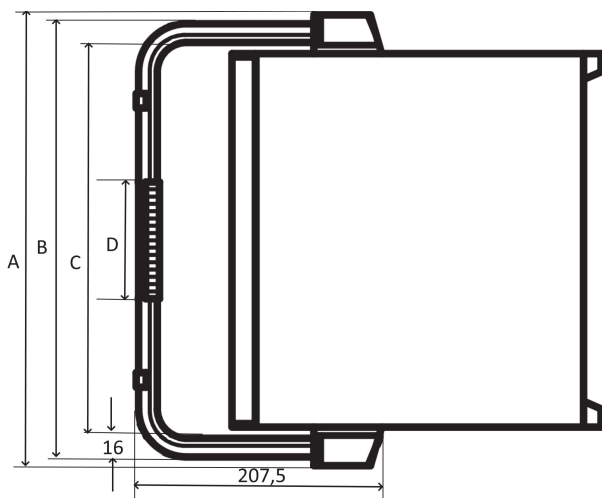
- Retrofittable without mechanical modifications to the case
- Adjustable in 30° increments
- Static load-carrying capacity 30 kg

### DELIVERY COMPRISES (kit)

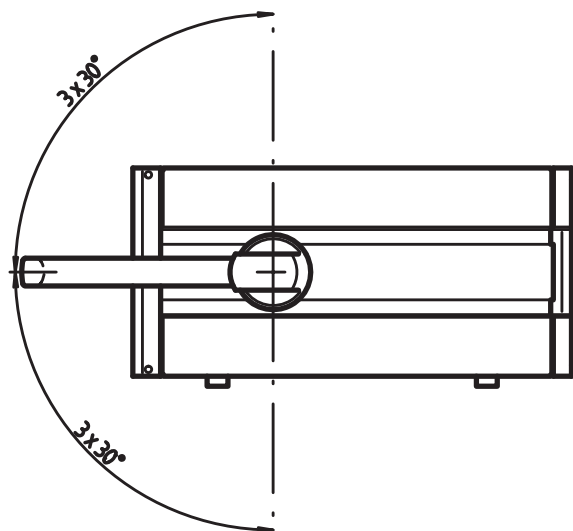
Item	Qty	Description
1	1	Carrying bar, Al extrusion, powder coated, RAL 9006
2	1	Handle shell, ABS, UL 94 V-0, RAL 7016
3	2	Tip-up protection, ABS, UL 94 V-0, RAL 7016
4	2	Notch device, Al die-cast
5	2	Cover cap, ABS, UL 94 V-0, RAL 7016

### ORDER INFORMATION

For case height	For case width	For case depth	Tip-up carrying handle	Assembly kit
U	HP	mm	Part no.	Part no.
3, 3/4 air	42	255		<b>24571-352</b>
3, 3/4 air	42	315		<b>24571-353</b>
3, 3/4 air	42	375	<b>24571-320</b>	<b>24571-354</b>
3, 3/4 air	42	435		<b>24571-355</b>
3, 3/4 air	42	495		<b>24571-356</b>
3, 3/4 air	63	255		<b>24571-352</b>
3, 3/4 air	63	315		<b>24571-353</b>
3, 3/4 air	63	375	<b>24571-321</b>	<b>24571-354</b>
3, 3/4 air	63	435		<b>24571-355</b>
3, 3/4 air	63	495		<b>24571-356</b>
3, 3/4 air	84	255		<b>24571-352</b>
3, 3/4 air	84	315		<b>24571-353</b>
3, 3/4 air	84	375	<b>24571-322</b>	<b>24571-354</b>
3, 3/4 air	84	435		<b>24571-355</b>
3, 3/4 air	84	495		<b>24571-356</b>
4, 4/5 air	42	255		<b>24571-359</b>
4, 4/5 air	42	315		<b>24571-360</b>
4, 4/5 air	42	375	<b>24571-320</b>	<b>24571-361</b>
4, 4/5 air	42	435		<b>24571-362</b>
4, 4/5 air	42	495		24571-363
4, 4/5 air	63	255		<b>24571-359</b>
4, 4/5 air	63	315		<b>24571-360</b>
4, 4/5 air	63	375	<b>24571-321</b>	<b>24571-361</b>
4, 4/5 air	63	435		<b>24571-362</b>
4, 4/5 air	63	495		24571-363
4, 4/5 air	84	255		<b>24571-359</b>
4, 4/5 air	84	315		<b>24571-360</b>
4, 4/5 air	84	375	<b>24571-322</b>	<b>24571-361</b>
4, 4/5 air	84	435		<b>24571-362</b>
4, 4/5 air	84	495		24571-363



For case height	For case width	A	B	C	D
U	HP	mm	mm	mm	mm
3, 4, 3/4-air, 4/5-air	42	283,4	279,4	247,4	115
3, 4, 3/4-air, 4/5-air	63	390,1	386,1	354,1	195
3, 4, 3/4-air, 4/5-air	84	496,8	492,8	460,8	195



rpa43898



### NOTE

- Cannot be used in conjunction with front handles
- Assembly kit is required for tip-up carrying handle, please order separately

# Desk-top cases – RatiopacPro/ -air


## TORX PANHEAD SCREWS

### ORDER INFORMATION

	Description	Application	Material	Dimension	Qty/PU	Part no.
	Countersunk screw with Torx	For horizontal rail to side panel, with GND/earthing function	St, zinc-plated	M4 x 14	100	<b>24571-371</b>
	Countersunk screw with Torx	For horizontal rail to side panel, if guide rail is bolted onto slot 1	St, zinc-plated	M4 x 10	100	<b>24571-372</b>

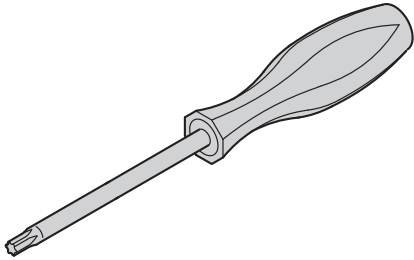
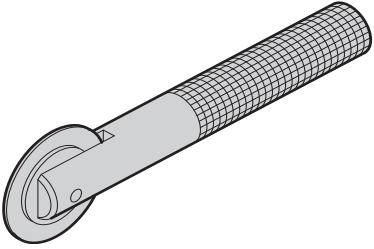
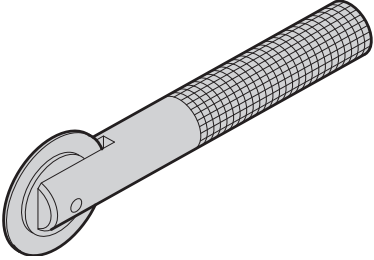
## NUT

### ORDER INFORMATION

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

## ASSEMBLY TOOLS

### ORDER INFORMATION

	Description	Application	Dimension	Qty/PU	Part no.
 <small>AZA45925</small>	Torx screwdriver		T8	1	<b>64560-026</b>
			T20	1	<b>64560-027</b>
 <small>aza45938</small>	Assembly tool for horizontal rails	Exclusively to fix stainless steel EMC gaskets in horizontal rails	–	1	<b>24560-271</b>
 <small>aza45937</small>	Assembly tool for front panels	For mounting stainless steel EMC contact strips on front panels with lateral slot	–	1	<b>24560-270</b>



