Rosenberger

# PreCONNECT® OCTO MDC

## PRODUCT INFORMATION

## PreCONNECT® OCTO MDC solution is available in two end face quality features: BASIC and PURE

## Define the end-face quality according to your application requirements:


**Quality feature BASIC** is our well-proven, high-grade, standards compliant product in terms of end-face geometry, defect, and cleanness, providing excellent IL and RL performance:

- The PreCONNECT® factory-assembled plug & play system enables quick and reliable, cost efficient, installation and performance
- Harmonized modular components of the quality feature BASIC solution ensure end to end performance of the entire channel


**Quality feature PURE** is the enhanced version of our quality feature BASIC, but with more stringent defect and cleanliness screening and factory sealed, tamper evident adapter-interfaces.

- Guaranteed protection of the polished connector end-face against contamination and damage through sealed adapter-interfaces, enabling time savings during initial installation and commissioning due to the elimination of the need for cleaning and testing*/**.
- Quality feature PURE provides an industry leading low random mate insertion and return loss (mean) which enables up to six (6) mated pairs in a 10G/OM4 application up to 300m.

## Part numbers:

**Quality feature BASIC**: The part numbers XXXAXXXX listed in this document are valid for the BASIC quality feature.

**Quality feature PURE**: Add a "**P**" to the end of the quality feature BASIC part number (*Example: XXXAXXXX**P***)

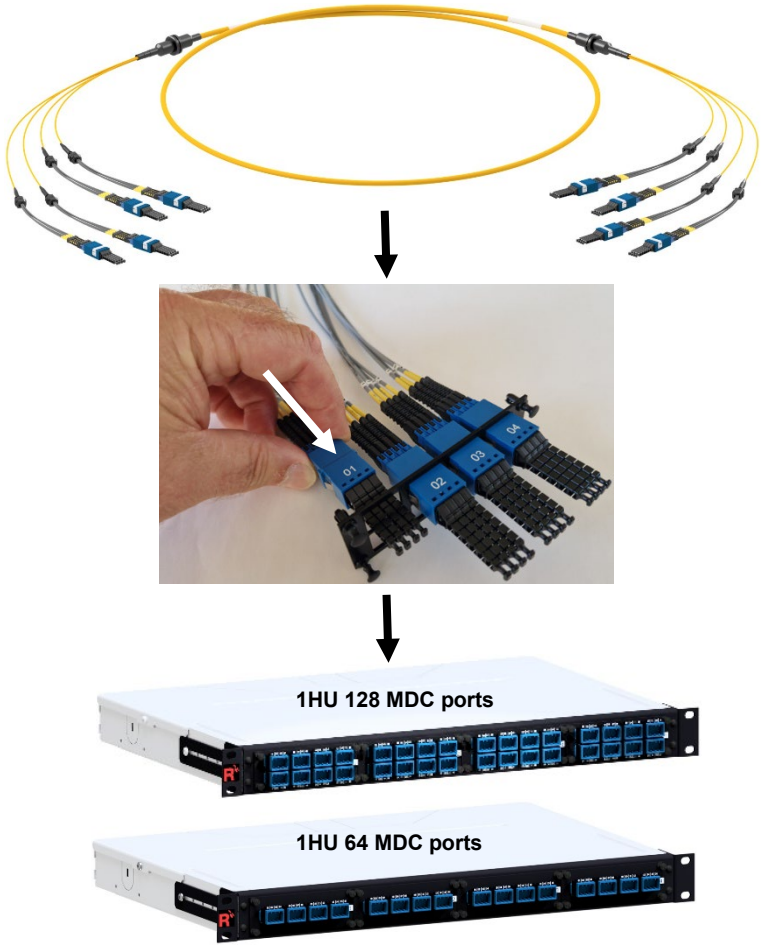
***(Note: PURE trunk cables have factory attached sealed coupling adapters incorporated and thus utilize empty patch panels and enclosures)***

* *While Rosenberger does not require permanent link or channel testing for warranty registration of PURE installations due to guaranteed performance, certain customers will require testing documentation for their records.*

** *Only applicable when all components are of quality feature PURE and installed by trained PURE installers.*

## Applications:

Infrastructure and IT room cabling within data centers




## System consists of:

- With connector system MDC factory assembled FO breakout trunk cables, FRNC-LSZH indoor cables, up to 128 fibers, MDC Quad couplers at MDC connectors of the trunk legs
- 19“ panel system SMAP-G2 SD
- Suitable Patchcords
- Useful accessories
- Patch Location Rack

