



<b>DATA SHEET</b>	2170269
<b>UNITRONIC® BUS CAN UL/CSA 1 x 2 x 0.75 mm<sup>2</sup></b>	valid from : 06.11.2003

**Application**

UNITRONIC® BUS CAN UL/CSA is a data cable with UL and CSA approval, for **CAN (Controller Area Network)** fieldbus system according to ISO11898 as well as for high performance data networks with 120 Ohms nominal impedance. The transmission characteristics of the cable conform to the CAN system and guarantee a high operating security during data transmission.  
 UNITRONIC® BUS UL/CSA is intended for permanent installation and conditional flexible use in dry and damp interiors.

Approval: UL / CSA type CMX according to UL 444 and CSA C22.2 No.214-02.

**Design**

Conductor fine-wire strands of bare copper, 0.75mm<sup>2</sup>, (19AWG)  
 Insulation cellular PE or foam skin, core diameter approx. 3.1 mm  
 Coding white and brown (acc. DIN 47100)  
 Twisting 2 cores twisted into a pair  
 Wrapping plastic foil  
 Screening braid of tinned copper wires  
 Sheath PVC, violet, OD approx. 8.7 mm  
 Marking on the sheath:

LAPP KABEL STUTTGART **UNITRONIC® BUS CAN** 1 x 2 x 0,75 (UL) CMX 75°C AWG 19 (SHIELDED)  
 ART. 2170269

**Electrical characteristics at 20° C**

Loop resistance		max. Ω/km	52
Insulation resistance		min. GΩxkm	5
Mutual capacitance	at 800 Hz	nom. nF/km	40
Impedance	at > 1 MHz	Ω	120 ± 15
Line attenuation	at 100 kHz	nom. dB/100 m	0.3
	at 1 MHz	nom. dB/100 m	0.9
	at 5 MHz	nom. dB/100 m	2.4
	at 10 MHz	nom. dB/100 m	3.5
	at 20 MHz	nom. dB/100 m	5.2
Nominal velocity of propagation		%	76
Signal delay		ns/m	4.4
Transfer impedance	at 30 MHz	max. mΩ/m	250
Peak operation voltage (not for purposes of power/high voltage current)		V	250
Test voltage	core/core	U <sub>eff</sub> V	1500
	core/screen	U <sub>eff</sub> V	1000

**Mechanical and thermal characteristics**

Minimum bending radius	moved	cable diameter x	10
Permissible temperature range	moved	°C	- 5 to + 70
	static	°C	- 30 to + 80
Flame propagation	flame retardant acc. to VDE 0482, part 265-2-1 / IEC 60 332-1		

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