



DATA SHEET	2170300
EtherLine®-P FLEX CAT. 5e 4 x 2 x 26 AWG	valid from : 17.06. 2005

Application

EtherLine®-P FLEX CAT. 5e 4 x 2 x 26 AWG is a halogen free, flexible **CATEGORY 5 high speed data transmission cable** suitable for application in the industrial environments to connect the (FAST-) ETHERNET network with the field bus level. It enables a through going communication from sensor-actuator-level to Internet. This data cable meets the requirements of Standards EIA/TIA-568 TSB-36 and ISO/IEC 11801 „Generic Cabling for Customer Premises“ for CLASS D Links. The high quality double screening ensures a high security during data transmission in areas with electromagnetic fields. The PUR outer sheath is resistant against mineral oils, fats, against abrasion and against atmospheric UV radiation. The cable is designed for stationary applications in dry and wet rooms and outside, as soon as freely moved without forced guidance and tensile stress.

Connectors: RJ 45 (IP 20) e. g.: Type CAT. 5, Stewart Connector Nr. 943-SP-370808 SM2
RJ 45 (IP 67) e. g.: Phoenix Contact, Harting, Woodhead

Design

Conductor stranded bare copper wire, 26 AWG; 0,14 mm² (7 x 0,16)

Insulation foam-skin, core diameter max.: 1,0 mm

Stranding cores twisted to pairs, pairs twisted to cable core

Colour code pair 1 **white/blue** - **blue**
pair 2 **white/orange** - **orange**
pair 3 **white/green** - **green**
pair 4 **white/brown** - **brown**

Screening aluminium laminated plastic foil
braid of tinned copper wires, coverage 85 % ± 5

Sheath PUR, halogen free, water blue RAL 5021

Outer diameter approx. 6,1 mm

Marking on the sheath:

LAPP KABEL STUTTGART EtherLine®-P FLEX CAT. 5 4 x 2 x 26AWG ROHS ART. 2170300

Electrical properties at 20°C

DC resistance (loop)		max. Ω/km	284
Insulation resistance		min. GΩxkm	5
Mutual capacitance at	800 Hz	nom. nF/km	48
Impedance at	1.....100 MHz	Ω	100 ± 15

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Frequency	Attenuation at [dB/10m]		Near End Cross talk (NEXT) [dB]		ACR [dB/10m]	
	max.	nom.	min.	nom.	min.	nom.
64 kHz	0,1	0,08	80	85	79,9	84,9
256 kHz	0,16	0,14	70	76	69,8	75,9
512 kHz	0,2	0,18	66	73	65,8	72,8
772 kHz	0,27	0,24	64	70	63,7	69,8
1 MHz	0,31	0,28	62	66	61,7	65,7
4 MHz	0,64	0,60	53	57	52,7	56,4
10 MHz	0,99	0,85	47	52	46,0	51,2
16 MHz	1,23	1,15	44	50	31,7	48,9
20 MHz	1,38	1,28	42	47	42,8	45,7
31,25 MHz	1,77	1,62	40	45	38,23	43,4
62,5 MHz	2,56	2,3	35	40	32,4	37,7
100 MHz	3,30	2,9	32	36	28,7	33,1

Nominal velocity of propagation		nom.	0,77c
Signal delay		nom. ns/m	4,3
Transfer impedance at 20 MHz		max.. mΩ/m	5,0
Operating voltage (not for power purposes)		peak value V	125
Test voltage	core/core	V	1000
	core/screen	V	500

Mechanical and thermal properties

Minimum bending radius	flexing	mm	95
	after installation		50
Maximum pulling force	during installation	N	50
	after installation	N	10
Permissible temperature range	during installation	°C	- 5 to +60
Working, transport, storing temp.	after installation	°C	-40 bis +80
Fire load		kWh/m	0,22
Flame propagation	flame retardant acc. to VDE 0482, part 265-2-1 / IEC 60332-1		

General properties

All materials used and during manufacturing are **free of LBS**. (e.g. silicone).

LBS = substances destructive to lacquer-coatings.

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