

### Product type designation

Product description

### PROFIBUS FC Standard Cable GP

Standard bus cable (2-core), spool box, unassembled  
SIMATIC NET, PB FC STANDARD, BUS CABLE 2-WIRE,  
SHIELDED, SPEC. DESIGN FOR RAPID INSTALL. 50 M IN SPOOL  
BOX



Suitability for use	Standard cable specially designed for fast, permanent installation
Cable designation	02YSY (ST) CY 1x2x0,64/2,55-150 VI KF 40 FR
Cable length	50 m

### Electrical data

Damping ratio per length	
<ul style="list-style-type: none"> <li>• at 9.6 kHz / maximum</li> <li>• at 38.4 kHz / maximum</li> <li>• at 4 MHz / maximum</li> <li>• at 16 MHz / maximum</li> </ul>	0.0025 dB/m 0.004 dB/m 0.022 dB/m 0.042 dB/m
Impedance	
<ul style="list-style-type: none"> <li>• Rated value</li> <li>• at 9.6 kHz</li> <li>• at 38.4 kHz</li> <li>• at 3 MHz ... 20 MHz</li> </ul>	150 Ω 270 Ω 185 Ω 150 Ω
Relative symmetrical tolerance	
<ul style="list-style-type: none"> <li>• of the characteristic impedance at 9.6 kHz</li> <li>• of the characteristic impedance at 38.4 kHz</li> <li>• of the characteristic impedance at 3 MHz ... 20 MHz</li> </ul>	10 % 10 % 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	
<ul style="list-style-type: none"> <li>• of inner conductor</li> <li>• of the wire insulation</li> <li>• of the inner sheath of the cable</li> <li>• of cable sheath</li> </ul>	<p>0.65 mm</p> <p>2.55 mm</p> <p>5.4 mm</p> <p>8 mm</p>
Symmetrical tolerance of the outer diameter / of cable sheath	0.4 mm
Material	
<ul style="list-style-type: none"> <li>• of the wire insulation</li> <li>• of the inner sheath of the cable</li> <li>• of cable sheath</li> </ul>	<p>PE</p> <p>PVC</p> <p>PVC</p>
Color	
<ul style="list-style-type: none"> <li>• of the insulation of data wires</li> <li>• of cable sheath</li> </ul>	<p>red / green</p> <p>Violet</p>
Bending radius	
<ul style="list-style-type: none"> <li>• with single bend / minimum permissible</li> <li>• with multiple bends / minimum permissible</li> </ul>	<p>37.5 mm</p> <p>75 mm</p>
Tensile load / maximum	100 N
Weight per length	80 kg/km

### Permitted ambient conditions

Ambient temperature	
<ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> <li>• during installation</li> <li>• Note</li> </ul>	<p>-40 ... +75 °C</p> <p>-40 ... +75 °C</p> <p>-40 ... +75 °C</p> <p>-40 ... +75 °C</p> <p>electrical properties measured at 20 Cel, tests according to DIN 47250 part 4 respectively DIN VDE 0472</p>
Burning behavior	flame resistant according to IEC 60332-3-24 (Category C) and UL 1685 (CSA FT 4)
Chemical resistance	
<ul style="list-style-type: none"> <li>• to mineral oil</li> <li>• to grease</li> <li>• to water</li> </ul>	<p>oil resistant according to IEC 60811-2-1 (4 hours / 70°C)</p> <p>Conditional resistance</p> <p>Conditional resistance</p>
Radiological resistance / to UV radiation	resistant

### Product properties, functions, components / general

Product property	
------------------	--

- halogen-free
- silicon-free

No  
Yes

### Standards, specifications, approvals

#### Certificate of suitability

- CE marking
- UL approval
- RoHS conformity

Yes  
Yes  
Yes

#### Marine classification association

- American Bureau of Shipping Europe Ltd. (ABS)
- Bureau Veritas (BV)
- Det Norske Veritas (DNV)
- Germanische Lloyd (GL)
- Lloyds Register of Shipping (LRS)
- Nippon Kaiji Kyokai (NK)
- Polski Rejestr Statkow (PRS)

No  
No  
No  
No  
No  
No  
No

### Further Information / Internet Links

#### Internet-Link

- to website: Selector SIMATIC NET SELECTION TOOL
- to website: Industrial communication
- to website: Industry Mall
- to website: Information and Download Center
- to website: Image database
- to website: CAx Download Manager
- to website: Industry Online Support

<http://www.siemens.com/snst>  
  
<http://www.siemens.com/simatic-net>  
<https://mall.industry.siemens.com>  
<http://www.siemens.com/automation/net/catalog>  
<http://automation.siemens.com/bilddb>  
<http://www.siemens.com/cax>  
<https://support.industry.siemens.com>

**last modified:**

12.03.2015