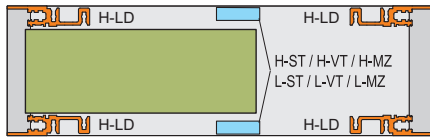
# Desk-top cases – RatiopacPro/ -air

## MOUNTING POSITION RATIOPACPRO HORIZONTAL RAILS/CENTRAL RAILS

front

rear

**2 U**

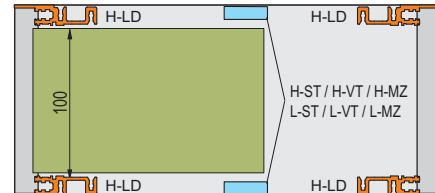


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front

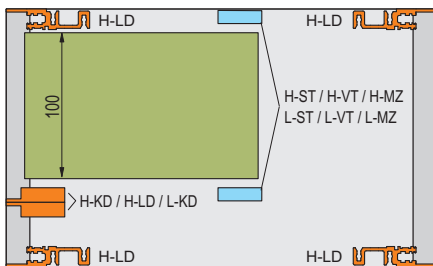
rear

**3 U**



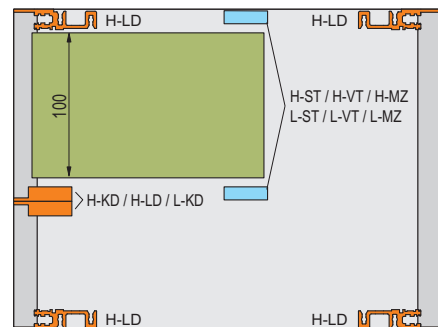
01802057

**4 U (3 U + 1 U)**



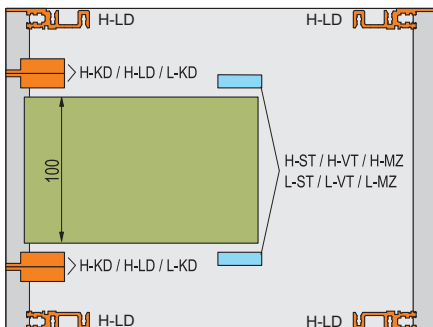
01802058

**5 U (3 U + 2 U)**



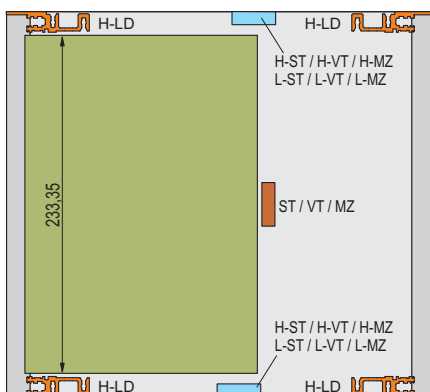
01805062

**5 U (1 U + 3 U + 1 U)**



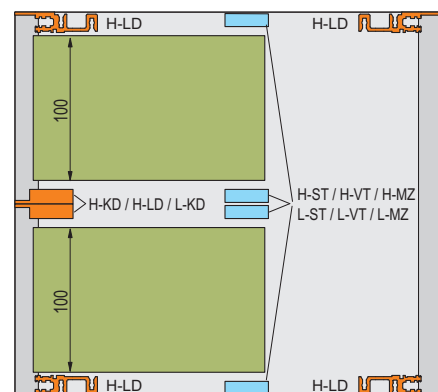
01805061

**6 U**



01802059

**6 U (2 x 3 U)**



01802060



Horizontal rails can be bolted on in 15 mm depth grid

01808050

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

# Desk-top cases – RatiopacPro/ -air

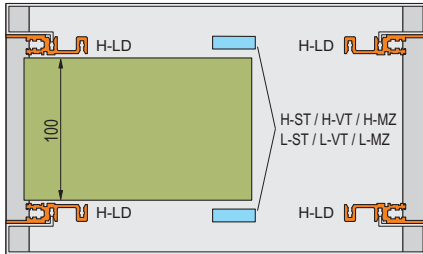
## MOUNTING POSITION RATIOPACPRO AIR HORIZONTAL RAILS/CENTRAL RAILS

front

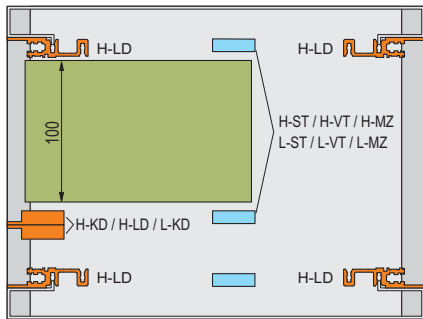
rear

front

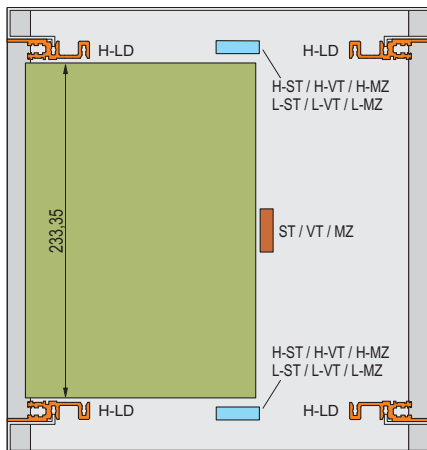
rear

**4-air U (1/2 U + 3 U + 1/2 U)**


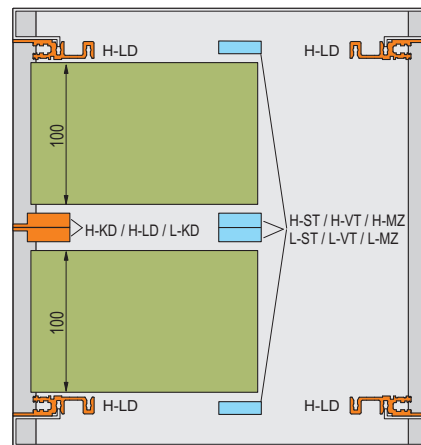
01802061

**5-air U (1/2 U + 3 U + 1U +1/2 U)**


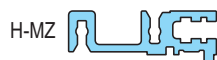
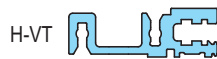
01802062

