


U.I. Lapp GmbH	DATA SHEET/ Datenblatt	 LAPP GROUP
	UNITRONIC® BUS PB 105 1x2x0,64	DB 2170630 valid from/ gültig ab: 05.10.2010

Application

Flame retardant and oil resistant field bus data cable with high temperature resistance up to 105°C for PROFIBUS DP and PROFIBUS FMS (Siemens SIMATIC NET) acc. to DIN 19245 and EN 50 170. Also for field bus system FIP (Factory Instrumentation Protocol) as well as for high performance data networks with 150 Ω nominal impedance. The field bus data cable is designed for the system-defined transmission rates from von 9,6 Kbit/s to 12 Mbit/s. The transmission characteristics are conform to the system and guarantee a high operating security.

The cable is suitable for permanent installation in dry and wet rooms. Due to its double screening it is suitable for installation in electromagnetically demanding area.


Layout

Conductor	stranded bare copper 7x0.2	Ø 0.22 mm ²
Insulation	Skin-Foam-Skin PP (O9YS) , cores in red and green	Ø 2.55 mm
Stranding	2 cores twisted in pair, 2 fillers	
Wrapping	optional: 1 layer non-woven tape	
Screening	1 layer plastic laminated aluminum foil, metal side outwards.(No Drain) Braid of tinned copper wire (optical coverage 65%)	
Outer Sheath	PVC, thickness about 1 mm violet, similar RAL 4001	max. Ø 8 mm

Electrical properties at 20° C

Resistance (loop)		max. Ω/km	156
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
Line attenuation	9.6 kHz	max. dB/100 m	0.3
	38.4 kHz	max. dB/100 m	0.5
	200 kHz	max. dB/100 m	0.9
	4 MHz	max. dB/100 m	2.5
	16 MHz	max. dB/100 m	4.9
Operating voltage (not for power purposes)		peak V	250
Test voltage core/core, core/screen		U _{eff.} V	1500

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Mechanical and thermal properties

Permissible temperature range	fixed installation	°C	- 30 bis + 105
Minimum bending radius	for flexible use	mm	65
Minimum bending radius	for static use	mm	45
Flame retardant		acc. IEC 60332-1-2	

General requirements

RoHS directive This cable is conform to **RoHS** directive (2002/95/EG)

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