

FieldLink®

Industrial Ethernet Cat 5e ES (Festoon cable)



Design

Wire

Stranded tinned copper wire 7 X 0.25 (22 AWG)
Insulation of Polyethylene (PE)

∅ 0.75 mm (0,030 in)
∅ 1.56 mm (0,061 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%

∅ 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: "sequential length in metres" BizLink Special Cables Germany INDUSTRIAL ETHERNET FESTOON CABLE * PROFINET Type C ES CAT5 PLUS * 22AWG (SHIELDED) (UL) E119100 CMG FT4 75°C or PLTC SUN RES OIL RES I or AWM 21694 600V * " internal lot number"
(The gap between the text is filled out with lengthways line "-----")

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	≤	100	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 acc. to EN 50288-2-2

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)
 Jacket material acc. to DIN EN 50290-2-22 (VDE 0819), compound type TM52 (HD 624.2)
 Flame retardant acc. to UL 1685 (CSA FT 4)
 Oil resistant acc. to 1581 Sec. 480 (60°)

UL File E119100 Vol.1 Sec. 16 Page 2
 UL File E116441 Vol.1 Sec. 6 Page 2
 UL-Style 21694

Other characteristics

RoHS compliant (Directive 2011/65/EU & 2015/863/EU RoHS 3)
 Sunlight resistant acc. to UL 1581 Sec.1200

Festoon cable for following requirements

- 5 million bending cycles
- bending radius ≥ 70 mm
- acceleration 4 m/s^2
- min. bending radius allowed: single ≥ 30 mm

Permissible temperature range : $-10 \text{ }^\circ\text{C}$ ($14 \text{ }^\circ\text{F}$) up to $80 \text{ }^\circ\text{C}$ ($176 \text{ }^\circ\text{F}$)
 Weight about : 68 Kg/km (45 lb/1000ft)

Designation of order

L45467-J17-B85
 207203
 2YY(ST)CY 2X2X0.75/1.5 LI 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.