

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: "sequential length in metres" BizLink Special Cables Germany INDUSTRIAL ETHERNET FLEXIBLE CABLE * PROFINET Type B ES CAT5 PLUS * 22AWG (SHIELDED) (UL) E119100 CMG FT4 60°C or PLTC SUN RES or AWM 21694 600V * "year/internal order number"

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 MHz		(100 ±5)	Ohm
UL-Rating			600	V
Surface transfer impedance	10 MHz	≤	20	mOhm/m
Test voltage (wire/wire/screen rms 50Hz 1min)		=	2000	V

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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

RoHS compliant (Directive 2011/65/EU & 2015/863/EU RoHS 3)
 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

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

Product has not been tested and classified according to the CPR (EU/305/2011).
 The product shall not be permanently installed in buildings in the EU.

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