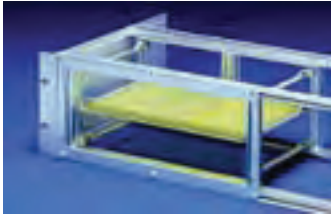


## Mounting kits/guide rails

**Trim frame**

for horizontal mounting kit  
To conceal the front sections of the horizontal mounting kit.

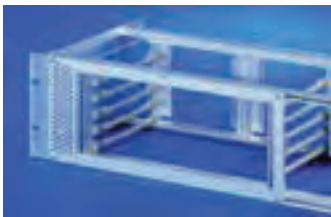
**Material:**  
Aluminium, anodised

U horizontal	HP	Model No. RP	
		for 3U subrack	for 4U subrack
6	56	<b>3685.783</b>	<b>3685.785</b>
9	84	<b>3685.784</b>	<b>3685.786</b>

Custom versions available upon request.

**!** **Also required:**

Collar screws and plastic collars, packs of 100 sets, Model No. RP 3658.160.

**Trim frame, vented**

for horizontal mounting kit  
To conceal the front sections of the horizontal mounting kit.

**Material:**  
Aluminium

**Surface finish:**  
Anodised, clear-chromated (EMC version)

**Supply includes:**  
EMC accessories (with EMC version).

**EMC**

U horizontal	HP	Model No. RP	
		for 3U subrack	for 4U subrack
6	63	<b>3685.787</b>	<b>3685.788</b>

**!** **Also required:**

Collar screws and plastic collars, packs of 100 sets, Model No. RP 3658.160.

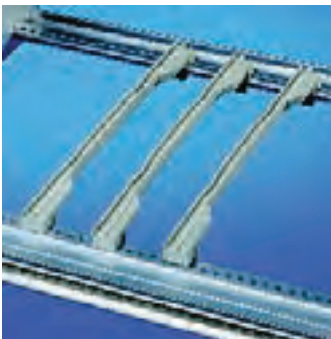
**EMC version**

U horizontal	HP	Model No. RP	
		for 3U subrack	for 4U subrack
6	63	<b>3685.291</b>	<b>3685.292</b>

Custom versions available upon request.

**!** **Also required:**

Centering screws, packs of 100, Model No. RP 3687.050.

**Plastic guide rails**

For 160, 220 and 280 mm PCBs up to 2 mm nominal thickness.

2 versions are available:

- Snap-in-fastening and screw-fastening
- Snap-in-fastening

**Material:**  
Polycarbonate, base material to UL 94-V0

PCB depth mm	Packs of	Model No. RP	
		Snap-in-fastening/ screw-fastening <sup>1)</sup>	Snap-in-fastening
100	1	–	<b>3688.005</b>
160	10	<b>3688.048</b>	<b>3688.045</b>
220	10	<b>3688.049</b>	<b>3688.046</b>
280	10	<b>3688.052</b>	<b>3688.047</b>

**!** **Also required:**

<sup>1)</sup> Assembly screws, packs of 100, Model No. RP 3654.360.

**Plastic guide rails**

For contact spring fitting  
For 160, 220 and 280 mm PCBs up to 2 mm nominal thickness. By installing contact springs, an electrical connection can be made between the PCB and the assembly.

**Material:**  
Polycarbonate, base material to UL 94-V0

PCB depth mm	Packs of	Model No. RP
160	10	<b>3688.053</b>
220	10	<b>3688.054</b>
280	10	<b>3688.056</b>

**+** **Accessories:**

Contact springs.

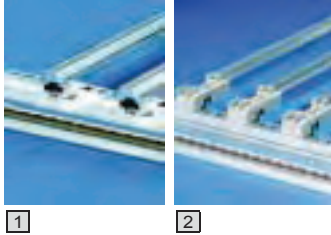
## Guide rails



### Contact springs

For electrical connection between the PCB and the subrack, or to discharge static charges from the PCB.  
Suitable for installation in "guide rails for contact spring fitting" and "end pieces for guide rails".

