

UNITRONIC® BUS IBS Yv

DB2170207

valid from: 30.10.2015

Application

UNITRONIC® BUS IBS Yv is a data cable for the field-bus system INTERBUS. The field-bus cable is designed to the requirements of the bus-system INTERBUS, the transmission characteristics are conform to the system and guarantee a high operating security during data transmission.

The cable is designed for a data transmission of 500kBit/s at a length of 400m.

The cable is intended for limited flexible use and for permanent installation in- and outdoor, as well as direct burial. In case of aboveground installation the outer sheath is UV-resistant.

Applicable connectors: D-Sub-connector, 9pin version; Round connector, 9pin version (IP 65)

Design

Conductor	bare copper wire 0.22 mm ² (7x0.2 mm)
Insulation	PE-based compound
Core identification code	DIN 47100
Stranding	Cores twisted to pairs 3 pairs stranded together Wrapping with polyester tape, 1 layer
Screen	Braid of tinned copper wires
Outer sheath	PVC-based compound TM52 Colour: black Outer sheath diameter ca. 8.8 mm

Electrical properties at 20°C

Loop resistance	max. 186 Ω/km
Insulation resistance	min. 5 GΩxkm
Mutual capacitance	ca. 60 nF/km (at 800 Hz)
Characteristic impedance	120 Ω ± 20% (64 kHz) 100 Ω ± 15% (1 MHz)
Line attenuation	max. 1.5 dB/100m (0.256 MHz) max. 2.4 dB/100m (0.772 MHz) max. 2.7 dB/100m (1 MHz) max. 5.2 dB/100m (4 MHz) max. 8.4 dB/100m (10 MHz) max. 11.2 dB/100m (16 MHz) max. 11.9 dB/100m (20 MHz)
Near-end cross-talk	min. 61 dB (0.772 MHz) min. 59 dB (1 MHz) min. 55 dB (2 MHz) min. 50 dB (4 MHz) min. 46 dB (8 MHz) min. 44 dB (10 MHz) min. 41 dB (16 MHz) min. 40 dB (20 MHz)
Velocity of propagation	nom. 0.66c
Transfer impedance	max. 250 mΩ/m (30 MHz)
Peak working voltage	250 V (not for power purposes)
Test voltage	C/C: 1500 V C/S: 1000 V



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Mechanical and thermal properties

Minimum bending radius	Fixed installation: 8 x cable Ø
Temperature range	Occasional flexing: - 5 °C up to +70 °C Fixed installation: -30 °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).