



DATA SHEET	2170284
EtherLine®-P FLEX CAT. 5e 2 x 2 x 26AWG	valid from : 17.06. 2005

Application

EtherLine®-P FLEX CAT. 5e 2 x 2 x 26AWG is a 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 also for outdoor use.

Connectors: RJ 45 e. g.: Type CAT. 5, Stewart Connector Nr. 943-SP-370808 SM2 (IP 20)
RJ 45 capsuled e. g.: RJ Lnx, Woodhead Connectivity (IP 65/67)

Design

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

Insulation foam-skin Polyethylene, core diameter 1,0 mm

Stranding cores twisted to pairs, pairs twisted to cable core

Colour code pair 1 **white/orange** - **orange**
pair 2 **white/green** - **green**

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

Sheath PUR, halogen free, flame retardant, water blue RAL 5021,
outer diameter approx. 5.6 mm

Marking on the sheath:

LAPP KABEL STUTTGART EtherLine®-P FLEX CAT. 5e 2 x 2 x 26AWG ROHS ART. 2170284

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 Crosstalk (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	78
	after installation		30
Permissible temperature range	during installation	°C	- 5 to +60
Working, transport, storing temp.	after installation	°C	-40 to +80
Maximum pulling force	during installation	N	30
	after installation	N	10
Fire load		kWh/m	0,17
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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