

Teledyne RESON

Hydrophone TC4059

Ultra Broad-band Spherical Hydrophone



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

The overall receiving characteristics make the TC4059 an ideal transducer for making absolute underwater sound measurements up to 480 kHz. 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 480 kHz
Linear Frequency range:	1Hz to 250 kHz (+2, -4dB)
Receiving Sensitivity:	(re 1V/μPa) -213dB ±3dB (at 250Hz)
Horizontal Directivity:	Omnidirectional ±2dB (at 100 kHz)
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

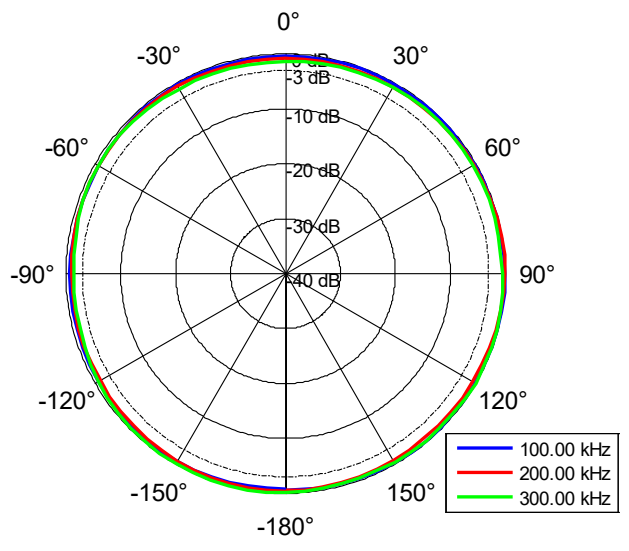
- Omnidirectional in the full frequency range
- Extreme Wide frequency range
- Durable construction combined with long term stability
 - a sensor you can rely on for long term deployment
- Individually calibrated - reducing measurement uncertainty
- Ready for OEM integration - save time and money with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



