0034060	DATA SHEET	LAPP
valid from: 01.03.2019	UNITRONIC® Li2YCY PiMF	

Application

UNITRONIC® Li2YCY PiMF with individual screening of the pairs (PiMF: Pair in Metal Foil) is particularly suitable for wiring data systems and controls in large industrial plants, for the transmission of sensitive signals and high bit rates for enhanced requirements in near-end cross-talk attenuation and high electrical interference in the circuits. It can be used for measurement value transmission and serial 2-wire interfaces.
Cables of this type are intended for limited flexible use, and for fixed installation in dry or damp interiors.

Design

Design	Design based on standard VDE 0812
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 screened with aluminium-laminated plastic foil with copper drain wire for each pair, metal side inside, and taped with plastic foil, screened pairs are stranded in layers, wrapping with foil on the outer layer
Screen	Braiding with bare or tinned copper wires
Outer sheath	special PVC-based compound colour: grey (similar RAL 7032)

Electrical properties at 20°C

Loop resistance	0.22 mm²: max. 186 Ω/km 0.34 mm²: max. 115 Ω/km 0.5 mm²: max. 78.4 Ω/km
Specific volume resistivity	> 5 G Ω x km
Mutual capacitance	C/C approx. 75 nF/km (at 800 Hz)
Inductance	approx. 0.4 mH/km
Characteristic impedance	approx. 85 Ω (> 1 MHz)
Near-end cross-talk	min. 80 dB (up to 1 MHz)
Velocity of propagation	nom. 0.66 c
Peak operating voltage	250 V (not for power applications)
Test voltage	C/C: 2000 V C/S: 1000 V

Mechanical and thermal properties

Minimum bending radius	Flexing: 20 x cable Ø Fixed installation: 10 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
General requirements	This cable is conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).

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