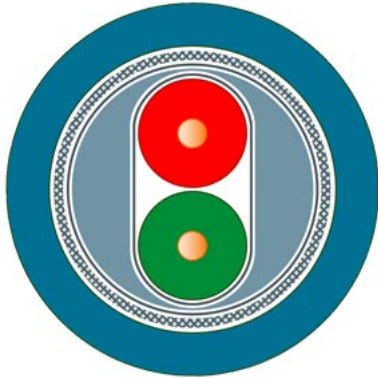


product type designation

product description



**PROFIBUS FC Standard Cable IS GP**

Standard bus cable for fast installation, sold by the meter, unassembled

PROFIBUS FC Standard Cable IS GP, bus cable 2-wire, shielded, special configuration for quick assembly, Delivery unit: max. 1000 m, minimum order quantity 20 m sold by the meter

Technical Product Detail Page

<https://l.siemens.com/1P6XV1831-2A>

suitability for use

Used for intrinsically safe distributed I/O systems for permanent installation

cable designation

02YSY (ST) CY 1x2x0,64/2,55 BL KF40 FR

wire length

sold by the meter

**electrical data**

attenuation factor per length

|                         |             |
|-------------------------|-------------|
| • at 9.6 kHz / maximum  | 0.0025 dB/m |
| • at 38.4 kHz / maximum | 0.004 dB/m  |
| • at 4 MHz / maximum    | 0.022 dB/m  |
| • at 16 MHz / maximum   | 0.042 dB/m  |

impedance

|                       |       |
|-----------------------|-------|
| • rated value         | 150 Ω |
| • at 9.6 kHz          | 270 Ω |
| • at 38.4 kHz         | 185 Ω |
| • at 3 MHz ... 20 MHz | 150 Ω |

relative symmetrical tolerance

|   |      |
|---|------|
| • of the characteristic impedance at 9.6 kHz          | 10 % |
| • of the characteristic impedance at 38.4 kHz         | 10 % |
| • of the characteristic impedance at 3 MHz ... 20 MHz | 10 % |

loop resistance per length / maximum

110 mΩ/m

shield resistance per length / maximum

9.5 Ω/km

insulation resistance coefficient

16000 GΩ·m

capacity per length / at 1 kHz

28.5 pF/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

core diameter

|                                |         |
|--------------------------------|---------|
| • of AWG22 insulated conductor | 0.64 mm |
|--------------------------------|---------|

outer diameter

|                                    |         |
|------------------------------------|---------|
| • of inner conductor               | 0.64 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  |  |
| <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>polyethylene (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>blue</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   |
| <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> </ul>   | <p>-40 ... +75 °C</p> <p>-40 ... +75 °C</p> <p>-40 ... +75 °C</p> <p>-40 ... +75 °C</p>  |
| 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>   | <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  |
| <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>  | <p>No</p> <p>Yes</p>   |
| <b>standards, specifications, approvals</b>   |  |
| UL/ETL listing / 300 V Rating   | Yes; 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>   | <p>Yes</p> <p>Yes</p> <p>Yes</p>   |
| 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> | <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>  |
| <b>standards, specifications, approvals / Environmental Product Declaration</b>   |  |
| Environmental Product Declaration   | Yes  |
| global warming potential [CO2 eq]   |  |
| <ul style="list-style-type: none"> <li>total</li> <li>during manufacturing</li> <li>during operation</li> <li>after end of life</li> </ul>  | <p>0.92 kg</p> <p>0.8 kg</p> <p>0.02 kg</p> <p>0.1 kg</p>  |
| <b>further information / internet links</b>   |  |
| internet link   |  |
| <ul style="list-style-type: none"> <li>to website: Selection guide for cables and connectors</li> <li>to web page: selection aid TIA Selection Tool</li> <li>to web page: SiePortal</li> <li>to website: Image database</li> <li>to website: CAX-Download-Manager</li> </ul>  | <p><a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a></p> <p><a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a></p> <p><a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a></p> <p><a href="https://www.automation.siemens.com/bilddb">https://www.automation.siemens.com/bilddb</a></p> <p><a href="https://www.siemens.com/cax">https://www.siemens.com/cax</a></p> |

**security information**

security information

Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit [www.siemens.com/cybersecurity-industry](http://www.siemens.com/cybersecurity-industry). Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under <https://www.siemens.com/cert>. (V4.7)

**Approvals / Certificates**

**General Product Approval**

[Manufacturer Declaration](#)



[Declaration of Conformity](#)



[China RoHS](#)

**General Product Approval**

other

Environment

[Fire safety / Physical security](#)

[Miscellaneous](#)

[Environmental Conformations](#)



last modified:

10/28/2025