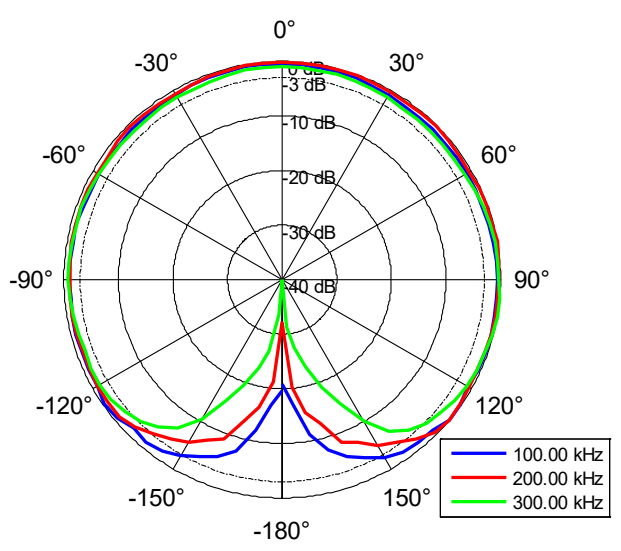
Hydrophone TC4059

Ultra Broad-band Spherical Hydrophone

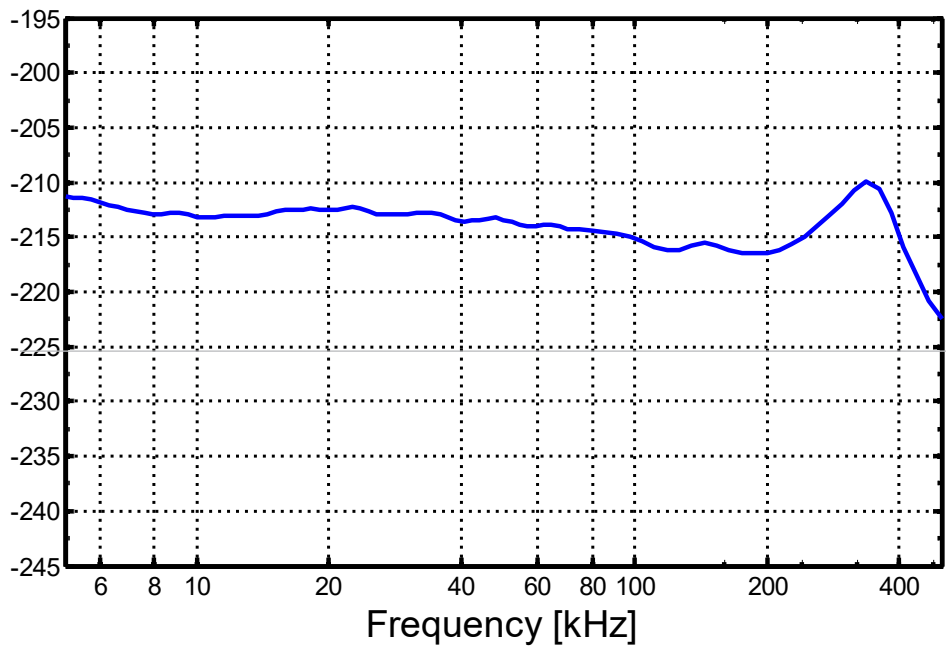
Horizontal directivity pattern



Vertical directivity pattern



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

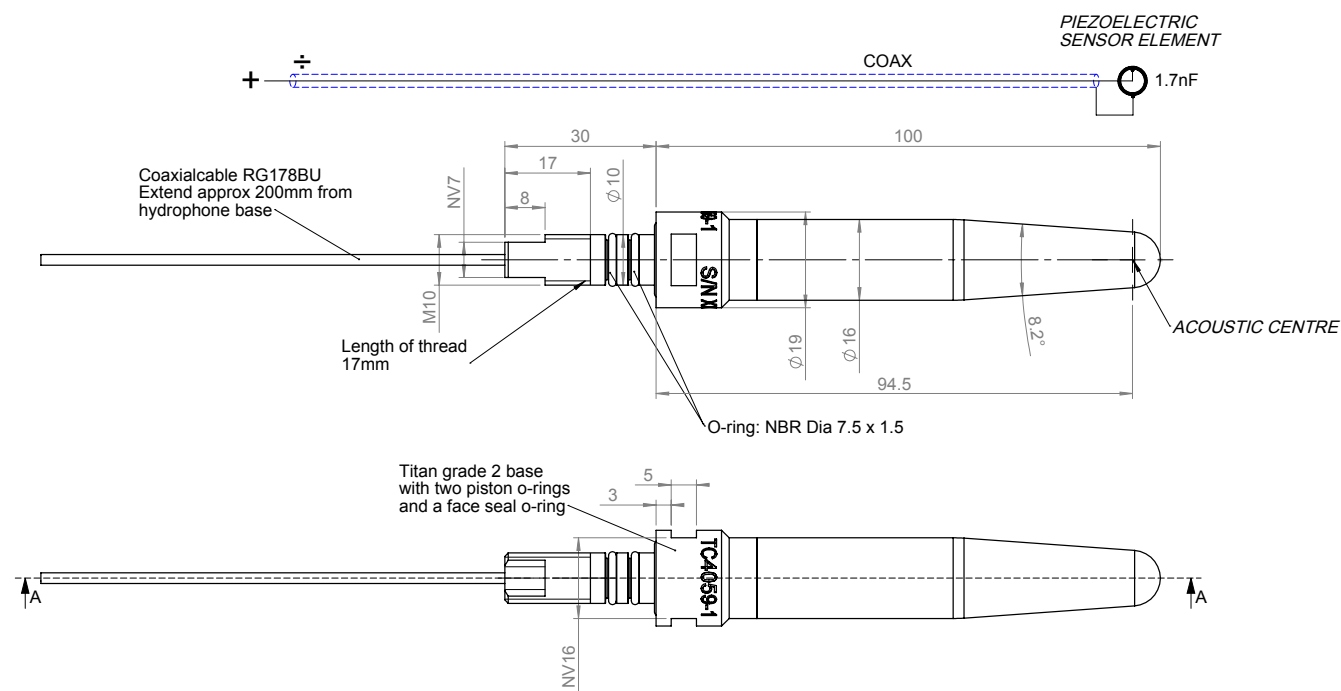




Hydrophone TC4059

Ultra Broad-band Spherical Hydrophone

Electrical Diagram and Outline Dimensions



PLD18779-1

Specifications subject to change without notice.
© 2018 Teledyne RESON. All rights reserved.