



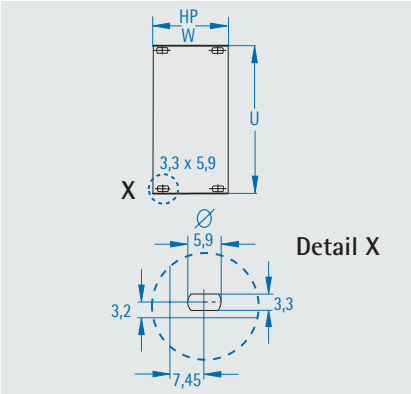
Front panels

- anodized front
- transparent chromated rear

Material: aluminium 2,5 mm
Delivery: not assembled

Customized front panels including print, foils, input systems or keyboards – please ask for our front panel express!

Type A

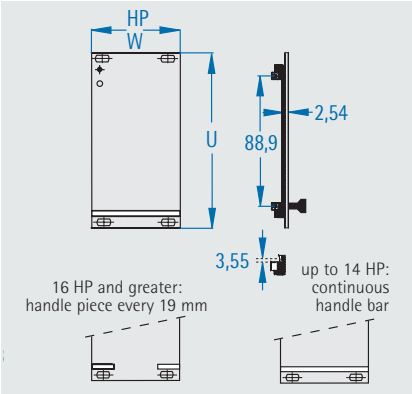


Included in delivery

Item	Pc.	Description
1	1	Front panel

Type C

- plastic handle bar
- plastic PCB mounting plate



Included in delivery

Item	Pc.	Description
1	1	Front panel
2	1/2	plastic handle
3	1/2	Identification plates
4	1/2	PCB mounting bracket
5		Assembly material

Order information

HP	Width mm	2 U H = 84,5 mm		3 U H = 129,0 mm		4 U H = 173,5 mm	6 U H = 262,5 mm	
		Type A	Type A	Type C	Type A	Type A	Type C	
2	10,0	-	24-3002-45	-	-	-	24-3602-45	-
3	15,0	-	24-3003-45	24-3703-45	-	-	24-3603-45	24-3603-65
4	20,1	-	24-3004-45	24-3704-45	24-3404-45	-	24-3604-45	24-3604-65
5	25,1	-	24-3005-45	24-3705-45	-	-	24-3605-45	24-3605-65
6	30,2	-	24-3006-45	24-3706-45	-	-	24-3606-45	24-3606-65
7	35,2	-	24-3007-45	24-3707-45	-	-	24-3607-45	24-3607-65
8	40,3	-	24-3008-45	24-3708-45	24-3408-45	-	24-3608-45	24-3608-65
10	50,4	-	24-3010-45	24-3710-45	-	-	24-3610-45	24-3610-65
12	60,6	-	24-3012-45	24-3712-45	-	-	24-3612-45	24-3612-65
14	70,8	24-3214-45	24-3014-45	24-3714-45	24-3414-45	-	24-3614-45	24-3614-65
16	80,8	-	24-3016-45	24-3716-45	-	-	24-3616-45	24-3616-65
18	91,1	-	24-3018-45	24-3718-45	-	-	24-3618-45	24-3618-65
20	101,2	-	24-3020-45	24-3720-45	-	-	24-3620-45	24-3620-65
21	106,3	-	24-3021-45	24-3721-45	24-3421-45	-	24-3621-45	24-3621-65
24	121,5	-	24-3024-45	24-3724-45	24-3424-45	-	24-3624-45	-
26	131,7	-	24-3026-45	-	-	-	24-3626-45	-
28	142,0	24-3228-45	24-3028-45	24-3728-45	24-3428-45	-	24-3628-45	24-3628-65
30	152,0	-	24-3030-45	-	-	-	24-3630-45	-
35	177,5	-	24-3035-45	-	-	-	24-3635-45	-
40	202,8	-	24-3040-45	-	-	-	24-3640-45	-
42	213,0	24-3242-45	24-3042-45	24-3742-45	24-3442-45	-	24-3642-45	24-3642-65
48	243,5	-	24-3048-45	-	-	-	24-3648-45	-
54	274,0	-	24-3054-45	-	-	-	24-3654-45	-
56	284,1	24-3256-45	24-3056-45	-	-	-	24-3656-45	-
63	319,7	24-3263-45	24-3063-45	24-3763-45	24-3463-45	-	24-3663-45	24-3663-65
84	426,4	24-3284-45	24-3084-45	24-3784-45	24-3484-45	-	24-3684-45	24-3684-65



EMC front panels

- anodized front, transparent chromated rear
- with side grooves for clipping on EMC contact gaskets

Material: aluminium, 2.5mm
Delivery: not assembled

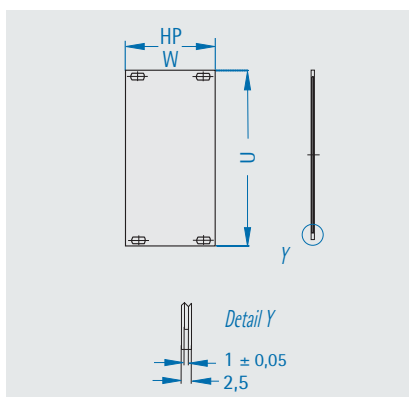


Customized front panels including print, foils, input systems or keyboards –

please ask for our front panel express!