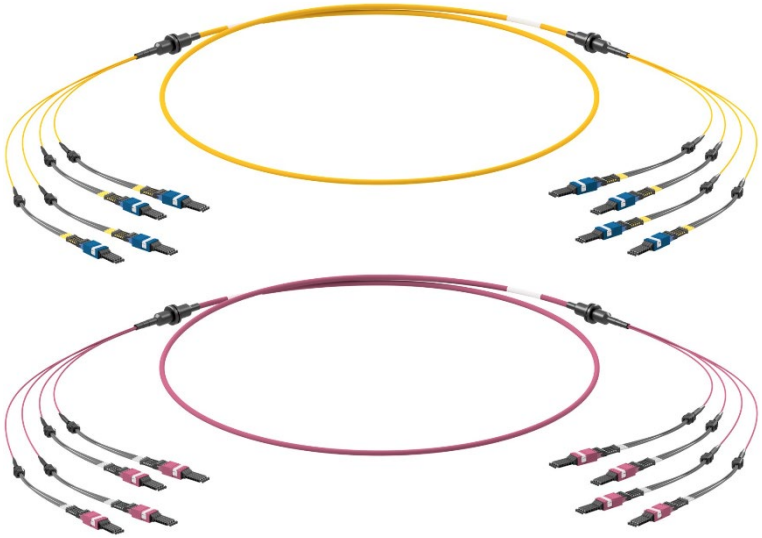
## Features:

- MDC breakout trunks up to 144 fibers with 8 fiber = 4 channel OCTO granularity
- FRNC-LSZH breakout indoor cables
- 4 MDC within one MDC Quad coupler at each trunk leg
- Up to 128 MDC (32 MDC Quad) ports per HU at 1, 2 and 3HU panel and 153,6 per HU (total 768) at 5HU panel

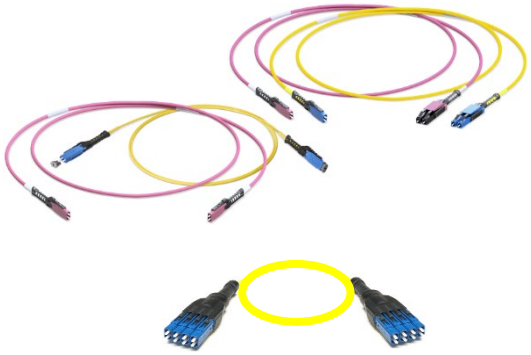
## Your benefits at a glance:

- Excellent fit for SR4 and DR4/PSM4 applications through the 8 fiber = 4 channel OCTO trunk legs
- Maximum fast and secure installation!
  - Reduction of panel installation time by 75%. Instead of four single MDC connectors per MDC Quad, only one trunk leg with MDC Quad coupler must be plugged
  - MDC Quad couplers at MDC connectors of the trunk legs protecting the connector tip surfaces against contamination and damage
  - Position permutation within the MDC Quad couplers are excluded by factory assembling
- The individual MDC connectors at the trunk legs, can be unplugged in case of service is needed, the other three within the MDC Quad coupler remain in operation
- Rack height unit saving through port density up to 128 SN® per HU
- Highest quality and cost-efficiency through factory assembling
- PreCONNECT® cabling systems consist of perfectly harmonized modular single components

