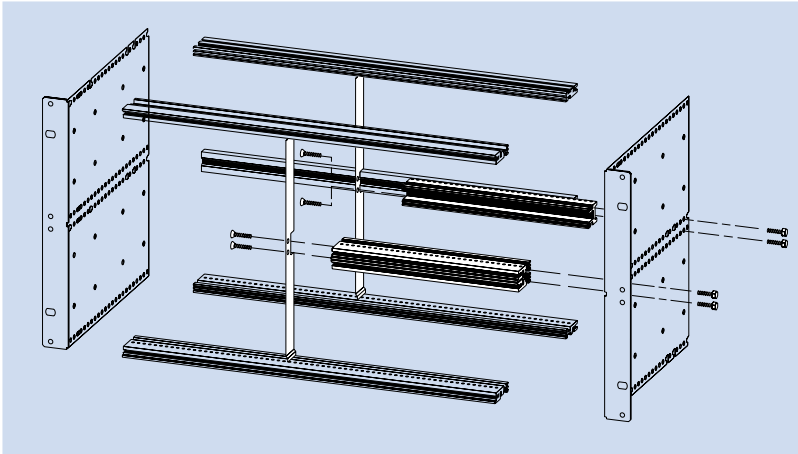


Subrack Divider



for subrack **FLEXIBLE** and **RFI-SHIELDED**

Subrack Divider Kit
2 x 3 U - 42 HP and 6 U - 40 HP

The divider separates a 6 U subrack into a field for 6 U PCB's and 2 fields of 3U.

Finish: colorless chromated

Delivery:

- 1 double front profile
- 2xVE1-43 HP chromated
- 1 double rear profile
- 2xHK-43 HP anodized
- 2 divider strips
- Mounting parts

order no.: **409. 082 063**

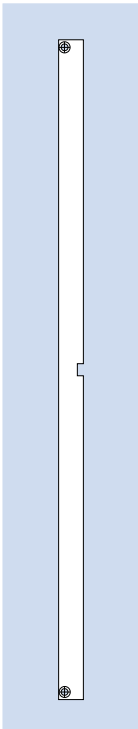
Assembly:

The short horizontal rails are assembled to the side panel. The dividing strip is inserted into the horizontal rail groove, fixed with a rotating motion and mounted on the short horizontal rails.

Positioning note:

For optimum use of available space in the subrack, PCB's of 6 U should be mounted left, and the 3 U on the right. In this case the dividing strip requires only 1 HP, otherwise 2 HP for the necessary air and leakage paths.

Single Parts



Blind Front Panel for Subrack Divider

For covering of the divider strip. Optional with RFI-springs for a RFI shielded front.

Material: aluminum
Finish: colorless chromated
Dimensions: 2 HP x 6 U

order no.: **409. 116 319**

Accessories

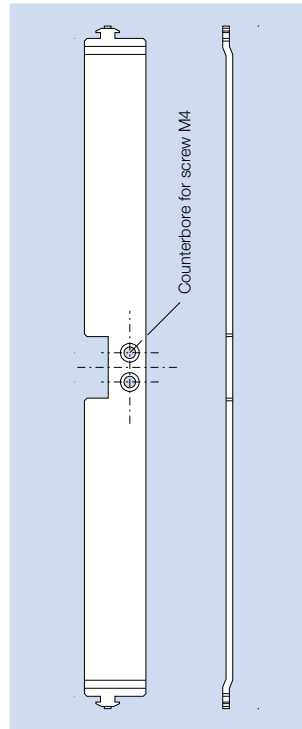
	order no. 409.
RFI-spring F3 - 3U	111 112
RFI-spring F3 - 6U	111 116

Needed 1 x 6 U and 2 x 3 U RFI-springs

For assembly of the front panel to the horizontal rail

Minimum order quantity 100 pieces

Oval head screw M 2.5 x 11.3	101 917
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Divider Strip

Material: aluminum
finish: chromated
Dimensions: 6 U

order no.: **409. 078 942**

Accessories

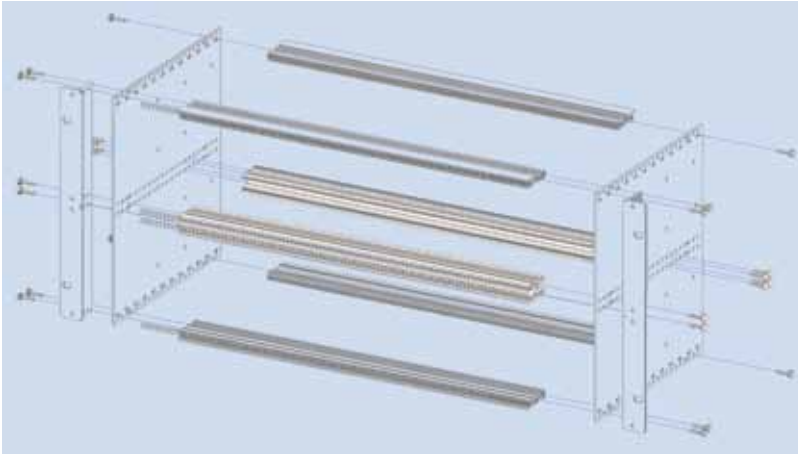
Counter sunk screw M 4 x 16

For assembly of the divider strip to the horizontal rail:

