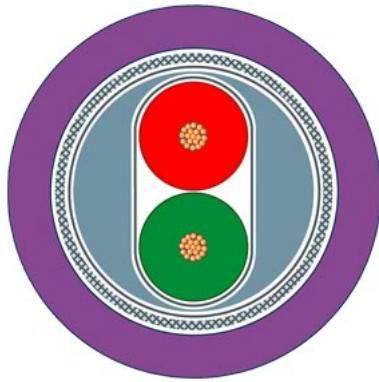


Data sheet

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.

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

• 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
• resistance to air pollution / conformity according to ANSI/ISA-71.04	Yes; G3
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 Statków (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 to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit www.siemens.com/cybersecurity-industry. Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under <https://www.siemens.com/cert>. (V4.7)

Approvals / Certificates

General Product Approval

[Manufacturer Declaration](#)



[Declaration of Conformity](#)



[China RoHS](#)

General Product Approval	other	Environment
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[Fire safety / Physical security](#)

[Miscellaneous](#)

[Environmental Confirmations](#)

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12/20/2025