

2170430	DATA SHEET	
valid from: 01.01.2019	ETHERLINE® Y EC FLEX Cat. 5e	

Application

ETHERLINE® Y EC FLEX Cat. 5e is a flexible CATEGORY 5e high speed data transmission cable for industrial environments. The high quality screen ensures high transmission reliability of data transfer in electromagnetically polluted areas.

Design



Certification	c(UL)us type CMX 75 °C acc. to UL 444
Conductor	tinned stranded copper, 26/7 AWG
Insulation	polyolefin, core Ø ca. 1.03 mm
Core identification code	orange-orange/white; green-green/white
Stranding	star quad with optional filler PET tape
Screen	plastic laminated aluminum foil on top: braid of copper wire, coverage ca. 85 %
Outer sheath	PVC compound, green (similar to RAL 6018), outer Ø ca. 4.8 mm

Electrical properties at 20°C

Conductor resistance	max. 145 Ω/km
Specific volume resistivity	min. 2 GΩxkm
Mutual capacitance	nom 53 pF/m
Velocity of propagation	ca. 0,67 c
Signal transit time	nom. 500 ns/100 m
Peak operating voltage	50 V
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	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

Mechanical and thermal properties

Minimum bending radius	moved: 8 x cable Ø fixed installation: 4 x cable Ø
Temperature range	moved: -5° C up to +50° C fixed installation: -30° C up to +80° C
Flammability	VW-1 flame test, acc. to UL 1581 / UL 2556
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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