

# FM45 EL Cat. 6<sub>A</sub> Plug, Standard & Slim Version



## SCOPE OF SUPPLY

- Field mountable RJ45 plug
- Wiring element and nut with clamping ring 6-9 mm
- Strain-relieve clamping ring for cable diameter 5-8 mm

## GENERAL DESCRIPTION

**Intuitive, fast and robust** - New generation of field mountable RJ45 plug connector, with unlatching catch protection lever and robust die cast housing, shielded and unshielded, Cat.6<sub>A</sub> 8-pole, IDC termination technology, suitable for solid or stranded wires, 2 to 8-wire conductors of diameter AWG 22 to AWG 26 (AWG 22/7 - 26/7), die cast housing IP20, for cable diameters of 5 to 9 mm, printed color coding acc. TIA 568A/B. Each set packed in environmentally friendly paper bag with installation guide printed directly onto the paper bag.  
PoE optimized – R&M PowerSafe seal granted.

## FEATURES

- Field mountable RJ45 plug
- Robust die cast housing
- Intuitive and fast termination of unshielded cable (UTP)
- Intuitive and fast termination of shielded cable (STP)
- Approved for solid and stranded wire AWG 22 to AWG 26
- Environmentally friendly paper bag packaging
- Product information printed directly onto paper bag
- Installation guide accessible via QR code printed onto paper bag
- Unique QR Code sticker for individual quality traceability
- Unlatching lever / latch protection

## APPLICATION

- Standard version, suitable for standard applications
- Slim version, suitable for high density applications

| PRODUCT-NO | PRODUCT DESCRIPTION                | PACKING UNIT |
|------------|------------------------------------|--------------|
| R888230    | Plug FM45 ELC6A su 22-26 IP20 AB m | 20 pcs./ctn. |
| R836543    | Plug FM45 ELC6A su 22-26 IP20 ms   | 20 pcs./ctn. |

## STANDARDS

- ISO/IEC 11801
- IEC 60603-7-51
- EN 50173
- ANSI/TIA 568.2
- IEC 60512-99-001/002
- PoE (IEEE 802.3af), PoEP (IEEE 802.3at), 4PPoE (IEEE 802.3bt)

## MATERIAL

| DESCRIPTION                         | VALUE / VALUE RANGE |
|-------------------------------------|---------------------|
| Housing                             | Zinc die cast       |
| Connector                           | Polycarbonate       |
| Unlatching lever / Latch protection | Polycarbonate       |

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## TECHNICAL DATA

| DESCRIPTION                      | VALUE / VALUE RANGE  | STANDARD            |
|----------------------------------|--|---------------------|
| Approved solid wire Ø            | 0.4 mm – 0.61 mm   | AWG 26 – AWG 22     |
| Approved stranded wire Ø         | 0.12 mm <sup>2</sup> - 0.32 mm <sup>2</sup>  | AWG 26/7 – AWG 22/7 |
| Approved wire insulation cable Ø | max. 1.60 mm   |                     |
| Overall cable Ø                  | 5.0 mm – 9.0 mm  |                     |
| Shield lance                     | Tinned brass (CuSn6)   |                     |
| Housing colour                   | Silver (metal)   |                     |
| UL classification                | pending  |                     |
| Re-termination                   | ≥4<br>Re-terminations may be performed with wire of either larger or equal size than originally terminated | IEC 60352-4         |

## MECHANICAL DATA

| DESCRIPTION       | VALUE / VALUE RANGE                 | STANDARD            |
|-------------------|-------------------------------------|---------------------|
| Number of wire    | Max. 8                              |                     |
| Contact material  | Bronze (CuSn6)                      |                     |
| Contact surface   | > 1.2 µm gold over 1.2 µm nickel    |                     |
| Mating cycles     | > 750                               | IEC 60603-7         |
| Connection type   | IDC/Insulation displacement contact | IEC 60352-4*        |
| Surface treatment | IDC tin-plated approx. 5 µm         |                     |
| Protection rating | IP20                                |                     |
| Wiring diagramm   |                                     | TIA568A and TIA568B |

## ELECTRICAL DATA

| DESCRIPTION  | VALUE / VALUE RANGE | STANDARD   |
|--|---------------------|--|
| Contact resistance<br>(solid wire – IDC)                     | < 1 mΩ              | IEC 60352-4  |
| Contact resistance<br>(stranded wire – IDC)                  | < 5 mΩ              | IEC 60352-4  |
| Contact resistance<br>Signal contacts and screen (plug-jack) | < 20 mΩ             | IEC 60603-7 (for contacts)<br>IEC 60603-7-1 (for shield) |
| Input-output resistance<br>(plug only)                       | < 100 mΩ            | IEC 60603-7  |
| Insulation resistance  | > 1 GΩ (100 V)      | IEC 60603-7  |
| Dielectric strength<br>(contact to contact)                  | > 1000 VDC          | IEC 60603-7  |
| Dielectric strength<br>(shield to contact)                   | > 1500 VDC, 1min.   | IEC 60603-7-1  |
| Nominal current  | 1.55 A @ 20°C       | IEC 60603-7  |
| Pollution degree   | 2                   | IEC 61010-1  |

