


2170489	DATA SHEET	
valid from: 23.03.2020	ETHERLINE® FD P CAT5e 4x2x26/19 AWG	

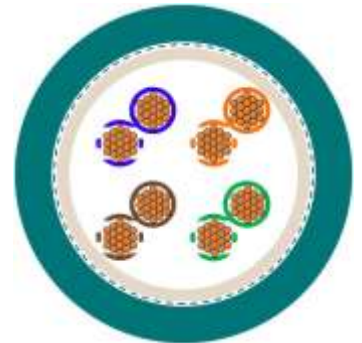
Application

Field of use: Connecting cable for generic cabling systems acc. to ISO/IEC 11801 and EN 50173

Performance: Bandwidth up to 500 MHz acc. to IEC 61156-6 Category 5e and EN 50288 2-2

Characteristics: halogen free, flame retardant, oil resistant, UV resistant and largely resistant to acids, alkalis and certain oils, the "Fast Connect" design allows easy stripping and assembly of the cable

Applications: EtherCAT, EtherNet/IP, Power over Ethernet (IEEE 802.3af) and many others



Design

Certification: UL AWM style 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
certified for CC-Link IE Field Network

Conductor: fine-wire stranded tinned copper
26/19 AWG

Insulation: geschäumtes PE,
Ader Ø: ca. 1,00 mm

Core identification code: 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

Inner sheath: halogen free TPE
outer Ø: ca. 5.2 mm

Screen: braid of tinned copper wire (coverage ca. 85 %)

Outer sheath: PUR
blue, similar RAL 5021
outer Ø: approx. 6.3 mm

Electrical properties at 20°C

Loop resistance: max. 29,0 Ω/100 m

Insulation resistance: min. 5 GΩxkm

Mutual capacitance: nom. 50 nF/km

Characteristic impedance: nom. 100 Ω acc. to IEC 61156-6


Velocity of propagation: 0.65 c

Signal propagation time: <520 ns/100 m

Peak operating voltage: VDE: 125 V (not for power purposes)
UL: 1000 V

Test voltage: core/core: 3000 V
core/screen: 3000 V

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Electrical transmission properties at 20°C

The transmission characteristics meet the requirements of the standards EN 50288-2-2 and IEC 61156-6 for category 5e. The normative requirements for the transmission properties are shown in the following table:

f [MHz]		4	10	16	20	31,25	62,5	100
(max.) Attenuation	[dB/100 m]	6	9,5	12,1	13,5	17,1	24,8	32
(min.) TCL	[dB]	34	30	28	27	25,1	22	20
(min.) EL TCTL	[dB/100 m]	23	15	10,9	9	5,1	—	—
(min.) NEXT	[dB]	56,3	50,3	47,2	45,8	42,9	38,4	35,3
(min.) PS EL FEXT	[dB/100 m]	49	41	36,9	35	31,1	25,1	21
(min.) ACR-F/EL FEXT	[dB/100 m]	52	44	39,9	38	34,1	28,1	24
(min.) Return Loss	[dB]	23	25	25	25	23,6	21,5	20,1

Mechanical and thermal properties

Minimum bending radius	fixed: 8x cable \varnothing occasional flexing: 15x cable \varnothing
Temperature range	fixed: -30 °C up to +80 °C occasional flexing: -5 °C up to +70 °C UL: 80 °C
Flammability	flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2
Halogen free	acc. to VDE 0472-815
UV resistance	acc. to ISO 4892-2, method A
Oil resistance	acc. to EN 50363-10-2
General requirements	These cables are conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances) and the LV-Directive 2014/35/EU (Low voltage Directive).
Environmental information	These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).

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