



DATA SHEET

DB2170310

UNITRONIC® BUS PB Y 7-W FC BK 1x2x0,64

Valid from:
23.05.2011

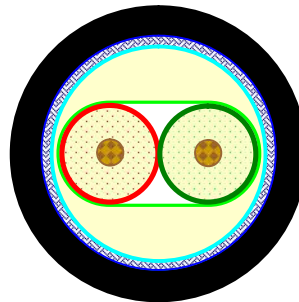
Application

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 harnessed in one step, especially for the insulation displacement connector technology (IDC).

Design



Conductor	Stranded bare copper, AWG 24/7 (7 x 0.2 mm)	
Conductor insulation	Foam-Skin Polyethylene (O2YS) core Core colours red and green	∅ 2.55 mm (0.100 in)
Stranding	2 cores twisted	
Wrapping	plastic foil	
Core cover	thermoplastic fill-mixture	∅ 5.5 mm (0.217 in)
Screening	aluminium laminated foil, metal side outside braid of tinned copper wires, coverage 65 ± 5 %	
Sheath	special mixture on Polyvinylchloride basis (PVC) TM2 acc. to HD21 respectively VDE0281 part 1 colour black, colour of printing white	∅ 7.8 mm (0.307 in)



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Electrical data at 20°C

Loop resistance		max. Ω /km	186	
Insulation resistance		min. $G\Omega \times km$	5	
Mutual capacitance	800 Hz	max. nF/km	30	
Characteristic impedance	9.6 kHz	Ω	270 ± 27	
	38.4 kHz	Ω	185 ± 18.5	
	3...20 MHz	Ω	135...165	
Wave attenuation	9.6 kHz	max. dB/km	3	
	38.4 kHz	max. dB/km	4	
	4 MHz	max. dB/km	25	
	16 MHz	max. dB/km	49	
Operating voltage (not for power purposes)		peak value	V	250
Test voltage (core/core, core/screen)		U_{rms}	V	1500

Mechanical and thermal properties

Minimum bending radius	static	about	$8 \times \emptyset$
	moved	about	$15 \times \emptyset$
Temperature range	static	$^{\circ}C$	-40 to +80
	moved	$^{\circ}C$	-10 to +70
Flame propagation	Flame retardant acc. to IEC 60332-1-2		

General properties

RoHS standard procedure
REACH/WEEE

The cable is compliant to RoHS standard procedure (2002/95/EG)
The cable is compliant to prescription (EG) #1907/2006 (REACH)