**7-air U (1/2 U + 6 U + 1/2 U)**


01802063

**7-air U (1/2 U + 3 U + 3U 1/2 U)**


01802064



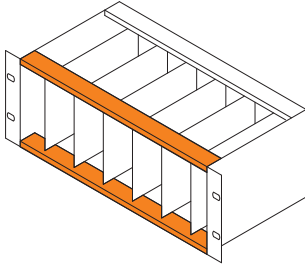






Horizontal

01808050

# Desk-top cases – RatiopacPro/ -air

## FRONT HORIZONTAL RAILS

### ORDER INFORMATION

 <p>bza44980</p>		<p>"heavy" Type H-KD short lip</p>  <p>Al extrusion, anodised finish, contact surface conducting, with printed HP markings</p> <p>06197008</p>	<p>With long lip for insertion/extraction of CompactPCI and VME64x boards</p> <p>"heavy" Type H-LD long lip</p>  <p>Al extrusion, anodised finish, contact surface conducting, with printed HP markings</p> <p>06197009</p>
Usable length HP	Length mm	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>
28	147.32	<b>34560-228</b>	<b>34560-328</b>
42	218.44	<b>34560-242</b>	<b>34560-342</b>
63	325.12	<b>34560-263</b>	<b>34560-363</b>
84	431.80	<b>34560-284</b>	<b>34560-384</b>
M4 x 14, St, zinc-plated, PU 100pcs		<b>24571-371</b> 	<b>24571-371</b> 
M4 x 10, St, zinc-plated, necessary if guide rail is screwed to slot 1, PU 100 pieces		<b>24571-372</b> 	<b>24571-372</b> 
Threaded inserts see page		5.35	5.35

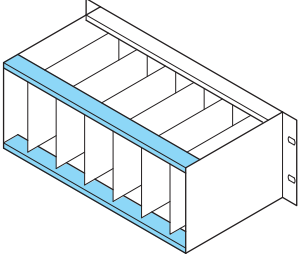

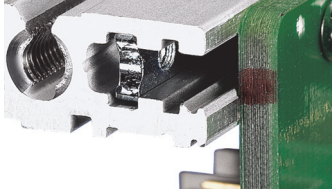

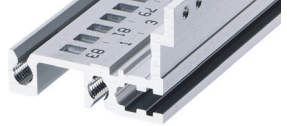
1) SPQ (standard pack quantity): Order number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple thereof

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

# Desk-top cases – RatiopacPro/ -air

## REAR HORIZONTAL RAILS

### ORDER INFORMATION

		For indirect backplane fixing with insulation strip	For direct backplane fixing	For direct fixing of connectors to EN 60603-2 (DIN 41612)
 06105074		 "heavy" Type H-ST standard 04400001	 "heavy" Type H-VT long lip 04400002	 "heavy" Type H-MZ with Z-rail 04400003
 06197011		 06197013	 06197015	
Al extrusion, anodised finish, contact surface conducting, with printed HP markings		Al extrusion, anodised finish, contact surface conducting, with printed HP markings		Al extrusion, anodised finish, contact surface conducting, with printed HP markings
Usable length HP	Length mm	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>
28	147.32	<b>34560-528</b>	<b>34560-728</b>	<b>34560-928</b>
42	218.44	<b>34560-542</b>	<b>34560-742</b>	<b>34560-942</b>
63	325.12	<b>34560-563</b>	<b>34560-763</b>	<b>34560-963</b>
84	431.80Torx	<b>34560-584</b>	<b>34560-784</b>	<b>34560-984</b>
Torx panhead screw, 4 x 14, 100pcs		<b>24571-371</b>	<b>24571-371</b>	<b>24571-371</b>
Torx panhead screw, 4 x 10, 100pcs		<b>24571-372</b>	<b>24571-372</b>	<b>24571-372</b>
Perforated rail for connector mounting with insulation strip see page		5.35	-	-
Z-rail for connector mounting without insulation strip see page		5.35	-	-
Insulation strips see page		5.35	-	-
Threaded inserts see page		5.35	5.35	5.35

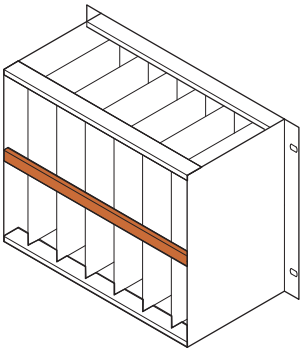


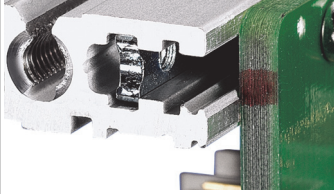



<sup>1)</sup> SPQ (standard pack quantity): Order number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple thereof

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

# Desk-top cases – RatiopacPro/ -air

## HORIZONTAL RAILS REAR, CENTRE

### ORDER INFORMATION

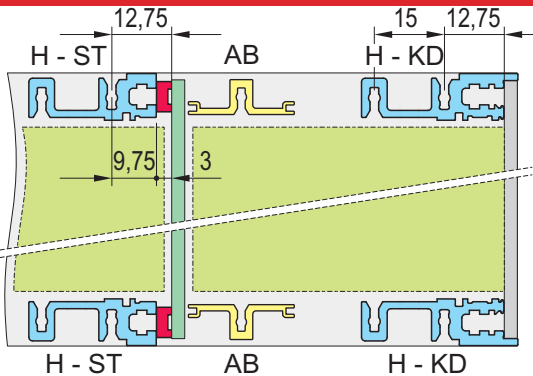
		For indirect mounting of backplanes via insulation strip	For direct backplane mounting	For direct fixing of connectors to EN 60603-2 (DIN 41612)
 <p>06108090</p>		 <p>04400001</p> <p>Type ST</p>  <p>06197016</p>	 <p>04400002</p> <p>Type VT</p>  <p>06197017</p>	 <p>04400003</p> <p>Type MZ</p>  <p>06197018</p>
		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) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>
28	147.32	<b>34561-028</b>	<b>34561-128</b>	<b>34561-228</b>
42	218.44	<b>34561-042</b>	<b>34561-142</b>	<b>34561-242</b>
63	325.12	<b>34561-063</b>	<b>34561-163</b>	<b>34561-263</b>
84	431.80	<b>34561-084</b>	<b>34561-184</b>	<b>34561-284</b>
Torx panhead screw, 4 x 14, 100 pcs		<b>24571-371</b>	<b>24571-371</b>	<b>24571-371</b>
Torx panhead screw, 4 x 10, 100 pcs		<b>24571-372</b>	<b>24571-372</b>	<b>24571-372</b>
Insulation strips see page		5.35	–	–
Threaded inserts see page		5.35	5.35	5.35

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

# Desk-top cases – RatiopacPro/ -air

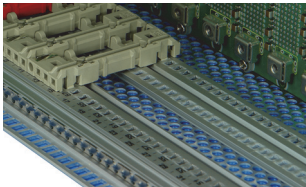
## HORIZONTAL RAILS (TYPE AB) FOR REAR I/O GUIDE RAILS

### ORDER INFORMATION




06 108069

For CompactPCI in rear I/O area




06 108009

Type AB



06 197019

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) <sup>1)</sup>
20	106.68	<b>34561-520</b>
28	147.32	<b>34561-528</b>
40	208.28	<b>34561-540</b>
42	218.44	<b>34561-542</b>
63	325.12	<b>34561-563</b>
84	431.80	<b>34561-584</b>
–	1000	<b>34561-501</b>
Screw, M4 x 14, PU 100 pieces, for fastening horizontal rail to side panel		<b>24571-371</b> 

