

### product type designation

product description

### PROFIBUS M12-Cable

Flexible plug-in cable (2-core), preferred length, preassembled with two 5-pole M12 male/female connectors (B-coded)

PROFIBUS M12 plug-in cable (ET 200), Pre-assembled PB FC Trailing Cable with 2 M12 connectors, B-coded, 5-pole; 3 m.



suitability for use

Cable for connecting PROFIBUS stations (e.g. SIMATIC ET 200) to IP 65 degree of protection

cable designation

02YY (ST) C11Y 1x2x0,65/2,56-150 LI KF 40 FR petrol

wire length

3 m

### electrical data

number of electrical connections

2

attenuation factor per length

|                         |            |
|-------------------------|------------|
| • at 9.6 kHz / maximum  | 0.003 dB/m |
| • at 38.4 kHz / maximum | 0.004 dB/m |
| • at 4 MHz / maximum    | 0.025 dB/m |
| • at 16 MHz / maximum   | 0.049 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

133 mΩ/m

shield resistance per length / maximum

14 Ω/km

capacity per length / at 1 kHz

28 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

outer diameter

|                                    |         |
|------------------------------------|---------|
| • of inner conductor               | 0.67 mm |
| • of the wire insulation           | 2.56 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) |
|--------------------------|-------------------|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• of the inner sheath of the cable</li> <li>• of cable sheath</li> </ul>                                                                                                                                                                                                                                                                                                                                 | PVC<br>PUR (TPE-U)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| color                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• of the insulation of data wires</li> <li>• of cable sheath</li> </ul>                                                                                                                                                                                                                                                                                                                                  | red/green<br>petrol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| bending radius                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• with single bend / minimum permissible</li> <li>• with continuous bending</li> </ul>                                                                                                                                                                                                                                                                                                                   | 40 mm<br>120 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| number of bending cycles                                                                                                                                                                                                                                                                                                                                                                                                                        | 3000000; Drag chain suitable for 3 million bending cycles at a bending radius of 120 mm (15x D) and an acceleration of 4 m/s <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| tensile load / maximum                                                                                                                                                                                                                                                                                                                                                                                                                          | 100 N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| weight per length                                                                                                                                                                                                                                                                                                                                                                                                                               | 77 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 ... +60 °C<br>-40 ... +60 °C<br>-40 ... +60 °C<br>-40 ... +60 °C<br>Electrical properties measured at 20 °C, tests according to DIN 47250 part 4 respectively DIN VDE 0472                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| ambient condition / for operation                                                                                                                                                                                                                                                                                                                                                                                                               | Limited segment length (see manual for PROFIBUS networks)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| fire behavior                                                                                                                                                                                                                                                                                                                                                                                                                                   | flame resistant according to IEC 60332-1-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 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 (7x24h/90°C)<br>resistant<br>conditional resistance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| radiological resistance / to UV radiation                                                                                                                                                                                                                                                                                                                                                                                                       | resistant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| protection class IP                                                                                                                                                                                                                                                                                                                                                                                                                             | IP65, IP67                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <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<br>Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>standards, specifications, approvals</b>                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| UL/ETL listing / 300 V Rating                                                                                                                                                                                                                                                                                                                                                                                                                   | Yes; CMX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| UL/ETL style / 600 V Rating                                                                                                                                                                                                                                                                                                                                                                                                                     | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| certificate of suitability                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• EAC approval</li> <li>• CE marking</li> <li>• RoHS conformity</li> </ul>                                                                                                                                                                                                                                                                                                                               | Yes<br>Yes<br>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<br>No<br>No<br>No<br>No<br>No<br>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<br>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><br><a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</a><br><a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a><br><a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a><br><a href="https://sie.ag/2QdlxcP">https://sie.ag/2QdlxcP</a><br><a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a><br><a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a><br><a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a> |
| last modified:                                                                                                                                                                                                                                                                                                                                                                                                                                  | 12/31/2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

