

# UNITRONIC® BUS CAN

For CAN bus systems; stationary applications; 120 Ω

## LAPP KABEL STUTTGART UNITRONIC® BUS CAN



UNITRONIC® BUS CAN is designed to the CAN open and ISO11898 standard. It is well suited for high-speed motion control and feedback loop applications, providing high reliability and efficient use of network bandwidth.

## Construction

**Conductors:** 7-wire strands of bare copper

**Insulation:** polyethylene

**Shielding:** foil wrap; tinned copper braid shield

**Jacket:** PVC; violet • reinforced jacket: PE; black

## Recommended applications

Motion control systems; assembly, welding, and material handling machines; single cable wiring of multi-input sensor blocks; smart sensors; pneumatic valves; barcode readers; drives and operator interfaces

## Rate table

| Distance (m) | AWG    | Max. rate        |
|--------------|--------|------------------|
| 0 - 40       | 22     | 1 Mbps @ 40 m    |
| 40 - 300     | 22, 20 | 50 kbps @ 100 m  |
| 300 - 600    | 20     | 100 kbps @ 500 m |
| 600 - 1000   | 19     | 50 kbps @ 1 km   |

## Cable attributes page 648

|        |       |       |       |
|--------|-------|-------|-------|
| OIL    | OR-00 | FLAME | FR-02 |
| MOTION | FL-02 | MECH. | MP-01 |

## Application advantage

- Signal integrity in stationary motion applications
- Flame retardant
- Oil-resistant jacket
- Flexible for ease of routing

## Approvals



## Complete the installation



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## Technical data

|                                  |                                   |                             |  |
|----------------------------------|-----------------------------------|-----------------------------|--|
| <b>Minimum bend radius:</b>      | 10 x cable diameter               | <b>Nominal capacitance:</b> | 12 pF/ft   |
| <b>Temperature range:</b>        | -30°C to +80°C                    | <b>Color code:</b>          | DIN 47100: chart 8, page 682                     |
| <b>Nominal voltage:</b>          | 250V (not for power applications) | - pair 1:                   | white & brown                                    |
| <b>Characteristic impedance:</b> | 120 Ω ± 15Ω                       | - pair 2:                   | green & yellow                                   |
|                                  |                                   | <b>Approvals:</b>           | UL: CMX<br>Canada: c(UL) CMX<br>*not for 2170500 |

| Part Number | Conductor description | Nominal outer diameter |     | Copper weight | Approx. weight | SKINTOP® MS-SC |
|-------------|-----------------------|------------------------|-----|---------------|----------------|----------------|
|             |                       | in                     | mm  | lbs/mft       | lbs/mft        | PG thread      |
| 2170260     | 24 AWG/1pr            | 0.224                  | 5.7 | 11            | 28             | 53112220       |
| 2170261     | 24 AWG/2pr            | 0.299                  | 7.6 | 23            | 46             | 53112220       |
| 2170263     | 22 AWG/1pr            | 0.268                  | 6.8 | 17            | 37             | 53112220       |
| 2170264     | 22 AWG/2pr            | 0.335                  | 8.5 | 31            | 59             | 53112220       |
| 2170266     | 20 AWG/1pr            | 0.296                  | 7.5 | 28            | 60             | 53112220       |

| Part Number                    | Conductor description | Nominal outer diameter |      | Copper weight | Approx. weight | SKINTOP® MS-SC |
|--------------------------------|-----------------------|------------------------|------|---------------|----------------|----------------|
|                                |                       | in                     | mm   | lbs/mft       | lbs/mft        | PG thread      |
| 2170267                        | 20 AWG/2pr            | 0.382                  | 9.7  | 40            | 71             | 53112230       |
| 2170269                        | 19 AWG/1pr            | 0.343                  | 8.7  | 35            | 73             | 53112220       |
| 2170270                        | 19 AWG/2pr            | 0.453                  | 11.5 | 54            | 95             | 53112230       |
| <b>Reinforced black jacket</b> |                       |                        |      |               |                |                |
| 2170500                        | 20 AWG/2pr            | 0.354                  | 9.0  | 28            | 61             | 53112220       |

Recommended SKINTOP® assumes minimal OD variance. Additional configurations are available; please see our SKINTOP® section. If not otherwise specified, all values relating to the product are nominal values. Photographs are not to scale and are not true representations of the products in question.