Vertiv

Vertiv designs, builds and services mission critical technologies that enable the vital applications for data centers, communication networks, and commercial and industrial environments. We support today's growing mobile and cloud computing markets with our portfolio of power, thermal, infrastructure management products, software and solutions, all complemented by our global service network. Bringing together global reach and local knowledge, and our decades-long heritage including brands like Chloride®, Liebert® and NetSure™, our team of experts is ready to take on your most complex challenges, creating solutions that keep your systems running — and your business moving. Together, we're building the future of a world where critical technologies always work.

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Table of Contents

Rack Accessories and Components

Security and Monitoring

Features

Blanking panels

- Design identical to racks.

- Tool-less, threaded version available.

- Varying sizes for quick mounting and efficient cooling.

Chassis rails

- Various designs catering to different requirements.

- Height positioning for different corpus heights of the subracks possible (not defined according to 19" standard).

Drawers and shelves

- Various designs catering to different loads.

- Shelves with tool-less mounting available.

Vertiv™ Knürr™ System Accessories

Mechanical accessories are fundamental to effective and economical use of server- and network racks.

Blanking panels are an essential feature in operating an energy-efficient data center, as they ensure that cold and warm air in the rack are separated.

When there are no mounting adapters for IT components, chassis rails and shelves are required.

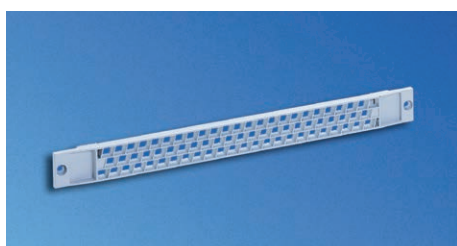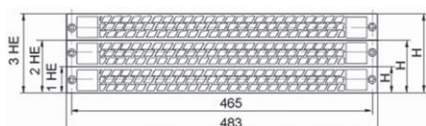Drawers are used to store manuals, spare parts and tools needed on site.

MEC20179

MEC20180

MEC20178

QuickFix 19" blanking panel, Tool-less assembly

- For covering free 19" spaces (cold-hot separation).

- Quick and easy tool-less assembly (one click) and disassembly (quarter turn).

- Suitable for 9.5 x 9.5 square holes.

- **Material**

  - Sheet steel, 1.0 mm.

- **Finish**

  - Final digit of order number .1: powder-coated texture, RAL 7035, light-grey.

- Final digit of order number .8: powder-coated texture, RAL 7021 dark-grey.

- **Scope of delivery**

  - X (see Order Number for quantity) QuickFix 19" blanking panel.

  - Mounting kit.

- **How supplied**

  - In sets (see Order Number for quantity); fixing clips re-assembled.

W	H	U		Order No.	UP	
482.6	43.6	1		**01.103.301.X**	6 units	P
482.6	88.1	2		**01.103.302.X**	3 units	P
482.6	132.5	3		**01.103.303.X**	2 units	P
482.6	265.9	6		**01.103.306.X**	1 unit	P
482.6	399.2	9		**01.103.309.X**	2 units	
482.6	932.6	21		**01.103.321.X**	1 unit	

LUF88006

LUF00093

19" vented front cover plate

- Provides additional ventilation for 19" racks and 19" plinths compliant with IEC 297.

- **Material / Color**

  - Final digit of order number .1: ABS (UL 94 V0), light-grey RAL 7035.

  - Final digit of order number .9: ABS (UL 94 V0), black RAL 9011.

- **Scope of delivery**

  - 1 x vented front cover plate.

  - 2 x connectors.

- **How supplied**

  - In sets.
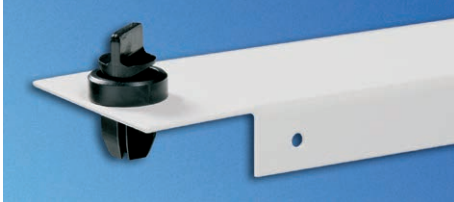
- **Note**

  - Please also order the appropriate mounting kit for the front plates.

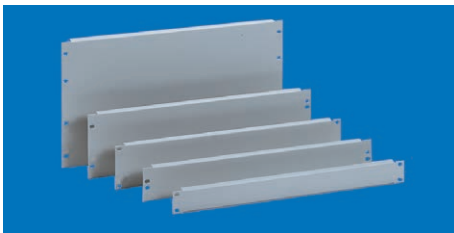| W	H	U		Order No.	UP
483	43.6	1		**02.008.111.1**	1 unit
483	43.6	1		**02.008.111.9**	1 unit

MEC20181

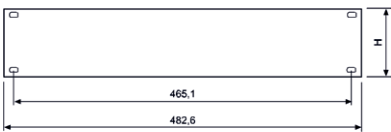*MEC20178*

MEC20229

19" QuickFix blanking panel with cable entry, tool-less assembly

- For orderly cable entry inside the Rack

- Cable entry is covered with brush strip

- Quik and tool-less assembly (one click) and disassembly (quarter turn)

- Suitable for 9.5 x 9.5 square holes

- **Material**
  - Sheet steel, 1.0 mm.

- **Finish**
  - Final digit of order number .1: powder-coated texture, RAL 7035, light-grey.

- Final digit of order number .8: powder-coated texture, RAL 7021 dark-grey.

- **Scope of delivery**
  - 6 x QuickFix 19" blanking panel with cable entry and brush strip.
  - 1 Mounting kit.

- **How supplied**
  - In sets (clips pre-assembled).

W	H	U	Order No.	UP
482.6	43.6	1	**01.103.331.X**	6 units

CUD00005

465,1
482,6

CUD00004

19" blanking plate Screw-on

- For covering free 19" spaces (cold-hot separation).

- **Material**
  - Sheet steel, 1.0 mm.

- **Finish**
  - Final digit of order number .1: powder-coated texture, RAL 7035, light-grey.
  - Final digit of order number .8: powder-coated texture, RAL 7021 dark-grey.

- **Scope of delivery**
  - X (see Order Number for quantity) 19" blanking panel.

- **How supplied**
  - In sets (see ON for quantity).

- **Note**
  - Please also order front panel mounting material.

W	H	U	Order No.	UP
482.6	43.6	1	**01.103.201.X**	6 units
482.6	88.1	2	**01.103.202.1**	3 units
482.6	88.1	2	**01.103.202.8**	3 units
482.6	132.5	3	**01.103.203.X**	2 units
482.6	265.9	6	**01.103.206.X**	1 unit
482.6	399.2	9	**01.103.209.X**	2 units

Dimensions in mm:

						Conversion:	
W	= Width	h	= Installation height	U	= Standard rack unit	kg = Weight	1 mm = 0.03937 inch
H	= Height	d	= Insertion depth		(1 U = 44.45 mm)		1 kg = 2.2046 pounds
D	= Depth	L	= Length		UP = Packaging unit		
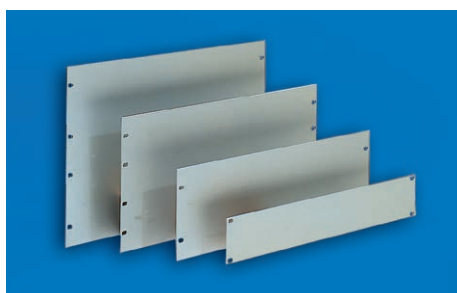
FR000005
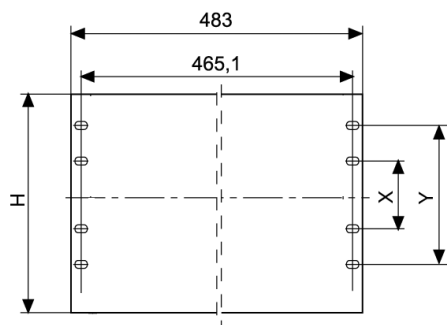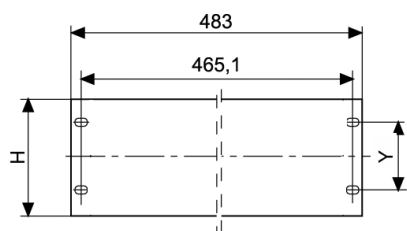
MEC20109

19" front plate Aluminum 3 mm

- **Material / Finish**
  - Final digit of order number .0: AlMg3 - F23 polished with lamination sheet.
  - Final digit of order number .1: AlMg3 - F23, powder-coated, RAL 7035, light-grey.
  - Final digit of order number .6: AlMg3 - F23 EB (anodize-enabled), anodized E6/EV1.
  - Final digit of order number .8: AlMg3 - F23, powder-coated, RAL 7021, dark-grey.

- **Scope of delivery**
  - 1 x 19" front plate.
- **How supplied**
  - Single items.
- **Note**

  Please also order the appropriate mounting kit for the front plates.

H	X	Y	U	Model	Order No.	UP
43.6		31.7	1	Polished	**02.008.021.0**	1 unit
43.6		31.7	1	Powder-coated. RAL 7035	**02.008.021.1**	1 unit
88.1		76.2	2	Powder-coated. RAL 7035	**02.008.022.1**	1 unit
132.5		57.1	3	Powder-coated. RAL 7035	**02.008.023.1**	1 unit
177.0		101.6	4	Powder-coated. RAL 7035	**02.008.024.1**	1 unit
265.9	76.2	190.4	6	Powder-coated. RAL 7035	**02.008.026.1**	1 unit
43.6		31.7	1	Powder-coated. RAL 7021	**02.008.021.8**	1 unit
43.6		31.7	1	Anodized	**02.008.071.6**	1 unit
88.1		76.2	2	Anodized	**02.008.072.6**	1 unit
132.5		57.1	3	Anodized	**02.008.073.6**	1 unit
177.0		101.6	4	Anodized	**02.008.074.6**	1 unit
265.9	76.2	190.4	6	Anodized	**02.008.076.6**	1 unit

MEC20144

MEC20149

Cover-plate filter for 19" vented front cover plate

- Used with 19" vented front cover plate.

- **Material / Color**
  - Non-woven and screen cloth.
- **Scope of delivery**
  - 1 x cover-plate filter.
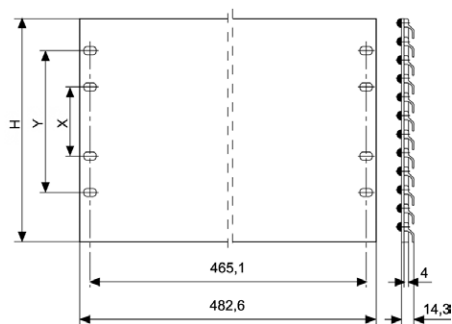 - 1 x Mounting kit.

- **How supplied**
  - In sets.
- **Note**
  - Appropriate for 02.008.111.X

U	Order No.	UP
1	**02.008.131.9**	1 unit

LUF00217

MEC20110

19" ventilation front panel

- Provides additional ventilation for 19" racks and 19" plinths compliant with IEC 297.

- **Material**
  - Aluminum.
- **Finish**
  - Final digit of order number .1: powder-coated, RAL 7035 light-grey.

- Final digit of order number .6: colorless anodized E 6 / EV 1.
- **Scope of delivery**
  - 1 x ventilation front plate.
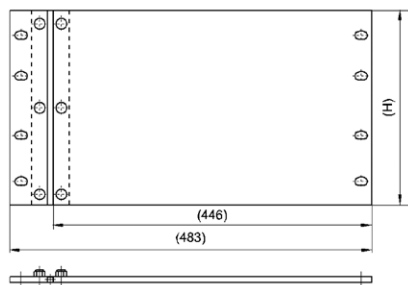- **How supplied**
  - Single items.
- **Note**

  Please also order the appropriate mounting kit for the front plates.

H	Y	U	Model	Order No.	UP
43.6	31.7	1	Powder-coated. RAL 7035	**02.008.101.1**	1 unit
43.6	31.7	1	Anodized	**02.008.101.6**	1 unit
132.5	57.1	3	Powder-coated. RAL 7035	**02.008.103.1**	1 unit
132.5	57.1	3	Anodized	**02.008.103.6**	1 unit

FRO00007

FR000006

19" front plate hinged

- With 19" adapter and hinge.

- **Material**
  - Aluminum, 3 mm.
- **Finish**
  - Anodized.
- **Scope of delivery**
  - 1 x front plate, hinged.
  - 1 x 19" adapter.
  - 1 x hinge.

- **How supplied**
  - In sets.
- **Note**

  Please also order the appropriate mounting kit for the front plates.

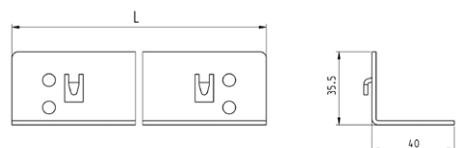| U	Model	Order No.	UP
3	Anodized	**01.110.780.6**	1 unit
6	Anodized	**01.110.781.6**	1 unit

MEC20162

MEC20167

MEC20167

Chassis runner
Can be hooked on and screwed on

- For installation in 19" rack and 19" enclosure.

- Can be hooked on for quick and easy mounting.

- Can also be attached with screws to accommodate heavier loads.

- Can be screwed from inside (used in rack suites).

- Adjustable height to suit various main-section heights.

- **Material / Finish**
  - Sheet steel, 2.0 mm.
  - Zinc-passivated, blue chrome-plated.

- **Load rating**
  - 1000 N max. with even load distribution.

- **Scope of delivery**
  - 2 x chassis runners.
  - 1 x Mounting kit.

- **How supplied**
  - In pairs.

- **Note**

  When selecting the chassis runner, please take into account the depth "d" of the rack or enclosure. Four 19" extrusions are required for mounting.

  Mounting adapter for 19" server extrusions 01.147.640.9 1 Set.

  Mounting adapter for Smaract™ 19" server extrusions 01.127.119.9 1 Set.

D_{Rack}	d	L	For rack type	Order No.	UP	
600	365	336	MIR2 / DCM / Smaract™	**01.103.051.0**	1 pair	
600	440	411	MIR2 / DCM / Smaract™	**01.103.052.0**	1 pair	
800	565	536	MIR2 / DCM / Smaract™	**01.103.053.0**	1 pair	
800	640	611	MIR2 / DCM / Smaract™	**01.103.054.0**	1 pair	
900	665	636	MIR2 / DCM / Smaract™	**01.103.055.0**	1 pair	
from 900	740	711	MIR2 / DCM / Smaract™	**01.103.056.0**	1 pair	P

Dimensions in mm:

						Conversion:	
W	= Width	h	= Installation height	U	= Standard rack unit	kg	= Weight	1 mm	= 0.03937 inch
H	= Height	d	= Insertion depth		(1 U = 44.45 mm)			1 kg	= 2.2046 pounds
D	= Depth	L	= Length			UP	= Packaging unit		

MEC20189

Aluminum chassis runner

- Can be screwed on.

- For installation in 19" rack and 19" enclosure.

- Can be screwed from inside (used in rack suites).

- Height can be adjusted to suit various main-section heights.

- **Material / Finish**
  - Extruded aluminum, polished.

- **Load rating**
  - 700 N max. with even load distribution.

- **Scope of delivery**
  - 2 x chassis runners.
  - 1 x Mounting kit.
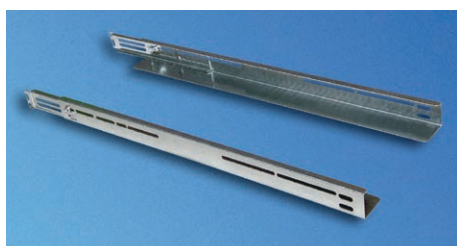
- **How supplied**
  - In pairs.

- **Note**

  When selecting the chassis runner, please take into account the depth "d" of the rack or enclosure. Four 19" extrusions are required for mounting.

  - Mounting adapter for 19" server extrusions 01.147.640.9 1 Set.

  - Mounting adapter for Smaract™ 19" server extrusions 01.127.119.9 1 Set.

D$_{Rack}$	d	L	For rack type	Order No.	UP
600	365	336	MIR2 / DCM / Smaract™	01.103.101.0	1 pair
600	440	411	MIR2 / DCM / Smaract™	01.103.102.0	1 pair
800	565	536	MIR2 / DCM / Smaract™	01.103.103.0	1 pair
800	640	611	MIR2 / DCM / Smaract™	01.103.104.0	1 pair
800	665	636	MIR2 / DCM / Smaract™	01.103.105.0	1 pair
from 900	740	711	MIR2 / DCM / Smaract™	01.103.106.0	1 pair
500	285	254	ConAct™	01.103.111.0	1 pair
600	385	354	ConAct™	01.103.112.0	1 pair
600	435	403	Double ProRack with door	01.103.118.0	1 pair
800	635	603	Double ProRack with door	01.103.119.0	1 pair
500	460	428	Double ProRack, no door	01.103.122.0	1 pair
600	560	528	Double ProRack, no door	01.103.123.0	1 pair
700	660	628	Double ProRack, no door	01.103.124.0	1 pair
800	760	728	Double ProRack, no door	01.103.125.0	1 pair

MEC20163

MEC20166

Chassis runner, adjustable depth

- For installation in 19" rack and 19" enclosure.

- Adjustable depth.

- Can be screwed from inside (used in rack suites).

- Height can be adjusted to suit various main-section heights.

- **Material / Finish**
  - Sheet steel, 1.25 mm.
  - Zinc-passivated, blue chrome-plated.

- **Load rating**
  - 200 N max. with even load distribution.

- **Scope of delivery**
  - 2 x basic rails.
  - 2 x extension rails.
  - 1 x Mounting kit.

- **How supplied**
  - In pairs.

- **Note**

  When selecting the chassis runner, please take into account the depth "d" of the rack or enclosure. Four 19" extrusions are required for mounting.
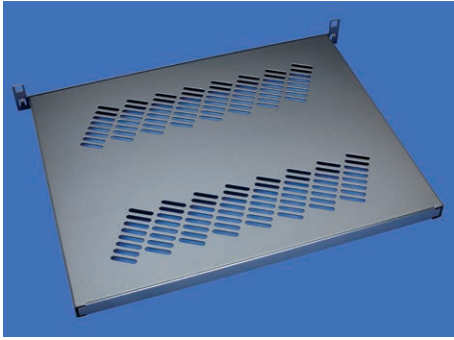
  – Mounting adapter for 19" server extrusions 01.147.640.9 1 Set.

  – Mounting adapter for Smaract™ 19" server extrusions 01.127.119.9 1 Set.

D_{Rack}	d	For rack type	Order No.	UP
600	355-570	MIR2 / DCM / Smaract™	**01.103.091.0**	1 pair
800-1200	565-740	MIR2 / DCM / Smaract™	**01.103.092.0**	1 pair Ⓟ
600	385	ConAct™	**01.103.091.0**	1 pair
500-600	435-460	Double ProRack	**01.103.091.0**	1 pair
600-800	560-660	Double ProRack	**01.103.092.0**	1 pair

Ⓟ = **assemble to order** (shipped within 5 working days). Caution: In case of larger orders, delivery times may increase.

Dimensions in mm:

W	= Width	h	= Installation height	U	= Standard rack unit	kg	= Weight
H	= Height	d	= Insertion depth		(1 U = 44.45 mm)		
D	= Depth	L	= Length		UP = Packaging unit		

Conversion:

1 mm = 0.03937 inch

1 kg = 2.2046 pounds

MEC20221

19" QuickFix shelf tool-less assembly

- Quick and easy tool-less mounting. Mounted on 19" cutouts.

- Quick and easy tool-less fitting (one click) and removal (quarter turn).

- Suitable for all racks and enclosures with 19" mounting hole extrusions (9.0 x 9.0 square holes).

- Adjustable depth to accommodate variable recess depths and special dimensions.

- Perforated to optimize air supply.

- **Material**
  - Sheet steel, 1.0 mm.

- **Finish**
  - Final digit of order number .1: powder-coated texture, RAL 7035 light-grey.

- Final digit of order number .8: powder-coated texture, RAL 7021 dark-grey.

- **Load rating**
  - 700 N static with even load distribution.

- **Scope of delivery**
  - 1 x 19" QuickFix shelf.
  - 1 x Mounting kit.

- **How supplied**
  - In sets.

- **Note**
  - Cannot be used for 19" t-slot extrusions.
  - Nothing may be attached on the first upper U otherwise the shelf can not be mounted in the 19" cutouts.

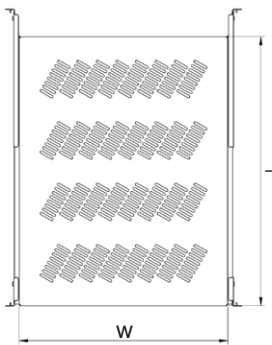| $d_{insertion\ depth}$	WxL	Order No.	UP
365–500	430 x 300	**01.102.071.X**	1 unit
565–740	430 x 500	**01.102.072.1**	1 unit
565–740	430 x 500	**01.102.072.8**	1 unit Ⓟ

MEC20268

MEC20269

19" Shelf partial extension

- Integrated mounting holes at front and rear for handle or cable cantilever.

- Perforated to optimize air supply.

- Locks in extended position (friction lock).

- Quick separator for tool-less removal and decoupling of shelf board.

- Easy installation from the front of 19" extrusions.

- Integrated latching hooks as mounting aid for mounting hole extrusions.

- Installation on the T-slot extrusions by screwing possible.

- **Material / Finish**
  - Mounting brackets: Sheet steel 2.0 mm, galvanized.
  - Tableau: Sheet steel 1.5 mm, powder-coated texture.

- **Color**
  - Final digit of order number .1: RAL 7035 light-grey.
  - Final digit of order number .8: RAL 7021 dark-grey.

- **Load rating**
  - 500 N static per item.

- **Scope of delivery**
  - 2 Mounting brackets front left/right.
  - 2 Mounting brackets rear left/right.
  - 2 Telescopic slides.
  - 1 Shelf board.
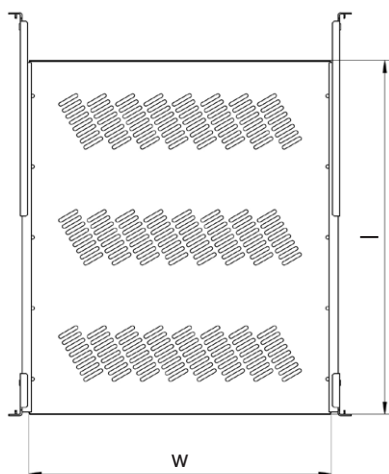 - Mounting kit.

- **How supplied**
  - In sets.

d_{insertion depth}	w x l	Order No.	UP
365-565	427 x 360	01.102.682.X.001	1 unit
565-750	427 x 560	01.102.683.1.001	1 unit Ⓟ
565-750	427 x 560	01.102.683.8.001	1 unit

MEC20270

MEC20271

19" shelf fixed

- Integrated mounting holes at front and rear for handle or cable cantilever.
- Perforated to optimize air supply.
- Easy installation from the front of 19" extrusions.
- Integrated latching hooks as mounting aid for mounting hole extrusions.
- Installation on the T-slot extrusions by screwing possible.

- **Material / Finish**
  - Mounting brackets: Sheet steel 2.0 mm, galvanized.
  - Mounting rail, tableau: Sheet steel 1.0 mm, powder-coated texture

- **Color**
  - Final digit of order number .1: RAL 7035 light-grey.
  - Final digit of order number .8: RAL 7021 dark-grey.

- **Load rating**
  - 500 N static per item.

- **Scope of delivery**
  - 2 Mounting brackets front left / right.
  - 2 Mounting brackets rear left / right.
  - 2 Mounting rails.
  - 1 Shelf board.
 - 1 Extension board (from L = 600).
  - Mounting kit.

- **How supplied**
  - In sets.

d_{insertion depth}	w x l	For rack type	Order No.	UP
365	426 x 300	MIR2 / DCM / Smaract™	01.102.690.1.001	1 unit
440	426 x 300	MIR2 / DCM / Smaract™	01.102.691.1.001	1 unit
565	426 x 500	MIR2 / DCM / Smaract™	01.102.692.1.001	1 unit
565	426 x 500	MIR2 / DCM / Smaract™	01.102.692.8.001	1 unit
640	426 x 600	MIR2 / DCM / Smaract™	01.102.693.1.001	1 unit
640	426 x 600	MIR2 / DCM / Smaract™	01.102.693.8.001	1 unit
740	426 x 600	MIR2 / DCM / Smaract™	01.102.694.1.001	1 unit Ⓟ
740	426 x 600	MIR2 / DCM / Smaract™	01.102.694.8.001	1 unit
435, 460	426 x 300	Double ProRack	01.102.691.1.001	1 unit
560	426 x 500	Double ProRack	01.102.692.1.001	1 unit
635, 660	426 x 600	Double ProRack	01.102.693.1.001	1 unit
385	426 x 300	ConAct™	01.102.690.1.001	1 unit

MEC20266
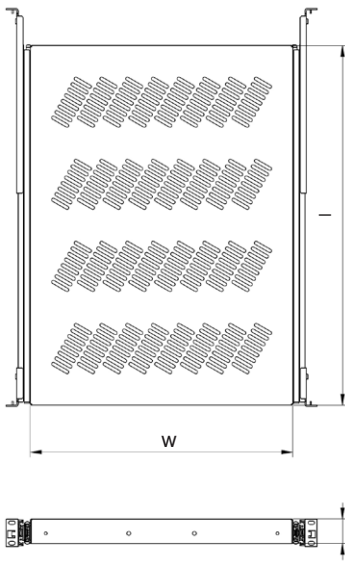
MEC20267

19" Shelf full extension

- Integrated mounting holes at front and rear for handle or cable cantilever.

- Perforated to optimize air supply.

- Locks in extended position (friction lock).

- Quick separator for tool-less removal and decoupling of shelf board.

- Easy installation from the front of 19" extrusions.

- Integrated latching hooks as mounting aid for mounting hole extrusions.

- Installation on the T-slot extrusions by screwing possible.

- **Material / Finish**

  - Mounting brackets: Sheet steel 2.0 mm, galvanized.
    Tableau: Sheet steel 1.5 mm, powder- coated texture.

- **Color**

  - Final digit of order number .1: RAL 7035 light-grey.

  - Final digit of order number .8: RAL 7021 dark-grey.

- **Load rating**

  - 500 N static per item.

- **Scope of delivery**

  - 2 Mounting brackets front left / right.

  - 2 Mounting brackets rear left / right.

  - 2 Telescopic slides.

  - 1 Shelf board.

  - Mounting kit.

- **How supplied**

  - In sets.

$d_{\text{insertion depth}}$	WxL	Order No.	UP	
365-565	408 x 360	**01.102.680.X.001**	1 unit	
565-750	408 x 560	**01.102.681.X.001**	1 unit	P

MEC20138

MEC20111

Handle

– Suitable for traditional and heavy-duty shelves.

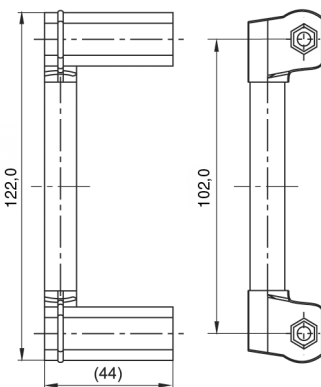– With M5 internal thread.

- **Material**

  - Die-cast aluminum consoles.

  - Extruded aluminum handles.

  - Cap made of ABS UL 94 HB.

- **Finish**

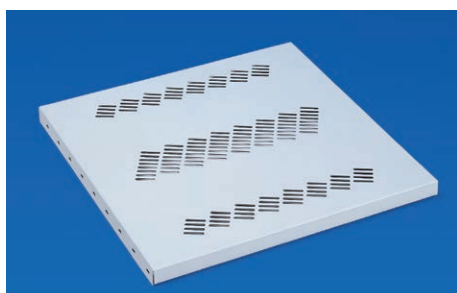 - Handle, powder-coated, grey-blue, RAL 5008/ Cap, light-grey, RAL 7035.

- **Scope of delivery**

  - 2 x handles.

	Order No.	UP
	00.050.503.1	1 unit

MEC00120

MEC20117

19" heavy-duty shelf fixed

- Perforated utility space.

- Installed as base plate for server or battery.

- **Material / Finish**
  - Sheet steel 1.5 mm, electroplated zinc, powder-coated texture.

- **Color**
  - Final digit of order number .1: RAL 7035 light-grey.
  - Final digit of order number .8: RAL 7021 dark-grey.

- **Load rating**
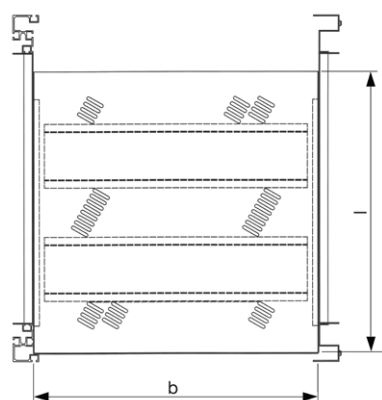 - 1500 N static.

