| 0032400 | DATA SHEET | LAPP |
|---|---|---|
| valid from: 2021-02-12 | UNITRONIC® RE-2Y(ST)Yv | |

## Application

UNITRONIC® RE-2Y(ST)Yv computer cables are mainly used in measurement and control engineering. They are intended for use when modern process computers have to process large volumes of data, e.g. high-capacity computer systems in waste incineration plants or sewage treatment plants. These cables are suitable for fixed installation in dry or damp rooms and, in case of the black jacketed versions, also for outdoor use. Thanks to reinforced, nominal/ minimum average wall thickness of the outer sheath of at least 1.8 mm, the cables are suitable for applications, where a reinforced outer sheath may turn out to be advantageous.

## Design

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| Design | Design based on standard VDE 0812 and EN 50288-7 |
| Certification | EN 13501-6 and EN 50575<br>Classification of fire behaviour<br>(article/dimension range see www.lappkabel.com/cpr) |
| Conductor | 7-wire bare stranded copper conductor |
| Insulation | PE-based compound |
| Core identification code | a-core: black; b-core: white<br>with consecutive numbers 1-1, 2-2, 3-3, 4-4 etc. |
| Stranding | cores twisted into pairs, pairs stranded in layers,<br>complete stranding contains 1 core for communication (0,5 mm²; core colour orange),<br>(in case of single pair construction: without orange communication core),<br>wrapping with foil on the outer layer |
| Screen | static screen of aluminium-laminated plastic foil with multi-wired, tinned drain-wire |
| Outer sheath | special PVC-based compound, flame retardant, reinforced<br>sheath colour: black (similar RAL 9005); blue (similar RAL 5015) |

## Electrical properties at 20 °C

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| Conductor resistance | 0.5 mm²: max. 39.2 Ω/km<br>1.3 mm²: max. 14.3 Ω/km |
| Specific volume resistivity | > 5 G Ω x km |
| Mutual capacitance | C/C: 0.5 mm²: approx. 75 nF/km<br>C/C: 1.3 mm²: approx. 100 nF/km<br>(reference values at 800 Hz) |
| Inductance | max. 0.65 mH/km |
| Characteristic impedance | approx. 100 Ω |
| Near-end cross-talk | 0.5 mm²: min. 88 dB (60 kHz)<br>1.3 mm²: min. 102 dB (60 kHz) |
| Maximum operating voltage | 300 V (not for power applications)<br>Must not be connected to the mains supply voltage. |
| Test voltage | C/C 2000 V<br>C/S 1000 V |

## Mechanical and thermal properties

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| Minimum bending radius | occasional flexing: 15 x outer diameter<br>fixed installation: 7.5 x outer diameter |
| Temperature range | occasional flexing: -5°C up to +50°C<br>fixed installation: -40°C up to +80°C |
| Flammability | flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2 |
| General requirements | These cables are conform to<br>EU-Directive 2014/35/EU (Low Voltage Directive) and to<br>EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).<br>These cables (see www.lappkabel.com/cpr) are classified in accordance with the EU-Regulation no. 305/2011 (CPR). |
| Environmental information | These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS). |