Type A - EMC

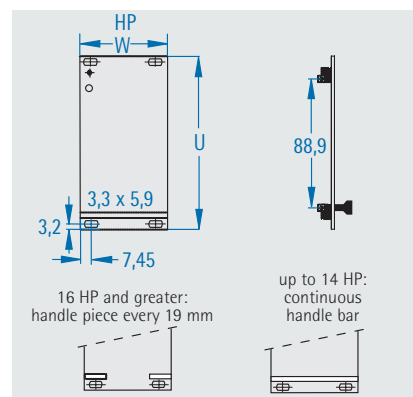


Included in delivery

Item	Pc.	Description
1	1	Front panel

Type C - EMC

- plastic handle bar
- PCB mounting bracket



Included in delivery

Item	Pc.	Description
1	1	Front panel
2	1/2	Plastic handle
3	1/2	Identification plates
4	2/4	PCB mounting bracket
5		Assembly material

Order information

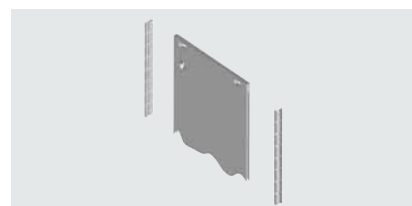
HP	Width mm	3 U H = 129,0 mm		6 U H = 262,5 mm	
		Type A	Type C	Type A	Type C
2	10,0	24-3802-13		-	-
3	15,0	24-3803-13		24-3803-16	-
4	20,1	24-3804-13	24-3804-33	24-3804-16	24-3804-36
5	25,1	24-3805-13	24-3805-33	24-3805-16	24-3805-36
6	30,2	24-3806-13	24-3806-33	24-3806-16	24-3806-36
7	35,2	24-3807-13	24-3807-33	24-3807-16	24-3807-36
8	40,3	24-3808-13	24-3808-33	24-3808-16	24-3808-36
10	50,4	24-3810-13	24-3810-33	24-3810-16	24-3810-36
12	60,6	24-3812-13	24-3812-33	24-3812-16	24-3812-36
14	70,8	24-3814-13	24-3814-33	24-3814-16	24-3814-36
16	80,8	24-3816-13	24-3816-33	24-3816-16	24-3816-36
21	106,3	24-3821-13	-	24-3821-16	-
28	142,0	24-3828-13	-	24-3828-16	-
42	213,0	24-3842-13	-	24-3842-16	-
63	319,7	24-3863-13	-	24-3863-16	-
84	426,4	24-3884-13	-	24-3884-16	-

Accessories

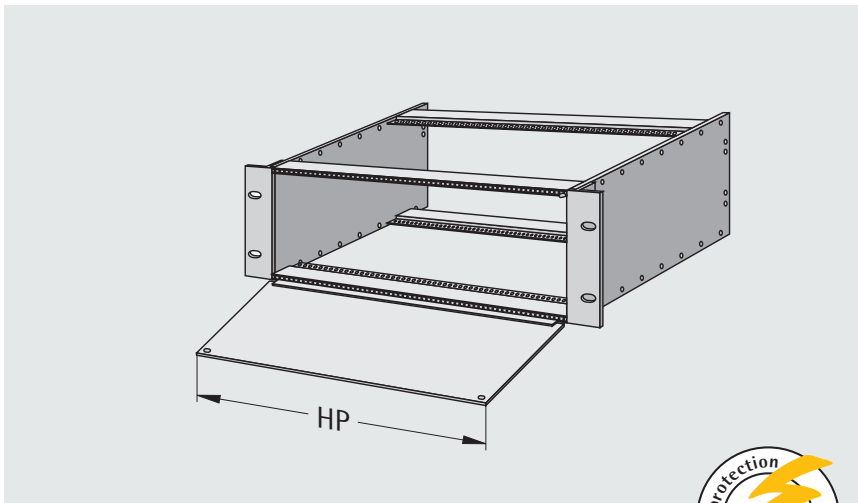
EMC contact gaskets

The contact gaskets are clipped onto the side grooves so that the front panels contact one another.

U	Length mm	Part no. (1 piece)
3	97	671-184
6	232	671-185



Note: See p. 67 for matching screw holder and neck screws.