- **Scope of delivery**
  - 1 x shelf, fixed, threaded connection.
  - 2 x mounting braces.
  - 1 x Mounting kit.

- **How supplied**
  - In sets.

- **Note**
  - Please order requisite mounting adapter when used for Smaract™ server extrusion.
  - Mounting adapter for 19" server extrusions 01.127.119.9 1 Set.

$d_{insertion\ depth}$	w x l	For rack type	Order No.	UP
565	467 x 460	Miracel™ / Smaract™	**01.131.473.X**	1 unit
640	467 x 460	Miracel™ / Smaract™	**01.131.475.X**	1 unit
665	467 x 460	Miracel™ / Smaract™	**01.131.476.X**	1 unit
740	467 x 560	Miracel™ / Smaract™	**01.131.474.X**	1 unit

MEC20281

MEC88005

MEC20288

19" Cable cantilever

- For easy installation inside the rack/on the shelf; shelf or rack easily attached or decoupled with spring clip.
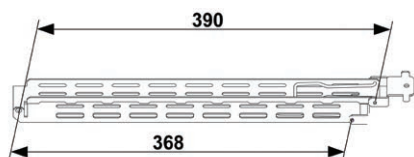
- Guarantees defined and kink-free cable routing.

- Minimum space requirement at the back of shelves 40 mm.

- **Material / Finish**
  - Sheet steel 1.5 mm, zinc passivated.

- **Scope of delivery**
  - 1 Cable cantilever.
  - Mounting kit.

- **How supplied**
  - In sets.

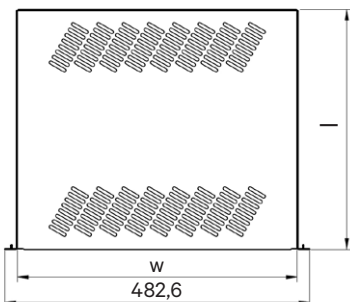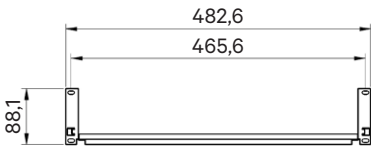| Type	Order No.	UP
2-piece	**01.102.728.0.001**	1 unit

MEC20274
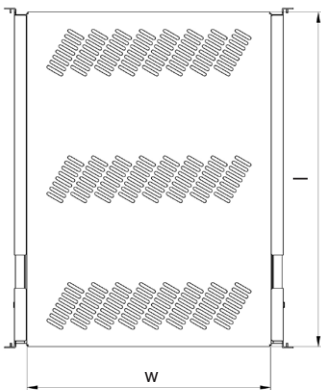
MEC20275

19" Heavy-duty shelf full extension

- Perforated to optimize air supply.

- Locks in retracted and fully extended position.

- Easy mounting with patented quick-mounting system.

- Easy installation from the front of 19" extrusions.

- Integrated latching hooks as mounting aid for mounting hole extrusions.

- Installation on the T-slot extrusions by screwing possible.

- Installed as base plate for server or battery.

- **Material / Finish**
  - Mounting brackets: Sheet steel 2.0 mm, galvanized.
  - Tableau: Sheet steel 2.0 mm, powder-coated texture.

- **Color**
  - Final digit of order number .1: RAL 7035 light-grey.
  - Final digit of order number .8: RAL 7021 dark-grey.

- **Load rating**
  - 1200 N static.

- **Scope of delivery**
  - 2 Mounting brackets front left / right.
  - 2 Mounting brackets rear left / right.
  - 2 Telescopic slides.
  - 1 Shelf board.
  - Mounting kit.

- **How supplied**
  - In sets.

$d_{insertion\ depth}$	w x l	For rack type	Order No.	UP
565-750	409 x 560	MIR2 / DCM / Smaract™	**01.102.711.X.001**	1 unit

MEC20282

MEC20283

19" Shelf 2 U fixed

- For mounting in racks with fixed 19" installation at front.

- Quick and easy mounting on 19" extrusions.

- Integrated latching hooks as mounting aid for mounting hole extrusions.

- Installation on the T-slot extrusions by screwing possible.

- Also for swing frame in the 19" rack and 19" enclosure.

- **Material**
  - Sheet steel 1.5 mm, powder-coated texture.

- **Color**
  - Final digit of order number .1: RAL 7035 light-grey.
  - Final digit of order number .8: RAL 7021 dark-grey.

- **Load rating**
  - 200 N static.

- **Scope of delivery**
  - 1 Shelf fixed.
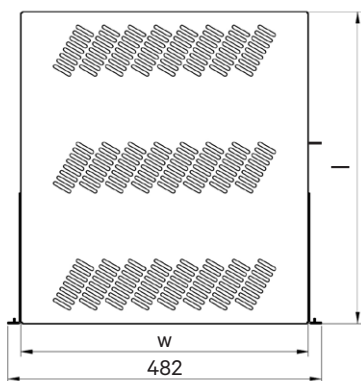 - Mounting kit.
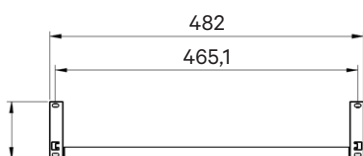
- **How supplied**
  - In sets.

W	H	w x l	Order No.	UP
482,6	88,1	442 x 280	**01.102.731.X.001**	1 unit
482,6	88,1	442 x 380	**01.102.731.X.002**	1 unit

MEC20284

MEC20285

19" Shelf 2 U adjustable

– For mounting in racks with adjustable 19" installation at front.

– Quick and easy mounting on 19" extrusions.

– Integrated latching hooks as mounting aid for mounting hole extrusions.

– Installation on the T-slot extrusions by screwing possible.

– Also for swing frame in the 19" rack and 19" enclosure.

– Depth can be adjusted in increments of 25 mm.

• **Material**
  • Sheet steel 1.5 mm, powder-coated texture.

• **Color**
  • Final digit of order number .1: RAL 7035 light-grey.
  • Final digit of order number .8: RAL 7021 dark-grey.

• **Load rating**
  • 200 N static.

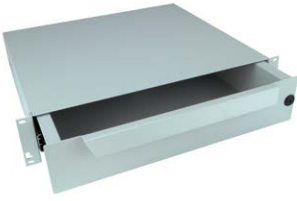• **Scope of delivery**
  • 1 Shelf adjustable.
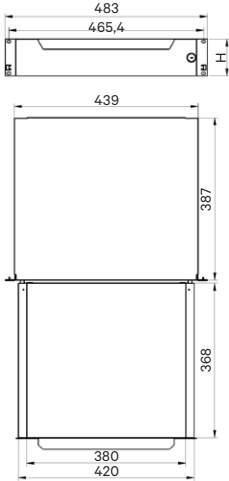 • Mounting kit.

• **How supplied**
  • In sets.

W	H	w x l		Order No.	UP
482,6	88,1	442 x 480		01.102.733.X.003	1 unit

Dimensions in mm:

				Conversion:	
W	= Width	h	= Installation height	U	= Standard rack unit	kg	= Weight	1 mm	= 0.03937 inch
H	= Height	d	= Insertion depth		(1 U = 44.45 mm)			1 kg	= 2.2046 pounds
D	= Depth	L	= Length	UP	= Packaging unit				

19" Drawer Installed on the front

- Quick and easy mounting from front to 19" extrusions.
- Integrated latching hooks as mounting aid for mounting hole extrusions.
- Installation on the T-slot extrusions by screwing possible.
- For storing service documents.

- **Material / Finish**
  - Drawer, sheet steel, powder-coated texture.

- **Color**
  - Final digit of order number .1: RAL 7035 light-grey.

- Final digit of order number .8: RAL 7021 dark-grey.
- **Load rating**
  - 150 N static.
- **Scope of delivery**
  - 1 19" drawer with lock, including key.
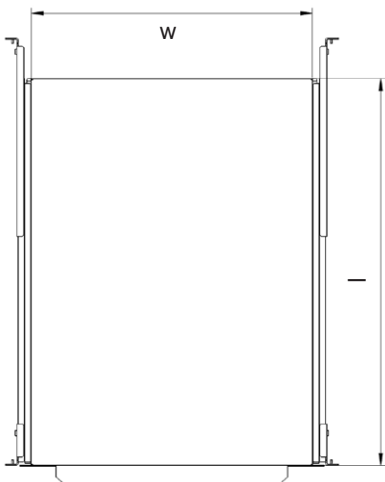 - 2 Telescopic slides.
  - Mounting kit.
- **How supplied**
  - Pre-assembled.

MEC20286

MEC20287

W	H	U	Order No.	UP
482,6	43,6	1	**01.102.740.X.001**	1 unit
482,6	88,1	2	**01.102.740.X.002**	1 unit
482,6	132,5	3	**01.102.740.X.003**	1 unit

19" Writing board 1 U full extension

- With handle.
- Can also be used as shelf.
- Locks in extended position (friction lock).
- Easy installation from the front of 19" extrusions.
- Integrated latching hooks as mounting aid for mounting hole extrusions.
- Installation on the T-slot extrusions by screwing possible.

- **Material / Finish**
  - Mounting brackets: Sheet steel 2.0 mm, galvanized.
  - Tableau: Sheet steel 1.0 mm, powder-coated texture.

- **Color**
  - Final digit of order number .1: RAL 7035 light-grey.
  - Final digit of order number .8: RAL 7021 dark-grey.
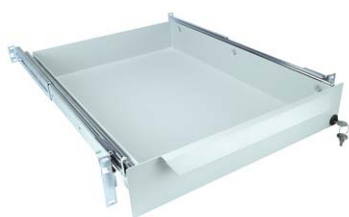- **Load rating**
  - 500 N static.
- **Scope of delivery**
  - 2 Mounting brackets front left / right.
  - 2 Mounting brackets rear left / right.
  - 2 Telescopic slides.
  - 1 Tableau with handle.
  - Mounting kit.
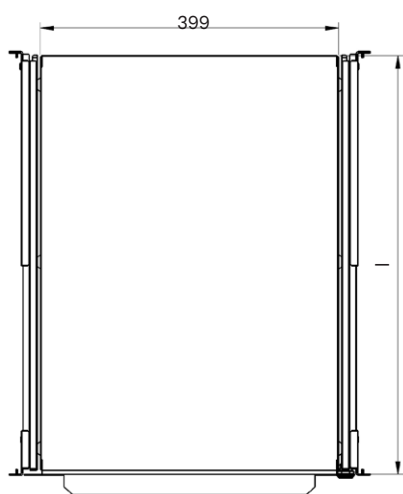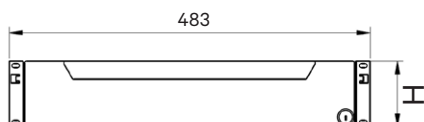- **How supplied**
  - Pre-assembled.

MEC20272

MEC20273

$d_{insertion\ depth}$	w x l	Order No.	UP
365-565	408 x 360	**01.102.705.X.001**	1 unit
565-750	408 x 360	**01.102.706.X.001**	1 unit

MEC20279

483

399

MEC20280

19" Drawer with lock

- For mounting in racks with fixed 19" installation at front and rear.
- Full extension.
- With lock.
- Locks in extended position (friction lock).
- Quick separator for tool-less removal and decoupling of drawer.
- Easy installation from the front of 19" extrusions.
- Integrated latching hooks as mounting aid for mounting hole extrusions.
- Installation on the T-slot extrusions by screwing possible.

- **Material / Finish**
  - Mounting brackets: Sheet steel 2.0 mm, galvanized.
  - Drawer: Sheet steel 1.0 mm, powder-coated texture.

- **Color**
  - Final digit of order number .1: RAL 7035 light-grey.
  - Final digit of order number .8: RAL 7021 dark-grey.
- **Load rating**
  - 400 N static.
- **Scope of delivery**
  - 2 Mounting brackets front left / right.
  - 2 Mounting brackets rear left / right.
  - 2 Telescopic slides.
  - 1 19" drawer with lock, including key.
  - Mounting kit.
- **How supplied**
  - Pre-assembled.

d_insertion depth	U	w x l	Order No.	UP
565-750	2	408 x 562	**01.102.726.X.001**	1 unit
565-750	4	408 x 562	**01.102.726.X.002**	1 unit

Document holder

MEC20027

- Self-adhesive; for higher loads use 6 mm holes.
- For DIN A4 documents.
- **Material**
  - High-impact Polystyrol.

- **Color**
  - Grey.
- **Scope of delivery**
  - 1 x document holder.

W	L	T	Bestell-Nr.	VE
264	236	30	**05.016.045.0**	1 unit

Dimensions in mm:

						Conversion:	
W = Width	h = Installation height	U = Standard rack unit	kg = Weight		1 mm = 0.03937 inch	
H = Height	d = Insertion depth	(1 U = 44.45 mm)		1 kg = 2.2046 pounds	
D = Depth	L = Length	UP = Packaging unit			

MEC20276
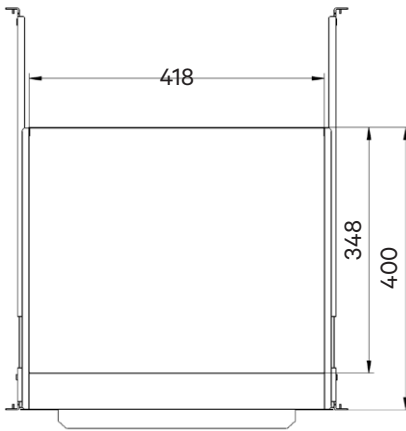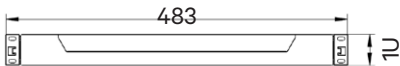
MEC20277

19" Keyboard drawer 1 U for 19" keyboard

- With hand support.

- With cable strain relief.

- Locks in extended position (friction lock).

- Quick separator for tool-less removal and decoupling of drawer.

- Easy installation from the front of 19" extrusions.

- Integrated latching hooks as mounting aid for mounting hole extrusions.

- Installation on the T-slot extrusions by screwing possible.

- **Material / Finish**

  - Mounting brackets: Sheet steel 2.0 mm, galvanized.

  - Drawer: Sheet steel 1.0 mm, powder-coated texture.

  - Front panel: Sheet steel 1.25 mm, powder-coated texture.

- **Color**

  - Final digit of order number .1: RAL 7035 light-grey.

  - Final digit of order number .8: RAL 7021 dark-grey.

- **Scope of delivery**

  - 2 Mounting brackets front left / right.

  - 2 Mounting brackets rear left / right.

  - 2 Telescopic slides.

  - 1 19" keyboard drawer, 1 U.

  - 1 Velcro for securing the keyboard.

  - Mounting kit.

- **How supplied**

  - Pre-assembled.

$d_{insertion\ depth}$	Order No.	UP
565-750	**01.102.717.X.001**	1 unit

19" Keyboard drawer 1 U with extract for PC mouse

MEC20278

- With palm rest.

- Mouse area can be extracted right/left.

- Storage compartment for PC mouse.

- Locks in extended position (friction lock).

- Quick separator for tool-less removal and decoupling of drawer.

- Easy installation from the front of 19" extrusions.

- Integrated latching hooks as mounting aid for mounting hole extrusions.

- Installation on the T-slot extrusions by screwing possible.

- **Dimensions**

  - Useful shelf space: Dimensions without palm rest 372 x 209 x 24 mm (WxDxH).

- **Material / Finish**

  - Mounting brackets: Sheet steel 2.0 mm, galvanized.

  - Drawer, front panel: Sheet steel 1.25 mm, powder-coated texture.

- **Color**

  - Final digit of order number .1: RAL 7035 light-grey.

  - Final digit of order number .8: RAL 7021 dark-grey.

- **Scope of delivery**

  - 2 Mounting brackets front left / right.

  - 2 Mounting brackets rear left / right.

- 2 Telescopic slides.

- 1 19" keyboard drawer, 1 U.

- 1 Palm rest.

- Mounting kit.

- **How supplied**

  - In sets.

- **Note**

  - Keyboard is not included. Not compatible with racks, depth 600.

d$_{insertion\ depth}$	Order No.	UP
565-750	**01.102.722.X.001**	1 unit

ITC20000

Luminestra LED Rack lighting

- Only for rack type MIR2 / DCM W 700, W 800.
- Mounted on the basic frame above the vertical extrusions.
- With LED 4000 Kelvin, 7 watt.
- With on/off rocker switch.
- With 1,8 m power supply cable and EURO plug.
- Complete with mounting material.
- Only with 123 mm front clearance space.

- **Color**

  - White.

- **Scope of delivery**

  - 1 x Luminestra rack lamp.
  - 2 x mounting brackets.
  - 1 x Mounting kit.

W	H	D		Order No.	UP
28	38,4	583		01.131.227.9	1 unit

Dimensions in mm:					**Conversion:**	
W = Width	h = Installation height	U = Standard rack unit	kg = Weight		1 mm = 0.03937 inch	
H = Height	d = Insertion depth	(1 U = 44.45 mm)			1 kg = 2.2046 pounds	
D = Depth	L = Length		UP = Packaging unit			

Compact Rack Lamp

- **Features**
  - Magnetic mounting.
  - Energy-saving lamp.
  - Protective contact socket.
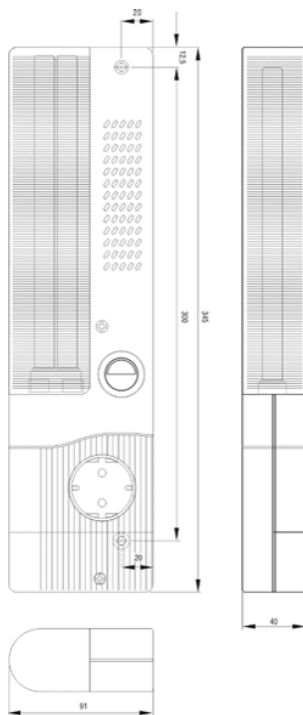 - ON/OFF switch.
  - Cover panel.
- **Compliance**
  - VDE ICE.
- **Protection rating**
  - IP20.

- **Technical data**
  - Operating voltage 230 V / 50-60 Hz.
  - Lighting: compact fluorescent tube with integrated starter.
  - Power consumption: 11 W = 75 W bulb
  - Light intensity: 900 Lm
  - Socket: 230 VAC / 16A
  - Connections: 3-pole screw clamp, 2.5 mm^2 with strain relief.

W	H	D		Order No.	UP
91	40	345		01.131.465.9-001	1 unit

The right mounting set for every rack type

Knürr DCM™	Knürr MIR2 T-slot	Knürr MIR2 Mount. holes	Knürr MIR2 Server	Knürr MIR2 Swing frame	Smaract™ T-slot	Smaract™ Mount. holes	Smaract™ Server	Double ProRack T-slot	Double ProRack Mount. holes	ConAct™	Name	Order No.	UP
	●				●						T-Slot mounting set, M5, wide	05.041.320.9	1 set
		●				●					Mounting set Mount. holes M5/BI 1.5	05.041.321.9	1 set
●			●	●			●				Mounting set Mount. holes M5/BI 2.5	05.041.325.9	1 set P
								●			Mounting set dpr T-slot, M5 narrow	05.041.323.9	1 set
									●		Mounting set dpr mount. holes M5	05.041.322.9	1 set
										●	Mounting Set, Con Act™ M5	05.041.324.9	1 set

The right mounting set for front panel mounting
Model: Z-form screw

| Knürr DCM™	Knürr MIR2 T-slot	Knürr MIR2 Mount. holes	Knürr MIR2 Server	Knürr MIR2 Swing frame	Smaract™ T-slot	Smaract™ Mount. holes	Smaract™ Server	Double ProRack T-slot	Double ProRack Mount. holes	ConAct™	Name	Order No.	UP
	●				●						FP mounting set, T-slot M5, wide	05.041.335.9	1 set P
		●				●				●	FP mounting set Mount. holes M5/BI 1.5	05.041.336.9	1 set
●			●	●			●		●		FP mounting set Mount. holes M5/BI 2.5	05.041.337.9	1 set P
								●			FP mounting set, T-slot M5, narrow	05.041.338.9	1 set

The right mounting set for front panel mounting
Model: countersunk screw + rosette

Knürr DCM™	Knürr MIR2 T-slot	Knürr MIR2 Mount. holes	Knürr MIR2 Server	Knürr MIR2 Swing frame	Smaract™ T-slot	Smaract™ Mount. holes	Smaract™ Server	Double ProRack T-slot	Double ProRack Mount. holes	ConAct™	Name	Order No.	UP
	●				●						FP mounting set, T-slot M5, wide	05.041.340.9	1 set
		●				●				●	FP mounting set Mount. holes M5/BI 1.5	05.041.341.9	1 set
●			●	●			●		●		FP mounting set Mount. holes M5/BI 2.5	05.041.342.9	1 set
								●			FP mounting set, T-slot M5, narrow	05.041.343.9	1 set

The right accessories for every rack type

Knürr DCM™	Knürr MIR2 T-slot	Knürr MIR2 Mount. holes	Knürr MIR2 Server	Knürr MIR2 Swing frame	Smaract T-slot	Smaract Mount. holes	Smaract Server	Double ProRack T-slot	Double ProRack Mount. holes	ConAct™	Name	Order No.	UP
	●				●						Spring nut, M5 wide	**01.350.431.9**	1 set P
								●			Spring nut, M5 narrow	**05.041.503.9**	1 set P
	●				●						Spring nut M6	**01.350.405.9**	1 set P
		●				●				●	Cage nut M5/BI 1.5	**05.041.513.7**	1 set
●			●	●			●		●		Cage nut M5/BI 2.5	**05.041.518.7**	1 set
	●				●			●			Oval-head screws, Z-form, M5 x 10	**05.041.330.9**	1 set P
●		●	●	●		●	●		●	●	Oval-head screws, Z-form, M5 x 16	**05.041.331.9**	1 set
	●				●			●			Countersunk screw M5 x 12 + rosette	**05.041.203.9**	1 set P
●		●	●	●		●	●		●	●	Countersunk screw M5 x 16 + rosette	**05.041.290.9**	1 set
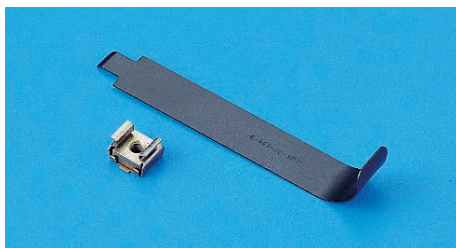
MIR00114

Mounting tool for cage nuts

- Allows easy clipping of cage nuts on extrusions.

- **Material**
  - Spring steel.

- **Scope of delivery**
  - 1 x mounting tool.

Order No.	UP
01.130.985.9	1 unit P

P = **assemble to order** (shipped within 5 working days). Caution: In case of larger orders, delivery times may increase.

Dimensions in mm:

W	= Width	h	= Installation height	U	= Standard rack unit
H	= Height	d	= Insertion depth		(1 U = 44.45 mm)
D	= Depth	L	= Length	UP	= Packaging unit

Conversion:

kg	= Weight	1 mm = 0.03937 inch
		1 kg = 2.2046 pounds

MEC20125

T-Slot mounting set, M5, wide for MIR2 / Smaract™

- For securing 19" front panels
  and 19" components.

- **Scope of delivery**

  - 100 x spring nuts, M5 wide.

  - 100 x oval-head screws,
    Z-form, M5 x 10.

- 20 x cage nuts M5 /plate, 1.5 mm.

- 20 x cylinder screws, M5 x 8.

- **How supplied**

  - In sets.

Order No.	UP
05.041.320.9	1 set

MEC20126

Mounting set, M5 / plate, 1.5 mm for MIR2 / Smaract™

- For securing 19" front panels
  and 19" components.

- **Scope of delivery**

  - 100 x cage nuts M5 /plate, 1.5 mm.

  - 100 x oval-head screws,
    Z-form, M5 x 16.

- 20 x spring nuts, M5 wide.

- 20 x cylinder screws, M5 x 8.

- **How supplied**

  - In sets.

Order No.	UP
05.041.321.9	1 set

MEC20126

Mounting set; mounting holes server extrusion M5 / plate, 2.5 mm for Knürr™ MIR2 / Knürr DCM™/ Smaract™

- For securing 19" front panels
  and 19" components.

- **Scope of delivery**

  - 100 x cage nuts M5 / plate, 2.5mm.

  - 100 x oval-head screws, Z-form,
    M5 x 16

- 20 x spring nuts, M5 wide.

- 20 x cylinder screws, M5 x 8.

- **How supplied**

  - In sets.

Order No.	UP	
05.041.325.9	1 set	P
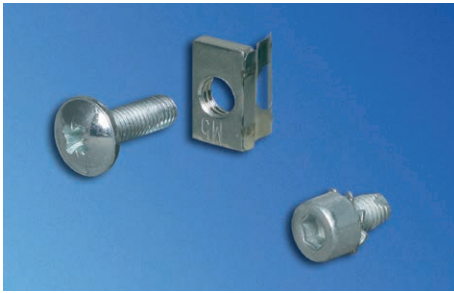
MEC20127

T-slot mounting set, M5, narrow for Double ProRack

- For securing 19" front panels
  and 19" components.

- **Scope of delivery**

  - 100 x spring nuts, M5 narrow.

  - 20 x oval-head screws, Z-form,
    M5 x 10.

- 50 x cylinder screws, M5 x 10.

- 30 x oval-head screws, Z-form,
  M5 x 8.

- **How supplied**

  - In sets.

Order No.	UP
05.041.323.9	1 set

MEC20126

Mounting set; mounting holes M5 for Double ProRack

- For securing 19" front panels
  and 19" components.

- Scope of delivery

  - 100 x cage nuts M5 /plate,
    2.5 mm.

  - 50 x oval-head screws, Z-form,
    M5 x 16.

- 40 x spring nuts, M5 narrow.

- 40 x cylinder screws, M5 x 10.

- **How supplied**

  - In sets.

Order No.	UP
05.041.322.9	1 set

Type 1

MEC20129

Type 2

MEC20130

Front panel mounting set, T-slot, M5 wide for MIR2 / Smaract™

- For securing 19" front panels
  and 19" components.

- **Scope of delivery**
  - **Type 1:**
    - 50 x spring nuts, M5 wide.
    - 50 x oval-head screws,
      Z-form, M5 x 10.

- **Type 2:**
  - 50 x spring nuts, M5 wide.
  - 50 x countersunk screws,
    M5 x 12.
  - 50 x rosettes.

- **How supplied**
  - In sets.

Model	Order No.	UP
Type 1: Z-form screw	05.041.335.9	1 set P
Type 2: screw + rosette	05.041.340.9	1 set

MEC20096

Mounting holes, mounting set M5 for ConAct

- For securing 19" front panels
  and 19" components.

- **Scope of delivery**

  - 50 x cage nuts M5 /plate, 1.5 mm.

  - 50 x oval-head screws, Z-form,
    M5 x 16.

- 50 x cylinder screws, M5 x 8.

- 25 x locking nuts, M5.

- **How supplied**

  - In sets.

	Order No.	UP
	05.041.324.9	1 set

MEC20098

MEC20097

Front panel mounting set for Knürr™ MIR 2 / Smaract™ / ConAct™

- For securing 19" front panels
  and 19" components.

- Mounting holes.

- **Scope of delivery**

  - **Type 1:**

  - 50 x cage nuts M5 / plate, 1.5 mm.

  - 50 x oval-head screws, Z-form,
    M5 x 16.

- **Type 2**:

- 50 x cage nuts M5 / plate, 1.5 mm.

- 50 x countersunk screws, M5 x 16.

- 50 x rosettes.

- **How supplied**

  - In sets.

Model	Order No.	UP
Type 1: Z-form screw	**05.041.336.9**	1 set
Type 2: screw + rosette	**05.041.341.9**	1 set

MEC20098

MEC20097

Front panel mounting set; mounting holes, M5 / plate, 2.5 mm for Knürr™ MIR2 / Knürr DCM™ / Smaract™ / Double ProRack

- For securing 19" front panels
  and 19" components.

- **Scope of delivery**

  - **Type 1:**

  - 50 x cage nuts M5 / plate, 2.5 mm.

  - 50 x oval-head screws, Z-form,
    M5 x 16.

- **Type 2:**

- 50 x cage nuts M5 / plate, 2.5 mm.

- 50 x countersunk screws, M5 x 16.

- 50 x rosettes.

- **How supplied**

  - In sets.

Model	Order No.	UP
Type 1: Z-form screw	**05.041.337.9**	1 set P
Type 2: screw + rosette	**05.041.342.9**	1 set

MEC20129

MEC20130

MEC00060

MEC20141

Front panel mounting set, T-slot for Double ProRack

- For securing 19" front panels and 19" components.

- **Scope of delivery**
  - **Type 1:**
    - 50 x spring nuts, M5 narrow.
    - 50 x oval-head screws, Z-form, M5 x 10.

