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Data sheet 6XV1878-5HE50

product type designation	**IE TP Cord M12-180/M12-180**
product description	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 0.5 m.



suitability for use	For connecting Industrial Ethernet stations with an M12 interface (e.g. SCALANCE W and XP-200)
wire length	0.5 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	Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated 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	

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• 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
connector coding	
• 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	IP65/67
product features, product functions, product components / general	
product feature	
• halogen-free	Yes
• silicon-free	Yes
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes; AWM Style 21815
UL/ETL style / 600 V Rating	No
certificate of suitability	
• 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
reference code	
• according to IEC 81346-2	WG
• according to IEC 81346-2:2019	WGB
further information / internet links	
internet link	
• to web page: selection aid TIA Selection Tool	http://www.siemens.com/tia-selection-tool
• to website: Industrial communication	http://www.siemens.com/simatic-net
• to website: Industry Mall	https://mall.industry.siemens.com
• to website: Information and Download Center	http://www.siemens.com/industry/infocenter
• to website: Selection guide for cables and connectors	https://sie.ag/2QdlxcP
• to website: Image database	http://automation.siemens.com/bilddb
• to website: CAx-Download-Manager	http://www.siemens.com/cax
• to website: Industry Online Support	https://support.industry.siemens.com

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