

FieldLink®

Industrial Ethernet Cat 5e



Design

Wire LIH 1.5/2.4

Stranded bare copper wire 84 X 0.15

Insulation of Thermoplastic copolymer (FRNC) BK, number printed

Wall thickness about 0.4 mm

ø 1.55 mm (0,061 in)

ø 2.4 mm (0,094 in)

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

Wire 02YS 1X0.75/1.5 LI

Stranded bare copper wire 7 X 0.25

Insulation of foamed Polyethylene (PE) with skin

ø 0.75 mm (0.030 in)

ø 1.5 mm (0,059 in)

2 wires twisted to a pair

Plastic tape, overlapped

Alulaminat 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)

LEONI Special Cables GmbH

Technisches Datenblatt – Technical Data Sheet – Technisches Datenblatt – Technical Data Sheet – Technisches Datenblatt – Technical Data Sheet

Jacket:

 Thermoplastic copolymer (FRNC) GN, RAL 6018
 Wall thickness about 1.0 mm

 \varnothing (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 VDE 0819, part 103, table 2/A (HD 624.3)
 Insulating material acc. to DIN VDE 0819, part 106 (HD 624.6)
 Jacket material acc. to DIN VDE 0819 part 107 (HD 624.7)
 Flame test acc. to IEC 60332-1
 Sunlight resistant acc. to UL 1581 Sec.1200

UL Style 21282

Other characteristics:

Halogen free

Permissible temperature range : -20 °C (-4 °F) up to 70 °C (158 °F)
 Min. bending radius allowed : repeated 10X \varnothing , single 5X \varnothing
 Tensile strength : \leq 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