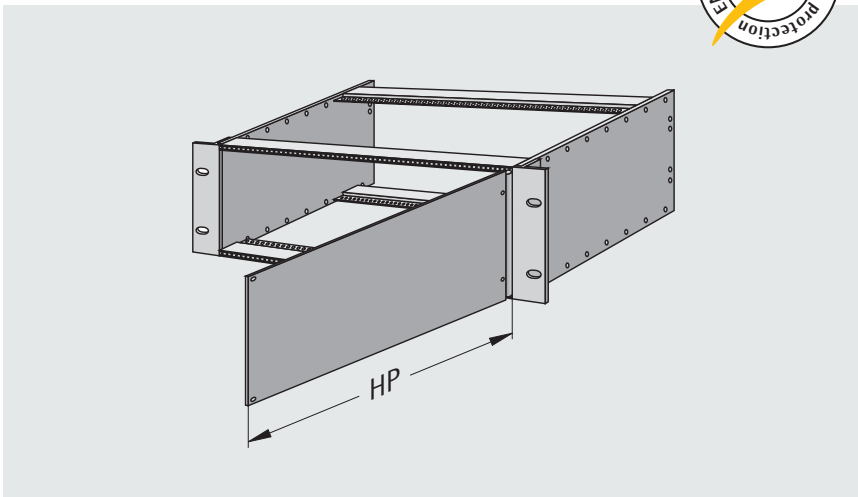


Front panel, bottom-hinged

- with side groove for EMC gaskets
- can be mounted on top or bottom
- plate is mounted to the module rail; installation width is therefore not decreased
- opening angle = 180°, if not limited by other components

Finish: anodized front
transparent chromated rear

Width (W)	Part no.	
	3 U	6 U
42 HP	24-4342-13	24-4742-16
84 HP	24-4384-13	24-4784-16



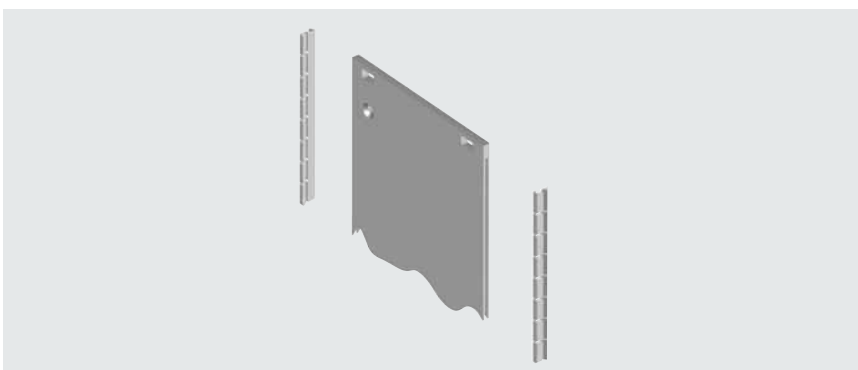
Front panels, hinged

- with side slit for EMC gaskets
- can be mounted on the right or left
- hinge requires 2 HP width
- mounted on module rails (M 2.5)
- opening angle = 180°, if not limited by other components, for example handles

Finish: anodized front
transparent chromated rear

Width (W)	Part no.	
	3 U	6 U
42 HP	24-4142-13	24-4542-16
84 HP	24-4184-13	24-4584-16

Accessories



EMC contact gasket

The contact gaskets are clipped into the side grooves so that the front panels contact one another.

U	Length mm	Part no.
3	97	671-184
6	232	671-185



Custom designed front panels including silk screen printing, foils or input systems on request.





Fastening front panels

1 Screw holder, plastic

- fits all front panels with hole \emptyset 5,9 mm x 3,3 mm
- can be pressed-in manually

Part no. (100 pc.) white
25-0697-02

Part no. (100 pc.) black
25-0697-05

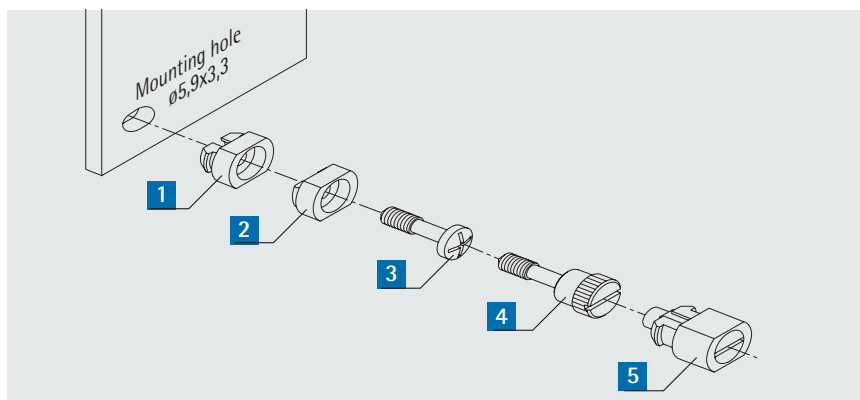
2 Screw holder, brass

- fits all front panels with hole \emptyset 5,9 mm x 3,3 mm
- nickel-plated
- brass screw holders must be pressed into place with a tool or a level press

