SIEMENS

Data sheet 6XV1830-3DN15

Product type designation
Product description

PROFIBUS M12-Cable
Flexible plug-in cable (2-core), preferred length, preassembled with two 5-pole M12 male/female connectors (B-coded)
PROFIBUS M12 plug-in cable (ET 200) Pre-assembled PB FC Trailing Cable with 2 M12 connectors, B-coded, 5-pole; 15 m



Suitability for use	Cable for connecting PROFIBUS stations (e.g. SIMATIC ET 200) to IP 65 degree of protection
Cable designation	02YY (ST) C11Y 1x2x0,65/2,56-150 LI KF 40 FR petrol
Wire length	15 m
Electrical data	
Damping ratio per length	
• at 9.6 kHz / maximum	0.003 dB/m
• at 38.4 kHz / maximum	0.004 dB/m
• at 4 MHz / maximum	0.025 dB/m
• at 16 MHz / maximum	0.049 dB/m
Impedance	
• Rated value	150 Ω
• at 9.6 kHz	270 Ω
• at 38.4 kHz	185 Ω
• at 3 MHz … 20 MHz	150 Ω
Relative symmetrical tolerance	

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• of the characteristic impedance at 9.6 kHz	10 %
• of the characteristic impedance at 38.4 kHz	10 %
• of the characteristic impedance at 3 MHz … 20 MHz	10 %
Loop resistance per length / maximum	133 mΩ/m
Shield resistance per length / maximum	14 Ω/km
Capacity per length / at 1 kHz	28 pF/m
Operating voltage	
• RMS value	80 V

Mechanical data

Number of electrical cores	2
Design of the shield	Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires
Type of electrical connection / FastConnect	Yes
Outer diameter	
• of inner conductor	0.67 mm
• of the wire insulation	2.56 mm
• of the inner sheath of the cable	5.4 mm
• of cable sheath	8 mm
Symmetrical tolerance of the outer diameter / of cable sheath	0.4 mm
Material	
• of the wire insulation	polyethylene (PE)
• of the inner sheath of the cable	PVC
• of cable sheath	PUR (TPE-U)
Color	
• of the insulation of data wires	red/green
• of cable sheath	petrol
Bending radius	
• with single bend / minimum permissible	40 mm
• with continuous bending	120 mm
Number of bending cycles	3000000; Drag chain suitable for 3 million bending cycles at a bending radius of 120 mm (15x D) and an acceleration of 4 m/s²
Tensile load / maximum	100 N
Weight per length	77 kg/km

Ambient conditions

Ambient temperature	
• during operation	-40 ... +60 °C
• during storage	-40 ... +60 °C
• during transport	-40 ... +60 °C
• during installation	-40 ... +60 °C

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• Note	Electrical properties measured at 20 °C, tests according to DIN 47250 part 4 respectively DIN VDE 0472
Ambient condition / for operation	Limited segment length (see manual for PROFIBUS networks)
Burning behavior	flame resistant according to IEC 60332-1-2
Chemical resistance	
• to mineral oil	oil resistant according to IEC 60811-2-1 (7x24h/90°C)
• to grease	resistant
• 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	No
• silicon-free	Yes

Standards, specifications, approvals

UL/ETL listing / 300 V Rating	Yes; CMX
UL/ETL style / 600 V Rating	No
Certificate of suitability	
• RoHS conformity	Yes
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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