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| 2170531 | DATA SHEET |  |
| valid from: 01.01.2019 | UNITRONIC® BUS SAFETY FD P | |

Application

High flexible Fieldbus cable for SafetyBUS® field network and also for bus systems with nominal impedance of 120 Ω. The transmission characteristics of the cable are conform to the SafetyBUS® system and guarantee a high operating security during data transmission. The cable is intended for high flexible use in drag chains.

Design

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| Conductor | bare copper wire, acc. to VDE 0295, class 6, ca. 0.75 mm ² |
| Insulation | foam skin Polyethylene, ∅ca. 2.65 mm |
| Core identification code | white, brown, green |
| Stranding | 3 cores stranded with fillers |
| Screen | Geflecht aus verzinnnten Kupferdrähten, Bedeckung ca. 85%, ∅ ca. 7,05 mm |
| Taping | 1 layer non-woven tape |
| Outer sheath | Polyurethane halogen-free, flame retardant, ∅ ca. 7.8 mm Colour: yellow (similar to RAL 1003) |

Electrical properties at 20°C

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| Conductor resistance | max. 52 Ω/km |
| Insulation resistance | min. 5 GΩxkm |
| Mutual capacitance | nom. 40 nF/km (at 800 Hz) |
| Characteristic impedance | 100 Ω - 120 Ω (f > 1 MHz) |
| Signal transit time | ca. 4.5 ns/m (at 16 MHz) |
| Transfer impedance | up to 30 MHz: max. 250 mΩ/m |
| Peak operating voltage | 250 V (not for power applications) |
| Test voltage | conductor/conductor 1500 V conductor/screen 1500 V |

Mechanical and thermal properties

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| Minimum bending radius | moved: 8 x core diameter static: 8 x core diameter |
| Temperature range | moved: -30 °C up to +80 °C static: -40 °C up to +80 °C |
| Flammability | flame retardant acc. to IEC 60332-1-2 |
| General requirements | This cable is conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances). |

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