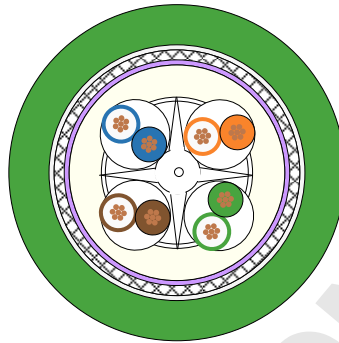


FieldLink®

PROFINET CAT6 ES



Design

Wire

Stranded bare copper wire 7 X 0.2 (24 AWG)
Insulation of foamed Polyethylene (PE) with skin

∅ 0.6 mm (0,024 in)
∅ 1.1 mm (0.043 in)

2 wires twisted to a pair

Core:

4 pairs in separating element
Sequence of colors: WHBU/BU - WHOG/OG - WHGN/GN - WHBN/BN
Plastic tape, overlapped
Inner-Jacket: Thermoplastic copolymer (FRNC)
Alulminate foil overlapped, applied longitudinally
Shield braiding of tinned copper wires 0.1 mm dia (38 AWG)
Coverage about 80%

∅ 6.1 mm (0.240 in)

∅ 6.6 mm (0.260 in)

Jacket:

Polyvinylchloride (PVC) GN
Wall thickness about 0.7 mm

∅ (8.0 ±0.2) mm (0.315 ±0.008 in)

Printing: "sequential length in metres" LEONI L INDUSTRIAL ETHERNET FLEXIBLE CABLE * PROFINET Typ C 4 pair CAT 6 * 24AWG (SHIELDED) (UL) E119100 CMG 75°C * "internal lot number"

Electrical data at 20°C

Loop resistance	≤	180	Ohm/km
Signal run time	≤	5.13	ns/m
Insulation resistance	≥	500	MOhm*km
Operating voltage (peak)	≤	100	V
Characteristic impedance (100 MHz)		(100 ±5)	Ohm
Surface transfer impedance of screen (up to 100 MHz)	≤	20	mOhm/m
Time delay skew (pair to pair) all pairs	≤	45	ns/100m
Time delay skew (pair to pair) WHGN/GN to WHOG/OG	≤	20	ns/100m
Time delay skew (pair to pair) WHBN/ BN to WHBU/BU	≤	20	ns/100m
Test voltage (wire/wire/screen rms 50Hz 1min)		1500	V

Frequency	1	4	10	16	20	31.25	62.5	100	155	200	250
Next (dB) ≥	66.0	65.3	59.3	56.2	54.8	51.9	47.4	44.3	41.4	39.8	38.3
PSNext (dB) ≥	64.0	63.3	57.3	54.2	52.8	49.9	45.4	42.3	39.4	37.8	36.3
ELFext (dB) ≥	66.0	58	50.0	45.9	44.0	40.1	34.1	30.0	26.2	24.0	22.0
PSElfext (dB) ≤	64.0	55.0	47.0	43.0	41.0	37.1	31.1	27.0	23.2	21.0	19.0
Attenuation (dB/100m) ≤	3.1	5.8	9.0	11.4	12.8	16.1	23.2	29.9	38.0	43.7	49.5
Frequency	4	8	10	16	20	31.25	62.5	100	155	200	250
Return loss (dB)	23.1	24.5	25.0	25.0	25.0	23.6	21.5	20.1	18.8	18.0	17.3

Electrical requirements acc. to EN 50288-5-2

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

Flame retardant acc. to UL 1685 (CSA FT 4)

Flame retardant acc. to IEC 60332-3-24 (Cat. C)

UL-File E119100 Vol.1 Sec.33 Page 1 (CMG)

Other characteristics:

RoHS compliant (Directive 2011/65/EC), UV-resistant, Limited oil resistant, Silicone free

Trailing cable for the following requirements

- 1 million bending cycles
- bending radius 20 x max. Ø
- at a speed of 4 m/s
- acceleration 4 m/s²
- not adapted for garland mounting
- min. bending radius allowed: single 3 X ø

Transport-/Installation and operating temperature: -40 °C (-40 °F) up to 80 °C (176 °F)

Max. pull force : ≤ 100 N
 PVC weight with Phthalate : 23.9 Kg/km
 PVC weight without Phthalate : 0.0 Kg/km
 Weight about : 72 Kg/km (49 lb/1000ft)

Designation of order:

L45467-J415-C5
 214594
 02YSH(ST)CY 4X2X0.6/1.1-100 LI GN
 1000 m (3281 ft) on non-returnable reel