





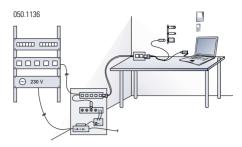






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RCC45° Technical Data



Hybrid structured cabling system including voltage and power supply.

Power Applications

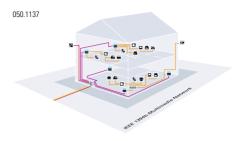
RCC45° allows the integration of power cabling, with a maximum supply voltage of 50 V at 4 A. For installation, the power contacts are inserted into to the connection openings of the module and clipped to the plug.

RCC45® modules take all the cables together to terminal equipment such as telephone systems, laptops, palmtops, printers or scanners. The mains supply can be positioned centrally at the hub or somewhere else out of the way.

Power Contact Specifications

The RCC45® power contacts are made of brass and designed for longevity and superlative reliability. The surfaces are refined with Au/Ni. One distinguishing features of the socket is a finger clip (Cu/Be) with excellent performance characteristics. The connector pin has a round shape ensuring a constant strength for easy plugging in and out.

| Current carrying capacity | 4 A |
|---------------------------|-------------------------------|
| Equipment voltage | up to 50 V |
| Contact resistance | 10 m Ω |
| Mating cycles | 500 |
| Surface treatment | 0.5 μ Au / 2.5 μ Ni |
| Environmental category | -10 / +50 °C (10/55/21) |
| Dielectric strength | contacts 1000 V |
| | shield/environment 1500 V |
| Wire diameter | up to max. AWG 18 (27 x 0.21) |
| Connection technique | crimping or soldering |



Structured cabling for IEEE 1394b multimedia network

POF Applications

RCC45° supports the use of plastic optical fiber (POF). The ferrules are inserted into the connection openings of the modules in next to no time. With the R&M Toolkit for POF installations the fiber is assembled in less than one minute and simply inserted into the socket.

POF facilitates an economic and flexible realisation of optical network solutions up to the desktop. This robust plastic fiber lets the vision of an all-optical network move closer. The following applications are in preparation or can already be realised:

- Ethernet over POF
- Video over POF
- IEEE 1394b over POF
- TV over POF

Specifications of the POF

Maximum Values

| Parameter | | Unit | Min. | Max. |
|-------------------------------------|----------------|------|------|------|
| Storage temperature | | °C | -50 | +85 |
| Operating temperature | | °C | -40 | +85 |
| Installation temperature | | °C | -20 | +70 |
| Tensile strength | Single channel | N | 50 | |
| (short term < 30 min) | Dual channel | N | 100 | |
| Tensile strength (> 30 min) | | N | 1 | |
| Minimum bending radius (short term) | | mm | 25 | |
| Minimum bending radiu | S | mm | 35 | |
| | | | | |

Mechanical/Optical Characteristics

| Parameter | | Unit | Min. | Тур. [1] | Max. |
|-------------------|------------|-------|----------|----------|----------|
| Attenuation fiber | dB/m | 0.12 | 0.19 | 0.24 | |
| Attenuation cable | dB/m | 0.15 | 0.22 | 0.27 | |
| Numerical apertur | re (> 2m) | [-] | 0.46 | 0.47 | 0.50 |
| Diameter, core an | d cladding | mm | 0.94 | 1.00 | 1.06 |
| Diameter primary | coating | mm | 2 x 2.13 | 2 x 2.20 | 2 x 2.27 |
| Propagation delay | constant | ns/mm | | 5.0 | |
| Refractive index | core | [-] | | 1.492 | |
| | cladding | [-] | | 1.417 | |
| | | | | | |

Note: typical data at 25 °C.