Minimum order quantity 100 pieces

order no.: **409. 107 342**

Subrack Divider, Horizontal Mounting Frame



for subrack *FLEXIBLE* and
RFI-SHIELDED

Subrack Divider Kit 2 x 3 U - 84 HP
For partitioning a 6 U subrack in 2x3U.

Delivery:

- 1 double front profile
- 2xVE1 - 85HP colorless chromated
- 1 double rear profile
- 2xHK - 85HP anodized
- Mounting parts

order no.: **409. 166 270**

Subrack Accessories



Horizontal Mounting Frame

20 HP for horizontal mounting of 6 U PCB's in 3U subracks.

The horizontal mounting frame needs 52 HP in the width.

For 84 HP subracks are available

Placed right:

52 HP for horizontal mounting frame,
32 HP for 3 U-PCB's

Placed left:

52 HP for horizontal mounting frame,
1 HP for air and leakage paths,
31 HP for 3 U-PCB's.

Ordering details for horizontal mounting frame kits

	finish	nom. depth [mm]	type <i>alpha</i> order no. 409.	type <i>beta</i> order no. 409.	type <i>delta</i> order no. 409
6 U	anodized	user-defined	069 047	064 947	064 687
6 U RFI	chromated	160	161 161	-	161 165
6 U RFI	chromated	220	161 162	-	161 166

Accessories

Threaded strip 20 x M 2.5

order no.: **409. 072 533**

Partition Wall, Separating Wall Wall and Door Installation Profiles



Partition Wall

For partitioning of a subrack part.
The partition wall 6 U can also be used as a RFI shielded subrack divider in 6U and 2x3U parts.

Delivery:

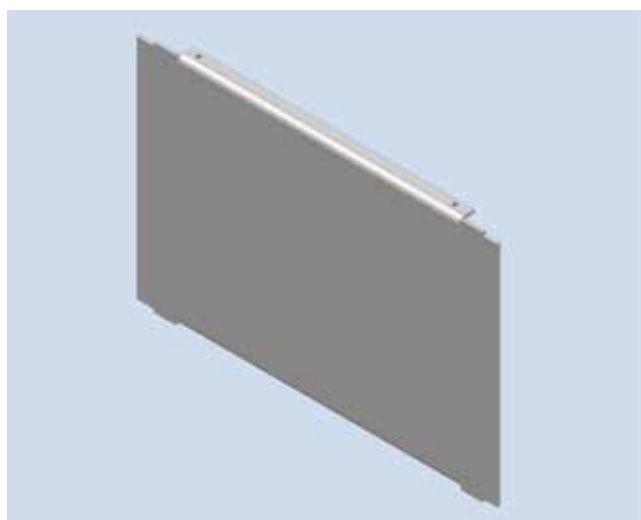
1 partition wall
1 front panel 2 HP
Mounting parts

Accessories

	3 U order no. 409.	6 U order no. 409.
Shielding kit	116 416	116 418
consists of:	pieces	pieces
RFI-spring F3 - 3 U	2	2
RFI-spring F3 - 6 U	-	1
RFI-spring M - P1	1	2
Clamping plate	1	2
Mounting parts	1	1

Ordering details kit

	nom. depth 160 mm order no. 409.	nom. depth 220 mm order no. 409.
Partition wall 3 U	116 333	116 334
Partition wall 6 U	116 335	116 336



Separating Wall

For separating a subrack into two fields.

Material: aluminum

Finish: blank

Delivery: 1 separating wall
Mounting parts

Ordering details kit

	nom. depth 160 mm order no. 409.	nom. depth 220 mm order no. 409.
Separating wall 3 U	122 648	122 649
Separating wall 6 U	122 650	122 651



for subrack *FLEXIBLE Fs*, *RFI-SHIELDED* and *InterRail*

Wall and Door Installation Profile Kit

For mounting subracks in a door, switch panel etc.
The installation profiles are mounted to the side panel by means of the mounting screws to the horizontal rails.

