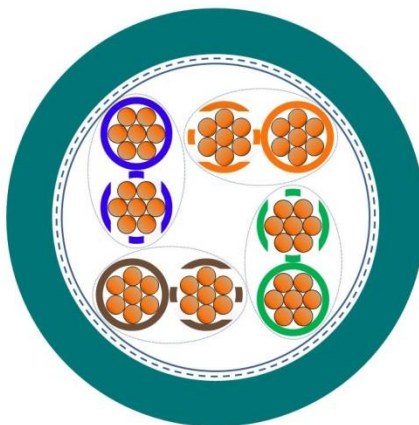


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valid from: 01.01.2019	ETHERLINE® P FLEX Cat. 5e 4x2x26/7AWG	

Application

ETHERLINE® P FLEX CAT.5e 4 x 2 x 26AWG is a halogen free, flexible CATEGORY 5e high speed data transmission cable suitable for application in the industrial environments to connect the (FAST-) ETHERNET network with the field bus level. 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 fixed installation and flexible applications without forced guidance and tensile stress.

Design



Certification	UL AWM styles 11117 and 21576 (1000 V, 80 °C) acc. to UL 758 cRU AWM I/II A/B (FT2) acc. to CSA C22.2 No.210-05
Conductor	bare copper, fine-wire stranded 26/7 AWG (7 x ca. 0.16 mm; 7 x 34 AWG), ca. 0.14 mm ²
Insulation	foam-skin polyethylene, core Ø ca. 0.95 mm
Core identification code	acc. to IEC 60708 pair 1: white(-blue)/blue; pair 2: white(-orange)/orange; pair 3: white(-green)/green; pair 4: white(-brown)/brown
Stranding	cores twisted to pairs, pairs stranded together, 1 layer non-woven tape
Screen	plastic laminated aluminum foil on top: braid of tinned copper wire, coverage ca. 85 %
Outer sheath	PUR halogen free compound, blue (similar to RAL 5021), outer Ø: ca. 6.1 mm

Electrical properties at 20°C

Loop resistance	max. 284 Ω/km
Specific volume resistivity	min. 5 GΩ x km
Mutual capacitance	nom. 48 nF/km (at 800 Hz)
Characteristic impedance	100 Ω ± 15 Ω (1 MHz bis 100 MHz)
Velocity of propagation	ca. 0,75 c
Signal transit time	<445 ns/100 m
Peak operating voltage	125 V (not for power purposes)
Test voltage	conductor/conductor 1000 V conductor/screen 500 V

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Electrical transmission properties at 20°C

f [MHz]	Attenuation [dB/100m] standard	NEXT [dB] standard	EL FEXT [dB] standard	Return Loss [dB] standard
4	6	56,3	52	23
10	9,5	50,6	43,6	25
16	12,1	47,2	39,8	25
31,25	17,1	42,9	34,1	23,3
62,5	24,8	38,4	28,1	20,8
100	32	35,3	24,0	19

Mechanical and thermal properties

Minimum bending radius	fixed installation: 8 x cable Ø sporadic movements: 15 x cable Ø
Temperature range	moved (VDE): -5° C up to +50° C fixed installation (VDE): -40° C up to +80° C moved (UL): -5° C up to +80° C fixed installation (UL): -40° C up to +80° C
Flammability	acc. to IEC 60332-1-2
Halogen free	acc. to VDE 0472-815
General requirements	This cable is conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).

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