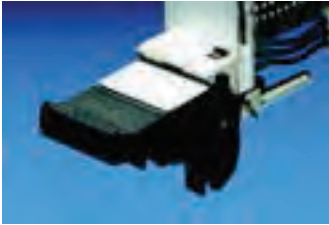


## Front panels, handles

**Identification strips**

for type I, II extractor handle and type IV injector/extractor handle  
Width 4 HP

Packs of	Model No. RP
100	3684.328

**Injector/extractor handle type IVs****with push-button**

For inserting and removing connectors with a large number of pins. A metal insert ensures reliable functioning, even at forces of up to 815 N.

- Insertion/removal function
- Push-button for locking and unlocking the board type plug-in unit (cannot be extracted in the locked position)
- Optionally with 1/2 HP offset PCB attachment, e.g. for component mounting on both sides
- Optional integral micro-switch for "live insertion" applications
- ESD pin to dissipate static charges before contacting the connectors and for precise positioning of the board type plug-in unit
- Codeable
- Integral PCB attachment
- Bayable.

**Material:**

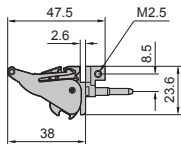
Plastic/metal

**Supply includes:**

Assembly parts.

**Note:**

- Insertion only when used with front horizontal rails, with 10 mm extension (B),
- With 3 U front panels, only one extractor handle is required.

**Handles without offset**

Installation	Packs of	Model No. RP
top	1	3688.770
bottom	1	3688.771

**Handles with 1/2 HP offset**

Installation	Packs of	Model No. RP
top	1	3688.772
bottom	1	3688.773

+	<b>Accessories:</b>
---	---------------------

Keys,

Keyable guide rails

Keyable guide rails with 1/2 HP offset

Micro-switches

Connector pin for baying

**Connection pin**

for injector/extractor handles, types IV, IVs and VII

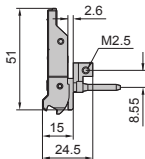
The connection pin can be used to connect injector/extractor handles, types IV, IVs and VII.

**Material:**

Steel

Packs of	Model No. RP
20	3685.319

## Injector/extractor handles



### Injector/extractor handle type VII

#### Plastic (telecom)

For inserting and removing connectors with a large number of pins. This handle was specifically designed for use in telecom applications.

- Insertion/removal function
- Optionally with 1/2 HP offset PCB attachment, e.g. for component mounting on both sides
- Minimum front space requirements, due to fold-up handle
- Codeable
- Optional integral micro-switch for "live insertion" applications
- ESD pin to dissipate static charges prior to making contact with the connectors and for precise positioning of the board type plug-in unit
- Large labelling area on the front.

**Material:**  
Plastic

**Supply includes:**  
Assembly parts.

**Note:**  
Insertion only when used with front horizontal rails, with 10 mm extension (B),

#### Handles without offset

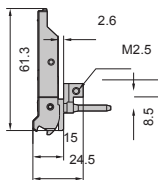
Installation	Packs of	Model No. RP
top	1	3688.784
bottom	1	3688.785

#### Handles with 1/2 HP offset

Installation	Packs of	Model No. RP
top	1	3688.780
bottom	1	3688.781

#### Accessories:

Keys,  
Keyable guide rails  
Keyable guide rails with 1/2 HP offset  
Micro-switches  
Connector pin for baying



### Injector/extractor handle type VII

#### Metal (telecom)

For inserting and removing connectors with a large number of pins (up to 815 N). This handle was specifically designed for use in telecom applications.

- Insertion/removal function
- Optionally with 1/2 HP offset PCB attachment, e.g. for component mounting on both sides
- Minimum front space requirements, due to fold-up handle
- Codeable
- Optional integral micro-switch for "live insertion" applications
- ESD pin to dissipate static charges prior to making contact with the connectors and for precise positioning of the board type plug-in unit
- Metal design for use in aggressive atmospheres.

