

product type designation

product description

IE Connecting Cable M12-180/M12-180

Flexible plug-in cable (4-wire), preferred length, prefabricated with two 4-pole M12 connectors (D-coded, 180° cable outlet)

Industrial Ethernet connecting Cable M12-180/M12-180, pre-assembled IE FC Trailing cable GP, with 2 M12 plugs (D-coded) length 50.0 m.



suitability for use

cable designation

wire length

For connecting Industrial Ethernet stations (e.g. SIMATIC ET200 and SCALANCE XP-200) in IP 65/67 degree of protection

2YY (ST) CY 2x2x0,75/1,5-100 LI GN

50 m

electrical data

number of electrical connections

2

attenuation factor per length

• at 10 MHz / maximum

0.063 dB/m

• at 100 MHz / maximum

0.213 dB/m

impedance

• at 1 MHz ... 100 MHz

100 Ω

relative symmetrical tolerance

• of the characteristic impedance at 1 MHz ... 100 MHz

5 %

near-end crosstalk per length

• at 1 MHz ... 100 MHz

0.5 dB/m

transfer impedance per length / at 10 MHz

20 mΩ/m

loop resistance per length / maximum

120 mΩ/m

operating voltage

• RMS value

80 V

NVP value in percent

66 %

mechanical data

number of electrical cores

4

design of the shield

Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires

core diameter

• of AWG22 insulated conductor

0.75 mm

outer diameter

• of inner conductor

0.75 mm

• of the wire insulation

1.5 mm

• of the inner sheath of the cable

3.9 mm

• of cable sheath

6.5 mm

symmetrical tolerance of the outer diameter / of cable sheath

0.2 mm

material

• of the wire insulation

polyethylene (PE)

• of the inner sheath of the cable

PVC

• of cable sheath

PVC

color

• of the insulation of data wires • of cable sheath	white/yellow/blue/orange green
bending radius • with single bend / minimum permissible • with multiple bends / minimum permissible • with continuous bending	32.5 mm 49 mm 100 mm
number of bending cycles	3000000; Drag chain suitable for 3 million bending cycles at a bending radius of 100 mm, a speed of 4 m/s and an acceleration of 4 m/s ²
tensile load / maximum	150 N
weight per length	68 kg/km
ambient conditions	
ambient temperature • during operation • during storage • during transport • during installation • note	-25 ... +75 °C -25 ... +75 °C -25 ... +75 °C -10 ... +60 °C Electrical properties measured at 20 °C, tests according to DIN VDE 0472
fire behavior	flame resistant according to UL 1685 (CSA FT 4)
chemical resistance • to mineral oil • to grease	conditional resistance Conditional resistance
radiological resistance / to UV radiation	resistant
protection class IP	IP65, IP67
product features, product functions, product components / general	
product feature • halogen-free • silicon-free	No Yes
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes; c(ETL)us, CMG FT4 / (ETL)us PLTC / Sun Res / OIL RES
UL/ETL style / 600 V Rating	Yes; cRUus AWM 21694 AWM I A/B 60°C 600V FT2
certificate of suitability • EAC approval • CE marking • RoHS conformity	Yes Yes Yes
standard for structured cabling	Cat5e
Marine classification association • American Bureau of Shipping Europe Ltd. (ABS) • French marine classification society (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
reference code • according to IEC 81346-2 • according to IEC 81346-2:2019	WG WGB
further information / internet-Links	
Internet-Link • to web page: selection aid TIA Selection Tool • to website: Industrial communication • to website: Industry Mall • to website: Information and Download Center • to website: Selection guide for cables and connectors • to website: Image database • to website: CAX-Download-Manager • to website: Industry Online Support	http://www.siemens.com/tia-selection-tool http://www.siemens.com/simatic-net https://mall.industry.siemens.com http://www.siemens.com/industry/infocenter https://sie.ag/2QdlxcP http://automation.siemens.com/bilddb http://www.siemens.com/cax https://support.industry.siemens.com
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