

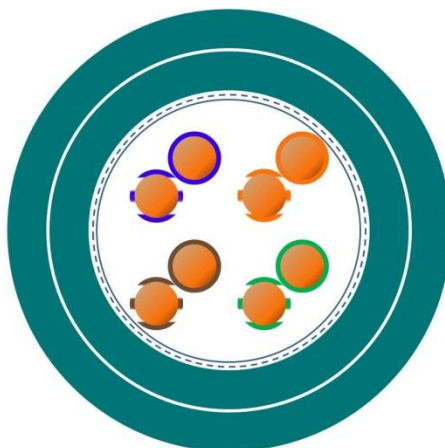
2170298	DATA SHEET	
valid from: 01.01.2019	ETHERLINE® H-H CAT.5e 4 x 2 x 24 AWG	

Application

ETHERLINE® H-H CAT. 5e 4 x 2 x 24AWG is a halogen free CATEGORY 5e high speed data transmission cable suitable for application in the industrial environments to connect the (FAST-) ETHERNET network with the field bus level. It enables a through going communication from sensor-actuator-level to Internet.

This data cable meets the requirements of Standards ISO/IEC 11801 second edition, EN 50173, EN 50288-2-1 as well as EIA/TIA-568B. The high quality double screening ensures a high security during data transmission in areas with electromagnetic fields. The outer sheath is easily strippable from the inner sheath; with the inner sheath is the cable RJ 45 compatible. The cable is designed for stationary applications in dry and wet rooms.

Design



Conductor	solid bare copper wire, 0.51 mm ² ; (24AWG)
Insulation	foam-skin, core diameter max.: 1,0 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 twisted to cable core
Inner sheath	halogen free compound, HM 2 in acc. to VDE 0207, water blue RAL 5021 outer diameter approx. 6,0 mm
Screen	aluminium laminated plastic foil braid of tinned copper wires, coverage 85 % ± 5
Outer sheath	halogen free compound, HM 2 in acc. to VDE 0207, water blue RAL 5021 Outer sheath is easily strippable from the inner sheath Outer diameter approx. 7.5 mm

Electrical properties at 20°C

Loop resistance	max. 192 Ω/km
Insulation resistance	min. 5 GΩxkm
Mutual capacitance	nom. 48 nF/km
Characteristic impedance	1 to 100 MHz Ω 100 ± 15
Velocity of propagation	ca. 0.77 c
Signal transit time	nom. 4,3 ns/m
Transfer impedance	max. 10 mΩ/m
Peak operating voltage	125 V (not for power purposes)
Test voltage	conductor/conductor 1000 V conductor/screen 500 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	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	after installation with outer sheath mm 60 without outer Sheath mm 45
Temperature range	during installation -5° C up to +60° C after installation -30° C up to +80° C
Burning load	kWh/m 0,48
Flammability	flame retardant acc. to VDE 0482, part 265-2-1 / IEC 60332-1
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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