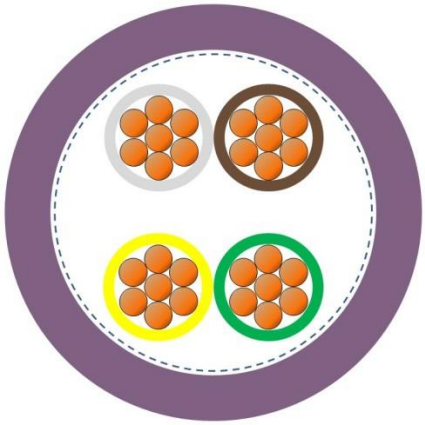
2170264	DATA SHEET	LAPP
valid from: 2025-11-25	UNITRONIC® BUS CAN A 2x2x0.34 mm²	

Application

UNITRONIC® BUS CAN A 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 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 UL/CSA is intended for permanent installation and conditional flexible use in dry and damp interiors.



Design

Certification	E236660 cULus CMX acc. to UL 444 & CSA 22.2 No. 214
Conductor	seven-wire strands of bare copper, 0.34mm², (22AWG)
Insulation	cellular PE or foam skin, core diameter approx. 1.7 mm
Core identification code	pair 1 white and brown, pair 2 green and yellow (acc. to DIN 47100)
Stranding	2 cores twisted into pairs, 2 pairs arranged to the cable core plastic foil
Screen	braid of tinned copper wires
Outer sheath	PVC, violet, OD approx. 8.5 mm

Electrical properties at 20 °C

Loop resistance	max. 115 Ω/km
Insulation resistance	min. 5 GΩxkm
Mutual capacitance	nom. nF/km 40
Characteristic impedance	at f ≥ 1 MHz Ω 120 ± 15%
Attenuation	100 kHz nom. dB/100 m 0,4 1 MHz nom. dB/100 m 1,3 5 MHz nom. dB/100 m 3,0 10 MHz nom. dB/100 m 4,3 20 MHz nom. dB/100 m 6,4
Near-end cross-talk	1 MHz min. dB 50 20 MHz min. dB 40
Velocity of propagation	nom. 76 %
Signal propagation time	4,4 ns/m
Transfer impedance	max. 250 mΩ/m (at 30 MHz)
Maximum operating voltage	250 V (not for power applications)
Test voltage	conductor/conductor 1500 V conductor/screen 1000 V

Mechanical and thermal properties

Minimum bending radius	fixed installation: 10× outer diameter
Temperature range	fixed installation: -30 °C up to +80 °C occasional flexing: -5 °C up to +70 °C
Flammability	flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2 VW-1 acc. to UL 1581 §1080
General requirements	This cable is conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).
Environmental information	These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).