



UNITRONIC® BUS ASI

i Info

- “LD” = Long Distance



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
- UNITRONIC® Fieldbus 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 water-soluble cooling lubricants.

Product features

- Data and power are transmitted via an unshielded, 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 version with UL/CSA (CMG) certification
- UL/CSA version: CMG c(UL)us or (UL)CL2 or AWM 300V FT4 certified

Product Make-up

- Extra-fine wire, tinned copper strands
- Core insulation: blue and brown
- Profiled outer sheath made of rubber (G), thermoplastic elastomers (TPE) or PVC
- Colour: yellow (RAL 1023) or black (RAL 9005)
- Colour: red (RAL 3000)

Technical data

ETIM 5.0 Class-ID: EC000830
ETIM 5.0 Class-Description: Data cable

Peak operating voltage
Yellow: 300 V (not for power applications)
Black: 300 V (not for power applications)
Red: 300 V

Conductor resistance
1.5 mm²: max. 13.7 Ohm/km
2.5 mm²: max. 8.21 Ohm/km

Minimum bending radius
Fixed installation: 12 mm
Flexible use 24 mm

Test voltage
Core/core: 2000 V

Temperature range
Dependent on outer sheath material:
PVC: -30°C to +90°C
Other materials: -40°C to +85°C
During installation:
PVC -20 °C to +90 °C
Other materials:
-30 °C to +85 °C

Article number	Article designation	Outer sheath material	Outer sheath colour	Application	Number of cores and mm ² per conductor	Copper index (kg/km)	Weight (kg/km)
For fixed and flexible applications (19-wire stranded conductor)							
2170228	UNITRONIC® BUS ASI (G)	EPDM (rubber)	yellow	Data and power transmission	2 x 1,5	29	85
2170229	UNITRONIC® BUS ASI (G)	EPDM (rubber)	black	Transmission of 30 V DC auxiliary power	2 x 1,5	29	85
2170371	UNITRONIC® BUS ASI LD (G)	EPDM (rubber)	yellow	Data and power transmission	2 x 2,5	48	85
2170372	UNITRONIC® BUS ASI LD (G)	EPDM (rubber)	black	Transmission of 30 V DC auxiliary power	2 x 2,5	48	85
2170230	UNITRONIC® BUS ASI (TPE)	TPE	yellow	Data and power transmission	2 x 1,5	29	64
2170231	UNITRONIC® BUS ASI (TPE)	TPE	black	Transmission of 30 V DC auxiliary power	2 x 1,5	29	64
2170232	UNITRONIC® BUS ASI (TPE)	TPE	red	Transmission of 230 V AC auxiliary power	2 x 1,5	29	64
2170842	UNITRONIC® BUS ASI (PVC) A	PVC UL/CSA (CMG)	yellow	Data and power transmission	2 x 1,5	29	70
2170843	UNITRONIC® BUS ASI (PVC) A	PVC UL/CSA (CMG)	black	Transmission of 30 V DC auxiliary power	2 x 1,5	29	70
2170844	UNITRONIC® BUS ASI (PVC) A	PVC UL/CSA (CMG)	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 are not to scale and do not represent detailed images of the respective products.

Accessories

- SKINTOP® DIX-M AUTOMATION refer to page 741
- UNIVERSAL STRIP stripping tool refer to page 1006
- AS-I clip clamp / AS-I end sealing refer to page 1072
- AS-I STRIP special stripping tool refer to page 1002
- AS-I STRIP special
- SKINTOP® DIX ASI



UNITRONIC® BUS ASI FD

Highly flexible application



Info

- “FD” = suitable for power chains
- “LD” = Long Distance

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.
- For highly flexible applications (power chains, moving machine parts)
- High oil-resistance

Application range

- Communication at sensor/actuator level
- UNITRONIC® Fieldbus sensor-/actuator wiring

Product features

- PUR versions are halogen-free according to IEC 60754-1
- Flame-retardant according to IEC 60332-1-2, UL FT-2 flame test
- 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.
- TPE variant: UL AWM Style 2103 CSA AWM II A/B
- PUR versions: UL AWM Style 20549

Product Make-up

- Extra-fine wire, tinned copper strands
- Core insulation: blue and brown
- Profiled outer sheath: TPE or PUR
- Colour: yellow (RAL 1023) or black (RAL 9005)

