

FieldLink[®]

INDUSTRIAL ETHERNET Cat 5e ES



Design

Wire:

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

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

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

Jacket:

Polyvinylchloride (PVC) GN
Wall thickness about 0.9 mm

∅ (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 21694 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	1 – 100 MHz		(100 ±15)	Ohm
UL-Rating			600	V
Surface transfer impedance	10 MHz	≤	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)

Oil resistant acc. to IEC 60811-2-1 (4 hours / 70°C)

UL File E119100 Vol.1 Sec. 12 Page 1

UL File E116441 Vol.1 Sec. 6 Page 8

UL-Style 21694

Other characteristics:

Sunlight resistant acc. to UL 1581 Sec.1200

Permissible temperature range : -40°C up to +80°C

During laying : -20°C up to +60°C

Transport temperature range : -50°C up to +80°C

Min. bending radius allowed : repeated 7X \varnothing , single 3X \varnothing

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