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Data sheet 6XV1870-8AH20

product type designation	**IE Connecting Cable M12-180/M12-180**
product description	Flexible plug-in cable (4-wire), preferred length, prefabricated with two 4-pole M12 connectors (D-coded, 180° cable outlet)
	Industrial Ethernet connecting Cable M12-180/M12-180, pre-assembled IE FC Trailing cable GP, with 2 M12 plugs (D-coded) length 2.0 m.



suitability for use	For connecting Industrial Ethernet stations (e.g. SIMATIC ET200 and SCALANCE XP-200) in IP 65/67 degree of protection
cable designation	2YY (ST) CY 2x2x0,75/1,5-100 LI GN
wire length	2 m
electrical data	
number of electrical connections	2
attenuation factor per length	
● at 10 MHz / maximum	0.063 dB/m
● at 100 MHz / maximum	0.213 dB/m
impedance	
● at 1 MHz ... 100 MHz	100 Ω
relative symmetrical tolerance	
● of the characteristic impedance at 1 MHz … 100 MHz	5 %
near-end crosstalk per length	
● at 1 MHz ... 100 MHz	0.5 dB/m
transfer impedance per length / at 10 MHz	20 mΩ/m
loop resistance per length / maximum	120 mΩ/m
operating voltage	
● RMS value	80 V
NVP value in percent	66 %
mechanical data	
number of electrical cores	4
design of the shield	Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires
core diameter	
● of AWG22 insulated conductor	0.75 mm
outer diameter	
● of inner conductor	0.75 mm
● of the wire insulation	1.5 mm
● of the inner sheath of the cable	3.9 mm
● of cable sheath	6.5 mm
symmetrical tolerance of the outer diameter / of cable sheath	0.2 mm
material	
● of the wire insulation	polyethylene (PE)
● of the inner sheath of the cable	PVC
● of cable sheath	PVC
color	
● of the insulation of data wires	white/yellow/blue/orange

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● of cable sheath	green
bending radius	
● with single bend / minimum permissible	32.5 mm
● with multiple bends / minimum permissible	49 mm
● with continuous bending	100 mm
number of bending cycles	3000000; Drag chain suitable for 3 million bending cycles at a bending radius of 100 mm, a speed of 4 m/s and an acceleration of 4 m/s²
tensile load / maximum	150 N
weight per length	68 kg/km
plug	
type of plug interlock	screwed
design of plug-in connection	M12-180
connector coding	M12
● of the M12 circular connector	D-coded
ambient conditions	
ambient temperature	
● during operation	-25 ... +75 °C
● during storage	-25 ... +75 °C
● during transport	-25 ... +75 °C
● during installation	-10 ... +60 °C
● note	Electrical properties measured at 20 °C, tests according to DIN VDE 0472
fire behavior	flame resistant according to UL 1685 (CSA FT 4)
chemical resistance	
● to mineral oil	conditional resistance
● to grease	Conditional resistance
radiological resistance / to UV radiation	resistant
protection class IP	IP65, IP67
product features, product functions, product components / general	
product feature	
● halogen-free	No
● silicon-free	Yes
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes; c(ETL)us, CMG FT4 / (ETL)us PLTC / Sun Res / OIL RES
UL/ETL style / 600 V Rating	Yes; cRUus AWM 21694 AWM I A/B 60°C 600V FT2
certificate of suitability	UL 2238
● EAC approval	Yes
● CE marking	Yes
● RoHS conformity	Yes
standard for structured cabling	Cat5e
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 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 website: Industrial communication	https://www.siemens.com/simatic-net
● 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

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Approvals / Certificates

General Product Approval				Environment
CE EG-Konf.	Declaration of Conformity	UKCA	Manufacturer Declaration	Confirmation

Industrial Communication
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