

Hydrophone TC4059

Ultra Broadband Spherical Hydrophone



The TC4059 broadband spherical hydrophone provides uniform omnidirectional characteristics over a wide frequency range of 1Hz to 480kHz.

The overall receiving characteristics make the TC4059 an ideal transducer for making absolute underwater sound measurements up to 480kHz. The wide frequency range also makes the TC4059 perfect for calibration purposes, particularly in higher frequencies.

TC4059 is provided with a titanium base with O-ring seals for easy installation on underwater electronic cans or housings.

NBR means Nitrile Rubber

The NBR rubber is first of all resistant to sea and fresh water but also resistant to oil. It is limited resistant to petrol, limited resistant to most acids and will be destroyed by base, strong acids, halogenated hydrocarbons (carbon tetrachloride, trichloroethylene), nitro hydrocarbons (nitrobenzene, aniline), phosphate ester hydraulic fluids, Ketones (MEK, acetone), Ozone and automotive brake fluid.

TECHNICAL SPECIFICATIONS

Usable frequency range:	1Hz to 480kHz
Linear frequency range:	1Hz to 250kHz (+2, -4dB)
Receiving sensitivity:	(re 1V/μPa) -213dB ±3dB (at 250Hz)
Horizontal directivity:	Omnidirectional ±2dB (at 100kHz)
Vertical directivity:	>240° ±4dB (at 300kHz)
Nominal capacitance:	1.7nF
Operating depth:	900m
Survival Depth:	1200m
Operating temperature range:	-2°C to +55°C
Storage temperature range:	-40°C to +80°C
Weight incl. cable (in air):	52g
Cable (length and type):	RG178BU - length 200mm
Encapsulating material:	Special formulated NBR
Metal body:	Titanium grade 2
Connector type:	N/A - Pigtail



PRODUCT BENEFITS

- Omnidirectional in the full frequency range
- Extreme wide frequency range
- Durable construction combined with long-term stability - a sensor you can rely on for long-term deployment
- Individually calibrated - reducing measurement uncertainty
- Ready for OEM integration - save time and money with a tested and proven mechanical interface

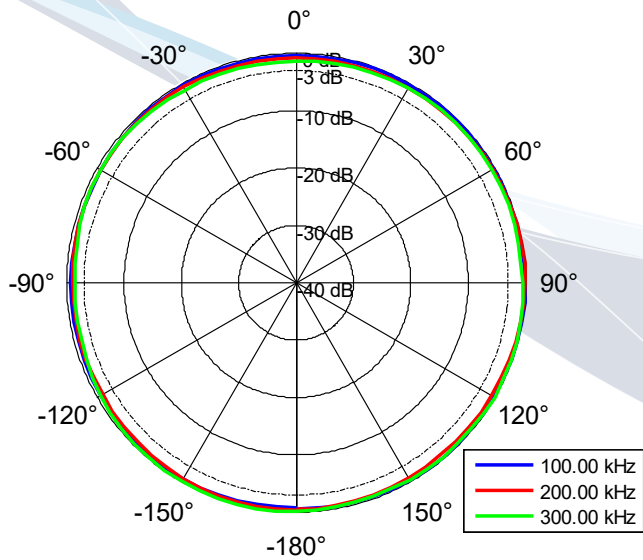


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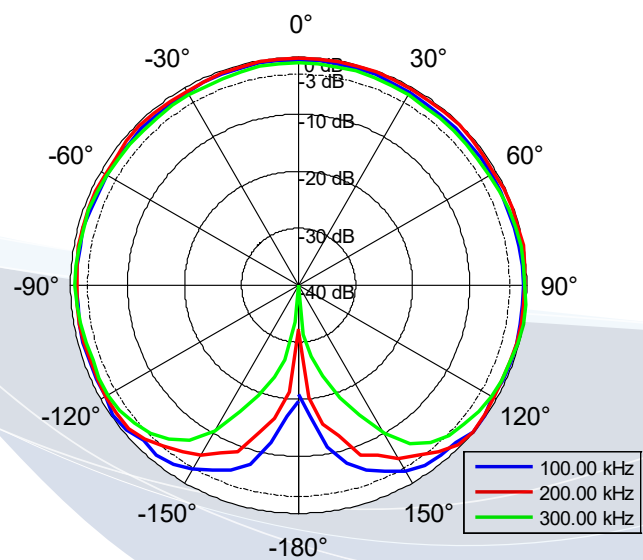
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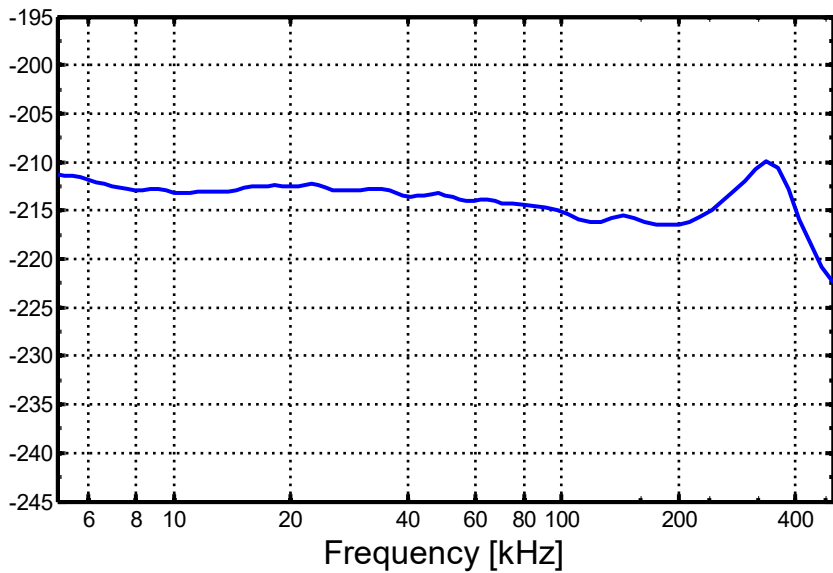
Horizontal directivity pattern



