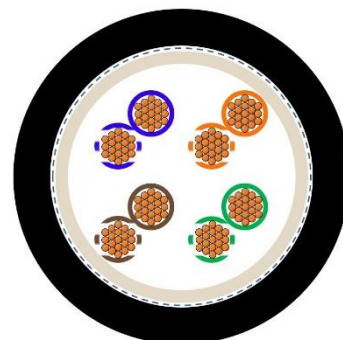


<b>CE217489</b>	<b>DATA SHEET</b>	
<b>valid from: 29.11.2021</b>	<b>ETHERLINE® FD P BK CAT.5 4x2x26/19 AWG</b>	

## 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
<b>4</b>	4,1	56,3	52	23
<b>10</b>	6,7	50	43,3	25
<b>16</b>	8,3	47,2	40	25
<b>31,25</b>	11,7	42,8	34	23,6
<b>62,5</b>	17	38,4	28,1	21,6
<b>100</b>	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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