Material: aluminum

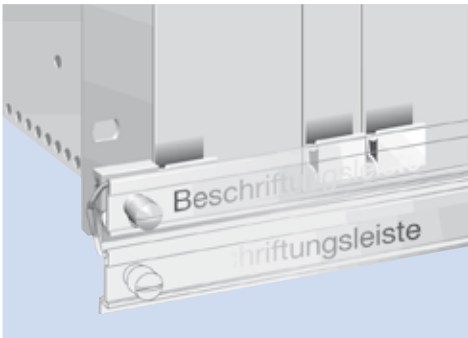
Finish: anodized

Delivery:
2 wall installation profiles

Ordering details kit

	order no. 409.
Wall installation profile 42 HP	108 045
Wall installation profile 84 HP	108 012

Labelling Rail, Locking Rail Label Strip



for subrack *FLEXIBLE Fs, RFI-SHIELDED, InterRail*

Labelling Rail 84 HP

This hinged labelling rail is mounted on the subrack flanges. Normally it is placed in front of the front panels. For ejecting a PCB, the rail is turned down.

order no.: **409. 121 941**

Delivery:

1 labelling rail
2 mounting flanges
2 hinge bracket
Mounting parts



Locking Rail 84 HP

For locking of PCB's without front panels. The locking rail is mounted at the horizontal rail in front of the PCB's. A labelling strip can be inserted into a groove.

order no.: **409. 120 790**

Delivery:

1 locking rail
1 rubber
Mounting parts



Label Strip

Self adhesive. For identifying PCB slots in the subrack. The PCB slot number can be read through the hole in the front panel.

Note:

The label strip cannot be read while using the RFI spring P2.

Material: PC/PE-foil

Color: yellow/black

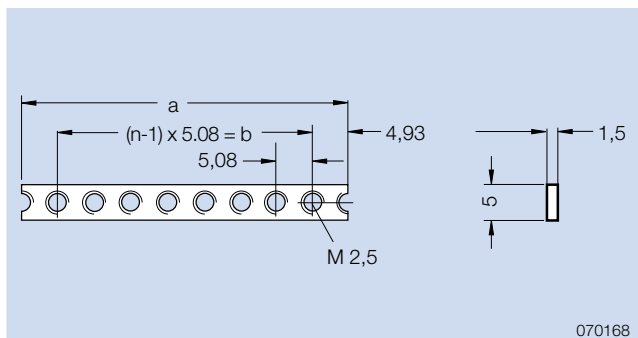
Delivery

Minimum purchase: 18 pieces on a papersheet.

Ordering details kit

	order no. 409.
Label strip 01 - 84	024 738
Label strip 84 - 01	024 740

Threaded Strips



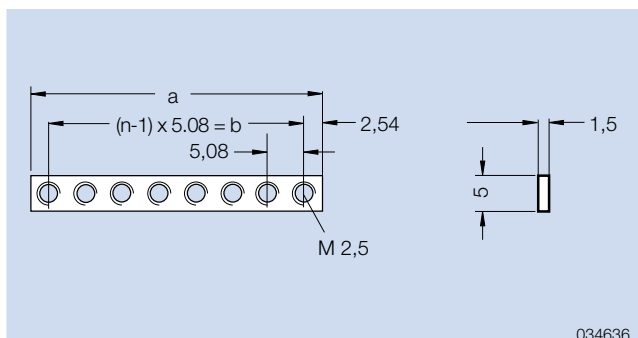
Threaded Strip M 2.5

For attaching the front panels and assembly parts at the wiring field.

Material: steel
Finish: galvanized, chromated

Ordering details threaded strip M 2.5

n = number of threads	a [mm]	b [mm]	order no. 409.
20	106.38	96.52	131 688
21	111.46	101.60	130 883
28	147.02	137.16	131 701
32	167.34	157.48	131 548
36	187.66	177.80	103 777
42	218.14	207.28	100 843
84	431.50	421.64	091 255



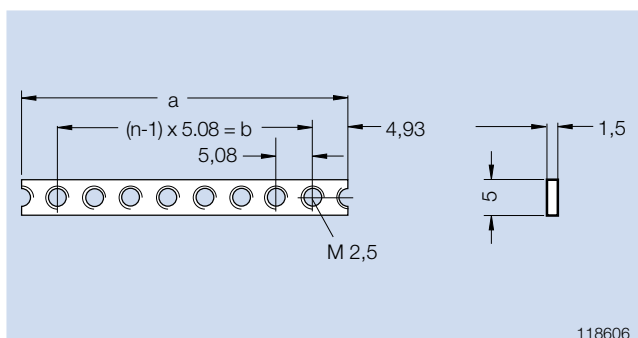
Threaded Strip M 2.5 addable

This threaded strip could be added to other strips and the space between the holes always adds up 5.08 mm.

