

We Make it Better

■ ■ ■ RFI shielded front panels
for 19" subracks

Innovative
Reliable
Economical

■ In accordance
to IEEE P1101.10

■ Interchangeable
front panel designs

■ Secure RFI gasket location

■ Technical data

Flat front panel

- 2.5 mm thick aluminium
- salt-water proof
- surface finish: front anodized,
rear and edges untreated

Extruded front panel

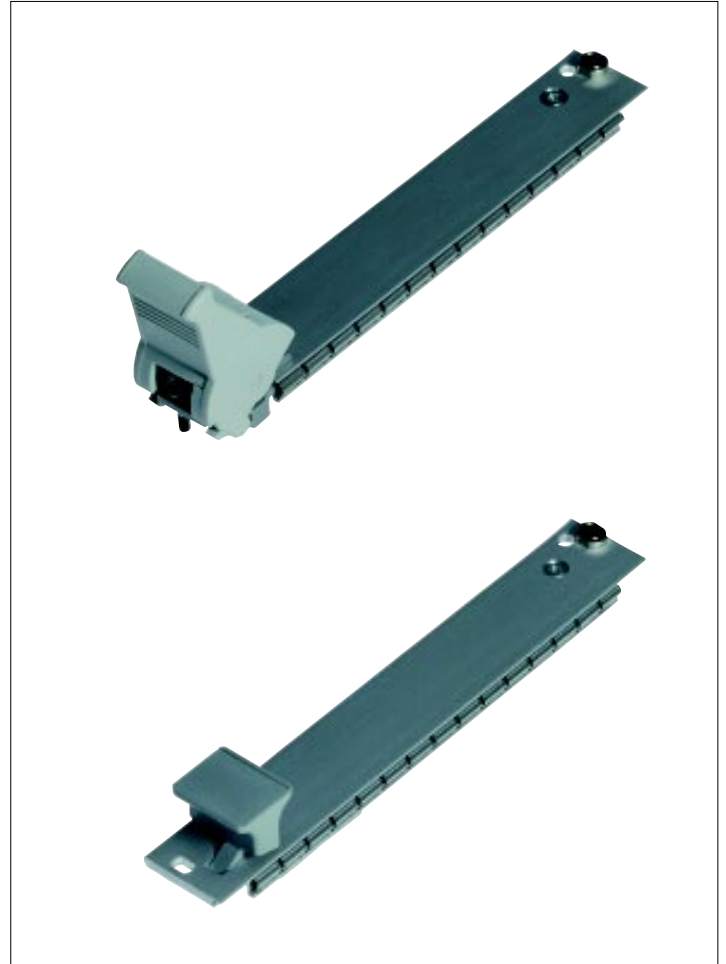
- 2.2 mm thick aluminium
- salt-water proof
- surface finish: colourless chromated

Contact spring

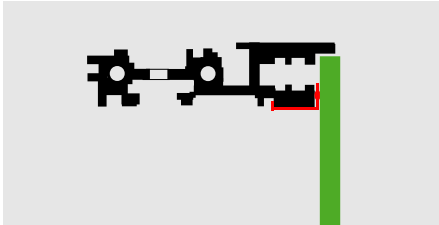
- stainless steel

Plastic components

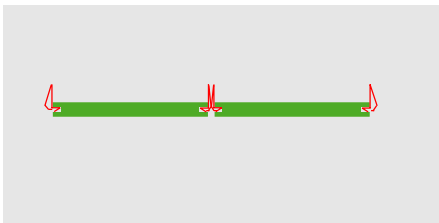
- fire protection class UL V-0
 - continuous temperature -30 to +105°C
-



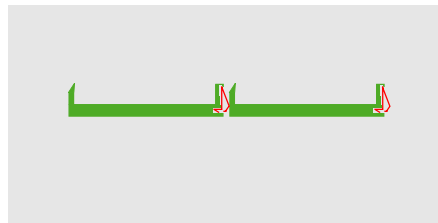
RFI shielding between front panel and horizontal rail of a subrack



