

FieldLink®

Industrial Ethernet Cat 5e with rodent protection



Design

Wire

Bare copper wire (22 AWG)
Insulation of Polyethylene (PE)

ø 0.65 mm (0,026 in)
ø 1.5 mm (0,059 in)

Core:

Filler as central element
1. layer: 4 wires
Sequence of colors: WH-YE-BU-OG
Plastic tape, overlapped
Inner jacket: Polyvinylchloride (PVC) (filling compound)
Alulaminat foil overlapped, applied longitudinally
Shield braiding of tinned copper wires 0.13 mm dia
Coverage about 90%

ø 3.9 mm (0.154 in)
ø 4.5 mm (0.177 in)

Inner-Jacket:

Polyvinylchloride (PVC) GN
Wall thickness about 0.9 mm

ø (6.5 ±0.2) mm (0,256 ±0,008 in)

Armoring: 2 Layer galvanized steel tape 12X0.1 (rodent protection)
intercalated tapes

Jacket:

Polyethylene (PE) BK
Wall thickness about 1.2 mm

ø (9.3 ±0.5) mm (0,366 ±0,020 in)

Printing: "sequential length in metres" LEONI L INDUSTRIAL ETHERNET OUTDOOR CABLE *
PROFINET Type A with STEEL ARMOUR CAT 5 PLUS * 22AWG "year/internal order number"

Electrical data at 20°C

Loop resistance	≤	115	Ohm/km
Signal run time	≤	5.3	ns/m
Insulation resistance	≥	500	MOhm*km
Characteristic impedance 1 – 100 MHz		(100 ±15)	Ohm
Surface transfer impedance 10 MHz	≤	10	mOhm/m
Operating voltage		100	V
Test voltage (wire/wire/screen rms 50Hz 1min)	=	2000	V

Near-end crosstalk attenuation

Frequency (MHz)	1	4	10	16	20	31.25	62.5	100
typ. value (dB - 100m)	80	75	70	65	63	60	55	50

Attenuation

Frequency (MHz)	1	4	10	16	20	31.25	62.5	100
typ. value (dB/100m) (dB/100ft)	1,6 (0,5)	3,2 (1,0)	5,2 (1,6)	6,9 (2,1)	7,8 (2,4)	10,5 (3,2)	15 (4,6)	19,5 (5,9)

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

Mechanical and thermal characteristics

Conductor material acc. to DIN EN 13602 Cu-ETP-A...
 Screen material acc. to DIN EN 13602 Cu-ETP-A...-B
 Insulating material acc. to DIN EN 50290-2-23 (VDE 0819), table L/MD (HD 624.3)
 I-Jacket material acc. to DIN EN 50290-2-22 (VDE 0819), compoundtype TM52 (HD 624.2)
 Jacket material acc. to DIN EN 50290-2-24 (VDE 0819), table 1/2-L/MD (HD 624.4)

Other characteristics:

Pulling force : ≤ 150 N
 Permissible temperature range : - 40°C up to +70°C
 During laying : - 20°C up to +60°C
 Transport temperature range : - 40°C up to +70°C
 Min. bending radius allowed : repeated 10X ø, single 5X ø
 Weight about : 124 Kg/km (83 lb/1000ft)

Designation of order:

L45467-J16-B56
 206345
 2YY(ST)CYB2Y 2X2X0.64/1.5-100 (2B0.1VZK)
 2000 m (6562 ft) on non-returnable reel