

<b>1030600</b>	<b>DATA SHEET</b>	
<b>valid from: 20.01.2025</b>	<b>UNITRONIC® LiYCY (TP) BK</b>	

## Application

UNITRONIC® LiYCY (TP) BK is a screened, twisted pair data cable for low frequency applications. The cable is designed for fixed installation and for conditional flexible use. It can be used in dry and damp rooms and also outdoors.

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 <a href="http://www.lappkabel.com/cpr">www.lappkabel.com/cpr</a> )
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, optionally with fillers
Screen	braid of tinned copper, coverage 85 % (nominal value)
Outer sheath	PVC compound TM52 acc. to EN 50290-2-22 colour: black (similar RAL 9005)

## Electrical properties at 20 °C

Conductor resistance	0.14 mm <sup>2</sup> : max. 138.0 Ω/km 0.25 mm <sup>2</sup> : max. 79.0 Ω/km 0.34 mm <sup>2</sup> : max. 57.0 Ω/km 0.5 mm <sup>2</sup> : class 5 0.75 mm <sup>2</sup> : class 5 1 mm <sup>2</sup> : class 5 1.5 mm <sup>2</sup> : class 5
Specific volume resistivity	> 20 G Ω 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 mm <sup>2</sup> : 350 V ≥ 0.25 mm <sup>2</sup> : 500 V (not intended to be used in conjunction with low impedance sources, such as power grids)
Test voltage	0.14 mm <sup>2</sup> : 1200 V ≥ 0.25 mm <sup>2</sup> : 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 °C up to +70 °C fixed installation: -40 °C up to +80 °C
Flammability	flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2
Weather and UV resistance	acc. to EN 50525-1 cables with black outer sheath are suitable for permanent outdoor use

## 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](http://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).

Creator: PESA/PDC	Document: DB1030600EN	Page 1 of 1
Released: ALTE/PDC	Version: 03	