

## ETHERLINE® PN Cat. 5 Y FLEX FC

DB2170886  
valid from: 20.04.2012**Application**

ETHERLINE® PN Cat. 5 Y FLEX FC is a flexible CATEGORY 5 high speed data cable. The high quality screening ensures a high transmission reliability in areas with a high load of electromagnetic capacity. The cable is sunlight resistant, oil resistant and flame retardant.

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

**Design**

Conductor	bare copper, fine-wire stranded (7 x 0.25 mm $\varnothing$ ), ca. 0.75 mm conductor $\varnothing$
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. 120 $\Omega$
Insulation resistance	min. 500 M $\Omega$ xkm
Characteristic impedance	100 $\Omega$ $\pm$ 15 $\Omega$ (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	56.3
10	6.3	50.3
16	8	47.2
20	9	45.8
31.25	11.4	42.9
62.5	16.5	38.4
100	21.3	35.3



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**Mechanical and thermal properties**

Minimum bending radius	moved: 15 x cable $\varnothing$ fixed installation: 10 x cable $\varnothing$
Permissible temperature range	moved: -20° C up to +60° C fixed installation: -40° C up to +80° C
Sunlight resistance	sunlight resistant acc. to UL 1581 Sec. 1200
Oil resistance	oil resistant acc. to UL 1581 Sec. 480 (60 °C)
Flame propagation	flame retardant acc. to UL 1685 (CSA FT4)
General requirements	Dangerous and forbidden substances acc. to RoHS directive (2002/95/EG) are not allowed to the manufacturing.