- **Type 2:**
  - 50 x spring nuts, M5 narrow.
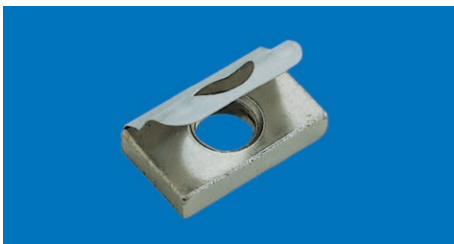 - 50 x countersunk screws, M5 x 12.
  - 50 x rosettes.
- **How supplied**
  - In sets.

Model	Order No.	UP
Type 1: Z-form screw	**05.041.338.9**	1 set
Type 2: screw + rosette	**05.041.343.9**	1 set

Spring nut

- To clip on T-slot where required.
  - **Type 1**:
    M5 wide for MIR2 / Smaract™.
    T-slot size: 10 x 13 mm.

  - **Type 2**:
    M5 narrow for Double ProRack.
    T-slot size: 8 x 13 mm.

- **Type 3:**
  M6 for MIR2 / Smaract™.
  T-slot size: 10 x 13 mm.
- **Scope of delivery**
  - 50 x spring nuts.
- **How supplied**
  - In sets.

Model	Order No.	UP	
Type 1: M5 wide	01.350.431.9	1 set	P
Type 2: M5 narrow	05.041.503.9	1 set	P
Type 3: M6	01.350.405.9	1 set	P

Countersunk screw + rosette

- IEC DIN EN ISO 7047.
- **Scope of delivery**
  - 50 x countersunk screws.
  - 50 x rosettes.

- **How supplied**
  - In sets.

Model	Order No.	UP	
M5 x 12	**05.041.203.9**	1 set	P
M5 x 16	**05.041.290.9**	1 set	

MEC20139

Cage nut

- For clipping into extrusions with mounting holes.

- **Type 1:**

  Plate, 1.5 mm for MIR2 / Smaract™ / ConAct™.

- **Type 2:**

  Plate, 2.5 mm for MIR2 Server / Smaract™ Server / Double ProRack with 19" mounting holes.

- **Scope of delivery**
  - 50 x cage nuts.
- **How supplied**
  - In sets.

Model	Order No.	UP	
M5: Type 1: Plate, 1.5 mm	05.041.513.7	1 set	
M5: Type 2: Plate, 2.5 mm	05.041.518.7	1 set	
M6: Type 1: Plate, 1.5 mm	05.041.514.7	1 set	
M6: Type 2: Plate, 2.5 mm	05.041.519.7	1 set	P

MEC20140

Oval-head screw

- IEC DIN 967.

- **Scope of delivery**
  - 50 x oval-head screws, Z-form.

- **How supplied**
  - In sets.

Model	Order No.	UP	
M5 x 10	05.041.330.9	1 set	P
M5 x 16	05.041.331.9	1 set	
M6 x 10	05.041.332.9	1 set	
M6 x 16	05.041.333.9	1 set	

MEC80020

Oval-head screw self-guiding

- DIN 7500.

- Suitable for system accessories fixed on the inside of the 19" extrusions.

- Suitable for 19" steel and 19" aluminum extrusions.

- Easy screwing.

- **Scope of delivery**
  - 50 x oval-head screws, M6x10.
- **How supplied**
  - In sets.

Model	Order No.	UP
M6 x 10	05.041.334.9	1 set

MEC20227

MEC20228

MEC20226

MEC20225

Oval-head screw with Phillips head

- IEC DIN EN ISO 7045.

- **Scope of delivery**
  - 1 x set of 50 units.

L	Model	Order No.	UP
8	M 5 no washer	**05.041.611.8**	1 set
12	M 4 no washer	**05.041.609.8**	1 set
12	M 5 with washer	**05.041.613.8**	1 set
16	M 5 with washer	**05.041.614.8**	1 set
16	M 6 with washer	**05.041.616.8**	1 set

Cylinder screw with hexagon head

- IEC ISO 4762 (modified).

- **Scope of delivery**
  - 1 x set of 50 units.

L	Model	Order No.	UP
8	M 5	**05.041.574.8**	1 set
8	M 5 microencapsulated	**05.041.575.9**	1 set
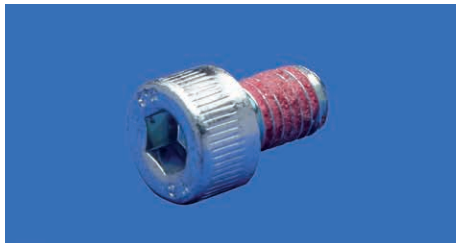
Tensiloc nut

- Material
  - Steel nickel-plated.

- Scope of delivery
  - 1 x set of 50 units.

Model	Order No.	UP
M 5	**05.041.533.8**	1 set

Dimensions in mm:						Conversion:	
W	= Width	h	= Installation height	U	= Standard rack unit	kg	= Weight	1 mm	= 0.03937 inch
H	= Height	d	= Insertion depth		(1 U = 44.45 mm)			1 kg	= 2.2046 pounds
D	= Depth	L	= Length	UP	= Packaging unit		

HEI00379

HEI20282

Distribution box

- For mounting trade-standard installation technology DIN rail components, such as fuses clamps, relays, etc.

- When installed, the mounting level can be pulled out at the front and locked in position, significantly simplifying the wiring of the individual components. Not available for "fixed installation" model. Up on request: Delivered assembled and wired. Further versions and models up on request.

- Installation space for up to 22 pieces of equipment with 18 mm width each.

- Mounting of the TS35 DIN rail on several levels with simple plug-in connection. Not available for "fixed installation" model.

- "Snap-in" mounting of DIN rail components.

- Easy access to the protective grounding and neutral conductor rails from the front.

- Various positioning options available for N and PE rails. Not available for "fixed installation" model.

- Cable entry at the rear via double brush strip (optionally via bushing sockets).

- Cable strain relief on the inside and therefore accessible from the front.

- Labeling strips on the front, above and below the installation space.

- Installation options available for power distribution with 230 V AC, but also in the low-voltage range (e.g. 48 V DC).

- 19" slot-in, 3 U, depth 150 mm.

- **Material / Finish**
  - Panels powder-coated texture, RAL 7035 light-grey.
  - Main unit, sheet steel, zinc-passivated.

- **Scope of delivery**
  - 1 x distribution box.
  - Including N and PE rails, cable entry, cable strain relief, empty panel covers and grounding set.

- **How supplied**
  - Fully assembled.

W	H	D	U	19"	Model	Order No.	UP
482.6	134	150	3	•	Pull-out	03.013.385.1	1 unit

ELM00137

Door contact switch

- On/off switch, 4 A, 230 V ~.
- Activated by opening and closing door.

- **Scope of delivery**
  - 1 x door contact switch (not wired).
  - 1 x mounting bracket.
  - 1 x Mounting kit.

	Order No.	UP
	01.110.722.9	1 unit
For rack type ConAct™	01.110.722.9.001	1 unit

Cable junction box

- For 230 V electrical installation on-site.
- As fixed-location exchange point.
- Quick and easy mounting.

- **Scope of delivery**
  - 1 x cable junction box.

Order No.	UP
00.078.720.9	1 unit
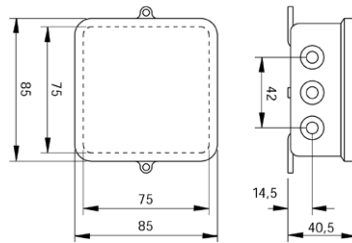
ELM00033

ELM00034

Modular terminal box

- For 230V electrical installation on-site.
- With series terminal, 8 x 42.
- Pg 11/16 entry.
- IP 54.

- **Material**
  - High-impact, fire-resistant polystyrene.
- **Scope of delivery**
  - 1 x modular terminal box.
  - 4 pg compression glands, pg11.

Order No.	UP
01.117.521.9	1 unit

ELM00128

1 equipotential bonding bar

- For central grounding of all protective conductors.
- With sealable cover.
- Connection options:
  1 x round conductor 8 – 10 mm Ø
  1 x flat conductor up to 30 mm wide
  or round conductor 8 – 10 mm Ø.
- 7 x single or multi-wire conductors up to 16 mm^2 or fine-wire conductors up to 10 mm^2.

- **Material**
  - Base plate and cover plate, high-impact plastic.
  - Brass nickel-plated contact strip.
- **Scope of delivery**
  - 1 x equipotential bonding bar.

Order No.	UP
01.117.524.3	1 unit

ELM00114

DOP20016

Contact clamp

- Enables safe connection of equipment and components to grounding bar.
- For cables up to 25 mm².

- **Scope of delivery**
  - 20 x contact clamps.

Order No.	UP
01.110.715.9	20 units P
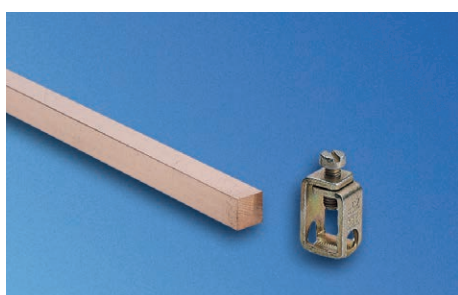
ELM00068

Grounding bar

- For safe grounding or potential equalization of equipments and components.

- **Material**
  - Electrolyte copper 9 x 9.

- **Scope of delivery**
  - 1 x grounding bar.
  - 2 x brackets.
  - 1 x Mounting kit.

U	Model	Order No.	UP
24	For Double ProRack	**01.240.546.9**	1 unit
21	For Double ProRack	**01.240.545.9**	1 unit
18	For Double ProRack	**01.240.544.9**	1 unit
15	For Double ProRack	**01.240.543.9**	1 unit
45	For Knürr™ MIR2 / Knürr DCM™	**01.110.709.9**	1 unit
41	For Knürr™ MIR2 / Knürr DCM™	**01.110.708.9**	1 unit P
12	For Knürr™ MIR2 / Knürr DCM™	**01.110.703.9**	1 unit

P = **assemble to order** (shipped within 5 working days). Caution: In case of larger orders, delivery times may increase.

Dimensions in mm:

				Conversion:	
W = Width	h = Installation height	U = Standard rack unit	kg = Weight	1 mm	= 0.03937 inch
H = Height	d = Insertion depth	(1 U = 44.45 mm)		1 kg	= 2.2046 pounds
D = Depth	L = Length	UP = Packaging unit			

Features

- Allows for prescribed cable radii.

- Components are easy to secure and use.

- Components feature addition functions.

- Extensive use of reusable Velcro strips precludes cable strain.

- No blockage of airflow within the rack.

Vertiv™ Knürr™ Cable Management

Global networking is continuing to grow, meaning users are in need of an intelligent cable management solution.

To meet this demand, Vertiv™ Knürr™ offers a range of products and solutions for server racks, active and passive network racks, as well as special racks.

Our range not only allows you to quickly and easily set up and dismantle racks, it also makes it much simpler to troubleshoot problems in your systems and expand your systems. Our cable management components are all based on a number of key principles: Simple and self-explanatory operation, versatile application options, a clear structure, and a cost-efficient design.

Thanks to the Vertiv™ Knürr™ cable management system, your rack will be equipped for the future and will save you time and money for the long term.

MEC20064
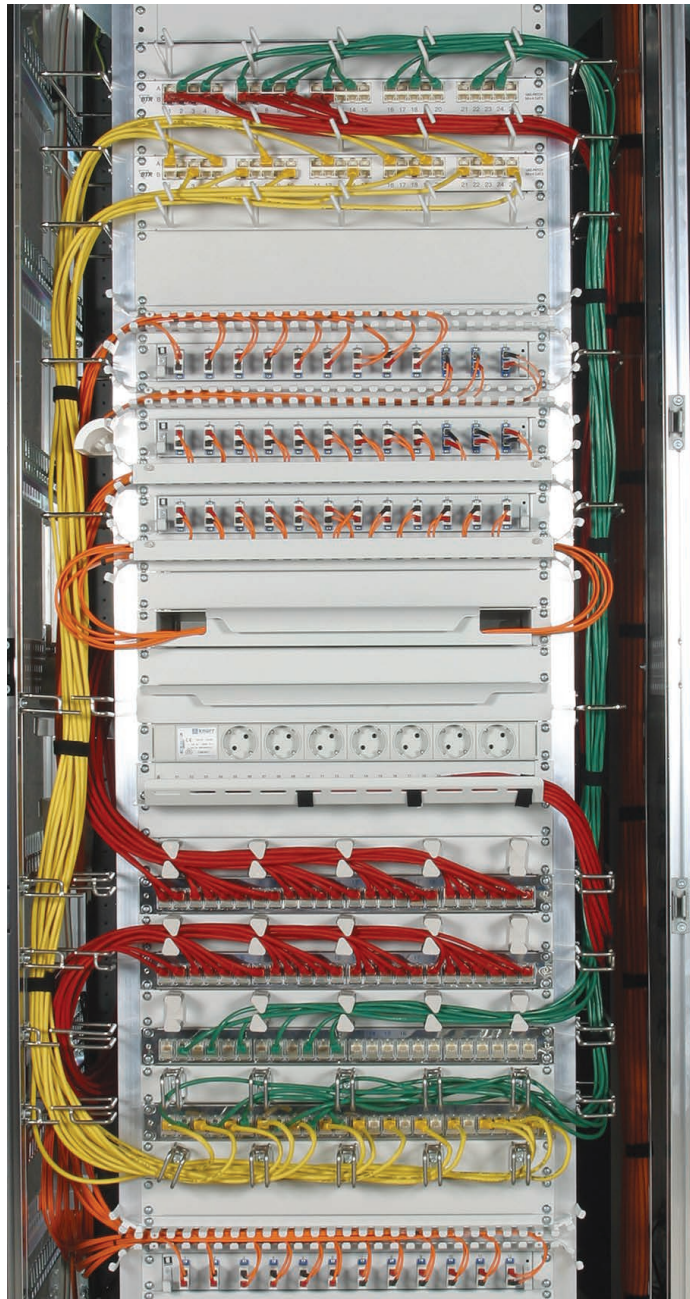
Vertiv™ Knürr™ Cable Management Terminology

Laying cables involves ensuring that mechanical stresses are completely avoided.

- **Bending load**
  The bending radii may never fall below the values provided by the cable manufacturer in the respective data sheets. Where excessive bending occurs, the cables' electrical properties are impaired, and transmission bandwidths and ranges are adversely affected. If manufacturer specifications are not available, then the following rule of thumb applies: loose cabling should be at least 15 times the external cable diameter and fixed cabling at least 10 times the external cable diameter.

- **Buckling load**
  Extreme bending loads can cause the cable to break.

- **Tensile load**
  This is determined solely by the copper cross-section of the conductor, as all other materials are too soft. The cable may not be exposed to stress exceeding 50 N/mm^2 (Cu cross-section) as this causes the conductors to stretch which reduces the cross-section. If higher "pulling" forces are required, cables with additional strain-reduction elements must be used.

- **Compressive stress**
  Compressive stress is caused by loads bearing down from above, fixed clamping or sharp cable kinking and must always be avoided, as otherwise the "loose" cable structure changes and electrical transmission properties are impaired.

- **Torque strains (twisting)**
  Cables must never be subjected to torque strains, as they cause cable elements to shift and change their position relative to each other, thereby impairing transmission properties.
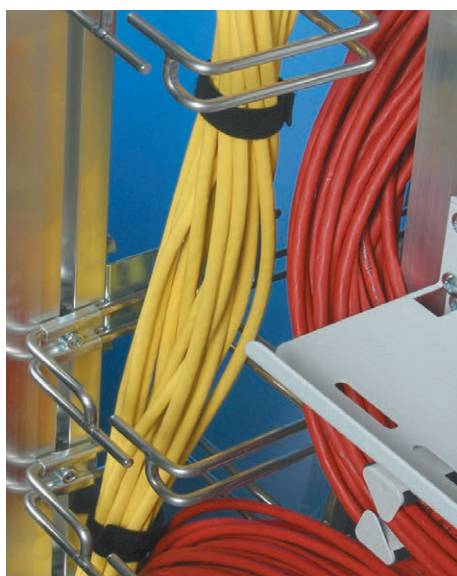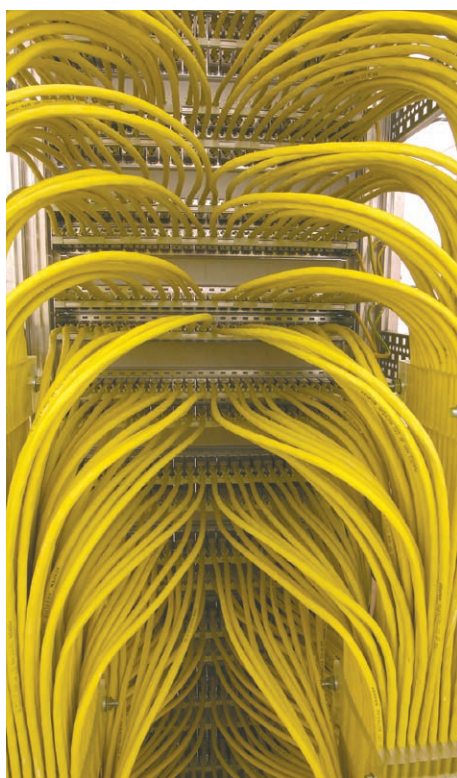
MEC20086

MEC20084

MEC20058

35
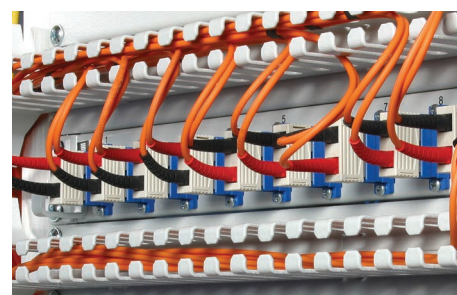
1. MEC20082

Vertiv™ Knürr™ Cable Management Proper Usage

- Various components for fiberglass and copper cables especially fastening options such as Velcro and cable bundling using different colored strips – guarantee transparent cable management, providing an optimal starting point for both intelligent network expansion and ideal service convenience. (1)

- Special attention has been paid to ensuring that all cable management components can be fastened with Velcro strips which eliminate cable strain and can be reused at any time. Velcro cable ties also aid the installation technician as they are easily manageable, using pinch-free cable bundling. (2)

- Excess cable is stored separately from the patch fields while remaining easily accessible. Copper cable excess can be stored separately from fiber glass excess within the Knürr™ rack systems: the copper cables are stored on the side while the more sensitive fiberglass cables are stored in a drawer at the front. (3)

- A closer look at the individual products reveals their outstanding versatility. The cable-routing multifunctional brace, for example, not only provides the option of routing cables both horizontally and vertically using Velcro or cable ties, but additionally allows numerous components to be mounted with screws and caged nuts. These caged nuts can also be shifted in a slot with room for play, so that every mounting dimension is accommodated.

2. MEC20070

3. MEC20099

Features

- Modular, extremely flexible.

- Robust construction.

- Includes integrated radius for cable entry into rack.

- New cover panel with lateral cable entry.

- Selection of cable throughs and mesh cable trays.

- Suitable for Vertiv™ Knürr DCM™ and Vertiv™ Knürr™ MIR.

- Includes Vertiv™ SmartAisle™ enclosure.

- Various combinations possible.

Vertiv™ Knürr™ Cable Management
Overhead Cabling

Vertiv™ Overhead Cabling Solution

The Vertiv™ Knürr™ overhead cable management system is a complete, modular system which offers a variety of cable-tray installment options. The components are very flexible and can be installed on site or modified with ease, to accommodate cable-management requirements that differ from rack to rack. This extremely sturdy and robust system can withstand high stress levels and is suitable for any application. Combined with other items from the Knürr™ cable-management product range, it provides a comprehensive solution that delivers proper cable bend radii.

Example of overhead configuration

3 x Vertiv™ Knürr DCM™
B800 T1200
1 x Liebert® CRV B300 T1200

4 x Vertiv™ Knürr DCM™
B600 T1200
1 x Liebert® CRV B300 T1200

1800 mm
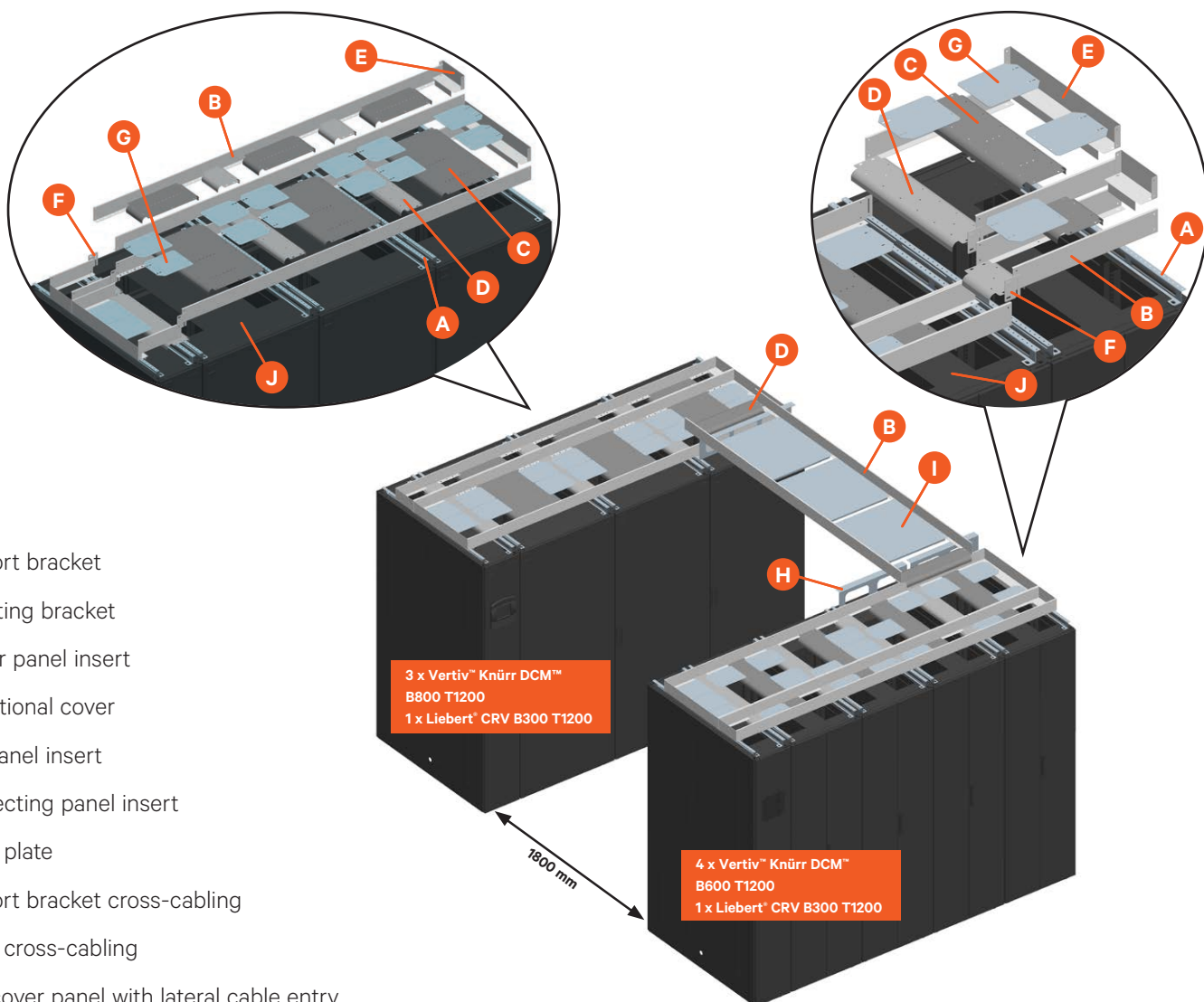
Legend

A Support bracket

B Mounting bracket

C Center panel insert

D Transitional cover

E End panel insert

F Connecting panel insert

G Cover plate

H Support bracket cross-cabling

I Cover cross-cabling

J New cover panel with lateral cable entry

Configuration Assistant

Sample Order	Name	Item	
Left rack suite	**Vertiv™ Knürr DCM™ B800 T1200**	**3**	**01.147.722.8**
	New cover panel with lateral cable entry (J)	3	**01.147.579.8**
	Liebert® CRV B300 T1200	1	**CR0302XXX-XXXXXX**
	Support bracket (A)	4	**05.045.005.X**
	Mounting bracket (B)	2 2	**05.045.011.X** **05.045.015.X**
	Center panel insert (C)	3 3	**05.045.023.X** **05.045.024.X**
	Transitional cover (D)	3 3	**05.045.031.X** **05.045.032.X**
	End panel insert (E)	1 1	**05.045.041.X** **05.045.042.X**
	Connecting panel insert (F)	1	**05.045.045.X**
	Cover plate (G)	2	**05.045.047.X**
Right rack suite	**Vertiv™ Knürr DCM™ B800 T1200**	**4**	**01.147.714.8**
	New cover panel with lateral cable entry (J)	4	**01.147.574.8**
	Liebert® CRV B300 T1200	1	**CR0302XXX-XXXXXX**
	Support bracket (A)	4	**05.045.005.X**
	Mounting bracket (B)	2 8	**05.045.011.X** **05.045.012.X**
	Center panel insert (C)	4 4	**05.045.021.X** **05.045.022.X**
	Transitional cover (D)	4 4	**05.045.031.X** **05.045.032.X**
	End panel insert (E)	1 1	**05.045.041.X** **05.045.042.X**
	Connecting panel insert (F)	2	**05.045.045.X**
	Cover plate (G)	2	**05.045.047.X**
Cross-cabling	**Support bracket**	**1** **1**	**05.045.052.X** **05.045.053.X**
	Mounting bracket (B)	1	**05.045.015.X**
	Transitional cover (D)	2	**05.045.032.X**
	Cover (I)	1	**05.045.057.X**

Required Data for Overhead Cabling	Example
Width of racks in the rack suite (300, 600 or 800 mm)	Rack width (W) = 800 mm
Depth of racks in the rack suite (1000 to 1200 mm)	Rack depth (D) = 1200 mm
Number of racks in one rack suite	
Aisle width (Standard dimensions 1200 and 1800 mm ± 50 mm) – for cross-cabling	Aisle width (AW) = 1800 mm
Color light-grey RAL 7035 or dark-grey RAL 7021	Dark-grey RAL 7021

Prerequisites for Overhead Cabling
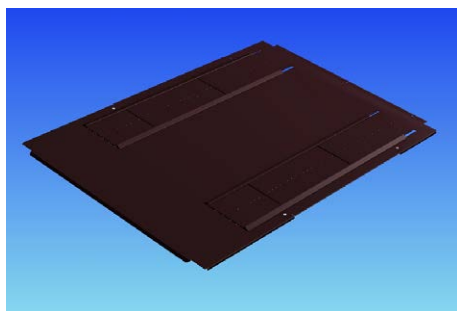
DCM20079

J Cover panel with lateral cable entry

- With lateral cable entry on both sides (sliding plates).
- For orderly cable management within the rack.
- Optional brush strips.

• **Material**
  • Sheet steel, 1.5 mm.

• **Finish / Color**
  • Final digit of order number .1: powder-coated, RAL 7035.
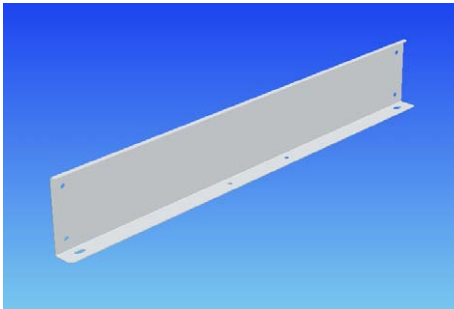 • Final digit of order number .8: powder-coated, RAL 7021.

• **Scope of delivery**
  • 1 Deckel mit seitlicher Kabeleinführung.
  • Montagematerial.

• **How supplied**
  • In sets.

W$_{Rack}$	D$_{Rack}$	For rack type	Order No.	UP
600	1000	Knürr™ MIR2 / Knürr DCM™	**01.147.572.X**	1 unit
600	1100	Knürr™ MIR2 / Knürr DCM™	**01.147.573.X**	1 unit
600	1200	Knürr™ MIR2 / Knürr DCM™	**01.147.574.X**	1 unit
800	1000	Knürr™ MIR2 / Knürr DCM™	**01.147.577.X**	1 unit
800	1100	Knürr™ MIR2 / Knürr DCM™	**01.147.578.X**	1 unit
800	1200	Knürr™ MIR2 / Knürr DCM™	**01.147.579.X**	1 unit
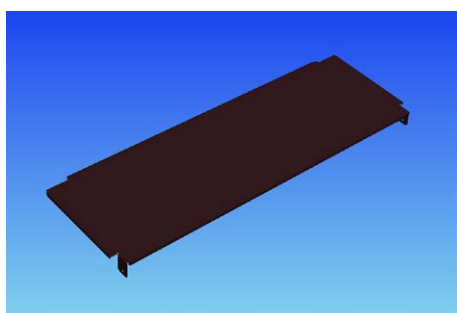
DCM20081

DCM20080

K MIR2 / Knürr DCM™ cover panel short

- For covering the front overhead area; the rest remains open.
- Facilitates unobstructed cable entry inside the rack.

