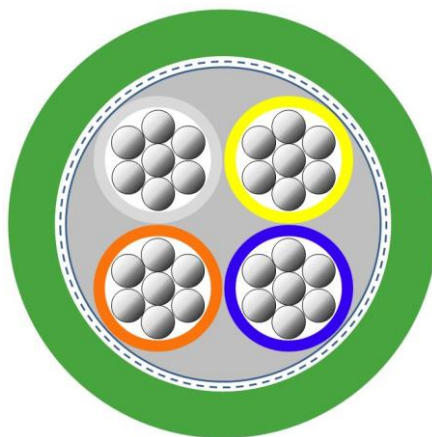


2170889	DATA SHEET	
valid from: 01.01.2019	ETHERLINE® MARINE FRNC FC CAT.5	

Application

Industrial Ethernet CAT.5 cable for Marine and Offshore applications.

Design



Certification	(UL) PLTC, c(UL)us CMG 75 °C Approved for Marine and Offshore Applications Germanischer Lloyd Lloyds Register of Shipping ABS Europe Ltd Det Norske Veritas (DNV)
Conductor	fine- stranded tinned copper wires AWG22/7
Insulation	nsulation of Polypropylene (PP) ca. 1.5 mm outer Ø
Core identification code	WH-YE-BU-OG
Stranding	star quad (optional with central filler) with plastic tape
Inner sheath	FRNC
Screen	plastic laminated aluminum foil (overlapping) on top: braid of copper wire, tinned wire, coverage ca. 85 %
Outer sheath	FRNC compound green similar to RAL 6018 outer Ø: ca. 6.5 mm

Electrical properties at 20°C

Loop resistance	max. 120 Ω/km
Insulation resistance	min. 5 GΩxkm
Characteristic impedance	100 Ω ± 15 Ω (1MHz up to 100 MHz)
Velocity of propagation	0,67 c
Signal transit time	<5,3 ns/m
Peak operating voltage	125 V
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]	NEXT [dB]	EL FEXT [dB]	Return Loss [dB]
	standard	standard	standard	standard
1		52	64	64
4	4	44,3	52	52
10	6,4	39,8	44	44
16	8,1	37,6	39,9	39,9
31,25	11,4	34,6	34,1	34,1
62,5	16,5	31,5	28,1	28,1
100	21,4	29,4	24	24

Mechanical and thermal properties

Minimum bending radius	moved: 7,5 x cable Ø fixed installation: 3 x cable Ø
Temperature range	moved: 0° C up to +50° C fixed installation: -25° C up to +70° C
Flammability	flame retardant acc. to UL 1685 (CSA FT 4), IEC60332-3-22
Halogen free	acc. to IEC60754-1
Corrosivity of gases	acc. to IEC60754-2
UV resistance	sunlight resistant acc. to UL 1581 Sec. 1200
Oil resistance	limited oil resistant
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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