RCC45[®] Accessories Connection Module and Adapter

| Ordering Information | Description | Packing Unit | Part Number |
|-----------------------------------|---|--------------|-------------|
| 010.2721 | RCC45® Connection Module Cat. 5e, 1xRJ45/u RCC45® connection module featuring one unshielded RJ45 port. Including dust cover, cable tie and instruction manual. | 10 | R308254 |
| 010.2727.5/010.2727.6 | RCC45® Adapter POF Adapter for one F-05 or F-07 plug connector. Including dust covers and instruction manual. Colour: white/RAL 9010 | 10 | R308255 |
| 010.2727.3/010.2727.2/010.2727.11 | RCC45® Ferrule Set POF, 980/1000/2200 Each set includes: - Two RCC455® ferrules - RCC45® clip - RCC45® dust cover In addition, the 10-piece packing unit contains: - Instruction manual - RCC45® turning tool - RCC45® clamping tool | 10 | R307419 |
| 010.2727.3/010.2727.2/010.2727.8 | RCC45® Module Contact Set, Power This set includes: - Two RCC45® module contacts - RCC45® clip - RCC45® dust cover - Instruction manual | 10 | R308256 |
| 010.2767/010.2727.9 | RCC45® Plug Contact Set, Power This set includes: — Two RCC45® plug contacts — RCC45® plug adapter, top part — RCC45® plug adapter, bottom part — Instruction manual | 10 | R308257 |



| Ordering information | Description | Packing unit | Part number |
|----------------------|---|--------------|-------------|
| 010.3119 | RCC45° 19" 1U Patch Panel Power 19" 1U patch panel for 4 RCC45° power print modules (32 power jacks) Supplied: - 19" 1U patch panel - 1 x RCC45° power print module of 1 x 8 outlet (R310336) - Labelling strips - Fastening screws for print - Wiring insructions | 1 s | R310363 |
| 010.3122 | RCC45° Print Module Power, 1 x 8 outlets Print module for the RCC45° 19" 1U Patch Panel Power. Max. in: 32A (4 mm²) Max. out: 4A 48 V Print module comprises: 8 power jacks 2,5 x 5,5 mm 8 fuse holders 5 x 20 mm (without fuses) 1 connection 4 x 4 mm² — Wiring instructions | 1 | R310336 |
| 010.1673 | Protective Conductor Terminal 6 mm² For the simple and efficient earth connection. Accommodates one stranded cable with a max. cross section of 6 mm². Can be used with all metal patch panels (1U 24 port and voice panel 50 x RJ45) as well as with Global System. | 1 | R302150 |

$RCC45^{\circ}$ Installation Cables

| Ordering Information | Description | Packing Unit | Part Number |
|----------------------|--|--------------|-------------|
| 010.2725 | RCC45® Hybrid Cable U/UTP Cat. 5e + POF, LSOH Unshielded installation cable, 100 Ohm, for frequencies up to 125 MHz. Dimensions: 4 x 2 x 0.5 mm and 2 x SI-POF 980/1000 | 305 m | R308592 |
| 010.2726 | RCC45° Hybrid Cable U/UTP Cat. 5e + Power, LSOH Unshielded installation cable, 100 Ohm, for frequencies up to 125 MHz. Dimensions: 4 x 2 x 0.5 mm and 2 x AWG 18 (1 mm²) | 305 m | R308599 |
| 010.2724 | RCC45® Hybrid Cable U/UTP Cat. 5e + tube, LSOH Unshielded installation cable, 100 Ohm, for frequencies up to 125 MHz. Dimensions: 4 x 2 x 0.5 mm and empty tube, Ø 6 mm, plus drawing cord | 305 m | R308852 |

R&M



All it needs for the field assembly of the POF screw-ferrules are the RCC45 tools. The compact and efficient set, limited to a few parts, allows fast and easy handling.

