SIEMENS

Data sheet

6XV1830-5GH10

product type designation

product description

Foundation Fieldbus Cable

Bus cable (2-core), sold by the meter, unassembled

Foundation Fieldbus Cable; bus cable for IEC 61158-2; sheath color blue for Ex applications; 2-core shielded; stranded drain wire; Sold by the meter delivery unit max. 1000 m minimum order quantity 20 m.



suitability for use	For use in fieldbus systems according to IEC 61158-2 (e.g. Foundation Fieldbus), suitable for Ex applications
cable designation	2X(ST)CY 1X2X1.1/2.85-100 LI BL FR OE
electrical data	
attenuation factor per length	
• at 38.4 kHz / maximum	0.003 dB/m
impedance	
 rated value 	100 Ω
• at 31.25 kHz	100 Ω
• at 38.4 kHz	100 Ω
relative symmetrical tolerance	
 of the characteristic impedance at 31.25 kHz 	20 %
 of the characteristic impedance at 38.4 kHz 	20 %
loop resistance per length / maximum	46 mΩ/m
shield resistance per length / maximum	10 Ω/km
capacity per length / at 1 kHz	65 pF/m
inductance per length	0.75 μH/m
operating voltage	
RMS value	300 V
mechanical data	
mechanical data number of electrical cores	2
	2 Overlapped aluminum-clad foil, sheathed in a braided shield of tin- plated copper wires with shield wire
number of electrical cores	Overlapped aluminum-clad foil, sheathed in a braided shield of tin-
number of electrical cores design of the shield	Overlapped aluminum-clad foil, sheathed in a braided shield of tin- plated copper wires with shield wire
number of electrical cores design of the shield type of electrical connection / FastConnect	Overlapped aluminum-clad foil, sheathed in a braided shield of tin- plated copper wires with shield wire
number of electrical cores design of the shield type of electrical connection / FastConnect outer diameter	Overlapped aluminum-clad foil, sheathed in a braided shield of tin- plated copper wires with shield wire No
number of electrical cores design of the shield type of electrical connection / FastConnect outer diameter • of inner conductor	Overlapped aluminum-clad foil, sheathed in a braided shield of tin- plated copper wires with shield wire No 1.17 mm
number of electrical cores design of the shield type of electrical connection / FastConnect outer diameter • of inner conductor • of the wire insulation	Overlapped aluminum-clad foil, sheathed in a braided shield of tin- plated copper wires with shield wire No 1.17 mm 2.85 mm
number of electrical cores design of the shield type of electrical connection / FastConnect outer diameter • of inner conductor • of the wire insulation • of the inner sheath of the cable	Overlapped aluminum-clad foil, sheathed in a braided shield of tin- plated copper wires with shield wire No 1.17 mm 2.85 mm 6.4 mm
number of electrical cores design of the shield type of electrical connection / FastConnect outer diameter • of inner conductor • of the wire insulation • of the inner sheath of the cable • of cable sheath symmetrical tolerance of the outer diameter / of cable	Overlapped aluminum-clad foil, sheathed in a braided shield of tin- plated copper wires with shield wire No 1.17 mm 2.85 mm 6.4 mm 8.5 mm
number of electrical cores design of the shield type of electrical connection / FastConnect outer diameter • of inner conductor • of the wire insulation • of the inner sheath of the cable • of cable sheath symmetrical tolerance of the outer diameter / of cable sheath	Overlapped aluminum-clad foil, sheathed in a braided shield of tin- plated copper wires with shield wire No 1.17 mm 2.85 mm 6.4 mm 8.5 mm
number of electrical cores design of the shield type of electrical connection / FastConnect outer diameter • of inner conductor • of the wire insulation • of the inner sheath of the cable • of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material	Overlapped aluminum-clad foil, sheathed in a braided shield of tin- plated copper wires with shield wire No 1.17 mm 2.85 mm 6.4 mm 8.5 mm 0.3 mm
number of electrical cores design of the shield type of electrical connection / FastConnect outer diameter • of inner conductor • of the wire insulation • of the inner sheath of the cable • of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material • of the wire insulation	Overlapped aluminum-clad foil, sheathed in a braided shield of tin- plated copper wires with shield wire No 1.17 mm 2.85 mm 6.4 mm 8.5 mm 0.3 mm
number of electrical cores design of the shield type of electrical connection / FastConnect outer diameter • of inner conductor • of the wire insulation • of the inner sheath of the cable • of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material • of the wire insulation • of the sheath	Overlapped aluminum-clad foil, sheathed in a braided shield of tin- plated copper wires with shield wire No 1.17 mm 2.85 mm 6.4 mm 8.5 mm 0.3 mm
number of electrical cores design of the shield type of electrical connection / FastConnect outer diameter • of inner conductor • of the wire insulation • of the inner sheath of the cable • of cable sheath symmetrical tolerance of the outer diameter / of cable sheath material • of the wire insulation • of cable sheath	Overlapped aluminum-clad foil, sheathed in a braided shield of tin- plated copper wires with shield wire No 1.17 mm 2.85 mm 6.4 mm 8.5 mm 0.3 mm polyethylene (PE) PVC

with single bend / minimum permissible	34 mm
with single bend / minimum permissible with multiple bends / minimum permissible	68 mm
tensile load / maximum	100 N
weight per length	98 kg/km
ambient conditions	
ambient temperature	
during operation	-40 +105 °C
during storage	-40 +105 °C
during transport	-40 +105 °C
during installation	-40 +105 °C
• note	Electrical properties measured at 20 °C, tests according to DIN 47250 part 4 respectively DIN VDE 0472
ambient condition / for operation	Transfer rate of cable: 31.25 Kbit/s
fire behavior	flame resistant according to IEC 60332-1-2
class of burning behaviour / according to EN 13501-6	Eca
chemical resistance	
• to mineral oil	conditional resistance
• to grease	Conditional resistance
• to water	conditional resistance
radiological resistance / to UV radiation	resistant
product features, product functions, product components	s / general
product feature	
 halogen-free 	No
• silicon-free	Yes
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes; c(UL)us, CMG / PLTC / Sun Res
UL/ETL style / 600 V Rating	No
certificate of suitability	
 EAC approval 	Yes
RoHS conformity	Yes
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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