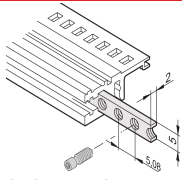
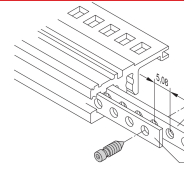
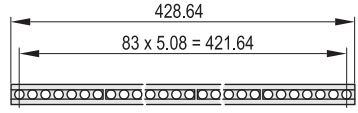
<sup>1)</sup> SPQ (standard pack quantity): Order number includes 1 piece, but delivery is exclusively made in standard pack quantity (SPQ); please order at least the SPQ quantity or a multiple thereof

### NOTE

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

# Desk-top cases – RatiopacPro/ -air

## THREADED INSERTS, PERFORATED STRIPS, INSULATION STRIPS

	Threaded insert		Perforated strip		Insulation strip		
	M2.5	M3	(item 1)				
	 06103056 Required for fixing the front panel to the horizontal rail; St, zinc-plated; use collar screw 12.3 mm, see page 6.66		 127685783 For centring shielded plug-in units, Al, 1 mm, please order fixing grub screw (torque 0,37Nm) separately		 BZ6749 For insulated mounting of backplane; PC, UL 94 V-0, grey		
Usable length HP	Length mm	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>	Length mm	1 piece (SPQ 10) <sup>1)</sup>	PU 10 pieces <sup>2)</sup>	
28	146.82	<b>34561-328</b>	–	147.12	<b>30845-197</b>	144.20	<b>24560-828</b>
42	217.94	<b>34561-342</b>	–	218.24	<b>30845-211</b>	210.40	<b>24560-842</b>
63	324.62	<b>34561-363</b>	–	324.92	<b>30845-232</b>	316.88	<b>24560-863</b>
84	431.30	<b>34561-384</b>	<b>34561-484</b>	431.60	<b>30845-253</b>	428.64	<b>24560-884</b>

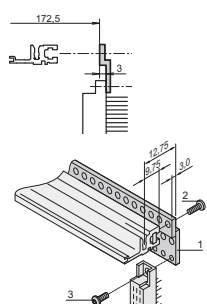
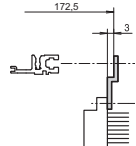
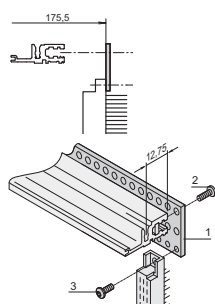
### Accessories

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

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

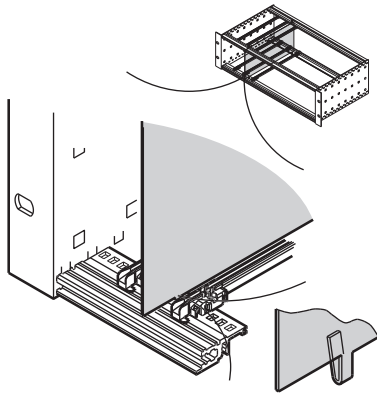
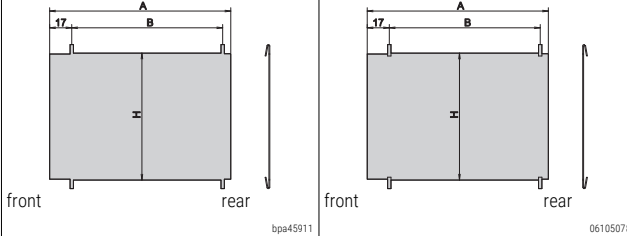
		Z-rail for connectors DIN EN 60603-2, DIN 41612 item 1	31-pin, DIN 41617	Perforated rail EN 606032, DIN 41612 item 1
		 BZA45849 06708063 For connector mounting with ST horizontal rails, please order threaded insert and screw separately	 BZA45850 For connector mounting with ST horizontal rails, please order threaded insert and screw separately	 BZA45848 06708051 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
28	142.24	<b>30822-033</b>	–	<b>20822-049</b>
42	213.36	<b>30822-047</b>	–	<b>20822-050</b>
60	304.80	<b>30822-065</b>	<b>30819-783</b>	<b>20822-047</b>
84	426.70	<b>30822-089</b>	<b>30819-808</b>	<b>20822-048</b>
Torx panhead screw, to fix connector to perforated rail, M2.5 x 7, PU 100 pieces Item 2		<b>24560-147</b>	<b>24560-147</b>	<b>24560-147</b>
Torx panhead screw, to fix perforated rail to horizontal rail, M2.5 x 10, PU 100 pieces Item 3		–	–	<b>24560-148</b>

Z-Rail and Perforated Rail in 4 an 8HP on request

# Desk-top cases – RatiopacPro/ -air

## DIVIDER PLATES

### ORDER INFORMATION


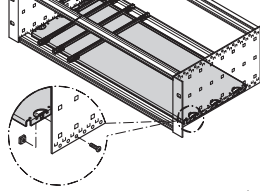
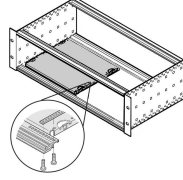
					Divider plates	
					Mounting position for stainless steel EMC gasket	
					Mounting position for textile EMC gasket	
						
<p>Stainless steel, 1 mm, is mounted by clipping onto horizontal rail, space requirement on component side 2 mm; mounting direction varies with shielding design (EMC stainless 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</p>						
Height	Depth	A	B	H	1 piece	
U	mm	mm	mm	mm		
3	160	158.3	135.0	113.5	<b>34562-761</b>	
3	220	218.3	195.0	113.5	<b>34562-762</b>	
6	160	158.3	135.0	246.9	<b>34562-763</b>	
6	220	218.3	195.0	246.9	<b>34562-764</b>	

