

FieldLink®

INDUSTRIAL ETHERNET Cat 5e ES



Design

Wire:

Stranded tinned copper wire 7 X 0.25
 Insulation of Polyethylene (PE)

ø 0.75 mm (0,030 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)
 Alulaminat foil overlapped
 Shield braiding of tinned copper wires 0.13 mm dia
 Coverage about 85%

ø 3.9 mm (0,154 in)
 ø 4.7 mm (0,185 in)

Jacket:

Polyvinylchloride (PVC) GN
 Wall thickness about 0.9 mm

ø (6.5 ±0.2) mm (0,256 ±0,008 in)

Printing: LEONI L INDUSTRIAL ETHERNET FLEXIBLE CABLE * PROFINET Type B ES CAT 5 PLUS *
 22AWG (SHIELDED) (UL) E119100 CMG 60 °C or PLTC or AWM 20201 600V FT4 SUN RES *
 "year/internal order number" "sequential length in metres"

Electrical data at 20°C

Loop resistance	≤	120	Ohm/km
Signal run time	≤	5.3	ns/m
Insulation resistance	≥	500	MOhm*km
Characteristic impedance		(100 ±15)	Ohm
UL-Rating		600	V
Surface transfer impedance	≤	20	mOhm/m
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	76	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)	2,1 (0,6)	4 (1,2)	6,3 (1,9)	8 (2,4)	9 (2,7)	11,4 (3,5)	16,5 (5,0)	21,3 (6,5)

The electrical requirements similar to EN 50288-2-1

Mechanical and thermal characteristics

Conductor/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) (2Y)
 Jacket material acc. to DIN EN 50290-2-22 (VDE 0819), compoundtype TM52 (HD 624.2)
 Flame retardant acc. to UL 1685 (CSA FT 4)

UL File E119100 Vol.1 Sec. 12 Page 1
 UL File E116441 Vol.1 Sec. 6 Page 8
 UL-Style 20201

Other characteristics:

Sunlight resistant acc. to UL 1581 Sec.1200
 Limited oil resistance

Permissible temperature range : -40°C up to +70°C
 During laying : -20°C up to +60°C
 Transport temperature range : -50°C up to +70°C
 Min. bending radius allowed : repeated 7X ø, single 3X ø
 PVC weight with Phthalate : 30.6 Kg/km
 PVC weight without Phthalate : 0.0 Kg/km
 Weight about : 67 Kg/km (45 lb/1000ft)

Application:

Cable for flexible installation

Designation of order:

L45467-J17-B15
 205697
 2YY(ST)CY 2X2X0.75/1.5 LI VZN GN
 1000 m (3281 ft) on non-returnable reel