• **Material**
  • Sheet steel, 1.5 mm.

• **Finish / Color**
  • Powder-coated texture, RAL 7021, dark-grey.

• **Scope of delivery**
  • 1 x cover panel, short.
  • 1 x Mounting kit.

• **How supplied**
  • In sets.
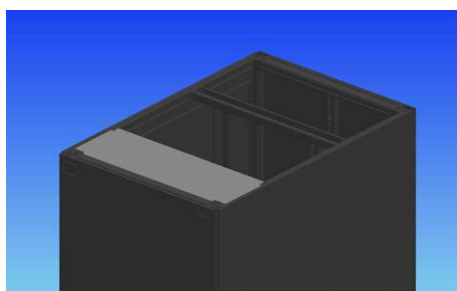
W$_{Rack}$	L	For rack type	Order No.	UP
600	250	Knürr™ MIR2 / Knürr DCM™	**01.147.268.8**	1 unit
800	250	Knürr™ MIR2 / Knürr DCM™	**01.147.269.8**	1 unit
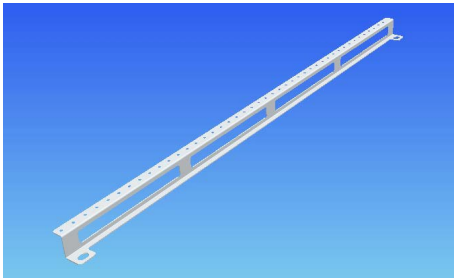
MEC20200
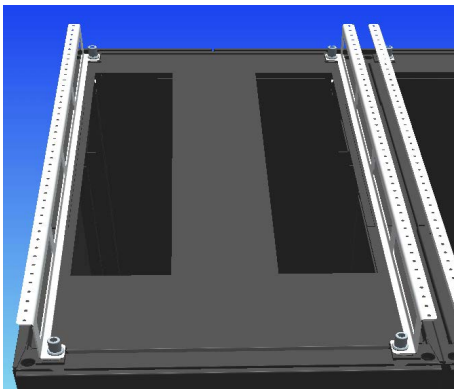
MEC20201

Ⓐ Support bracket

- Secures corner piece at the top of the rack.
- Quick and easy mounting.
- Suitable for both MIR2 and Knürr DCM™ racks.
- Includes screw for securing the mounting brackets, transitional cover and end panel inserts.

- **Material**
  - Sheet steel 2.0 mm.

- **Finish**
  - Final digit of order number .1: powder-coated, RAL 7035 light-grey.
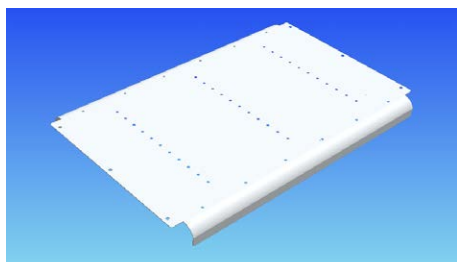 - Final digit of order number .8: powder-coated, RAL 7021 dark-grey.

- **Scope of delivery**
  - 2 x support brackets.
  - 1 x Mounting kit.

- **How supplied**
  - In sets.

H	D Rack	For rack type	Order No.	UP
44	1000	Knürr™ MIR2 / Knürr DCM™	05.045.003.X	1 set
44	1100	Knürr™ MIR2 / Knürr DCM™	05.045.004.X	1 set
44	1200	Knürr™ MIR2 / Knürr DCM™	05.045.005.X	1 set
44	1300	Knürr™ MIR2 / Knürr DCM™	05.045.001.X-001	1 set
44	1400	Knürr™ MIR2 / Knürr DCM™	05.045.001.X-002	1 set
44	1500	Knürr™ MIR2 / Knürr DCM™	05.045.001.X-003	1 set

MEC20202
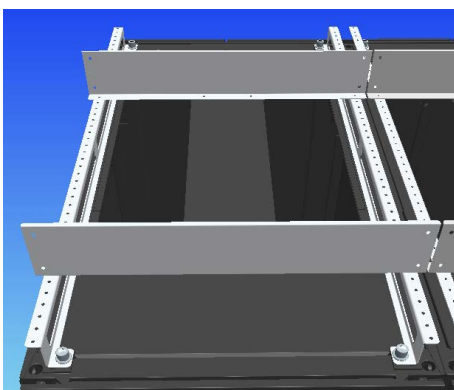
MEC20203

Ⓑ Mounting brackets

- Secured on support bracket.
- Quick and easy mounting.
- Separate cable trays.

- **Material**
  - Sheet steel 1.0 mm.

- **Finish**
  - Final digit of order number .1: powder-coated, RAL 7035 light-grey.
  - Final digit of order number .8: powder-coated, RAL 7021 dark-grey.

- **Scope of delivery**
  - 2 x mounting brackets.
  - 1 x Mounting kit.

- **How supplied**
  - In sets.

W / L	H	For rack type	Order No.	UP
300	90	Knürr™ MIR2 / Knürr DCM™	05.045.011.X	1 set
600	90	Knürr™ MIR2 / Knürr DCM™	05.045.012.X	1 set
800	90	Knürr™ MIR2 / Knürr DCM™	05.045.013.X	1 set
2400	90	Knürr™ MIR2 / Knürr DCM™	05.045.015.X	1 set
3000	90	Knürr™ MIR2 / Knürr DCM™	05.045.016.X	1 set

MEC20205

MEC20204

C Center panel insert

- Secured on mounting bracket.

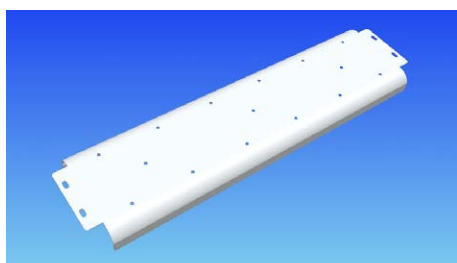- Quick and easy mounting.

- With 25 mm radius for bending the cables.

- **Material**
  - Sheet steel, 1.5 mm.

- **Finish**
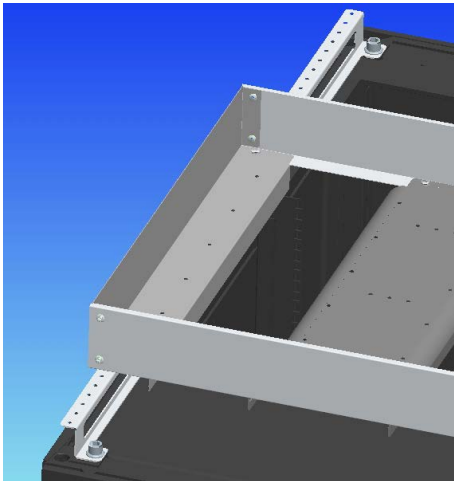 - Final digit of order number .1: powder-coated, RAL 7035 light-grey.
  - Final digit of order number .8: powder-coated, RAL 7021 dark-grey.

- **Scope of delivery**
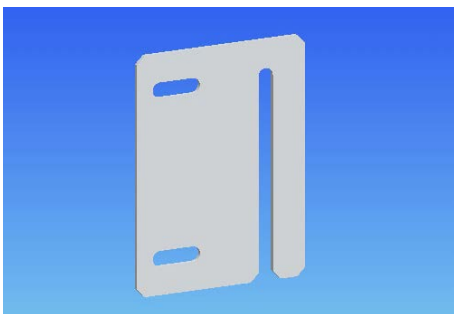 - 1 x center panel insert.
  - 1 x Mounting kit.

- **How supplied**
  - In sets.
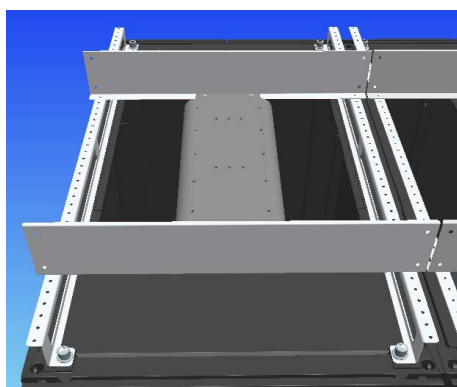
W / L	W$_{Rack}$	R	For rack type	Order No.	UP
200	600	25	Knürr™ MIR2 / Knürr DCM™	**05.045.021.X**	1 set
600	600	25	Knürr™ MIR2 / Knürr DCM™	**05.045.022.X**	1 set
200	800	25	Knürr™ MIR2 / Knürr DCM™	**05.045.023.X**	1 set
600	800	25	Knürr™ MIR2 / Knürr DCM™	**05.045.024.X**	1 set

MEC20206

MEC20212

D Transitional cover from rack to rack

- Secured on support bracket.

- Quick and easy mounting.

- With 25 mm radius for bending the cables.
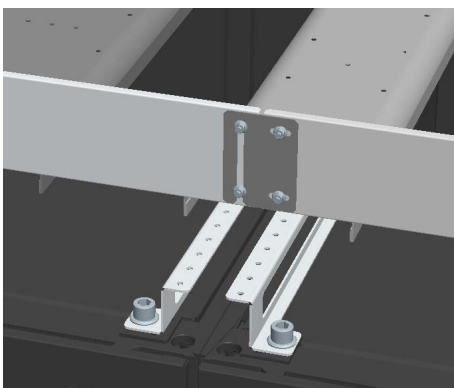
- **Material**
  - Sheet steel, 1.5 mm.

- **Finish**
  - Final digit of order number .1: powder-coated, RAL 7035 light-grey.
  - Final digit of order number .8: powder-coated, RAL 7021 dark-grey.

- **Scope of delivery**
  - 1 x transitional cover.
  - 1 x Mounting kit.

- **How supplied**
  - In sets.
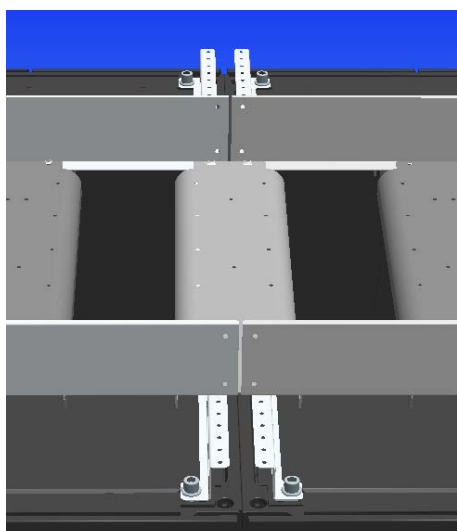
W / L	R	For rack type	Order No.	UP
200	25	Knürr™ MIR2 / Knürr DCM™	**05.045.031.X**	1 set
600	25	Knürr™ MIR2 / Knürr DCM™	**05.045.032.X**	1 set
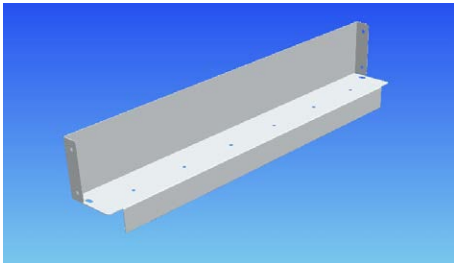
MEC20207

MEC20214

E End panel insert

- Secured on support bracket.
- Quick and easy mounting.
- Completes cable trays.

- **Material**
  - Sheet steel 1.0 mm.
- **Finish**
  - Final digit of order number .1: powder-coated, RAL 7035 light-grey.
  - Final digit of order number .8: powder-coated, RAL 7021 dark-grey.

- **Scope of delivery**
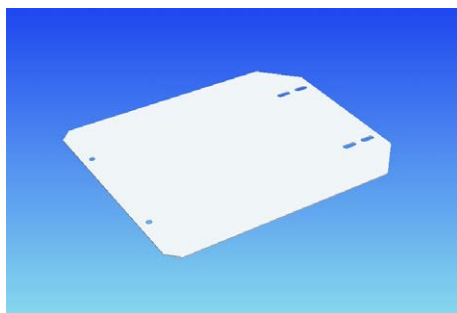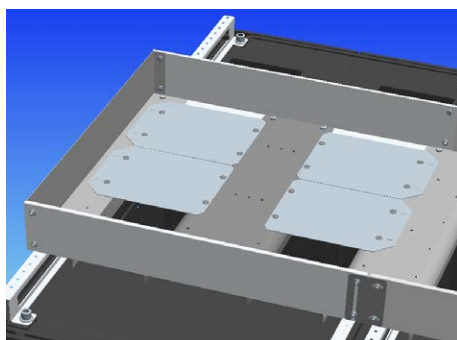 - 2 x end panel inserts.
  - 1 x Mounting kit.
- **How supplied**
  - In sets.

W / L	For rack type	Order No.	UP
200	Knürr™ MIR2 / Knürr DCM™	05.045.041.X	1 set
600	Knürr™ MIR2 / Knürr DCM™	05.045.042.X	1 set

MEC20208

MEC20213

F Connecting panel insert

- For joining mounting brackets.
- Quick and easy mounting.

- **Material**
  - Sheet steel, 1.5 mm.
- **Finish**
  - Final digit of order number .1: powder-coated, RAL 7035 light-grey.
  - Final digit of order number .8: powder-coated, RAL 7021 dark-grey.

- **Scope of delivery**
  - 10 x connecting panel inserts.
  - 1 x Mounting kit.
- **How supplied**
  - In sets.

W	H	For rack type	Order No.	UP
64	86	Knürr™ MIR2 / Knürr DCM™	05.045.045.X	1 set

G Cover plate

- For covering the space between the center panel inserts and transitional covers.

- Quick and easy mounting.

- **Material**
  - Sheet steel 1.0 mm.

- **Finish**
  - Final digit of order number .1: powder-coated, RAL 7035 light-grey.
  - Final digit of order number .8: powder-coated, RAL 7021 dark-grey.

- **Scope of delivery**
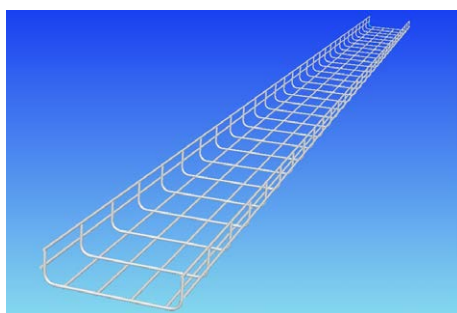 - 10 x cover plates.
  - 1 x Mounting kit.

- **How supplied**
  - In sets.

MEC20209

MEC20215

L	W	For rack type	Order No.	UP
229	183	Knürr™ MIR2 / Knürr DCM™	**05.045.047.X**	1 set

Option Mesh cable tray

- Secured on support bracket.

- Quick and easy mounting.

- **Material**
  - Round steel, d = 4.5 mm.

- **Finish**
  - Zinc-passivated.

- **Scope of delivery**
  - 1 x mesh cable tray.
  - 1 x Mounting kit.

- **How supplied**
  - In sets.

MEC20218

B	L	H	For rack type	Order No.	UP
200	3000	54	Knürr™ MIR2 / Knürr DCM™	**05.045.061.9**	1 set
600	3000	54	Knürr™ MIR2 / Knürr DCM™	**05.045.062.9**	1 set

Dimensions in mm:

				Conversion:	
W = Width	h = Installation height	U = Standard rack unit	kg = Weight	1 mm	= 0.03937 inch
H = Height	d = Insertion depth	(1 U = 44.45 mm)		1 kg	= 2.2046 pounds
D = Depth	L = Length	UP = Packaging unit			
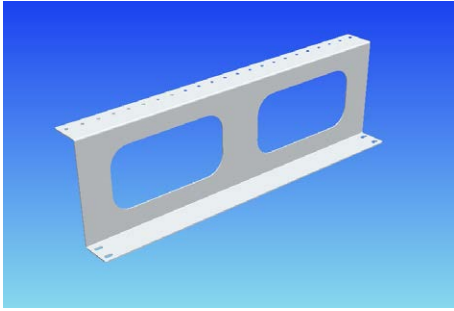
MEC20210

MEC20216

H Support bracket cross-cabling

- For cable management at the top between rack suites.

- Quick and easy mounting.

- Includes screw for securing the mounting brackets, transitional covers and cover plates.
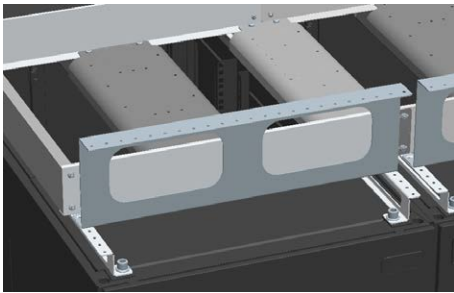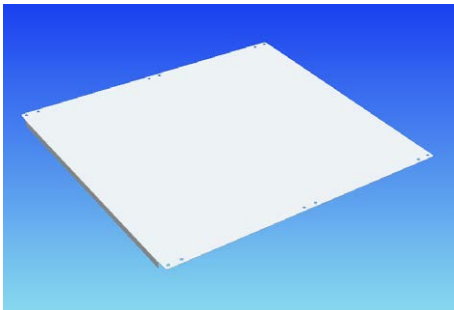
- • **Material**
  - • Sheet steel 2.0 mm.

- • **Finish**
  - • Final digit of order number .1: powder-coated, RAL 7035 light-grey.
  - • Final digit of order number .8: powder-coated, RAL 7021 dark-grey.

- • **Scope of delivery**
  - • 2 x support brackets, cross-cabling.
  - • 1 x Mounting kit.

- • **How supplied**
  - • In sets.

H	W$_{Rack}$	For rack type	Order No.	UP
166	600	Knürr™ MIR2 / Knürr DCM™	05.045.052.X	1 set
166	800	Knürr™ MIR2 / Knürr DCM™	05.045.053.X	1 set

MEC20211

MEC20217

I Cross-cabling cover

- Provides support for cables and covers the space between the rack suites.

- Secured on mounting bracket.

- Quick and easy mounting.

- • **Material**
  - • Sheet steel 1.0 mm.

- • **Finish**
  - • Final digit of order number .1: powder-coated, RAL 7035 light-grey.
  - • Final digit of order number .8: powder-coated, RAL 7021 dark-grey.

- • **Scope of delivery**
  - • 5 x cover plates.
  - • 1 x Mounting kit.

- • **How supplied**
  - • In sets.
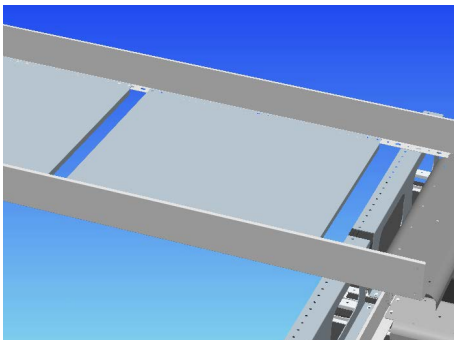
L	W	For rack type	Order No.	UP
200	200	Knürr™ MIR2 / Knürr DCM™	05.045.055.X	1 set
200	600	Knürr™ MIR2 / Knürr DCM™	05.045.056.X	1 set
600	600	Knürr™ MIR2 / Knürr DCM™	05.045.057.X	1 set

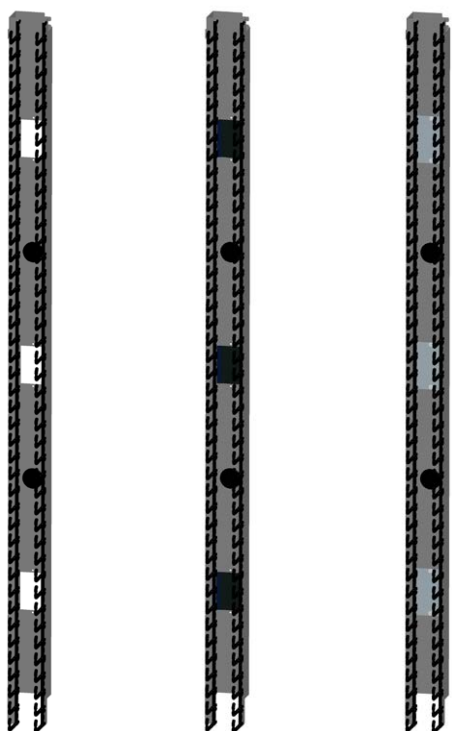Type 1   Type 2   Type 3

Vertiv™ Knürr™ Cable Management

- **Features**
  - Organized cabling of jumper cables.
  - Suitable depends on the model, for 19" Vertiv™ Knürr DCM™ and MIR2 Racks.
  - Also available optionally as cold/warm partitioning.
  - Cutouts for cabling from front to back.
  - Lightweight plastic construction of the cable fingers ensures durability and simple installation (clip-on).
  - Distance between fingers provides sufficient space for all patch cords.
  - Rounded edges on the fingers protect cables against damage.

Vertiv™ Knürr™ Cable Management

- **Type 1:** Standard (open cutouts).
- **Type 2:** Version with brush strips in cutouts for cable routing towards the rear.
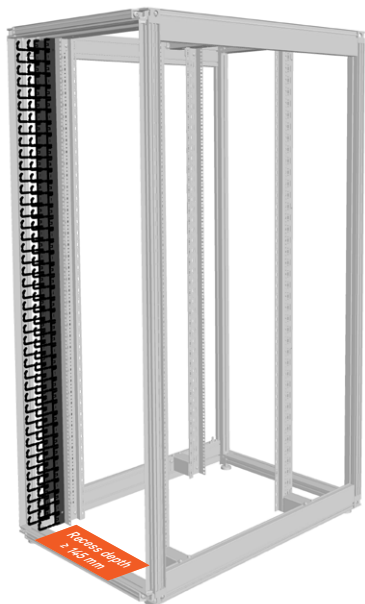- **Type 3:** Version with sheet-steel cover plates in cutouts as part of the cold/warm partitioning.

Technical data and required recess depths

Vertiv™ Knürr DCM™
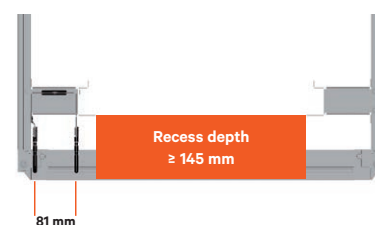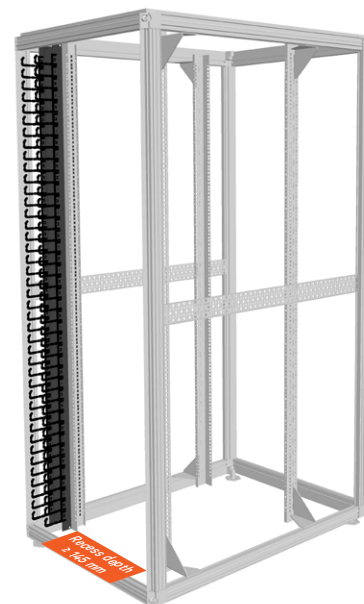

Recess depth ≥ 145 mm

Recess depth ≥ 145 mm

60 mm

Vertiv™ Knürr DCM™

Recess depth ≥ 280 mm

On Request

Recess depth ≥ 280 mm

81 mm

93 mm

Vertiv™ Knürr™ MIR2

Recess depth ≥ 145 mm

Recess depth ≥ 145 mm

81 mm
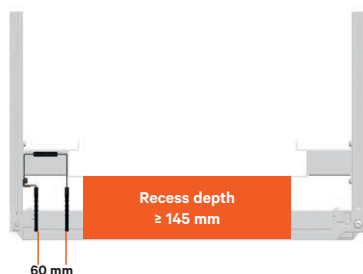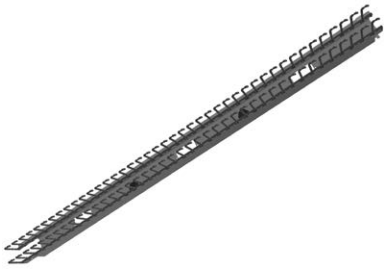
DCM20118

DCM20119

Vertiv™ Knürr DCM™ cable manager, vertical

- **Description**
  - Left and right models (2 cable managers) included in the delivery.
  - Ideal for organizing cabling of jumper cables (copper and fiber optic cables).
  - Retrofitting is possible.
  - Prepared for full cold/warm partitioning.
  - Cable fingers can be easily installed (clipped on).
  - Cabling towards the rear through rubber bushings or cutouts.
  - Can be used for recess depths from 145 mm.
- **Material / Finish**
  - Cable duct: Sheet steel, 2.0 mm.
  - Final digit of order number .1: powder-coated, RAL 7035 light-grey

- Final digit of order number .8: powder-coated, RAL 7021 dark-grey.
  - Cable fingers: Polyamide (UL 94 V-0), black.
- **Scope of delivery**
  - 1 x cable duct, left.
  - 1 x cable duct, right.
  - 4 x rows with cable fingers.
  - 4 x rubber bushings.
  - 1 x Mounting kit.
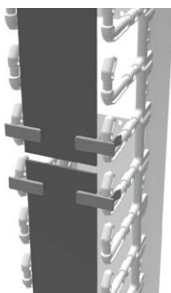- **How supplied**
  - In pairs (cable fingers unassembled).
- **Remarks**
  - Only for Knürr DCM™ Rack.

W$_{Rack}$	H$_{Rack}$	U	Recess depth	Cutout size	Order No.	UP
800	2000	42	Starting from 145 mm	66 x 100 mm	**05.045.102.X**	1 pair
800	2200	47	Starting from 145 mm	66 x 100 mm	**05.045.103.X**	1 pair

Vertiv™ Knürr DCM™ cover panel for vertical cable manager

DCM20120

DCM20121

- **For only 1 cable manager, i. e., 2 kits required for B800 rack.**
- Covers the vertical cable manager.
- Tool-less fastening – clips onto cable finger.
- Can be swiveled on both sides and removed completely.
- **Material / Finish**
  - Cover: sheet steel, 2.0 mm.
  - Final digit of order number .1: powder-coated, RAL 7035 light-grey.

- Final digit of order number .8: powder-coated, RAL 7021 dark-grey.
  - Clip: polyamide (UL 94 V-0), black.
- **Scope of delivery**
  - 2 x covers.
  - 8 x clips.
- **How supplied**
  - In sets (clips pre-assembled).

W	H	U		Order No.	UP
58	927	42		**05.045.112.X**	1 set
58	1038	47		**05.045.113.X**	1 set

DCM20117

Knürr DCM™/Knürr™ MIR2 kit for air partitioning for vertical cable manager

– Suitable for Knürr DCM™ and MIR2 racks.

– Separates the cold and hot areas with in the rack.

– Prevents hot-spots (air recirculation).

- **Material / Finish**

  - Bottom plate, cover plate: sheet steel, 1.0 mm.

  - Final digit of order number .1: powder-coated, RAL 7035 light-grey.

  - Final digit of order number .8: powder-coated, RAL 7021 dark-grey.

  - High-density foam: PUR foam (UL94 HF-1).

- **Scope of delivery**

  - 1 x bottom plate.

  - 6 x Steel plate cover plates (extension to Type3) for cable routing.

  - 1 x Foam element, side.

  - 1 x Foam element, top.

  - 1 x Mounting kit.

- **How supplied**

  - In sets.

- **Remarks**

  - For Knürr DCM™ and Knürr™ MIR2 Rack.

W$_{Rack}$	U		Order No.	UP
800	42 and 47		**05.045.132.X**	1 set

Recess depth ≥ 145 mm

81 mm

Vertiv™ Knürr™ MIR2 – Cable Manager, Vertical

Left and right models (2 cable managers) included in the delivery.
Ideal for organizing cabling of jumper cables (copper and fiber optic cables).

– Retrofitting is possible.

– Prepared for full cold/warm partitioning.

– Cable fingers can be easily installed (clipped on).

– Cabling towards the rear through rubber bushings or cutouts.

Can be used for recess depths from 145 mm.

- **Material / Finish**

  - Cable duct: Sheet steel, 2.0 mm.

  - Final digit of order number .1: powder-coated, RAL 7035 light-grey.

  - Final digit of order number .8: powder-coated, RAL 7021 dark-grey.