Material: steel
Finish: galvanized, chromated

Ordering details threaded strip M 2.5 addable

n = number of threads	a [mm]	b [mm]	order no. 409.
10	50.80	45.72	131 836
20	101.60	96.52	131 845
28	142.24	137.16	106 751
42	213.36	207.28	131 813
84	426.72	421.64	131 478



Threaded Strip M 2.5 - stainless steel

For attaching the front panels and assembly parts at the wiring field.

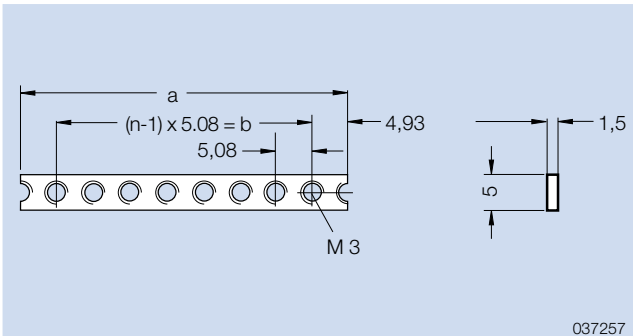
This threaded strip is for nonmagnetic applications.

Material: stainless steel
Finish: blank

Ordering details threaded strip M 2.5 - stainless steel

n = number of threads	a [mm]	b [mm]	order no. 409.
84	431.50	421.64	118 608

Threaded Strips

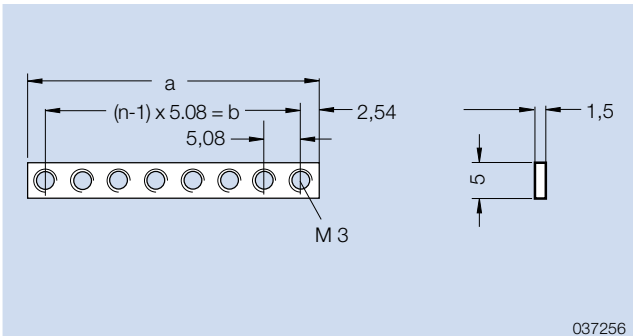


Threaded Strip M 3

Material: steel
Finish: galvanized, chromated

Ordering details threaded strip M 3

n = number of threads	a [mm]	b [mm]	order no.
84	431.50	421.64	130 890



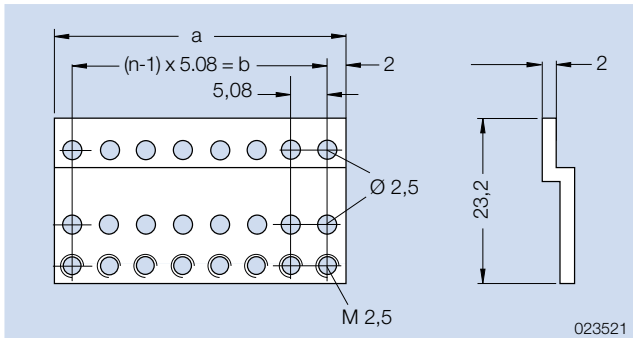
Threaded Strip M 3 addable

Material: steel
Finish: galvanized, chromated

Ordering details threaded strip M 3 addable

n = number of threads	a [mm]	b [mm]	order no.
84	426.72	421.64	132 038

Z-Rail A, Mounting Rail B



Z-Rail A tapped M 2.5

For mounting connectors in accordance to IEC 60 603/ DIN 41 612 in subracks type *alpha*.
Mounted on the rear profile.

Material: aluminum

Finish: colorless chromated

Ordering details Z-rail A tapped M 2.5

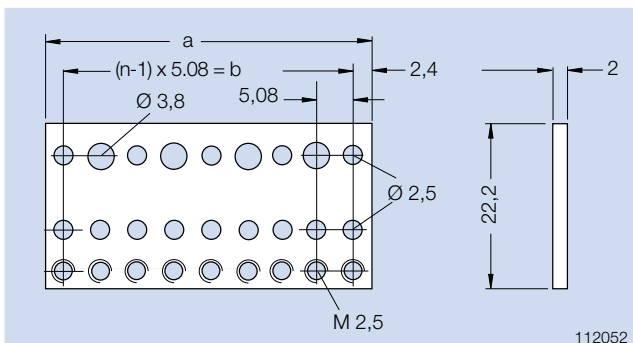
n [HP]	a [mm]	b [mm]	Order no. 409.
22	110.68	106.68	024 361
42	212.28	208.28	024 380
84	426.44	421.64	026 586

Accessories

Mounting parts for assembling the Z-rail A:
for 84 HP Z-rail, 5 places suggested.

