

2170530	DATA SHEET	
valid from: 01.01.2019	ETHERLINE® H FLEX CAT. 5e	

Application

ETHERLINE® H FLEX CAT. 5e 2 x 2 x 26 AWG is a flexible CATEGORY 5e high speed data transmission cable for industrial applications. 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 cable is designed for flexible and fixed installation in dry and damp interiors.

Design

Conductor	bare stranded copper, ca. 0.14 mm ² (7 x 0.16 mm; 7/34 AWG), 26/7 AWG
Insulation	foam skin PE, ca. 0.95 mm core diameter
Core identification code	pair 1: white/orange-orange; pair 2: white/green-green
Stranding	cores twisted to pair, pairs twisted to bundle
Screen	plastic-laminated aluminum foil on top: braid of copper wire, tinned wire, coverage ca. 85 %
Taping	Wrapping non-woven tape
Outer sheath	halogen free compound, blue similar to RAL 5021, outer diameter: ca. 5.6 mm

Electrical properties at 20°C

Conductor resistance	max. 284 Ω/km
Insulation resistance	min. 5 GΩ xkm
Mutual capacitance	nom. 48 nF/km (at 800 Hz)
Characteristic impedance	100 Ω ± 15 Ω (1MHz up to 100 MHz)
Attenuation	1 MHz: nom. 1.6 dB/100 m 5 MHz: nom. 3.4 dB/100 m 10 MHz: nom. 5.6 dB/100 m 16 MHz: nom. 7.5 dB/100 m
Velocity of propagation	ca. 0.77 c
Signal transit time	<430 ns/100m
Peak operating voltage	125 V (not for power purposes)
Test voltage	conductor/conductor 1000 V conductor/screen 500 V

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

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Mechanical and thermal properties

Temperature range

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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