Packs of	Model No. RP
10	3687.726



### Guide rails, aluminium

For high loads. Suitable for a nominal PCB thicknesses of 1.6 mm. A distinction is made between guide rails for and without end pieces. The guide rails without end pieces are screw-fastened directly into the horizontal rail.

**Material:**  
Aluminium

PCB depth mm	Packs of	Model No. RP	
		1 Without end piece <sup>1)</sup>	2 For end pieces
160	1	3687.526	3684.663
220	1	3687.527	3684.664
280	1	3687.528	3684.665
160	10	3688.064	3688.057
220	10	3688.065	3688.058
280	10	3688.066	3688.059
1000	1	3684.666	-

**! Also required:**

- <sup>1)</sup> Screw M2.5 x 6, packs of 100. Model No. RP 3654.340.
- <sup>1)</sup> Nut M2.5, packs of 100. Model No. RP 3654.370.
- <sup>1)</sup> Retaining cage M2.5, packs of 100.



### End pieces

for guide rails, aluminium  
To discharge static charges, contact springs RP 3687.726 may be used.

**Material:**  
Polycarbonate, base material to UL 94-V1

	Packs of	Model No. RP
End piece, front	1	3684.759
End piece, rear	1	3685.668
End pieces, pairs	10	3688.028

**+ Accessories:**

Contact springs.



### Keyable guide rails, plastic

- Guide rails 4 HP, keyable, to IEEE 1101.10.
- For 1.6 – 2.0 mm nominal thickness
  - Chambers for the installation of keys
  - Option of installing ESD contacts to discharge static charges
  - Narrow design for maximum air flow
  - Various colour variants to identify the slots:
    - Red for system slot
    - Green for power supply
    - Yellow and grey for board-type plug-in units

**Material:**  
Polycarbonate, base material to UL 94-V0

**Note:**  
Only for use in conjunction with type IV, IVs, VII injector/extractor handles.

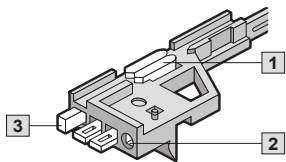
**+ Accessories:**

- Keys.
- ESD contact.
- Extractor handles type IV, IVs, VII.



- 1** ESD contact for guide rails
- 2** ESD contact for front panel
- 3** Keys

For PCB depth mm	Packs of	Model No. RP			
		Grey	Red	Green	Yellow
160	10	3685.257	-	-	-
220	10	3685.258	-	-	-
280	10	3685.259	-	-	-
160	1	3684.669	3686.063	3688.055	3689.089
220	1	3684.953	9902.240	-	3689.091
280	1	3684.954	-	-	3689.093



## Guide rails

**Keyable guide rails**

with 1/2 HP offset

Guide rails with 1/2 HP offset for use e.g. in telecom applications. This allows PCBs to be populated on both sides. Green guide rails with offset are prescribed in the specification (PICMG 2.11) for the installation of power supply units.

- For 1.6 – 2.0 mm PCB thickness
- 4 HP x 160/220 mm
- Narrow design for maximum air flow
- Chambers for the installation of keys
- Option of installing ESD contacts to discharge static charges

**Material:**

Polycarbonate, base material to UL 94-V0

**Note:**

Only suitable for use in conjunction with extractor handles type IV, IVs, VII with 1/2 HP offset.

For PCB depth mm	Packs of	Colour	Model No. RP
160	10	Grey	<b>3688.062</b>
		Grey	<b>3686.137</b>
	1	Yellow	<b>3689.090</b>
		Green	<b>3687.832</b>
20	10	Grey	<b>3688.060</b>
	1	Grey	<b>3686.136</b>
		Yellow	<b>3689.092</b>

**Accessories:**

Keys,  
ESD contact  
Extractor handles type IVs, VII  
with 1/2 HP offset.

**Keyable guide rails**

For I/O assemblies

Guide rails 4 HP, keyable, to IEEE 1101.10.

