

# FieldLink

Industrial Ethernet CAT 5e ES



## Design

### Wire:

Bare copper wire:	ø 0.64 mm
Insulation of Polyethylene (PE):	ø 1.5 mm

### Core:

Filler as central element	
1.layer: 4 wires twisted	
Sequence of colors: WH-YE-BU-OG	
Plastic tape, overlapped	
Inner jacket: Polyvinylchloride (PVC):	ø 3.9 mm
Alulaminat foil overlapped, applied longitudinally	
Shield braiding of tinned copper wires 0.13 mm dia	
Coverage about 90%	ø 4.5 mm

### Jacket:

Polyvinylchloride (PVC) GN	
Wall thickness about 0.9 mm	ø (6.5 ±0.2) mm

Printing: LEONI L INDUSTRIAL ETHERNET STANDARD CABLE \* PROFINET Type A ES CAT5 PLUS \* 2x2x22AWG (SHIELDED) (UL) E119100 CMG 75°C VERIFIED (UL) CAT 5E or PLTC or ITC or AWM 21694 600V FT4 SUN RES

## Electrical data at 20°C

Loop resistance	≤	115	Ohm/km
Signal run time	≤	5.3	ns/m
Insulation resistance	≥	500	MOhm*km
Characteristic impedance 1-100 MHz		(100±15)	Ohm
Surface transfer impedance 10 MHz	≤	10	mOhm/m
Test voltage (wire/wire/screen rms 50Hz 1min)		2000 V	

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

## 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  
 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 IEC 60332-1-2  
 Flame retardant acc. to UL 1685 (CSA FT 4)

UL-File E119100 Vol. 1 Sec.12 Page 1  
 UL-File E352715 Vol. 1 Sec. 1 Page 2 Verified CAT 5E  
 UL-File E116441 Vol. 1 Sec. 6 Page 8  
 UL-File E306668 Vol. 1 Sec. 3 Page 1  
 UL-Style 21694

## Other characteristics:

Sunlight resistant acc. to UL 1581 Sec. 1200  
 Limited oil resistance

Tensile loading	≤ 150 N
Permissible temperature range:	-40°C up to +75°C
During laying:	-20°C up to +60°C
Transport temperature range:	-40°C up to +75°C
Min. bending radius allowed:	repeated 7.5X ø, single 3X ø
PVC weight with Phthalate:	30.4 Kg/km
PVC weight without Phthalate:	0.0 Kg/km
Weight about:	66 Kg/km (45lb/1000ft)

## Application

Cable for permanent installation