Description	Part no.
1 piece	250-697
100 piece	25-0697-03

- when ordering front panels and screws, panels come fitted with screw holders

Part no. (1 piece)
25-0697-04



3 Neck screw, M 2.5 x 12

- Phillips head
- nickel-plated

Part no. (100 pc.)
250-602

4 Knurled screw M 2.5

- knurled and slotted
- nickel-plated brass

Part no. (100 pc.)
25-0611-02

5 Quick closure

- no threaded inserts or sliding nuts required
- open and close with a quarter turn
- protected against twisting
- vibration-free
- cannot be lost
- easy and quick mounting

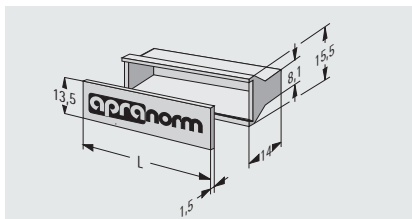
Finish: RAL 7035 light grey

Part no. (100 pc)
25-0607-00

Handle bar, plastic

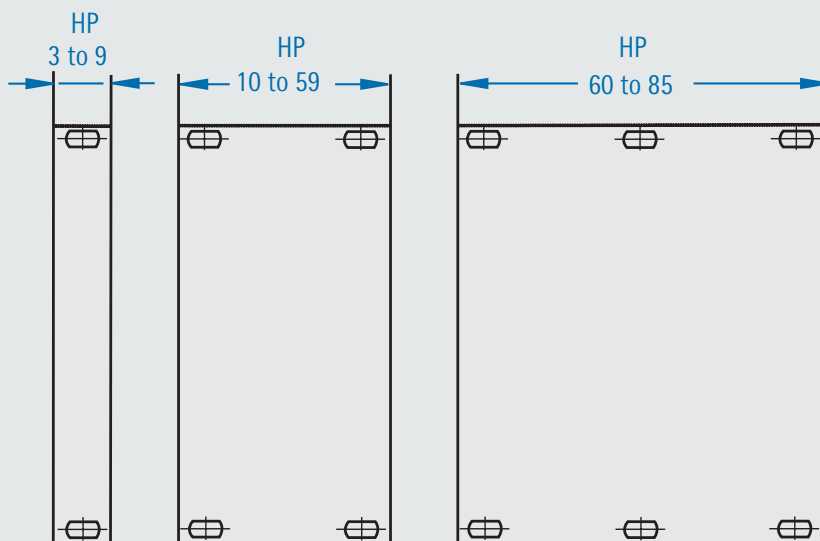
- with insertable aluminium strip allowing easy custom printing
- handle centred easily using painted positioning pins

Finish: handle bar, grey aluminium strips, 2.5mm, natural colour anodized



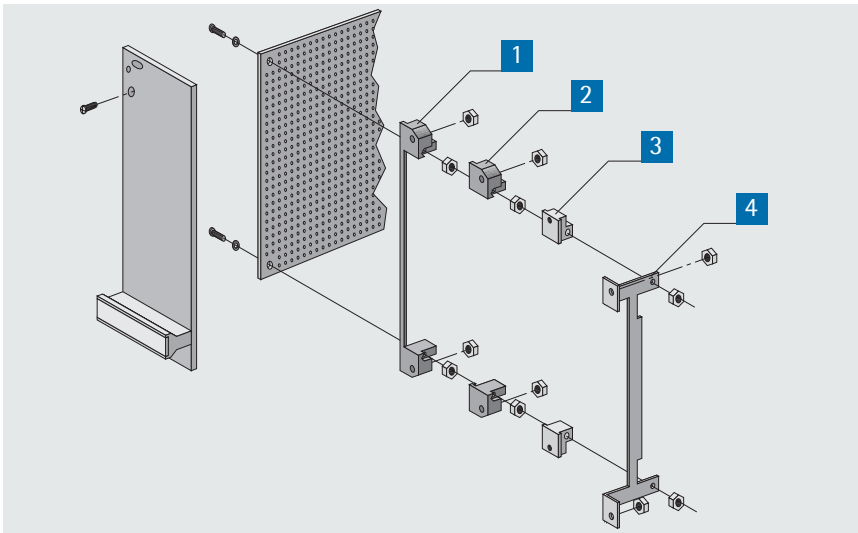
HP	Length (L) mm	Part no.
3	13,9	25-0750-03
4	19,1	25-0750-04
5	24,1	25-0750-05
6	30,0	25-0750-06
7	34,2	25-0750-07
8	39,3	25-0750-08
10	49,5	25-0750-10
12	59,7	25-0750-12
14	69,9	25-0750-14

Number of fixing holes for the positioning pins vary according to the number of screw holders and/or screws required in the front panel





PCB mounting bracket



1 PCB mounting bracket

- plastic, single piece

Description	Part no. (1 piece)
PCB mounting plate	250-701

2 PCB mounting bracket

- plastic, divided

Description	Part no. (pair)
PCB mounting plate	250-700

3 PCB mounting bracket

- zinc die cast

Attention:

- can only be used with handle bar 25-0750-... (see p. 67)
- if the front panel is designed as an electrical conductor, it can be integrated into the contact-voltage protection or screening measures using a conductor track on the PCB
- with M 2.5 thread for fixing front panel and PCB

Description	Part no. (1 piece)
PCB mounting plate	250-698

4 PCB mounting bracket

- sheet steel, galvanized
- for 20 mm deeper installation

Description	Part no. (1 piece)
PCB mounting plate	250-702

Assembly material for items 1 - 4
250-707

PCB cover

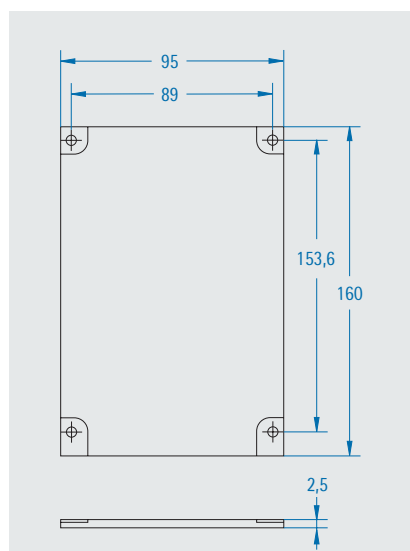
- protects the PCB's solder side
- electrically insulated
- protects from damage and short circuits
- can be coated with copper conductive paint
- fits 100 x 160 mm, 233,35 x 160 mm, 100 x 220 mm and 233,35 x 220 mm PCBs with plug-in connection in compliance with DIN 41612

Material: plastic, black
Plastic, black UL 94 V-0

Surface resistance: 10^{15} Ohm

ASTM D 149 dielectric strength:
20 kV

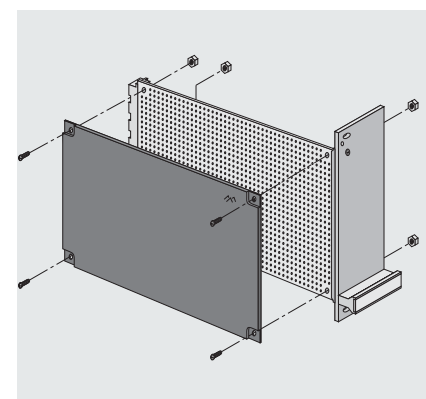
DIN 53460 heat distortion temperature:
130 °C



Description	Part no.
for PCB 100 x 160 mm	258-200
for PCB 100 x 160 mm, with copper conductive paint	25-8200-51
for PCB 100 x 220 mm	258-250
for PCB 100 x 220 mm, with copper conductive paint	25-8250-51
Assembly material for PCB cover	250-711

PCB cover, shortened model

We recommend mounting a 1.5 mm shortened cover when using cards with front panels that are mounted with plastic PCB mounting plates (item 1 above).



Part no.
258-199



Plug-in modules with injector/extractor handle in compliance with IEEE 1101.10

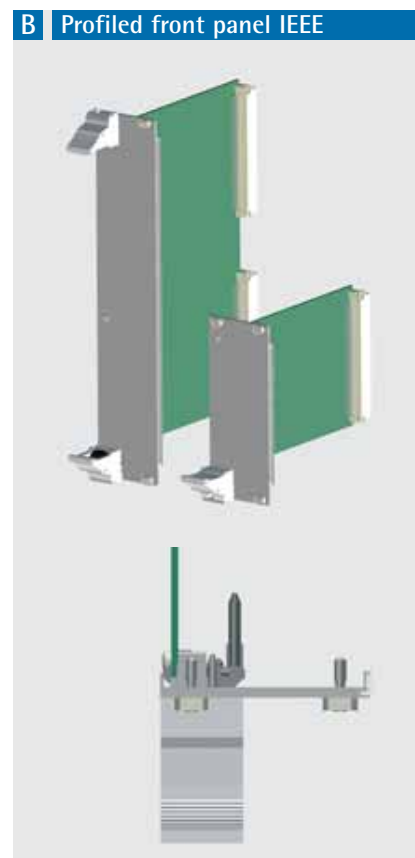
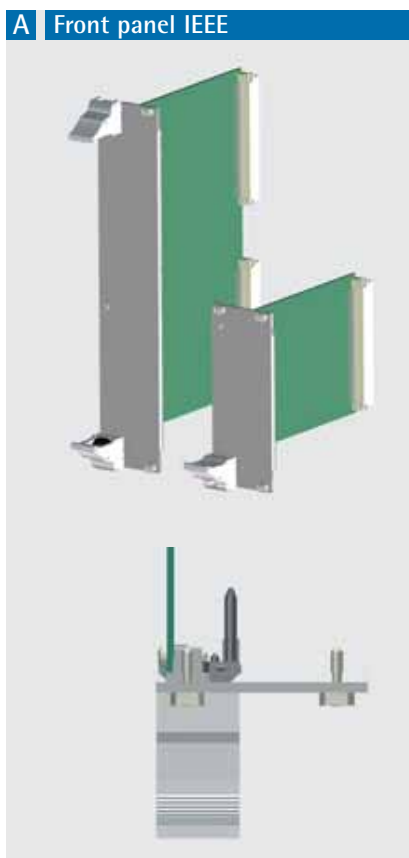
- fulcrum can change positions for increased leverage to overcome high inserting and withdrawing force
- can be used for subracks with IEEE-inserter/extractor handle function (see page 5)
- works with the following module rails:
 - standard module rail with 10 mm extension (24-1049-XX)
 - enforced module rail with 10 mm extension (24-1500-XX)
- two types of front panels are available:

A front panel IEEE with side groove for EMC-contact gaskets

Material: aluminium
Surface: front side anodized, rear side chromated

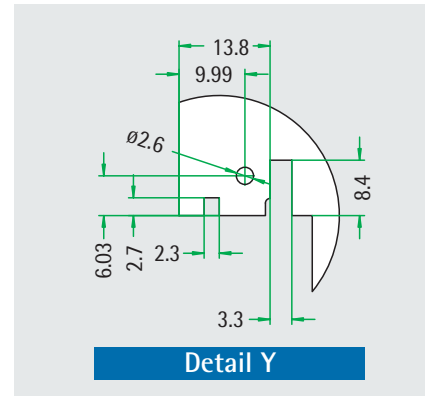
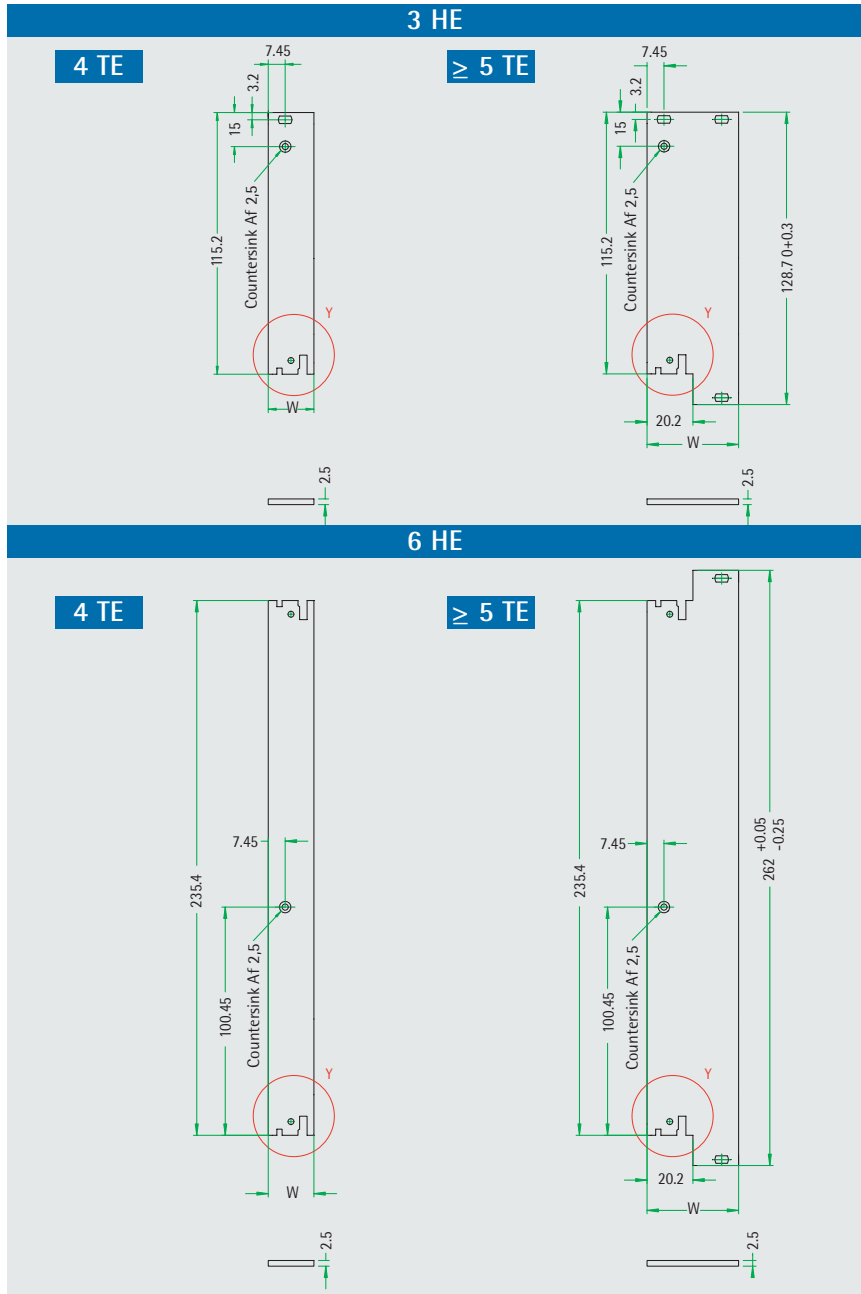
B profiled front panel IEEE