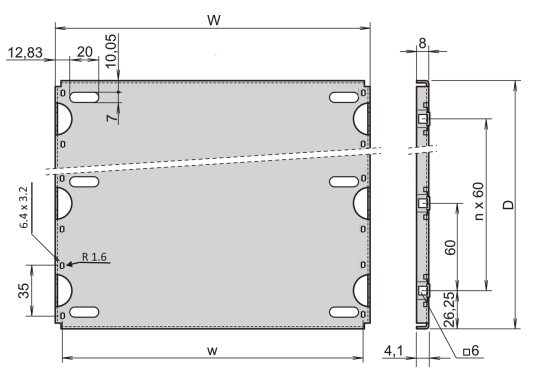


# Desk-top cases – RatiopacPro/ -air

## MOUNTING PLATES

### ORDER INFORMATION

			Mounting plate, total width	Mounting plate, partial width
 <p style="text-align: right; font-size: small;">06812002</p>			 <p style="text-align: right; font-size: x-small;">bpa45875</p> <p>Al, 1.5 mm; Please order mounting kit for total width separately Torque Moment: 1.5Nm</p>	 <p>Al, 1.5 mm; Please order mounting kit for partial width separately Torque Moment: 1.5Nm and 0,37Nm</p>
Width HP	Width (W) mm	Board lengths mm	1 piece	1 piece
28	146.88	160	<b>34562-745</b>	<b>34562-745</b>
28	146.88	220	<b>34562-749</b>	<b>34562-749</b>
28	146.88	280	<b>34562-753</b>	<b>34562-753</b>
28	146.88	340	<b>34562-757</b>	<b>34562-757</b>
42	217.99	160	<b>34562-746</b>	<b>34562-746</b>
42	217.99	220	<b>34562-750</b>	<b>34562-750</b>
42	217.99	280	<b>34562-754</b>	<b>34562-754</b>
42	217.99	340	<b>34562-758</b>	<b>34562-758</b>
63	324.67	160	<b>34562-747</b>	<b>34562-747</b>
63	324.67	220	<b>34562-751</b>	<b>34562-751</b>
63	324.67	280	<b>34562-755</b>	<b>34562-755</b>
63	324.67	340	<b>34562-759</b>	<b>34562-759</b>
84	431.35	160	<b>34562-748</b>	-
84	431.35	220	<b>34562-752</b>	-
84	431.35	280	<b>34562-756</b>	-
84	431.35	340	<b>34562-760</b>	-
84	431.35	400	<b>34562-870</b>	-
84	431.35	460	<b>34562-871</b>	-
<b>Assembly kit for mounting plate, total width</b> 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)			<b>24560-184</b>	-
<b>Assembly kit for mounting plate, partial width</b> 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			-	<b>24560-127</b>



06103057

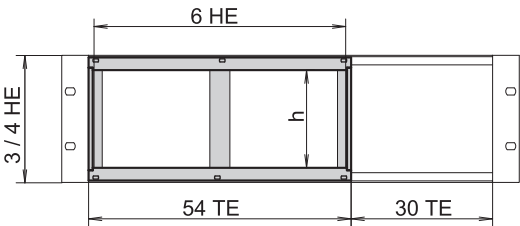
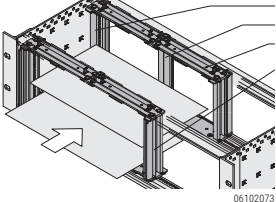
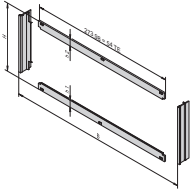
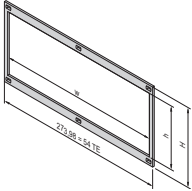



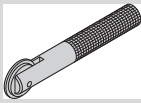
### NOTE

- 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

# Desk-top cases – RatiopacPro/ -air

## HORIZONTAL BOARD INSTALLATION

### ORDER INFORMATION

			Horizontal board installation		
			Board cage	Front frame for EMC shielding	Front frame, unshielded
			 <p>06102073</p>	 <p>bpa45913</p>	 <p>bza43061</p>
			<p>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; <b>please order front frame for EMC shielding separately</b></p>	<p>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</p>	<p>Al, 2.5 mm, clear anodised; front frame with cut-out, clear internal width w = 266.35 mm</p>
Height U	Usable height h HP	Other dimensions and options Horizontal rail, front    Horizontal rail, rear	PU 1 kit	PU 1 kit	1 piece
3	20		<b>24564-117</b>	<b>24564-109</b>	34564-108
3	20		<b>24564-118</b>	<b>24564-109</b>	34564-109
4	28		<b>24564-217</b>	<b>24564-209</b>	<b>34564-208</b>
<p>Assembly tool, for mounting the EMC gasket (stainless steel)</p> 			-	<b>24560-270</b>	-

\* For direct backplane mounting

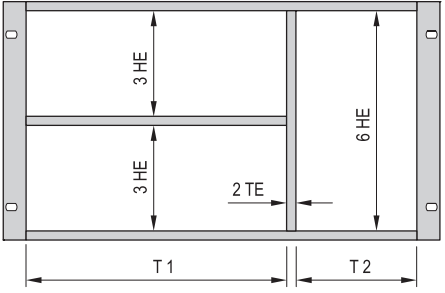
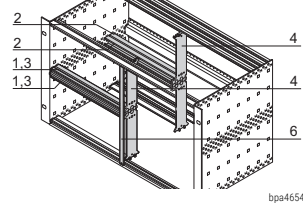
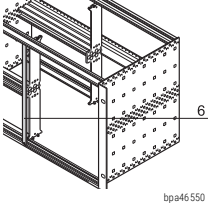
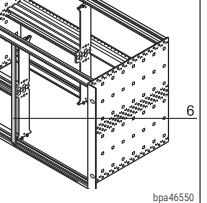
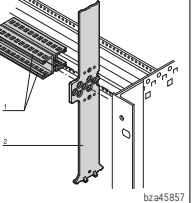
### NOTE

- Please order front frame separately

# Desk-top cases – RatiopacPro/ -air

## 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	
 <p style="text-align: right; font-size: small;">bza42182</p>	 <p style="text-align: right; font-size: x-small;">bpa46549</p> <p>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)</p>	 <p style="text-align: right; font-size: x-small;">bpa46550</p> <p>Al, 2.5 mm, front anodised, rear iridescent green chromated</p>	 <p style="text-align: right; font-size: x-small;">bpa46550</p> <p>Al, 2.5 mm, U-profile with notch, 6 U, 2 HP</p>	 <p style="text-align: right; font-size: x-small;">bza45857</p> <p>6 U, die-cast zinc; splitting extrusion is inserted in the grid holes of the horizontal rail; the splitting extrusion can be bolted</p>
Width pitch T1:T2 HP	PU 1 kit	1 (SPQ 5)	1 piece (SPQ 5) <sup>1)</sup>	1 piece
20:62	<b>24562-420</b>			
40:42	<b>24562-440</b>			
42:40	<b>24562-442</b>	<b>30847-472</b>	<b>30849-140</b>	<b>64560-010</b>
63:19	<b>24562-463</b>			
84:0	<b>24562-484</b>			
Countersunk screw with Torx M4 x 14, zinc-plated, PU 100 pieces fixing splitting extrusion/horizontal rail	–	–	–	<b>24560-145</b>
Panhead screw M2.5 x 10, St, zinc-plated, PU 100 pieces fixing horizontal rail/splitting extrusion	–	–	–	<b>24560-179</b>
Pozidrive/slotted collar screw M2.5 x 12.3, St, nickel-plated, PU 100 pieces	–	<b>21101-101</b>	<b>21101-101</b>	–
Pozidrive/slotted collar screw M2.5, black, zinc-plated, PU 100 pieces	–	<b>21101-102</b>	<b>21101-102</b>	–
Washer, 2.7 x 5 x 1, plastic PA 6, PU 100 pieces	–	<b>21101-121</b>	<b>21101-121</b>	–
Textile gasket, core: foam, sleeve: textile cladding with CuNi coating, UL 94 V-0, PU 10 pieces	–	–	<b>21101-855</b>	–

