

# 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: BizLink Special Cables Germany INDUSTRIAL ETHERNET STANDARD CABLE \* PROFINET Type  
 A ES CAT5 PLUS \* 2x2x22AWG (SHIELDED) (UL) E119100 CMG FT4 75°C VERIFIED (UL)  
 CAT 5E or PLTC or ITC SUN RES or AWM 21694 600V \* "internal lot number"  
 "sequential length in metres"

**Electrical data at 20°C**

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

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### Near-end crosstalk attenuation

Frequency (MHz)	1	4	10	16	20	31.25	62.5	100
typ. value (dB - 100m)	80	75	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)	1,6 (0,5)	3,2 (1,0)	5,2 (1,6)	6,9 (2,1)	7,8 (2,4)	10,5 (3,2)	15 (4,6)	19,5 (5,9)

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), compoundtype 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

RoHS compliant (Directive 2011/65/EU & 2015/863/EU RoHS 3)  
 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 (45 lb/1000ft)

### Application

Cable for permanent installation

### Designation of order

L45467-J16-B35  
 202284  
 2YY(ST)CY 2X2X0.64/1.5-100 GN  
 2000 m (6562 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.

FELTEN Wire and Cable Solutions BV reserves the right to make changes to the product described in this specification without prior notice. FELTEN does not assume any liability which may occur due to the use of the specification described herein. Drawings are not to scale unless otherwise specified and are provided for general and informational purposes only. All values represented in this specification should be used as a guide only and exact product details can be confirmed at point of enquiry.

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