

# 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" LEONI L INDUSTRIAL ETHERNET FESTOON CABLE \* PROFINET  
Type C ES CAT 5 PLUS \* 22AWG (SHIELDED) (UL) E119100 CMG 75C or PLTC or AWM 21694  
600V FT4 SUN RES OIL RES I \* "year/internal order 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:**

Sunlight resistant acc. to UL 1581 Sec.1200

Festoon cable for following requirements

- 5 million bending cycles
- bending radius  $\geq 70$  mm
- acceleration  $4 \text{ m/s}^2$
- min. bending radius allowed: single  $\geq 30$  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 :  $68 \text{ Kg/km}$  ( $45 \text{ lb/1000ft}$ )

**Designation of order:**

L45467-J17-B85

207203

2YY(ST)CY 2X2X0.75/1.5 LI GN

1000 m (3281 ft) on non-returnable reel