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)

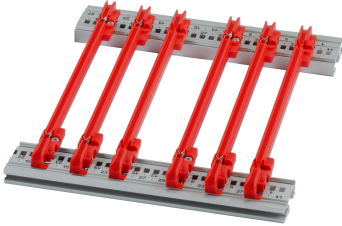
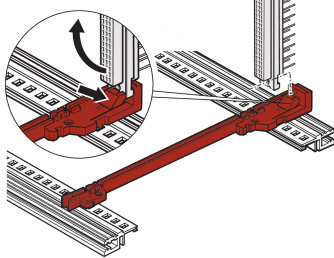
#### NOTE

- Please order EMC gasketing kit for horizontal rails separately, see page 5.19
- Please order perforated strips for horizontal rails separately, see page 5.35
- Please order rear centre horizontal rail separately, see page 5.33

# Desk-top cases – RatiopacPro/ -air

## 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
<b>Assembly</b> - can be clipped into Al extruded horizontal rails - can be clipped into 1.5 mm sheet metal  <b>Storage temperature</b> from -40 °C ... 130 °C			 <p>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</p>	 <p>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</p> <p style="text-align: right;">06101501</p>
Board lengths mm	Groove width mm	Colour mm	PU 10 pieces <sup>2)</sup>	1 pair (SPQ 10) <sup>1)</sup>
70	2	red	–	–
70	2	grey	–	–
160	2	red	<b>24568-361</b>	<b>64560-074</b>
220	2	red	<b>24568-362</b>	<b>64560-075</b>
280	2	red	<b>24568-379</b>	–
340	2	red	<b>24568-380</b>	–
160	2.5	red	–	–
220	2.5	red	–	–

### Accessories

Retention screw, PU 100 pieces		<b>24560-141</b>
ESD clip, PU 50 pieces		<b>24560-255</b>

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


# Desk-top cases – RatiopacPro/ -air

## 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
<b>Assembly</b> - can be clipped into horizontal rails in Al extrusion - can be clipped into 1.5 mm sheet metal  <b>Storage temperature</b> 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; support beam 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 <sup>2)</sup>	1 piece (SPQ 50) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>
100	2	red	-	-	-
160	2	red	<b>24568-363</b>	<b>64568-076</b>	-
160	2	grey	-	-	<b>34562-881</b>
220	2	red	<b>24568-364</b>	<b>64568-078</b>	-
220	2	grey	-	-	<b>34562-882</b>
280	2	red/silver	<b>24568-381</b>	<b>64568-080</b>	<b>34562-883</b>
340	2	red/silver	<b>24568-382</b>	-	<b>34562-884</b>
400	2	red/silver	-	-	<b>34562-885</b>
160	2.5	red/silver	-	<b>64568-118</b>	<b>34564-881</b>
220	2.5	red/silver	-	<b>64568-119</b>	<b>34564-882</b>
280	2.5	red/silver	-	<b>64568-120</b>	<b>34564-883</b>
340	2.5	silver	-	-	<b>34564-884</b>
400	2.5	silver	-	-	<b>34564-885</b>

### Accessories

Retention screw, PU 100 pieces		<b>24560-141</b>	<b>24560-141</b>	<b>24560-157</b>
ESD clip, PU 50 pieces		<b>24560-255</b>		-
Board locking C, red, PU 10 pieces		<b>24560-377</b>		-
Board handle C, red, PU 10 pieces description		<b>24560-378</b>		-
Identification strips for board handle, red, PU 1 sheet = 438 pieces		<b>60817-228</b>		-
Coding see page			6.43	-

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

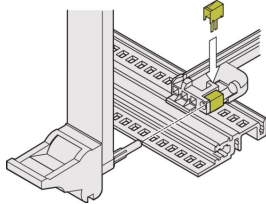
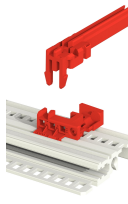
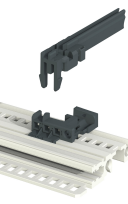
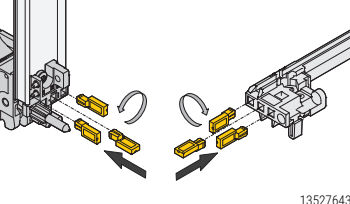
2) Part no. includes one packing unit (PU); delivery is exclusively made in PU

Description of accessories see from page 6.43 in the EuropacPRO catalog

# Desk-top cases – RatiopacPro/ -air

## GUIDE RAIL ACCESSORIES

### ORDER INFORMATION

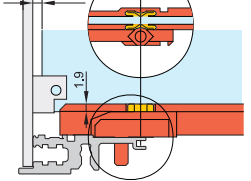
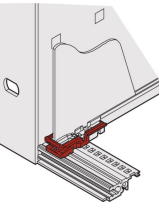
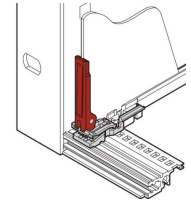
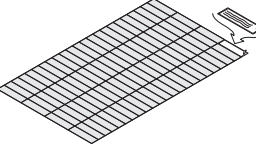
		ESD clips, CompactPCI/VME 64	Coding for subracks		Keying/coding block for guide rails accessory type	Keying/coding for CompactPCI, VME64x handles to IEEE 1011.10 and IEC 60297-3-103
			red, RAL 3000,	grey, RAL 7016		
		 <p>108230497</p> <p>Spring steel, tin-plated, ESD clip, for alignment pin in accordance 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</p>	 <p>121894752</p> <p>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</p>	 <p>136815562</p>	 <p>135276437</p> <p>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;</p>	
Assembly	Colour	PU 50 pieces	1 piece (SPQ 50) red, RAL 3000,	grey, RAL 7016	PU 100 pieces	
above	red	–	<b>64568-232</b>		–	–
	grey	–		<b>64568-233</b>	<b>20817-501</b>	–
	silver	<b>24560-256</b>	–	–	–	–
below	red	–	<b>64568-234</b>		–	–
	grey	–		<b>64568-235</b>	<b>20817-501</b>	–
	silver	<b>24560-256</b>	–	–	–	–

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
		 <p>04503050</p> <p>Spring steel, tin-plated, provides conductive contact between board and horizontal rail, on both the solder side and the component side</p>	 <p>04805050</p> <p>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</p>	 <p>04805051</p> <p>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</p>	 <p>06108076</p> <p>Polyester film, 31 x 4 mm, self-adhesive, white/matt (1 A4 sheet contains 438 pieces)</p>
Assembly	Colour	silver PU 50 pieces	red PU 10 pieces	red PU 10 pieces	white/matt 1 piece
above/below		<b>24560-255</b>	<b>24560-377</b>	<b>24560-378</b>	<b>60817-228</b>

