0037302	DATA SHEET	LAPP
valid from: 20.01.2025	UNITRONIC® LiHCH	

Application

UNITRONIC® LiHCH is a halogen free, screened 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 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 www.lappkabel.com/cpr)
Conductor	fine wire strands of bare copper acc. to IEC 60228 resp. EN IEC 60228, class 5
Insulation	special Polyolefin-based compound
Core identification code	acc. to DIN 47100
Cable assembly	cores 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	special halogen-free compound colour: pebble 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 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 intended to be used in conjunction with low impedance sources, such as power grids)
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

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).