CAN = Controller Area Network

Mutual capacitance

UNITRONIC® BUS CAN

(800 Hz): max. 40 nF/km UNITRONIC® BUS CAN FD P

(800 Hz): max. 60 nF/km

Peak operating voltage

UNITRONIC® BUS CAN FD P 250 V (not for power transmission)

**Conductor resistance** 

UNITRONIC® BUS CAN FD P (loop): max. 159.8 ohm/km

Minimum bending radius

Flexing: 15 x outer diameter

Core/core: 1500 V rms

Temperature range

UNITRONIC<sup>®</sup> BUS CAN

Flexing: -5°C to +70°C

UNITRONIC® BUS CAN FD P

Flexing: -30°C to +70°C

Characteristic impedance

Fixed installation: -40°C to +80°C

Fixed installation:

-30°C to +80°C

120 ohm

Fixed installation: 8 x outer diameter UNITRONIC<sup>®</sup> BUS CAN FD P

UNITRONIC® BUS CAN (loop): max. 186 ohm/km

UNITRONIC® BUS CAN

Test voltage

(not for power applications) 250 V

UNITRONIC® BUS CAN

Info

Technical data

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## Data communication systems

Cables for bus system CAN UL/CSA-approved Characteristic impedance: 120 ohm



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APPENDIX

|                                                                                                                                                                 | <b>UNITRONIC® BUS CA</b>                                                                                                                                                   |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| LAPP KABEL STUTIGART UNITRONIC®                                                                                                                                 | BUS CAN                                                                                                                                                                    |  |  |  |
| UN<br>LAPP KABEL STUTIGART UNITRONIC® BU                                                                                                                        | ITRONIC <sup>®</sup> BUS CAN FD<br>s can fd p                                                                                                                              |  |  |  |
| Application range                                                                                                                                               | Norm references / Approvals                                                                                                                                                |  |  |  |
| INITRONIC <sup>®</sup> BUS CAN                                                                                                                                  | <ul> <li>Standardised internationally in ISO 118</li> </ul>                                                                                                                |  |  |  |
| Fixed installation                                                                                                                                              | <ul> <li>UL/CSA type CMX (UL 444)</li> </ul>                                                                                                                               |  |  |  |
| INITRONIC <sup>®</sup> BUS CAN FD P                                                                                                                             |                                                                                                                                                                            |  |  |  |
| For highly flexible applications                                                                                                                                | Product make-up                                                                                                                                                            |  |  |  |
|                                                                                                                                                                 | UNITRONIC <sup>®</sup> BUS CAN                                                                                                                                             |  |  |  |
| Product features         UNITRONIC® BUS CAN         Maximum bit rate: 1 Mbit/s for 40 m         segment length         Larger conductor cross-section is neces- | <ul> <li>0.22 + 0.34 + 0.5: bare stranded conductor, 7-wire</li> <li>0.75: bare stranded conductor, fine-wir</li> <li>Colour-coded in accordance with DIN 47100</li> </ul> |  |  |  |
| sary with increasing length. Refer to the table below (reference values from ISO 11898).                                                                        | <ul> <li>Copper braid</li> <li>PVC sheath</li> <li>Colour: violet (RAL 4001)</li> </ul>                                                                                    |  |  |  |
| ISO 11898 makes recommendations for<br>the segment length, cable cross section<br>and bit rate                                                                  | UNITRONIC <sup>®</sup> BUS CAN FD P  Stranded bare conductor  Screening: wrapped with braided copped                                                                       |  |  |  |

- Flame-retardant according IEC 60332-1-2
- **UNITRONIC® BUS CAN FD P**
- Halogen-free

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- Maximum bit rate: 1 Mbit/s for 40 m segment length
- Larger conductor cross-section is necessary with increasing length. Refer to the table below (reference values from ISO 11898)
- ISO 11898 makes recommendations for the segment length, cable cross section and bit rate
- Flame-retardant according IEC 60332-1-2

- 898
- luc-
- ire
- Screening: wrapped with braided copper wires
- PUR outer sheath
- Colour: violet (RAL 4001)
- UV-resistant (but colour may change after some time)