**Material:**  
Die-cast zinc

**Supply includes:**  
Assembly parts.

**Note:**  
Insertion only when used with front horizontal rails, with 10 mm extension (B),

#### Handles without offset

Installation	Packs of	Model No. RP
top	1	3688.790
bottom	1	3688.791

#### Handles with 1/2 HP offset

Installation	Packs of	Model No. RP
top	1	3688.786
bottom	1	3688.787

#### Accessories:

Keys  
Keyable guide rails  
Keyable guide rails with 1/2 HP offset  
Micro-switches  
Connector pin for baying



### Micro-switch

For "live insertion" applications. Installation in injector/extractor handles, types IV, IVs and VII. May also be retrofitted.

**Technical specifications:**  
Switching load: 50 mA 30 V DC  
Service life/switching cycles:  
At nominal load: 30,000  
mechanical: 50,000

Packs of	Model No. RP
10	3684.410

#### Also required:

Micro-switch mounting clip

## Front panels, handles



### Micro-switch

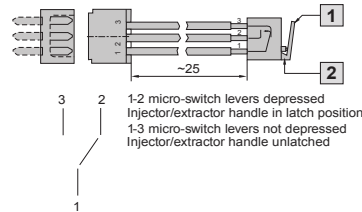
#### with cable and connector

For "live insertion" applications.  
Installation in injector/extractor handles, types IV, IVs and VII.

#### Supply includes:

Micro-switch, connector type Molex 51021-0300, mounting clips, 3 cables, 25 mm x #32 AWG, fully assembled.

- 1 Lever not depressed
- 2 Lever hinge
- 3 Lever contact point

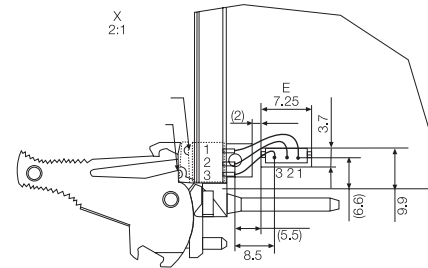


Packs of	<b>Model No. RP</b>
1 set	<b>3686.536</b>

**!** Also required:

Micro-switch mounting clip

Micro-switch:with cable and connector



### Micro-switch mounting clip

For mounting micro-switches in handles.

Packs of	<b>Model No. RP</b>
10	<b>3684.411</b>



### Plastic covers

#### for PCBs

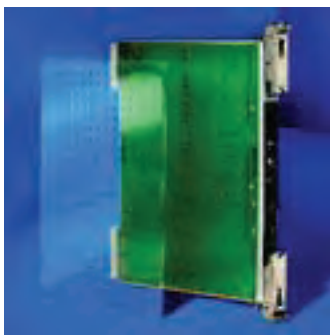
For mechanical protection of the component side and of the EMC gaskets.  
Attachment holes as per CPCI or VME-specifications. Optionally available as perforated or solid version.

#### Material:

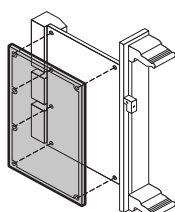
0.3 mm plastic, anti-static  
Maximum temperature up to 65°C

<sup>1)</sup> 0.5 mm plastic, transparent, anti-static  
UL 94-V0, maximum temperature up to 65°C

<sup>2)</sup> 0.5 mm plastic, black, anti-static UL 94-V0,  
maximum temperature up to 120°C



For PCBs	Packs of	Model No. RP			
		for cPCI		for VME	
		perforated <sup>1)</sup>	solid <sup>1)</sup>	solid	solid
3U x 160 mm	1	<b>3687.932</b>	<b>3686.572</b>	<b>3685.966</b>	<b>3685.626</b>
	5	—	—	—	<b>3685.279</b>
3U x 220 mm	1	—	—	—	<b>3685.805</b>
	5	—	—	—	<b>3685.266</b>
6U x 80 mm	1	<b>3687.933</b>	<b>3686.573</b>	<b>3686.037</b>	<b>3686.146</b>
6U x 160 mm	1	<b>3687.934</b>	<b>3686.574</b>	<b>3685.967</b>	<b>3685.627</b>
	1	<b>9905.574<sup>2)</sup></b>	<b>9905.990<sup>2)</sup></b>	—	—
	5	—	—	—	<b>3685.280</b>
6U x 220 mm	1	—	—	—	<b>3685.824</b>
	5	—	—	—	<b>3685.000</b>



