

# PROFINET

Type B Industrial Ethernet Cat 5e ES Hybrid Cable (LSZH)



## Cable Design

### Power Core

Conductor	Stranded bare copper wire (84x0,15mm) 1,50 mm <sup>2</sup> Ø 1,55 mm
Insulation	LSZH FireFighter® Black with white numerals Ø 2,40 mm

### Shielded Pair

Conductor	Stranded bare copper wire 7/0,25mm (22awg) Ø 0,75 mm
Insulation	Foamed Polyethylene (PE) with skin Ø 1,50 mm
Pair	2 insulated cores twisted to a pair
Tape	Plastic tape overlapped
Screen	Aluminum foil overlapped
Braid	Tinned copper wire braid, 75% coverage Ø 3,60 mm

### Core

Central Element	Filler
Assembly	2 shielded pairs (WH-BU / YW-OE) + 4 cores numbered 1-2-3-4
Tape	Plastic tape overlapped Ø 8,30 mm

Outer Jacket LSZH (Low Smoke Zero Halogen), Green Ø 10,30 ± 0,3 mm



## Characteristics

- Flame retardant acc. to IEC 60332-1-2,
- Halogen free acc. to IEC 60754,
- Sunlight resistant acc. to UL 2556 Sec. 4.2.8.5,
- UL Style 21282

## Specification

Part Number	Type
L45467-J116-C6	Industrial Ethernet Cat 5e, PROFINET Hybrid Cable for Flexible installation, 2x2x22AWG7 + 4x1.5 mm <sup>2</sup> . UL recognised: AWM, LSZH

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## Electrical Data @ 20°C Power Cores

Conductor resistance	≤	14	Ohm/km
Insulation resistance	≥	20	MOhm*km
Operating Voltage (peak)	≤	100	V
Test Voltage (wire/wire/screen rms 50Hz min.)	=	1000	V

## Electrical Data @ 20°C Shielded Pairs

Loop resistance	≤	120	Ohm/km
Signal run time	≤	4,4	ns/m
Insulation resistance	≥	500	MOhm*km
Characteristic Impedance	1-100 MHz	100±15	Ohm
Surface Transfer Impedance	1 MHz	≤ 50	mOhm/m
Surface Transfer Impedance	1-100 MHz	≤ 10	dB
Test Voltage (wire/wire/screen rms 50Hz min.)	=	700	V

Frequency (MHz)	1	4	10	16	20	31,25	62,5	100
Attenuation typ. Value (dB/100m)	2,1	4,0	6,3	8,0	9,0	11,4	16,5	21,3
NEXT typ. Value (dB/100m)	65,3	56,3	50,3	47,2	45,8	42,9	38,4	35,3

The electrical requirements acc. to EN 50288-2-1.

## Mechanical & Thermal Characteristics

Permissible temperature range	-20 ~ +70	°C
Min. Bending radius allowed	repeated	10 x Ø
Min. Bending radius allowed	single	5 x Ø
Tensile strength	≤ 200	N
Weight (approx.)	153	kg/km

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