

**UNITRONIC® Li2YCYv (TP)**
**DB0031350**  
 valid from: 23.11.2012
**Application**

UNITRONIC® Li2YCYv (TP) is a data cable with low capacitance for wiring of data systems at transmission rates up to 10 Mbit/s and is qualified for the serial interfaces RS422 und RS485. The cable can be used as a signal-, control- and measuring cable as well as for transmission of low, sensitive signals and high bit rates. Decoupling by means of twisted pair cable design and the screen protects against electromagnetic interferences. The cable with reinforced outer sheath is designed for fixed installation indoors and outdoors as well as for laying directly in the ground. The cable can be used for solderless connections, e.g. connections with insulation displacement technology and Maxi-Termi-Point wiring.

**Design**

Conductor	7-wire strands of bare copper wires
Insulation	special Polyolefin-based compound
Core identification code	according to DIN 47100
Stranding	cores twisted to pairs, pairs are stranded in layers, wrapping with foil on the outer layer
Screen	Braiding with tinned copper wires
Outer sheath	special PVC-based compound colour: black (RAL 9005)

**Electrical properties at 20°**

Loop resistance	max. 186.0 Ω/km (0.22 mm <sup>2</sup> ) max. 115.0 Ω/km (0.34 mm <sup>2</sup> ) max. 78.4 Ω/km (0.5 mm <sup>2</sup> )
Specific insulation resistance	> 5 G Ω x km
Mutual capacitance	C/C approx. 60 nF/km C/S approx. 160 nF/km (at 800 Hz)
Inductivity	approx. 0.65 mH/km
Characteristic impedance	100 ± 15 Ω (> 1 MHz)
Velocity of propagation	nom. 0.66 c
Peak working voltage	250 V (not for power applications)
Test voltage	C/C: 2000 V C/S: 1000 V

**Mechanical and thermal properties**

Bending radius	Flexing: 15 x cable Ø Fixed installation: 6 x cable Ø
Temperature range	Flexing: - 5 °C up to +70 °C Fixed installation: - 40 °C up to +80 °C
Flammability	flame retardant acc. to IEC 60332-1-2
EC directive	This cable is conform to the EC-Directive 2002/95/EC and 2011/65/EC (RoHS, Restriction of the use of certain hazardous substances).

Design based on standard VDE 0812