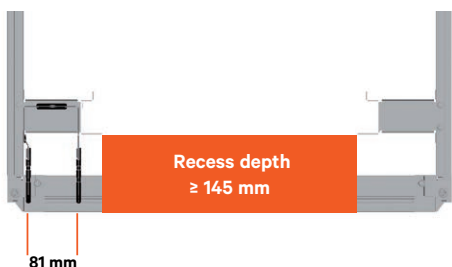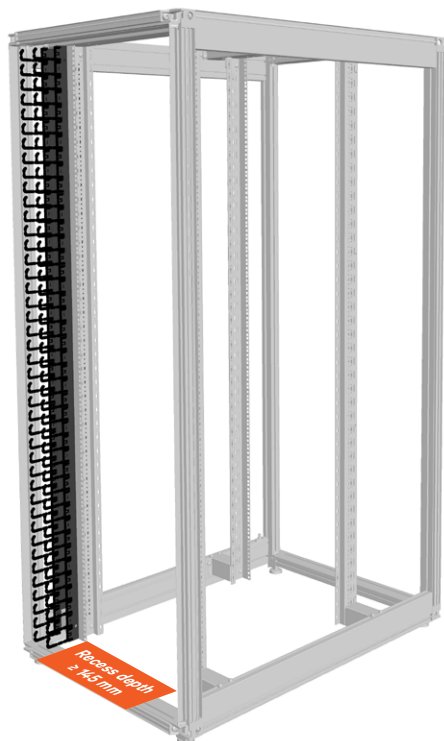- Cable fingers: Polyamide (UL 94 V-0), black.

- **Standard inclusion**

  - 1 x cable duct, left.

  - 1 x cable duct, right.

  - 4 x rows with cable fingers.

  - 4 x rubber bushings.

  - 1 x Mounting kit.

- **Delivery**
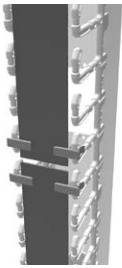
  - In pairs (cable fingers unassembled).

- **Note**
  For MIR2 only.
  Only front mountable.

W$_{Rack}$	H$_{Rack}$	U	Recess depth	Cutout size	Order No.	UP
800	2000	42	Starting from 145 mm	81 x 100 mm	**05.045.152.X**	1 pair
800	2200	47	Starting from 145 mm	81 x 100 mm	**05.045.153.X**	1 pair

DCM20120

DCM20121

Vertiv™ Knürr™ MIR2 – Cover Panel for Vertical Cable Manager

**For only 1 cable manager, i. e., 2 kits required for B800 rack.**

– Covers the vertical cable manager.

– Tool-less fastening – clips onto cable finger.

– Can be swiveled on both sides and removed completely.
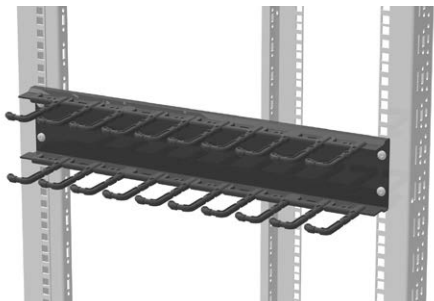
- **Material / Finish**

  - Cover: sheet steel, 2.0 mm.

  - Final digit of order number .1: powder-coated, RAL 7035 light-grey.

  - Final digit of order number .8: powder-coated, RAL 7021 dark-grey.

- Clip: polyamide (UL 94 V-0), black.

- **Standard inclusion**

  - 2 x covers.

  - 8 x clips.

- **Delivery**

  - In sets (clips pre-assembled).

- **Note**
  For MIR2 only.

W	H	D	U	Order No.	Up
79	916		42	**05.045.114.x**	1 set
79	1027		47	**05.045.115.x**	1 set
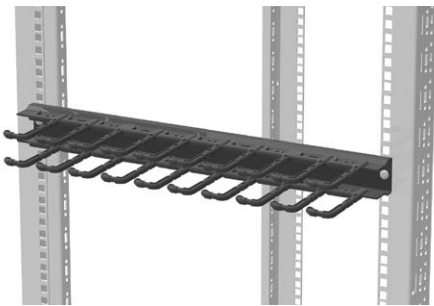
DCM20112

DCM20114

Knürr™ MIR2 / Knürr DCM™ 19" cable manager, horizontal

- **Description**

  - 1 U and 2 U models.

  - For organized cabling of jumper cables (copper and fiber optic cables).

  - Front-mounting on 19" extrusions.

  - Cable fingers can be easily installed (clipped on).

  - Can be used for recess depths from 145 mm.

- **Material / Finish**

  - Cable duct: sheet steel, 2.0 mm.

  - Final digit of order number .1: powder-coated, RAL 7035 light-grey.

  - Final digit of order number .8: powder-coated, RAL 7021 dark-grey.

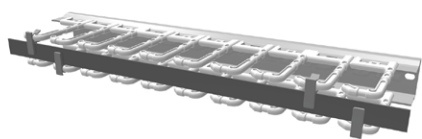 - Cable fingers: polyamide (UL 94 V-0), black.

- **Scope of delivery**

  - 1 x cable duct.

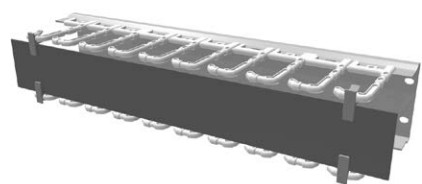 - 2 x rows with cable fingers.

  - 1 x Mounting kit.

- **How supplied**

  - In sets (cable fingers unassembled).

W	U	Recess depth	Order No.	UP
483	1	Starting from 145 mm	**05.045.120.X**	1 unit
483	2	Starting from 145 mm	**05.045.122.X**	1 unit

DCM20113

DCM20115

Knürr™ MIR2 / Knürr DCM™ Cover for 19" horizontal cable manager

– Covers the horizontal cable managers.

– Tool-less fastening – clips onto cable finger.

– Can be swiveled on both sides and removed completely.

- **Material / Finish**
  - Cover: sheet steel, 2.0 mm.
  - Final digit of order number .1: powder-coated, RAL 7035 light-grey.
  - Final digit of order number .8: powder-coated, RAL 7021 dark-grey.
  - Clip: polyamide (UL 94 V-0), black.
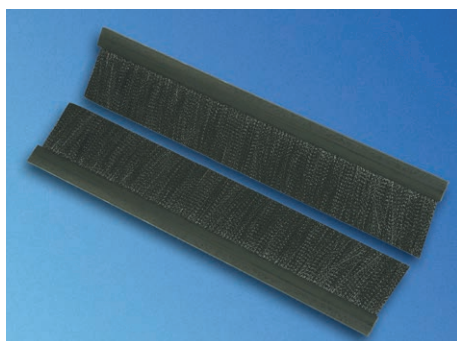
- **Scope of delivery**
  - 1 x cover.
  - 4 x clips.
- **How supplied**
  - In sets (clips pre-assembled).

W	H	U		Order No.	UP
483	20	1		**05.045.121.x**	1 set
483	65	2		**05.045.123.x**	1 set

MIR20093

DCM20122

Knürr™ MIR2 / Knürr DCM™ Brush strips for vertical cable manager (Type2)

– Upgrade kit for vertical cable manager for routing cables toward the rear (for extension to Type 2).

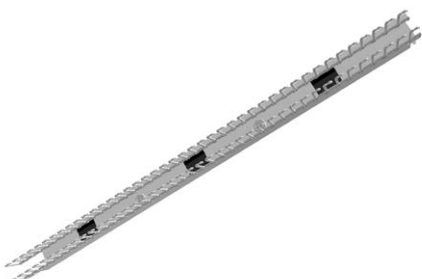– Inserted in openings in cable duct (1 pair of brushes per opening).

- **Scope of delivery**
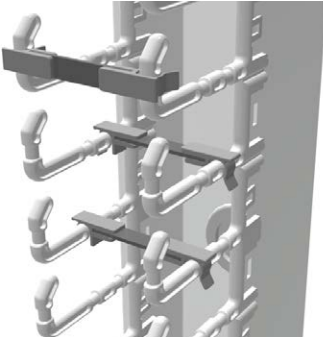 - 3 x pairs of brushes (length: 99 mm).
- **How supplied**
  - In sets.

L	for cutouts	Order No.	UP
99	66 x100 mm	**05.045.130.9**	1 set

W$_{Rack}$	H$_{Rack}$	U	Recess depth	Cutout size	Order No.	UP
800	2000	42	Starting from 145 mm	81 x 100 mm	**05.045.152.X**	1 pair
800	2200	47	Starting from 145 mm	81 x 100 mm	**05.045.153.X**	1 pair

Knürr DCM™ kit for cascading; vertical cable manager

DCM20116

– Separates individual cable groups.

– Tool-less fastening – clips onto cable finger.

– Protects the cables and can be used for labeling.

- **Material / Finish**
  - Cascade: sheet steel, 2.0 mm.

- Powder-coated texture, RAL 7021 dark-grey.
- Clip: polyamide (UL 94 V-0), black.
- **Scope of delivery**
  - 10 x cascades.
  - 20 x clips.
- **How supplied**
  - In sets (clips pre-assembled).

W	H	Order No.	UP
55	10	05.045.136.8	1 unit

MIR2 kit for cascading; vertical cable manager

MIR20454

– For separating individual cable groups.

– Tool-less fastening – clips onto cable finger.

– Protects the cables and can be used for labeling.

- **Material / Finish**
  - Cascade: sheet steel, 2.0 mm.

- Powder-coated texture, RAL 7021 dark-grey.
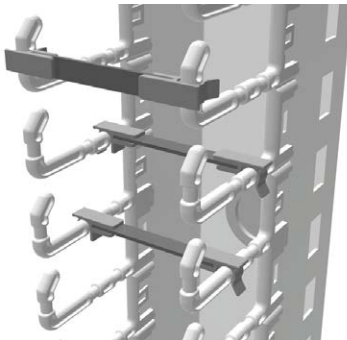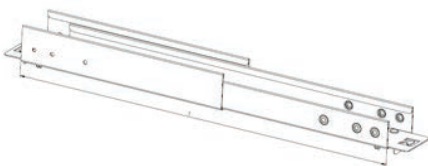- Clip: polyamide (UL 94 V-0), black.
- **Scope of delivery**
  - 10 x cascades.
  - 20 x clips.
- **How supplied**
  - In sets (clips pre-assembled).

W	H	Order No.	UP
76	10	05.045.137.8	1 set

Horizontal Cable Manager Side Channel

- **Description**
  - For organized cabling from the front to the rear of the Rack
  - Mounting on the vertical cable manager and on the 19" rails possible
  - Depth adjustable from 565 – 750mm
- **Material / Finish**
  - Cable duct: sheet steel 1,5 mm

- Final digit of order number 1: powder-coated, RAL 7035 light grey.
- Final digit of order number .8: powder-coated, RAL 7021 dark grey
- **Scope of delivery**
  - 1 x cable duct adjustable
  - 2 x mounting adapter
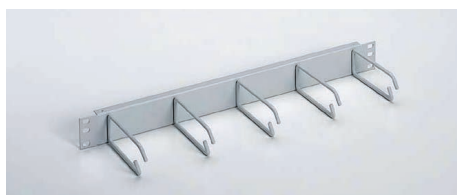 - 1 x mounting kit
- **How supplied**
  - In sets (cable fingers unassembled)

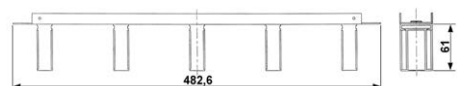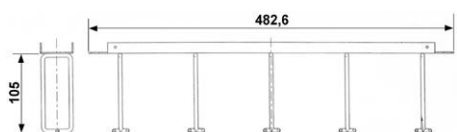| d insertion depth	H x W	Order No.	UP
565-750	52.5 x 73	05.045.145.X	1 unit

MEC00110 - Type 1

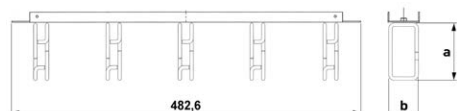
MEC20014 - Type 2

MEC20103 - Type 1

MEC20104 - Type 2

MEC20041

MEC20102

MEC20076

19" cable routing board 1 U

– For orderly cable routing.

– Enables safe and secure cable routing of copper and fiberglass cables.

- **Material / Finish**
  - **Type 1:** Front plate, sheet steel, 1.5 mm, powder coated.
  - **Type 2:** Front plate, sheet steel, 1.0 mm, powder coated.
- **Color**
  - Final digit of order number .1: RAL 7035, light grey.
  - Final digit of order number .8: RAL 7021 dark-grey.

- **External dimensions Cable routing:**
  - Type 1: 55 x 22 mm, plastic.
  - Type 2: 95 x 32 mm, steel.
- **Scope of delivery**
  - 1 x 19" front plate.
  - 5 x cable routers.
- **How supplied**
  - Pre-assembled
- **Note** Please also order mounting material for front plates.

W	U	Jumpering space	Model	Order No.	UP
483	1	from 80 mm	Type 1	05.040.111.1	1 unit P
483	1	from 80 mm	Type 1	05.040.111.X	1 unit
483	1	from 123 mm	Type 2	01.117.144.X	1 unit P

19" cable routing board, flexible, 1 U

– For orderly cable routing.

– Enables safe and secure cable routing of copper and fiberglass cables.

- **Material / Finish**
  - Front plate, sheet steel, 1.5 mm, powder coated.
  - Cable routing bracket, round steel, d = 5 mm, zinc-passivated.
- **Color**
  - Final digit of order number .1: RAL 7035, light grey.
  - Final digit of order number .8: RAL 7021 dark-grey.

- **External dimensions** Cable routers (a x b):
  - 1 U: 82 x 43 mm.
  - 2 U: 102 x 82 mm.
- **Scope of delivery**
  - 1 x front plate.
  - 5 x cable routing boards.
- **How supplied**
  - Pre-assembled.
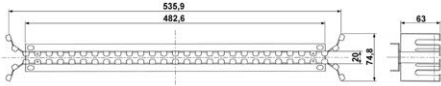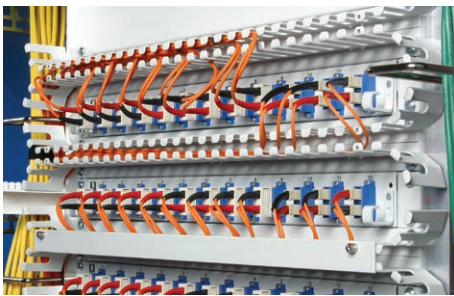- **Note** Please also order mounting material for front plates.

W	U	Jumpering space	Model	Order No.	UP
483	1	from 100 mm	Type 1	05.040.100.X	1 unit P
483	2	from 120 mm	Type 2	05.040.101.X	1 unit

MEC20081

MEC20105

MEC20058

Fiber optic cable routing panel 1U

– For orderly cable routing.

– Enables safe and secure cable routing of fiber optic cables.

– Optionally with cover plates to protect the cables and can be used for labeling.

- **Material / Finish**

  - Fiber optic cable routing panel: Sheet steel 1.5mm, powder-coated texture.

  - Cover Accessories: Aluminium 2.5mm, powder-coated texture.

- **Color**

  - Final digit of order number .1: RAL 7035, light grey.

  - Final digit of order number .8: RAL 7021 dark-grey.

- **Scope of delivery**

  - 1 x 19" cable routing board.

- **How supplied**

  - Single items.

- **Note**
  Please also order mounting material for front plates and cover.
  Not suitable for rack widths of 600 mm and 700 mm (asymmetrical).

W	U	Model	Order No.	UP
483	1	Cable routing board	**05.040.050.1**	1 unit P
483	1	Cable routing board	**05.040.050.X**	1 unit
		Accessories: cover	**05.040.051.X**	1 unit

MEC20049

MEC20063

19" cable through

– For organized cable management at the 19" front plate.

– Mounting possible on front plates.

– Cables can be fastened with Velcro.

- **Material / Finish**

  - Sheet steel, 1.5 mm, powder-coated texture.

- **Color**

  - Final digit of order number .1: RAL 7035, light grey.

  - Final digit of order number .8: RAL 7021 dark-grey.

- **Scope of delivery**

  - 1 x cable through.

- **How supplied**

  - Single items.

- **Note**
  Please also order mounting material for front plates and Velcro rolls.

W	D	U	Order No.	Up
483	100	1	**05.040.055.X**	1 unit

MEC20224

Cable trough

– For orderly cable management in the MIR2 and Knürr DCM™ racks.

– Cables secured with Velcro strips or cable ties.

– 9 mm slit width for securing various parts to caged nuts.

- **Material / Finish**
  - Sheet steel, 1.5 mm, zinc passivated, powder-coated.

- **Color**
  - Final digit of order number .1: RAL 7035 light grey.

- Final digit of order number .8: RAL 7021, dark-grey.
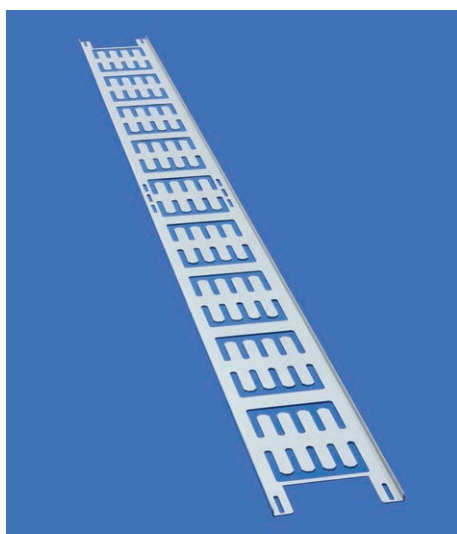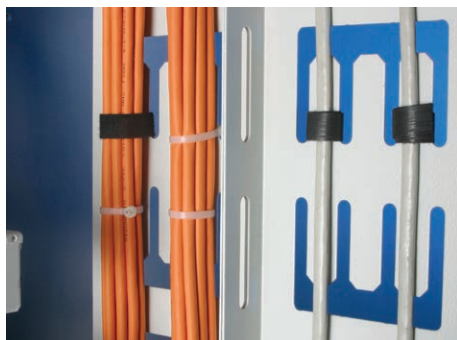
- **Scope of delivery**
  - 1 x cable trough.
  - 1 x Mounting kit.

- **How supplied**
  - In sets.

- **Note**
  If required, please also order Velcro rolls.

MEC20067

H	w	Model	Order No.	UP
2000	100	For Knürr™ MIR2 and Knürr DCM™ racks	**05.040.251.X**	1 set
2200	100	For Knürr™ MIR2 and Knürr DCM™ racks	**05.040.252.X**	1 set
2000	150	For Knürr™ MIR2 and Knürr DCM™ racks	**05.040.254.X**	1 set P
2200	150	For Knürr™ MIR2 and Knürr DCM™ racks	**05.040.255.X**	1 set P
2000	200	For Knürr™ MIR2 and Knürr DCM™ racks	**05.040.257.X**	1 set
2200	200	For Knürr™ MIR2 and Knürr DCM™ racks	**05.040.258.X**	1 set

MEC00114

Cable clamping bar

– Clips onto the C extrusion rail.

- **Material**
  - Polyamide, black.

- **Scope of delivery**
  - 1 set of 10 cable clamping bars.

- **How supplied**
  - In sets.

Order No.	Up
01.130.869.9	10 unit

P = **assemble to order** (shipped within 5 working days). Caution: In case of larger orders, delivery times may increase.

Dimensions in mm:

							Conversion:	
W	= Width	h	= Installation height	U	= Standard rack unit	kg	= Weight	1 mm	= 0.03937 inch
H	= Height	d	= Insertion depth		(1 U = 44.45 mm)			1 kg	= 2.2046 pounds
D	= Depth	L	= Length			UP	= Packaging unit		

MIR00089

MIR88003

Multifunctional brace

– For routing cables with cable ties.

– For universal mounting option.

– Holes for mounting caged nuts.

– Distance between two multifunctional braces can be selected using T-slot.

– Installation on the extrusions of the rack frame or on the 19" extrusions, diagonal and lateral.

- **Installation positions**
  - 1 toward rear of basic frame.
  - 2 across width of basic frame.
  - 3 across width of 19" extrusions.
  - 4 toward rear of 19" extrusions.

- **Material**
  - Sheet steel 1.5 mm.
- **Finish**
  - Zinc-passivated.
- **Scope of delivery**
  - 4 x multifunctional braces.
- **How supplied**
  - In sets.
- **Remark**
  Pos. 4 fits only with LAN or T-Nut 19" extrusion.

| D_{Rack}	d	Installation position	For rack type	Order No.	UP
600		1	Knürr™ MIR2 / Knürr DCM™	**05.040.160.9**	4 units
800		1	Knürr™ MIR2 / Knürr DCM™	**05.040.161.9**	4 units
900		1	Knürr™ MIR2 / Knürr DCM™	**05.040.162.9**	4 units
1000		1	Knürr™ MIR2 / Knürr DCM™	**05.040.163.9**	4 units
1100		1	Knürr™ MIR2 / Knürr DCM™	**05.040.164.9**	4 units
1200		1	Knürr™ MIR2 / Knürr DCM™	**05.040.165.9**	4 units
600		2	Knürr™ MIR2 / Smaract™	**05.040.173.9**	4 units
800		2	Knürr™ MIR2	**05.040.174.9**	4 units
		3	MIR2 / Knürr DCM™/ Smaract™ / DPR	**05.040.175.9**	4 units
600	365	4	Knürr™ MIR2 / Smaract™	**05.040.168.9**	4 units
800	565	4	Knürr™ MIR2 / Smaract™	**05.040.169.9**	4 units
600	440	4	Knürr™ MIR2 / Smaract™	**05.040.170.9**	4 units
800	640	4	Knürr™ MIR2 / Smaract™	**05.040.171.9**	4 units
900	740	4	Knürr™ MIR2 / Smaract™	**05.040.172.9**	4 units
1000	740	4	Knürr™ MIR2 / Smaract™	**05.040.172.9**	4 units
300		1	Extension Kit 300 mm	**05.040.160.9-001**	4 units

MEC20091

MEC20078

Pos.2

Pos.1

Pos.3
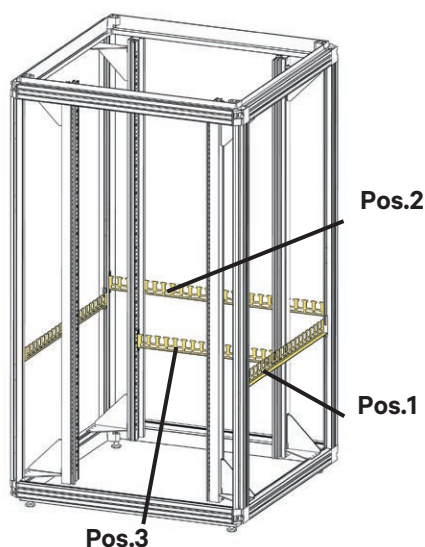
MIR88001

Cable routing brace

– Fitted to the Knürr MIR2 / Knürr DCM™/ Smaract™ basic frame and the 19" extrusion.

– Cables fastened using Velcro and cable ties.

– For organized cable management with in the rack.

– Two-sided installation.

– Provides universal mounting using caged nuts (all dimensions can be accommodated; caged nuts are flexible).

- • **Material**
  - • Sheet steel, 1.5 mm.
- • **Finish**
  - • Zinc-passivated.
- • **Scope of delivery**
  - • 4 x cable routing braces.
  - • 1 x Mounting kit.
- • **How supplied**
  - • Single items.
- • **Note**
  If required, please also order Velcro rolls .

D	L	Model	For rack type	Order No.	UP
600	455	Pos. 1	Knürr™ MIR2 / Knürr DCM™	**05.040.200.9**	4 units
800	655	Pos. 1	Knürr™ MIR2 / Knürr DCM™	**05.040.201.9**	4 units
900	755	Pos. 1	Knürr™ MIR2 / Knürr DCM™	**05.040.202.9**	4 units
1000	855	Pos. 1	Knürr™ MIR2 / Knürr DCM™	**05.040.203.9**	4 units
1200		Pos. 1	Knürr™ MIR2 / Knürr DCM™	**05.040.205.9**	4 units
	534	Pos. 2	Smaract™	**05.040.213.9**	4 units
	468	Pos. 3	Smaract™ / DPR	**05.040.215.9**	4 units
300	193,5	Pos. 1	Extension Kit 300 mm	**05.040.200.9-001**	4 units

Dimensions in mm:						Conversion:	
W = Width	h	= Installation height	U	= Standard rack unit	kg = Weight	1 mm	= 0.03937 inch
H = Height	d	= Insertion depth		(1 U = 44.45 mm)		1 kg	= 2.2046 pounds
D = Depth	L	= Length		UP = Packaging unit			

Type 1

Type 2

MEC00113

Pos.1

Pos.2
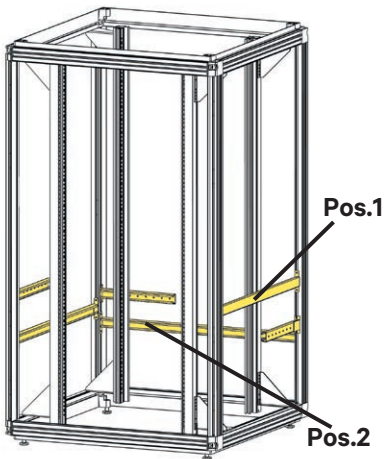
MIR88004

C extrusion rail

– Cables secured with U-clamps or cable clamping bars.

– Space-saving installation between the extrusions on the basic rack.

– Two-sided installation.

- **Material**
  - Sheet steel, 1.5 mm, zinc-passivated.
- **Finish**
  - Zinc-passivated.

- **Scope of delivery**
  - 4 x extrusion rails.
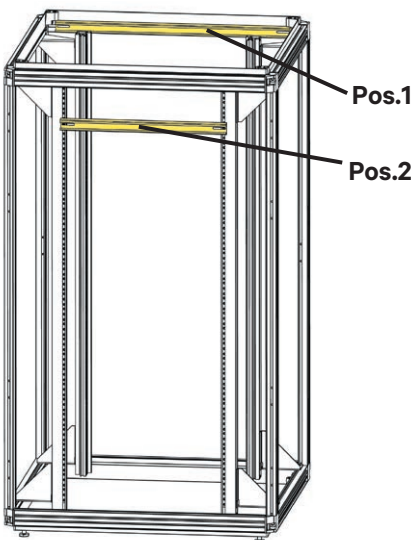 - 1 x Mounting kit.
- **How supplied**
  - In sets.
- **Note**
  Please also order U-clamps, cable clamping bars or threaded plates.

D	W	Installation position	For rack type	Order No.	UP
800	1		Knürr™ MIR2 / Knürr DCM™	**05.040.181.9**	4 units
900	1		Knürr™ MIR2 / Knürr DCM™	**05.040.182.9**	4 units
1000	1		Knürr™ MIR2 / Knürr DCM™	**05.040.183.9**	4 units
1200	1		Knürr™ MIR2 / Knürr DCM™	**05.040.185.9**	4 units
	600	2	Smaract™	**05.040.193.9**	4 units
	800	2	Knürr™ MIR2	**05.040.194.9**	4 units
300	1		Extension Kit 300 mm	**05.040.180.9-001**	4 units

MIR00096

Pos.1

Pos.2

MIR88002

C extrusion rail

– Cables secured with U-clamps or cable clamping bars.

– Cable clamping close to entry point (type 1).

– Suitable for use with cover panel including cable entry.

- **Material**
  - Sheet steel, 1.5 mm, zinc-passivated.

- **Scope of delivery**
  - 1 x C extrusion rails.
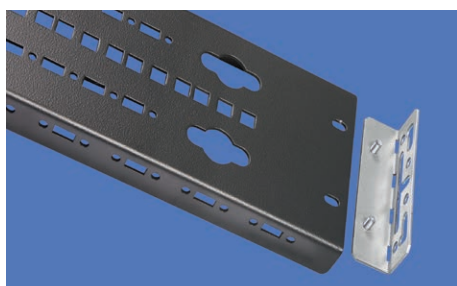 - 1 x Mounting kit.
- **How supplied**
  - In sets.
- **Note**
  Please also order U-clamps, cable clamping bars or threaded plates.

W	L	Model	Order No.	UP
600	482.5	Pos 1: Knürr™ MIR2 / Knürr DCM™	**05.040.080.0**	1 unit
800	682.5	Pos 1: Knürr™ MIR2 / Knürr DCM™	**05.040.082.0**	1 unit
19"	482.5	Pos 2: Knürr™ MIR2 / Knürr DCM™/ Smaract™ / Double ProRack	**01.110.719.9**	1 unit

DCM20077

DCM20076

Vertiv™ Knürr™ MIR2 / Vertiv™ Knürr DCM™ PDU Bracket

– For orderly cable management in the rack.

– For hanging in trade-standard PDUs without tools.

– Especially suited to Geist™ PDUs and Liebert® PDUs.

• **Material / Finish**

  • Steel sheet, 1.5 mm, zinc passivated, powder-coated.

• **Color**

  • Final digit of order number .1: RAL 7035 light-grey.

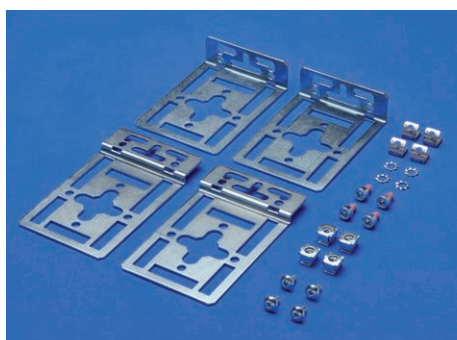 • Final digit of order number .8: RAL 7021 dark-grey.

