

product description



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

PB FC Process Cable GP/ Ethernet-APL cable GP, bus cable for IEC 61158-2 (PB) and IEC TS 60079-47 (2-WISE) sheath color blue for Ex applications 2-core shielded, sold by the meter delivery unit max. 1000 m minimum order quantity 20 m.

suitability for use

Use in fieldbus systems according to IEC 61158-2 (e.g. PROFIBUS PA) and IEC TS 60079-47 (2-WISE) / for APL (cable type A), suitable for Ex applications

cable designation

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

### electrical data

attenuation factor per length	
<ul style="list-style-type: none"> <li>at 38.4 kHz / maximum</li> </ul>	0.003 dB/m
return loss	
<ul style="list-style-type: none"> <li>at 3 MHz</li> </ul>	19 dB
impedance	
<ul style="list-style-type: none"> <li>rated value</li> <li>at 31.25 kHz</li> <li>at 3 MHz ... 20 MHz</li> </ul>	100 Ω 100 Ω 100 Ω
relative symmetrical tolerance	
<ul style="list-style-type: none"> <li>of the characteristic impedance at 31.25 kHz</li> <li>of the characteristic impedance at 3 MHz ... 20 MHz</li> </ul>	20 % 15 %
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	
<ul style="list-style-type: none"> <li>RMS value</li> </ul>	80 V

### mechanical data

number of electrical cores	2
design of the shield	Overlapped aluminum-clad foil, sheathed in a braided screen of tinned 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>	1.05 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>	polyethylene (PE) PVC PVC
color	

<ul style="list-style-type: none"> <li>• of the insulation of data wires</li> <li>• of cable sheath</li> </ul>	red/green blue
bending radius	
<ul style="list-style-type: none"> <li>• with single bend / minimum permissible</li> <li>• with multiple bends / minimum permissible</li> </ul>	40 mm 80 mm
tensile load / maximum	150 N
weight per length	103 kg/km
<b>ambient conditions</b>	
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>	-40 ... +80 °C -40 ... +80 °C -40 ... +80 °C -20 ... +80 °C 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	
<ul style="list-style-type: none"> <li>• to mineral oil</li> <li>• to grease</li> <li>• to water</li> </ul>	conditional resistance Conditional resistance conditional resistance
radiological resistance / to UV radiation	resistant
<b>product features, product functions, product components / general</b>	
product feature	
<ul style="list-style-type: none"> <li>• halogen-free</li> <li>• silicon-free</li> </ul>	No 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	
<ul style="list-style-type: none"> <li>• EAC approval</li> <li>• CE marking</li> <li>• RoHS conformity</li> </ul>	Yes Yes Yes
product conformity	
<ul style="list-style-type: none"> <li>• IEC TS 60079-47 (2-WISE) / for APL (cable type A)</li> </ul>	Yes
Marine classification association	
<ul style="list-style-type: none"> <li>• American Bureau of Shipping Europe Ltd. (ABS)</li> <li>• French marine classification society (BV)</li> <li>• Det Norske Veritas (DNV)</li> <li>• Germanische Lloyd (GL)</li> <li>• Lloyds Register of Shipping (LRS)</li> <li>• Nippon Kaiji Kyokai (NK)</li> <li>• Polski Rejestr Statkow (PRS)</li> </ul>	No No No No No No No
reference code	
<ul style="list-style-type: none"> <li>• according to IEC 81346-2</li> <li>• according to IEC 81346-2:2019</li> </ul>	WG WGB
<b>further information / internet-Links</b>	
Internet-Link	
<ul style="list-style-type: none"> <li>• to web page: selection aid TIA Selection Tool</li> <li>• to website: Industrial communication</li> <li>• to website: Industry Mall</li> <li>• to website: Information and Download Center</li> <li>• to website: Selection guide for cables and connectors</li> <li>• to website: Image database</li> <li>• to website: CAx-Download-Manager</li> <li>• to website: Industry Online Support</li> </ul>	<a href="http://www.siemens.com/tia-selection-tool">http://www.siemens.com/tia-selection-tool</a> <a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a> <a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a> <a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a> <a href="https://sie.ag/2QdlxcP">https://sie.ag/2QdlxcP</a> <a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a> <a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a> <a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>

last modified:

7/7/2022 