## PreCONNECT® OCTO MDC breakout trunk



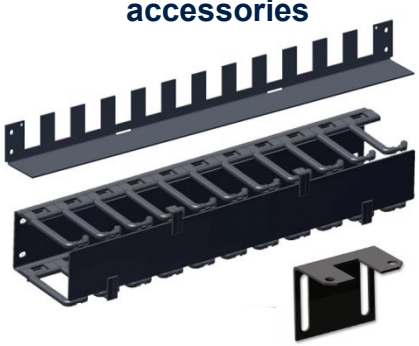
## MDC patchcords



## patch location rack

## 19” panel system SMAP-G2 SD

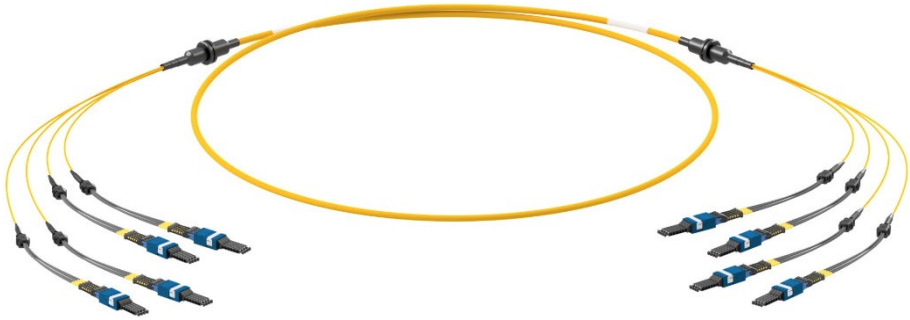
## accessories



## PreCONNECT® OCTO MDC application case point-to-point:

- **400Gbit/s, 800Gbit/s, 1,6TBit/s**

**PreCONNECT® OCTO MDC breakout trunk**

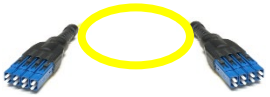


**MDC Quad Transceiver**

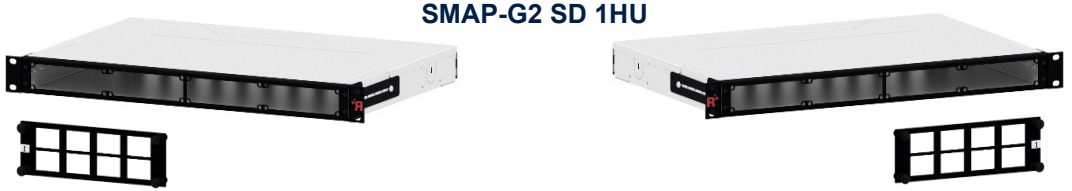
**4 MDC patchcords**

**or**

**MDC Quad Uniboot 8F**

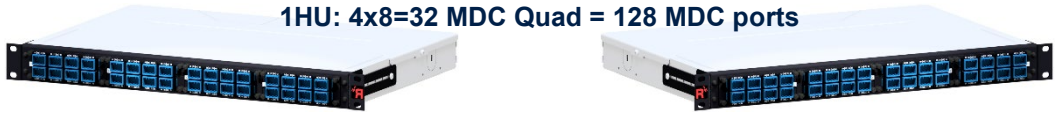


**SMAP-G2 SD 1HU**



**SMAP-G2 SD panels with maximum port density**

**1HU: 4x8=32 MDC Quad = 128 MDC ports**



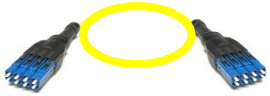
**3HU: 12x8=96 MDC Quad = 384 MDC ports**

**MDC Quad Transceiver**

**4 MDC patchcords**

**or**

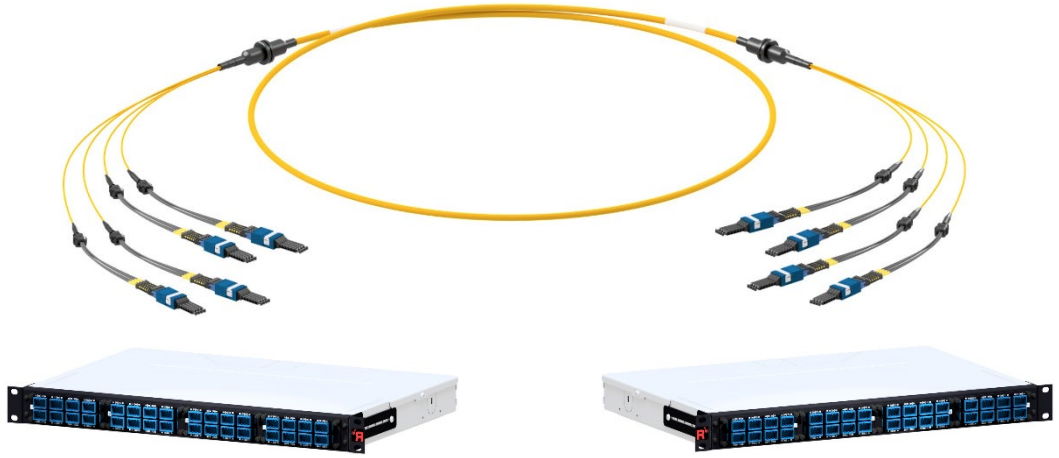
**MDC Quad Uniboot 8F**



## PreCONNECT® OCTO MDC application case port breakout:

- **400Gbit/s to 4 x 100Gbit/s**

**Breakout Trunk PreCONNECT® OCTO MDC**



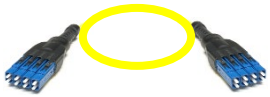
**MDC Quad Transceiver**

**LC-Duplex Transceiver**

**4 MDC patchcords**

**or**

**MDC Quad Uniboot 8F**

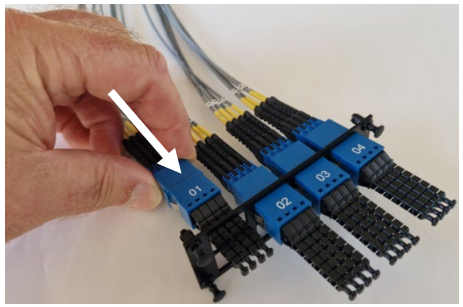


**4 MDC to LCC-PPB patchcords**

## Properties:

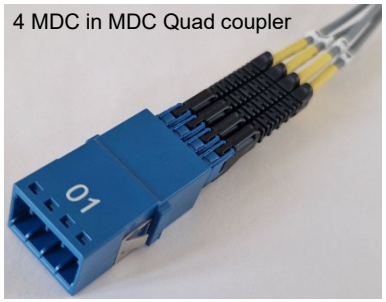
### Connector type:

