0035131 DATA SHEET

valid from: 20.01.2025

UNITRONIC® LIYCY (TP)



Application

UNITRONIC® LIYCY (TP) is a screened, twisted pair data cable for low frequency applications. The cable is designed for fixed installation and for conditional flexible use. It is used in dry and damp interiors but not appropriate for outside usage.

The twisted pairs with short lay lengths provides good decoupling of the conductor circuits. The screen provides protection against electromagnetic interferences.

The cable is used for example in computer systems, instrumentation technology, office equipment and balances.

Design

Design based on standard VDE 0812 and EN 50288-7

Certification EN 13501-6 and EN 50575
Classification of fire behaviour

(article/dimension range see www.lappkabel.com/cpr)

Conductor fine wire strands of bare copper acc. to IEC 60228 resp. EN IEC 60228, class 5

Insulation PVC compound TI52 acc. to EN 50290-2-21

Core identification code acc. to DIN 47100

Cable assembly cores twisted to pairs, pairs are stranded in layers, optionally with fillers

wrapping with foil on the outer layer

Screen braid of tinned copper, coverage 85 % (nominal value)

Outer sheath PVC compound TM52 acc. to EN 50290-2-22

colour: grey (similar RAL 7032)

Electrical properties at 20 °C

Conductor resistance 0.14 mm²: max. 138.0 Ω/km

0.25 mm²: max. 79.0 Ω/km 0.34 mm²: max. 57.0 Ω/km

0.5 mm²: class 5 0.75 mm²: class 5 1 mm²: class 5 1.5 mm²: class 5

Specific volume resistivity $> 20 \text{ G} \Omega \text{ x cm}$

Mutual capacitance C/C: approx. 120 nF/km

C/S: approx. 160 nF/km

(at 800 Hz)

Inductance approx. 0.65 mH/km

Maximum operating voltage 0.14 mm²: 350 V

≥ 0.25 mm²: 500 V

(not intended to be used in conjunction with low impedance sources, such as power grids)

Test voltage 0.14 mm²: 1200 V ≥ 0.25 mm²: 1500 V

Mechanical and thermal properties

Minimum bending radius occasional flexing: 15 x outer diameter

fixed installation: 6 x outer diameter

Temperature range occasional flexing: -5 $^{\circ}$ C up to +70 $^{\circ}$ C

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

EU-Directive 2014/35/EU (Low Voltage Directive) and to

EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain

hazardous substances).

A part of these cables (see www.lappkabel.com/cpr) are classified

acc. to the EU-Regulation no. 305/2011 (CPR).

Environmental information These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).

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