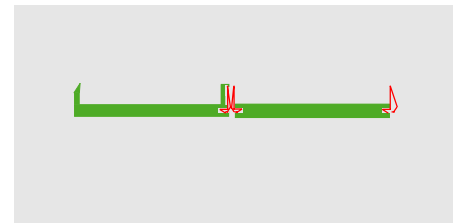
RFI shielding between front panels



RFI shielding between flat front panels

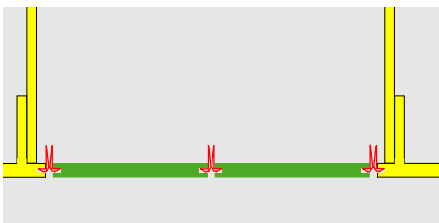


RFI shielding between extruded front panels

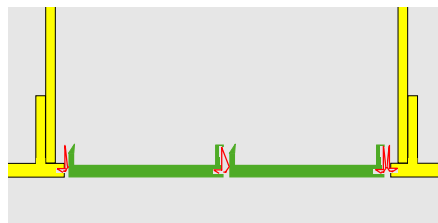


RFI shielding between flat and extruded front panels

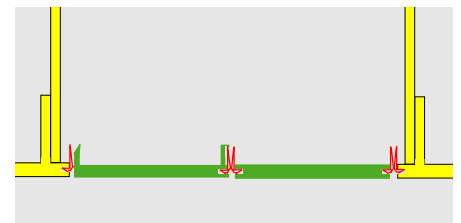
RFI shielding between front panel and subrack side plates with a useable width of 84HP



RFI shielding between flat front panels and side plates

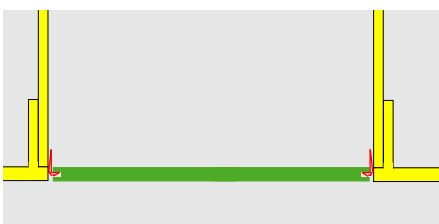


RFI shielding between extruded front panels and side plates



RFI shielding between mixed front panels and side plates

RFI shielding between front panel and side plates of a subrack with a useable width of 85HP