- 4 MDC within one MDC Quad coupler at each trunk leg
- Connector data, see separate connector data sheets
- Trunk legs with MDC Quad couplers are plugged into the empty part front plates from the rear



MDC

4 MDC in MDC Quad coupler



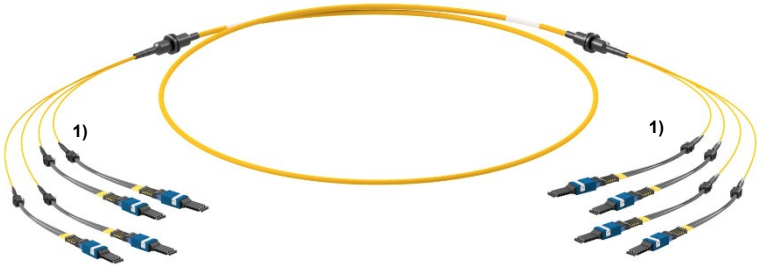

### Cable types:

- Up to 8ch/16F: I-V(ZN)HH n x 2, CPR class B2ca
- From 12ch/24F: I-F(ZN)HH n x 8 fibers, CPR class Cca, with n 1 to 4 leg-dividers [1)]
- Cable data, see separate cable data sheets

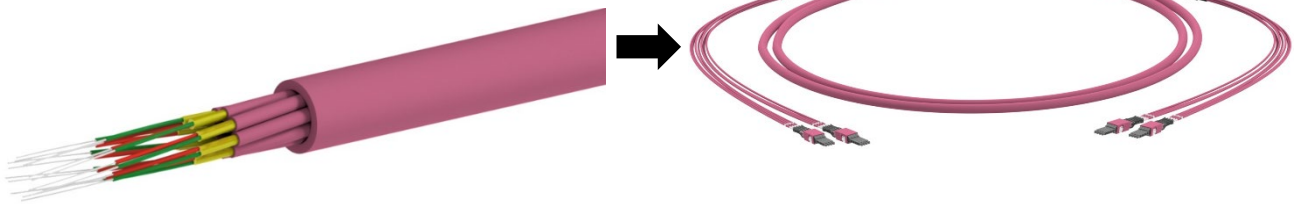
### Fiber types:

- Multimode OM4 bend-insensitive
- Singlemode G.657.A1 bend-insensitive and backwards compatible to G.652.D
- Fiber data, see separate fiber data sheets

I-F(ZN)HH 6 x 8 fiber breakout cable

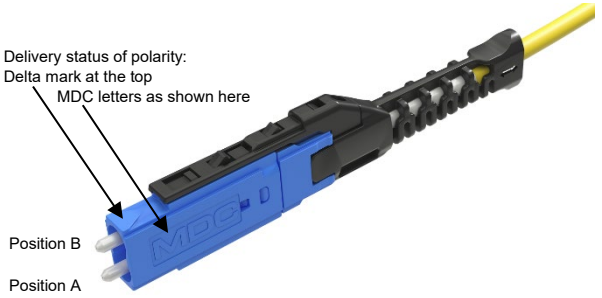



I-V(ZN)HH 8 x 2 fiber breakout cable

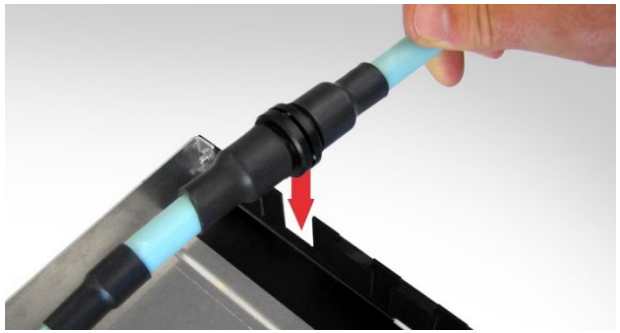


## Properties:

**Polarity:** A to B „channelwise crossed“ (pairwise flipped)




**Installation:** PreCONNECT® square-interfaces at both trunk ends, which can be tool-less hooked into PreCONNECT® 19” panels for tensile and torsion resistant mounting.



