

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 and 1x RJ45 plug; 180-degree cable outlet; length 2.0 m.



Technical Product Detail Page

<https://l.siemens.com/1P6XV1878-5TH20>

suitability for use

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

cable designation

S/FTP

wire length

2 m

electrical data

number of electrical connections

2

attenuation factor per length

• at 10 MHz / maximum	0.086 dB/m
• at 100 MHz / maximum	0.28 dB/m
• at 300 MHz / maximum	0.402 dB/m
• at 600 MHz / maximum	0.735 dB/m

impedance

• at 1 MHz ... 100 MHz	100 Ω
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near-end crosstalk per length

• at 100 MHz	0.724 dB/m
• at 300 MHz	0.653 dB/m
• at 600 MHz	0.608 dB/m

loop resistance per length / maximum

290 mΩ/m

insulation resistance coefficient

5000 GΩ·m

operating voltage

• RMS value	80 V
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NVP value in percent

68 %

mechanical data

number of electrical cores

8

design of the shield

S/FTP, overlapped aluminum-clad foil, sheathed in a protective braided shield of tinned copper wires

type of electrical connection / FastConnect

No

core diameter

• of AWG26 insulated conductor	0.48 mm
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outer diameter

• of the wire insulation	1 mm
• of the inner sheath of the cable	5.4 mm
• of cable sheath	6.5 mm

symmetrical tolerance of the outer diameter / of cable sheath

0.3 mm

material

<ul style="list-style-type: none"> • of the wire insulation • of cable sheath 	polyethylene (PE) PUR
color <ul style="list-style-type: none"> • of the insulation of data wires • of cable sheath 	white/blue, white/orange, white/green, white/brown green
bending radius <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • halogen-free • PoE capability • PoE+ capability • PoE++ capability • silicon-free 	Yes Yes Yes Yes Yes
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes
UL/ETL style / 600 V Rating	No
certificate of suitability <ul style="list-style-type: none"> • EAC approval • CE marking • RoHS conformity 	ISO/IEC 11801-1, IEC 61035 Yes Yes Yes
standard for structured cabling	Cat6A
Marine classification association <ul style="list-style-type: none"> • 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
further information / internet links	
internet link <ul style="list-style-type: none"> • 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,

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Approvals / Certificates

General Product Approval	EMV
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Functional Safety	Test Certificates	other
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[Miscellaneous](#)

[Type Examination Certificate](#)

[Type Examination Certificate](#)

[Type Test Certificates/Test Report](#)

[Confirmation](#)



Environment

[Environmental Confirmations](#)

last modified:

10/28/2025