Technical data

	ETIM 5.0 Class-ID: EC000830 ETIM 5.0 Class-Description: Data cable
	Peak operating voltage 300 V (not for power applications)
	Conductor resistance 1.5 mm ² : max. 13.7 Ohm/km 2.5 mm ² : max. 8.21 Ohm/km
	Minimum bending radius Fixed installation: 12 mm Flexing without fixing: 24 mm Flexing with fixing: 60 mm (15 x D)
	Test voltage Core/core: 2000 V
	Temperature range Fixed installation: -40 °C to +80 °C (TPE +105 °C) Flexing without fixing: -30 °C to +70 °C (TPE +105 °C)

Article number	Article designation	Outer sheath material	Outer sheath colour	Application	Number of cores and mm ² per conductor	Copper index (kg/km)	Weight (kg/km)
For highly flexible applications (power chains, moving machine parts)							
2170357	UNITRONIC® BUS ASI FD P FRNC	PUR UL/CSA (AWM)	yellow	Data and power transmission	2 x 1,5	29	64
2170358	UNITRONIC® BUS ASI FD P FRNC	PUR UL/CSA (AWM)	black	Transmission of 30 V DC auxiliary power	2 x 1,5	29	64
2170317	UNITRONIC® BUS ASI LD FD P	PUR UL/CSA (AWM)	yellow	Data and power transmission	2 x 2,5	48	74
2170318	UNITRONIC® BUS ASI LD FD P	PUR UL/CSA (AWM)	black	Transmission of 30 V DC auxiliary power	2 x 2,5	48	74
2170830	UNITRONIC® BUS ASI FD (TPE) A	TPE UL/CSA (AWM)	yellow	Data and power transmission	2 x 1,5	29	64
2170831	UNITRONIC® BUS ASI FD (TPE) A	TPE UL/CSA (AWM)	black	Transmission of 30 V DC auxiliary power	2 x 1,5	29	64

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
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Accessories

- SKINTOP® DIX-M AUTOMATION refer to page 741
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- SKINTOP® DIX ASI



ASI Distributor
AS-Interface Distributor



Benefits

- Cost-efficient and rational wiring for AS-Interface installations
- Space-saving due to compact dimensions
- Easy to install

Product features

- Field mountable distributor with flat cable clamp
- On 2 flat cables or straight M 12 socket (A-coded)
- Suitable for drag chains
- Panel mounting
- Rated current ≤ 4 A (H-distributor: I ≤ 8 A)

Product Make-up

- Wire cross-section: 0,34 mm²
- Colour-code: bn (1), wh (2), bu (3), bk (4)
- Outer sheath: PUR halogen-free, black

Suitable cables

- UNITRONIC® BUS ASI Page 325
- UNITRONIC® BUS ASI FD Page 326

Technical data

- ETIM** ETIM 5.0 Class-ID: EC001604
ETIM 5.0 Class-Description: Fieldbus, decenter. periphery - communication module
- Connection type** Penetration technique for flat cable
- IP** Protection rating IP 67 (H-distributor: IP69)
- Ambient temperature (operation)** -25°C to +75°C

Article number	Article designation	Length (m)	PU
Distribution of 1 flat cable			
on 2 flat cables (H distributor)			
22260802	AB-ASI-J-Y-Y-N		1
on M 12 socket (2-pos.)			
22260800	AB-ASI-J-Y-N-M 12FS		1
22260803	AB-ASI-J-Y-N-PUR-1,0-M 12FS	1	1
22260804	AB-ASI-J-Y-N-PUR-2,0-M 12FS	2	1
Distribution of 2 flat cables			
on M 12 socket (4-pos.)			
22260801	AB-ASI-J-Y-B-M 12FS		1
22260805	AB-ASI-J-Y-B-PUR-1,0-M 12FS	1	1
22260806	AB-ASI-J-Y-B-PUR-2,0-M 12FS	2	1

Copper price basis: inclusive of copper. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges. Photographs are not to scale and do not represent detailed images of the respective products.

Accessories

- Kraftform® adjustable torque screwdriver/Kraftform Kompakt® Set refer to page 1078