**Installation protection:**

- Standard: Dust proof foil-tube

- On request: 150 N tensile strength, crush and kink resistant, IP50 proof installation tube

| Standard stepped “A“ leg lengths and installation tube diameters of PreCONNECT® OCTO MDC trunks, steps channel/fiber 1 to n: 1 = long, n = short | | | | | |
|---|---|---|---|---|---|
| **Number of channels/fibers** | **4/8** | **8/16** | **16/32** | **32/64** | **64/128** |
| **“A” leg lenths stepped from to [cm] [1)]** | **45 bis 75** | **45 bis 73** | **60 bis 66** | **60 bis 78** | **60 bis 102** |
| **Outer diameter installation tube IP50 Indoor [mm]** | **30** | **30** | **55** | **55** | **75** |
| [1)] Production tolerance – 5 cm | | | | | |

## Properties:

**Length definition**:

- Order-length = length between the connectors of the longest legs at both sides, not between the PreCONNECT® square-interfaces.
- Possible order-lengths: From 5 to 2000 meter

**Length tolerances:**

| Trunk length | Tolerance |
|---|---|
| <= 10m | +/- 50cm |
| > 10m <= 30m | +/- 100cm |
| > 30m <= 100m | +/- 150cm |
| > 100m | +/- 2% |

**Operating temperature range:** -10°C to +60°C

**Delivery form:**

- Dependent on the length as cable ring or on cardboard or wooden drum
- Insertion loss measured acc. to IEC 61300-3-4, method C, MM 850nm, SM 1310nm, with measurement protocol
- Product label with serial number at both sides

## PreCONNECT® OCTO MDC breakout trunk with indoor cable:

### Part numbers for variable lengths

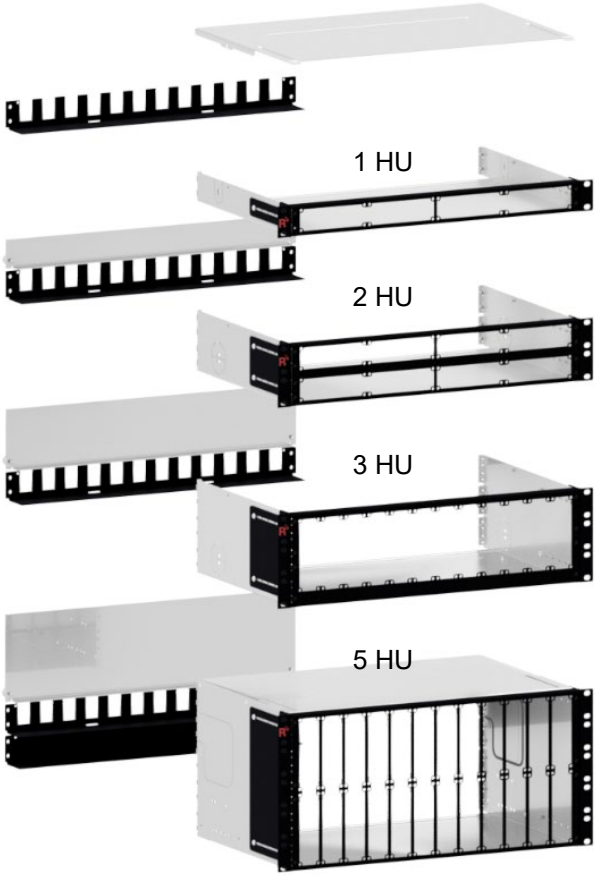
| Number of channels/fibers | Number of MDC QUAD per side | Cable type | CPR class | SM PC 0° | OM4 |
|---|---|---|---|---|---|
| 4/8 | 1 | I-V(ZN)HH 4 x 2 fibers | Dca [1)] | on request | on request |
| 8/16 | 2 | I-V(ZN)HH 8 x 2 fibers | Dca [1)] | on request | on request |
| 16/32 | 4 | I-F(ZN)HH 4 x 8 fibers with leg dividers | Cca | 037A2138G657A1 | 037A2140OM4 |
| 32/64 | 8 | I-F(ZN)HH 8 x 8 fibers with leg dividers | Cca | 037A2139G657A1 | 037A2141OM4 |
| 64/128 | 16 | I-F(ZN)HH 16 x 8 fibers with leg dividers | Cca | on request | on request |

[1)] Change to B2ca once Dca inventory is used up

Technical data of connectors, fibers and cables on request via the product profile of your selected trunks.

Trunks with other numbers of channel/fiber on request.