RFI shielding between 85HP flat front panel and side plates

Accessories

1. Contact spring for snapping into front extrusion:

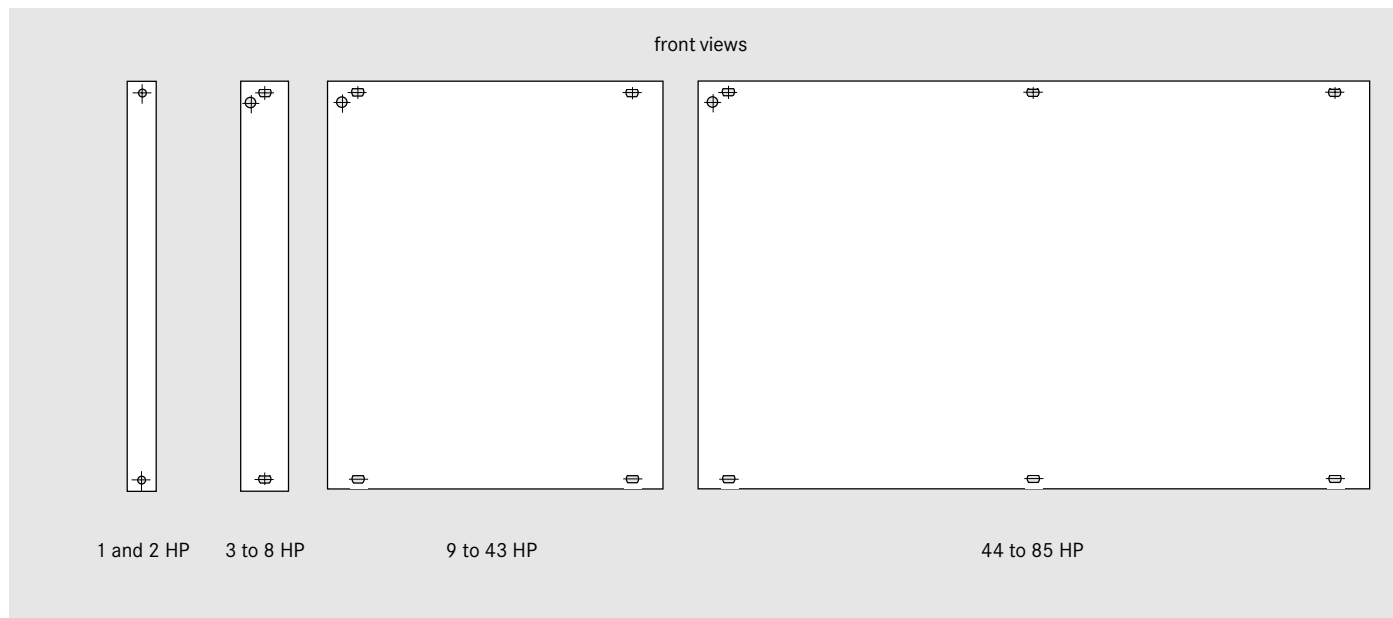
Contact spring P2 84HP 409.106.547

2. Contact spring for sealing between front panels:

Contact spring F3 3 U 409.111.112

Contact spring F3 6 U 409.111.116

1 extruded front panel requires 1 spring,
1 flat front panel requires 2 springs.



Front panel kit, consisting of:

description	quantity			
	1-2 HP	3-8 HP	9-43 HP	44-85 HP
Front panel	1	1	1	1
Press-in sleeve M 2,5	-	2	4	6
Collar screw M 2,5 x 11,3	-	2	4	6
Collar screw M 2,5 x 10,8	2	-	-	-

Surface finish

Extruded front panel:

colourless chromated

Flat front panel:

front anodized, rear and edges untreated

■ Ordering details 3U

description	extruded front panel	flat front panel
	order nº 409.	order nº 409.
1HP, kit	114 453	-
single front panel	114 458	-
2HP, kit	114 454	-
single front panel	114 459	-
3HP, kit	114 455	-
single front panel	113 027	-
4HP, kit	114 361	113 583
single front panel	111 608	112 252
5HP, kit	114 362	-
single front panel	113 028	-
6HP, kit	114 363	113 586
single front panel	111 609	112 258
7HP, kit	114 365	-
single front panel	111 610	-
8HP, kit	114 366	-
single front panel	111 611	-
9HP, kit	114 367	-
single front panel	113 029	-
10HP, kit	114 368	-
single front panel	113 030	-
12HP, kit	-	113 589
single front panel	-	112 551
14HP, kit	-	113 590
single front panel	-	112 557
16HP, kit	-	113 591
single front panel	-	112 563
21HP, kit	-	113 592
single front panel	-	112 578
28HP, kit	-	113 593
single front panel	-	112 821
42HP, kit	-	113 594
single front panel	-	112 581
43HP, kit	-	114 487
single front panel	-	114 082
84HP, kit	-	113 595
single front panel	-	113 598
85HP, kit	-	113 596
single front panel	-	113 599

■ Ordering details 6U

description	extruded front panel	flat front panel
	order nº 409.	order nº 409.
1HP, kit	114 464	-
single front panel	114 469	-
2HP, kit	114 465	-
single front panel	114 470	-
3HP, kit	114 466	-
single front panel	114 476	-
4HP, kit	114 387	-
single front panel	111 618	-
5HP, kit	114 388	-
single front panel	114 384	-
6HP, kit	114 389	-
single front panel	111 619	-
7HP, kit	114 390	-
single front panel	111 620	-
8HP, kit	114 391	-
single front panel	111 621	-
9HP, kit	114 392	-
single front panel	114 385	-
10HP, kit	114 393	-
single front panel	114 386	-
12HP, kit	-	113 608
single front panel	-	112 611
14HP, kit	-	113 609
single front panel	-	112 617
16HP, kit	-	113 610
single front panel	-	112 623
21HP, kit	-	113 611
single front panel	-	112 638
28HP, kit	-	113 612
single front panel	-	112 943
42HP, kit	-	113 613
single front panel	-	112 641
43HP, kit	-	114 488
single front panel	-	114 098
84HP, kit	-	113 614
single front panel	-	113 617
85HP, kit	-	113 615
single front panel	-	113 618

Accessories

Contact spring F3 3 U 409. 111 112

Contact spring F3 6 U 409. 111 116

1 extruded front panel requires 1 spring,

1 flat front panel requires 2 springs.

