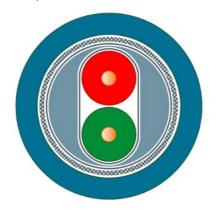
SIEMENS

Data sheet 6XV1831-2A

product type designation

product description



PROFIBUS FC Standard Cable IS GP

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)
 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 transport 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
	V
silicon-free	Yes
silicon-free standards, specifications, approvals	Yes
standards, specifications, approvals	
standards, specifications, approvals UL/ETL listing / 300 V Rating	Yes; CMG / CL3 / Sun Res
standards, specifications, approvals UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating	
standards, specifications, approvals UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability	Yes; CMG / CL3 / Sun Res Yes
standards, specifications, approvals UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval	Yes; CMG / CL3 / Sun Res Yes
standards, specifications, approvals UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval • CE marking	Yes; CMG / CL3 / Sun Res Yes Yes Yes
standards, specifications, approvals UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval • CE marking • RoHS conformity	Yes; CMG / CL3 / Sun Res Yes
standards, specifications, approvals UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval • CE marking • RoHS conformity Marine classification association	Yes; CMG / CL3 / Sun Res Yes Yes Yes Yes Yes
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