# Desk-top cases – RatiopacPro/ -air

## 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
<b>Assembly</b> - can be clipped into Al extruded horizontal rails - can be clipped into 1.5 mm thick plates					
<b>Storage temperature</b> 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 <sup>2)</sup>	1 piece (SPQ 50) <sup>1)</sup>	PU 10 pieces <sup>2)</sup>
70	2	red	<b>24568-357</b>	-	-
70	2	grey	<b>24568-360</b>	-	-
160	2	red	<b>24568-356</b>	-	<b>24560-361</b>
160	2	grey	<b>24568-358</b>	-	-
160	2	green	-	<b>24568-359</b>	-
220	2	red	-	-	<b>24560-362</b>
220	2	grey	-	-	-
220	2	green	-	-	-
160	2.5	red	-	<b>64568-109</b>	-
160	2.5	grey	-	<b>64568-110</b>	-
220	2.5	red	-	<b>64568-111</b>	-
220	2.5	grey	-	<b>64568-112</b>	-
280	2.5	red	<b>24568-331</b>	-	-
280	2.5	grey	<b>24568-341</b>	-	-
340	2.5	red	<b>24568-332</b>	-	-
340	2.5	grey	<b>24568-342</b>	-	-

### Accessories

ESD clip, PU 50 pieces	<b>24560-255</b>	-	-
ESD clips, for alignment pin, PU 50 pieces	<b>24560-256</b>	<b>24560-256</b>	-
Retention screw, PU 100 pieces	<b>24560-141</b>	<b>24560-141</b>	<b>24560-158</b>
Coding peg, PU 100 pieces	<b>20817-501</b>	<b>20817-501</b>	-

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

### NOTE

- Reinforcement for plastic profiles (PVC) > 280 mm depth available on request

# Desk-top cases – RatiopacPro/ -air

## GUIDE RAILS, MULTI-PIECE, GROOVE WIDTH 2 and 2.5 MM

### ORDER INFORMATION

			Coding (IEEE) type					
			red		grey		green, 0,1" Offset	
<b>PCBs:</b> Fixed lengths for 160, 220, 280, 340 mm; length 1000 mm for special dimensions <b>Mounting:</b> pluggable into horizontal rails  <b>Storage temperature :</b> End piece -40°C ...+130°C PVC profile 0°C ... +60°C  red = similar RAL 3000, grey = similar RAL 7016, green = similar RAL 6024			 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) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>
End piece, 1 pair		2	<b>64568-093</b>	<b>64568-093</b>	<b>64568-094</b>	<b>64568-094</b>	<b>64568-095</b>	<b>64568-095</b>
Al extrusion, for 160 mm board length	95	2	<b>34560-891</b>	<b>34564-891</b>	<b>34560-891</b>	<b>34564-891</b>	<b>34560-891</b>	<b>34564-891</b>
Al extrusion, for 220 mm board length	155	2	<b>34560-892</b>	<b>34564-892</b>	<b>34560-892</b>	<b>34564-892</b>	<b>34560-892</b>	<b>34564-892</b>
Al extrusion, for 280 mm board length	215	2	<b>34560-893</b>	<b>34564-893</b>	<b>34560-893</b>	<b>34564-893</b>	<b>34560-893</b>	<b>34564-893</b>
Al extrusion, for 340 mm board length	275	2	<b>34560-894</b>	-	<b>34560-894</b>	-	<b>34560-894</b>	-
Al extrusion,for any board length	1000	2	<b>34560-900</b>	<b>34564-900</b>	<b>34560-900</b>	<b>34564-900</b>	<b>34560-900</b>	<b>34564-900</b>
Description	Length mm	Groove width mm	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>	1 piece (SPQ 10) <sup>1)</sup>
End piece, 1 pair		2.5	<b>64568-093</b>		<b>64568-094</b>		<b>64568-095</b>	
Al extrusion, for 160 mm board length	95	2.5	<b>34562-813</b>	-	<b>34562-813</b>	-	<b>34562-813</b>	-
Al extrusion, for 220 mm board length	155	2.5	<b>34562-814</b>	-	<b>34562-814</b>	-	<b>34562-814</b>	-
Al extrusion, for 280 mm board length	215	2.5	<b>34562-815</b>	-	<b>34562-815</b>	-	<b>34562-815</b>	-
Al extrusion, for 340 mm board length	275	2.5	<b>34562-816</b>	-	<b>34562-816</b>	-	<b>34562-816</b>	-
Al extrusion,for any board length	1000	2.5	<b>34562-822</b>	-	<b>34562-822</b>	-	<b>34562-822</b>	-

### Accessories

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

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

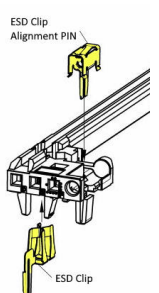
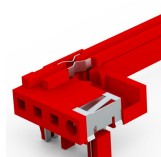
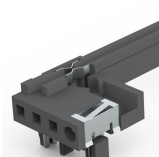
- (\*) only for groove width 2.0mm
- Headpieces with coding can be used for be used for groove width 2.0mm as well as for 2.5mm





# Desk-top cases – RatiopacPro/ -air

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

### ORDER INFORMATION

				Type <b>with Coding</b> , for CompactPCI, VME64x application. In accordance with IEEE 1101.10 and IEC 60297-3-103	
				red colour	grey colour
<b>Assembly</b> - can be clipped into Al extruded horizontal rails - can be clipped into 1.5 mm thick plates  <b>Storage temperature</b> from -40 °C ... 130 °C  <b>Colors of Plastic Material</b> red: RAL 3000 grey: RAL 7016  <b>Remark:</b> At least one guide rail with ESD clips is required per slot, to avoid electrostatic discharges				ESD CLIPS preassembled	
				One-piece for groove width 2 mm, PC, UL 94 V-0;  ESD Clip and ESD Clip for Alignment PIN preassembled  	One-piece for groove width 2 mm, PC, UL 94 V-0;  ESD Clip and ESD Clip for Alignment PIN preassembled  
<b>Board length</b>	<b>Groove width</b>	<b>Colour</b>	<b>Mounting Position</b>	PU 10 pieces	PU 10 pieces
mm	mm	mm			
70	2	red	bottom	<b>24568-855</b>	
70	2	red	top	<b>24568-853</b>	
160	2	red	bottom	<b>24568-847</b>	
160	2	red	top	<b>24568-850</b>	
70	2	grey	bottom		<b>24568-856</b>
70	2	grey	top		<b>24568-854</b>
160	2	grey	bottom		<b>24568-848</b>
160	2	grey	top		<b>24568-851</b>

