



<b>DATA SHEET</b>	2170323
UNITRONIC® BUS L2/FIP Burial FC	Valid from: 18.11.2003



### Design

Wire:  
Bare copper wire Ø 0.65 mm (0.026 in)  
Insulation of foamed Polyethylene (PE) with skin Ø 2.55 mm (0.100 in)

Core:  
2 wires, RD and GN twisted to a pair  
Plastic tape, overlapped  
Inner Jacket Polyvinylchloride (PVC) WH Ø 5.4 mm (0.213 in)  
Alulaminat foil overlapped, applied longitudinally  
Shield braiding of tinned copper wires 0.15 mm dia Ø 6.2 mm (0.244 in)  
Coverage about 55%

Inner jacket:  
Polyvinylchloride (PVC) violet (VT) Ø (8.0 ±0.4) mm (0.315 ±0.016 in)  
Wall thickness approx. 0.9 mm

Jacket:  
Polyethylene (PE) black (BK) Ø (10.8 ±0.5) mm (0.425 ±0.020 in)  
Wall thickness approx. 1.4 mm

Marking: LAPP KABEL STUTTGART UNITRONIC® BUS L2/FIP BURIAL FC  
1 x 2x 0,64 AWG22 (SHIELDED) ART. 2170323

### Electrical data at 20°C

Loop resistance		≤	110	Ohm/km
Screen resistance		≤	15	Ohm/km
Insulation resistance		≥	16	GOhm*km
Characteristic impedance	3 - 20 MHz		(150 ±15)	Ohm
	31,25 - 38,4 kHz		(185 ±18.5)	Ohm
	9,6 kHz		(270 ±27)	Ohm

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#### Attenuation

16 MHz	≤	42	dB/km
4 MHz	≤	22	dB/km
38.4 kHz	≤	4	dB/km
9.6 kHz	≤	2.5	dB/km

Inductance (31,25 KHz)	≈	1000	μH/km
Capacitance (1 KHz)	≈	28.5	nF/km
Unbalance to ground	≤	1500	pF/km
Operating voltage (effective value)	≤	100	V
rel. velocity of propagation	≈	81	%
Test voltage (DC 3 sec)	=	3600	V

#### Mechanical and thermal characteristics

Conductor material acc. to DIN EN 13602 Cu-ETP-A..  
Screen material acc. to DIN EN 13602 Cu-ETP-A...-B  
Insulating material acc. to DIN EN 50290-2-23 (VDE 0819) Tab.2 Spalte A (HD 624.3)  
Jacket material acc. to DIN EN 50290-2-22 (VDE 0819), compound TM52 (HD 624.2)  
Jacket material acc. to DIN VDE 0207, compound type 2YM1  
Cold bend test acc. DIN VDE 0473 part 811-1-4 ; after 16 hours storage at -40° C

#### Application / Special feature:

UV-Resistant  
Limited mineral oil and fat resistance

Permissible temperature range : -40 °C (-40 °F) up to 60 °C (140 °F)  
Min. bending radius allowed : repeated 7,5 x ø , single 3,7 x ø  
Pulling force with : ≤ 100 N

PVC weight with phthalate : 52.4 Kg/km  
PVC weight without phthalate : 0.0 Kg/km  
Weight approx. : 115 Kg/km

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