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Data sheet 6XV1881-5AH30

Product type designation	**IE Robust Connecting Cable M12-180/M12-180, IP69, 3 m**
Product description	Robust, flexible connection cable (4-core), preferred length, preassembled with two 4-pole M12 connectors (D-coded) IE Robust Connecting Cable M12-180/M12-180, IP69, pre-assembled IE FC Robust Food Cable GP 2x2, with 2 M12 connectors (D-coded) Length 3.0 m



Suitability for use	For connecting Industrial Ethernet stations with degree of protection IP65/67/69. Cable with FEP jacket (fluorinated plastic, perfluoroethylene propylene) for use in the food, beverages and tobacco industries (IP69 resistant). Line is water-repellent, weather-proof, resistant to microbes, and extremely resistant to many cleaning agents and disinfectants (such as hypochlorite, chlorine dioxide, peroxyacetic acid, and quaternary ammonium cations).
Cable designation	2YY(ST)CY6Y 2X2X0.75/1.55 LI VZN
Wire length	3 m

Electrical data	
Damping ratio per length	
• at 10 MHz / maximum	0.095 dB/m
• at 100 MHz / maximum	0.32 dB/m
Impedance	
• at 1 MHz ... 100 MHz	100 Ω
Relative symmetrical tolerance	

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• of the characteristic impedance at 1 MHz … 100 MHz	5 %
Near-end crosstalk per length	
• at 1 MHz ... 100 MHz	0.353 dB/m
Transfer impedance per length / at 10 MHz	80 mΩ/m
Loop resistance per length / maximum	120 mΩ/m
Operating voltage	
• RMS value	80 V
NVP value in percent	63 %

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
Type of electrical connection / FastConnect	Yes
Core diameter	
• of AWG22 core	0.75 mm
Outer diameter	
• of inner conductor	0.75 mm
• of the wire insulation	1.56 mm
• of the inner sheath of the cable	4 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/FEP; FEP transparent
Color	
• of the insulation of data wires	white/yellow/blue/orange
• of cable sheath	green
Bending radius	
• with single bend / minimum permissible	26 mm
• with multiple bends / minimum permissible	52 mm
• with continuous bending	100 mm
Number of bending cycles	1000000; Acceleration 4 m/s²
Number of torsion cycles / with torsion by ± 180° on 1 m cable length	1000000
Tensile load / maximum	150 N
Weight per length	72 kg/km

Ambient conditions

Ambient temperature	
• during operation	-40 ... +80 °C

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• during storage	-40 ... +80 °C
• during transport	-40 ... +80 °C
• during installation	-40 ... +80 °C
• Note	Electrical properties measured at 20 °C, tests according to DIN VDE 0472
Burning behavior	flame resistant according to IEC 60332-1-2
Chemical resistance	
• to mineral oil	oil resistant according to IEC 60811-404 (7x24h/90°C)
• to grease	Conditional resistance
• to water	resistant
Radiological resistance / to UV radiation	resistant
Protection class IP	IP65/67/69

Product features, product functions, product components / general

Product feature	
• halogen-free	No
• silicon-free	Yes

Standards, specifications, approvals

Certificate of suitability	UL: E326894 Wiring Harness
• CE marking	Yes
• RoHS conformity	Yes
Standard for structured cabling	Cat5e
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	No
• Bureau Veritas (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: Selector SIMATIC NET SELECTION TOOL	http://www.siemens.com/snst
• 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: 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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