Front panels 85 HP, plug-in, bottom-hinged, side-hinged



Plug-in front panel

Front panel kit, consisting of:

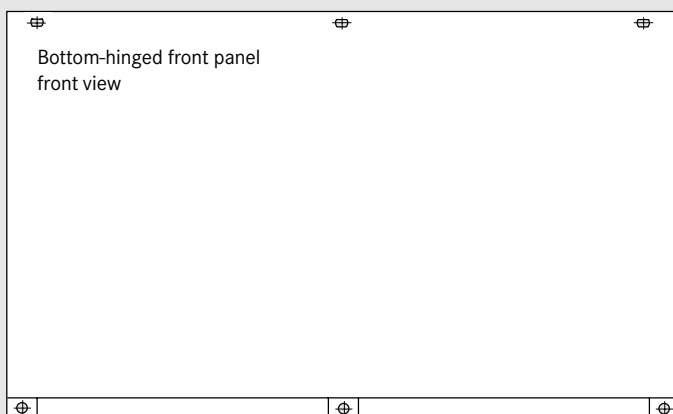
description	qty.
Front panel	1
Press-in sleeve M 2,5	3
Collar screw M 2,5 x 11,3	3

Application

This front panel is situated into the profile of a special horizontal rail

Ordering details for this rail with a length of 85HP:

Horizontal rail 409. 114 562



Front panel, bottom-hinged

Front panel kit, consisting of:

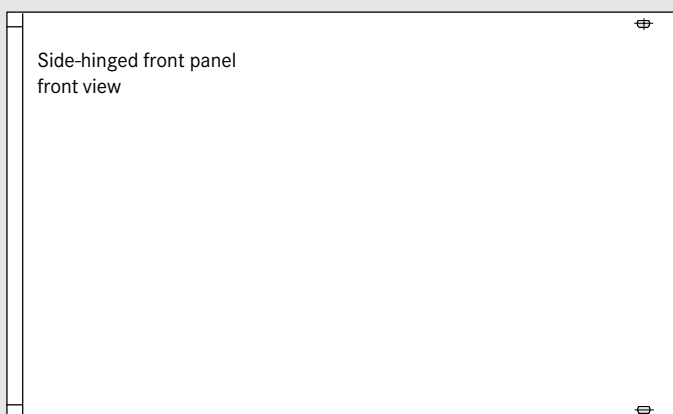
description	qty.
Front panel	1
Press-in sleeve M 2,5	3
Collar screw M 2,5 x 11,3	3
Hinge, kit	1

Please note:

For mounting this hinge to the horizontal front rail of the subrack you need a 84HP tapped strip.

Ordering details for the tapped strip:

Tapped strip 84 x M2,5 409. 078 428





Front panel, side-hinged

Front panel kit, consisting of:

description	qty.
Front panel	1
Press-in sleeve M 2,5	2
Collar screw M 2,5 x 11,3	2
Hinge, kit	1

■ Plug-in front panel 3U

Ordering details



		
	extruded front panel	flat front panel
description	order nº	order nº
	409.	409.
85HP, kit	-	113 948
<i>single front panel</i>	-	113 949

Accessories

Contact spring F3 3 U 409. 111 112
 Contact spring F3 6 U 409. 111 116
 1 extruded front panel requires 1 spring,
 1 flat front panel requires 2 springs.

■ Plug-in front panel 6U

Ordering details



		
	extruded front panel	flat front panel
description	order nº	order nº
	409.	409.
85HP, kit	-	113 950
<i>single front panel</i>	-	113 951

Surface finish

Extruded front panel:
 colourless chromated
 Flat front panel:
 front anodized, rear and edges untreated

■ Bottom-hinged front panel 3U

Ordering details



		
	extruded front panel	flat front panel
description	order nº	order nº
	409.	409.
85HP, kit	-	113 705
<i>single front panel</i>	-	113 707

Accessories

Contact spring F3 3 U 409. 111 112
 Contact spring F3 6 U 409. 111 116
 1 extruded front panel requires 1 spring,
 1 flat front panel requires 2 springs.

■ Bottom-hinged front panel 6U

Ordering details



		
	extruded front panel	flat front panel
description	order nº	order nº
	409.	409.
85HP, kit	-	113 706
<i>single front panel</i>	-	113 708

Surface finish

Extruded front panel:
 colourless chromated
 Flat front panel:
 front anodized, rear and edges untreated

■ Side-hinged front panel 3U

Ordering details



		
	extruded front panel	flat front panel
description	order nº	order nº
	409.	409.
85HP, kit	-	upon request
<i>single front panel</i>	-	upon request

Accessories

Contact spring F3 3 U 409. 111 112
 Contact spring F3 6 U 409. 111 116
 1 extruded front panel requires 1 spring,
 1 flat front panel requires 2 springs.