## PreCONNECT® SMAP-G2 Standard Density (SD) 19” panel system:




**Port density:**
- 128 MDC (32 MDC Quad) ports per HU at the 1, 2 and 3 HU panels and 153.6 per HU (total 768) at the 5 HU panel

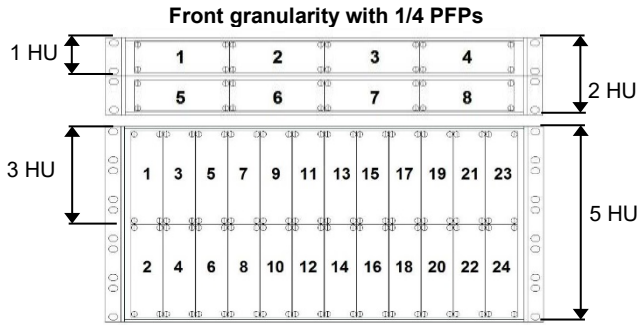
**Dimensions:**
- Width: 19“
- Height: 1, 2, 3 and 5 HU
- Depth: 200 mm and 300 mm, see product information SMAP-G2 SD

**Part numbers:**

SMAP-G2 SD empty distribution panels, RAL9005 black, back plane with 12 PreCONNECT® square interfaces:

| | |
|---|---|
| 1 HU, depth 300 mm | 171A0001 |
| 1 HU, depth 200 mm | 171A0020 |
| 2 HU, depth 300 mm | 172A0001 |
| 3 HU, depth 300 mm | 173A0001 |
| 5 HU, depth 300 mm | 175A0001 |

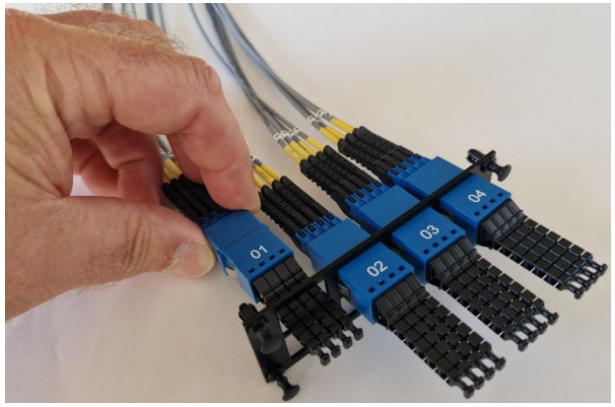
**Find panels with other back plane configurations and further information in our product information SMAP-G2 SD.**



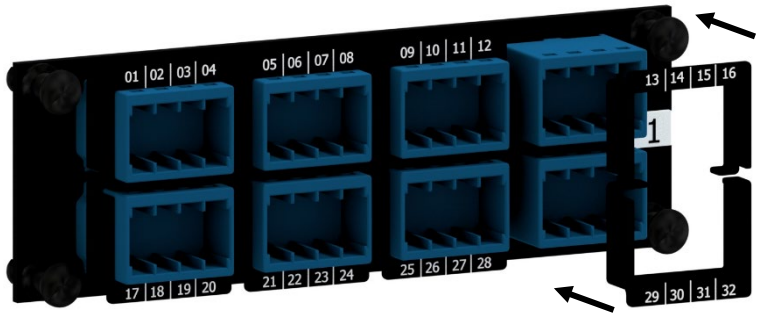

**1 HU 1/4 Blind PFP RAL9005 black**
**Part number: 170A0001**

## SMAP-G2 SD 1HU 1/4 part front plates:

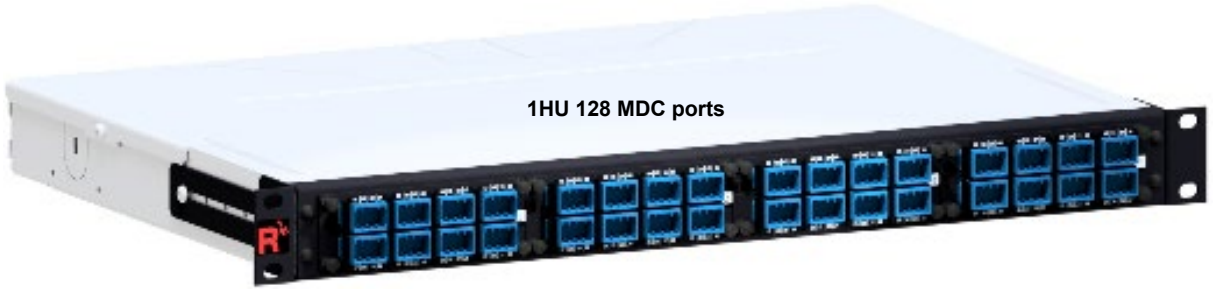
**Trunk legs with MDC Quad couplers are plugged into the empty part front plates from the rear**




**Plug port numbering frames on the MDC Quad couplers**



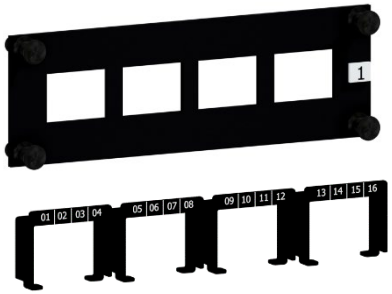

**1HU 128 MDC ports**



**1HU 64 MDC ports**

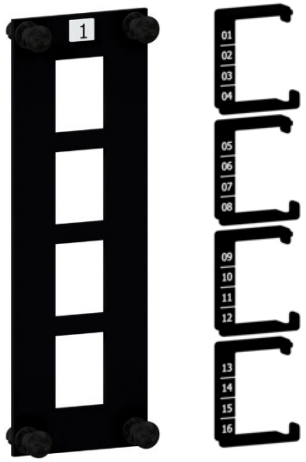
## SMAP-G2 SD 1HU 1/4 part front plates:

