



# DATA SHEET

**2170365**

**ETHERLINE® P PiMF \*\***

Valid from:

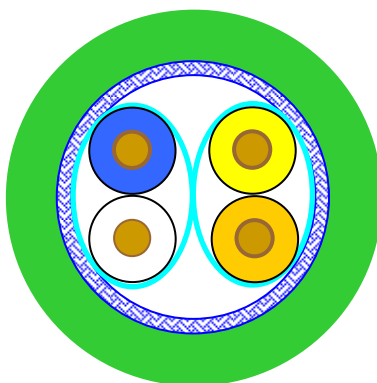
**2 x 2 x AWG22/1**

**CAT.6e**

**26.10.2006**

## Industrial Ethernet CAT. 6e

\*\* UL/CSA Approval in preparation



### Application

High speed cable for Industrial Ethernet for fixed installations in dry, wet or damp rooms. Cable meets the transmission characteristics for Category 6e of IEC 61156-5 Ed. 2 and confirms to PROFINET installation guide. These cables have excellent resistance against mechanical stress, oils and greases and are halogenfree.

### Design

Stranded bare copper wire $\varnothing$ 0,64 (AWG22/1)	$\varnothing$ 0.64 mm (0.025 in)
Insulation of foamed Polyethylene (PE) with skin	$\varnothing$ 1.52 mm (0.059 in) nom.
	$\varnothing$ 1.60 mm (0.063 in) max.

### Core

2 cores individually screened with aluminium bonded plastic tape and stranded to form the stranded element

Sequence of colours: pair 1: white (WH)-blue (BU), pair 2: yellow (YE)-orange (OG)

Shield braiding of tinned copper wires 0.13 mm diameter (36 AWG)

Coverage approx. 85%

Non woven tape, longitudinally applied  $\varnothing$  4.7 mm (0,185 in)


### Jacket

Special compound based on polyurethane (PUR) green (GN) flame retardant, halogen free

Wall thickness approx. 0.90 mm  $\varnothing$  6.5  $\pm$ 0.2 mm  
(0,256  $\pm$ 0,008 in)

LAPP KABEL STUTTGART **ETHERLINE® P PiMF CAT. 6e**

2 x 2 x AWG22/1 SHIELDED PROFINET Type A ROHS ART. 2170365

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	<b>ETHERLINE® P PiMF **</b> <b>2 x 2 x AWG22/1</b> <b>CAT.6e</b>	Valid from: <b>26.10.2006</b>

**Electrical data at 20°C**

Loop resistance	≤ 118,2 Ohm/km
Signal run time	≤ 4.7 ns/m
Insulation resistance	≥ 5 GOhm*km
Capacitance at 800 Hz	approx. 45 pF/m
Velocity of propagation	nom. 79%
Characteristic impedance:	
1 - 100 MHz	100 (±15) Ohm
100 - 500 MHz	100 (± 22) Ohm
Operating voltage (peak)	≤ 100V
Test voltage (core/core/screen rms 50Hz 1min)	700V

Frequency (MHz)	4	10	16	20	31.25	62.5	100
NEXT (dB) ≥	71,3	65,3	62,2	60,8	57,9	53,4	50,3
Attenuation max. (dB/100m) (dB/100ft)	3,8 (1,16)	6,0 (1,83)	7,6 (2,32)	8,5 (2,59)	10,7 (3,26)	15,5 (4,72)	19,9 (6,07)

Frequency (MHz)	155	200	250	300	500
NEXT (dB) ≥	47,4	45,8	44,3	43,1	39,8
Attenuation max. (dB/100m) (dB/100ft)	25,3 (7,71)	29,1 (8,87)	33,0 (10,1)	36,6 (11,2)	49,2 (15,0)

Other electrical requirements acc. to IEC 61156-5 Ed. 2

**Mechanical and thermal characteristics**

Conductor material acc. to DIN EN 13602 Cu-ETP-R460-P  
Screen material acc. to DIN EN 13602 Cu-ETP-A013-C  
Insulating material acc. to DIN EN 50290-2-23 (VDE 0819), table 2/B  
Jacket material acc. to CENELEC HD22.10, compound type TmpU  
Flame retardant acc. to IEC 60332-1-2  
Oil resistant acc. to DIN EN 60811-2-1  
Stripping of sheath: min. 5 N to max. 70 N at a length of 50 mm

**Other characteristics:**

RoHS compliant

Permissible temperature range:	-40 °C (-40 °F) up to 80 °C (176 °F)
Min. bending radius allowed:	single 10 x Ø
Weight approx.:	56 kg/km (38 lb/1000 ft)

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