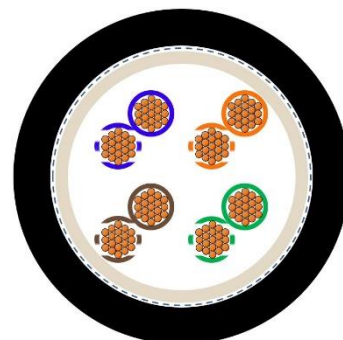


CE217489	DATA SHEET	
valid from: 29.11.2021	ETHERLINE® FD P BK CAT.5 4x2x26/19 AWG	

Application

Field of use:	Connecting cable for cabling systems acc. to ISO/IEC 11801 and EN 50173. Suitable for highly flexible applications in power chains and permanent moved machine parts. Meeting the transmission requirements of IEC 61156-6 Category 5.
Performance:	4-pair, screened twisted pair cable (S/UTP), having a nominal impedance of 100 Ω, supporting a bandwidth of 2.5 Gbit/s (e.g. 100BASE-T, 1000BASE-T, 2.5GBASE-T) over up to 60 m.
Characteristics:	Flame retardant, halogen free, UV-resistant, oil resistant, abrasion resistant, the "Fast Connect" design allows easy stripping and assembly of the cable
Applications:	EtherCAT, EtherNet/IP, CC-Link IE and others



Design

Certification	E63634 cRUus AWM Style 21576 80 °C 1000 V I/II A/B acc. to UL 758 & CSA C22.2 No.210 certified for CC-Link IE Field Network
Conductor	fine-wire stranded tinned copper 26/19 AWG
Insulation	foamed polyolefin core diameter: nom. 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	TPE outer diameter: nom. 5.2 mm
Screen	braid of tinned copper wire (coverage ca. 85 %)
Outer sheath	PUR black, similar RAL 9005 outer diameter: 6.3 mm (± 0.3 mm)

Electrical properties at 20 °C

Loop resistance	≤ 28.0 Ω/100 m
Insulation resistance	≥ 5 GΩ×km
Mutual capacitance	800 Hz: 50 nF/100 m
Characteristic impedance	100 MHz: 100 Ω acc. to IEC 61156-6
Velocity of propagation	100 MHz: 0.74c
Signal propagation time	4 MHz up to 500 MHz: ≤ 520 ns/100 m
Delay skew	4 MHz up to 500 MHz: ≤ 25 ns/100 m
Maximum operating voltage	IEC/EN: 100 V (not for power applications)
Rated voltage	UL/CSA: 1000 V acc. to UL 758 & CSA 22.2 No.210
Test voltage	core/core: 3000 V core/screen: 3000 V

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Electrical transmission properties at 20°C

f [MHz]	max. Attenuation [dB/100m] standard	min. NEXT [dB] standard	min. EL FEXT [dB] standard	min. Return Loss [dB] standard
4	4,1	56,3	52	23
10	6,7	50	43,3	25
16	8,3	47,2	40	25
31,25	11,7	42,8	34	23,6
62,5	17	38,4	28,1	21,6
100	22	35,3	24	20,1

Mechanical and thermal properties

Minimum bending radius	fixed installation: 8 × outer diameter flexing: 15 × outer diameter
Temperature range	fixed installation: -40 °C up to +80 °C flexing: -20 °C up to +50 °C UL/CSA: 80 °C
Flammability	flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2 FT2 acc. to UL 1581 §1100
Halogen free	acc. to IEC 60754-1 resp. EN 60754-1
UV resistance	acc. to ISO 4892-2, method A
Oil resistance	acc. to EN 50363-10-2

General requirements

This cable is conform to EU-Directive 2014/35/EU (Low Voltage Directive) and to EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).

Environmental information

These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).

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