Minimum order quantity 100 pieces

	order no. 409.
Oval head screw M 2.5 x 8 ISO 7045	094 602
Washer 2.7	013 911
Fitting bolt M 2.5 x 6.5 (for connectors)	032 708



Mounting Rail B tapped M 2.5

For mounting connectors in accordance to IEC 60 603/ DIN 41 612.

For mounting at the rear profile on subracks type *alpha* with insulating strip and insulating bushings.

For mounting at the rear profile on subracks type *delta*.

Material: aluminum

Finish: blank

Ordering details mounting rail B tapped M 2.5

n [HP]	a [mm]	b [mm]	order no. 409.
42	212.28	208.28	112 054
84	426.44	421.64	112 055

Accessories

Mounting parts for assembling the mounting rail B:
for 84 HP Z-rail, 5 places suggested.

Minimum order quantity 100 pieces

	order no. 409.
Washer 2.7	013 911
Fitting bolt M 2.5 x 6.5 (for connectors) <i>for type alpha</i>	032 708
Oval head screw M 2.5 x 12 ISO 7045 <i>for type delta</i>	094 604
Oval head screw M 2.5 x 8 ISO 7045	094 602



Insulating Strip

For insulated mounting of wiring supports, e. g. of the mounting rail B. Mounted between horizontal rail and wiring support.

Technical data

Material	PPO, fiber glass reinforced
Continuous temperature	- 40 °C up to + 105 °C
Fire protection class	UL 94 V-1
Color	gray

Ordering details

	length [HP]	order no. 409.
Insulating strip-40	40	061 541
Insulating strip-84	84	051 981



Insulating Bushing 2.6

For use together with mounting rail B and insulating strip.

Technical data

Material	PC
Continuous temperature	- 40 °C up to + 115 °C
Fire protection class	UL 94 V-0
Color	transparent

order no.: **409. 018 055**

Card Guide ECONOMY



for subrack *FLEXIBLE*

Card Guide ECONOMY

An inexpensive snap-in card guide that can also be secured to the horizontal rails with self tapping screws.

Technical data

Material	Lexan 500
Color	gray
Continuous temperature	- 40 °C up to + 115 °C
Fire protection class	UL 94 V-0

Ordering details

	nom. length [mm]	PCB thickness [mm]	order no.
Card guide ECONOMY	160	1.6	108 173
Card guide ECONOMY	220	1.6	047 601

Accessories

Self tapping oval head screw M 2.5 x 5

For assembling the card guides to the horizontal rails

Minimum order quantity 100 pieces

order no.: 409. 039 691

Card Guide UNIVERSAL



Card Guide UNIVERSAL

This is an all-purpose card guide with provision for a spring to contact front panels.

Technical data

Material	Lexan 500
Color	gray
Continuous temperature	- 40 °C up to + 115 °C
Fire protection class	UL 94 V-0

Ordering details

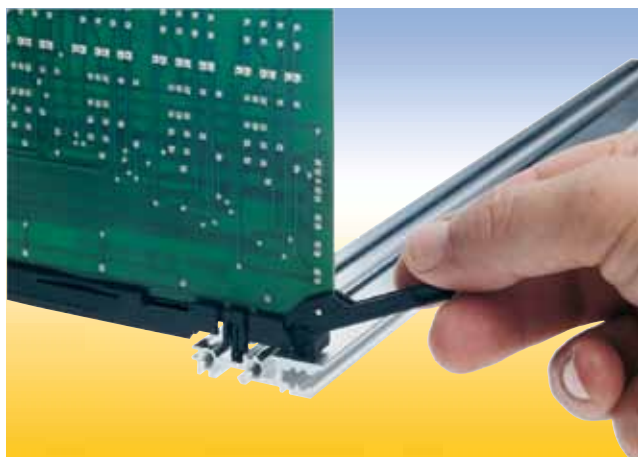
	nom. length [mm]	PCB thickness [mm]	order no. 409.
Card guide UNIVERSAL	160	1.6 - 2.0	061 468
Card guide UNIVERSAL	220	1.6 - 2.0	061 469
Card guide UNIVERSAL	280	1.6 - 2.0	061 526

Accessories

Grounding contact for front panels

order no.: 409. 058 102

Card Guide with integrated push and pull assist



Card Guide with integrated push and pull assist

This special card guide with an integral small lever aids in the handling of PCB's with high pin plug in connectors.

The lever is supported by the walls of a special guide chamber when the board is pulled out or pushed in. It is suitable for a spring to contact a track near the PCB edge.

This card guides are snap-in and can be secured with screws.