■ Side-hinged front panel 6U

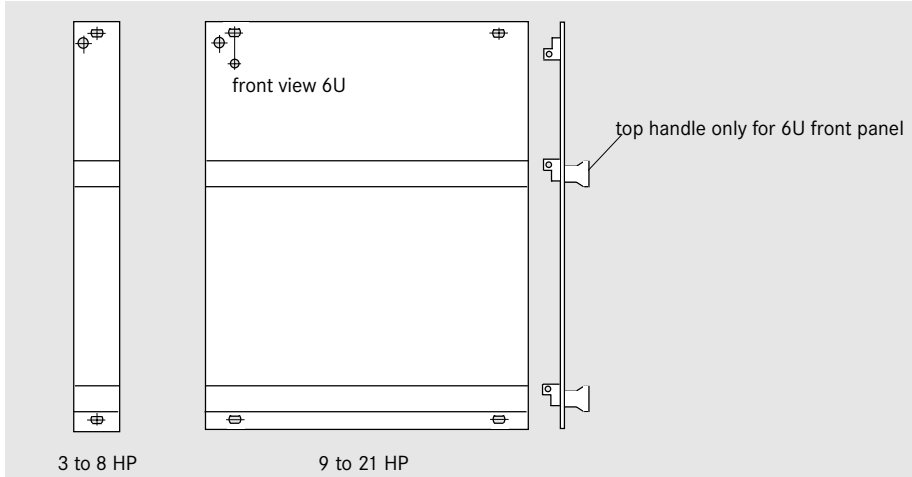
Ordering details

		
	extruded front panel	flat front panel
description	order nº	order nº
	409.	409.
85HP, kit	-	upon request
<i>single front panel</i>	-	upon request

Surface finish

Extruded front panel:
 colourless chromated
 Flat front panel:
 front anodized, rear and edges untreated

Front panel with handle



Surface finish

Extruded front panel:

colourless chromated

Flat front panel:

front anodized, rear and edges untreated

Handle

light gray RAL 7035

Accessories

Contact spring F3 3 U 409. 111 112

Contact spring F3 6 U 409. 111 116

1 extruded front panel requires 1 spring,

1 flat front panel requires 2 springs.

Front panel with handle

Front panel kit, consisting of:

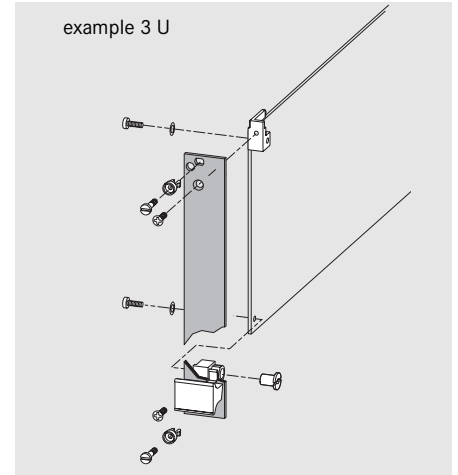
description	quantity for 3 U, different quantity in () for 6 U		
	3-5 HP	6-8 HP	9-12HP
Front panel	1 (1)	1 (1)	1 (1)
Handle with aluminium ident plate	1 (2)	1 (2)	1 (2)
Press-in sleeve M 2,5	2 (2)	2 (2)	4 (4)
Collar screw M 2,5 x 11,3	2 (2)	2 (2)	4 (4)
Cheese head screw M 2,5 x 10	- (-)	1 (2)	1 (2)
Cheese head screw M 2,5 x 16	1 (2)	1 (2)	1 (2)
Corrugated washer 2,7	3 (5)	3 (7)	3 (7)
PCB holder, metal	2 (3)	2 (3)	2 (3)
Counter sunk screw M 2,5 x 6	1 (1)	1 (1)	1 (1)
Cheese head screw M 2,5 x 8	2 (3)	2 (3)	2 (3)