• **Scope of delivery**
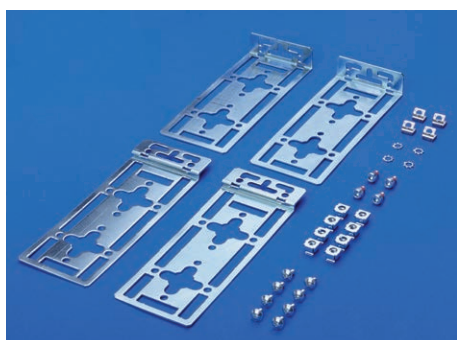
  • 1 x PDU bracket.

  • 1 x Mounting kit.

• **How supplied**

  • In sets.

W	H$_{Rack}$	D	U		Order No.	UP
125	2000	25	42		**01.147.816.X**	1 unit
125	2200	25	47		**01.147.817.X**	1 unit

MEC20222 Type 1

MEC20223 Type 2

PDU mounting kit

– For securing various rack PDUs.

– Suitable for Knürr™ MIR2 and Knürr DCM™ racks.

– For installing 1 or 2 PDUs.

– Installation options are described in the "Installation instructions for PDUs" manual.

• **Material / Finish**

  • Sheet steel, 2 mm, zinc passivated.

• **Scope of delivery**

  • 2 x L mounting brackets.

  • 2 x angular mounting brackets.

  • 1 x Mounting kit.

• **How supplied**

  • In sets.

Model	For rack type	Order No.	UP	
Type 1: short	Knürr™ MIR2 / Knürr DCM™	**01.147.813.9**	1 set	**P**
Type 2: long	Knürr™ MIR2 / Knürr DCM™	**01.147.814.9**	1 set	

P = **assemble to order** (shipped within 5 working days). Caution: In case of larger orders, delivery times may increase.

Dimensions in mm:

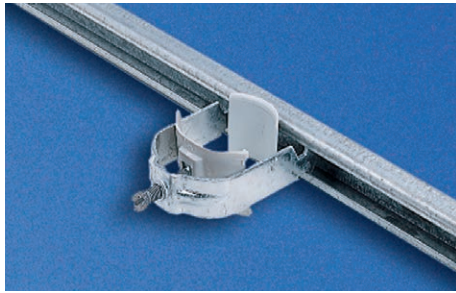|						**Conversion:**	
W = Width	h = Installation height	U = Standard rack unit	kg = Weight	1 mm = 0.03937 inch
H = Height	d = Insertion depth	(1 U = 44.45 mm)		1 kg = 2.2046 pounds
D = Depth	L = Length	UP = Packaging unit		

MIR00096

ELM00086

U clamp

– Reduces cabling strain and permits individual routing of cables and lines.
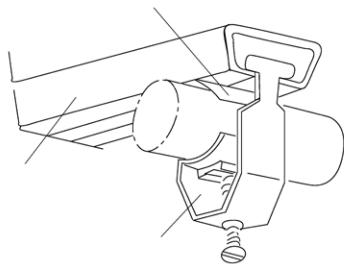
– Clamping range, 8–64 mm.

- **Material**
  - Steel / plastic.

- **Scope of delivery**
  - 25 x U clamps.
  - 25 x clamping saddles.

- **How supplied**
  - In sets.

Clamping range	Order No.	UP
8–12 mm	**05.040.150.9**	1 unit
12–16 mm	**05.040.151.9**	1 unit
16–22 mm	**05.040.152.9**	1 unit
22–28 mm	**05.040.154.9**	1 unit
34–40 mm	**05.040.155.9**	1 unit
46–52 mm	**05.040.157.9**	1 unit

MEC20136 Type 1

MEC20120 Type 1

MIR00094

Assembly crossbar

– Cable management with Velcro strips.

– Universal mounting option for installation accessories, socket strips, telecommunication installation units, mounting panels, etc.

– For side and cross installation.

- **Material / Finish**
  - Sheet steel 1.5 mm, powder-coated texture.

- **Color**
  - Final digit of order number .1: RAL 7035 light-grey.
  - Final digit of order number .8: RAL 7021 dark-grey.
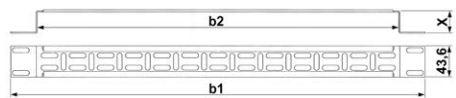
- **Scope of delivery**
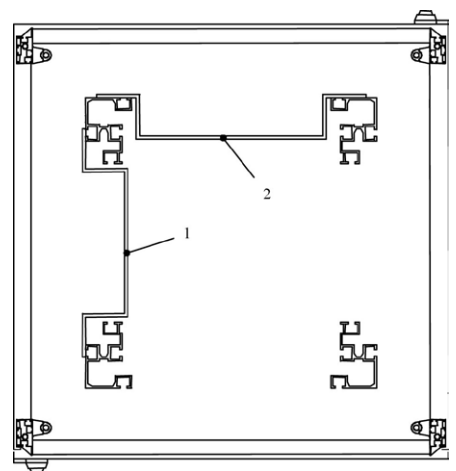 - 1 x assembly crossbar.

- **How supplied**
  - Single items.

- **Note**
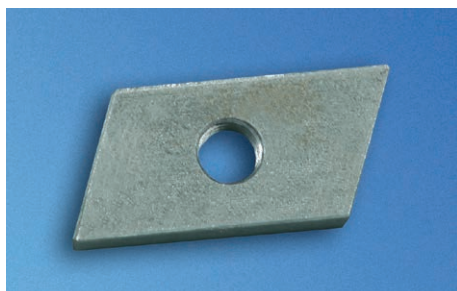 Please also order the appropriate mounting material.

W/d	U	w1	w2	X	Type	Model	Order No.	UP
19"	1	482	442.6	81.5	1	Pos. 2: Knürr™ MIR2 / Knürr DCM™ / Smaract™	05.040.018.X	1 unit

MEC20051

M5 threaded plate

– Used with C extrusion rails.

- **Material / Finish**
  - Flat rolled steel, 4.0 mm, zinc passivated.

- **Scope of delivery**
  - 20 x threaded plates.

- **How supplied**
  - In sets.

Order No.	UP
05.040.077.9	1 set

MEC20042
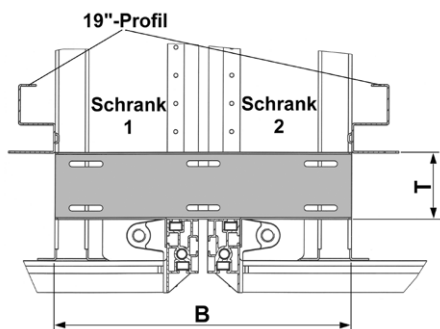

MEC20119

Cable through between the racks

– For orderly cable routing between linked racks, adjacent racks.

– Velcro strips can be used for fastening.

- **Material / Finish**
  - Sheet steel, 1.5 mm.
  - Powder-coated texture, RAL 7035 light-grey.

- **Scope of delivery**
  - 1 x cable through.
  - 1 x Mounting kit.

- **How supplied**
  - In sets.

- **Note**
  Please also order Velcro rolls.

W	D		Order No.	UP
265	60		05.040.058.1	1 unit

MEC20047

MEC20099

FOC 19" excess cable drawer, 1U

– For storing excess fiber optic cable.

– Pull-out.

– Cables can be fastened with Velcro.

- **Material / Finish**
  - Sheet steel, 1.5 mm.

- **Color**
  - Final digit of order number .1: RAL 7035 light-grey.
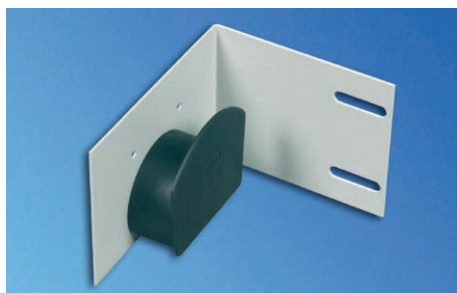 - Final digit of order number .8: RAL 7021 dark-grey.

- **Scope of delivery**
  - 1 x unit.
  - 1 x drawer.

- **How supplied**
  - In sets.

- **Note**
  Please also order mounting material for front plates and Velcro rolls.

W	H	D		Order No.	UP
483	44	350		05.040.047.X	1 set

MEC20044

MEC20146

Excess fiber optic cable storage

– For orderly cable routing of Fiber optic cables in Miracel™ rack (from B 800 mm).

– For storing excess cable.

- **Material / Finish**
  - Base plate: powder-coated texture.
  - Cable routing head: polyamide, black.
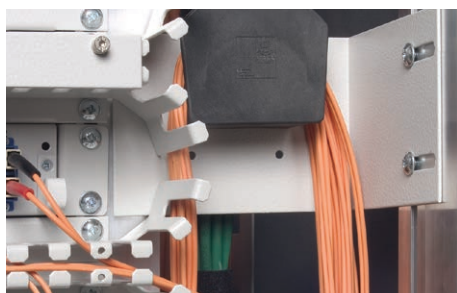
- **Color**
  - Final digit of order number .1: RAL 7035 light-grey.
  - Final digit of order number .8: RAL 7021 dark-grey.

- **Scope of delivery**
  - 1 x base plate.
  - 1 x cable routing head.
  - 1 x Mounting kit.

- **How supplied**
  - In sets.

U	Order No.	UP
2	**05.040.041.X**	1 set

MEC20038

MEC20072

Universal cable routing bracket

– Used for extrusion distance (from front) 123 mm and 73 mm.

– For organized cable management.

– Open version, no threading.

– Mounting on the external side of the 19" extrusion.

– Any installation position selectable.

- **Material**
  - Round steel, d = 6 mm.

- **Finish**
  - Zinc-passivated.

- **Scope of delivery**
  - 4 x cable routing brackets.
  - 1 x Mounting kit.

- **How supplied**
  - In sets.
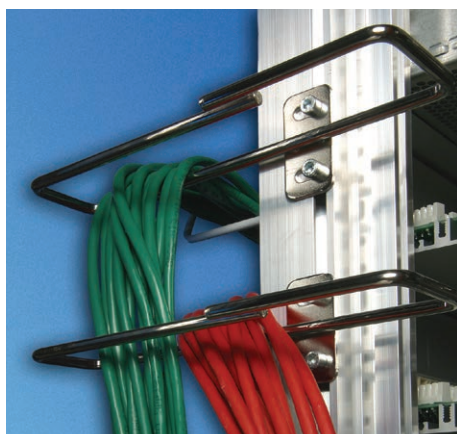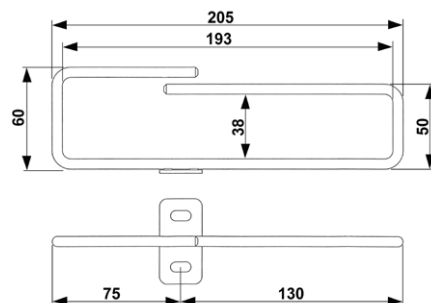
MEC20106

W$_{Rack}$	For rack type	Order No.	UP
from 800	Knürr™ MIR2 / Knürr DCM™	**05.040.220.9**	1 Set Ⓟ

Ⓟ = **assemble to order** (shipped within 5 working days). Caution: In case of larger orders, delivery times may increase.

MEC20039

MEC20107 Type 1

MEC20116 Type 2

Square cable routing bracket

– For orderly cable management.

– Open version, no threading.

– Mounted on the external side of the 19" extrusion.

– Any installation position selectable.

– For high cable density.

- **Material**
  - Round steel, d = 6 mm.

- **Finish**
  - Zinc-passivated.

- **Scope of delivery**
  - 4 x square cable routing brackets.
  - 1 x Mounting kit.
- **How supplied**
  - In sets.

W~Rack~	Type	For rack type	Order No.	UP
from 800	Type 1	Knürr™ MIR2 / Knürr DCM™	**05.040.221.9**	4 units P
from 700	Type 2	Knürr™ MIR2 / Knürr DCM™	**05.040.222.9**	4 units
600	Type 2	Smaract™	**05.040.222.9**	4 units
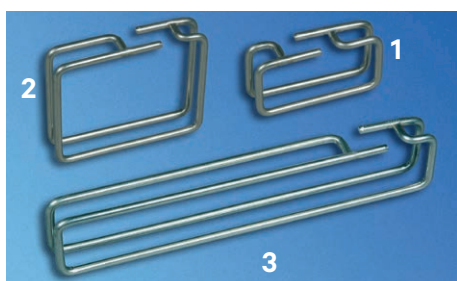
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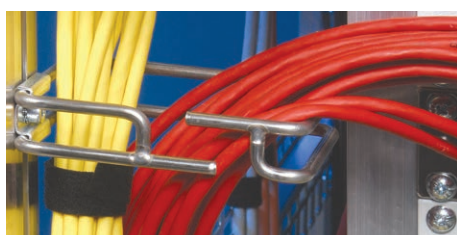
MEC20065
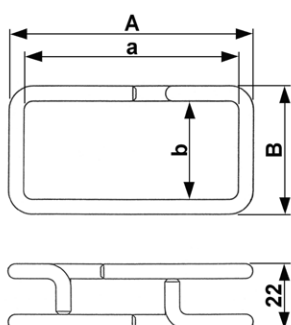
MEC20108

Knürr™ MIR2 / Knürr DCM™ Cable routing bracket, flexible

– Enables flexible and organized cable routing.

– Can be easily installed in various positions within the rack.

– Open version, no threading.

- **Material**
  - Round steel, d = 5 mm.

- **Finish**
  - Zinc-passivated.

- **Scope of delivery**
  - 10 x cable routing brackets.
  - 1 x Mounting kit.
- **How supplied**
  - In sets.

A	a	W	w	Model	Order No.	UP
82	72	43	33	Fig. 1	**05.040.231.9**	10 units
222	212	30	20	Fig. 3	**05.040.232.9**	10 units
102	92	82	72	Fig. 2	**05.040.233.9**	10 units P
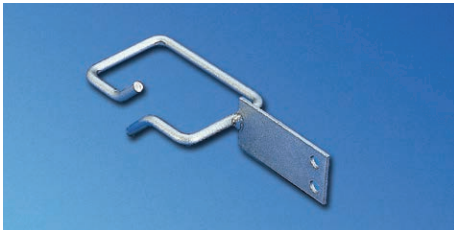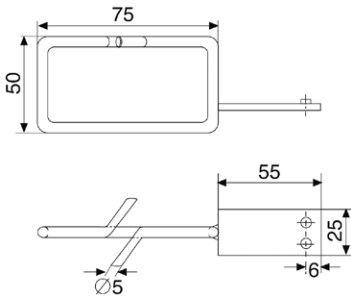
ELM00117

ELM00106

Square cable routing bracket

– For organized cable management.

– Open version, no threading.

– Mounted on the external lateral T-slot of the 19" extrusion.

– Any installation position selectable.

• **Material**

  • Round steel, d = 5 mm.
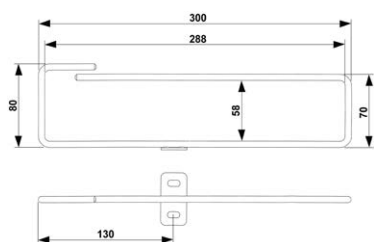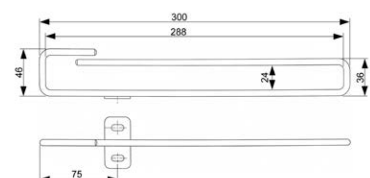
• **Finish**

  • Zinc-passivated.

• **Scope of delivery**

  • 4 x cable routing brackets.

 • 1 x Mounting kit.

• **How supplied**

  • In sets.

For rack type	Order No.	UP
Double ProRack	**05.040.226.9**	4 units

ELM00028

Z56-1/FH

ELM00029

Section support bracket

– Ideal for vertical routing and reducing cabling strain.

– Open version, no threading.

– Mounted on the external lateral T-slot of the 19" extrusion.

– Any installation position selectable.

– From rack width 600 mm.

• **Material / Finish**

  • Round steel, d = 5 mm, zinc-passivated.

• **Scope of delivery**

  • 2 x section support brackets.

• **How supplied**

  • In sets.

• **Note**
  Please also order the appropriate mounting material.
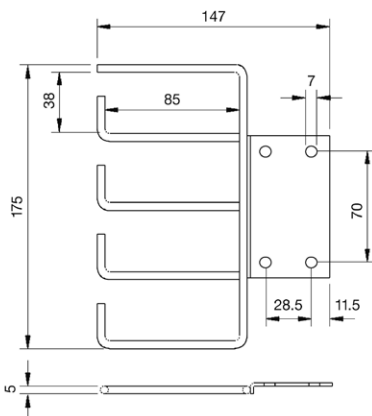
Model	Order No.	UP
Knürr™ MIR2 / Knürr DCM™/ Smaract™ / Double ProRack	**01.117.033.7**	2 units

MIR00564
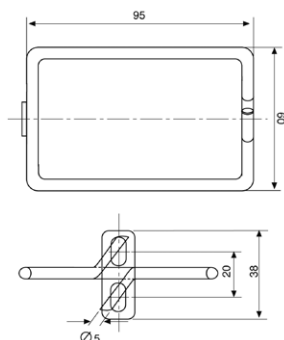
MEC00122

Cable routing bracket

– For organized cable management.

– Open version, no threading.

- **Material/Oberfläche**
  - Round steel, d = 5 mm.

- **Finish**
  - Zinc-passivated.

- **Scope of delivery**
  - 4 x cable routing brackets.
  - 1 x Mounting kit.

- **How supplied**
  - In sets.

Model	For rack type	Order No.	UP
95 x 60	Knürr™ MIR2 / Knürr DCM™	**05.040.225.9**	4 units

MIR00183
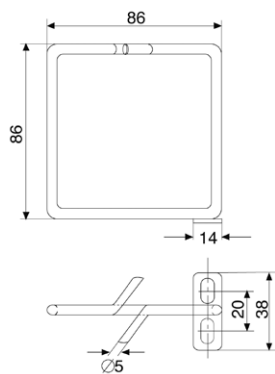
ELM00057

Cable routing bracket, square

– For organized cable management.

– Open version, no threading.

– Mounted on the external lateral T-slot of the 19" extrusion.

– Any installation position selectable.

– From rack width 800 mm.

- **Finish**
  - Zinc-passivated, Zn 10c, white.

- **Scope of delivery**
  - 4 x vertical cable routing brackets.
  - 1 x Mounting kit.

- **How supplied**
  - In sets.

W$_{Rack}$	Model	For rack type	Order No.	UP
from 800	86 x 86	Knürr™ MIR2 / Knürr DCM™	**05.040.224.9**	4 units P

P = **assemble to order** (shipped within 5 working days). Caution: In case of larger orders, delivery times may increase.

Dimensions in mm:

						Conversion:	
W	= Width	h	= Installation height	U	= Standard rack unit	kg	= Weight	1 mm	= 0.03937 inch
H	= Height	d	= Insertion depth		(1 U = 44.45 mm)			1 kg	= 2.2046 pounds
D	= Depth	L	= Length			UP	= Packaging unit		

ELM20008

ELM20007

MEC20185

MEC20186

MEC20187

MEC20188

Cable routing ring

– For organized cable management.

– Open version, no threading.

– Secured on the T-slots of the vertical extrusions.

– Any installation position selectable.

- **Material / Finish**
  - PA 6, GF 15, black, UL 94-HB.
- **Scope of delivery**
  - 5 x cable routing rings.
  - 1 x Mounting kit.
- **How supplied**
  - In sets.
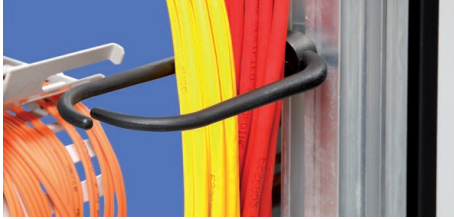
Model	For rack type	Order No.	UP
54 x 118 mm	Knürr™ MIR2 / Knürr DCM™ / Smaract™	**01.312.207.9**	5 units

Quick-Strip ties for T-slot Tool-less mounting

– Quick tool-less securing.

– For bundling cables.

– Can be unfastened and reused.

– For organized cable management.

– Can be fitted into T-slots in any position.

- **Material**
  - Polyethylene and nylon.
  - F.R.T., UL-94 HB.

- **Color**
  - Black.
- **Scope of delivery**
  - 10 x Quick-Strip Velcro ties.
- **How supplied**
  - In sets.

For rack type	Order No.	UP
Knürr™ MIR2 / Knürr DCM™	**00.218.506.0**	1 set

Quick-Clamp plastic routing bracket for T-slot mounting without tools

– Quick tool-less securing.

– For organized cable management.

– Open version, no threading.

– Secures T-slots in any position.

- **Material**
  - Nylon.
  - F.R.T., UL-94 HB.

- **Color**
  - Black.
- **Scope of delivery**
  - 10 x plastic cable routing brackets.
- **How supplied**
  - In sets.

For rack type	Order No.	UP
Knürr™ MIR2 / Knürr DCM™	**00.218.505.0**	1 set P
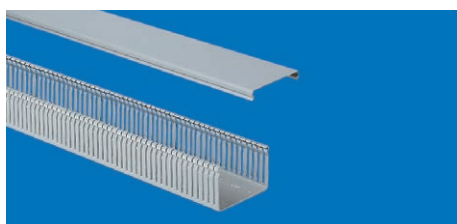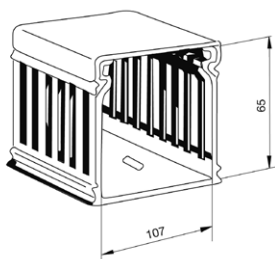
ELM00004

ELM00052

Cable duct

– Ideal for organized and covered cable management of jumper cables.

- **Material**
  - Hard PVC.
- **Finish**
  - Stone-grey RAL 7030.

- **Scope of delivery**
  - 1 x cable duct with cover.
  - 1 x Mounting kit.

L	Order No.	UP
2000	**01.117.098.3**	1 unit
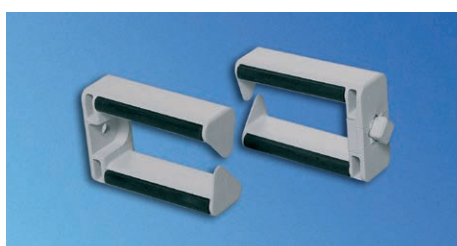
MEC20158

Cable routing ring

– For organized cable management.

– Dimensions:
Exterior 61 mm x 42.5 mm.
Interior 52 mm x 23 mm.

- **Material / Finish**
  - Cable support: PPO, similar to RAL 7035 light-grey.
  - Soft rubber extrusion: EPDM, similar to RAL 7021 dark-grey.

- **Scope of delivery**
  - 10 x cable routers
- **How supplied**
  - In sets.
- **Note**
  Please also order the appropriate mounting material.

Model	Order No.	UP
Screw-on	**05.040.113.9**	10 units

TEL00034

TEL00051

Cable support bar

– For 19" racks and enclosures.

– Reduces the cable load on slot-in.

– Orders cabling.

– Prevents cable-slack.

- **Material**
  - Sheet steel, 1.5 mm.
- **Scope of delivery**
  - 1 x cable support bar.
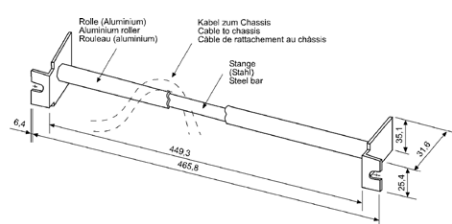
	Order No.	UP
	05.043.327.9	1 unit

MEC20048
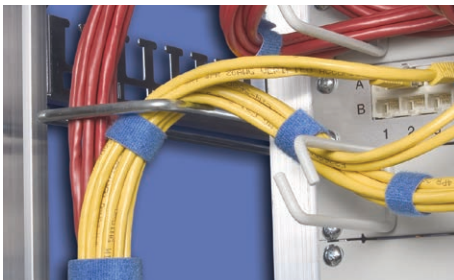
MEC20147

Velcro rolls (by the meter)

– For strain-free fastening and bundling of Cu and fiber optic cables.

– Velcro rolls can be cut to any required length.

• **Material / Color**
  • Black, One-Wrap fastener.
  • F.R.T., UL 94-V2.
  • Blue: One-Wrap fastener.

• **Scope of delivery**
  • 1 meter or 25 meter Velcro rolls.

• **How supplied**
  • Sold by the meter.

W	L	Model	Order No.	UP
16	1000	Black	**05.040.060.9**	1 meter
16	1000	Blue	**05.040.061.9**	1 meter
16	25000	Black	**05.040.065.9**	25 meters
16	25000	Blue	**05.040.066.9**	25 meters
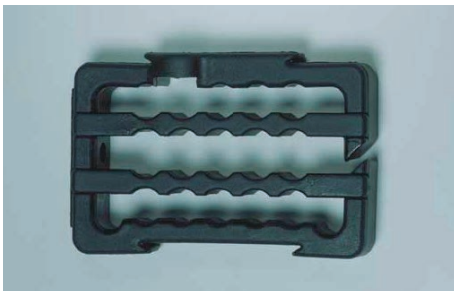
MEC20048
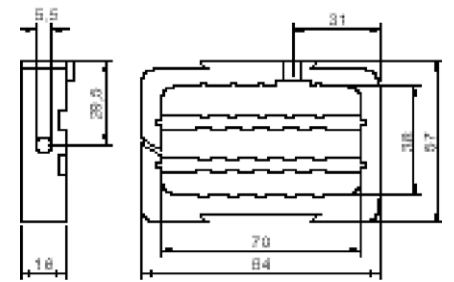
MEC20147

Cable clamping frame

– For organized cable management.

– Open version, no threading.

– Cross-section for cable routing, variable with removable routing ribs.

– Can be expanded by adding on further cable clamping frames.

– Mounting options: lengthwise or across the width.

• **Material**
  • Polypropylene, black.

• **Scope of delivery**
  • 1 x cable clamping frame.
  • 1 x Mounting kit.

• **How supplied**
  • In sets.

	Order No.	UP
Knürr™ MIR2 / Knürr DCM™	**01.113.153.9**	1 unit

Dimensions in mm:						**Conversion:**	
W = Width	h	= Installation height	U	= Standard rack unit	kg = Weight	1 mm	= 0.03937 inch
H = Height	d	= Insertion depth		(1 U = 44.45 mm)		1 kg	= 2.2046 pounds
D = Depth	L	= Length		UP = Packaging unit			

Features

CoolBlast

- Modular construction for varying heat loads; different designs available.

- Top-mounting fan and 19-fan unit available.

- Special protection grid keeps pressure losses to a minimum and reduces noise levels.

- Energy-efficient speed-controlled design also available.

- **Filter Fan.**

- Protection class IP54.

- Filter can be replaced quickly and easily.

- Can be used to draw or push air.

Vertiv™ Knürr™ Fan Units

The ever-increasing power losses of electronic modules make for high demands on effective cooling. Large air-flow volumes ensure secured heat dissipation. The packing density of the electronic equipment in racks and enclosures is also increasing.

The sharp rise in the price of electricity has resulted in energy efficiency gaining importance and environmental concerns increasingly become a prominent decision-making factor. Consequently, the use of speed-controlled fan units is rising. The additional costs generally prove to be a worthwhile investment.

LUF20203

LUF20205

LUF20124

Vertiv™ Knürr™ CoolBlast Fan Unit for Cover Panel Installation
Unregulated and thermostat-controlled

– Provides powerful rack cooling.

– Suitable for retrofitting in cover panel of Knürr™ MIR2 / Knürr DCM™ rack.

– DC versions and 115 VAC versions upon request (see Vertiv™ Knürr™ CoolBlast fan inserts).

– Thermostat-controlled model: Fan function (ON/OFF) thermostat-controlled; setting range from 0° to +60° C.

• **Material**
  • Enclosure: sheet steel, high-grade steel grid.

• **Finish**
  • Zinc-passivated.

• **Compliance**
  • CE marking compliant with Low Voltage Directive 2014/35/EU, EMC directive 2014/30/EU

• **Scope of delivery**
  • 1 x CoolBlast fan unit.
  • 1 x mains cable, 3 m with safety plug (230 VAC).
  • 1 x Mounting kit.
  • 1 x Operating instructions.

• **How supplied**
  • Assembled, wired and tested.

• **Note**
  • Please also order corresponding mains cable.
  • 6-fan unit not possible for cabinets with D800.

