# Data communication systems

Bus system AS-Interface • Fixed Installation

# **UNITRONIC® BUS ASI**

AS-INTERFACE cables for networking systems in the field

LAPP KABEL STUTTGART UNITRONIC® BUS ASI

LAPP KABEL STUTIGART UNITRONIC<sup>®</sup> BUS ASI

LAPP KABEL STUTTGART UNITRONIC® BUS ASI

### Benefits

- The new BUS ASI LD 2 x 2.5 (Long Distance) allows even modules located further away to be connected. AS-I power supplies can be reduced. The BUS ASI LD is downwards-compatible with version 1.5.
- The rubber versions are halogen-free

#### Application range

- Communication at sensor/actuator level
- Sensor-/actuator wiring
- · For fixed installation as well as occasional flexing at free, non-continuously recurring movement without tensile load
- · The TPE version has an oil-resistant outer sheath. It is suitable for wet areas, in particular in conjunction with watersoluble cooling lubricants.

### Product features

- Data and power are transmitted via an unscreened, geometrically coded two-core flat cable (protection against polarity reversal).
- · The conductor is contacted by "piercing technology" within the ASI modules.
- The sensors are connected to the ASI modules (coupling modules) using round cables (connection cables).

## Norm references / Approvals

- ASI is standardised Europe-wide in EN 50295 and internationally in IEC 62026-2.
- PVC A version with UL/CSA (CMX) certification
- UL/CSA version: CMG c(UL)us or (UL)CL2 or AWM 300V FT4 certified

#### Product Make-up

- · Conductor: fine-wire tinned-copper strands
- · Core insulation: blue and brown
- Outer sheath:
- rubber (G), halogenfree thermoplastic elastomers (TPE) **PVC**
- Outer sheath: yellow (RAL 1023), black (RAL 9005), red (RAL 3000)



"LD" = Long Distance

#### **Technical data**

**Classification ETIM 5/6** ET I M ETIM 5.0/6.0 Class-ID: EC000830 ETIM 5.0/6.0 Class-Description: Data cable 4 ŀO

| Article<br>number | Article designation                    | Outer sheath colour | Application                              | Number of cores and<br>mm <sup>2</sup> per conductor | Copper index<br>(kg/km) | Weight<br>(kg/km) |  |
|-------------------|--|---------------------|--|--|-------------------------|-------------------|--|
| Gummi/EPDM        |  |                     |  |  |                         |                   |  |
| 2170228           | UNITRONIC <sup>®</sup> BUS ASI (G)     | yellow              | Data and power transmission              | 2 x 1,5  | 29                      | 85                |  |
| 2170229           | UNITRONIC <sup>®</sup> BUS ASI (G)     | black               | Transmission of 30 V DC auxiliary power  | 2 x 1,5  | 29                      | 85                |  |
| 2170371           | UNITRONIC <sup>®</sup> BUS ASI LD (G)  | yellow              | Data and power transmission              | 2 x 2,5  | 48                      | 85                |  |
| 2170372           | UNITRONIC <sup>®</sup> BUS ASI LD (G)  | black               | Transmission of 30 V DC auxiliary power  | 2 x 2,5  | 48                      | 85                |  |
| TPE               |  |                     |  |  |                         |                   |  |
| 2170230           | UNITRONIC <sup>®</sup> BUS ASI (TPE)   | yellow              | Data and power transmission              | 2 x 1,5  | 29                      | 64                |  |
| 2170231           | UNITRONIC <sup>®</sup> BUS ASI (TPE)   | black               | Transmission of 30 V DC auxiliary power  | 2 x 1,5  | 29                      | 64                |  |
| 2170232           | UNITRONIC® BUS ASI (TPE)               | red                 | Transmission of 230 V AC auxiliary power | 2 x 1,5  | 29                      | 64                |  |
| PVC               |  |                     |  |  |                         |                   |  |
| 2170842           | UNITRONIC <sup>®</sup> BUS ASI (PVC) A | yellow              | Data and power transmission              | 2 x 1,5  | 29                      | 70                |  |
| 2170843           | UNITRONIC <sup>®</sup> BUS ASI (PVC) A | black               | Transmission of 30 V DC auxiliary power  | 2 x 1,5  | 29                      | 70                |  |
| 2170844           | UNITRONIC <sup>®</sup> BUS ASI (PVC) A | red                 | Transmission of 230 V AC auxiliary power | 2 x 1,5  | 29                      | 70                |  |

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

Copper price basis: EUR 150/100 kg. 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

Lapp Kabel is a member of the AS-International Association

Photographs and graphics are not to scale and do not represent detailed images of the respective products.

# Accessories

SKINTOP<sup>®</sup> DIX-M AUTOMATION refer to page 719

· AS-I clip clamp / AS-I end sealing

• UNIVERSAL STRIP stripping tool refer to page 990

- AS-I STRIP special stripping tool refer to page 987
- AS-I STRIP special



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| ] | Peak operating voltage<br>Yellow: 300 V (not for power<br>applications)<br>Black: 300 V (not for power<br>applications)<br>Red: 300 V  |
|---|--|
| ] | <b>Conductor resistance</b><br>1.5 mm <sup>2</sup> : max. 13.7 Ω/km<br>2.5 mm <sup>2</sup> : max. 8.21 Ω/km  |
| 1 | <b>Minimum bending radius</b><br>Fixed installation: 12 mm<br>Flexible use 24 mm   |
| ] | Test voltage<br>Core/core: 2000 V  |
| ] | Temperature range<br>Dependent on outer sheath material:<br>PVC: -30°C to +90°C<br>Other materials: -40°C to +85°C<br>During installation:<br>PVC -20 °C to +90 °C<br>Other materials:<br>-30 °C to +85 °C |
|   |  |

SKINTOP<sup>®</sup> DIX ASI

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