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| 2170815 | DATA SHEET |  |
| valid from: 05.10.2020 | UNITRONIC BUS LD FD P A 3x2x0,25 mm² | |

Application

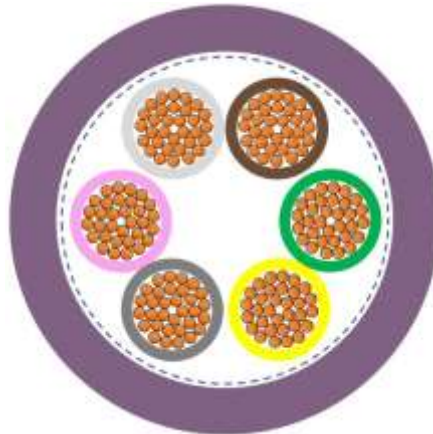
UNITRONIC BUS LD FD P A is a screened, twisted paired flexible cable with UL/CSA approval for bus systems with a data transmission rate up to 10 Mbit/s and a nominal impedance of 100 - 120 Ohms. The copper screening protects against external electromagnetic influences.

The cable is applicable for constantly moving employment in power chain systems, linear robots and automatic handling machines in dry and damp interiors.

Outdoor use: They may only be installed considering the indicated temperature range, whereat changings of the colour of the outer sheath may occur.

The polyurethane outer sheath is largely resistant to certain oils and to abrasion.

Design




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| Certification | cULus CMX 75°C acc. to UL 444 and CSA C22.2 No. 214-02 |
| Conductor | fine-wire stranded, bare copper 0,25 mm ² |
| Insulation | PE core Ø: ca. 1.46 mm |
| Core identification code | pair 1: white/brown pair 2: green/yellow pair 3: grey/pink |
| Stranding | cores stranded to pairs, pairs stranded to bundle on top: non-woven tape (overlapping) |
| Screen | braid of tinned copper wires (coverage 85 % ± 5 %) |
| Taping | non-woven tape (optional) |
| Outer sheath | PUR violet, similar to RAL 4001 outer Ø: ca. 8.4 mm |

Electrical properties at 20°C

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| Loop resistance | max. 159.8 Ω/km |
| Insulation resistance | min. 5 GΩxkm |
| Mutual capacitance | max. 60 nF/km (at 800 Hz) |
| Characteristic impedance | 100 Ω up to 120 Ω |
| Attenuation | 100 kHz: nom. 0.79 dB/100 m 1 MHz: nom. 1.9 dB/100 m 10 MHz: nom. 8.5 dB/100 m |
| Velocity of propagation | nom. 0.66c |
| Peak operating voltage | EN: 250 V (not for power applications) UL: 300 V |
| Test voltage | core/core: 1500 V core/screen: 1500 V |

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Mechanical and thermal properties

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| Minimum bending radius | fixed: 8x cable Ø flexing: 15x cable Ø |
| Temperature range | fixed: -40 °C up to +80 °C flexing: -30 °C up to +70 °C UL: 75 °C |
| Flammability | flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2 VW-1 acc. to UL 1581 §1080 |
| Halogen free | acc. to VDE 0472-815 |
| Weather and UV resistance | acc. to EN ISO 4892-2-2013, method A (change of color allowed) |
| General requirements | This cable is conform to EU-Directive 2014/35/EU (Low Voltage Directive) and to EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances). |
| Environmental information | These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS). |

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