

7038889	DATA SHEET	
valid from: 06.02.2019	UNITRONIC® SENSOR FD Li9Y11Y	

Application

UNITRONIC® SENSOR FD Li9Y11Y 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 cRUus 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, tinned 5-core: central filler
Outer sheath	PUR Colour: black (similar RAL 9005)

Diameter of the outer sheath

Article number	Dimension	Outer sheath \varnothing
7038883	3x0.25 mm ²	ca. 4.4 mm
7038884	4x0.25 mm ²	ca. 4.7 mm
7038867	5x0.25 mm ²	ca. 4.7 mm
7038868	8x0.25 mm ²	ca. 5.9 mm
7038864	3x0.34 mm ²	ca. 4.6 mm
7038865	4x0.34 mm ²	ca. 4.7 mm
7038866	5x0.34 mm ²	ca. 5.1 mm
7038889	3x0.25 mm ²	ca. 3.6 mm (optimized)
7038890	4x0.25 mm ²	ca. 3.9 mm (optimized)
7038893	5x0.34 mm ²	ca. 4.5 mm (optimized)

Electrical properties at 20°C

Conductor resistance	0.25 mm ² : max. 79 Ω /km 0.34 mm ² : max. 57 Ω /km
Specific volume resistivity	7x10 ¹⁵ Ω x cm
Peak operating voltage	300 V (not for power applications)
Test voltage	C/C: 2000 V

Mechanical and thermal properties

Minimum bending radius	Flexing: 10 x cable \varnothing Fixed installation: 5 x cable \varnothing
Temperature range	VDE: Flexing: -25°C up to +80°C Fixed installation: -40°C up to +80°C UL AWM: up to +80°C
Number of cycles	min. 4 mio. alternating bending cycles (max. 60°C)
Travel distance	10 m length, min. 10 x cable \varnothing , max. 3 m/s, max. 10 m/s ²
Flammability	flame retardant acc. to UL 1581 FT-2
Halogen free	according to VDE 0472-815
General requirements	This cable is conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).

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