


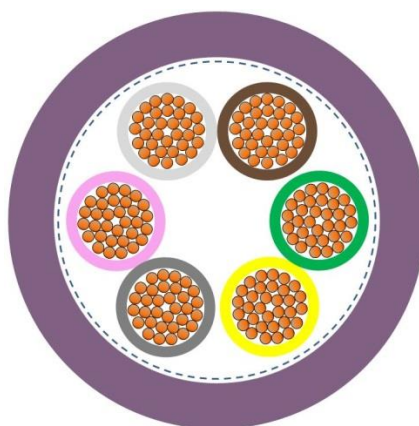
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|-----------------------------------|-------------------------------------------------|-------------------------------------------------------------------------------------|
| 2170216 | DATA SHEET |  |
| valid from: 01.01.2019 | UNITRONIC® BUS FD P IBS 3 x 2 x 0,25 | |

Application

UNITRONIC® BUS FD P IBS is a highly flexible data cable for the field-bus system INTERBUS with a data transmission rate of 500kBit/s at a length of 400m. The field-bus cable is designed to the requirements of the bus-system INTERBUS, the transmission characteristics conform to the system and guarantee a high operating security during data transmission.

UNITRONIC® BUS IBS is certified by the INTERBUS-CLUB. The cable is intended for highly flexible application in power chains, or permanently moving machines and linear robots, in dry and damp interiors and in harsh industrial environment. The PUR sheath is very resistant against mineral oils and abrasion.

Design




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|--------------------------|------------------------------------------------------------------------------------------------|
| Conductor | very fine-wired stranded ($32 \times 0.1 = 0.25 \text{ mm}^2 = 24\text{AWG}$) of bare copper |
| Core identification code | colour-coded to DIN 47100 |
| Stranding | 2 cores twisted to pair 3 pairs laid up |
| Screen | copper wire braid |
| Outer sheath | PUR compound, violett, RAL 4001 outer diameter max. 7,9 mm. |

Electrical properties at 20°C

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|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Loop resistance | max. 159,8 Ω /km |
| Insulation resistance | min 1 G Ω x km |
| Mutual capacitance | 800 Hz max 60 nF/km |
| Characteristic impedance | 64 kHz Ω 120 +/- 20% 1 MHz Ω 100 +/- 15% |
| Attenuation | 0,256 MHz max dB/100m 1,5 0,772 MHz max dB/100m 2,4 1 MHz max dB/100m 2,7 4 MHz max dB/100m 5,2 10 MHz max dB/100m 8,4 16 MHz max dB/100m 11,2 20 MHz max dB/100m 11,9 |
| Near-end cross-talk | 0,772 MHz min dB 61 1 MHz min dB 59 2 MHz min dB 55 4 MHz min dB 50 8 MHz min dB 46 10 MHz min dB 44 16 MHz min dB 41 20 MHz min dB 40 |
| Velocity of propagation | nom. 0,66c |
| Transfer impedance | max. 250 m Ω /m |
| Peak operating voltage | 250 V (not for power applications) |

AbN
automation

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|--------------|-------------------------------------------------------|
| Test voltage | conductor/conductor 1500 V conductor/screen 1000 V |
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Mechanical and thermal properties

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|------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Minimum bending radius | flexing mm 110 |
| Temperature range | static - 40° C to + 80° C flexing - 30° C to + 70° C |
| Flammability | flame retardant to VDE 0482, part 265-2-1 / IEC 60332-1 |
| 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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