

# FieldLink®

## Industrial Ethernet Cat 5e ES



### Design

#### Wire:

Stranded tinned wire 7 X 0.25 (AWG 22) ø 0.75 mm  
 Insulation of Polypropylene (PP) ø 1.5 mm

#### Core:

Filler as central element  
 1.layer: 4 wire twisted  
           Sequence of colors: WH-YE-BU-OG  
 Plastic tape, overlapped  
 Inner jacket: Thermoplastic copolymer (FRNC) ø 3.9 mm  
 Alulaminat foil overlapped  
 Shield braiding of tinned copper wires 0.13 mm dia  
 Coverage about 85% ø 4.7 mm

#### Jacket:

Thermoplastic copolymer (FRNC) GN  
 Wall thickness about 0.9 mm ø (6.5 ±0.4) mm

Printing: "sequential length in metres" INDUSTRIAL ETHERNET ES ITP MARINE CABLE CAT 5  
 PLUS \* 22AWG (SHIELDED) (UL) E119100 Verified CAT 5E Patch Cable CMG  
 75°C or PLTC FT4 Sun Res \* LEONI L L-9YH(ST)CH 2X2X0.34/1.5-100 GN VZN FRNC 60V

### Electrical data at 20°C

|   |   |           |         |
|---|---|-----------|---------|
| Loop resistance                               | ≤ | 120       | 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 of screen 10 MHz   | ≤ | 10        | mOhm/m  |
| Test voltage (wire/wire/screen rms 50Hz 1min) | = | 700       | V       |

**LEONI Special Cables GmbH**

Technisches Datenblatt – Technical Data Sheet – Technisches Datenblatt – Technical Data Sheet – Technisches Datenblatt – Technical Data Sheet

**Near-end crosstalk attenuation**

| Frequency (MHz)           | 1  | 4  | 10 | 16 | 20 | 31.25 | 62.5 | 100 |
|---------------------------|----|----|----|----|----|-------|------|-----|
| typ. value<br>(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)<br>(dB/100ft) | 1,8<br>(0,5) | 3,6<br>(1,1) | 6,0<br>(1,8) | 7,6<br>(2,3) | 8,7<br>(2,7) | 11<br>(3,4) | 16<br>(4,9) | 21<br>(6,4) |

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

**Mechanical and thermal characteristics**

Conductor/Screen material acc. to DIN EN 13602 Cu-ETP-A...-B

Insulating material acc. to specification ITP K02-E

Jacket material acc. to specification ITP K02-E

Flame test acc. to IEC 332-3 category A/F

UL-File E119100 Vol.1 Sec. 11 Page 1

UL-File E119100 Vol.3 Sec. 1 Verified CAT 5E

UL-File E116441 Vol.1 Sec. 6 Page 4

**Other characteristics:**

Approved for Marine and Offshore Applications

Germanischer Lloyd

Lloyds Register of Shipping

ABS Europe LTD

Bureau Veritas

Det Norske Veritas

Limited oil resistance

UV-resistant

Tensile loading:  $\leq 150$  N

Permissible temperature range : -25°C up to +70°C

During laying : - 0°C up to +50°C

Transport temperature range : -40°C up to +70°C

Min. bending radius allowed : repeated 7,5X  $\emptyset$ , single 3X  $\emptyset$ 

Weight about : 68 Kg/km

**Application**

Cable for marine application

**Designation of order:**

L45467-J16-B26

202280

L-9YH(ST)CH 2X2X0.34/1.5-100 GN VZN FRNC

1000 m on non-returnable reel