

# LanMarin® Cat 5E

**S/FTP**  
**AWG 24/7 Flexible**  
**SHF1, UV**  
**DNV**

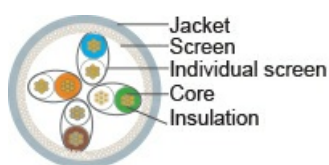
## Application

Individual and collective screened LAN-cable, designed for ship- and offshore applications. The cable is used for datatransmission with characteristic impedance for 100Ω and 100 MHz bandwidth. Ethernet IEEE 802.3at-2009 Type 2 (PoE+). This cable can be used in rough environments. LAN cable, designed for ship- and offshore applications. Tinned Cu-connectors and braid, SHF1 jacket.



## Construction

Conductor	0.22 [mm <sup>2</sup> ] Stranded tinned Cu AWG 24/7
Insulation	Foam PE Ø = 1.4 [mm]
No. of pairs	4
Colour code	Pair 1: Blue - White/Blue Pair 2: Orange - White/Orange Pair 3: Green - White/Green Pair 4: Brown - White/Brown
Individual Screen pairs	Al/Mylar tape
Screen	Tinned Cu-braid ≥ 80 [% coverage]
Jacket	Grey SHF1
O.D.	8.4 [mm]
Weight	68 [kg/km]
Jacket marking	NEK Kabel – LanMarin Cat 5E S/FTP 4 x 2 x AWG24/7 – SHF1 – IEC 60332-3-22 – DD/MM/YY – ****M



## Specifications

Operating temperature normal	-40 – +80 [°C]
Temperature @ installation	-20 – +60 [°C]
Dielectric strength	DC 1kV for 1min.
Characteristic impedance	100 ± 5 Ω
Conductor resistance	≤ 84 [Ω/km]
Resistance unbalance	≤ 5 [%]
Insulation resistance	≥ 5000 [MΩ x km]
Power over Ethernet	IEEE 802.3at-2009 Type 2 (PoE+)
Rated voltage	≥ 80 [V]
Capacitance unbalance	≤ 1600 [pF/km] @800 or 1000Hz
Min. bending radius	10 [x outer diam]

## Norms

Halogenfree, max content corrosive and toxic gases	IEC 60754-1 & IEC 60754-2
Material properties, insulation and sheath	IEC 60092-360 (359)
Transmission performance	IEC 61156-6
Flame resistance	IEC 60332-3-22 Cat.A
Flame retardant	IEC 60332-1-2
Smoke emission	IEC 61034-2 ( ≥ 60 % )
Oil and fuel resistant	IRM 902 23°C / 7 days, 70°C / 4h
UV-resistant	UL 1581 (300H)
Certification	DNV



Prod.no.	1089606 Alt. 1 Arctic grade, 1089614 Alt. 2 MUD, 1089607
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## Attenuation

Freq. [MHz]	Att. std [dB]	Att.typ [dB]	RL std [dB]	RLtyp [dB]	NEXTst [dB]	NEXTtyp [dB]	PSNEXTstd [dB]	PSNEXT typ [dB]	ELFEXT std [dB]	ELFEXT typ [dB]
4	6.01	4.10	23.0	25.0	56.3	99.0	5.,3	96.0	52.0	91.0
8	8.48	5.65	24.5	26.5	51.8	98.0	48.8	95.0	45.9	89.0
10	9.49	6.32	25.0	28.0	50.3	96.0	47.3	93.0	44.0	86.0
16	12.07	8.05	25.0	28.0	47.2	93.0	44.2	90.0	39.9	83.0
20	13.54	9.11	25.0	28.0	45.8	93.0	42.8	90.0	38.0	81.0
25	15.22	10.28	24.2	27.5	44.3	93.0	41.3	90.0	36.0	79.0
31.25	17.11	11.58	23.3	27.0	42.9	88.0	39.9	85.0	34.1	74.0
62.5	24.76	16.60	20.7	24.0	38.4	83.0	35.4	80.0	28.1	69.0
100	31.99	21.18	19.0	22.0	35.3	83.0	32.3	80.0	24.0	63.0

## Updated

Date	Rev.	Description
Sept. 2016	1	Improved electrical data
24.05.2019	2	Renewal