**!** Also required:

Required for mounting the perforated cPCI covers:

Mounting clips

Packs of	<b>Model No. RP</b>
100	<b>3687.955</b>

## Front panels, handles



### Universal holder

for front panel support

**Material:**  
Nickel-plated plastic

HP	Packs of	Model No. RP
4	1	3687.545



### Flat front panels

with type V handle and PCB holder  
Complete modular systems

**Material:**  
Front panel: 2.5 mm Aluminium, natural anodised  
Handle: Aluminium, natural anodised  
PCB holder: Polycarbonate

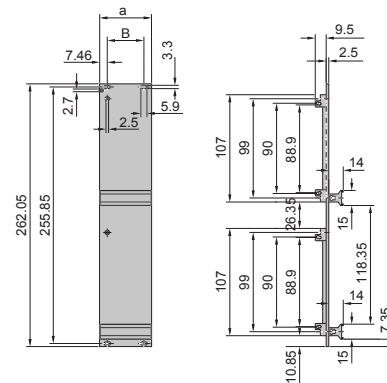
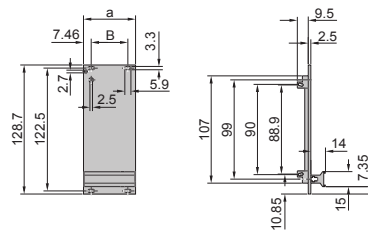
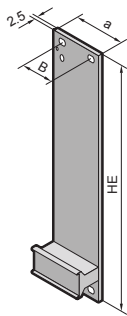
**Supply includes:**  
1 front panel,  
1 handle (2 with 6 U),  
1 PCB holder (2 with 6 U),  
assembly parts.

HP	a mm	W (B) mm	Model No. RP	
			3U H = 128.7	6U H = 262.05
3	14.9	-	3652.000	3652.200
4	20.0	-	3652.010	3652.210
5	25.1	-	3652.020	3652.220
6	30.1	-	3652.030	3652.230
7	35.2	-	3652.040	3652.240
8	40.3	-	3652.050	3652.250
10	50.5	35.6	3652.060	3652.260
12	60.6	45.7	3652.070	3652.270
14	70.8	55.9	3652.080	-

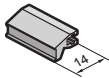
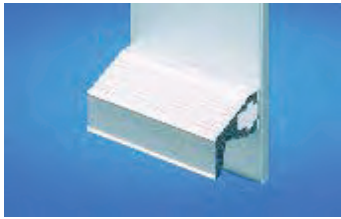
Available with optional metal screw collars.

**Accessories:**

Identification strips for handles,



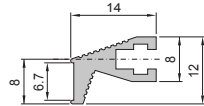
## Front panels, handles



### Type VI handle

**Aluminium**

**Material:**  
Aluminium, anodised



HP	Model No. RP	HP	Model No. RP
3	3685.605	12	<b>3685.612</b>
4	3685.606	14	<b>3685.613</b>
5	3685.607	21	<b>3685.614</b>
6	3685.608	28	<b>3685.615</b>
7	3685.609	42	<b>3685.616</b>
8	3685.610	84	<b>3685.617</b>
10	3685.611	1 m	<b>3685.618</b>

Custom lengths available.



#### Also required:

Mounting kit  
packs of 1 set, Model No. RP 3687.146  
(from 6 HP 2 packs required)



### PCB holder kit

**For attaching the PCB to front panels with handle types I, II, IV, IVs, VII.**

**Material:**  
Die-cast

**Note:**  
Only required at the top with 3U front panels.

Packs of	Model No. RP
10	<b>3685.198</b>



#### Also required:

For securing PCBs to PCB holders:  
Pan-head screws  
packs of 100, Model No. RP 3654.320  
For attaching the front panel to the PCB holder:  
Oval head screw  
packs of 100, Model No. RP 3685.282.



