

FieldLink®

Industrial Ethernet Cat 5e ES



Design

Wire:

Bare copper wire ø 0.64 mm
 Insulation of Polyethylene (PE) ø 1.5 mm

Core:

Filler as central element
 1. layer: 4 wires twisted
 Sequence of colors: WH-YE-BU-OG
 Plastic tape, overlapped
 Inner jacket: Polyvinylchloride (PVC) ø 3.9 mm
 Alulaminat foil overlapped, applied longitudinally
 Shield braiding of tinned copper wires 0.13 mm dia
 Coverage about 90% ø 4.5 mm

Jacket:

Polyvinylchloride (PVC) GN
 Wall thickness about 0.9 mm ø (6.5 ±0.2) mm

Printing: LEONI L INDUSTRIAL ETHERNET STANDARD CABLE * PROFINET Type A ES CAT5 PLUS *
 22AWG (SHIELDED) (UL) E119100 VERIFIED CAT 5E CMG 75°C or PLTC or ITC or AWM 20201
 600V FT4 SUN RES * "year/internal order number" "sequential length in metres"
 Textintervals about 1000 mm

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
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)
 Jacket material acc. to DIN EN 50290-2-22 (VDE 0819), compoundtype TM52 (HD 624.2)
 Flame retardant acc. to IEC 60332-1-2
 Flame retardant acc. to UL 1685 (CSA FT 4)

UL-File E119100 Vol.1 Sec.12 Page 1
 UL-File E119100 Vol.3 Sec. 1 Page 2 Verified CAT 5E
 UL-File E116441 Vol.1 Sec. 6 Page 8
 UL-File E306668 Vol.1 Sec. 3 Page 1
 UL-Style 20201

Other characteristics:

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

Tensile loading: ≤ 150 N
 Permissible temperature range : - 40°C up to +75°C
 During laying : - 20°C up to +60°C
 Transport temperature range : - 40°C up to +75°C
 Min. bending radius allowed : repeated 7,5X ø , single 3X ø
 PVC weight with Phthalate : 30.4 Kg/km
 PVC weight without Phthalate : 0.0 Kg/km
 Weight about : 66 Kg/km (45 lb/1000ft)

Application:

Cable for permanent installation

Designation of order:

L45467-J16-B35
 202284
 2YY(ST)CY 2X2X0.64/1.5-100 GN
 2000 m (6562 ft) on non-returnable reel

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