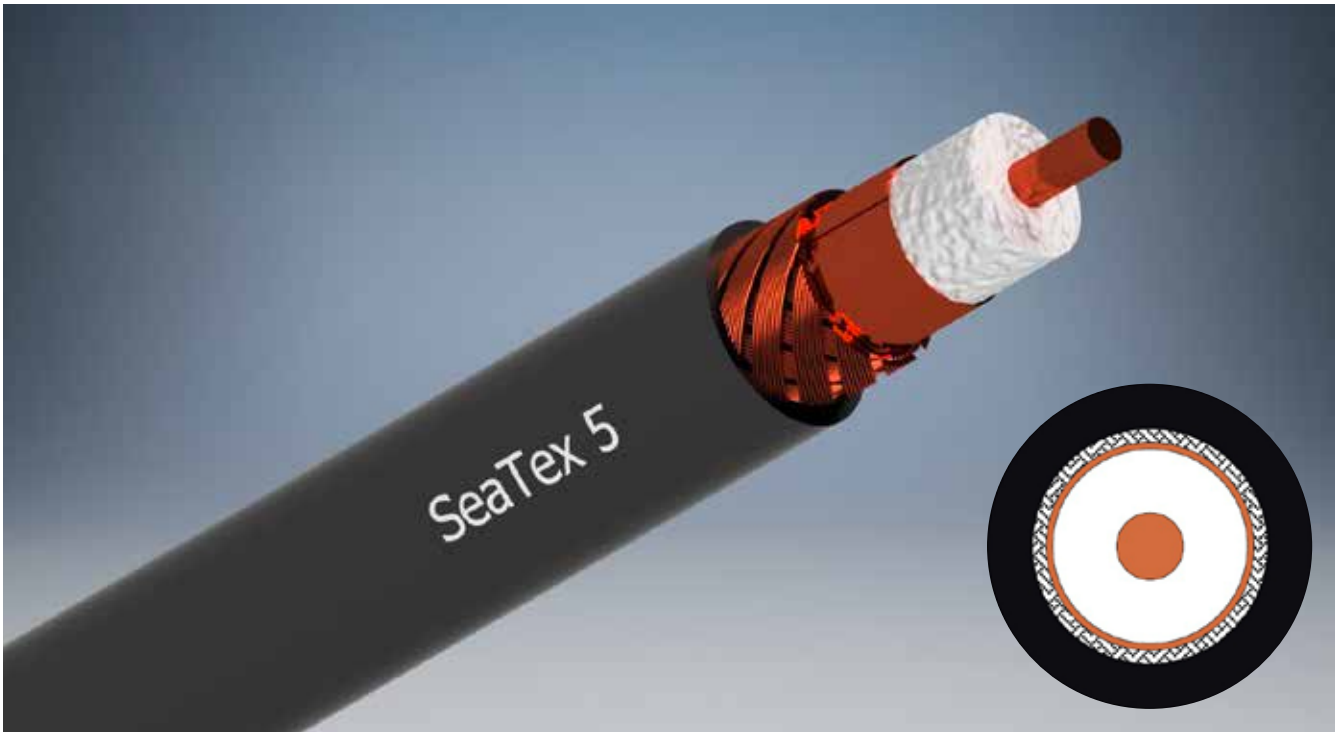
SeaTex® 5

thin, low loss and stray radiation resistant and designed for marine applications



SeaTex 5 is a very flexible low loss and halogen-free communications coaxial cable perfectly designed to use for marine and offshore applications. It is worldwide approved for ship building (DNV GL certificate) and is suitable for use on ships, oil platforms, wind turbines and the entire maritime area. The jacket of the SeaTex 5 is made of a special thermoplastic copolymer (SHF2), which ensures that the cable is highly resistant to heat, cold, oils, salt-water, UV radiation and has a long service life in harsh environmental conditions.

The design of the SeaTex 5 is based on the successful Aircell 5 coaxial cable. It has excellent attenuation values, its flexibility and its small bending radius allow installation in limited spaces. Thus SeaTex 5 combines the advantages of Aircell coaxial cables with the special requirements in marine area. The product is specified up to 10 GHz and can be used in a temperature range from -55°C to 85°C.

