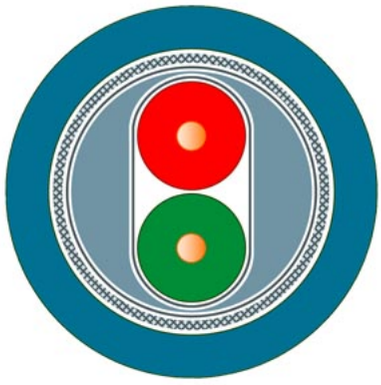
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Data sheet 6XV1831-2A

product type designation	**PROFIBUS FC Standard Cable IS GP**
product description	Standard bus cable for fast installation, sold by the meter, unassembled

PROFIBUS FC Standard Cable IS GP, bus cable 2-wire, shielded, special configuration for quick assembly, Delivery unit: max. 1000 m, minimum order quantity 20 m sold by the meter



suitability for use	Used for intrinsically safe distributed I/O systems for permanent installation
cable designation	02YSY (ST) CY 1x2x0,64/2,55 BL KF40 FR
electrical data	
attenuation factor per length	
● at 9.6 kHz / maximum	0.0025 dB/m
● at 38.4 kHz / maximum	0.004 dB/m
● at 4 MHz / maximum	0.022 dB/m
● at 16 MHz / maximum	0.042 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	
● 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	110 mΩ/m
shield resistance per length / maximum	9.5 Ω/km
insulation resistance coefficient	16000 GΩ·m
capacity per length / at 1 kHz	28.5 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
core diameter	
● of AWG22 insulated conductor	0.64 mm
outer diameter	
● of inner conductor	0.64 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)

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• of the inner sheath of the cable	PVC
• of cable sheath	PVC
color	
• of the insulation of data wires	red/green
• of cable sheath	blue
bending radius	
• with single bend / minimum permissible	37.5 mm
• with multiple bends / minimum permissible	75 mm
tensile load / maximum	100 N
weight per length	80 kg/km
ambient conditions	
ambient temperature	
• during operation	-40 ... +75 °C
• during storage	-40 ... +75 °C
• during transport	-40 ... +75 °C
• during installation	-40 ... +75 °C
• note	Electrical properties measured at 20 °C, tests according to DIN 47250 part 4 respectively DIN VDE 0472
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	oil resistant according to IEC 60811-2-1 (4 h / 70°C)
• to grease	Conditional resistance
• to water	conditional resistance
radiological resistance / to UV radiation	resistant
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; CMG / CL3 / Sun Res
UL/ETL style / 600 V Rating	Yes
certificate of suitability	
• EAC approval	Yes
• CE marking	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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