

## Data sheet

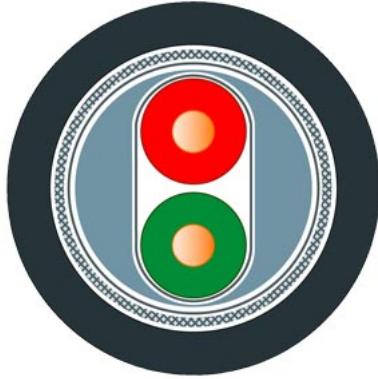
6XV1830-5FH10

product type designation

FC PROFIBUS Process Cable GP / Ethernet-APL Cable GP 2-WISE (IEC TS 60079-47) APL Type A

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 black for Ex applications 2-core shielded, sold by the meter delivery unit max. 1000 m minimum order quantity 20 m.

Technical Product Detail Page

<https://i.siemens.com/1P6XV1830-5FH10>

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 non-Ex applications

cable designation

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

wire length

sold by the meter

**electrical data**

attenuation factor per length

• at 38.4 kHz / maximum 0.003 dB/m

return loss

• at 3 MHz 19 dB

impedance

- rated value 100 Ω
- at 31.25 kHz 100 Ω
- at 3 MHz ... 20 MHz 100 Ω

relative symmetrical tolerance

- of the characteristic impedance at 31.25 kHz 20 %
- of the characteristic impedance at 3 MHz ... 20 MHz 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

• 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 1.05 mm
- of the wire insulation 2.55 mm
- of the inner sheath of the cable 5.4 mm
- of cable sheath 8 mm

symmetrical tolerance of the outer diameter / of cable sheath

0.4 mm

material

- of the wire insulation polyethylene (PE)

• of the inner sheath of the cable	PVC
• of cable sheath	PVC
color	
• of the insulation of data wires	red/green
• of cable sheath	Black
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
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
product conformity	
• IEC TS 60079-47 (2-WISE) / for APL (cable type A)	Yes
• resistance to air pollution / conformity according to ANSI/ISA-71.04	Yes; G3
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 Statków (PRS)	No
<b>further information / internet links</b>	
internet link	
• to website: Selection guide for cables and connectors	<a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a>
• to web page: selection aid TIA Selection Tool	<a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a>
• to web page: SiePortal	<a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a>
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• to website: CAx-Download-Manager	<a href="https://www.siemens.com/cax">https://www.siemens.com/cax</a>
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<b>security information</b>	
security information	Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks.

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## Approvals / Certificates

### General Product Approval

[Manufacturer Declaration](#)



[Declaration of Conformity](#)



[China RoHS](#)



### General Product Approval

[Fire safety / Physical security](#)



other

[Miscellaneous](#)

Environment

[Environmental Confirmations](#)

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