



- Field terminated RJ45 connector
- Termination of unshielded cable (UTP)
- Termination of shielded cable (STP)
- Approved for solid and stranded wire AWG 26 to AWG 22

Standards for the FM45 transmission characteristics :

- ISO/IEC 11801
- PoE and PoE+ compatible according to IEC 60512-99-001
- IEC 60603-7-41/-51, EN 50173, EIA/TIA 568A/B

Mechanical Data

Criteria	Date / value
Number of wire	8
Contact material	bronze (CuSn6)
Contact surface	> 1.2 µm gold over 1.2 µm nickel
Insulation material connector	Polycarbonate (UL-94-V-0)
Mating cycles	min. > 750
Connection type	IDC/Insulation displacement contact according IEC 60352-4
Surface treatment	IDC tin-plated approx. 5 µm
Ambient temperature (operation)	-20 °C ... 70 °C

Electrical Data

Description	Date / value
Contact resistance (solid wire – IDC)	< 1 mΩ
Contact resistance (stranded wire – IDC)	< 5 mΩ
Contact resistance Signal contacts and screen (plug-jack)	< 20 mΩ
Input-output resistance (plug only)	< 100 mΩ
Insulation resistance	(100 V) > 1 GΩ
Dielectric strength (contact-contact)	> 1000 V DC
Dielectric strength (shield-contact)	> 1500 V DC, 1min.
Nominal current	1.75 A 20°C
Surge voltage category	1
Pollution degree	2

Technical Data

Criteria	Date / value
Approved solid wire Ø	0.4 mm – 0.54 mm (AWG 26 – AWG 22)
Approved stranded wire in mm ²	0.12 mm ² - 0.32 mm ² (AWG 26/7 – AWG 22/7)
Approved insulation cable Ø	max. 1.60 mm
Cable jacket Ø	4.5 mm – 8.0 mm
Cable strain relief	> 50 N
Re-termination	≥4 according IEC 60352-4
Shield jacket material	Brass (CuZn) hot-dip galvanized, 3 µm
Wiring	In pairs (no splitting)
Tin plating	Lead free
Housing material	PA
Housing colour	Military gray RAL7042

Application and Certification

Mechanical, electrical and transmission technical characteristics (measured at 20°C)

Dimensions

