

U.I. Lapp GmbH	DATA SHEET/ Datenblatt	 LAPP GROUP
	UNITRONIC® BUS PB ROBUST 1x2x0,64	DB 2170620 valid from/ gültig ab: 01.07.2010

Application

UNITRONIC® BUS PB ROBUST is a data cable for a field bus with 150 Ω nominal impedance. It is dedicated for fixed installations in dry, damp and wet rooms. In consideration of the temperature range it can be used outside. At room temperature it is increased resistant against acids, caustics solutions and certain oils, greases, waxes of vegetable, animal, mineral and/or synthetic basis.

UNITRONIC® BUS PB ROBUST can be used especially as a BUS cable in machine tool manufactory and plant engineering, in power stations, in heating and air conditioning installations, agriculture, food-, pharmaceutical- and cosmetically industry, in composting- and sewage plants, by the production of textile fibre, of water based purification plants by industrial and private use.

Design

Conductor	Bare solid copper wire	Ø 0.64 mm
Insulation	Foam-Skin Polyethylene Core colors red (RAL 3000) and green (RAL 6018)	Ø 2.55 mm
Stranding	2 cores twisted with 2 fillers to a pair	
Wrapping	Plastic tape	
Screening	Aluminum laminated foil, metal side outwards Braiding of tinned copper wire, coverage approx. 85%	
Outer sheath	ROBUST (Flame Retardant), violet similar RAL 4001 Colour of marking, black	Ø 7.8 mm

Electrical data at 20°C

Loop resistance		max. Ω/km	110
Screen resistance		max. Ω/km	10
Insulation resistance		min. GΩ x km	5
Mutual capacitance at	800 Hz	max. nF/km	30
Characteristic impedance at	9.6 kHz	Ω	270± 27
	38.4 kHz	Ω	185 ± 18.5
	3...20 MHz	Ω	135...165
Wave attenuation at	9.6 kHz	max. dB/100 m	0.25
	38.4 kHz	max. dB/100 m	0.4
	200 kHz	max. dB/100 m	0.9
	4 MHz	max. dB/100 m	2.2
	16 MHz	max. dB/100 m	4.2
Transfer impedance up to	20 MHz	max. mΩ/m	10
Operating Voltage (not for power use)		peak value V	250
Test Voltage core/core, core/screen		U _{eff.} V	1500

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Mechanical and thermal characteristics

Minimum bending radius	for 1 bending	mm	75
	for > 1 bendings	mm	150
Permissible temperature range	for static	°C	-40 up to +80
Flame propagation	flame retardant	acc. to	IEC 60332-1-2

General requirements

RoHS directive:	This cable is conform to RoHS directive (2002/95/EG)
REACH	This cable is conform to (EG) no. 1907/2006 (REACH)

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