7038889	DATA SHEET	LAPP
valid from: 2023-01-11	UNITRONIC® SENSOR FD Lif9Y11Y	

Application

UNITRONIC® SENSOR FD Lif9Y11Y are sensor/actuator cables, designed for applications in power chains.

Design

Design	based on UL AWM Style 10493 (Insulation) and 20549 (Jacket), UL 758, CSA C22.2 No. 210 (80°C, 300 V)
Certification	UL AWM Style 20549 (File No. E63634), UL 758 c UL us AWM I/II A/B (File No. E63634)
Conductor	superfine wire strands of bare copper wires
Insulation	polypropylene
Core identification code	according to EN 60947-5-2 3-core: brown, blue, black 4-core: brown, white, blue, black 5-core: brown, white, blue, black, grey 8-core: white, brown, green, yellow, grey, pink, blue, red
Stranding	cores stranded to bundle, talced 5-core: central filler
Outer sheath	PUR Colour: black (similar RAL 9005)

Diameter of the outer sheath

Article number	Dimension	Outer sheath ø
7038883	3x0.25 mm²	ca. 4.4 mm
7038884	4x0.25 mm²	ca. 4.7 mm
7038867	5x0.25 mm²	ca. 4.7 mm
7038868	8x0.25 mm²	ca. 5.9 mm
7038864	3x0.34 mm²	ca. 4.6 mm
7038865	4x0.34 mm²	ca. 4.7 mm
7038866	5x0.34 mm²	ca. 5.1 mm
7038889	3x0.25 mm²	ca. 3.6 mm (optimized)
7038890	4x0.25 mm²	ca. 3.9 mm (optimized)
7038893	5x0.34 mm²	ca. 4.5 mm (optimized)

Electrical properties at 20 °C

Conductor resistance	0.25 mm²: max. 79 Ω/km 0.34 mm²: max. 57 Ω/km
Specific volume resistivity	$7x10^{15}$ Ω x cm
Maximum operating voltage	300 V (not for power applications) Must not be connected to the mains supply voltage.
Test voltage	C/C: 2000 V

Mechanical and thermal properties

Minimum bending radius	Flexing: 10 x outer diameter Fixed installation: 5 x outer diameter
Temperature range	EN: Flexing: -25˚C up to +80˚C max. conductor temperature Fixed installation: -40˚C up to +80˚C max. conductor temperature UL AWM: up to +80˚C max. conductor temperature
Number of cycles	min. 4 mio. alternating bending cycles (max. 60˚C)
Travel distance	10 m length, min. 10 x cable ø, max. 3 m/s, max. 10 m/s²
Flammability	flame retardant acc. to UL 1581 FT-2
Halogen free	acc. to VDE 0472-815
General requirements	These cables are 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).

We reserve all rights according to DIN ISO 16016.

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

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