



<b>DATA SHEET</b>	<b>2170820</b>
<b>UNITRONIC® BUS L2/FIP FC UL/CSA (CMG) 1x2xAWG22/1</b>	Valid from: 22.08.2005



### Cable 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) ø 5.4 mm (0.213 in)  
 Alulaminated foil overlapped, applied longitudinally  
 Shield braiding of tinned copper wires 0.15 mm diameter  
 Coverage approx. 55% ø 6.2 mm (0,244 in)

#### Jacket

Polyvinylchloride (PVC) violet (VT)  
 Wall thickness approx. 0.9 mm ø (8.0 ±0.4) mm (0.315 ±0.016 in)

Marking: LAPP KABEL STUTTGART **UNITRONIC® BUS L2/FIP FC UL/CSA (CMG)**  
 1 x 2 x 0,64 \* (UL) CMG 60°C AWG22 (SHIELDED) E224252 \* ROHS ART. 2170820

#### Electrical data at 20°C

Loop resistance		≤	110	Ohm/km	
Screen resistance		≤	9,5	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	
Attenuation	16	MHz	≤	42	dB/km
	4	MHz	≤	22	dB/km
	38.4	kHz	≤	4	dB/km
	9.6	kHz	≤	2.5	dB/km

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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 characteristic

Conductor material acc. to DIN EN 13602 Cu-ETP-A...

Screening material acc. to DIN EN 13602 Cu-ETP-A...-B

Insulating material acc. to DIN EN 50290-2-23 (VDE 0819), table 2/A (HD 624.3)

Jacket material acc. to DIN EN 50290-2-22 (VDE 0819), compound type TM52 (HD 624.2)

Cold bend test acc. DIN VDE 0473 part 811-1-4 ; after 16 hour storage at -40° Grad

Flame test acc. to IEC 60332-3 category C

#### Application / Special features

Permissible temperature range : -40 °C (-40 °F) up to 60 °C (140 °F)

Diameter repeated bending : ≥ 150 mm

Pulling force : ≤ 100 N

Maximum permissible cable length: 100m

PVC weight with Phthalate : 52.4 kg/km

PVC weight without Phthalate : 0.0 kg/km

Weight approx. : 76 kg/km

02YSY(ST)CY 1X2X0.64/2.55-150

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