



<b>DATA SHEET</b>	2170276
<b>UNITRONIC® BUS FD P CAN UL/CSA 2 x 2 x 0,34 mm<sup>2</sup></b>	valid from : 06.06.2008

## Application

UNITRONIC® BUS FD P CAN UL/CSA is a highly flexible 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 second pair can be used for electrical power supply for the logical bus units. The transmission characteristics of the cable conform to the CAN system and guarantee a high operating security during data transmission.

UNITRONIC® BUS FD P CAN UL/CSA is intended for high flexible application in power chains, or permanently moving machines, in dry and damp interiors and in harsh industrial environment.

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

## Design

Conductor	fine-wire stranded, 0.34mm <sup>2</sup> (22AWG) of bare copper		
Insulation	foam skin, core diameter approx. 2.0 mm		
Colour code	pair 1 white and brown,	pair 2 green and yellow	(acc. DIN 47100)
Twisting	cores twisted into pairs, 2 paires arranged to the cable core		
Wrapping	non-woven tape		
Screening	PUR, halogen free, flame retardant, violet, OD approx. 9.5 mm		

## Electrical properties at 20° C

Loop resistance		max. Ω/km	122
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	0.4
	at 1 MHz	nom. dB/100 m	1.2
	at 5 MHz	nom. dB/100 m	4.0
	at 10 MHz	nom. dB/100 m	6.6
	at 20 MHz	nom. dB/100 m	9.9
Near end cross talk attenuation (NEXT)	at 20 MHz	min. dB	40
Nominal velocity of propagation		%	76
Signal delay		ns/m	4,4
Transfer impedance	at 10 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 bend radius	moved	cable diameter x	15
Permissible temperature range	moved	°C	- 30 to + 70
	static	°C	- 40 to + 80
Flame propagation	flame retardant acc. to IEC 60 332-1-2 / UL 1581 VW-1		

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