## **SIEMENS**

Product type designation

## Data sheet

## 6XV1830-3FH10

Product description

## PROFIBUS FC Ground Cable

Special bus cable (2-core) with additional protective jacket, sold by the meter, unassembled SIMATIC NET, PROFIBUS FC UNDERGROUND CABLE, UNDERGROUND LAYING CABLE 2-WIRE, SHIELDED, SOLD BY METER MAX. CONSIGNMENT: 1000M MIN. ORDERING 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	
Damping ratio 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	
<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 %
<ul> <li>of the characteristic impedance at 3 MHz 20 MHz</li> </ul>	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	100 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
<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
<ul> <li>of cable sheath / Note</li> </ul>	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	
<ul> <li>of the wire insulation</li> </ul>	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
<ul> <li>of cable sheath</li> </ul>	Black
Bending radius	
<ul> <li>with single bend / minimum permissible</li> </ul>	41 mm
<ul> <li>with multiple bends / minimum permissible</li> </ul>	81 mm
Tensile load / maximum	100 N
Weight per length	117 kg/km
Permitted ambient conditions	
Ambient temperature	
during operation	-40 +60 °C
• during storage	-40 +60 °C
during transport	-40 +60 °C
<ul> <li>during installation</li> </ul>	-40 +60 °C
• Note	electrical properties measured at 20 Cel, tests according to DIN 47250 part 4 respectively DIN VDE 0472
Burning behavior	inflammable
Chemical resistance	
• to mineral oil	oil resistant according to IEC 60811-2-1 (4 hours / 70°C)
● to grease	Conditional resistance
• to water	Conditional resistance
Radiological resistance / to UV radiation	resistant

Product properties, functions, components / generation	al	
Product property		
● halogen-free	No	
• silicon-free	Yes	
Standards, specifications, approvals		
Certificate of suitability		
• CE marking	Yes	
<ul> <li>RoHS conformity</li> </ul>	Yes	
Marine classification association		
<ul> <li>American Bureau of Shipping Europe Ltd. (ABS)</li> </ul>	No	
• Bureau Veritas (BV)	No	
<ul> <li>Det Norske Veritas (DNV)</li> </ul>	No	
Germanische Lloyd (GL)	No	
<ul> <li>Lloyds Register of Shipping (LRS)</li> </ul>	No	
<ul> <li>Nippon Kaiji Kyokai (NK)</li> </ul>	No	
<ul> <li>Polski Rejestr Statkow (PRS)</li> </ul>	No	
Further Information / Internet Links		
Internet-Link		
<ul> <li>to website: Selector SIMATIC NET SELECTION TOOL</li> </ul>	http://www.siemens.com/snst	
<ul> <li>to website: Industrial communication</li> </ul>	http://www.siemens.com/simatic-net	
• to website: Industry Mall	https://mall.industry.siemens.com	
<ul> <li>to website: Information and Download Center</li> </ul>	http://www.siemens.com/automation/net/catalog	
• to website: Image database	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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