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|-----------------------------------|--------------------------|---|
| <b>0022403</b>                    | <b>DATA SHEET</b>        |  |
| <b>valid from:<br/>20.01.2025</b> | <b>UNITRONIC® LiYY A</b> |   |

## 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)<br>and according to VDE 0812                            |
| Certification            | UL AWM Style 2464 (File No. E63634), UL 758<br>RU AWM I/II A/B (File No. E63634)<br>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<br>colour: dark grey (similar RAL 7031)   |

## Electrical properties at 20 °C

|                             |   |
|-----------------------------|---|
| Conductor resistance        | 0.14 mm <sup>2</sup> : max. 150 Ω/km<br>0.23 mm <sup>2</sup> : max. 94.2 Ω/km<br>0.34 mm <sup>2</sup> : max. 59.4 Ω/km<br>0.5 mm <sup>2</sup> : max. 36.7 Ω/km<br>0.75 mm <sup>2</sup> : max. 29.1 Ω/km<br>1.0 mm <sup>2</sup> : max. 23.2 Ω/km<br>1.5 mm <sup>2</sup> : max. 14.6 Ω/km |
| Specific volume resistivity | > 20 G Ω x cm   |
| Mutual capacitance          | C/C: approx. 120 nF/km<br>(at 800 Hz)   |
| Inductance                  | approx. 0.65 mH/km  |
| Maximum operating voltage   | 300 V<br>(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<br>fixed installation: 4 x outer diameter  |
| Temperature range      | occasional flexing:<br>EN: -5 °C up to +70 °C<br>UL/CSA: up to +80 °C<br>fixed installation:<br>EN: -40 °C up to +80 °C<br>UL/CSA: up to +80 °C        |
| Flammability           | flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2<br>UL: Vertical flame test VW-1 acc. to UL 1581 § 1080<br>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).

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