Ordering details 3U

description	extruded front panel	flat front panel
	order n ^o 409.	order n ^o 409.
3HP, kit	114 537	-
single front panel	114 538	-
4HP, kit	114 377	113 679
single front panel	114 370	113 711
5HP, kit	114 378	-
single front panel	114 371	-
6HP, kit	114 379	113 681
single front panel	114 372	113 723
7HP, kit	114 380	-
single front panel	114 373	-
8HP, kit	114 381	-
single front panel	114 374	-
9HP, kit	114 382	-
single front panel	114 375	-
10HP, kit	114 383	-
single front panel	114 376	-
12HP, kit	-	113 685
single front panel	-	113 729

Ordering details 6U

description	extruded front panel	flat front panel
	order n ^o 409.	order n ^o 409.
3HP, kit	114 541	-
single front panel	114 540	-
4HP, kit	114 404	-
single front panel	114 396	-
5HP, kit	114 405	-
single front panel	114 397	-
6HP, kit	114 406	-
single front panel	114 399	-
7HP, kit	114 407	-
single front panel	114 400	-
8HP, kit	114 408	-
single front panel	114 401	-
9HP, kit	114 409	-
single front panel	114 402	-
10HP, kit	114 410	-
single front panel	114 403	-
12HP, kit	-	113 693
single front panel	-	113 762



Front panel with extraction facility

Front panel kit, consisting of:

description	quantity at 3U, different quantity in () at 6U	
	4-8 HP	9-12 HP
Front panel	1 (1)	1 (1)
Handle	1 (2)	1 (2)
Handle bush	1 (2)	1 (2)
Press-in sleeve M 2,5	2 (2)	4 (4)
Collar screw M 2,5 x 11,3	2 (2)	4 (4)
Corrugated washer 2,7	2 (2)	2 (2)
PCB holder, metal	2 (2)	2 (2)
PCB holder, plastic pin	- (1)	- (1)
Counter sunk screw M 2,5 x 6	2 (2)	2 (2)
Cheese head screw M 2,5 x 8	2 (2)	2 (2)

Surface finish

Extruded front panel:

colourless chromated

Flat front panel:

front anodized, rear and edges untreated

Handle

light gray RAL 7035

Accessories

Contact spring F3 3 U 409. 111 112

Contact spring F3 6 U 409. 111 116

1 extruded front panel requires 1 spring,

1 flat front panel requires 2 springs.

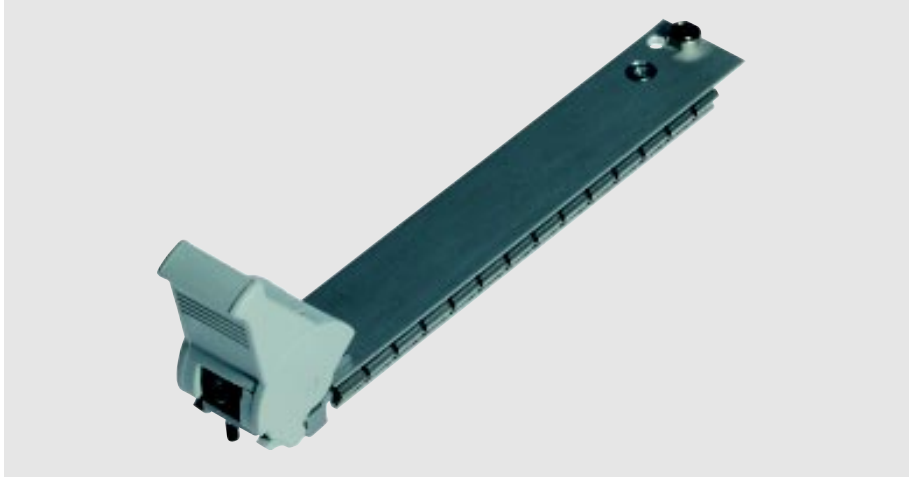
■ Ordering details 3U

description	extruded front panel	flat front panel
	order n ^o	order n ^o
	409.	409.
4HP, kit	113 655	113 620
single front panel	111 847	112 644
5HP, kit	113 656	-
single front panel	113 170	-
6HP, kit	113 657	113 622
single front panel	111 604	112 650
7HP, kit	113 658	-
single front panel	111 605	-
8HP, kit	113 659	-
single front panel	111 606	-
9HP, kit	113 660	-
single front panel	113 171	-
10HP, kit	113 661	-
single front panel	113 172	-
12HP, kit	-	113 626
single front panel	-	112 668

