

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 2.0 m.



product brand name

SIMATIC NET

Technical Product Detail Page

<https://l.siemens.com/1P6XV1878-5HH20>

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

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

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
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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	
• 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
plug	
type of plug interlock	screwed
design of plug-in connection	M12-180
connector coding	M12
• of the M12 circular connector	X-coded
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, IP67
product features, product functions, product components / general	
product feature	
• halogen-free • PoE capability • PoE+ capability • PoE++ capability • silicon-free	Yes; acc. to IEC 60754-1, IEC 61034 Yes Yes Yes Yes
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes; AWM Style 21815, Wiring Harness
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
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	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

- to website: CAX-Download-Manager
- to website: Industry Online Support

<https://www.siemens.com/cax>

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security information

security information

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Approvals / Certificates

General Product Approval



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formity](#)

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Industrial Communication

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