
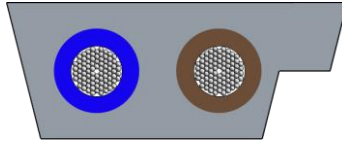


21700359	DATA SHEET	
valid from: 27.06.2025	UNITRONIC® BUS ASI FD P FRNC GY 2x1.5	

Application

UNITRONIC® BUS ASI FD P FRNC is a two-core and flat actuator/sensor bus cable 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 and which require a high oil resistance. It is suitable for power chains, halogen free and flame retardant. It is acc. to the UL-AWM-Styles 10586 and 20549. 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 insulation displacement-system of the AS-I modules is possible without stripping the insulation.



Design

Certification	E63634 cRUus AWM 20549 AWM I/II A/B 80°C 300V acc. to. UL 758 & CSA C22.2 No. 210
Conductor	1.5 mm ² extra fine-wire stranded tinned copper
Insulation	halogen free compound, 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) grey, similar RAL 7001

Electrical properties at 20 °C

Conductor resistance	max. 13.7 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 and ≤ 60 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 +70 °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
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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