SIEMENS

Data sheet 6XV1878-5SH20

product type designation	**IE TP Cord M12-90/RJ45-180**
product description	Flexible plug-in cable (8-wire), preferred length, pre-assembled with 1 x IE M12 plug 4X2, X-coded, 90 degrees cable outlet and 1x RJ45 connector; 4x2, 180 degrees cable outlet
	IE TP Cord M12-90/RJ45-180 pre-assembled IE Flexible Cable with 1x M12 plug (X-coded); 90-degree cable outlet; 1x RJ45 plug; 180-degree cable outlet; length 2.0 m.



product brand name	SIMATIC NET
Technical Product Detail Page	https://i.siemens.com/1P6XV1878-5SH20
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
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 %
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

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material	
● of the wire insulation	polyethylene (PE)
● of cable sheath	PUR
color	
● of the insulation of data wires	white/blue, white/orange, white/green, white/brown
● of cable sheath	green
bending radius	
● with single bend / minimum permissible	32.5 mm
● with multiple bends / minimum permissible	65 mm
tensile load / maximum	100 N
weight per length	45 kg/km
ambient conditions	
ambient temperature	
● during operation	-30 ... +80 °C
● during storage	-40 ... +80 °C
● during transport	-40 ... +80 °C
● during installation	-40 ... +80 °C
fire behavior	flame resistant according to IEC 60332-1-2, smoke density according to IEC 61034
chemical resistance	
● to mineral oil	oil resistant according to DIN EN 60811-2-1
● to grease	Conditional resistance
● to water	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	Yes; acc. to IEC 60754-1, IEC 61034
● PoE capability	Yes
● PoE+ capability	Yes
● PoE++ capability	Yes
● silicon-free	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	Yes
● CE marking	Yes
● RoHS conformity	Yes
standard for structured cabling	Cat6A
Marine classification association	
● American Bureau of Shipping Europe Ltd. (ABS)	No
● French marine classification society (BV)	No
● Det Norske Veritas (DNV)	No
● Germanische Lloyd (GL)	No
● Lloyds Register of Shipping (LRS)	No
● Nippon Kaiji Kyokai (NK)	No
● Polski Rejestr Statkow (PRS)	No
further information / internet links	
internet link	
● to website: Selection guide for cables and connectors	https://support.industry.siemens.com/cs/ww/en/view/109766358
● to web page: selection aid TIA Selection Tool	https://www.siemens.com/tstcloud
● to web page: SiePortal	https://sieportal.siemens.com/
● to website: Image database	https://www.automation.siemens.com/bilddb
● to website: CAx-Download-Manager	https://www.siemens.com/cax
● to website: Industry Online Support	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.

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Approvals / Certificates

General Product Approval

Declaration of Conformity	CE EG-Konf.	Manufacturer Declaration	CE EG-Konf.

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