Prepared to accommodate a ground contact for assembly of a plug-type connection.

- For 1.6 – 2.0 mm nominal thickness
- For 80 mm deep PCBs
- Chambers for the installation of keys
- Option of installing ESD contacts to discharge static charges
- Narrow design for maximum air flow

**Material:**

Polycarbonate, base material to UL 94-V0

**Note:**

Only for use in conjunction with type IV, IVs, VII injector/extractor handles.

Colour	For PCB depth mm	Packs of	Model No. RP	
			Guide rails	
			Top	Bottom
Grey	80	1	<b>3687.936</b>	<b>3687.937</b>
Yellow	80	1	<b>3689.097</b>	<b>3689.098</b>

**Accessories:**

Keys,  
ESD contact,  
Ground contact,  
Extractor handles type IV, IVs, VII.

**Ground contact**

Ensures a plug-in ground connection.  
UL-approved.

**Material:**

Die-cast zinc

Supply includes:  
Grounding bush, contact spring.

**Note:**

Only suitable for use in conjunction with keyable guide rails for rear I/O assemblies.

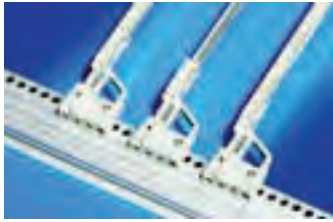
	Model No. RP	
	1 set	50 sets
Grounding bush and contact spring	<b>3689.036</b>	<b>3687.951</b>

**Also required:**

Assembly screws 3.5 x 12 mm,  
packs of 50, Model No. RP 3684.109.



## Guide rails



### Keyable guide rails, aluminium, three-part

Keyable guide rails with aluminium centre part, for high mechanical loads. Suitable for 1.6 – 2.0 mm PCB thickness.

The guide rails are compiled from the following individual components:

- 1 2 end pieces
- 2 1 aluminium centre part
- 3 Insulating centre part(s)



### 1 End Pieces

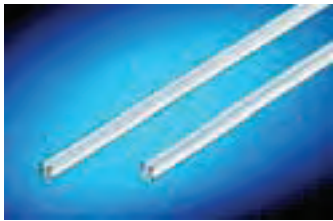
for three-part guide rails  
For 1.6 – 2.0 mm PCB thickness.

Material:  
Polycarbonate, base material to UL 94-V0

	Packs of	Model No. RP
	10 pairs	<b>3685.265</b>
front end piece	1	<b>3685.790</b>
rear end piece	1	<b>3684.670</b>

**Note:**

A front and a rear end piece is required for each guide rail.



### 2 Aluminium centre part

for three-part guide rails  
For 1.6 – 2.0 mm PCB thickness.

Material:  
Aluminium, unplated

For PCB depth mm	Model No. RP	
	Packs of = 1	Packs of = 10
220	<b>3684.673</b>	<b>3685.260</b>
280	<b>3684.674</b>	<b>3685.261</b>
340	<b>3684.675</b>	<b>3685.262</b>
400	<b>3684.676</b>	<b>3685.263</b>
1000	<b>3684.672</b>	–



### 3 Insulated centre part

for three-part guide rails  
The insulated centre part is pushed onto the aluminium centre part. length: 60 mm.

Material:  
Plastic, self-extinguishing to UL 94-V0

Packs of	Model No. RP
1	<b>3684.677</b>
10	<b>3685.264</b>

For PCB depth mm	Number of insulating strips required
160	1
220	2
280	3
340	4
400	5



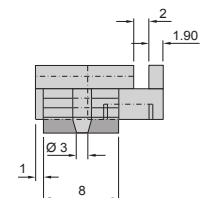
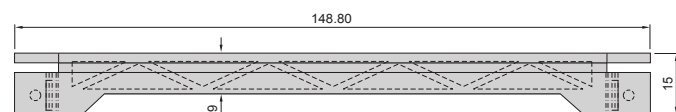
### Guide rails for 4.4"

Snap-fastening guide rails to accommodate PCBs and assemblies with a height of 4.4".

