FieldLink®

Industrial Ethernet Cat 5e

Design

Wire LIH 1.5/2.4

Stranded bare copper wire 84 X 0.15	ø 1.55 mm (0,061 in)
Insulation of Thermoplastic copolymer (FRNC) BK, number printed	ø 2.4 mm (0,094 in)
Wall thickness about 0.4 mm	

02YS(ST)C 1X2X0.75/1.5-100 LI

Wire 02YS 1X0.75/1.5 LI	
Stranded bare copper wire 7 X 0.25	ø 0.75 mm (0.030 in)
Insulation of foamed Polyethylene (PE) with skin	ø 1.5 mm (0,059 in)

2 wires twisted to a pair
Plastic tape, overlapped
Alulaminate foil overlapped, applied longitudinally
Shield braiding of tinned copper wires 0.1 mm dia

Coverage about 75%	ø 3.6 mm (0.142 in)

Core:

Filler as central element	
2 screened pairs WH/BU - YE/OG	
4 wires LIH 1.5/2.4 BK number 1-2-3-4	
Plastic tape, overlapped	ø 8.3 mm (0.327 in)

Jacket:
Thermoplastic copolymer (FRNC) GN, RAL 6018
Wall thickness about 1.0 mm ø (10.3 ±0.3) mm (0.406 ±0.012 in)

Printing: LEONI L * PROFInet Hybrid Type B flex CAT5 * 22AWG7 + 4x1.5 (SHIELDED) FRNC Sun Res *
" year/internal order number" "sequential length in metres"

Electrical data at 20°C

02YS(ST)C 1X2X0.75/1.5-100 LI

Loop resistance	≤	120	Ohm/km
Signal run time		4.4	ns/m
Insulation resistance	≥	500	MOhm*km
Characteristic impedance (1 - 100 MHz)		(100 ±15)	Ohm
Surface transfer impedance (1 MHz)	≤	50	mOhm/m
Surface transfer impedance (10 - 100 MHz)	≤	10	mOhm/m
Test voltage (wire/wire/screen rms 50Hz 1min)	=	700	V

Near-end crosstalk attenuation

Frequency (MHz)	1	4	10	16	20	31.25	62.5	100
(dB - 100m) ≥	65.3	56.3	50.3	47.2	45.8	42.9	38.4	35.3

Attenuation

Frequency (MHz)	1	4	10	16	20	31.25	62.5	100
(dB / 100m) ≤	2.1	4.0	6.3	8.0	9.0	11.4	16.5	21.3

The electrical requirements acc. to EN 50288-2-1

Wire LIH 1.5/2.4

Conductor resistance	≤	14	Ohm/km
Insulation resistance	≥	20	MOhm*km
Operating voltage (peak)	≤	100	V
Test voltage (wire/wire/screen rms 50Hz 1min)	=	1000	V

Mechanical and thermal characteristics

Conductor material acc. to DIN EN 13602 Cu-ETP1-A...
Screen material acc. to DIN EN 13602 Cu-ETP1-A...-B
Insulating material acc. to DIN EN 50290-2-23 (VDE 0819), table 2/A (HD 624.3) (02Y)
Insulating material acc. to DIN EN 50290-2-26 (VDE 0819) (HD 624.6)
Jacket material acc. to DIN EN 50290-2-27 (HD 624.7)
Flame retardant acc. to IEC 60332-1-2

UL Style 21282

Other characteristics:

Sunlight resistant acc. to UL 1581 Sec.1200
Halogen free

Permissible temperature range : -20 °C (-4 °F) up to 70 °C (158 °F)
Min. bending radius allowed : repeated 10X ø , single 5X ø
Tensile strength : ≤ 200 N
Weight about : 153 Kg/km (102,5 lb/1000ft)

Application / Special feature:

PROFInet hybrid line to CAT 5 for use: flexible, occasional movement or vibration

Designation of order:

L45467-J116-C6
203720
02YS 2X2X0.75/1.5-100 LI (STC)
LIH-Z H 4X1X1.5 GN
1000 m (3281 ft) on non-returnable reel