

IE CONNECTING CABLE M12-180/IE FC RJ45 PLUG-145;  
IE FC TRAILING CABLE GP PREASSEMBLED WITH M12  
CONNECTOR (D-CODED) A. IE FC RJ 45 PLUG;  
LENGTH 15.0 M



Acceptability for application

For connecting Industrial Ethernet stations (e.g. SIMATIC ET200pro, SCALANCE X208PRO and SIMOTION)

Cable length

15 m

### Electrical data

Damping ratio per length

- at 10 MHz / maximum
- at 100 MHz / maximum

0.063 dB/m

0.213 dB/m

Impedance

- for frequency range 1 MHz ... 100 MHz

100 Ω

Relative symmetrical tolerance

- of the surge impedance at 1 MHz ... 100 MHz

5 %

Near-end crosstalk per length

- at 1 MHz ... 100 MHz

0.5 dB/m

Transfer impedance / at 10 MHz

20 mΩ/m

Loop resistance per length / maximum

120 Ω/km

Operating voltage

- RMS value

100 V

percentage NVP value

66 %

### Mechanical data

Number of electrical wires

4

Design of shield	Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires
Core diameter	
• of the AWG22 core	0.75 mm
Outer diameter	
• of the inner conductor	0.75 mm
• of the wire insulation	1.5 mm
• of the inner sheath of the cable	3.9 mm
• of the cable sheath	6.5 mm
Symmetrical tolerance of outer diameter / of cable sheath	0.2 mm
Material	
• of the wire insulation	PE
• of the inner sheath of the cable	PVC
• of the cable sheath	PVC
Color	
• of the insulation of data wires	white / yellow / blue / orange
• of the cable sheath	green
Bending radius	
• with single bend / minimum permissible	32.5 mm
• with multiple bends / minimum permissible	49 mm
• with continuous bending	100 mm
Number of bending cycles	3000000
• Note	For use in cable carriers, for 3 million bending cycles with a bending radius of 100 mm, a speed of 4 m/s, and an acceleration of 4 m/s <sup>2</sup>
Traction stress / maximum	150 N
Weight per length	68 kg/km
<b>Permitted ambient conditions</b>	
Ambient temperature	
• during operating	-25 ... +75 °C
• during storage	-25 ... +75 °C
• during transport	-25 ... +75 °C
• during installation	-10 ... +60 °C
• Comment	Electrical characteristics measured at 20 °C, tests according to DIN VDE 0472
Burning behaviour	flame resistant according to UL 1685 (CSA FT 4)
Chemical resistance	
• to mineral oil	Conditional resistance
• to grease	Conditional resistance
• to water	Conditional resistance
Radiological resistance / to UV radiation	Resistant
<b>Product properties, functions, components / general</b>	

Product feature

- halogen-free
- silicon-free

No

Yes

Standards, specifications, approvals

UL/ETL listing / with 300 V rating

Yes: c(UL)us, CMG / PLTC / Sun Res / OIL RES

UL/ETL style / with 600 V rating

yes

Verification of suitability

- RoHS conformity

Yes

Standard for structured cabling

Cat5e

Marine classification association

- American Bureau of Shipping Europe Ltd. (ABS)
- Bureau Veritas (BV)
- Det Norske Veritas (DNV)
- Germanische Lloyd (GL)
- Lloyds Register of Shipping (LRS)
- Nippon Kaiji Kyokai (NK)
- Polski Rejestr Statkow (PRS)

No

No

No

No

No

No

No

**letzte Änderung:**

Aug 6, 2014