## 2170843

# DATA SHEET

valid from: 16.02.2021

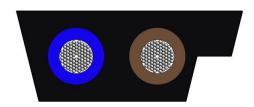
UNITRONIC® BUS ASI (PVC) A BK 2x1,5



### **Application**

UNITRONIC® BUS ASI (PVC) A BK is a two-core and flat actuator/sensor bus cable acc. to IEC 62026-2 for the AS-INTERFACE (actuator-sensor-interface) networking system for the lower field area. The cable is particularly suitable for applications with high mechanical stress which require a high oil resistance. It is suitable for fixed installation and flexible applications, flame retardant and UL approved. Data transmission for AS-INTERFACE telegrams and power supply for AS-I slaves, master, repeater, extender and sensors is done via this unscreened, geometrically-coded two-core flat cable. The contacting of the conductors by the insulationdisplacementsystem of the AS-I modules is possible without stripping the insulation. The cable is designed for indoor applications.

#### Design



Certification E236660 c(UL)us CMG 90 °C acc. to UL 444 and CSA C22.2 No. 214

E224262 (UL) CL 2 acc. to UL 13

E63634 c(RU)us AWM Style 2095 acc. to UL 758 and AWM I A/B FT2 acc. to CSA 22.2 No. 210

Conductor fine-wire stranded, tinned copper

1.5 mm<sup>2</sup>

Insulation PVC

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 PVC

black, similar RAL 9005

outline and dimensions acc. to IEC 62026-2

## Electrical properties at 20 °C

Conductor resistance max.13.7  $\Omega/km$ Insulation resistance min. 1  $M\Omega xkm$ 

Mutual capacitance max. 80 nF/km (at 167 kHz)

Inductance  $0.85 \text{ mH/km} \pm 0.45 \text{ mH/km}$  (at 167 kHz)

Characteristic impedance  $105 \Omega \pm 35 \Omega$  (at 167 kHz) Signal propagation time  $\leq 8.3 \text{ns/m}$  (at 167 kHz)

Nominal voltage 48 V DC Rated voltage AS-i:

AS-i: 300 V

UL: 300 V acc. to UL 444 and UL 758

Test voltage core/core: 1500 V

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### Mechanical and thermal properties

Minimum bending radius

fixed installation: 3x outer diameter

occasional flexing:

6x outer diameter

Temperature range

fixed installation: -40 °C up to +85 °C occasional flexing: -25 °C up to +85 °C

occasional flexing: UL:

90 °C acc. to UL 444

80 °C acc. to UL 758

Bending cycles and power chain

operation parameters

bending radius: 75 mm
travel distance: 5 m
Acceleration: 3 m/s²
Velocity: 3 m/s
Cycles: 8.000.000

Flammability

flame retardant acc. to. IEC 60332-1-2 resp. EN 60332-1-2

FT4 acc. to UL 1685 §12 - §19 (smoke measurements are not applicable)

Horizontal Flame Test acc. to UL 758 §40

Oil resistance

OIL RES I acc. to UL 13 §40.2

General requirements

This cable is conform to EU-Directive 2014/35/EU (Low Voltage Directive) and to EU-Directive

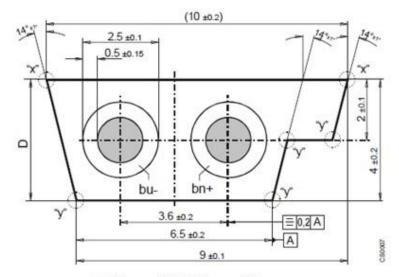
2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).

Environmental information

These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).

### **Dimensions**

Dimensions acc. to IEC 62026-2



"x": R = max. 0.2; "y": R = max. 0.5