Delivery:

- 1 card guide top
- 1 card guide bottom

Technical data

Material	card guide: Polyester, fiber glass reinforced lever: Polyphenylenoxid grooved pin: steel, blank
Color	black
Continous temperature	- 40 °C up to + 130 °C
Fire protection class	UL 94 V-0



Ordering details kit

card guide with integrated push and pull assist

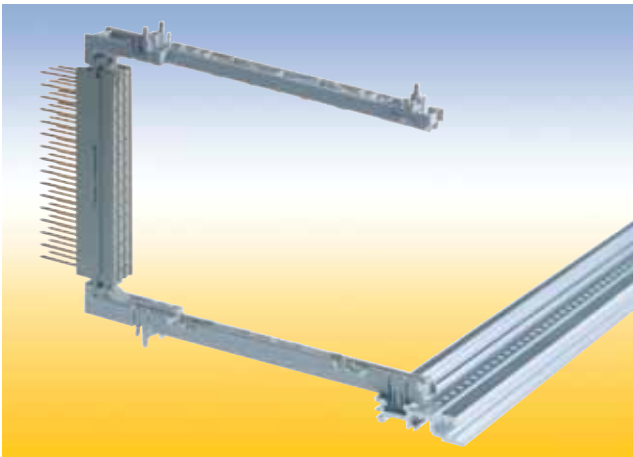
	nom. length [mm]	PCB thickness [mm]	order no. 409.
Card guide 160	160	1.6	112 453
Card guide 220	220	1.6	112 454
Lever with grooved pin	-	1.6	111 157

For a card guide kit needed 2 levers

Accessories

	Order no. 409.
PCB track contact PROFIL	103 358
For assembling the card guides to the horizontal rails. Minimum order quantity 100 pieces	
Oval head screw M 2.5 x 12	094 604
Hexagonal nut M 2.5	013 938
Washer 2.7	013 911

Card Guide CONN



Card Guide CONN

For easy screwless snap-on mounting of connectors accordance to IEC 60 603/ DIN 41 612.

With a provision for a spring to contact front panels and for contacting a track near the PCB edge.

This snap-in card guides can also be secured with screws.

Delivery:

- 1 card guide CONN top
- 1 card guide CONN bottom

Technical data

Material	nom. length 160: Lexan 500 nom. length 220: PBT
Color	gray
Continuous temperature	Lexan: - 40 °C up to + 115 °C PBT: - 40 °C up to + 130 °C
Fire protection class	UL 94 V-0

Ordering details kit card guide CONN

	nom. length [mm]	PCB thickness [mm]	order no. 409.
Card guide CONN	160	1.6	083 091
Card guide CONN	220	1.6 - 2.4	116 200

Accessories

	order no. 409.
Grounding contact for front panels	058 102
PCB track contact PROFIL	103 358
<small>For assembling the card guides to the horizontal rails. Minimum order quantity 100 pieces</small>	
Oval head screw M 2.5 x 12	094 604
Hexagonal nut M 2.5	013 938
Washer 2.7	013 911

Card Guide VIB



Card Guide VIB

Lattice construction for heavy mechanical loads.

With a provision for a spring to contact front panels and for contacting a track near the PCB edge.

This card guides can be snapped in and/or secured with screws.

Two versions:

1. With pressed-in nut M 2.5 for assembly to the horizontal rail with oval head screws M 2.5 x 12
2. Without a nut, but one can be added in the existing hexagonal molding.

Technical data

Material	Lexan 500
Color	nom. length 80 mm: black nom. length 100 mm: black others: gray
Continuous temperature	- 40 °C up to + 115 °C
Fire protection class	UL 94 V-0

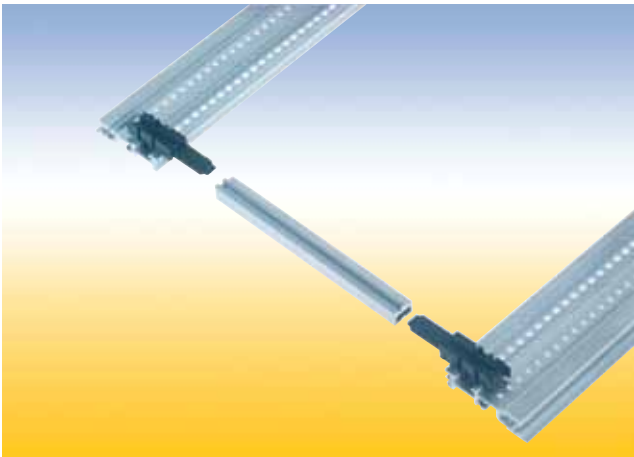
Ordering details card guide VIB

	nom. length [mm]	PCB thickness [mm]	snap-in	secured with screws	order no. 409.
bottom	80	1.6 - 2.4	yes	-	115 171
top	80	1.6 - 2.4	yes	-	115 236
with nut M 2.5	100	1.6	yes	yes	108 157
without nut	100	1.6	yes	yes	108 101
with nut M 2.5	160	1.6	-	yes	059 632
without nut	160	1.6	yes	yes	109 058
without nut	160	2.0	yes	yes	069 774
without nut	160	2.4	yes	yes	080 068
without nut	180	1.6	yes	yes	085 010
with nut M 2.5	220	1.6	-	yes	059 634
without nut	220	1.6	yes	yes	108 120
without nut	220	2.4	yes	yes	101 276
with nut M 2.5	280	1.6	-	yes	059 636