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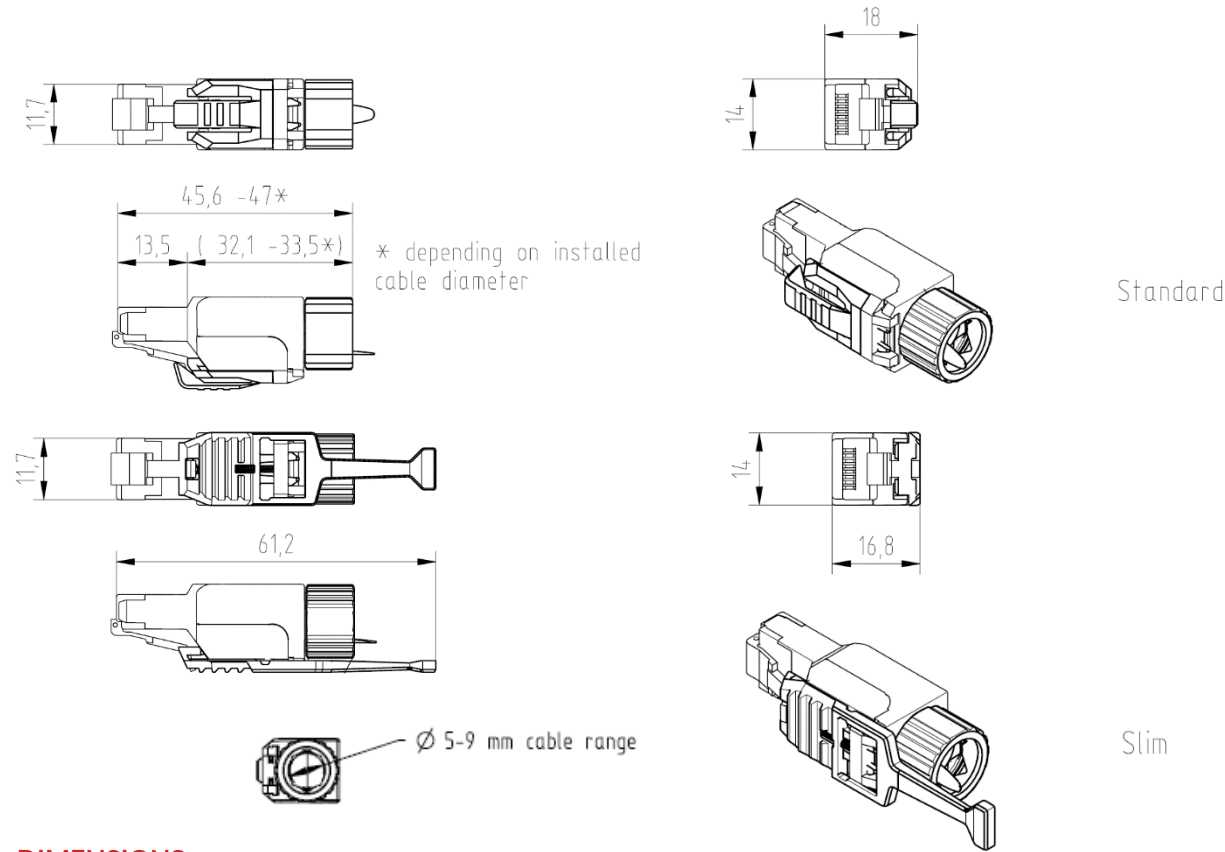
CLIMATICAL DATA

| DESCRIPTION                    | VALUE / VALUE RANGE | STANDARD |
|--------------------------------|---------------------|----------|
| Temperature range, operational | -20 °C ... +70 °C   |          |

ENVIRONMENTAL PROPERTIES

| DESCRIPTION | VALUE / VALUE RANGE | STANDARD |
|-------------|---------------------|----------|
| RoHS        | Fulfilled           |          |
| REACH       | Fulfilled           |          |

TECHNICAL DRAWING



DIMENSIONS

| DESCRIPTION                             | VALUE                |
|---|----------------------|
| Standard type (length x width x height) | Max. 47x14x18 mm     |
| Slim type (length x width x height)     | Max. 61.2x14x16.8 mm |

PACKAGING INFORMATION

| DESCRIPTION   | UNIT    |
|---------------|---------|
| Paper bag     | 1 pc    |
| Cardboard box | 20 pcs. |