

2170934	DATA SHEET	
valid from: 01.01.2019	ETHERLINE® Cat. 7 FLEX 4x2x26 AWG	

Application

ETHERLINE® Cat. 7 FLEX is a flexible CATEGORY 7 high speed data cable of halogen free materials for industrial usage. The screening ensures high transmission reliability in areas with a high load of electromagnetic capacity. The PUR jacket is resistant against mineral oils and abrasion. The cable is designed for applications with torsional stress in dry and damp areas.

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.210-15
Conductor	fine-wired stranded bare copper 7 x 0.16 mm Ø 0.14 mm² (26 AWG)
Insulation	foam-skin polyolefin ca. 1.0 mm core diameter
Core identification code	pair 1: white/blue + blue, pair 2: white/orange + orange, pair 3: white/green + green, pair 4: white/brown + brown
Stranding	foam-skin polyolefin ca. 1.0 mm core diameter, Pair screening Plastic laminated aluminum foil, screened pairs stranded to bundle
Screen	braid of copper wire tinned wire coverage min. 70 %
Taping	non-woven tape
Outer sheath	PUR compound green similar to RAL 6018 outer Ø: approx. 6.4 mm

Electrical properties at 20°C

Conductor resistance	max. 150.0 Ω/km acc. to UL 1581
Insulation resistance	min. 5 GΩ x km
Mutual capacitance	nom. 46 nF/km at 800 Hz
Characteristic impedance	nom. 100 Ω acc. to IEC 61156-6
Velocity of propagation	approx. 0.78 c
Peak operating voltage	125 V (not for power purposes)
Test voltage	conductor/conductor 1000 V conductor/screen 1000 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	5,6	75	78	23
10	8,8	75	74	25
16	11,1	75	69,9	25
31,25	15,8	75	64,3	23,3
62,5	22,2	75	58,3	20,8
100	28,6	72,2	54	19
200	41,2	67,9	48	16,5
250	46,4	66,5	46	15,6
300	51,2	65,2	44,5	14,9
350	55,8	64,2	43,1	14,3
500	67,9	62	40,1	13
600	75,2	60,8	38,4	12,3

Mechanical and thermal properties

Minimum bending radius	moved: 10 x cable Ø fixed installation: 4 x cable Ø
Temperature range	moved: -40 °C up to +80 °C fixed installation: -50 °C up to +80 °C
Flammability	flame retardant acc. to IEC 60332-1-2; FT2 flame test acc. to UL 1581 and UL 2556
Halogen free	Dangerous and forbidden substances acc. to RoHS directive (2011/65/EU)
Oil resistance	oil resistant acc. to IEC 60811-404; EN 50363-10-2
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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