Vertical directivity pattern



Receiving Sensitivity [dB re 1V/μPa @ 1m]

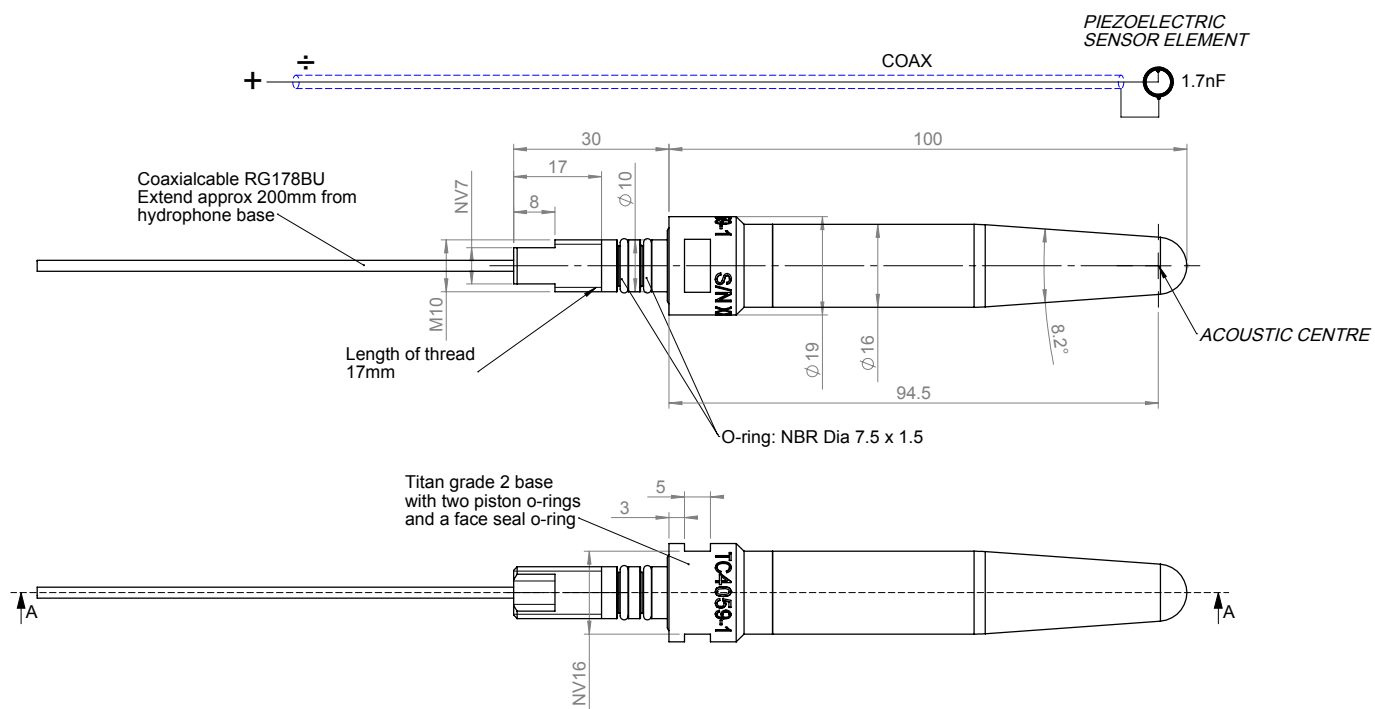


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Electrical Diagram and Outline Dimensions



For information on export control regulations on this product, please refer to www.teledynemarine.com/reson



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