

Suggested Copy for Lapp Limited in Farnell Catalogue

Unitronic® Li2YCY PiMF

(Farnell: Low capacitance twisted pair data cables)

Application

UNITRONIC® Li2YCY PiMF (Pair in Metal Foil) with individual screening of the pairs is particularly suitable for wiring data systems and controls for the transmission of sensitive signals and high bit rates, for enhanced requirements in respect of near-end cross-talk attenuation, and in conditions of high electrical interference on the line circuits. Therefore for measurements value transmission, field bus systems, and serial 2 wire interfaces.

Cables of this type are intended for limited flexible use and for static laying in dry and damp interiors.

Design

Conductor	7-wire strands of bare copper wire, 0.22 mm ² (24AWG), 0.34 mm ² (22AWG), 0.5 mm ² (20AWG)
Insulation	Polyethylene (2Y), Ø1.2 mm at Ø.22 mm ² ; Ø1.55 mm at 0.34 mm ² ; Ø1.8 mm at 0.5 mm ²
Coding	acc. to DIN 47100
Pair stranding	cores twisted in pairs
Pair screening	pair screen of polymer clad metal foil with a drain wire, wrapping by plastic foil
Core stranding	screened pairs twisted in layers, wrapping by plastic foil
Screening	screen braiding of bare copper wires
Sheath	PVC grey, RAL 7032, flame retardant

Technical Data

		Conductor	0.22 mm ²	0.34 mm ²	0.5 mm ²
Loop resistance max.	Ω/km		186	115	78.4
Insulation resistance min.	GΩ1xkm		5	5	5
Mutual capacitance core/core	max. nF/km		70	70	75
Impedance at f > 1 MHz	nom. Ω		85	85	85
Line attenuation at 100 kHz nom.	dB/100m		1	0.8	0.7
1 MHz nom.	dB/100m		3.4	2.9	2.4
10 MHz nom.	dB/100m		9.5	8.4	7.5
20 MHz nom.	dB/100m		13	11.9	10.6
Near End cross talk					
Attenuation (NEXT):	≤1 MHz min. dB		80	80	80
	≤10MHz min.dB		71	71	71
	≤20 MHz min. dB		68	68	68
Nominal velocity of propagation	nom.		0.66 c		
Transfer impedance at 10 MHz	nom.mΩ/m		10		
Operating Voltage (not for power purposes)	peak value max. V		250		
Test voltage	core/core	Ueff V	2000		
	core/screen	Ueff V	1000		
Minimum bending radius	static		cable diameter x 10		
Temperature range	flexing °C		-5 to + 70		
	static °C		-30 to + 80		
Flame propagation	flame retardant to V DE 0482, part 265-2-1/IEC 60332-1				