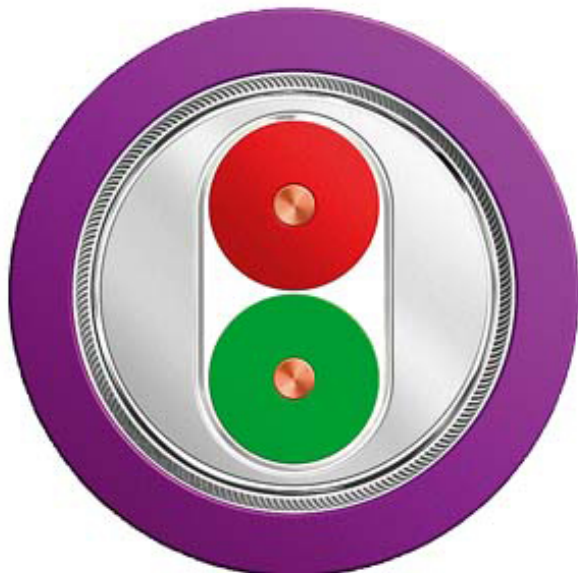


### Product type designation

Product description

### PROFIBUS FC Standard Cable GP

Standard bus cable (2 wires), preferred length, not assembled  
SIMATIC NET, PB FC STANDARD, BUS CABLE, 2-WIRE,  
SHIELDED, SPEC. DESIGN FOR RAPID INSTALL. 20 M



|                     |                                                                    |
|---------------------|--------------------------------------------------------------------|
| Suitability for use | Standard cable specially designed for fast, permanent installation |
| Cable designation   | 02YSY (ST) CY 1x2x0,64/2,55-150 VI KF 40 FR                        |
| Wire length         | 20 m                                                               |

### Electrical data

|                                               |              |
|-----------------------------------------------|--------------|
| Damping ratio 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 $\Omega$ |
| • at 9.6 kHz                                  | 270 $\Omega$ |
| • at 38.4 kHz                                 | 185 $\Omega$ |
| • at 3 MHz ... 20 MHz                         | 150 $\Omega$ |
| Relative symmetrical tolerance                |              |
| • of the characteristic impedance at 9.6 kHz  | 10 %         |
| • of the characteristic impedance at 38.4 kHz | 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<br>2.55 mm<br>5.4 mm<br>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<br>PVC<br>PVC                                                                       |
| Color <ul style="list-style-type: none"> <li>• of the insulation of data wires</li> <li>• of cable sheath</li> </ul>                                                                           | red/green<br>Violet                                                                    |
| Bending radius <ul style="list-style-type: none"> <li>• with single bend / minimum permissible</li> <li>• with multiple bends / minimum permissible</li> </ul>                                 | 37.5 mm<br>75 mm                                                                       |
| Tensile load / maximum                                                                                                                                                                         | 100 N                                                                                  |
| Weight per length                                                                                                                                                                              | 80 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> | -40 ... +75 °C<br>-40 ... +75 °C<br>-40 ... +75 °C<br>-40 ... +75 °C<br>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) and UL 1685 (CSA FT 4)                                                                                                |
| Chemical resistance                                                                                                                                                                           |                                                                                                                                                                                |

|                                                                                                             |                                                               |
|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• to mineral oil</li> <li>• to grease</li> <li>• to water</li> </ul> | oil resistant according to IEC 60811-2-1 (4 hours / 70°C)     |
| Radiological resistance / to UV radiation                                                                   | Conditional resistance<br>conditional resistance<br>resistant |

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

|                                                                  |     |
|------------------------------------------------------------------|-----|
| Product feature                                                  |     |
| <ul style="list-style-type: none"> <li>• halogen-free</li> </ul> | No  |
| <ul style="list-style-type: none"> <li>• silicon-free</li> </ul> | Yes |

#### Standards, specifications, approvals

|                                                                                                   |                                   |
|---------------------------------------------------------------------------------------------------|-----------------------------------|
| 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>• CE marking</li> </ul>                                    | Yes                               |
| <ul style="list-style-type: none"> <li>• UL approval</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: Information and Download Center</li> </ul>     | <a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</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>             |

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