LUF20175

Name	Model	Electrical connection	P(W)	V˙ (m³/h)	∆P(Pa)	p(dB(A))	Order No.	UP
CoolBlastT 230V 3-piece		230 VAC; 50/60 Hz	92	495	74	45.2	**03.027.301.1**	1 unit
CoolBlastT 230V 6-piece		230 VAC; 50/60 Hz	184	990	74	48.8	**03.027.302.1**	1 unit
CoolBlastT 230V 2-piece	Thermostat	230 VAC; 50/60 Hz	46	330	74	43.4	**03.027.310.1**	1 unit
CoolBlastT 230V 3-piece	Thermostat	230 VAC; 50/60 Hz	92	495	74	45.2	**03.027.311.1**	1 unit P
CoolBlastT 230V 6-piece	Thermostat	230 VAC; 50/60 Hz	184	990	74	48.8	**03.027.312.1**	1 unit

P = **assemble to order** (shipped within 5 working days). Caution: In case of larger orders, delivery times may increase.

LUF20160

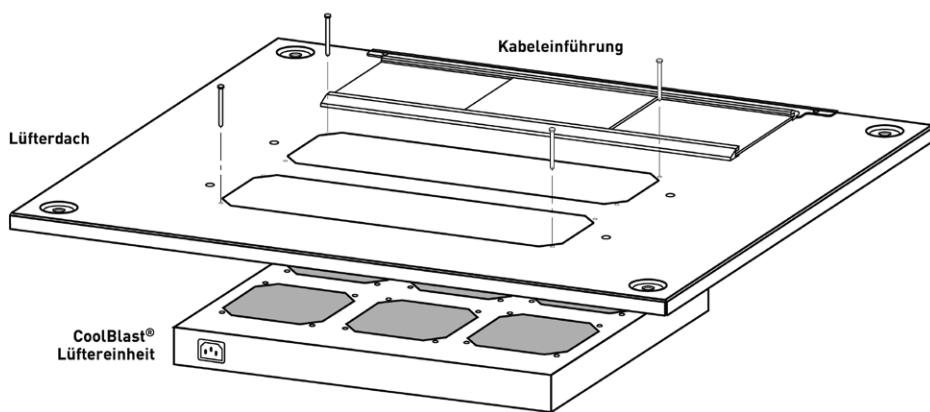*LUF20161*

LUF20124

Vertiv™ Knürr™ CoolBlast Fan Unit for Cover Panel Installation speed-controlled
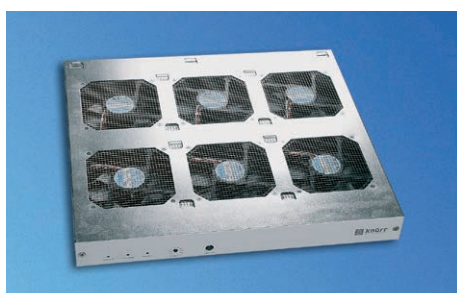
– Provides powerful rack cooling.

– Suitable for retrofitting in top cover of Knürr™ MIR2 / Knürr DCM™ rack.

– DC version upon request (see CoolBlast fan inserts).

– Settable reference temperature (20° to 55° C).

– Speed control, 30 to 100 %, if sensor fails, 100 % rotation.

– Individual fan monitoring.

– Potential-free common alarm output for excess temperature and fan failure.

– Visual status display for O.K., excess temperature and fan failure.

– Acoustic warning inclusive reset button.

• **Material**

  • Enclosure: sheet steel, high-grade steel grid.

• **Finish**

  • Zinc-passivated front cover plate, powder-coated, smooth in RAL 7035 light-grey.

• **Compliance**

  • CE marking compliant with Low Voltage Directive 2014/35/EU, EMC directive 2014/30/EU.

• **Scope of delivery**

  • 1 x CoolBlast fan unit.

  • 1 x sensor cable, 2 m (plug-in).

  • 1 x signal cable, 2 m (plug-in).

  • 1 x mains cable, 3 m with safety plug (230 VAC).

  • 1 x Mounting kit.

  • 1 x Operating instructions.

• **How supplied**

  • Assembled, wired and tested.

• **Note**

  • Please also order specific mains cable.

  • 6-fan unit not possible for cabinets with D800.
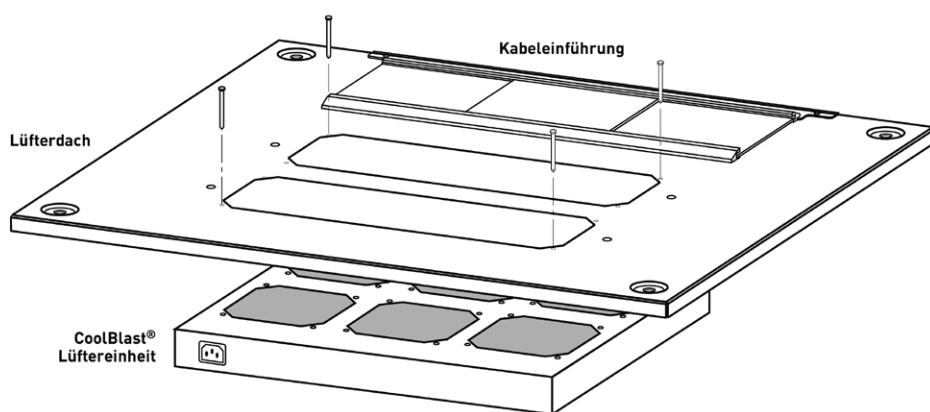
LUF20175

Name	Model	Electrical connection	P(W)	V̇ (m³/h)	ΔP(Pa)	p(dB(A))	Order No.	UP
CoolBlastT 230V 3-piece	Regulated SP	115-230 VAC; 50/60 Hz	46	553	68	49.6	**03.027.321.1**	1 unit
CoolBlastT 230V 6-piece	Regulated SP	115-230 VAC; 50/60 Hz	92	1106	68	53.3	**03.027.322.1**	1 unit
CoolBlastT 230V 3-piece	Regulated HP	115-230 VAC; 50/60 Hz	81	711	173	55.8	**03.027.324.1**	1 unit P
CoolBlastT 230V 6-piece	Regulated HP	115-230 VAC; 50/60 Hz	150	1422	173	59.1	**03.027.325.1**	1 unit
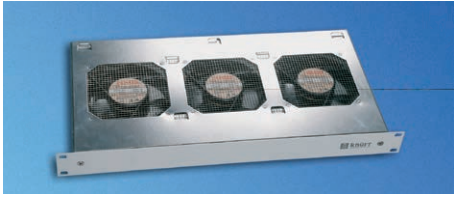
LUF20125
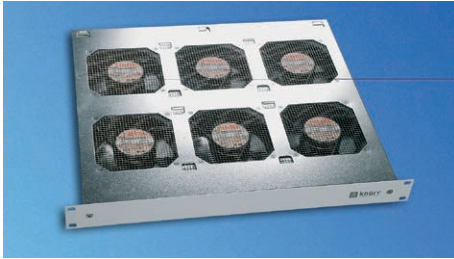
LUF20139

19" Vertiv™ Knürr™ CoolBlast Fan Unit
Unregulated and thermostat-controlled

– Fan unit for vertical ventilation of modules in 19" racks.

– Chassis rails are recommended for mounting. Chassis rails are required with 6-piece CoolBlast (use chassis runner, adjustable depth).

– Thermostat-controlled model: Fan function (ON/OFF) thermostat-controlled; setting range from 0° to + 60° C.

- **Material**
  - Sheet steel, high-grade steel grid.

- **Finish / Color**
  - Enclosure zinc-passivated.
  - Front cover plate, powder-coated, smooth in RAL 7035 light-grey.

- **How supplied**
  - Assembled, wired and tested.

- **Compliance**
 - CE marking compliant with Low Voltage Directive 2014/35/EU, EMC directive 2014/30/EU.

- **Scope of delivery**
  - 1 x CoolBlast fan unit, packed with operating instructions.
  - 1 x connection cable, 2 m; Euro power plugs and sockets.

- **Note**
  - Please also order specific mains cable.
  - 6-fan unit not possible for cabinets with D800.

Name	W	H	D	kg	n	Electrical connection	P(W)	V˙ (m³/h)	ΔP(Pa)	p(dB(A))	Order No.
CoolBlast 230V 3-piece, thermostat	440	43,6	230	3	3	230 VAC; 50/60Hz	92	495	74	45.2	**03.027.011.1**
CoolBlast 230V 6-piece, thermostat	440	43,6	390	6	6	230 VAC; 50/60Hz	184	990	74	48.8	**03.027.012.1**
CoolBlast 115V 3-piece, thermostat	440	43,6	230	3	3	115 VAC; 50/60Hz	92	576	88	47.3	**03.027.014.1**
CoolBlast 115V 6-piece, thermostat	440	43,6	390	6	6	115 VAC; 50/60Hz	173	1152	88	50.8	**03.027.015.1**
CoolBlast 24V 3-piece SP	440	43.6	230	2.5	3	24 VDC	24	553	68	49.6	**03.027.031.1**
CoolBlast 24V 6-piece SP	440	43.6	390	5	6	24 VDC	48	1106	68	53.3	**03.027.032.1**

Dimensions in mm:　　　　　　　　　　　　　　　　　**Conversion:**

W	= Width	h	= Installation height	U	= Standard rack unit	kg	= Weight	1 mm	= 0.03937 inch
H	= Height	d	= Insertion depth		(1 U = 44.45 mm)			1 kg	= 2.2046 pounds
D	= Depth	L	= Length	UP	= Packaging unit				

SP	= Standard Performance	V˙	= Air-flow volume (m³/h)
HP	= High Performance	ΔV˙	= Air-flow volume loss (%)
UP	= Ultra High Performance	ΔP	= Pressure increase (Pa)
n	= Number of fans	I nom	= Nominal current (A)
W	= Power consumption	I max	= Residual current (A)
V	= Voltage (400V = 3-phase)	p	= Sound pressure (dB(A)) distance from the rack 1 m (600 mm x 600 mm; raised cover)

P = **assemble to order** (shipped within 5 working days). Caution: In case of larger orders, delivery times may increase.

Technical data for Axial Single Fan

	Vertiv™ Knürr™ CoolBlast	Vertiv™ Knürr™ CoolBlast	Vertiv™ Knürr™ CoolBlast	Vertiv™ Knürr™ CoolBlast	Vertiv™ Knürr™ CoolBlast
Item number	01.914.070.9	01.914.075.9	01.914.050.9	01.914.051.9	01.914.051.9-2
Dim: L x W x H	119 x 119 x 38	119 x 119 x 38	119 x 119 x 38	119 x 119 x 38	119 x 119 x 38
Max. volume flow, free blowing:	184.2 m^3/h	237 m^3/h	192 m^3/h	165 m^3/h	120 m^3/h
Voltage	24 VDC	24 VDC	115 VAC	230 VAC	230 VAC
Frequency			50 Hz	50 Hz	50 Hz
Power consumption	7.4 W	11 W	14.5 W	15 W	7.5 W
Noise, free blowing	43 dB(A)	59 dB(A)	41 dB(A)	38 dB(A)	32 dB(A)
Bearing system	Ball bearing	Ball bearing	Ball bearing	Ball bearing	Ball bearing
Nominal speed	2950 min-1	4400 min-1	2900 min-1	2600 min-1	2100 min-1
Permitted ambient temp.	-10 °C to + 70 °C	-30 °C to + 55 °C	-40 °C to + 60 °C	-40 °C to + 60 °C	-40 °C to + 70 °C
Service life, L10 at 40°C	75,000 h	70,000 h	43,500 h	43,500 h	43,500 h
Compliance	CE, VDE	CE, VDE	CE, VDE	CE, VDE	CE, VDE
Use in fan unit:	03.027.021.1 03.027.022.1 03.027.051.1 03.027.052.1 03.027.321.1 03.027.322.1	03.027.024.1 03.027.025.1 03.027.054.1 03.027.055.1 03.027.324.1 [P] 03.027.325.1	03.027.014.1 03.027.015.1	03.027.011.1 03.027.012.1 03.027.301.1 03.027.302.1 03.027.310.1 03.027.311.1 [P] 03.027.312.1 02.111.180.9 05.010.306.1 01.243.428.1 03.028.110.8	02.111.181.9 05.010.307.1
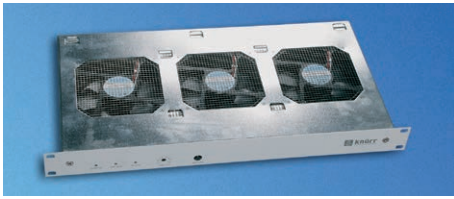
LUF20128
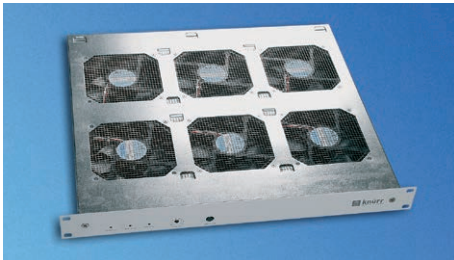
LUF20140

LUF20054

19" Vertiv™ Knürr™ CoolBlast Fan Unit Speed-controlled

– Fan unit for vertical ventilation of modules in 19" racks.

– Reference temperature can be set (20°C to 55°C).

– Speed control, 30 to 100 %; if sensor fails, 100 % rotation.

– Individual fan monitoring.

– Potential-free alarm output for excess temperature alarm and fan failure.

– Visual status display for O.K., excess temperature and fan failure.

– Acoustic alarm can be switched off with switch.

– Chassis rails are recommended for mounting. Chassis rails are required with 6-piece CoolBlast (use chassis runner, adjustable depth).

- **Material**
  - Sheet steel, high-grade steel grid.
- **Finish / Color**
  - Enclosure zinc-passivated.
  - Front cover plate, powder-coated, smooth in RAL 7035 light-grey.
- **Compliance**
  - CE marking compliant with Low Voltage Directive 2014/35/EU, EMC directive 2014/30/EU.

- **Scope of delivery**
  - 1 x CoolBlast fan unit, packed with operating instructions.
  - 1 x sensor cable, 2 m (plug-in).
  - 1 x signal cable, 2 m (plug-in).

  Only with DC devices:
  - 1 x connection cable, 2 m with connector plug and free ends.

  Only with AC devices:
  - 1 x connection cable, 2 m; Euro power plugs and sockets.
- **How supplied**
  - Assembled, wired and tested.
- **Note**
  - Further project-specific characteristics can be realized in line with standards.
  - 6-fan unit not possible for cabinets with D800.
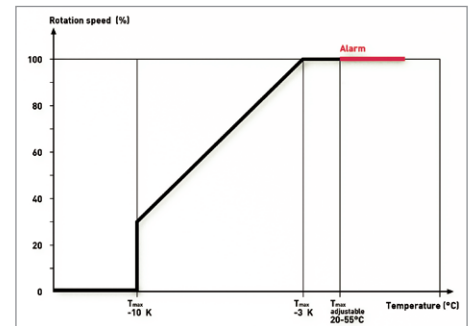
LUF20179

Name	W	H	D	kg	n	Electrical connection	P(W)	V˙ (m³/h)	ΔP(Pa)	p(dB(A))	Order No.
CoolBlast 115/230V, 3-piece, controlled SP	440	43.6	230	3.2	3	115 to 230 VAC; 50/60Hz	46	553	68	49.6	03.027.021.1
CoolBlast 115/230V, 6-piece, controlled SP	440	43.6	390	6.2	6	115 to 230 VAC; 50/60Hz	92	1106	68	53.3	03.027.022.1
CoolBlast 115/230V, 3-piece, controlled HP	440	43.6	230	3.2	3	115 to 230 VAC; 50/60Hz	81	711	173	55.8	03.027.024.1
CoolBlast 115/230V, 6-piece, controlled HP	440	43.6	390	6.2	6	115 to 230 VAC; 50/60Hz	150	1422	173	59.1	03.027.025.1
CoolBlast 24/48V, 3-piece, controlled SP	440	43.6	230	3.1	3	24 to 48 VDC	26	553	68	49.6	03.027.051.1
CoolBlast 24/48V, 6-piece, controlled SP	440	43.6	390	6.1	6	24 to 48 VDC	48	1106	68	53.3	03.027.052.1
CoolBlast 24/48V, 3-piece, controlled HP	440	43.6	230	3.1	3	24 to 48 VDC	34	711	173	55.8	03.027.054.1
CoolBlast 24/48V, 6-piece, controlled HP	440	43.6	390	6.1	6	24 to 48 VDC	62	1422	173	59.1	03.027.055.1

LUF20156

LUF20131

LUF20142

LUF00205
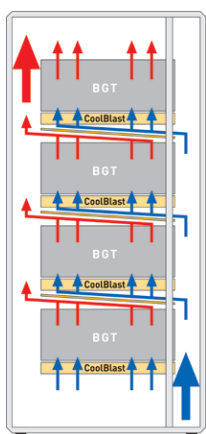
Vertiv™ Knürr™ CoolBlast – Air-flow Routing via Front Intake, 1 U

– The "front-intake unit" for the Vertiv™ Knürr™ CoolBlast fan delivers targeted cooling for module supports arranged on top of each other (heat sources).

– For Knürr™ CoolBlast slot-in unit 3 and 6 piece for front intake.

– Used as cooling baffle.

– Can be supplemented with front plate and filter mat.

- **Material**
  - Sheet steel.

- **Finish / Color**
  - Powder-coated texture, RAL 7035.
  - Light-grey.

- **Scope of delivery**
  - 1 x air-flow guide.

- **How supplied**
  - Single items.

H	D	Model	Order No.	UP
43.6	230	For 3-piece	**03.027.094.1**	1 unit
43.6	390	For 6-piece	**03.027.095.1**	1 unit

19" Filter Unit, 1 U

–Suitable for use with CoolBlast slot-in unit.

– Adjusted to the respective recess depth.

- **Material**
  - Enclosure: sheet steel.
  - Front cover plate: ABS (UL94 V-0).
  - Handle: extruded aluminum.
  - Filter: Viledon P 15/150.

- **Filter class**
  - G2.

- **Finish / Color**
  - Enclosure: powder-coated texture, RAL 9011 dark-grey.
  - Front cover plate: RAL 7035, light-grey.
  - Handle: powder-coated texture, RAL 5008 grey-blue.

- **Scope of delivery**
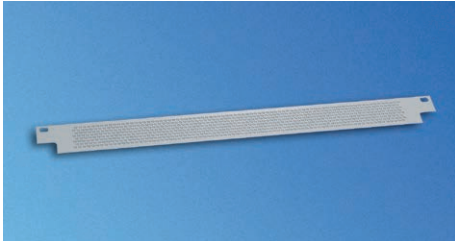 - 1 x filter insert.
  - 1 x filter.

- **How supplied**
  - Single items.

H	D	kg	Order No.	UP
43.6	282	2.0	**03.025.250.1**	1 unit
43.6	660	4.0	**03.025.253.1**	1 unit

LUF20136

Vertiv™ Knürr™ CoolBlast Front Plate

– For use with air-flow guide for front intake.

– Can be retrofitted.

• **Material**
  • Sheet steel.

• **Finish / Color**
  • Powder-coated, RAL 7035.
  • Light-grey, smooth.

• **Scope of delivery**
  • 1 x front plate.

• **How supplied**
  • Single items.

H	Order No.	UP
43.6	03.027.097.1	1 unit
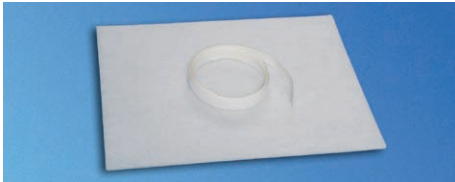
LUF20121

LUF20168

CoolBlast Dust/Particle Protection Solution 1: Filter Mat

– Used with CoolBlast fan top cover.

– Simple filter cover preventing the ingress of dust when the fan stops (regulated or thermostat-controlled version available).

– For all top-cover sizes; filter and adhesive tape can be cut to the required length.

• **Material**
  • Filedon (filter class G2)

• **Scope of delivery**
  • 1 x filter.
  • 1 x Adhesive tape.

• **How supplied**
  • In sets.
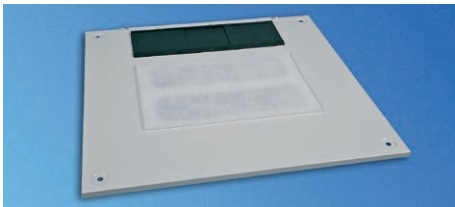
Model	Order No.	UP
For 2, 3 and 6-piece fan unit	01.149.101.9	1 set

LUF20135

Vertiv™ Knürr™ CoolBlast Filter for Front Intake

– For use with air-flow routing via front intake.

– Can be retrofitted; filter can also be replaced during operation.

• **Filter class**
  • G2.

• **Material**
  • Viledon K15/150.

• **Scope of delivery**
  • 1 x filter.

• **How supplied**
  • Single items.

W	D	Model	Order No.	UP
400	160	For 3-piece	03.027.098.1	1 unit
400	320	For 6-piece	03.027.099.1	1 unit
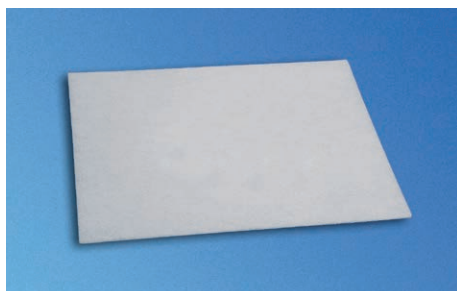
LUF00280

Replacement Filter

– For 19" filter insert.

- **Material**
  - Filter: Viledon P 15/150.
- **Filter class**
  - G2.

- **Scope of delivery**
  - 1 x filter.
- **How supplied**
  - Single items.

D	Order No.	UP
282	**03.025.246.9**	1 unit
660	**03.025.249.9**	1 unit

LUF20057

LUF20058

Filter Fan

– For specific use where hot spots occur.

– Also suitable for retrofitting, quick and easy.

– The filter mats provide high-level filtration, are easily exchanged and can be cleaned.

– These maintenance-free fans feature a long service life and low noise levels.

– Air-flow routing: blows into the rack (pre-set).

– Can be used to draw in or move air out.

- **Material**
  - Heat-resistant ABS plastic,UL 94 V-0
- **Color**
  - RAL 7035 light-grey.

- **Compliance**
  - CE marking
- **Protection rating**
  - IP 54.

LUF800040

LUF80012

LUF80011

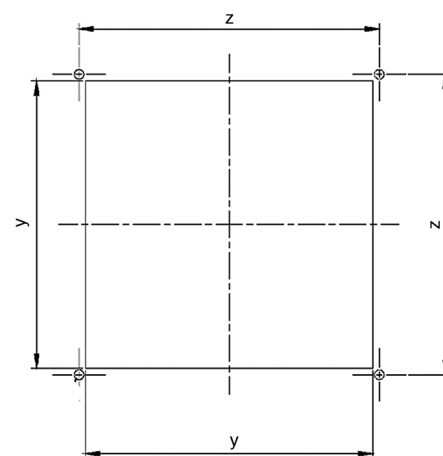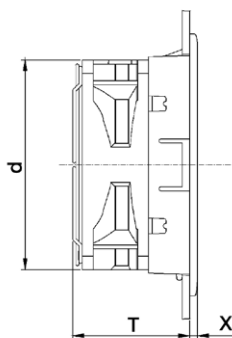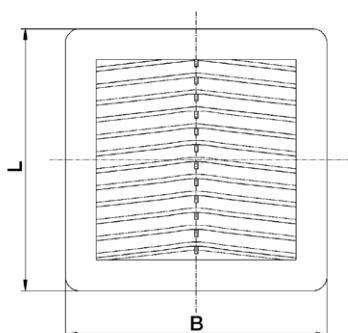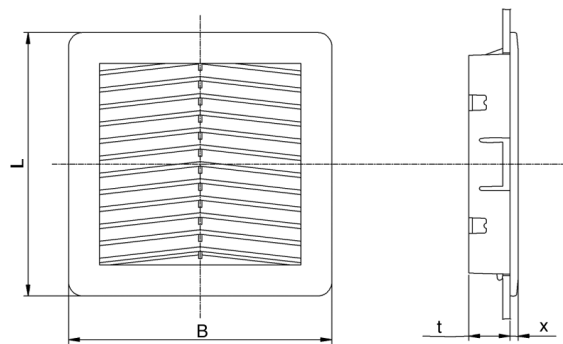| LxW	D/l/x	y/z	kg	Max. AF	El. conn.	L	G	N	Service life/40°	Model	Order No.	UP
150 x 150	71/120/5	125/131	0.812	57 m³/h	230V / 50/60Hz	20 W	43 dB(A)	2650/min	40,000 h	Filter fan	**03.026.501.1**	1 unit
204 x 204	90/120/5.7	177/185	1	90 m³/h	230V / 50/60Hz	20 W	43 dB(A)	2650/min	40,000 h	Filter fan	**03.026.502.1**	1 unit
250 x 250	113/172/6	223/230	1.690	240 m³/h	230V / 50/60Hz	29 W	50 dB(A)	2800/min	40,000 h	Filter fan	**03.026.503.1**	1 unit
325 x 325	125/208/7	291/302	3.620	520 m³/h	230V / 50/60Hz	67 W	63 dB(A)	2770/min	50,000 h	Filter fan	**03.026.504.1**	1 unit
150 x 150	24/5	125/131	0.140							Exit filter	**03.026.511.1**	1 unit
204 x 204	20.5/5.7	177/185	0.275							Exit filter	**03.026.512.1**	1 unit
250 x 250	25/6	223/230	0.440							Exit filter	**03.026.513.1**	1 unit
325 x 325	26/7	291/302	0.780							Exit filter	**03.026.514.1**	1 unit
150 x 150										Replacement filter mat	**03.026.521.9**	6 unit
204 x 204										Replacement filter mat	**03.026.522.9**	6 unit
250 x 250										Replacement filter mat	**03.026.523.9**	6 unit
325 x 325										Replacement filter mat	**03.026.524.9**	6 unit

LUF00237a

Temperature Module

– For monitoring the inside temperature of the rack.

– Temperature display (+ 10°C to + 70°C).

– Alarm temperature set via potentiometer at the front.

– Visual alarm display (LED red).

– Alarm signaling via potential-free switching contact (1 changeover contact 250 VAC / 8 A).

– Power supply 230 V / 50 Hz.

• **Material**
  • Plastic.

• **Compliance**
  • CE marking complaint with Low Voltage Directive 2014/35/EU, EMC directive 2014/30/EU.

• **Scope of delivery**
  • 1 x Temperature module.
  • 1 x Temperature sensor (3 m).

• **How supplied**
  • Assembled, wired and tested.

Order No.	UP
01.117.525.1	1 unit

SP	= Standard Performance	$\dot{V}$	= Air-flow volume (m³/h)
HP	= High Performance	$\Delta\dot{V}$	= Air-flow volume loss (%)
UP	= Ultra High Performance	ΔP	= Pressure increase (Pa)
n	= Number of fans	I nom	= Nominal current (A)
W	= Power consumption	I max	= Residual current (A)
V	= Voltage (400V = 3-phase)	p	= Sound pressure (dB(A) distance from the rack 1 m (600 mm x 600 mm; raised cover)

P = **assemble to order** (shipped within 5 working days). Caution: In case of larger orders, delivery times may increase.

Thermostat

– For monitoring the inside temperature of the rack with respect to slot-in units and heating fans.

– Setting range: + 10°C to + 60°C.

– Switching temperature difference (hysteresis) 2 K.

– Contact type: 1 changeover contact.

– Sensor: thermo-bimetal.

– Contact rating: 230 VAC/10 A (heating), 5 A (cooling).

– Interference suppression: compliant with DIN 55014.

LUF20000

- **Material**
  - Plastic.
- **Protection rating**
  - IP 30.
- **Compliance**
  - CE marking complaint with Low Voltage Directive 2014/35/EU.
- **Dimensions**
  - 74 x 74 x 23 mm.
- **Scope of delivery**
  - 1 x thermostat.
  - 1 x mounting bracket.
  - 1 x Mounting kit.
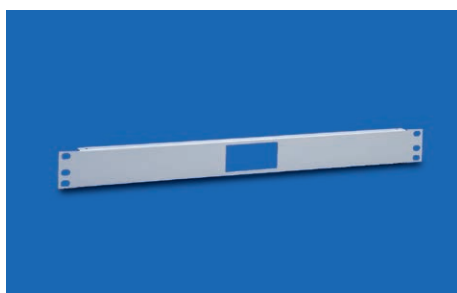
Order No.	UP
01.113.384.3	1 unit

19" Front Plate 1 U for Temperature Module

– For temperature module installation.

- **Material / Finish**
  - Sheet steel, 1.5 mm, powder-coated texture.
- **Color**
  - RAL 7035 light-grey.
- **Scope of delivery**
  - 1 x 19" front plate.

LUF00256

Order No.	UP
01.117.526.1	1 unit

Bracket for Temperature Module

– For non-standard temperature module installation, e.g., on the side of the 19" extrusion.

- **Material / Finish**
  - Aluminum, 2 mm, polished.