Key features

Diameter	5,0 ± 0,2 mm
Impedance	50 ± 2 Ω
Attenuation at 1 GHz/100 m	31,09 dB
f max	**10 GHz**

Characteristics

- Insulating material according to DIN EN 50290-2-23 (VDE 0819), table 2/A (HD 624.3)
- Jacket material according to IEC 60092-360 (IEC 60092-359) SHF2
- Wall thickness of cable jacket according to IEC 60092-376
- Flame retardant according to IEC 60332-3-22 (Cat. A)
- Flame retardant according to IEC 60332-1-2
- Oil resistant according to EN 60811-2-1 (24 hours/100°C)
- RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3)
- Low Smoke, Fire retardant, Zero Halogen (LSZH)
- Corrosivity of fumes according to IEC 60754-2
- Smoke density according to IEC 61034
- UV-resistant
- Approved for marine and offshore applications
- DNV GL Certificate No. TAE00001JX

DNV·GL

SHF 2

Technical data

Inner conductor	bare copper wire
Inner conductor Ø	1 x 1,13 mm
Dielectric	foamed Polyethylene (PE) with skin
Dielectric Ø	3,1 mm
Outer conductor 1	copper foil overlapped
Shielding factor	100%
Outer conductor 2	shield braiding of bare copper wires
Shielding factor	70%
Outer conductor Ø	3,7 mm
Jacket	special thermoplastic copolymer (SHF2) black
Weight	36 kg/km
Min. Bending radius	4XØ single, 8XØ repeated
Temperature range	-55 to +85°C Transport & fixed installation -40 to +85°C Flexible use
Pulling strength	150 N

Electrical data at 20°C

Capacity (1 kHz)	78 nF/km
Velocity factor	0,85
Screening attenuation 1 GHz	≥ 90 dB
DC-resistance Inner conductor	≤ 20,5 Ω/km
DC-resistance Outer conductor	17 Ω/km
Insulation resistance	≥ 10 GΩ*km
Test voltage (Inner conductor/Outer conductor rms 50 Hz 1 Min.)	1000 V
Max. Voltage	2,5 kV

	SeaTex 5	RG 58/U	RG 213/U
Capacity	78 pF/m	102 pF/m	101 pF/m
Velocity factor	0,85	0,66	0,66
Attenuation (dB/100m)			
10 MHz	2,93	5,00	2,00
100 MHz	9,40	17,00	7,00
500 MHz	21,57	39,00	17,00
1000 MHz	31,09	54,60	22,50
3000 MHz	56,39	118,00	58,50

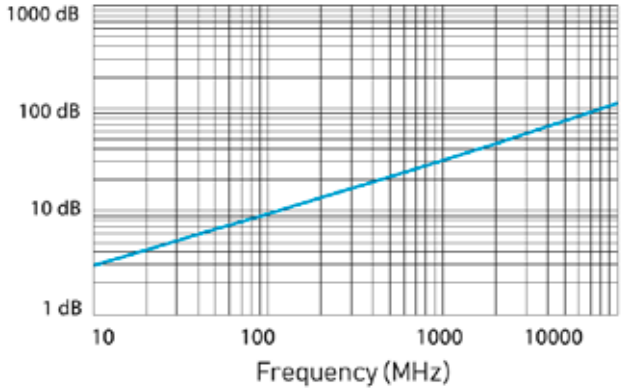
Typ. Attenuation (db/100 m at 20°C)

5 MHz	2,07	1000 MHz	31,09
10 MHz	2,93	1296 MHz	35,71
50 MHz	6,61	1500 MHz	38,63
100 MHz	9,40	1800 MHz	42,63
144 MHz	11,33	2000 MHz	45,14
200 MHz	13,41	2400 MHz	49,87
300 MHz	16,53	3000 MHz	56,39
432 MHz	19,99	4000 MHz	66,19
500 MHz	21,57	5000 MHz	75,05
800 MHz	27,62	6000 MHz	83,00
		10000 MHz	112,00

Max. Power handling (W at 40°C)

10 MHz	1.885	3000 MHz	98
100 MHz	587	4000 MHz	83
500 MHz	256	5000 MHz	74
1000 MHz	178	6000 MHz	66
2000 MHz	122	10000 MHz	49

Typ. Attenuation (db/100 m at 20°C)



Typ. Return loss