

# FieldLink®

## Foundation Fieldbus



### Design

#### Wire LIY 0.8/2.0

Stranded bare copper wire 41 X 0.16  
 Insulation of Polyvinylchloride (PVC)  
 Wall thickness about 0.45 mm

ø 1.17 mm (0.046 in)  
 ø 2.0 mm (0,079 in)

#### Screened pair 2X(ST) 2X1.1/2.85-100 LI

##### Wire

Stranded bare copper wire 37 X 0.17  
 Insulation of Irradiated Polyethylene XLPE  
 Wall thickness about 0.88 mm

ø 1.17 mm (0.046 in)  
 ø 2.85 mm (0,112 in)

2 wires, BU and BN twisted to a pair  
 Alulaminat foil overlapped

#### Core

1 screened pair BU/BN  
 1 wire LIY 0.8/2.0 GNYE  
 Alulaminat foil overlapped  
 Stranded tinned copper drain wire 0.5 mm<sup>2</sup>  
 Shield braiding of tinned copper wires 0.15 mm dia  
 Coverage about 90%

ø 6.4 mm (0.252 in)

#### Jacket:

Polyvinylchloride (PVC) YE  
 Wall thickness about 0.75 mm

ø (7.9 ±0.3) mm (0,311 ±0,012 in)

**LEONI Special Cables GmbH**

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

Printing: LEONI L FF3 L45467-J218-W5 \* 19AWG (shielded) (UL) E119100 CMG 105°C or PLTC FT4 Sun Res  
 "sequential length in metres"

**Electrical data at 20°C**

Conductor resistance	≤	24	Ohm/km
Insulation resistance	≥	20	MOhm*km
Operating voltage (peak)	≤	300	V
Test voltage (wire/wire/screen rms 50Hz 1min)	=	1500	V

**Screened pair**

Characteristic impedance (31.25 kHz)	(100 ±20)	Ohm
Capacitance (1 kHz wire/wire)	≈	65 nF/km
Capacitance (1 kHz wire/screen)	≈	135 nF/km
Inductance (1 MHz)	≈	0.48 μH/m
Capacity unbalanced to ground	≤	2 nF/km
Attenuation (39 kHz)	≤	3.4 dB/km
Propagation delay change 0.25 * f <sub>r</sub> to 1.25 * f <sub>r</sub>	≤	1.7 μs/km

Electrical requirements similar to IEC 61158-2

**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  
 Insulating material acc. to DIN EN 50290-2-21 (VDE 0819), compoundtype TI53 (HD 624.1)  
 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 UL 1685 (CSA FT 4)  
 Oil resistant acc. to 1581 Sec. 480 (60°)

UL-File E119100 Vol.1 Sec. 24 Page 3 CMG

UL-File E116441 Vol.1 Sec. 15 Page 3 PLTC

**Application / Special feature:**

Sunlight resistant acc. to UL 1581 Sec.1200

Lead-free

Permissible temperature range : -25 °C (-13 °F) up to 105 °C (221 °F)

Min. bending radius allowed : repeated 7,5X ø , single 5X ø

Weight about : 84 Kg/km (56,3 lb/1000ft)

**Designation of order:**

L45467-J218-W5

205187

2X(ST) 1X2X1.1/2.85-100 LI

LIY-J (ST)CY 1X0.8 GE FR OE

1000 m (3281 ft) on non-returnable reel