Accessories

	order no. 409.
Grounding contact for front panels	058 102
PCB track contact PROFIL	103 358
<small>For assembling the card guides to the horizontal rails. Minimum order quantity 100 pieces</small>	
Oval head screw M 2.5 x 12	094 604
Hexagonal nut M 2.5	013 938
Washer 2.7	013 911

Card Guide VARIO



Card Guide VARIO

This is a length variable card guide constructed from 3 pieces. The center piece can be cut to any length. With a provision for a spring to contact front panels. These snap-in end pieces can also be secured with screws.

Two versions:

1. With pressed-in nut M 2.5 for assembly to the horizontal rail with oval head screws M 2.5 x 12
2. Without a nut, but one can be added in the existing hexagonal molding.

Technical data

Material	end pieces: Noryl SE1 center piece: aluminum or Noryl ENV 125
Color	end pieces: black center piece: black, silver
Continuous temperature	- 40 °C up to + 105 °C
Fire protection class	UL 94 V-1

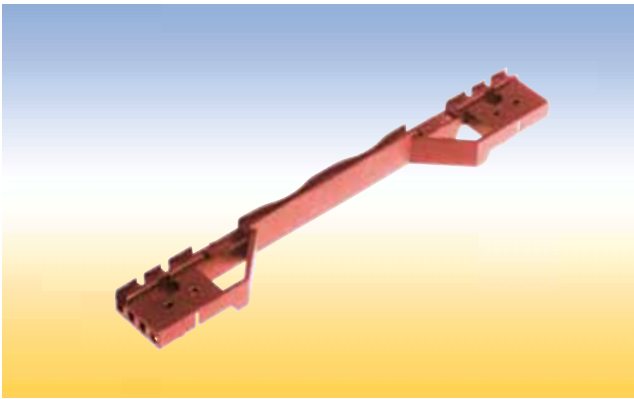
Ordering details card guide VARIO

	length [mm]	PCB thickness [mm]	order no. 409.
Pair of end pieces			
with nut M 2.5	-	1.6	061 086
without nut	-	1.6	061 051
with nut M 2.5	-	2.4	061 088
without nut	-	2.4	061 052
center piece			
plastic	1000	1.6	061 061
aluminum	1000	1.6	061 059
plastic	1000	2.4	061 062
aluminum	1000	2.4	061 060

Accessories

	order no. 409.
Grounding contact for front panels	058 102
<small>For assembling the card guides to the horizontal rails. Minimum order quantity 100 pieces</small>	
Oval head screw M 2.5 x 12	094 604
Hexagonal nut M 2.5	013 938
Washer 2.7	013 911

Card Guide IEEE and Card Guide IEEE with 1/2 HP lateral offset



Technical data

Material	PBT
Color	black or red
Continuous temperature	- 40 °C up to + 115 °C
Fire protection class	UL 94 V-0

Card Guide IEEE

This card guide is in accordance to specification IEEE 1101.10.

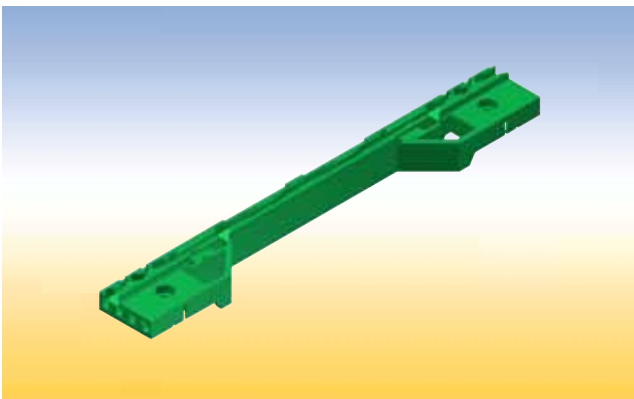
The required coding of the IEEE is integrated in the card guide head.

With provision for the IEEE contact spring for grounding of the alignment-pins of the PCB's front panel. Also with a provision for contacting a track near the PCB edge.

This snap-in card guides can be secured with screws.