**1 HU 1/4 PFP empty for 4 MDC Quad couplers**
**for horizontal mounting, port numbering horizontal readable**
**incl. port numbering frames for numbering 1 to 16**
**Part number: 170A0013**

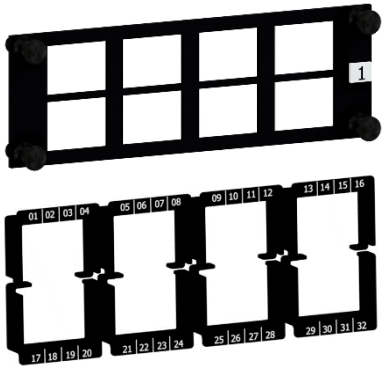



**Blind plug for open**
**front plate holes**
**Part number: 111A0117**

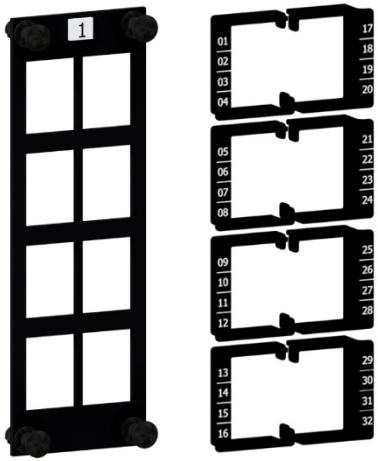
**1 HU 1/4 PFP empty for 4 MDC Quad couplers**
**for vertical mounting, port numbering vertical readable**
**incl. port numbering frames for numbering 1 to 16**
**Part number: 170A0014**



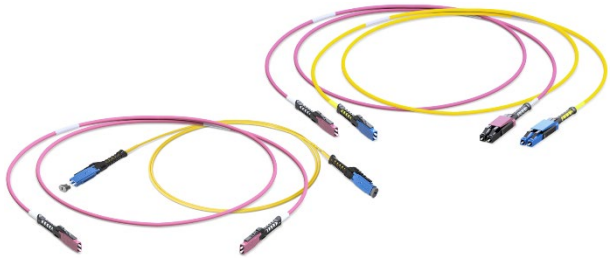

**1 HU 1/4 PFP empty for 4 MDC Quad couplers**
**for horizontal mounting, port numbering horizontal readable**
**incl. port numbering frames for numbering 1 to 32**
**Part number: 170A0011**




**1 HU 1/4 PFP empty for 4 MDC Quad couplers**
**for vertical mounting, port numbering vertical readable**
**incl. port numbering frames for numbering 1 to 32**
**Part number: 170A00112**



## Patchcords:



### Properties:

- Kink and crush resistance optimized for environmental conditions
- Operating temperature range: -10°C to +60°C
- Polarity:
  Full-duplex cables with duplex connectors on both sides “crossed” A to B in accordance with ISO/IEC 11801 and EN 50173

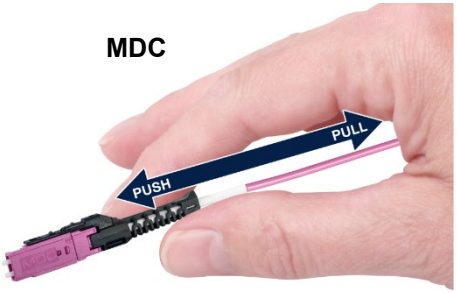
### Length tolerances:

- Up to 1 m = - 50 mm
- 2 m to 3 m = - 100 mm
- 4 m to 25 m = - 200 mm
- Longer than 25 m = - 1 %

### Delivery form:

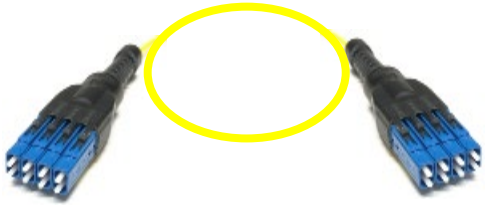
- Attenuation (IL) measured in accordance with IEC 61300-3-4 „C“ or „Substitution“ method, MM 850nm/SM 1310nm, measurement values on request, or can be downloaded from our website by using the serial numbers of the patchcords
  https://www.rosenberger.com/products/download-measurement-data/
- Serial number labels with length information at both patchcord ends
- Individually packaged in foil bags with product ID label

