



SIMATIC NET, PB FC FLEXIBLE CABLE GP,  
2-WIRE, SHIELDED,  
SPEC. DESIGN FOR RAPID INSTALL. MAXIMAL LENGTH:  
1000 M MIN. ORDERING QUANTITY: 20 M SOLD BY THE  
METER

Acceptability for application

For occasionally moved machine parts

### Electrical data

Damping ratio per length

|                         |             |
|-------------------------|-------------|
| • at 9.6 kHz / maximum  | 0.0030 dB/m |
| • at 38.4 kHz / maximum | 0.0040 dB/m |
| • at 4 MHz / maximum    | 0.025 dB/m  |
| • at 16 MHz / maximum   | 0.049 dB/m  |

Impedance

|                                        |              |
|----------------------------------------|--------------|
| • Nominal value                        | 150 $\Omega$ |
| • at 9.6 kHz                           | 270 $\Omega$ |
| • at 38.4 kHz                          | 185 $\Omega$ |
| • for frequency range 3 MHz ... 20 MHz | 150 $\Omega$ |

Relative symmetrical tolerance

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

Loop resistance per length / maximum

133  $\Omega$ /km

Shield resistance per length / maximum

15  $\Omega$ /km

Insulation resistance coefficient

16000 G $\Omega$ ·m

Capacity per length / at 1 kHz

28 pF/m

Operating voltage

|                                                            |                                                                                                   |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| • RMS value                                                | 100 V                                                                                             |
| <b>Mechanical data</b>                                     |                                                                                                   |
| Number of electrical wires                                 | 2                                                                                                 |
| Design of shield                                           | Overlapped aluminum-clad foil, sheathed in a braided screen of tin-plated copper wires            |
| Design of the electrical connection / FastConnect          | Yes                                                                                               |
| Outer diameter                                             |                                                                                                   |
| • of the inner conductor                                   | 0.67 mm                                                                                           |
| • of the wire insulation                                   | 2.56 mm                                                                                           |
| • of the inner sheath of the cable                         | 5.4 mm                                                                                            |
| • of the cable sheath                                      | 8 mm                                                                                              |
| Symmetrical tolerance of outer diameter / of cable sheath  | 0.4 mm                                                                                            |
| Material                                                   |                                                                                                   |
| • of the wire insulation                                   | PE                                                                                                |
| • of the inner sheath of the cable                         | FRNC                                                                                              |
| • of the cable sheath                                      | PUR (TPE-U)                                                                                       |
| Color                                                      |                                                                                                   |
| • of the insulation of data wires                          | red / green                                                                                       |
| • of the cable sheath                                      | Violet                                                                                            |
| Bending radius                                             |                                                                                                   |
| • with single bend / minimum permissible                   | 40 mm                                                                                             |
| • with multiple bends / minimum permissible                | 120 mm                                                                                            |
| Traction stress / maximum                                  | 100 N                                                                                             |
| Weight per length                                          | 70 kg/km                                                                                          |
| <b>Permitted ambient conditions</b>                        |                                                                                                   |
| Ambient temperature                                        |                                                                                                   |
| • during operating                                         | -20 ... +60 °C                                                                                    |
| • during storage                                           | -40 ... +60 °C                                                                                    |
| • during transport                                         | -40 ... +60 °C                                                                                    |
| • during installation                                      | -40 ... +60 °C                                                                                    |
| • Comment                                                  | Electrical characteristics measured at 20 °C, tests according to DIN 47250 Part 4 or DIN VDE 0472 |
| Ambient condition / for (standard) operation mode          | Limited segment length (see manual for PROFIBUS networks)                                         |
| Burning behaviour                                          | flame resistant according to IEC 60332-1-2                                                        |
| Chemical resistance                                        |                                                                                                   |
| • to mineral oil                                           | oil resistant according to IEC 60811-2-1 (7x24h/90°C)                                             |
| • to grease                                                | Resistant                                                                                         |
| • to water                                                 | Conditional resistance                                                                            |
| Radiological resistance / to UV radiation                  | Resistant                                                                                         |
| <b>Product properties, functions, components / general</b> |                                                                                                   |

|                                                 |                   |
|-------------------------------------------------|-------------------|
| Product feature                                 |                   |
| • halogen-free                                  | Yes               |
| • silicon-free                                  | Yes               |
| <b>Standards, specifications, approvals</b>     |                   |
| UL/ETL listing / with 300 V rating              | Yes: c(UL)us, CMX |
| UL/ETL style / with 600 V rating                | No                |
| Verification of suitability                     |                   |
| • CE mark                                       | Yes               |
| • RoHS conformity                               | Yes               |
| Marine classification association               |                   |
| • American Bureau of Shipping Europe Ltd. (ABS) | No                |
| • Bureau Veritas (BV)                           | No                |
| • Det Norske Veritas (DNV)                      | No                |
| • Germanische Lloyd (GL)                        | No                |
| • Lloyds Register of Shipping (LRS)             | No                |
| • Nippon Kaiji Kyokai (NK)                      | No                |
| • Polski Rejestr Statkow (PRS)                  | No                |
| <b>letzte Änderung:</b>                         | Jun 28, 2014      |