


2170310	DATA SHEET	
valid from: 11.04.2019	UNITRONIC® BUS PB Y 7-W FC BK 1x2x0.64	

Application

UNITRONIC® BUS PB Y 7-W FC BK is a cable for fieldbus systems with a characteristic impedance of 150 Ω.

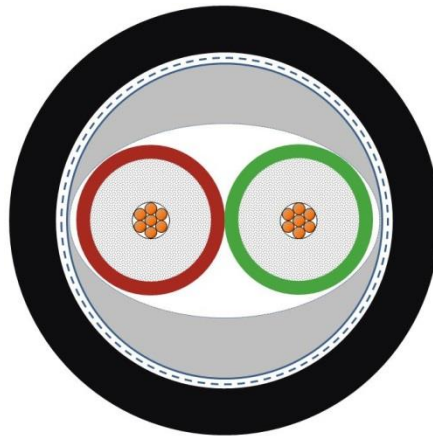
The cable has a black UV-resistant PVC outer sheath.

The cable is designed for stationary applications and occasional movements in dry and wet rooms. It may be used outside regarding the thermal characteristics. At room temperature, the cable is widely resistant against impact of acids, soaps and certain oils.

Permanent, operational movements, forced guidance respectively the use of cable reels or rolls or under tensile stress with more than 15 N/mm² conductor cross-section are not allowed.

Characterised by the double screening the cable is suitable for installation in electromagnetic loaded areas. The cable is suitable for quick harnessing in connection with the "Fast Connect" stripping tool. The cable end can be harnesses in one step, especially for the insulation displacement connector technology (IDC).

Design




Conductor	stranded bare copper wires, AWG24/7
Insulation	Foam-Skin Polyethylene (O2YS) Outer Ø 2,55 mm
Core identification code	red and green
Stranding	2 cores twisted with plastic tape wrapping on top
Inner sheath	Inner sheath thermoplastic material Outer Ø 5,5mm
Screen	aluminum laminated plastic foil, metal side outside on top: braid of tinned copper wires, coverage: 65 ± 5%
Outer sheath	Special PVC compound TM2 acc. to HD21 or VDE0281 part 1 colour black, Outer Ø 7,8 mm

Electrical properties at 20°C

Loop resistance	max. 186 Ω/km
Insulation resistance	min. 5 GΩ x km
Mutual capacitance	nom. 30 nF/km at 800 Hz
Characteristic impedance	270 Ω ± 27 Ω at 9,6 kHz 185 Ω ± 18,5 Ω at 38,4 kHz 135 Ω...165 Ω at 3...20 MHz
Attenuation	max. 3 dB/km at 9,6 kHz max. 4 dB/km at 38,4 kHz max. 25 dB/km at 4 MHz max. 49 dB/km at 16 MHz
Peak operating voltage	250 V (not for power purposes)
Test voltage	core/core: 1500 V core/screening: 1500 V

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Mechanical and thermal properties

Minimum bending radius	moved: 15 x cable Ø fixed installation: 8 x cable Ø
Temperature range	moved: -10° C up to +70° C fixed installation: -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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