


0038302	<b>DATA SHEET</b>	
valid from: 2021-08-17	<b>UNITRONIC® LiHCH (TP)</b>	

## Application

UNITRONIC® LiHCH (TP) is a halogen free, 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 data processing, measurement and control engineering, safety related systems and as electronic cables.

## Design

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 wires
Insulation	special Polyolefin-based compound
Core identification code	acc. 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 halogen-free compound colour: pebble grey (similar RAL 7032)


## 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> : max. 39.0 Ω/km 0.75 mm <sup>2</sup> : max. 26.0 Ω/km 1 mm <sup>2</sup> : max. 19.5 Ω/km 1.5 mm <sup>2</sup> : max. 13.3 Ω/km
Specific volume resistivity	> 20 G Ω x cm
Mutual capacitance	C/C: approx. 80 nF/km C/S: approx. 120 nF/km (at 800 Hz)
Inductance	approx. 0.65 mH/km
Maximum operating voltage	250 V (not for power applications) Must not be connected to the mains supply voltage.
Test voltage	1200 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
Halogen free	acc. to IEC 60754-1 resp. EN 60754-1
Corrosivity of gases	acc. to IEC 60754-2 resp. EN 60754-2
Smoke density	acc. to IEC 61034-2 resp. EN 60034-2
Toxicity	acc. to EN 50305

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**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).  
 These cables (see [www.lappkabel.com/cpr](http://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).

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