■ Ordering details 6U

description	extruded front panel	flat front panel
	order n ^o	order n ^o
	409.	409.
4HP, kit	113 662	-
single front panel	111 613	-
5HP, kit	113 663	-
single front panel	113 147	-
6HP, kit	113 665	-
single front panel	111 614	-
7HP, kit	113 667	-
single front panel	111 615	-
8HP, kit	113 668	-
single front panel	111 616	-
9HP, kit	113 669	-
single front panel	113 148	-
10HP, kit	113 670	-
single front panel	113 149	-
12HP, kit	-	113 640
single front panel	-	112 725

Front panel with IEEE ejector/injector handle



Front panel with IEEE handle Front panel kit, consisting of:

description	quantity for 3 U, different quantity in () for 6 U	
	4-8 HP	9-12 HP
Front panel	1 (1)	1 (1)
Handle, pre-assembled	1 (2)	1 (2)
PCB holder, metal	2 (2)	2 (2)
PCB holder, plastic pin	- (1)	- (1)
Collar screw M 2,5 x 11,3	1 (-)	3 (2)
Press-in sleeve M 2,5	1 (-)	3 (2)
Counter sunk screw M2,5 x 6	1 (-)	1 (-)
Screw M2,5 x 8	2 (2)	2 (2)
Corrugated washer 2,7	2 (2)	2 (2)

Surface finish

Extruded front panel:

colourless chromated

Flat front panel:

front anodized, rear and edges untreated

Handle

light gray RAL 7035

Accessories

Contact spring F3 3 U 409. 111 112

Contact spring F3 6 U 409. 111 116

1 extruded front panel requires 1 spring,

1 flat front panel requires 2 springs.

Additional accessories

Pre-assembled ejector/injector handle

for front panel 3U:

handle, bottom 409. 114 413

for front panel 6U:

handle, bottom 409. 114 413

handle, top 409. 114 415

Please note

The pre-assembled handle will be assembled onto the front panel and secured by means of a clamping washer.

Ordering details 3U

description	extruded front panel	flat front panel
	order n ^o 409.	order n ^o 409.
4HP, kit	113 671	113 641
single front panel	112 152	113 079
5HP, kit	114 460	-
single front panel	112 408	-
6HP, kit	113 672	113 643
single front panel	112 409	112 778
7HP, kit	114 461	-
single front panel	112 410	-
8HP, kit	113 673	-
single front panel	112 411	-
9HP, kit	114 462	-
single front panel	112 412	-
10HP, kit	114 463	-
single front panel	112 413	-
12HP, kit	-	113 647
single front panel	-	112 790

Ordering details 6U

description	extruded front panel	flat front panel
	order n ^o 409.	order n ^o 409.
4HP, kit	113 674	-
single front panel	112 154	-
5HP, kit	114 471	-
single front panel	112 400	-
6HP, kit	113 675	-
single front panel	112 401	-
7HP, kit	114 472	-
single front panel	112 402	-
8HP, kit	113 676	-
single front panel	112 403	-
9HP, kit	114 474	-
single front panel	112 404	-
10HP, kit	114 475	-
single front panel	112 405	-
12HP, kit	-	113 654
single front panel	-	112 773

Protective cover for solder side of PCBs

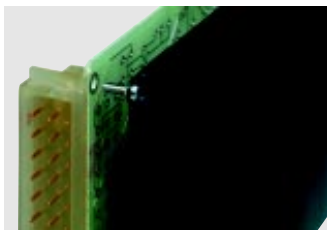
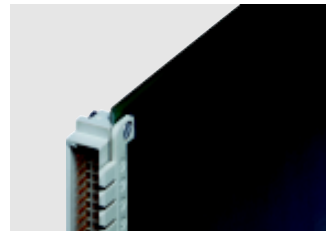
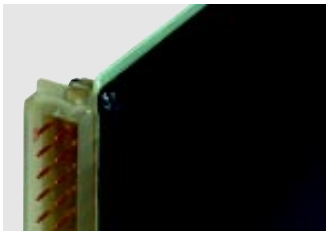
Ordering details

size	remarks	For PCB		order no. 409.
		height [mm]	depth [mm]	
3-160	standard	100	160	100 652
3-160	for coding strip ¹⁾	100	160	100 650
3-220	standard	100	220	100 662
3-220	for coding strip ¹⁾	100	220	100 660
6-160	standard	233.35	160	102 110
6-160	for coding strip ¹⁾	233.35	160	102 109
6-220	standard	233.35	220	102 113
6-220	for coding strip ¹⁾	233.35	220	102 112
9-220	for coding strip ¹⁾	366.7	220	102 296

