0022403	DATA SHEET	LAPP
valid from: 20.01.2025	UNITRONIC® LiYY A	

Application

UNITRONIC® LiYY A is a data cable for low frequency applications with UL and CSA approval. The cable is intended for internal and external wiring of devices, machines and plants for export to the North American market or countries where UL-/CSA approved cables are used. It is designed for fixed installation and for conditional flexible use. It is used in dry and damp interiors but not appropriate for outside usage.

Design

Design	based on UL AWM Style 2464, UL 758, CSA C22.2 No. 210 (80°C, 300 V) and according to VDE 0812
Certification	UL AWM Style 2464 (File No. E63634), UL 758 RU AWM I/II A/B (File No. E63634) CSA AWM I A/B II A/B (File No. LL53776)
Conductor	multi-wire strands of tinned copper wires
Insulation	special PVC-based compound
Core identification code	acc. to DIN 47100
Cable assembly	cores are stranded in layers, optionally with fillers
Outer sheath	PVC compound TM52 acc. to EN 50290-2-22 colour: dark grey (similar RAL 7031)

Electrical properties at 20 °C

Conductor resistance	0.14 mm²: max. 150 Ω/km 0.23 mm²: max. 94.2 Ω/km 0.34 mm²: max. 59.4 Ω/km 0.5 mm²: max. 36.7 Ω/km 0.75 mm²: max. 29.1 Ω/km 1.0 mm²: max. 23.2 Ω/km 1.5 mm²: max. 14.6 Ω/km
Specific volume resistivity	> 20 G Ω x cm
Mutual capacitance	C/C: approx. 120 nF/km (at 800 Hz)
Inductance	approx. 0.65 mH/km
Maximum operating voltage	300 V (not intended to be used in conjunction with low impedance sources, such as power grids)
Test voltage	C/C: 1500 V

Mechanical and thermal properties

Minimum bending radius	occasional flexing: 15 x outer diameter fixed installation: 4 x outer diameter
Temperature range	occasional flexing: EN: -5 °C up to +70 °C UL/CSA: up to +80 °C fixed installation: EN: -40 °C up to +80 °C UL/CSA: up to +80 °C
Flammability	flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2 UL: Vertical flame test VW-1 acc. to UL 1581 § 1080 CSA: FT1 acc. to CSA C22.2 No. 2556
General requirements	These cables are conform 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).