SIEMENS

Data sheet

6XV1831-2K

product type designation product description	PROFIBUS FC Flexible Cable
	Flexible bus cable (2-core), sold by the meter, unassembled
	PROFIBUS FC flexible Cable GP, 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	For occasionally moved machine parts
cable designation	02YH (ST) C11Y 1x2x0,65/2,56-150 LI KF40 FRNC FC VI
electrical data	
attenuation factor 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	
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	15 Ω/km
insulation resistance coefficient	16000 GΩ·m
capacity per length / at 1 kHz	28 pF/m
operating voltage	20 pi /ili
RMS value	80 V
mechanical data	80 V
	0
number of electrical cores	2 Overlapped aluminum alad fail, sheathed in a braided screen of tip plated
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 	FRNC

color	
of the insulation of data wires	red/green
of cable sheath	Violet
bending radius	
 with single bend / minimum permissible 	40 mm
 with multiple bends / minimum permissible 	120 mm
tensile load / maximum	100 N
weight per length	70 kg/km
ambient conditions	
ambient temperature	
during operation	-20 +60 °C
during storage	-40 +60 °C
during transport	-40 +60 °C
during installation	-40 +60 °C
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)
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	oil resistant according to IEC 60811-2-1 (7x24h/90°C)
• to grease	resistant
• to water	conditional resistance
radiological resistance / to UV radiation	resistant
product features, product functions, product components / ge	neral
product feature	
halogen-free	Yes
-	
• silicon-free	Yes
silicon-free standards, specifications, approvals	Yes
• silicon-free standards, specifications, approvals UL/ETL listing / 300 V Rating	Yes Yes; c(UL)us, CMX
silicon-free standards, specifications, approvals UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating	Yes
silicon-free standards, specifications, approvals UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability	Yes Yes; c(UL)us, CMX No
silicon-free standards, specifications, approvals UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval	Yes Yes; c(UL)us, CMX No Yes
silicon-free standards, specifications, approvals UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval CE marking	Yes Yes; c(UL)us, CMX No Yes Yes
silicon-free 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 Yes; c(UL)us, CMX No Yes
• silicon-free 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 Yes; c(UL)us, CMX No Yes Yes Yes
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