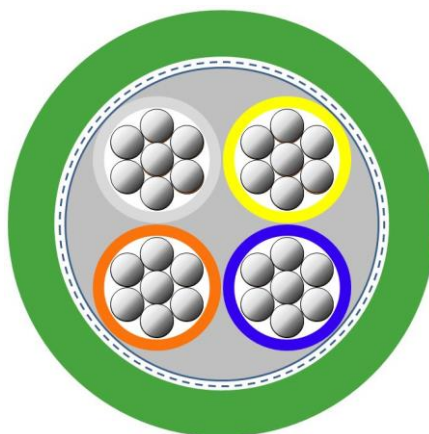


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Application

ETHERLINE® PN Cat.5e FRNC FLEX FC is a CATEGORY 5e high speed data cable for industrial usage. The screening ensures high transmission reliability in areas with a high load of electromagnetic capacity. The cable is sunlight resistant and flame retardant.

Design



Certification	(UL) PLTC, c(UL)us CMG 75 °C
Conductor	tinned copper wires, conductor $\varnothing$ approx. 0.75mm or AWG 22/7
Insulation	PP compound
Core identification code	Pair 1: white- blue Pair 2: yellow - orange
Stranding	Star quad
Inner sheath	FRNC compound
Screen	Aluminum laminated plastic foil on top: Braiding of tinned copper wires Coverage approx. 85%
Outer sheath	FRNC compound outer $\varnothing$: approx. 6.5 mm color: green, similar to RAL 6018

Electrical properties at 20°C

Loop resistance	max. 120,0 Ω /km
Insulation resistance	min. 5 G Ω x km
Characteristic impedance	nom. 100 Ω $\pm$ 15 Ω acc. to IEC 61156-5
Velocity of propagation	approx. 0.67 c
Peak operating voltage	100 V (not for power purposes)
Test voltage	conductor/conductor 700 V conductor/screen 700 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	flexible use: 7.5 x cable Ø fixed installation: 3 x cable Ø
Temperature range	flexible use: 0 °C up to +50 °C fixed installation: -40 °C up to +80 °C
Flammability	FT4-Test in acc. to UL1685
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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