

### product type designation

### product description



### PROFIBUS FC Process Cable GP

Bus cable (2-core), sold by the meter, unassembled

PROFIBUS FC Process Cable Bus cable for IEC 61158-2 Sheath color blue for Ex applications 2-core shielded Sold by the meter Delivery length max. 1000 m Minimum order 20 m

### suitability for use

For use in fieldbus systems according to IEC 61158-2 (e.g. PROFIBUS PA), suitable for Ex applications

### cable designation

02YSY (ST) CY 1x2x1,0/2,55-100 BL OE FR

### electrical data

#### attenuation factor per length

- at 38.4 kHz / maximum

0.003 dB/m

#### impedance

- rated value
- at 31.25 kHz

100 Ω  
100 Ω

#### relative symmetrical tolerance

- of the characteristic impedance at 31.25 kHz

20 %

#### loop resistance per length / maximum

44 mΩ/m

#### shield resistance per length / maximum

6.5 Ω/km

#### capacity per length / at 1 kHz

92 pF/m

#### inductance per length

0.65 μH/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
- of the wire insulation
- of the inner sheath of the cable
- of cable sheath

1.05 mm  
2.55 mm  
5.4 mm  
8 mm

#### symmetrical tolerance of the outer diameter / of cable sheath

0.4 mm

#### material

- of the wire insulation
- of the inner sheath of the cable
- of cable sheath

polyethylene (PE)  
PVC  
PVC

#### color

- of the insulation of data wires
- of cable sheath

red/green  
blue

bending radius	
• with single bend / minimum permissible	40 mm
• with multiple bends / minimum permissible	80 mm
tensile load / maximum	150 N
weight per length	103 kg/km
<b>ambient conditions</b>	
ambient temperature	
• during operation	-40 ... +80 °C
• during storage	-40 ... +80 °C
• during transport	-40 ... +80 °C
• during installation	-20 ... +80 °C
• note	Electrical properties measured at 20 °C, tests according to DIN 47250 part 4 respectively DIN VDE 0472
ambient condition / for operation	Transfer rate of cable: 31.25 Kbit/s
fire behavior	flame resistant according to IEC 60332-3-24 (Category C)
class of burning behaviour / according to EN 13501-6	Eca
chemical resistance	
• to mineral oil	conditional resistance
• to grease	Conditional resistance
• to water	conditional resistance
radiological resistance / to UV radiation	resistant
<b>product features, product functions, product components / general</b>	
product feature	
• halogen-free	No
• silicon-free	Yes
<b>standards, specifications, approvals</b>	
UL/ETL listing / 300 V Rating	Yes; c(UL)us, CMG / CL3 / Sun Res
UL/ETL style / 600 V Rating	Yes
certificate of suitability	
• 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
<b>further information / internet-links</b>	
Internet-Link	
• to web page: selection aid TIA Selection Tool	<a href="http://www.siemens.com/tia-selection-tool">http://www.siemens.com/tia-selection-tool</a>
• to website: Industrial communication	<a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a>
• to website: Industry Mall	<a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a>
• to website: Information and Download Center	<a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a>
• to website: Selection guide for cables and connectors	<a href="https://sie.ag/2QdlxcP">https://sie.ag/2QdlxcP</a>
• to website: Image database	<a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a>
• to website: CAx-Download-Manager	<a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a>
• to website: Industry Online Support	<a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>
last modified:	6/23/2021 