

FieldLink®

Industrial Ethernet Cat 5e ES



Design

Wire:

Bare copper wire ø 0.64 mm
Insulation of Polyethylen (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: | L INDUSTRIAL ETHERNET STANDARD CABLE * PROFINET Type A ES CAT5 PLUS *
22AWG (SHIELDED) (UL) E119100 VERIFIED CAT 5E CMG 60°C or PLTC 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	≤	124	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)

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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 +70°C

During laying : - 20°C up to +60°C

Transport temperature range : - 40°C up to +70°C

Min. bending radius allowed : repeated 7,5X \varnothing , single 3X \varnothing

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