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| <b>2170263</b>                    | <b>DATA SHEET</b>   |  |
| <b>valid from:<br/>01.01.2019</b> | <b>UNITRONIC® BUS CAN A<br/>1 x 2 x 0,34 mm<sup>2</sup></b> |   |

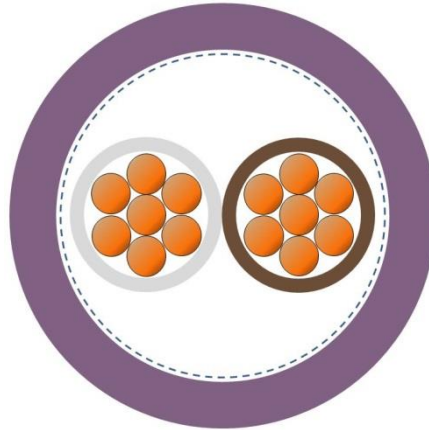
## Application

UNITRONIC® BUS CAN A is a data cable with UL and cUL approval, for CAN (Controller Area Network) fieldbus system according to ISO 11898 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.

The possible data transmission acc. to ISO 11898 for max. 40m is 1 Mbit/s

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,<br>0.34mm <sup>2</sup> , (22AWG) |
| Insulation               | cellular PE or foam skin,<br>core diameter approx. 2.0 mm           |
| Core identification code | white and brown<br>(acc. DIN 47100)                                 |
| Stranding                | 2 cores twisted into a pair<br>plastic foil                         |
| Screen                   | braid of tinned copper wires  |
| Outer sheath             | PVC, violet,<br>OD approx. 6.8 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<br>1 MHz nom. dB/100 m 1,3<br>5 MHz nom. dB/100 m 3,1<br>10 MHz nom. dB/100 m 4,3<br>20 MHz nom. dB/100 m 6,4 |
| 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<br>conductor/screen 1000 V   |

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### Mechanical and thermal properties

|                        |  |
|------------------------|--|
| Minimum bending radius | moved: 10 x cable Ø  |
| Temperature range      | moved - 5° C to + 70° C<br>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). |

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