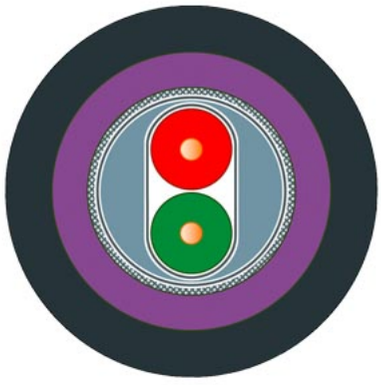
chanhvinh.com

SIEMENS

Data sheet 6XV1830-3FH10

product type designation	**PROFIBUS FC Ground Cable**
product description	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 unit max. 1000 m minimum order quantity 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	
● at 9.6 kHz / maximum	0.0025 dB/m
● at 38.4 kHz / maximum	0.004 dB/m
● at 4 MHz / maximum	0.022 dB/m
● at 16 MHz / maximum	0.042 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	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	
● of inner conductor	0.65 mm
● of the wire insulation	2.55 mm
● of the inner sheath of the cable	5.4 mm
● of cable sheath	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)

Subject to change without notice
© Copyright Siemens

chanhvinh.com

• of the inner sheath of the cable	PVC
• of cable sheath	PE/PVC; PVC (sheath of the cable), PE (additional outer sheath)
color	
• of the insulation of data wires	red/green
• of cable sheath	Black
bending radius	
• with single bend / minimum permissible	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 / general	
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	
• according to IEC 81346-2	WG
• according to IEC 81346-2:2019	WGB
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
• to website: Selection guide for cables and connectors	https://sie.ag/2QdlxcP
• to website: Image database	http://automation.siemens.com/bilddb
• to website: CAx-Download-Manager	http://www.siemens.com/cax
• to website: Industry Online Support	https://support.industry.siemens.com

last modified: 10/30/2021

Subject to change without notice
© Copyright Siemens