## **SIEMENS**

Data sheet 6XV1830-3FH10

## product type designation

product description



## **PROFIBUS FC Ground Cable**

Special bus cable (2-core) with additional protective jacket, sold by the meter, unassembled

PROFIBUS FC UNDERGROUND Cable, Underground cable 2-core shielded Sold by the meter Delivery length max. 1000 m Minimum order 20 m

suitability for use	Used for buried cables
cable designation	02YSY (ST) CY2Y 1x2x0,64/2,55-150 SW KF 40
electrical data	
attenuation factor per length	
<ul><li>at 9.6 kHz / maximum</li></ul>	0.0025 dB/m
• at 38.4 kHz / maximum	0.004 dB/m
<ul><li>at 4 MHz / maximum</li></ul>	0.022 dB/m
at 16 MHz / maximum	0.042 dB/m
impedance	
<ul> <li>rated value</li> </ul>	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	110 mΩ/m
shield resistance per length / maximum	9.5 Ω/km
capacity per length / at 1 kHz	28.5 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	
<ul><li>of inner conductor</li></ul>	0.65 mm
<ul><li>of the wire insulation</li></ul>	2.55 mm
<ul> <li>of the inner sheath of the cable</li> </ul>	5.4 mm
<ul><li>of cable sheath</li></ul>	10.8 mm
of cable sheath / note	The cable (diameter 8.0 mm +-0.4 mm) has an additional black outer cover (diameter 10.8 mm +-0.5 mm) as protection against damage if laid in the ground. because of outer diameter > 8 mm: Bus connectors can only be connected after removing the outer cover.
symmetrical tolerance of the outer diameter / of cable sheath	0.5 mm

material	
of the wire insulation	polyethylene (PE)
<ul> <li>of the inner sheath of the cable</li> </ul>	PVC
of cable sheath	PE/PVC; PVC (sheath of the cable), PE (additional outer sheath)
color	
<ul> <li>of the insulation of data wires</li> </ul>	red/green
of cable sheath	Black
bending radius	
<ul><li>with single bend / minimum permissible</li></ul>	41 mm
with multiple bends / minimum permissible	81 mm
tensile load / maximum	100 N
weight per length	117 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
fire behavior	inflammable
class of burning behaviour / according to EN 13501-6	Fca
chemical resistance	
• to mineral oil	oil resistant according to IEC 60811-2-1 (4 h / 70°C)
• to grease	Conditional resistance
• to water	conditional resistance
radiological resistance / to UV radiation	resistant / Sunlight resistant acc. to UL 444 Sec. 7.12
product features, product functions, product components	-
product feature	
halogen-free	No
• silicon-free	Yes
standards, specifications, approvals	
UL/ETL listing / 300 V Rating	No
UL/ETL style / 600 V Rating	No
certificate of suitability	CE, FCC, IC, cULus
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
reference code	110
acc. to IEC 81346-2	WG
	WGB
• according to IEC 81346-2:2019	WOD
further information / internet-Links	
Internet-Link	
to web page: selection aid TIA Selection Tool	http://www.siemens.com/tia-selection-tool
to website: Industrial communication	http://www.siemens.com/simatic-net
to website: Industry Mall	https://mall.industry.siemens.com
to website: Information and Download Center	http://www.siemens.com/industry/infocenter
<ul> <li>to website: Selection guide for cables and connectors</li> </ul>	https://sie.ag/2QdlxcP
<ul><li>to website: Image database</li></ul>	http://automation.siemens.com/bilddb
<ul><li>to website: CAx-Download-Manager</li></ul>	http://www.siemens.com/cax
<ul> <li>to website: Industry Online Support</li> </ul>	https://support.industry.siemens.com
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