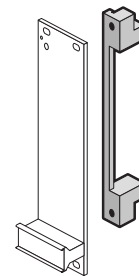
### PCB holder

**For front panels**  
For attaching PCBs to front panels  
(handle type V, VI).

**Material:**  
Noryl

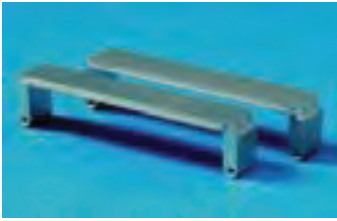
**Supply includes:**  
Assembly parts.

Packs of	Model No. RP
10	<b>3606.330</b>



Front panels: for subracks

Handles: for subracks



**Mezzanine front panels**  
**Extruded aluminium section**

For PCI mezzanine cards (PMC).  
Conforms to IEEE 1386

**Material/surface finish:**  
Extruded aluminium section, clear-chromated

Packs of	Model No. RP
1	3688.658

**+ Accessories:**

EMC seals  
Assembly screws M2.5 x 6  
packs of 100, Model No. RP 3654.340



**Mezzanine front panels**  
**Die-cast zinc**

For PCI mezzanine cards (PMC).  
Conforms to IEEE 1386

**Material:**  
Die-cast zinc

Packs of	Model No. RP
1	3688.659

**+ Accessories:**

EMC seals  
Assembly screws M2.5 x 6  
packs of 100, Model No. RP 3654.340



**Support spacers**

**for mezzanine cards**  
10 mm, for mounting mezzanine cards.

Packs of	Model No. RP
1	3688.663



**Covers**  
**for mezzanine cut-outs**

To conceal unused mezzanine cut-outs.  
The covers are simply clipped into the cut-outs.

**Material:**  
Stainless steel

Packs of	Model No. RP
1	3688.660



**EMC seals**  
**for mezzanine front panels**

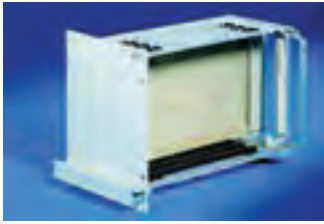
can be inserted into the all-round channel of the mezzanine front panels.

**Material/surface finish:**  
Sealing ring made of 1.1 mm conductive carbon filled silicon, sealing gasket made from 0.18 mm (0.9 mm coil) stainless steel.

Design	Packs of	Model No. RP
Sealing ring	1	3688.661
Sealing gasket	1	3688.662



## Guide rails

**Guide rails**

for box type plug-in units  
 For PCB depth 1.6 mm.  
 For insertion into covers with vent slots  
 (from 12 HP).

**Material:**  
 Noryl

For PCB depth mm	Packs of	Model No. RP
160	10	3606.140
220	10	3606.200

**Air block panel**

for unused slots  
 To conceal unused slots and prevent unwanted  
 airflow. The air block panel simply snaps into  
 position on the guide rails.

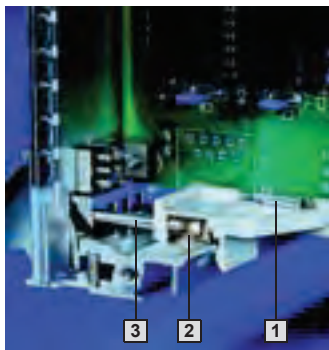
**Material:**  
 Polycarbonate, self-extinguishing to UL 94-V0

**Colour:**  
 Blue

**Note:**  
 Not suitable for use in conjunction with guide rails  
 with 1/2 HP offset.



For keyable guide rails	Packs of	Model No. RP
160 mm	1	3687.924

**ESD contacts**

for installation in keyable guide rails.  
 To discharge static charges.

**1 ESD contact for guide rail**  
 For permanent direct discharge via the PCB.

**2 ESD contact for front panel**  
 To discharge static charges in conjunction  
 with the ESD pin. For insertion into the end  
 piece of the guide rail.

**3 ESD pin**

**4 Keys**

**Material:**  
**1** Stainless steel  
**2** Tin bronze, tin-plated

ESD contact for	Packs of	Model No. RP
Guide rail	50	3684.204
Front panel	50	3684.205

**Note:**  
 Only for use in conjunction with extractor handle  
 with ESD pin (type IV, IVs, VII),

