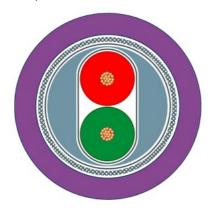
SIEMENS

Data sheet 6XV1831-2L

product type designation

product description

suitability for use



PROFIBUS FC Trailing Cable

Continuous motion control in a cable carrier

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 length max. 1000 m Minimum order 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
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	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
 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 	PUR (TPE-U)

color	
color ● of the insulation of data wires	red/green
or the insulation of data wires of cable sheath	red/green Violet
or cable sneath bending radius	VIOICL
with single bend / minimum permissible	40 mm
-	120 mm
with continuous bending	
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 ²
tensile load / maximum	100 N
weight per length	77 kg/km
ambient conditions	T Ng. Nai
ambient temperature	
during operation	-40 +60 °C
during operation during storage	-40 +60 °C
during storage during transport	-40 +60 °C
during transport during installation	-40 +60 °C
• note	Electrical properties measured at 20 °C, tests according to DIN 47250
• Hote	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	
product feature	, gonordi
halogen-free	No
• silicon-free	Yes
	165
standards, specifications, approvals	Yes. CWX
UL/ETL listing / 300 V Rating	Yes; CMX
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating	Yes; CMX No
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability	No
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval	No Yes
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval • CE marking	No Yes Yes
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability	No Yes
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability	Yes Yes Yes
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval • CE marking • RoHS conformity Marine classification association • American Bureau of Shipping Europe Ltd. (ABS)	Yes Yes Yes
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability • EAC approval • CE marking • RoHS conformity Marine classification association • American Bureau of Shipping Europe Ltd. (ABS) • French marine classification society (BV)	No Yes Yes Yes No No
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UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval CE marking RoHS conformity Marine classification association American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) Nippon Kaiji Kyokai (NK) Polski Rejestr Statkow (PRS) reference code acc. to IEC 81346-2 according to IEC 81346-2:2019 further information / internet-Links	Yes Yes Yes No
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UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval CE marking RoHS conformity Marine classification association American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) Nippon Kaiji Kyokai (NK) Polski Rejestr Statkow (PRS) reference code acc. to IEC 81346-2 according to IEC 81346-2:2019 further information / internet-Links Internet-Link to web page: selection aid TIA Selection Tool	No Yes Yes Yes No No No No No No No WG WGB http://www.siemens.com/tia-selection-tool
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval CE marking RoHS conformity Marine classification association American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) Nippon Kaiji Kyokai (NK) Polski Rejestr Statkow (PRS) reference code acc. to IEC 81346-2 according to IEC 81346-2:2019 further information / internet-Links Internet-Link to web page: selection aid TIA Selection Tool to website: Industrial communication	No Yes Yes Yes Yes No No No No No No No WG WGB http://www.siemens.com/tia-selection-tool http://www.siemens.com/simatic-net
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval CE marking RoHS conformity Marine classification association American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) Nippon Kaiji Kyokai (NK) Polski Rejestr Statkow (PRS) reference code acc. to IEC 81346-2 according to IEC 81346-2:2019 further information / internet-Links Internet-Link to web page: selection aid TIA Selection Tool to website: Industrial communication to website: Industry Mall	Yes Yes Yes Yes No No No No No No No No No WG WGB http://www.siemens.com/tia-selection-tool http://www.siemens.com/simatic-net https://mall.industry.siemens.com
UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval CE marking RoHS conformity Marine classification association American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) Nippon Kaiji Kyokai (NK) Polski Rejestr Statkow (PRS) reference code acc. to IEC 81346-2 according to IEC 81346-2:2019 further information / internet-Links Internet-Link to web page: selection aid TIA Selection Tool to website: Industry Mall to website: Information and Download Center	Yes Yes Yes Yes No
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UL/ETL listing / 300 V Rating UL/ETL style / 600 V Rating certificate of suitability EAC approval CE marking RoHS conformity Marine classification association American Bureau of Shipping Europe Ltd. (ABS) French marine classification society (BV) Det Norske Veritas (DNV) Germanische Lloyd (GL) Lloyds Register of Shipping (LRS) Nippon Kaiji Kyokai (NK) Polski Rejestr Statkow (PRS) reference code acc. to IEC 81346-2 according to IEC 81346-2:2019 further information / internet-Links Internet-Link to web page: selection aid TIA Selection Tool to website: Industrial communication to website: Industry Mall to website: Selection guide for cables and connectors to website: Image database	Yes Yes Yes No Htp://www.siemens.com/tia-selection-tool https://mall.industry.siemens.com http://www.siemens.com/industry/infocenter https://sie.ag/2QdlxcP http://automation.siemens.com/bilddb
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