SIEMENS

Data sheet 6XV1878-5GH20

product type designation	**IE TP Cord M12-90/M12-90**
product description	Flexible plug-in cable (8-wire), preferred length, prefabricated with two IE FC M12 connectors 4X2 (X-coded)
	IE TP Cord M12-90/M12-90 Pre-assembled IE Flexible Cable with 2 M12 connectors (X-coded); 90-degree cable outlet; length 2.0 m.



product brand name	SIMATIC NET
Technical Product Detail Page	https://i.siemens.com/1P6XV1878-5GH20
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
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
material	

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● 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
plug	
type of plug interlock	screwed
design of plug-in connection	M12-90
connector coding	M12
● of the M12 circular connector	X-coded
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, IP67
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

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● 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. 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 solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit www.siemens.com/cybersecurity-industry. Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under https://www.siemens.com/cert. (V4.7)

Approvals / Certificates

General Product Approval			Industrial Communication
CE EG-Konf.	Manufacturer Declaration	Declaration of Conformity	PROFINET

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