Application

UNITRONIC® SENSOR Li9Y11Y 3x1 + 8x0,5 is a cable for high flexible applications in power chains. It is intended for combined usage for power supply and sensor/actuator signal transmission. The PP-insulation and the PUR sheath are halogen free.

Design

Design	based on UL AWM Style 10493 (Insulation) and 21198 (Jacket), UL 758, CSA C22.2 No. 210 (80°C, 300 V)
Certification	UL AWM Style 21198 (File No. E63634), UL 758 cRUus AWM I/II A/B (File No. E63634)
Conductor	data core 0.5 mm²: bare copper, fine-wire stranded, Ø ca. 0.9 mm power supply core 1 mm²: bare copper, fine-wire stranded, ca. 1.3 mm Ø
Insulation	data core 0.5 mm²: polypropylene, wall thickness ca. 0.25 mm, core Ø ca. 1.4 mm Energieversorgungsader 1 mm²: polypropylene, wall thickness ca. 0.3 mm, core Ø ca. 1.9 mm
Core identification code	data cores 0.5 mm²: white, grey/pink, green, red/blue, yellow, white/green, grey, brown/green Energieversorgungsadern 1 mm²: brown, blue, green/yellow
Stranding	- 3 data cores stranded together stranding Ø: ca. 3.0 mm - 3 cores for power supply and 5 data cores stranded around 3 central data cores stranding Ø: ca. 6.6 mm wrapping: 1 layer non-woven tape
Outer sheath	PUR, black (similar to RAL 9005), wall thickness: ca. 0.8 mm outer Ø: ca. 8.4 mm

Electrical properties at 20°C

Conductor resistance	0.5 mm²: max. 39.0 Ω/km 1 mm²: max. 18.7 Ω/km
Peak operating voltage	UL: 300 V
Test voltage	C/C: 2000 V

Mechanical and thermal properties

Minimum bending radius	moved: 10 x cable Ø fixed installation: 5 x cable Ø
Temperature range	Moved: - 5˚C up to +80˚C Fixed installation: - 40˚C up to +80˚C
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).