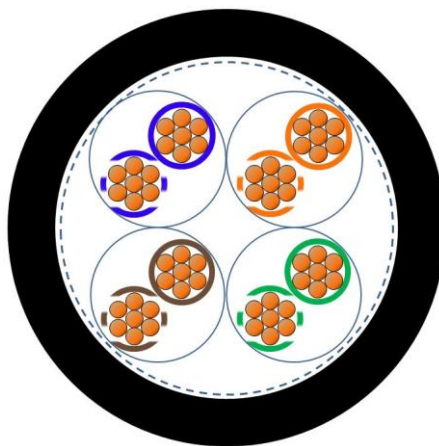


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Application

ETHERLINE® ROBUST PN FR Cat. 7 is a flame retardant CATEGORY 7 high speed data transmission cable for industrial environments. This data cable meets the requirements of Standards EIA/TIA-568, TSB-36 and ISO/IEC 11801 „Generic Cabling for Customer Premises“. The high quality screen ensures high transmission reliability of data transfer in electromagnetically polluted areas.

Design



Conductor	bare stranded copper, 23/7 AWG
Insulation	foam-skin polyolefin, core Ø ca. 1.5 mm
Core identification code	4 x 2 blue-white/blue; orange-white/orange; green-white/green; brown-white/brown or blue-white; orange-white; green-white; brown-white
Stranding	two cores stranded to pair; 4 pairs stranded together (optional stranding cross)
Screen	plastic laminated aluminum foil around each pair, braid of copper wire, coverage ca. 85 %
Outer sheath	flame retardant TPE-V special compound, black (similar to RAL 9005), outer Ø ca. 8,7 mm

Electrical properties at 20°C

Conductor resistance	max. 142 Ω/km
Specific volume resistivity	min. 5 GΩxkm
Velocity of propagation	ca. 0,71 c
Signal transit time	nom. 470 ns/100 m
Peak operating voltage	125 V (not for power purposes)
Test voltage	conductor/conductor 1000 V conductor/screen 1000 V

AbN
automation

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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	5,6	75	78	23
10	8,8	75	74	25
16	11,1	75	69,9	25
31,25	15,8	75	64,3	23,3
62,5	22,2	75	58,3	20,8
100	28,6	72,2	54	19
200	41,2	67,9	48	16,5
250	46,4	66,5	46	15,6
300	51,2	65,2	44,5	14,9
350	55,8	64,2	43,1	14,3
500	67,9	62	40,1	13
600	75,2	60,8	38,4	12,3

Mechanical and thermal properties

Minimum bending radius	moved: 10 x cable $\varnothing$ fixed installation: 8 x cable $\varnothing$
Temperature range	moved: -40° C up to +80° C fixed installation: -50° C up to +80° C
Flammability	acc. to 60332-1-2
UV resistance	acc. to EN 50525-1 / VDE 0285-525-1: Cables with black sheath are suitable for per-manent outdoor use. VDE 0276-605, EN ISO 4892-2-2013, method A (change of colour allowed)
Ozone resistance	acc. to VDE 0473-396 / EN 50396, method B
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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