### Accessories

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

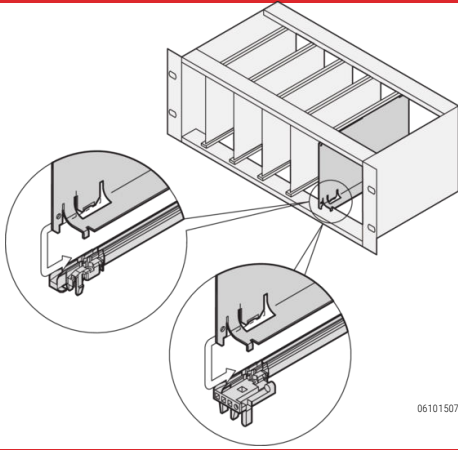
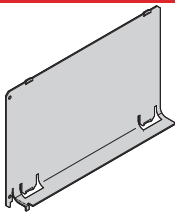
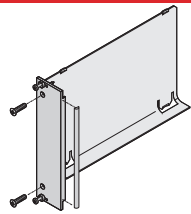
2) Part no. includes one packing unit (PU); delivery is exclusively made in PU

Description of accessories see from page 6.43 in the EuropacPRO catalog

# Desk-top cases – RatiopacPro/ -air

## AIR BAFFLE FOR SLOTS

### ORDER INFORMATION

			Air baffle without front panel	Air baffle with front panel U front panel for textile EMC gasket
			 <p>Al, 1 mm, incl. assembly kit; prevents an air short circuit in unoccupied slot positions; is pushed into the groove of the guide rails</p>	 <p>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</p>
Depth mm	Width HP	Height U	1 piece	1 piece
160	4	3	<b>34562-823</b>	<b>20848-728</b>
160	4	6	<b>34562-826</b>	<b>20848-736</b>
220	4	3	<b>34562-824</b>	20848-729
220	4	6	34562-827	20848-737

### NOTE

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

# Desk-top cases – Introduction

## CASE TYPES: DESK-TOP ENCLOSURE/19" CASE



Desk-top enclosure, ratiopacPRO 19" case, comptec

### Desk-top enclosures

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

The choice is yours:

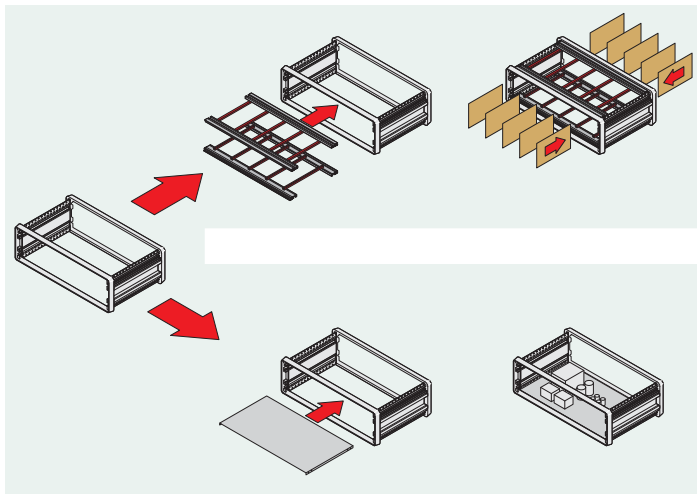
- ratiopacPRO, the universal case with 19" compatible dimensions and high EMC shielding, e.g. for CompactPCI and VME64x applications
- propacPRO, the robust case with high EMC shielding for 19"-compatible or custom electronics assemblies
- compacPRO, Desk-top or portable case for unshielded applications

### 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.

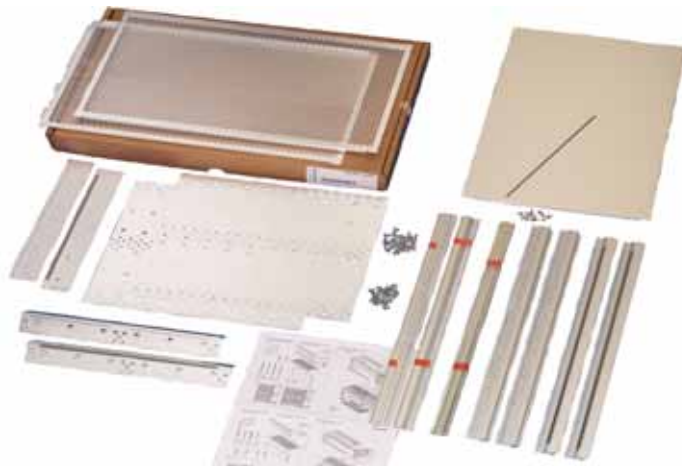
The intelligent design of all components results in an astonishingly quick and easy assembly of the components.

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.

# Desk-top cases – Introduction

## FORMS OF DELIVERY FOR DESK-TOP ENCLOSURES



Flat pack delivery to save space

06104001

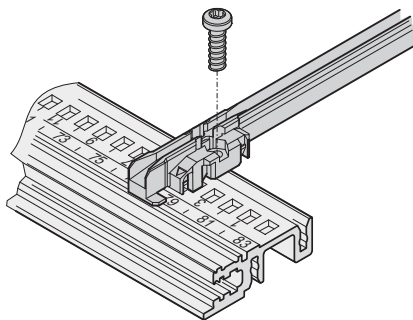
Supplied in space-saving packs. Simply unpack parts and screw together - done.

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 kit for use with 160 mm deep euroboards, frame fitted, cladding parts and guide rails supplied loose.
- Pre-assembled 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 cut-outs and individual front panels - if necessary even by express service.

## GUIDE RAIL



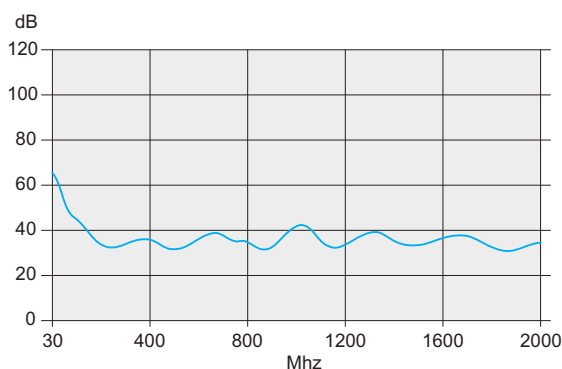
06108084

- 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.

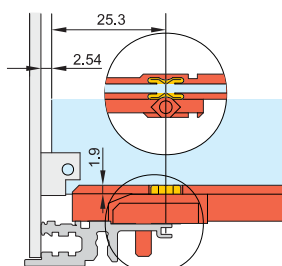
## EMC AND ESD



Shielding

06108081

- 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 [www.schroff.biz](http://www.schroff.biz) for download



Position of the ESD clip

04503050

# Desk-top cases – ServicePLUS

## Application examples



Application: ratiopacPRO-air case in special colour, shielded board cage, filter mat top and bottom

01809001



Application: ratiopacPRO-air case with processed front and rear panels

01809003



Application: compacPRO case, modified

02009001



Application: compacPRO case with fitted horizontal rail with lip and hinged front panel

02009003



Application: compacPRO case with fitted horizontal rail with lip and folding front panel

02009002



Application: compacPRO with tip-up carrying handle and front panel (without visible screws)

02009004



Application: inpac case with hinged and modified front and rear panels

02109001



Application: propacPRO, EMC case in special colour with mounting plates for individual construction

05809005

# Desk-top cases – ServicePLUS

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