



DATA SHEET	2170207
UNITRONIC® BUS Yv IBS 3 x 2 x 0.22 mm²	valid from : 12.02.2004

Application

UNITRONIC® BUS Yv IBS is a data cable for the field-bus system INTERBUS with a data transmission rate of 500kBit/s at a length of 400m.

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. UNITRONIC® BUS Yv IBS is certified by the INTERBUS-CLUB.

The cable is intended for limited flexible use and for permanent installation in- and outdoor, as well as used in ground installation. By aboveground installation the outer sheath is resistant to atmospheric UV-irradiation.

Applicable connectors: D-Sub-connector, 9pin
 Round connector, 9pin, IP 65

Design

Conductor multi-wire stranded (7x0.2) of bare copper
 Insulation PE, 2YI1 in acc. to VDE 0207 part 2
 Coding colour-coded to DIN 47100
 Stranding 2 cores twisted to pair, 3 pairs stranded
 Wrapping one layer polyester foil
 Screen copper wire braid
 Sheath PVC, black, outer diameter approx. 8.2 mm

LAPP KABEL STUTTGART **UNITRONIC® BUS Yv IBS** 3 x 2x 0,22 ART. 2170207

Electrical properties at 20° C

Loop resistance		max. Ω/km	186
Insulation resistance		min. GΩx km	5
Mutual capacitance at	800 Hz	max. nF/km	60
Impedance at	64 kHz	Ω	120 +/- 20%
	1 MHz	Ω	100 +/- 15%
Line attenuation at	0.256 MHz	max. dB/100m	1.5
	0.772 MHz	max. dB/100m	2.4
	1 MHz	max. dB/100m	2.7
	4 MHz	max. dB/100m	5.2
	10 MHz	max. dB/100m	8.4
	16 MHz	max. dB/100m	11.2
	20 MHz	max. dB/100m	11.9
Near-end cross-talk attenuation at	0.772 MHz	min. dB	61
	1 MHz	min. dB	59
	2 MHz	min. dB	55
	4 MHz	min. dB	50
	8 MHz	min. dB	46
	10 MHz	min. dB	44
	16 MHz	min. dB	41
20 MHz	min. dB	40	
Transfer impedance at	30 MHz	max. mΩ/m	250
Nominal velocity of propagation		nom.	0.66c
Peak operating voltage (not for purposes of power / high voltage current)		V	250

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Test voltage	core/core	U_{eff}	V	1500
	core/screen	U_{eff}	V	1000

Mechanical and thermal properties

Minimum bend radius	fixed installation	mm	90
	flex. use		150
Temperature range	fixed installation	°C	-30 up to +80
	flex. use	°C	-5 up to +70
Burning load		kWh/m	0.29
Flame propagation	flame retardant to VDE 0482, part 265-2-1 / IEC 60332-1		

General properties

All materials used and during manufacturing have to be **free of LBS** (e.g. silicone).
LBS = substances destructive to lacquer-coatings.

INTERBUS = registered trademark of Phoenix Contact GmbH&Co

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