



ETHERLINE® Y FC Cat. 5

DB2170893

valid from: 05.11.2012

Application

ETHERLINE® Y FC Cat. 5 is a CATEGORY 5 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.

Approvals: (UL) PLTC, c(UL)us CMG 75 °C, UL AWM Style 21694

Design

Conductor	bare copper-wire ca. 0.64 mm \varnothing (22 AWG)
Insulation	PE, ca. 1.5 mm outer \varnothing
Core identification code	acc. to IEC 708-1: white, yellow, blue, orange
Stranding	star quad (optional with central filler)
Wrapping	plastic tape (overlapping)
Inner sheath	PVC
Screening	plastic laminated aluminum foil (overlapping) <u>on top:</u> braid of copper wire tinned wire, coverage ca. 85 %
Outer sheath	PVC, green similar to RAL 6018, wall thickness ca. 0.9 mm, outer \varnothing : ca. 6.5 mm

Electrical properties at 20° C

Resistance (loop)	max. 115 Ω /km
Insulation resistance	min. 500 M Ω xkm
Characteristic impedance	100 Ω \pm 15 Ω (1MHz up to 100 MHz)
UL-rating	600 V
Signal propagation time	<5.3 ns/m
Test voltage (rms 50 Hz, 1 minute)	core/core: 2000 V core/screening: 2000 V

Transmission properties

f [MHz]	Attenuation max. [dB/100m]	NEXT [dB/100m]
1	2.1	65.3
4	4.0	56.3
10	6.3	50.3
16	8.0	47.2
20	9.0	45.8
31.25	11.4	42.9
62.5	16.5	38.4
100	21.3	35.3

Electrical requirements acc. to EN 50288-2-1



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Mechanical and thermal properties

Minimum bending radius	during laying: 15 x cable \varnothing fixed installation: 10 x cable \varnothing
Permissible temperature range	during laying: -20° C up to +60° C fixed installation: -40° C up to +80° C
Sunlight resistance	sunlight resistant acc. to UL 1581 Sec. 1200
Flame propagation	flame retardant acc. to UL 1685 (CSA FT 4)
General requirements	Dangerous and forbidden substances acc. to RoHS directive (2002/95/EG) are not allowed to the manufacturing.