**MDC**




**LC COMPACT**
**Push-Pull-Boot**
**(LCC-PPB)**


**MDC Quad Uniboot**
**8F patchcord**
**on request**

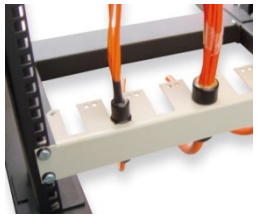
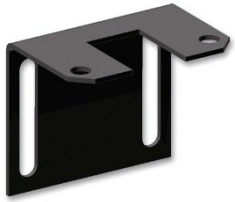
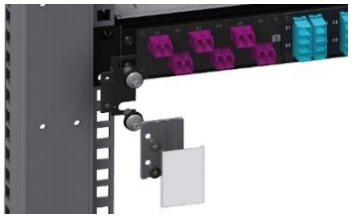


**Part numbers**
**Duplex patchcord cable type round I-V(ZN)H and I-V(ZN)H(ZN)H FRNC-LSZH**

| Cable diameter | Connectors | Length | OM4 | OS2 PC 0° |
|---|---|---|---|---|
| 1.6 mm | MDC PC 0° » MDC PC 0° | variabel | 092A0010OM4 | 092A0009G657A1 |
| | MDC PC 0° » LCC-PPB PC 0° | variabel | 092A0012OM4 | 092A0011G657A1 |
| 2.0 mm | MDC PC 0° » MDC PC 0° | variabel | 092A0004OM4 | 092A0003G657A1 |
| | MDC PC 0° » LCC-PPB PC 0° | variabel | 092A0008OM4 | 092A0007G657A1 |
| double jacket 2.0 / 4.0 mm | MDC PC 0° » MDC PC 0° | variabel | on request | on request |
| | MDC PC 0° » LCC-PPB PC 0° | variabel | on request | on request |

Technical data of connectors, fibers and cables on request via the product profile of your selected partchcords.

## Accessories:

| Description | Part number | Pictures |
|---|---|---|
| **19” 1 HU universal trunk cable divider holder**<br><br>For the universal installation of multiple trunk cable dividers within 19" racks. | RAL9005 black<br><br>099A0085 |   |
| **19” 1 HU single universal trunk cable divider holder**<br><br>For the universal installation of a single trunk cable dividers within 19" racks. | RAL9005 black<br><br>099A0065 |   |
| **For 19“ panel accessories see our product information 19“ panel accessories** | |      |

## Patch location rack:

### Applications:
High density data center infrastructures
For the construction of ultra high density data center patch locations

### Properties:
Innovative, restriction-free cable management system
Rack pillars with integrated cable managers to prevent interference with cable routing
The covers of the cable managers fold in both directions and are completely removable
Individually selectable feedthroughs in the sides and rear walls of the large volume cable channel for simple vertical and horizontal cable routing
Professional routing of large cable volumes from the patchfields and storage of cable overlengths in the vertical cable managers
Particularly suitable for fiber optic cables thanks to the use of cable clips (L-fingers) and finger slots:

- The rounded L-fingers ensure that the cables are extremely well protected against bending and kinking even when subject to strain.
- The L-fingers do not have any sharp edges and are extremely strong and resistant to breakage.
- Because there is plenty of space for them in the large finger slots, the cables are neither squeezed nor kinked.
- The L-fingers retain the cables in the finger slots whenever you need to work with the covers folded back or removed.

Dimensions (H x L x W): 213 (46 HU) x 90 x 90 cm
Material and color: Powder-coated steel, RAL 9005 (black)

### Optional:
19” Intermediate rack for the construction of rack rows with uneven numbers of racks on request.

### Delivery form:
Factory mounted on pallet (total height with pallet and packaging: 230 cm)
Including adjustable feet for on-site installation

### Accessories:
Wide range of accessories such as side walls, cable guides, excess cable storage for the top of the rack are available on request

More details in our
product information “ DC-PLR“

## About Rosenberger OSI:

Since 1991, Rosenberger Optical Solutions & Infrastructure (Rosenberger OSI) has been a recognized expert for fiber-based connectivity, cabling solutions and infrastructure services in the areas of data centers, local area networks, mobile networks and industrial applications. As an integrated solution provider, we have high expertise in the development and operational excellence in the production of system solutions for communication networks. Our comprehensive services enable the secure and efficient operation of digital infrastructures. This combination, combined with our strong customer focus, makes us unique and a strong partner in the global market.

Rosenberger OSI has been part of the globally operating Rosenberger Group since 1998. The Rosenberger Group is a leading global provider of high-frequency, high-voltage and fiber optic connectivity solutions with headquarters in Germany. For further information, please visit: www.rosenberger.com/osi

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