

product type designation

product description

IE TP Cord M12-180/RJ45-180

Flexible plug-in cable (8-wire), preferred length, pre-assembled with 1 x IE M12 plug 4X2, X-coded, 180 degrees cable outlet and 1x RJ45 connector; 4x2, 180 degrees cable outlet

IE TP Cord M12-180/RJ45-180 pre-assembled IE Flexible Cable, with 1x M12 plug (X-coded); 180 degrees cable outlet; 1x RJ45 plug; 180-degree cable outlet; length 50 m.



suitability for use

For connecting Industrial Ethernet stations with an M12 interface (e.g. SCALANCE W and SCALANCE X)

wire length

50 m

electrical data

number of electrical connections

2

attenuation factor per length

- at 10 MHz / maximum
- at 100 MHz / maximum
- at 300 MHz / maximum
- at 600 MHz / maximum

0.086 dB/m
0.28 dB/m
0.402 dB/m
0.735 dB/m

impedance

- at 1 MHz ... 100 MHz

100 Ω

near-end crosstalk per length

- at 100 MHz
- at 300 MHz
- at 600 MHz

0.724 dB/m
0.653 dB/m
0.608 dB/m

loop resistance per length / maximum

290 mΩ/m

insulation resistance coefficient

5000 GΩ·m

operating voltage

- RMS value

80 V

NVP value in percent

68 %

mechanical data

number of electrical cores

8

design of the shield

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

type of electrical connection / FastConnect

No

core diameter

- of AWG26 insulated conductor

0.48 mm

outer diameter

- of the wire insulation
- of the inner sheath of the cable
- of cable sheath

1 mm
5.4 mm
6.5 mm

symmetrical tolerance of the outer diameter / of cable sheath

0.3 mm

material

- of the wire insulation
- of cable sheath

polyethylene (PE)
PUR

color

• of the insulation of data wires • of cable sheath	white/blue, white/orange, white/green, white/brown green
bending radius	
• with single bend / minimum permissible • with multiple bends / minimum permissible	32.5 mm 65 mm
tensile load / maximum	100 N
weight per length	45 kg/km
ambient conditions	
ambient temperature	
• during operation • during storage • during transport • during installation	-30 ... +80 °C -40 ... +80 °C -40 ... +80 °C -40 ... +80 °C
fire behavior	flame resistant according to IEC 60332-1-2, smoke density according to IEC 61034
chemical resistance	
• to mineral oil • to grease • to water	oil resistant according to DIN EN 60811-2-1 Conditional resistance conditional resistance
radiological resistance / to UV radiation	resistant
protection class IP	IP65/67 (M12), IP20 (RJ45)
product features, product functions, product components / general	
product feature	
• halogen-free • silicon-free	Yes Yes
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes; AWM Style 21815
UL/ETL style / 600 V Rating	No
certificate of suitability	ISO/IEC 11801-1, IEC 61035
• EAC approval • CE marking • RoHS conformity	Yes Yes Yes
standard for structured cabling	Cat6A
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 website: Selection guide for cables and connectors • to web page: selection aid TIA Selection Tool • to web page: SiePortal • to website: Image database • to website: CAX-Download-Manager • to website: Industry Online Support	https://support.industry.siemens.com/cs/ww/en/view/109766358 https://www.siemens.com/tstcloud https://sieportal.siemens.com/ https://www.automation.siemens.com/bilddb https://www.siemens.com/cax https://support.industry.siemens.com
security information	
security information	Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial

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Approvals / Certificates

General Product Approval

[Manufacturer Declaration](#)



[Declaration of Conformity](#)

last modified:

8/8/2024 