- **Scope of delivery**
  - 1 x bracket.
  - 1 x Mounting kit.
- **How supplied**
  - In sets.

LUF00255

Order No.	UP
01.117.527.0	1 unit

Dimensions in mm:

						Conversion:	
W = Width	h = Installation height	U = Standard rack unit		kg = Weight		1 mm = 0.03937 inch	
H = Height	d = Insertion depth	(1 U = 44.45 mm)				1 kg = 2.2046 pounds	
D = Depth	L = Length	UP = Packaging unit					

@Lock™ – solutions for racks

Access control for data centers and technical rooms

Data centers are broken into on a regular basis. In many cases, the intention is simply to steal high-quality IT equipment. However, breaking in may only be a pretense for stealing data and/or putting in place a man-in-the-middle infrastructure.

On 28 February 2011 for example, an important data center belonging to a global telecommunications service provider was paralyzed by intruders. Only a few weeks previously, a DC service provider working on behalf of a major health care company became the victim of an attempted break-in, which resulted in the entire security concept undergoing a TÜV audit. Generally speaking, attacks of this kind go undetected. Data centers are security areas and therefore need to be secured through various measures. An important part of this is controlling access to and in the data center.

Controlling access to the data center is usually achieved through a combination of organizational measures, e.g., gates and turnstiles, besides a building access control system.

Working with various partners, Vertiv™ has developed system concepts which not only improve physical security through access controls within the data center but also simplify operative processes, making them less susceptible to errors. These concepts are known as "@Lock™".

@Lock™ solution with MLR handles in a co-location datacenter

@Lock™ – solutions for racks
Option 1: Transponder card systems @Lock "transponder card system" concept

This system concept can be applied throughout – from the DC and cold aisle doors to the individual cabinets. In addition to the card readers and handles, the extensive "Administration Suite" management software is a key part of the system.

Thanks to its modular design and open infrastructure architecture, the new Administration Suite can be expanded as required and can also be implemented for third party providers.

- Encrypted data communication between the hardware, server and client.

- Runs on Windows 7 SP1, Windows 8, Windows 8.1, Windows 10, Windows Server 2012, Windows Server 2012 R2, Windows Server 2016.

- Allows administration of various users with different types of authorization.

- Client/server capability.

- Straightforward user guidance in spite of extensive tools.

- Wide range of alarm messages.

- Automatic alarm notification via e-mail.

- Centralized locking plans and access management.

- Support for the most common transponder types.

- Central management of various systems.

- Records all actions in "Log Events".

- Real-time visualization of the swing handle stations.

- Configuration of special days with different locking regimes.

- Allocation of time profiles for access.

- Able to export "Log Events".

- Multilingual software.

Administration Suite 2.0
Order number: 01.180.049.9

Ethernet/IP (Cat5)
RS485 (Cat5)
Connection (Cat5)

Gateway MLR 3000
Junction Box
Reader MLR 3000
Reader MLR 3000KP
Junction Box
Reader MLR 5000
Reader MLR 1000

SSL encrypted
AES encrypted
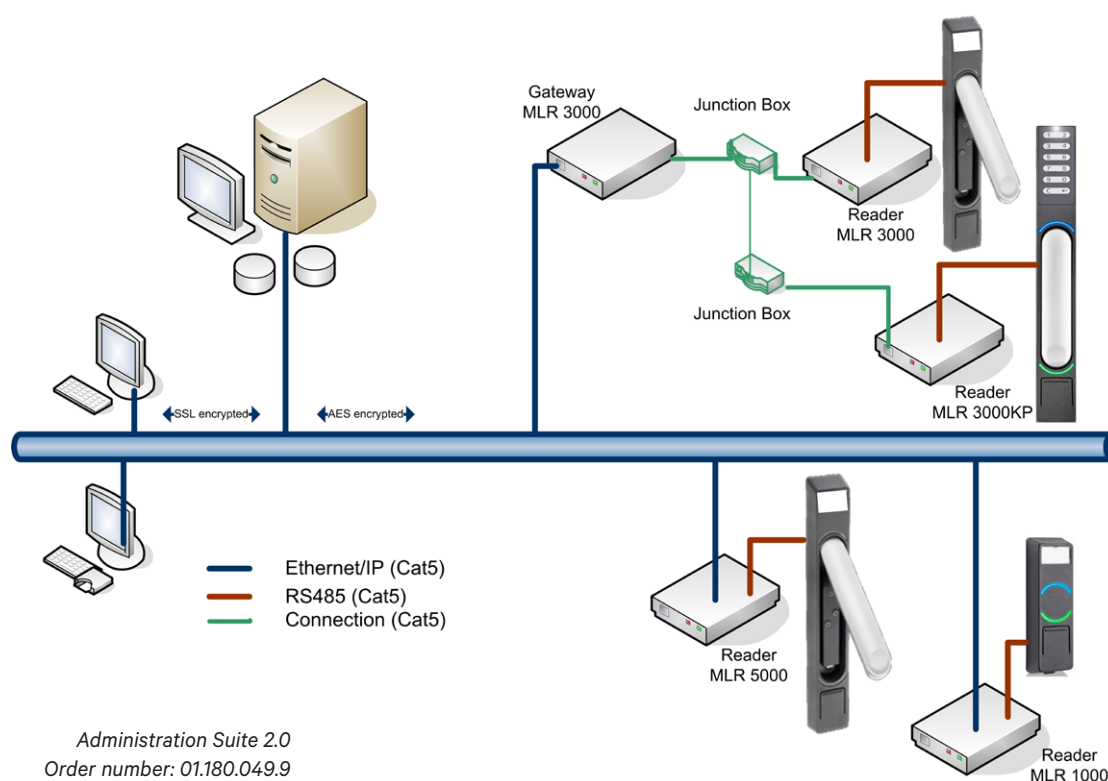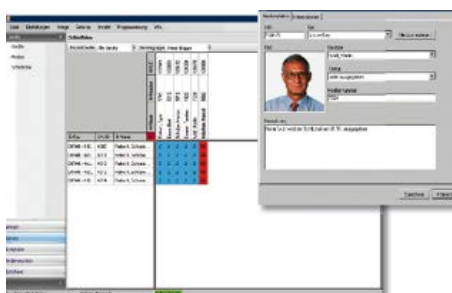
MLR 3000 and MLR 5000 handles are suitable for linking server or network cabinets to the transporter card system. The E-LINE, by Dirak mechatronic swing handles and the Administration Suite software, provide a convenient, reliable way of monitoring access to your data or server cabinet. With the Administration Suite software, security officers can conveniently monitor and manage access directly from a PC.

The integrated LEDs display alarm messages and types of authorization on the handle itself. As a result, technicians on site are given the same information that the Administration Suite software sends to the headquarters. LEDs at the top and bottom of the handle offer permanently high luminosity with low power consumption. As a result, the lock status can be determined quickly, even from a distance of several meters.

The top LED can indicate various statuses, such as that the handle is ready to be opened or locked. The bottom LED displays whether the handle is within or outside the temperature range for the cabinet selected by the customer. As a result, irregularities may be identified quickly, leaving enough time for appropriate action to be taken.

The information display integrated into the handle is backlit and allows customer-specific information, such as the cabinet row, cabinet number etc., to be added for extra clarity.

Handles are also available with integrated Keypad (MLR5000KP). They can be used with either keycard, keypad or both (two-factor-authentification).
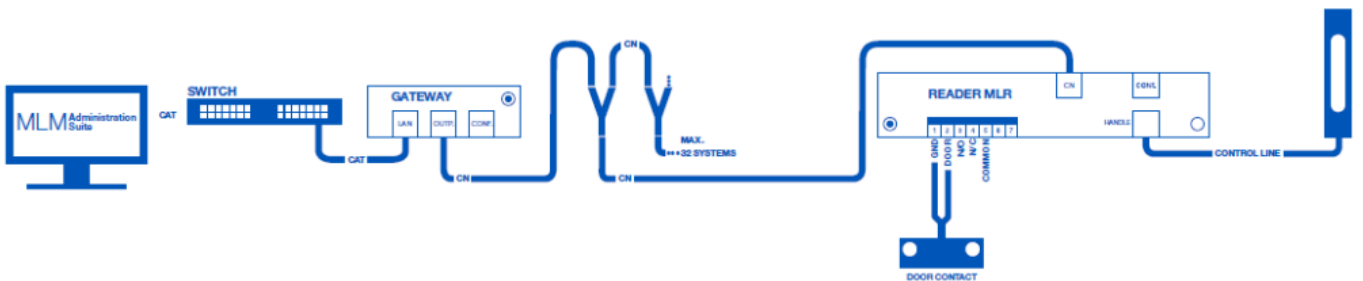
@Lock MLR3000

Particularly well suited for rooms containing a large number of server racks (central server rack structure). With just one IP address it is possible to manage up to 32 swing handles in one MLR gateway.

@Lock LR5000

Designed to facilitate convenient central monitoring and administration of decentralized server racks. The swinghandles are assigned unique IP addresses.

Technical data – @Lock™ MLR3000/5000

Handle electronics

Two-part hardware design	Swing handle and reader unit
Visualization	Multicolored status LED
Reader	For 125 kHz transponders (HID 26 bit system), alternatively 13.56 MHz (MIFARE)

Reader

Housing	Reader unit in plastic housing can be fixed with screws or self-adhesive pad
Power supply	12 V ± 10 % (DC) via low voltage socket
Standby current (system ready)	40 mA (DC)
Max. current consumption (with connector tightening)	440 mA (DC)
RS232 interface for MLR3000	RS232 cable (RXD, TXD, GND, Reader present, PC present), 38,400 baud
Current increase for MLR5000 via Ethernet interface	125 mA (DC)
TCP/IP interface	Ethernet, 10100 Autosense, up to 100 Mbaud
Connecting cable (reader - handle electronics)	8-pole, 350 cm, UL stranded wire AWG 26, one side with gated RJ45 plug, one side with crimped JST ZH connector ZHR-8
Relay output (via screw clamps)	2.5 mm^2, can be screwed in from plug side, relay contact: 12 V, 3 A, 60 W, 120
Door contact input (via screw clamps)	2.5 mm^2, can be screwed in from plug side, terminals 1 and 2
RS485 interface	RS485 cable to the E-LINE by DIRAK Gateway, (+/A, -/B), 38,400 baud
Memory capacity for transponder cards	2000 + 1 master transponder
Memory capacity for events	500 (ring memory)
Memory capacity for time profiles	30
Integrated real-time clock	With buffering of up to 60 min at 25 °C
Temperature range	-20°C – +70°C

Type	Model	Order No.	UP
@Lock™ MLR3000	for Miracel and DCM front door	**01.180.226.9**	1 unit
@Lock™ MLR3000	for twin door (e.g. DCM rear door)	**01.180.227.9**	1 unit
@Lock™ MLR5000	for Miracel and DCM front door	**01.180.228.9**	1 unit
@Lock™ MLR5000	for twin door (e.g. DCM rear door)	**01.180.229.9**	1 unit
@Lock™ MLR5000 Key Pad	for Miracel and DCM front door	**01.180.240.9**	1 unit
@Lock™ MLR5000 Key Pad	for twin door (e.g. DCM rear door)	**01.180.241.9**	1 unit

Accessories	Order No.	UP
Door contact without RJ-45 plug	**06.108.115.9**	1 unit
HID transponder card	**01.180.040.9**	1 unit
Desktop reader for the initial reading of transponder cards	**01.180.128.9**	1 unit
MLR3000 Gateway	**01.180.111.9**	1 unit
Plug-in power supply (Europe Schuko)	**01.180.035.9**	1 unit
Plug power supply Unit C14	**01.180.035.9.000001**	1 unit

Technical data – MLU3000/5000

MLU card readers can be used to connect a room door with existing electromechanical locking or motorized cold aisle door (Coolfex):

- Three-part hardware design MLU3000 set comprising: external MLU reader, network reader unit and MLU1000 lock. Visualization on MLU reader: 2 x multicolored status LEDs and 1 x backlit information display. Antenna for 125 kHz transponders (HID 26 bit system).

- **Optional MLU1000 lock**

  - Die-cast zinc (GDZn), color: matt chrome.

  - 4 m control cable.

  - Power supply 24 V DC +/- 10 % 100 mA.

  - Proximity sensor status contact.

  - Wall/sheeting thickness independent.

  - Electronic opening by interrupting the power supply.

- **MLU3000/MLU5000 network reader**

  - Housing reader unit in plastic housing can be fixed with screws or a self-adhesive pad.

  - Nominal input voltage 12/24/48 V ± 10 % (DC) depending on the electronic lock connected.

  - Standby current (system ready) 40 mA (DC).

  - Max. current consumption RJ12 (LOCK) 1.5 A (DC).

  - Max. current consumption via relay clamp 3.0 A (DC), clamps 10-11.

- RS232 interface RS 232 cable (RXD, TXD, GND, Reader present, PC present), 38,400 baud.

- Connecting cable (reader - external MLU antenna) 8-pole, 350 cm, UL stranded wire AWG 26, one side with gated RJ45 plug, one side with crimped JST ZH connector ZHR-8.

- Relay output (via screw clamps) 2.5 mm, can be screwed on from plug side, relay contact: 12 V, 3 A, 60 W, 120 VA, terminals 3 - 5.

- Door contact input (via screw clamps) 2.5 mm^2 can be screwed from plug side, terminals 1 and 2.

- RS485 - RS485 interface - cable to the E-LINE by DIRAK Gateway, (+/A, -/B), 38,400 baud (MLU3000).

- TCP/IP Ethernet interface, 10/100 Autosense, up to 100 MBit/s (MLU5000).

- Power off when open/closed: depending on the electronic lock connected, this is configured in the Administration Suite Config Tool.

- Memory capacity for transponder cards 2000: + 1 master transponder.

- Memory capacity for events: 500 (ring memory).

- Memory capacity for time profiles: 30.

- Integrated real-time clock with buffering of up to 60 min at 25 °C.

- Temperature range -20°C – +70°C.

Type	Order No.	UP
MLU 3000	**01.180.231.9**	1 unit
MLU 5000	**01.180.232.9**	1 unit

Option 2: Potential-free contacts
@Lock™ "potential-free contacts" system concept

Swing handles from the @Lock™ MLR1000 range are suitable for connecting electromechanical swing handles to existing building management systems or local identification systems, in addition to complementing @Lock™ BlueID or rack monitoring systems.

The handle can be opened as soon as its potential-free contacts are activated or a voltage of 12-24 V DC is supplied. Following activation, the MLR1000 switches to ready-to-open status.

During this period, the user can open the MLR1000 by pressing a button.

The LED at the top of the handle offers permanently high luminosity with a low power consumption. As a result, the lock status can be determined quickly, even from a distance of several meters.

The information display integrated into the handle is backlit and allows customer-specific information such as the cabinet row, cabinet number etc., to be added for further clarity.

Technical data – @Lock™ MLR1000

Handle electronics

Two-part hardware design	MLR1000 and MLR1000 Box
Visualization	Status LED

MLR1000 Box

Housing	Interface unit, plastic housing can be fixed with screws or self-adhesive pad
Power supply	12 V DC ± 10 % via screw clamps
Standby current (system ready)	40 mA (DC)
Max. current consumption (with connector tightening)	410 mA (DC)
Operating mode	100 % ED
Relay control	12V DC
Operating time	Max. 3 seconds
Contact output	250 V AC, 2 A
Installation position	Vertical
Connection type	Screw clamps, 2.5mm^2
Connecting cable (reader - handle electronics)	8-pole, 350 cm, UL stranded wire AWG 26, one side with gated RJ45 plug, one side with crimped JST ZH connector ZHR-8
Temperature range	-20°C – +70°C

	@Lock™ MLR5000	@Lock™ MLR3000	@Lock™ MLR1000
Software necessary	Admin Suite	Admin Suite	Custom
E-Line Administration	Yes	Yes	No
Suite Software	Yes	Yes	Yes
External emergency	Transponder card	Transponder card	Dependent on customer's equipment and software
Identification	Yes (in combination w. Administration Suite)	Yes (in combination w. Administration Suite)	Dependent on customer's equipment and software
IP support	Yes (in combination w. Administration Suite)	Yes (in combination with Gateway and Administration Suite)	No
Log files	Yes (in combination w. Administration Suite)	Yes (in combination w. Administration Suite)	Dependent on customer's equipment and software
Four-eyes-principle	Eline by Dirak	Eline by Dirak	Eline by Dirak
Stand alone	Possible	Possible	No

Type	Model	Order No.	UP
@Lock™ MLR1000	for Knürr Miracel™ and Knürr DCM™ front door	01.180.224.9	1 unit
@Lock™ MLR1000	for twin doors (e.g. Knürr DCM™ rear door)	01.180.225.9	1 unit

Features

- Guarantees fault-free operation.

- Early disturbance detection.

- Incident logging.

- Automatic monitoring simplifies maintenance.

- Activates countermeasures in the event of a malfunction.

- Central status control of: filters, paper, toner, meter readings, inspection intervals, and much more.

- Sensors can be connected in any arrangement.

Vertiv™ Knürr™ RMS III
Constant Reliability with Remote Monitoring

System Reliability and Availability

System and network management requirements mean the systems' ambient conditions must be monitored. Compliance with the required ambient parameters is extremely important for successful/continuous operation of high-grade components.

Management Software

Inadmissible fluctuations in temperature or humidity often cause hardware defects. Constant automatic monitoring of these parameters is therefore a basic requirement for safeguarding operability. All the relevant data can be recorded and forwarded directly to a higher-level management system, e.g. Nagios Liebert® Trellis™ with the RMS III.

Alarm Consolidation and Control

Simply recording data does not suffice to ward off damages. When faults occur, short response times are aided by the monitoring system triggering actions automatically (e.g. activating additional fans).

Fast Response

When defined incidents occur, the RMS III can immediately send a message as an "SNMP trap" to the management system or directly as an e-mail to a technician or a SMS gateway.

Vertiv™ Knürr™ RMS III

- **Description**
  - Compact construction - Zero unit solution (for mounting outside the 19" installation area).
  - Cost-effective orderly installation with Plug & Play concept.
  - Convenient cabling with RJ11 and/or screw terminal sensor connections.
  - TCP/IP connection via Ethernet.
  - Configuration via SNMP and Web-Browser.
  - Web access is password-protected and optionally encrypted (https).
  - 3 different user levels.
  - Freely programmable filter system (Boolean logic) for implementing all alarm conditions.
  - Compatible with standard network-management and infrastructure-management systems such as Liebert® Nform or Open-Source Software.

- Sensors for monitoring all relevant environmental influences (optional).
- Internal power supply for sensor equipment (no additional power supply necessary).
- Alarms via relay, network management or e-mail (SMTP).
- Support from Modbus/TCP.
- System time balancing with NTP servers.
- Support of MQTT

- **Technical data**
  - 1 x Ethernet connector 10/100 Mbps.
  - 6 x 1-Wire
  - 12 x digital on/off connector.
  - 1 x RS485 connector.
  - Up to 40 sensors.
  - 4 digital relays outputs (50V).
  - Operating voltage: 12 VDC.

- **Compliance**
  - CE Marking cpmpliant with
    - 2014/35/EU Low Voltage Directive (LVD)
    - 2014/30/EU Electromagnetic Compatibility Directive (EMC)
    - 2011/65/EU RoHS2 Directive.

- **Color**
  - RAL 7021, dark-grey.

- **Scope of delivery**
  - 1 x Knürr™ RMS III.

- **Optional Items**
  - 1 x Power supply. e.g.: 01.180.035.9000001
  - 1 x 19" Mounting Shelf for RMSIII 06.108.428.8001

- **How supplied**
  - Single parts.

W	H	D	Model	Order No.	UP
350	42	170	RMS III	06.108.401.8	1 pc

Combined sensor Temperature Humidity "ECO" (RMSIII)

- **Quick and easy installation**
  - Insensitive to disturbances.
  - No additional power supply required.

- **Technical data**
  - Temperature measurement range: 0...60°C.

LUF20069

- Accuracy: 2%.
- To be connected to 1-wire port.

- **Scope of delivery**
  - 1 x sensor.

Model	Order No.	UP
ECO	**06.108.421.9**	1 unit

Dimensions in mm:						**Conversion:**	
W	= Width	h	= Installation height	U	= Standard rack unit	kg	= Weight	1 mm	= 0.03937 inch
H	= Height	d	= Insertion depth		(1 U = 44.45 mm)			1 kg	= 2.2046 pounds
D	= Depth	L	= Length	UP	= Packaging unit		

Temperature Humidity Sensor RMS III

- **Avoids dew**
  - Insensitive to disturbances.
  - Additional power supply required.
- **Technical data**
  - Air measurement range 30 – 90 %.
  - Accuracy: 2 %.
  - To be connected to 1-wire port.

RMS20019

- **Scope of delivery**
  - 1 x sensor with RJ45 port.

Order No.	UP
06.108.411.9	1 unit

Door Contact Sensor RMS III

- **No additional magnet required**
  - Magnet bridge sensor works on all magnetic conductive materials (no special mating part required).
  - Can also be used for monitoring side panels and roof.
- **Technical data**
  - Temperature range: -20° C to +70° C.
  - Switching voltage, max. 200 VDC.
  - Switching current, max. 500 mA.
  - To be connected to digital IN port.

RMS20006

- **Scope of delivery**
  - 1 x sensor with 4 m connection cable.
  - 1 x mounting kit.

Order No.	UP
06.108.115.9	1 unit

Water Sensor RMS III

- **Conductive water spot sensor**
  - Detects presence of water.
- **Technical data**
  - Operating voltage: max. 24 VDC.
  - To be connected to 1-wire port.

- **Scope of delivery**
  - 1 x sensor with 2 m connection cable.
  - 1 x mounting bracket.

Order No.	UP
06.108.418.9	1 unit

Smoke Detector RMS III

- **Sends signal to IT Department**
  - Optical smoke detector with VdS approval.
  - For early fire detection with smoke emission.
  - Power supply provided via RMS compact.
  - Standard cable length, 4 m.

- **Technical data**
  - Operates between -20°C and +75°C.

- **Scope of delivery**
  - 1 x sensor with 4 m connection cables.
  - 1 x mounting kit.
  - To be connected to digital IN port.

W	H		Order No.	UP
Ø 90	75		06.108.211.9	1 unit

Power over Ethernet (PoE) Update Set RMS III

- **Save on cabling**
  - Saves on costly power supply installations (e.g. WLAN access points) or enables centralized UPSs for decentralized equipment (e.g. IP phones).
  - Using the PoE update set, the RMS can therefore support installations with the corresponding UPS concepts and/or non-standard IDF room.
- **Technical data**
  - Input: 48 V DC, 400 mA.

- Output: 12 V DC (12 W).
- Operating temperature: 0° to 40° C.
- Storage temperature: -40° to 70° C.
- Operating air humidity: 10% to 80% rel. humidity.
- **Dimensions**
  - Length: 81 mm.
  - Width: 52 mm.
  - Height: 28 mm.
- **Approvals**
  - EMI: FCC Part 15 Class B, CE Class B.

- Safety: UL, TUV.
- **Scope of delivery**
  - 1 x PoE adapter.
  - 1 x mounting bracket for easy attachment to the RMS (similar to the classic power supply unit mounting bracket).
- **How supplied**
  - In sets.

Model	Order No.	UP
PoE update set	06.108.230.8	1 unit

Vibration Sensor RMS III

- **Protection against vandalism**
  - Detects vibrations.
  - Theft prevention.
  - Reset possible via Viewer software.

- 1 x sensor with 4 m connection cables.
- To be connected to digital IN port.

Order No.	UP
06.108.213.9	1 unit

Passive Infrared Movement Sensor RMS III

- **Security**
  - Room monitoring with state-of-the-art technology.
- **Technical data**
  - VdS approval: Classes A + B.
  - Range of volumetric lens: 2 – 16 m.

- Long lens range: 29 – 50 m.
- Curtain lens range: 17 – 30 m.
- Manipulation monitoring.
- Digital fault evaluation.
- Corner or wall mounting.
- To be connected to digital IN port.

- **Scope of delivery**
  - 1 x sensor with 4 m connection cable.
  - 1 x mounting kit.

Order No.	UP
06.108.214.9	1 unit

RMS III Technical Data

- **Ethernet: 100 Mbit**
- **HTTP**
- **DHCP**
- **SNMP v1**
- **SNMP v2/3: future**
- **SNMP Trap**
- **Trap destinations: 5**
- **SNTP**
- **SMTP**
- **SMTPv3 TLS**
- **E-mail Destinations: 5**

- **SMS/ netGSM /RS232**
- **SMS Destinations: 5**
- **Logger**
- **Logger reccords: 250.000**
- **MQTT**
- **IPv6**
- **Certificate Upload**
- **DO Local conditions**
- **1-Wire sensors: 16**
- **1-Wire UNI support**
- **RS-485 support**

- **RS-485 sensors: 24**
- **Modbus /TCP**
- **Email Alarm reminder**
- **Email Periodical Status**
- **Power Input 1: 9-30V**
- **DI (Digital Inputs): 12**
- **DO (Digital Outputs): 4**
- **DO max load: 50V/1A**
- **Operating temperature: -30-85°C**

Carbon Monoxide Alarm Sensor RMS III

- **Detects smoke-free gases and triggers an alarm**
  - Used for detecting carbon monoxide emitted by burning fire-retardant cables.
  - Sends signals carbon monoxide to the RMS and triggers an alarm.
  - Standard cable length, 4 m.
- **Technical data**
  - Operating voltage: 12 VDC (± 20 %).
  - Power consumption: approx. 190 mA (idle) approx. 280 mA (alarm).
  - Sensitivity: 100 ppm CO.
  - Ambient temperature: -15° C to 40° C.
  - Piezo alarm: approx. 85 dB(A) at 3m away.

- Protection rating: IP 20.
- Switching output 12 V DC: Max. 170 mA.
- Relay output: Changeover contact, max. 5 A 230 V DC, max. 5 A 30 V DC.
- Reset: automatic when the gas concentration falls below sensitivity level.
- To be connected to digital IN port.
- **Dimensions**
  - Length: 140 mm.
  - Width: 125 mm.
  - Height: 40 mm.

- **Color**
  - White.
- **Scope of delivery**
  - 1 x sensor.
  - 1 x sensor connection cable.
  - 1 x Mounting kit.
  - 1 x Instructions
- **How supplied**
  - In sets.

Model	Order No.	UP
Carbon monoxide alarm sensor	**06.108.211.8**	1 unit

New in RMS III

- **Supports broad range of sensors**
  - 1-wire, Digital, RS485 sensors
  - 4 Relays outputs
- **Features**
  - Boolean Logic
  - State-of-the Art secure network protocols
  - Accessfilter (Device Firewall)
  - Cloud Interface already built in (MQTT)
  - Screw Terminal Connectors for Digital Sensors
  - Local Log

VERTIV.

General setup
Security
SNMP
Email
GSM
Log & Time
Portal
MQTT
Sensors
Inputs
Inputs Logic
Outputs
Virtual Outputs
System

Version: 3.3.6

RMS3 Compact

GENERAL

Sensors

Name	ID	Current Value		Safe Range	Hysteresis	Alarm Alert
Sensor 240	1280	20	%	0.0 .. 100.0	0.0	Disabled
Sensor 241	13312	2	V=D	0.0 .. 0.0	0.0	Disabled
Sensor 242	19208	27.5	%RH	10.0 .. 60.0	0.0	Disabled
Sensor 243	21316	23.6	°C	10.0 .. 60.0	0.0	Disabled
Sensor 244	25748	2.5	°C	10.0 .. 60.0	0.0	Disabled

Digital Inputs (DI)

Name	ID	Current Value	Alarm Alert
Binary 1	1	0(Off)	Disabled
Binary 2	2	0(Off)	Disabled
Binary 3	3	0(Off)	Disabled
Binary 4	4	0(Off)	Disabled
Binary 5	5	0(Off)	Disabled
Binary 6	6	0(Off)	Disabled
Binary 7	7	0(Off)	Disabled
Binary 8	8	0(Off)	Disabled
Binary 9	9	0(Off)	Disabled
Binary 10	10	0(Off)	Disabled
Binary 11	11	0(Off)	Disabled
Binary 12	12	0(Off)	Disabled
Binary Logic 13	13	0(Off)	Disabled
Binary Logic 14	14	0(Off)	Disabled
Binary Logic 15	15	0(Off)	Disabled
Binary Logic 16	16	0(Off)	Disabled
Comm Monitor 1	123	0(Off)	Disabled

Digital Outputs (DO)

Name	ID	Current Value	Mode
BinOut 1	151	0(Off)	Manual
BinOut 2	152	0(Off)	Manual
BinOut 3	153	0(Off)	Manual
BinOut 4	154	0(Off)	Manual

Download

SNMP MIB:	MIB
SNMP Object Identifier:	OID
XML Schema Definiton:	XSD

Terminal Config (TCP Setup)

Connect with telnet to: 10.88.1.60 Port 99