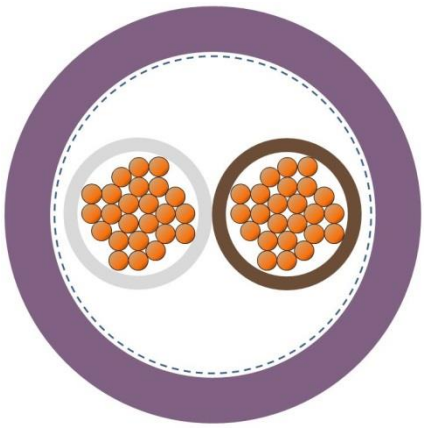
2170269	DATA SHEET	LAPP
valid from: 01.01.2019	UNITRONIC® BUS CAN A 1 x 2 x 0,75 mm²	

Application

UNITRONIC® BUS CAN A is a data cable with UL and cUL 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 A is intended for permanent installation and conditional flexible use in dry and damp interiors.

Design



Certification	UL / cUL type CMX according to UL 444 and CSA C22.2 No.214-02.
Conductor	seven-wire strands of bare copper, 0.5mm², (20AWG)
Insulation	cellular PE or foam skin, core diameter approx. 2.1 mm
Core identification code	pair 1 white and brown, pair 2 green and yellow (acc. 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. 9.6 mm

Electrical properties at 20°C

Loop resistance	max. 52 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 0,3 1 MHz nom. dB/100 m 0,9 5 MHz nom. dB/100 m 2,4 10 MHz nom. dB/100 m 3,5 20 MHz nom. dB/100 m 5,2
Velocity of propagation	nom. 76 %
Signal transit time	4,4 ns/m
Transfer impedance	at 30 MHz max. 250 mΩ/m
Peak 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	moved: 10 x cable Ø
Temperature range	moved - 5° C to + 70° C static - 30° C to + 80° C
Flammability	flame retardant to VDE 0482, part 265-2-1 / IEC 60 332-1
General requirements	This cable is conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).