¹⁾ for use by choice of a coding strip or RFI shielded front plate

Technical data

material	PBT (polyester)
continuous temperature	-40 °C to +100 °C
fire protection class	UL 94 V-0 at 0.8 mm
colour	black transparent on request

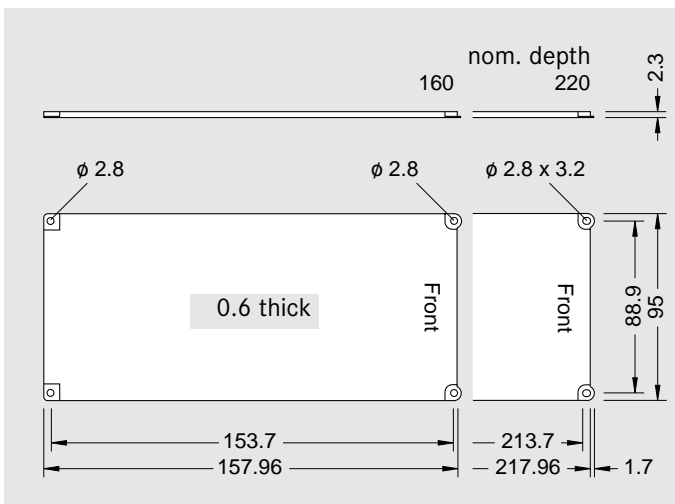


Mounting of the standard protective cover
on the rear with connector

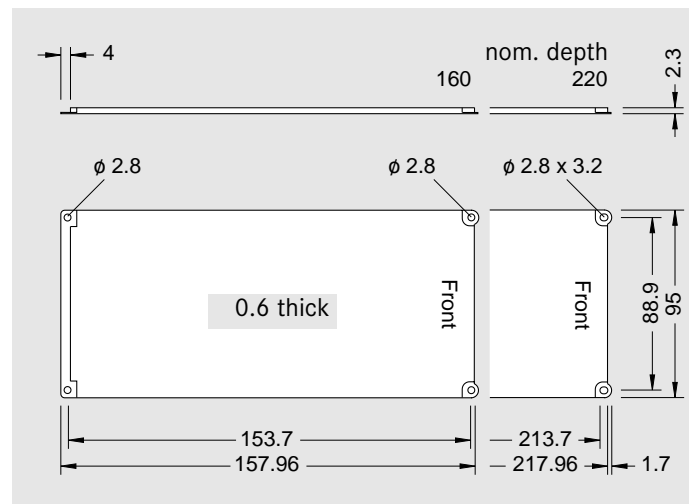
on the front

Mounting of the coding version of protective cover:

left: the "step" is placed beneath the coding strip
right: the "step" is placed at the front



Protective cover "Standard" 3 U



Protective cover "Coding version" 3 U

other dimensions on request

We Make it Better



NEWS

Inquiry no. _____
 Order no. _____

O-Nr.
 (filled-in by Intermas) _____

Fax +49 69 54 80 03 - 2 25
 Intermas Electronics GmbH & Co. KG
 Eschborner Landstraße 145 -157
 D - 60489 Frankfurt

From	
Company _____	Department _____
_____	Employer in charge _____
_____	Telephone _____
_____	Telefax _____
Postal address	
V.A.T. no. _____	Street _____
Zip/Postal-Code, place _____	

Delivery address

Street _____

 Zip/Postal-Code, place _____

Delivery date

required by _____

Item	Quantity	Order no.	Description	Price [DEM]
1	1 (one)	409.	sample front panel	free of charge
2		409.		
3		409.		
4		409.		
5		409.		
6		409.		

Total [DEM] _____

Intermas Electronics GmbH & Co. KG
 Eschborner Landstraße 145 -157
 D-60489 Frankfurt

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 eMail intermas@t-online.de

I would like to have a visit to discuss my application

Application: _____

 Date Signature Name