

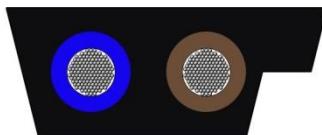
2170318	DATA SHEET	 LAPP
valid from: 02.04.2025	UNITRONIC® BUS ASI LD FD P BK 2x2.5	

Application

Field of Use: Communication at sensor/actuator level. The black cable is used to carry auxiliary power supply to the system components. Performance: The UNITRONIC® BUS ASI LD FD P 2x2.5 (Long Distance) allows even modules located further away to be connected. AS-i power supplies can be reduced. Suitable for highly flexible applications.

Characteristics: halogen free, flame retardant, UV resistant, oil resistant and largely resistant to acids, alkalis and certain oils

Applications: The UNITRONIC® BUS ASI LD FD P 2.5 is downwards-compatible with version 1.5. Suitable for use in power chains and permanent moving machine parts.



Design

Certification	E63634 cRUus AWM 20549 AWM I/II A/B 80°C 300V acc. to. UL 758 & CSA C22.2 No. 210
Conductor	2.5 mm ²
	extra fine-wire stranded tinned copper
Insulation	PO (Polyolefine) core diameter ca. 2.5 mm
Core identification code	brown, blue
Stranding	2 cores parallel deviation, brown core assembled in line with leading edge
Outer sheath	TPU (Thermoplastic polyurethane) black, similar RAL 9005

Electrical properties at 20 °C

Loop resistance	max. 16.42 Ω/km
Insulation resistance	min. 1 MΩxkm
Mutual capacitance	max. 80 nF/km (at 167 kHz)
Inductance	0.85 mH/km ± 0.45 mH/km (at 167 kHz)
Characteristic impedance	105 Ω ± 35 Ω (at 167 kHz)
Signal propagation time	≤ 8.3ns/m (at 167 kHz)
Maximum operating voltage	AS-i: 300 V UL/CSA: 300 V
Nominal voltage	≤ 30 V DC
Test voltage	core/core: 2000 V AC

Mechanical and thermal properties

Minimum bending radius	fixed installation: 3x outer diameter occasional flexing: 6x outer diameter continuous flexing: 15x outer diameter
Temperature range	fixed installation: -40 °C up to +80 °C occasional flexing: -30 °C up to +80 °C continuous flexing: -30 °C up to +80 °C UL/CSA: 80 °C
Flammability	flame retardant acc. to. IEC 60332-1-2 resp. EN 60332-1-2 FT2 acc. to UL 1581 §1100
Halogen free	acc. to IEC 60754-1 resp. EN 60754-1
Weather and UV resistance	acc. to. ISO 4892-2, method A
Oil resistance	acc. to. EN 50363-10-2
General requirements	This cable is conform to EU-Directive 2014/35/EU (Low Voltage Directive) and to EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).
Environmental information	These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).

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Dimensions

Dimensions acc. to IEC 62026-2