Material: aluminium profile extrusion
Surface: chromated





Front panels IEEE with grooves for EMC contact gaskets



Included in delivery

Item	Pc.	Description
1	1	Front panel
2	0/1/2/3	Screw holder inserted PCB bracket 250-698
3	1	Neck screw M 2.5
4	0/1/2/3	Oval-head countersunk screw M2.5 x 6
5	1	

Accessories

EMC contact gasket



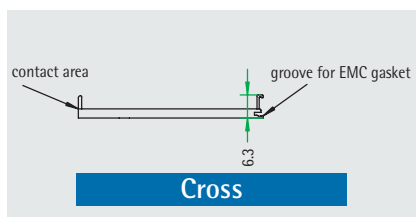
U	Length mm	Part no. (1 piece)
3	97	671-184
6	232	671-185

Order information

HP	Width (w) mm	Part no.	
		3 U	6 U
4	20,1	24-4604-13	24-4604-16
5	25,1	24-4605-13	24-4605-16
6	30,2	24-4606-13	24-4606-16
7	35,2	24-4607-13	24-4607-16
8	40,3	24-4608-13	24-4608-16
10	50,4	24-4610-13	24-4610-16
12	60,6	24-4612-13	24-4612-16

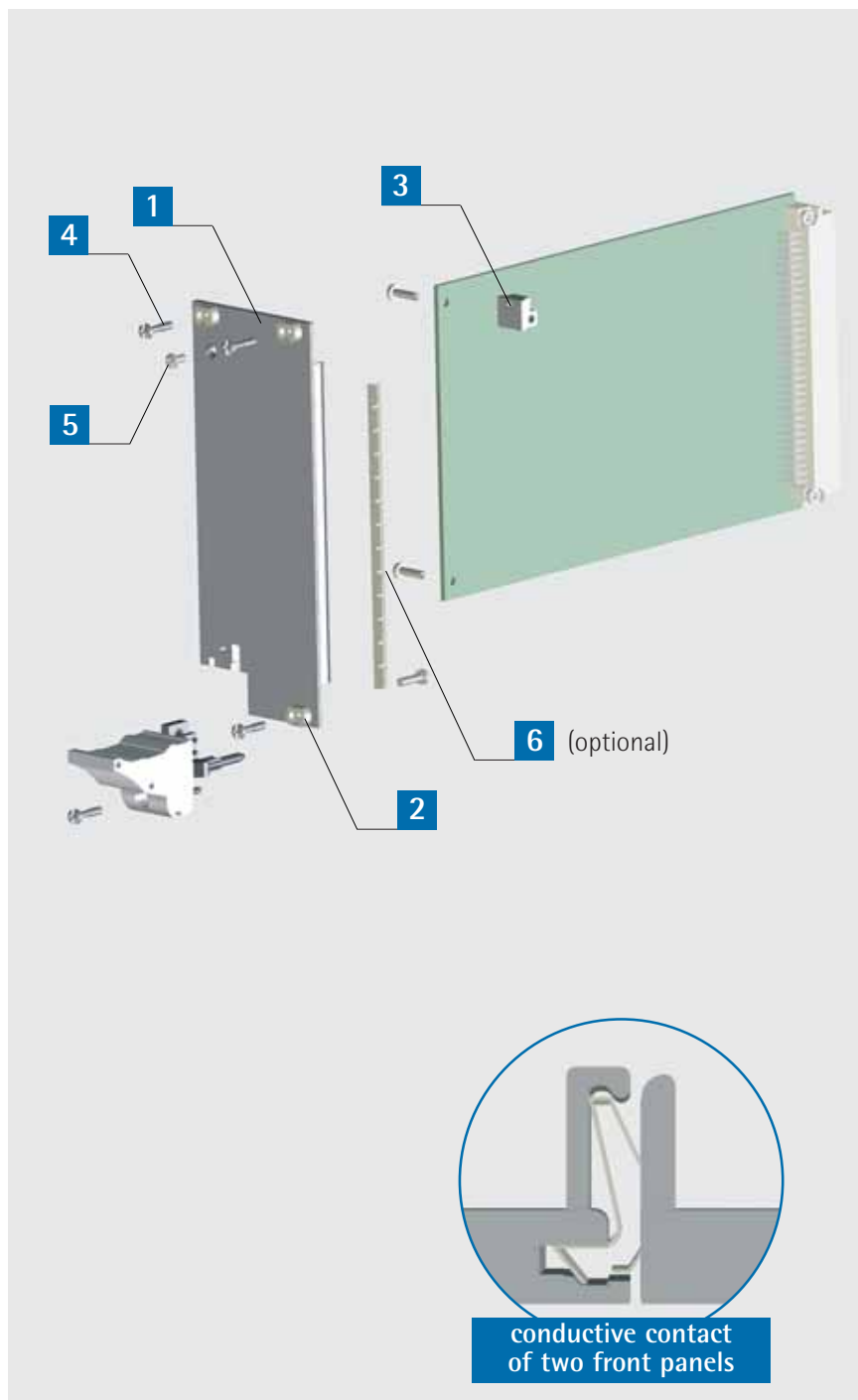


Front panels for injector/ extractor handle IEEE



Included in delivery

Item	Pc.	Description
1	1	Front panel
2	1/3	Screw holder inserted
3	1	PCB bracket 250-698
4	1/3	Neck screw M 2,5
5	1	Oval-head countersunk screw M2.5 x 6



Accessories

6 EMC contact gasket for profiled front panels



U	Length mm	Part no. (1 piece)
3	97	67-1222-03
