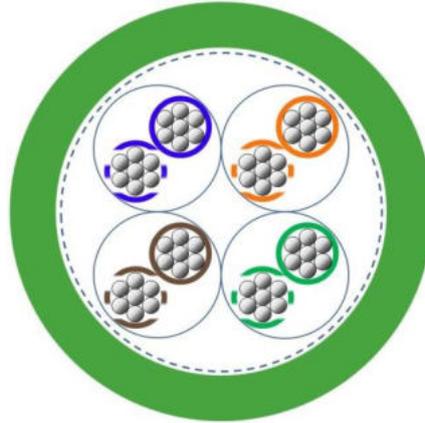


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Application

ETHERLINE® PN Cat.6A Y FLEX is a Cat.6A high speed data cable for industrial usage. It fulfills the requirements of the PROFINET CABLE SPECIFICATION TYPE B which is intended for flexible use. This cable is an excellent choice for LAN- and ETHERNET-cabling in acc. with IEEE802.3 up to 10GBase-T. The screening ensures high transmission reliability in areas with a high load of electromagnetic capacity. The cable construction is chosen to meet the requirements for following standards: IEC 61156-5/ISO/IEC 11801 and EN 50173-1

Design



Certification	c(UL)us Listing Type CMG 75 °C acc. to UL 444 ECOLAB certified
Conductor	flexible tinned copper wires, conductor 0.27mm ² or AWG 23/7
Insulation	Foam-Skin Polyolefin
Core identification code	Pair 1: white- blue Pair 2: white - orange Pair 3: white- green Pair 4: white - brown
Stranding	two cores stranded to pairs and covered with aluminum laminated plastic foil (pair screening) four screened pairs stranded together as the cable core
Screen	Braiding of tinned copper wires Coverage approx. 85%
Outer sheath	Special PVC-compound outer ϕ : approx. 8.8 mm color: green, similar to RAL 6018

Electrical properties at 20°C

Loop resistance	max. 143,8 Ω /km
Insulation resistance	min. 5 G Ω x km
Mutual capacitance	nom. 44 nF/km at 1 kHz
Characteristic impedance	nom. 100 Ω acc. to IEC 61156-5
Peak operating voltage	125 V (not for power purposes)
Rated voltage	300 V (not for power purposes)
Test voltage	conductor/conductor 1050 V conductor/screen 1050 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	3,8	66,3	56	23
10	6,5	59,4	46,8	25
16	7,6	57,4	44,1	25
31,25	10,4	53	39	23,6
62,5	14,9	48,4	32,1	21,6
100	19,4	45,1	27,9	20,1
200	27,6	40,7	22	18
250	31,1	39,3	20	17,3
300	34,2	38,2	18,5	17,3
350	37,2	37,1	17,1	17,3
500	45,3	34,8	14	17,3

Mechanical and thermal properties

Minimum bending radius	moved: 15 x cable Ø fixed installation: 8 x cable Ø
Temperature range	moved: -10° C up to +70° C fixed installation: -40° C up to +80° C
Flammability	FT4 Vertical-Tray Flame Test acc. to UL1685
Oil resistance	Oil resistant I acc. to UL1581
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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