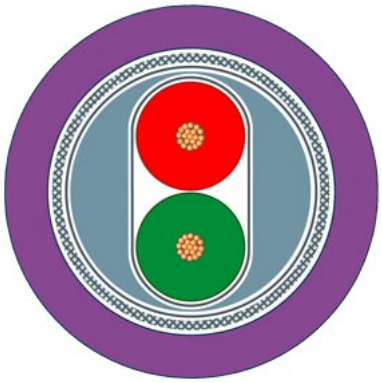
SIEMENS

Data sheet 6XV1831-2K

product type designation	**PROFIBUS FC Flexible Cable**
product description	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.



Technical Product Detail Page	https://i.siemens.com/1P6XV1831-2K
suitability for use	For occasionally moved machine parts
cable designation	02YH (ST) C11Y 1x2x0,65/2,56-150 LI KF40 FRNC FC VI
wire length	sold by the meter
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	
● 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	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	

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● of the wire insulation	polyethylene (PE)
● of the inner sheath of the cable	FRNC
● of cable sheath	PUR (TPE-U)
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
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 / general	
product feature	
● halogen-free	Yes
● silicon-free	Yes
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	Yes; c(UL)us, CMX
UL/ETL style / 600 V Rating	No
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
further information / internet links	
internet link	
● to website: Selection guide for cables and connectors	https://support.industry.siemens.com/cs/ww/en/view/109766358
● to web page: selection aid TIA Selection Tool	https://www.siemens.com/tstcloud
● to web page: SiePortal	https://sieportal.siemens.com/
● to website: Image database	https://www.automation.siemens.com/bilddb
● to website: CAx-Download-Manager	https://www.siemens.com/cax
● to website: Industry Online Support	https://support.industry.siemens.com
security information	
security information	Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected

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Approvals / Certificates

General Product Approval

Manufacturer Declaration	CE EG-Konf.	Declaration of Conformity	UKCA	CCC	China RoHS

General Product Approval	other	Environment
Fire safety / Physical security	Miscellaneous	Environmental Confirmations

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