

**product type designation**

product description

**IE TP Cord M12-180/M12-180**

Flexible plug-in cable (8-wire), preferred length, prefabricated with two IE FC M12 connectors 4X2 (X-coded)

IE TP Cord M12-180/M12-180 pre-assembled IE Flexible Cable, with 2 M12 connectors (X-coded), length 1 m.



Technical Product Detail Page

<https://i.siemens.com/1P6XV1878-5HH10>

suitability for use

For connecting Industrial Ethernet stations with an M12 interface (e.g. SCALANCE W and XP-200)

cable designation

S/FTP

wire length

1 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

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

coupling loss / at 30 MHz ... 100 MHz / minimum

80 dB

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

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

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"> <li>• of the wire insulation</li> <li>• of cable sheath</li> </ul>	polyethylene (PE) PUR
color <ul style="list-style-type: none"> <li>• of the insulation of data wires</li> <li>• of cable sheath</li> </ul>	white/blue, white/orange, white/green, white/brown green
bending radius <ul style="list-style-type: none"> <li>• with single bend / minimum permissible</li> <li>• with multiple bends / minimum permissible</li> </ul>	32.5 mm 65 mm
tensile load / maximum	100 N
weight per length	45 kg/km
<b>plug</b>	
type of plug interlock	screwed
design of plug-in connection	M12-180
connector coding <ul style="list-style-type: none"> <li>• of the M12 circular connector</li> </ul>	M12 X-coded
<b>ambient conditions</b>	
ambient temperature <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> <li>• during installation</li> </ul>	-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"> <li>• to mineral oil</li> <li>• to grease</li> <li>• to water</li> </ul>	oil resistant according to DIN EN 60811-2-1 Conditional resistance conditional resistance
radiological resistance / to UV radiation	resistant
protection class IP	IP65, IP67
<b>product features, product functions, product components / general</b>	
product feature <ul style="list-style-type: none"> <li>• halogen-free</li> <li>• PoE capability</li> <li>• PoE+ capability</li> <li>• PoE++ capability</li> <li>• silicon-free</li> </ul>	Yes Yes Yes Yes Yes
<b>standards, specifications, approvals</b>	
UL/ETL listing / 300 V Rating	Yes
UL/ETL style / 600 V Rating	No
certificate of suitability <ul style="list-style-type: none"> <li>• EAC approval</li> <li>• CE marking</li> <li>• RoHS conformity</li> </ul>	ISO/IEC 11801-1, IEC 61035 Yes Yes Yes
standard for structured cabling	Cat6A
Marine classification association <ul style="list-style-type: none"> <li>• American Bureau of Shipping Europe Ltd. (ABS)</li> <li>• French marine classification society (BV)</li> <li>• Det Norske Veritas (DNV)</li> <li>• Germanische Lloyd (GL)</li> <li>• Lloyds Register of Shipping (LRS)</li> <li>• Nippon Kaiji Kyokai (NK)</li> <li>• Polski Rejestr Statkow (PRS)</li> </ul>	No No No No No No No
<b>further information / internet links</b>	
internet link <ul style="list-style-type: none"> <li>• to website: Selection guide for cables and connectors</li> <li>• to web page: selection aid TIA Selection Tool</li> <li>• to web page: SiePortal</li> <li>• to website: Image database</li> <li>• to website: CAx-Download-Manager</li> </ul>	<a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a> <a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a> <a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a> <a href="https://www.automation.siemens.com/bilddb">https://www.automation.siemens.com/bilddb</a> <a href="https://www.siemens.com/cax">https://www.siemens.com/cax</a>

security information

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Approvals / Certificates

General Product Approval



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Industrial Communication

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