## Suitable connectors **UNITRONIC® BUS CAN**

- EPIC<sup>®</sup> Data CAN-Bus Connectors Page 317
- EPIC<sup>®</sup> Data CAN-Bus Connectors (full-metal) Page 318

| Article number                                                        | Article designation                 | Number of pairs/conductor cross<br>section (mm <sup>2</sup> ) | Outer diameter<br>(mm) | Conductor resistance | Copper index<br>(kg/km) | Weight (kg/km) |  |  |
|-----------------------------------------------------------------------|-------------------------------------|---------------------------------------------------------------|------------------------|----------------------|-------------------------|----------------|--|--|
| for fixed installation                                                |                                     |                                                               |                        |                      |                         |                |  |  |
| 2170260                                                               | UNITRONIC <sup>®</sup> BUS CAN      | 1 x 2 x 0,22                                                  | 5.7                    | 186.0                | 16.7                    | 42.0           |  |  |
| 2170261                                                               | UNITRONIC <sup>®</sup> BUS CAN      | 2 x 2 x 0,22                                                  | 7.6                    | 186.0                | 34.8                    | 68.0           |  |  |
| 2170263                                                               | UNITRONIC <sup>®</sup> BUS CAN      | 1 x 2 x 0,34                                                  | 6.8                    | 115.0                | 25.0                    | 55.0           |  |  |
| 2170264                                                               | UNITRONIC <sup>®</sup> BUS CAN      | 2 x 2 x 0,34                                                  | 8.5                    | 115.0                | 46.4                    | 88.0           |  |  |
| 2170266                                                               | UNITRONIC <sup>®</sup> BUS CAN      | 1 x 2 x 0,5                                                   | 7.5                    | 78.0                 | 41.6                    | 90.0           |  |  |
| 2170267                                                               | UNITRONIC <sup>®</sup> BUS CAN      | 2 x 2 x 0,5                                                   | 9.6                    | 78.0                 | 59.4                    | 106.0          |  |  |
| 2170269                                                               | UNITRONIC <sup>®</sup> BUS CAN      | 1 x 2 x 0,75                                                  | 8.7                    | 52.0                 | 52.7                    | 108.0          |  |  |
| 2170270                                                               | UNITRONIC <sup>®</sup> BUS CAN      | 2 x 2 x 0,75                                                  | 11.5                   | 52.0                 | 80.6                    | 142.0          |  |  |
| For highly flexible applications (power chains, moving machine parts) |                                     |                                                               |                        |                      |                         |                |  |  |
| 2170272                                                               | UNITRONIC <sup>®</sup> BUS CAN FD P | 1 x 2 x 0,25                                                  | 6.4                    | 159.8                | 24.0                    | 40.0           |  |  |
| 2170273                                                               | UNITRONIC <sup>®</sup> BUS CAN FD P | 2 x 2 x 0,25                                                  | 8.4                    | 159.8                | 33.0                    | 65.0           |  |  |
| 2170275                                                               | UNITRONIC <sup>®</sup> BUS CAN FD P | 1 x 2 x 0,34                                                  | 6.8                    | 122.0                | 32.8                    | 60.0           |  |  |
| 2170276                                                               | UNITRONIC <sup>®</sup> BUS CAN FD P | 2 x 2 x 0,34                                                  | 9.6                    | 122.0                | 52.4                    | 88.0           |  |  |
| 2170278                                                               | UNITRONIC <sup>®</sup> BUS CAN FD P | 1 x 2 x 0,5                                                   | 8.0                    | 72.8                 | 41.9                    | 74.0           |  |  |
| 2170279                                                               | UNITRONIC <sup>®</sup> BUS CAN FD P | 2 x 2 x 0,5                                                   | 10.8                   | 72.8                 | 59.4                    | 100.0          |  |  |

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.

Copper price basis: EUR 150/100kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.

Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths Packaging size: coil  $\leq$  30 kg or  $\leq$  250 m, otherwise drum

Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils). Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

## **UNITRONIC® BUS CAN**

- Multipurpose shears A and B refer to page 907
- SMART STRIP stripping tool refer to page 911
- SENSOR STRIP stripping tool refer to page 912
- **UNITRONIC® BUS CAN FD P**
- Multipurpose shears A and B refer to page 907
- SMART STRIP stripping tool refer to page 911
- SENSOR STRIP stripping tool refer to page 912
- SENSOR STRIP stripping tool refer to page 912

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