Features:

- Easy handling
- 2 ferrules in less than 2 min.
- Light and compact
- Mains supply independent
- No adhesives or crimping
- Ferrules are reusable

| Ordering Information | Description | Packing Unit | Part Number |
|----------------------|---|--------------|-------------|
| 010.2769 | RCC45° Toolbox POF, complete For the field-assembly of POF ferrules. Supplied: Stripping tool Spare blades Mounting kit for ferrules Polishing plate Polishing pad Paper clip Sanding sheet Polishing sheet Cleaning tissues Instructions manual Without crimping pincers Without measuring equipment | 1 | R308366 |
| 010.2770 | Measuring Equipment POF To measure the attenuation of the POF connection at wavelength 650 nm This set includes: - Source (with F-05 adapter) - Power meter (with F-05 adapter) - Instruction manual - Without measuring cable, see page 215 (F-05/F-05) | 1 | R308604 |
| 010.2771 | RCC45® Crimping Pincers for Power Contacts 4-point crimping pincers to effectuate the power contacts in module and plug. This set includes: — Crimping pincers — Mounting aid — Instruction manual | 1 | R308853 |

| Ordering In | ıformation | | |
|-------------|--|----|--|
| 010.2772 | | | |
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| | No. of the last of | | |
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| Description | Packing Unit | Part Number |
|----------------------------------|--------------|-------------|
| POF Patch Cord 2 x 980/1000/2200 | | |
| F-07 – F-07, length 1 m | 10 | R308589 |
| F-07 — F-07, length 2 m | 10 | R308591 |

On request

On request

F-07 — F-07, length 1 m F-07 — F-07, length 2 m F-07 — SMI, length 1 m F-07 — SMI, length 2 m

RCC45® Measuring Cable 10 R308854

see page 214 F07 – F05, length 1 m



RCC45[®] Connection Cable Power (Outlet)

Measuring cable to the measuring equipment,

This power connection cable for use at the workplace can be subsequently mounted to standard R&M patch cord.

Supplied:

Side A: RCC45® power adapter

Phone Plug:

Side B: Interchangeable DC Plug Set with

adjustable polarity tips.

Incl. coaxial Power Plug: 2.1 x 5.5 mm

2.5 x 5.5 mm 1.7 x 4.0 mm 1.4 x 3.5 mm 1.1 x 3.0 mm 0.7 x 2.35 mm 3.5 mm 2.5 mm

 Length 1.5 m
 10
 R310310

 Length 3.0 m
 10
 R310311



RCC45® Patch Cord Power (Panel)

This power patch cord can be subsequently mounted to standard R&M patch cord plug.

Supplied:

Side A: RCC45® power adapter

Side B: Coaxial Power Plug 2.5 x 5.5 mm, matching the print module (R310336)

 Length 1.5 m
 10
 R310307

 Length 3.0 m
 10
 R310308



RCC45[®] PoE Patch Cord, 5e, U/UTP, PVC

Connection cable for Power-over-Ethernet (IEEE 802.3af) applications. Two conductor pairs from the cord are routed into the RCC45® power adapter.

max. 350 mA, max. 48 V

Supplied:

Side A: RJ45 with RCC45® power adapter

Side B: RJ45

 Length 1.5 m
 10
 R309668

 Length 3.0 m
 10
 R309670

| Ordering Information | Description | Packing Unit | Part Number |
|------------------------|---|--------------|-------------|
| 010.2773 | RCC45® Polishing Plate POF 4-hole polishing plate with a hard-metal plate for 2.5 mm-POF ferrules. | 1 | R308419 |
| 010.2774 | RCC45® Stripping Tool POF Special 2-blade stripping tool to cut and strip in one single go. | 1 | R308421 |
| 010.2727.7/010.2727.10 | RCC45® Spare Blades Set POF Special blades for R308421 Supplied: 10 spare blades 1 setting gauge Installation manual For fiber type 980/1000/2200 | 1 | R308367 |
| 010.2775 | RCC45° Consumables POF | | |
| | RCC45 [®] Sanding Foil POF To pre-polish the POF | 10 | R308360 |
| | RCC45° Polishing Foil POF To polish the POF | 10 | R308362 |
| | RCC45 [®] Cleaning Tissue POF Dry | 10 | R308363 |
| 020.2776 | Module Holder Tool A small tool that can do great things: - Remove the module holder plate - Remove the POF adapter frame - Remove the clip | 1 | R308261 |

Notes