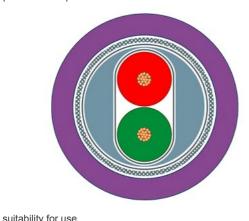
## **SIEMENS**

Data sheet 6XV1831-2L

## product type designation

product description



## **PROFIBUS FC Trailing Cable**

Highly flexible bus cable (2-core), sold by the meter, unassembled

PROFIBUS FC Trailing Cable, PROFIBUS trailing cable, max. Acceleration 4 m/QS min. 3 million bending cycles min. Bending radius approx. 120 mm 2-wire shielded, sold by the meter delivery unit max. 1000 m minimum order quantity 20 m

suitability for use	Continuous motion control in a cable carrier
cable designation	02YY (ST) C11Y 1x2x0,65/2,56-150 LI KF 40 FR VT FC
lectrical 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	
<ul> <li>of the characteristic impedance at 9.6 kHz</li> </ul>	10 %
<ul> <li>of the characteristic impedance at 38.4 kHz</li> </ul>	10 %
• of the characteristic impedance at 3 MHz 20 MHz	10 %
loop resistance per length / maximum	133 mΩ/m
shield resistance per length / maximum	14 Ω/km
capacity per length / at 1 kHz	28 pF/m
operating voltage	
RMS value	80 V
nechanical 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
<ul> <li>of the inner sheath of the cable</li> </ul>	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	PUR (TPE-U)

• of the inculation of data wires	rod/groon
of the insulation of data wires     of cable shooth	red/green Violet
of cable sheath  handing radius	Violet
bending radius	40
with single bend / minimum permissible	40 mm
with continuous bending	120 mm
number of bending cycles	3000000; Drag chain suitable for 3 million bending cycles at a bending radius of 120 mm (15x D) and an acceleration of 4 m/s <sup>2</sup>
tensile load / maximum	100 N
weight per length	77 kg/km
ambient conditions	
ambient temperature	
during operation	-40 +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 / gen	
product features, product functions, product components / gene product feature	
·	No
• halogen-free	
silicon-free  etandards specifications approvals	Yes
standards, specifications, approvals	Voc. CMV
UL/ETL listing / 300 V Rating	Yes; CMX
UL/ETL style / 600 V Rating	No
certificate of suitability	Yes
EAC approval     CE marking	
CE marking     Paul S conformity	Yes
RoHS conformity  Marina classification association	Yes
Marine classification association	No
American Bureau of Shipping Europe Ltd. (ABS)      Freech marine classification assists (BV)	No No
French marine classification society (BV)  Path Nardan Variety (BNN)	No No
Det Norske Veritas (DNV)	No
Germanische Lloyd (GL)	No 
Lloyds Register of Shipping (LRS)	No
<ul> <li>Nippon Kaiji Kyokai (NK)</li> </ul>	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 website: Image database	https://www.automation.siemens.com/bilddb
• 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

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Approvals / Certificates

**General Product Approval** 

**Test Certificates** 

other

Manufacturer Declaration



**Declaration of Con**formity



Manufacturer Declara-Manufacturer Declara-<u>tion</u>

<u>tion</u>

**Environment** 

Confirmation

last modified:

3/25/2024



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