



SIMATIC NET,
 PROFIBUS FC ROBUST BUS CABLE WITH PUR-SHEATH
 FOR APPLICATION IN CHEMICALLY AND
 MECHANICALLY HAZARDOUS ENVIRONMENT,
 SOLD BY THE METER MAX. CONSIGNMENT: 1000 M MIN.
 ORDERING QUANTITY: 20 M

Acceptability for application

For use in chemically and mechanically demanding environments

Electrical data

Damping ratio per length

| | |
|-------------------------|-------------|
| • at 9.6 kHz / maximum | 0.0025 dB/m |
| • at 38.4 kHz / maximum | 0.0040 dB/m |
| • at 4 MHz / maximum | 0.022 dB/m |
| • at 16 MHz / maximum | 0.042 dB/m |

Impedance

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

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

110 Ω/km

Shield resistance per length / maximum

9.5 Ω/km

Capacity per length / at 1 kHz

28.5 pF/m

Operating voltage

| | |
|-------------|-------|
| • RMS value | 100 V |
|-------------|-------|

| Mechanical data | |
|---|---|
| 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 | 0.65 mm |
| • of the wire insulation | 2.55 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 | PVC |
| • 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 | 37.5 mm |
| • with multiple bends / minimum permissible | 75 mm |
| Traction stress / maximum | 100 N |
| Weight per length | 71 kg/km |
| Permitted ambient conditions | |
| Ambient temperature | |
| • during operating | -40 ... +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 |
| Burning behaviour | flame resistant according to IEC 60332-1 |
| 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 |
| Product properties, functions, components / general | |
| Product feature | |
| • halogen-free | No |

| | |
|---|-------------------|
| • silicon-free | Yes |
| Standards, specifications, approvals | |
| 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 |
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