

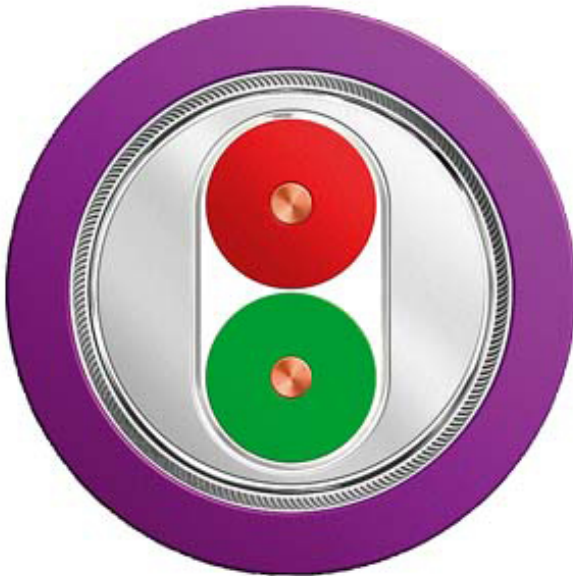
### Product type designation

Product description

### PROFIBUS FC FRNC Cable GP

Flame retardant, halogen-free bus cable (2-core), sold by the meter, unassembled

SIMATIC NET, PB FC FRNC CABLE GP, BUS CABLE FLAME-RETARDANT AND HALOGEN-FREE BUS CABLE WITH COPOLYMER SHEATH, FRNC SOLD BY THE METER MAX. CONSIGNMENT: 1000 M MIN. ORDERING QUANTITY: 20 M



Suitability for use	Halogen-free cable, suitable for use in buildings
Cable designation	02YSH (ST) CH 1x2x0,64/2,55-150 VI KF 25 FRNC FC
<b>Electrical data</b>	
Damping ratio per length	
<ul style="list-style-type: none"> <li>at 9.6 kHz / maximum</li> </ul>	0.0025 dB/m
<ul style="list-style-type: none"> <li>at 38.4 kHz / maximum</li> </ul>	0.004 dB/m
<ul style="list-style-type: none"> <li>at 4 MHz / maximum</li> </ul>	0.022 dB/m
<ul style="list-style-type: none"> <li>at 16 MHz / maximum</li> </ul>	0.042 dB/m
Impedance	
<ul style="list-style-type: none"> <li>Rated value</li> </ul>	150 Ω
<ul style="list-style-type: none"> <li>at 9.6 kHz</li> </ul>	270 Ω
<ul style="list-style-type: none"> <li>at 38.4 kHz</li> </ul>	185 Ω
<ul style="list-style-type: none"> <li>at 3 MHz ... 20 MHz</li> </ul>	150 Ω
Relative symmetrical tolerance	
<ul style="list-style-type: none"> <li>of the characteristic impedance at 9.6 kHz</li> </ul>	10 %
<ul style="list-style-type: none"> <li>of the characteristic impedance at 38.4 kHz</li> </ul>	10 %

<ul style="list-style-type: none"> <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	
<ul style="list-style-type: none"> <li>• RMS value</li> </ul>	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>	0.65 mm 2.55 mm 5.4 mm 8 mm
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>	PE FRNC FRNC
Color	
<ul style="list-style-type: none"> <li>• of the insulation of data wires</li> <li>• of cable sheath</li> </ul>	red/green Violet
Bending radius	
<ul style="list-style-type: none"> <li>• with single bend / minimum permissible</li> <li>• with multiple bends / minimum permissible</li> </ul>	60 mm 80 mm
Tensile load / maximum	100 N
Weight per length	72 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>	-25 ... +80 °C -25 ... +80 °C -25 ... +80 °C -25 ... +80 °C Electrical properties measured at 20 °C, tests according to DIN 47250 part 4 respectively DIN VDE 0472
Burning behavior	flame resistant according to IEC 60332-3-24 (Category C), IEC 60332-3-22 (Category A), EN 50267-2-1/2, IEC 61034
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 h / 70°C)</p> <p>Conditional resistance</p> <p>conditional resistance</p>
Radiological resistance / to UV radiation	resistant

#### Product properties, functions, components / general

Product property	
<ul style="list-style-type: none"> <li>• halogen-free</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• silicon-free</li> </ul>	Yes

#### Standards, specifications, approvals

UL/ETL listing / 300 V Rating	Yes
UL/ETL style / 600 V Rating	Yes
Certificate of suitability	
<ul style="list-style-type: none"> <li>• CE marking</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• RoHS conformity</li> </ul>	Yes
Marine classification association	
<ul style="list-style-type: none"> <li>• American Bureau of Shipping Europe Ltd. (ABS)</li> </ul>	No
<ul style="list-style-type: none"> <li>• Bureau Veritas (BV)</li> </ul>	No
<ul style="list-style-type: none"> <li>• Det Norske Veritas (DNV)</li> </ul>	No
<ul style="list-style-type: none"> <li>• Germanische Lloyd (GL)</li> </ul>	No
<ul style="list-style-type: none"> <li>• Lloyds Register of Shipping (LRS)</li> </ul>	No
<ul style="list-style-type: none"> <li>• Nippon Kaiji Kyokai (NK)</li> </ul>	No
<ul style="list-style-type: none"> <li>• Polski Rejestr Statkow (PRS)</li> </ul>	No

#### Further Information / Internet Links

Internet-Link	
<ul style="list-style-type: none"> <li>• to website: Selector SIMATIC NET SELECTION TOOL</li> </ul>	<a href="http://www.siemens.com/snst">http://www.siemens.com/snst</a>
<ul style="list-style-type: none"> <li>• to website: Industrial communication</li> </ul>	<a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a>
<ul style="list-style-type: none"> <li>• to website: Industry Mall</li> </ul>	<a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a>
<ul style="list-style-type: none"> <li>• to website: Image database</li> </ul>	<a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a>
<ul style="list-style-type: none"> <li>• to website: CAx Download Manager</li> </ul>	<a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a>
<ul style="list-style-type: none"> <li>• to website: Industry Online Support</li> </ul>	<a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>

**last modified:**

25.09.2015