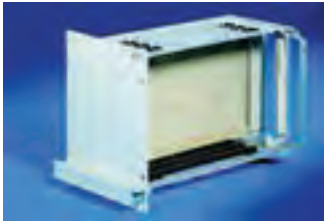
Material:  
Macrolon

Colour:  
Dark grey

For PCB depth mm	Packs of	Model No. RP
160	1	<b>3686.990</b>



## 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**

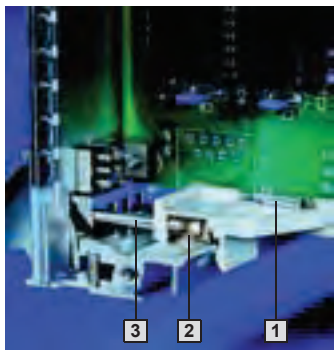
for unused slots  
To conceal unused slots and prevent unwanted  
airflow. The air block panel simply snaps into  
position on the guide rails.

**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.

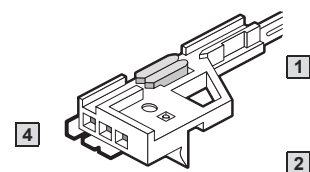
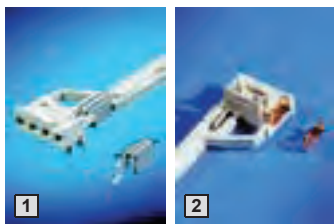
**3 ESD pin**

**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),





## Keying/PCB ejectors

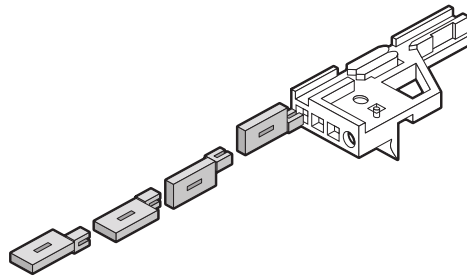
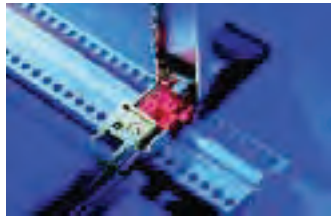


### Keys

Keys are used for coding of board-type plug-in units and prevent the use of assemblies in incorrect slots. The keys are inserted into the chambers of the keyable guide rails and the injector/extractor handles, types IV, IVs and VII (4 positions are possible). This produces 64 keying combinations per guide rail. When keying the top and bottom guide rail, 4096 potential combinations are possible.

**Standards:**  
IEEE 1101.10, IEC 60 297-5-104

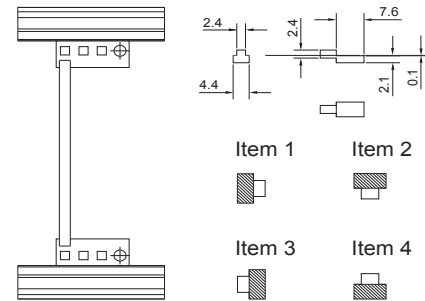
**Material:**  
Plastic, PBTP, basic material to UL 94-V0



Colour	Packs of	Model No. RP
Grey	100	3684.325
Red	100	3684.326

### + Accessories:

Keying tool



### Keying tool

For simple assembly of keys. Up to 3 coding keys may be fitted simultaneously. An integral alignment pin makes positioning easier.

**Material:**  
Polycarbonate, base material to UL 94-V0

Packs of	Model No. RP
1	3687.956



### PCB ejector/retainer

The two-piece PCB ejector is used for securing and extracting PCBs without front panels. The base section may also be used separately for board retention only.

**Material:**  
Polycarbonate, base material to UL 94-V0



	Packs of	Model No. RP
1 PCB ejector/retainer	10	3687.014
2 PCB retainer	10	3687.052