SIEMENS

Data sheet

6XV1830-5FH10

product description	Bus cable (2-core), sold by the meter, unassembled
	PB FC Process Cable GP/ Ethernet-APL cable GP, bus cable for IEC 61158-2 (PB) and IEC TS 60079-47 (2-WISE) sheath color blue for Ex applications 2-core shielded, sold by the meter delivery unit max. 1000 m minimum order quantity 20 m.
suitability for use	Use in fieldbus systems according to IEC 61158-2 (e.g. PROFIBUS PA) and IEC TS 60079-47 (2-WISE) / for APL (cable type A), suitable for non-Ex applications
cable designation	02YSY (ST) CY 1x2x1,0/2,55-100 SW OE FR
electrical data	
attenuation factor per length	
• at 38.4 kHz / maximum	0.003 dB/m
return loss	
• at 3 MHz	19 dB
impedance	
rated value	100 Ω
• at 31.25 kHz	100 Ω
• at 3 MHz 20 MHz	100 Ω
relative symmetrical tolerance	20.0/
of the characteristic impedance at 31.25 kHz	20 % 15 %
of the characteristic impedance at 3 MHz 20 MHz loop resistance per length / maximum	44 mΩ/m
shield resistance per length / maximum	6.5 Ω/km
capacity per length / at 1 kHz	92 pF/m
inductance per length	0.65 µH/m
operating voltage	0.00 µ mm
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	1.05 mm
 of the wire insulation 	2.55 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	PVC

color

 of the insulation of data wires 	red/green
 of the insulation of data wires of cable sheath 	Black
bending radius	
with single bend / minimum permissible	40 mm
with single bend / minimum permissible with multiple bends / minimum permissible	80 mm
tensile load / maximum	150 N
weight per length	103 kg/km
ambient conditions	
ambient temperature	
during operation	-40 +80 °C
during storage	-40 +80 °C
during transport	-40 +80 °C
during installation	-20 +80 °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 60332-3-24 (Category C)
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 / CL3 / Sun Res
UL/ETL style / 600 V Rating	Yes
certificate of suitability	
• EAC approval	Yes
CE marking	Yes
RoHS conformity	Yes
product conformity	Vec
IEC TS 60079-47 (2-WISE) / for APL (cable type A)	Yes
Marine classification association	No
 American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) 	No 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	https://sie.ag/2QdlxcP
connectors	
 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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