Ordering details for card guide IEEE

color	nom. length [mm]	PCB thickness [mm]	order no.
black	160	1.6 - 2.4	113 400
black	220	1.6 - 2.4	131 973
red	160	1.6 - 2.4	116 440



Technical data

Material	PBT / VALOX 467
Color	green
Continuous temperature	- 40 °C up to + 115 °C
Fire protection class	UL 94 V-0

Card Guide IEEE with 1/2 HP lateral offset

This card guide is also in accordance to specification IEEE 1101.10.

For CompactPCI-power supplies and for Plug-in units fitted with SMD.

With provision for the IEEE contact spring for grounding of the alignment-pins of the PCB's front panel. Also with a provision for contacting a track near the PCB edge.

This card guide is secured with screws.

Ordering details for card guide IEEE with 1/2 HP lateral offset

color	nom. length [mm]	PCB thickness [mm]	order no.
green	160	1.6 - 2.4	130 889

Accessories for Card Guide IEEE

	order no. 409.
contact spring IEEE	113 450
coding pin IEEE gray	113 713
coding pin IEEE red	116 442
PCB track contact PROFIL	103 358
<small>For assembling the card guides to the horizontal rails. Minimum order quantity 100 pieces</small>	
Lens head screw M 2.5 x 12	094 604
Hexagonal nut M 2.5	013 938
Washer 2.7	013 911



for card guide **UNIVERSAL, CONN, VIB and VARIO**

Coding Head IEEE

Snapped on the head of standard card guides to comply to the requirements of the specification IEEE 1101.10

Functions:

1. Holding the IEEE contact spring for grounding the alignment pins of the front panel.
2. Adapting the IEEE coding pin.
3. Guiding the 1.6 to 2.4 mm thick PCB.

Technical data

Material	Lexan 500
Color	black, red
Fire protection class	UL 94 V-0

Ordering details kit

	order no. 409.
coding head IEEE - black	113 905
coding head IEEE - red	116 441

Delivery:

- 1 coding head IEEE top
- 1 coding head IEEE bottom



Contact Spring IEEE

Snapped into the IEEE card guide or IEEE coding head to ground the alignment pin of the front panel.

Material: tin-bronze

order no.: **409. 113 450**

Coding Pin IEEE

Snapped into the IEEE card guide or IEEE coding head.

Technical data

Material	PC
Fire protection class	UL 94 V-0

Ordering details

	order no. 409.
coding pin IEEE - gray	113 713
coding pin IEEE - red	116 442

Accessories for Card Guides



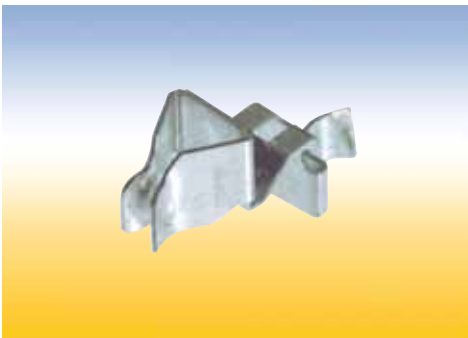
PCB Track Contact PROFIL

Snapped into a card guide, connecting a PCB's edge to the horizontal rail of a subrack.

Technical data

Material	tin-bronze
Finish	tin-plated
Fire protection class	UL 94 V-0

order no.: **409. 103 358**



Grounding Contact for Front Panels

For pre-mating grounding. In connection with front connector with male contact.

Material: tin-bronze
finish: tin-plated

Accessories

Front connector with male contact

order no.: **409. 058 102**

	order no. 409.
top	107 728
bottom	107 727



Cover for Ventilation Openings

Snapping into the horizontal rails. Covers the ventilation openings between card guides.

Material: plastic
Fire protection class: UL 94 V-0

Ordering details

	nom. length [mm]	order no. 409.
Front connector with male contact 4 HP	160	106 530
Front connector with male contact 4 HP	220	106 531



PCB Lead-In

For easy lead-in of the PCB into the card guide.

Technical data

Material	Polycarbonat, 10% fiber glass reinforced
Color	gray, similar RAL 7044
Fire protection class	UL 94 V-0

Delivery:

1 PCB lead-in top
1 PCB lead-in bottom

order no.: **409. 092 785**



PCB Locking Spring, plastic

Secures PCB without front panels.

Technical data

Material	Polyphenylenoxid
Color	black
Fire protection class	UL 94 V-1

order no.: **409. 052 720**



PCB Locking Device Kit

Secures PCB's without front panels. Used for easy locking and ejecting of PCB's

Technical data

Material	handle: Polyphenylenoxid pin: steel
Color	black
Fire protection class	UL 94 V-1

Delivery

Kit, unassembled

Delivery:

2 handles
2 pins
2 PCB locking springs

Ordering details kit

	order no. 409.
PCB locking device 1.6	068 698
PCB locking device 2.4	102 297