6	230	67-1222-06

Order information

HP	Width (w) mm	Part no.	
		3 U	6 U
4	20,1	24-4004-03	24-4004-06
6	30,2	24-4006-03	24-4006-06
8	40,3	24-4008-03	24-4008-06

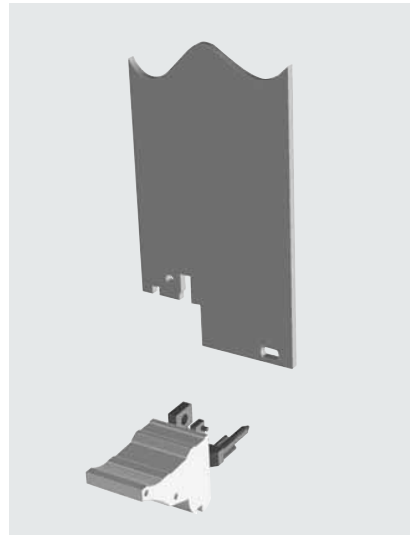


Injector/ extractor handle IEEE



1 without lock function

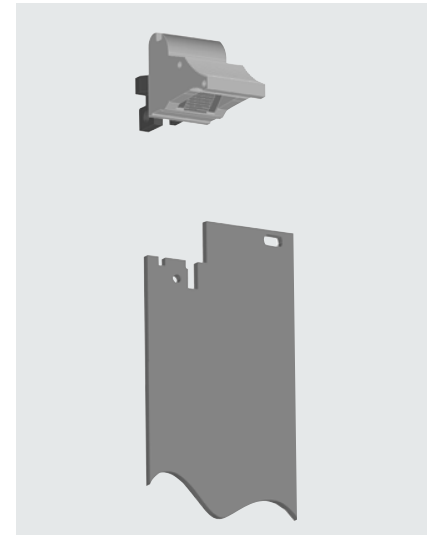
Colour: RAL 7035 light grey



Position on the front panel	Part no.
bottom	611-615
top	611-616

2 with lock function

Colour: lever: RAL 7035 light grey
button: RAL 9005 black



Position on the front panel	Part no.
bottom	611-617
top	611-618

Accessories

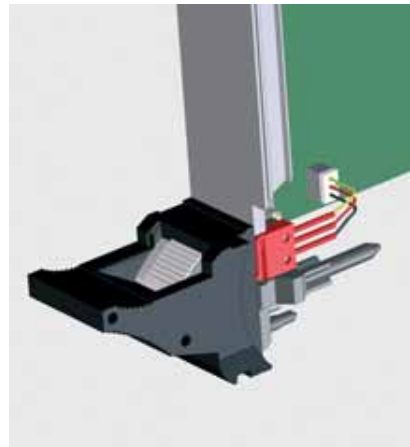
Micro switch

- max. switching current ≥ 50 mA
- temperature range: -25 °C up to 70°C
- mechanical lifetime: ≥ 50.000 switches
- electronic lifetime: ≥ 20.000 switches

Note: The adequate plugs are not included in the delivery.



Part no. (1 piece) 230-245

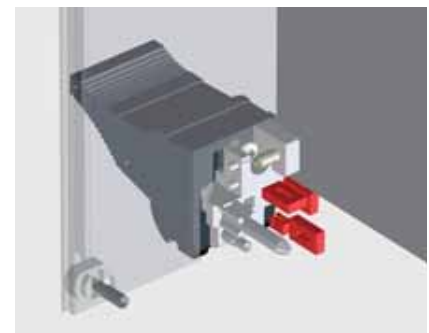


PCB fixing set for 3U

- Set includes:
- 1 PCB bracket
 - 1 screw M 2,5 x 6
 - 2 screws M 2,5 x 10
 - 2 flat washer d=2,6

Part no. (Set) 250-713

Coding pins



Part no. (100 pieces) 24-0163-50
