

## Data sheet

6XV1878-5TH10

product type designation	IE TP Cord M12-180/RJ45-180
product description	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 RJ45 connector; 180-degree cable outlet; length 1 m.
	
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	1 m
<b>electrical data</b>	
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
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 %
<b>mechanical data</b>	
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	
• of the wire insulation	polyethylene (PE)
• of cable sheath	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
<b>ambient conditions</b>		
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)
<b>product features, product functions, product components / general</b>		
product feature	• halogen-free • PoE capability • PoE+ capability • PoE++ capability • silicon-free	Yes Yes Yes Yes Yes
<b>standards, specifications, approvals</b>		
UL/ETL listing / 300 V Rating		Yes; AWM Style 21815
UL/ETL style / 600 V Rating		No
certificate of suitability	• EAC approval • CE marking • RoHS conformity	ISO/IEC 11801-1, IEC 61035 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 Statków (PRS)	No No No No No No No
reference code	• according to IEC 81346-2 • according to IEC 81346-2:2019	WG WGB
<b>further information / internet links</b>		
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	<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> <a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>
<b>security information</b>		
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

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## Approvals / Certificates

### General Product Approval

[Declaration of Conformity](#)



[Manufacturer Declaration](#)

last modified: 9/13/2025 