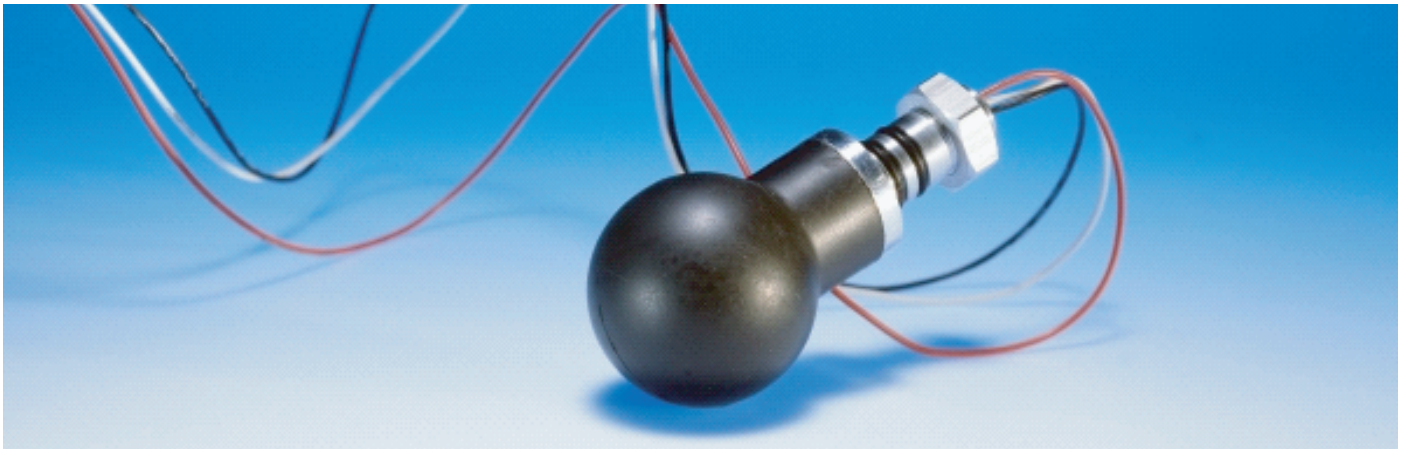
Hydrophone TC4037

Spherical Reference Hydrophone



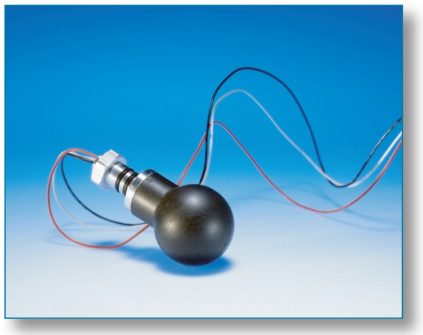
TC4037

- **High receiving voltage sensitivity**
- **Differential signal output**
- **Wide useable frequency**
- **Long term stability**
- **Omnidirectional in all planes**
- **Resistant to high static pressure**
- **Individually calibrated**

The TC4037 hydrophone sensor module provides a differential balanced output signal. It has been designed especially for operation with a differential preamplifier.

The use of differential sensor signals offers advantages such as, limitation of DC offset and fluctuation. It further adds 6dB more sensor sensitivity, -reduces noise distortion and makes the sensor less sensitive to vibration, temperature.
The mounting support is equipped with sealing o-rings that allows for convenient

TECHNICAL SPECIFICATIONS	
Usable Frequency range:	1Hz to 100kHz
Linear Frequency range:	1Hz to 50kHz ±3dB
Receiving Sensitivity nominal:	-193dB re 1V/µPa at 250Hz (with differential pre-amp 0dB)
Directivity, Horizontal plane:	Omnidirectional ±2dB at 40kHz
Vertical plane:	270° ±3dB at 40kHz
Capacitance nominal:	2 x 4,5 nF
Leakage resistance:	≥1G ohm
Operating temperature range:	-2°C to +55°C (with preamplifier)
Storage temperature range:	-40°C to +80°C
Operating depth:	1500m
Survival depth:	2000m (4037-3 3500m)
Terminating wires:	3 x AWG 22, length 0.5m
Weight in air:	86g.
Encapsulating material:	Special formulated NBR
Metal body:	**TC4037-2**: Aluminum alloy Al Mg1Si
	TC4037-3: Promet 12 CuSn 12 Tin bronze



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.

Metal body: TC4037-2 Aluminium alloy Al Mg1Si – If installed on a metal housing it is important that the housing is made of a similar material.

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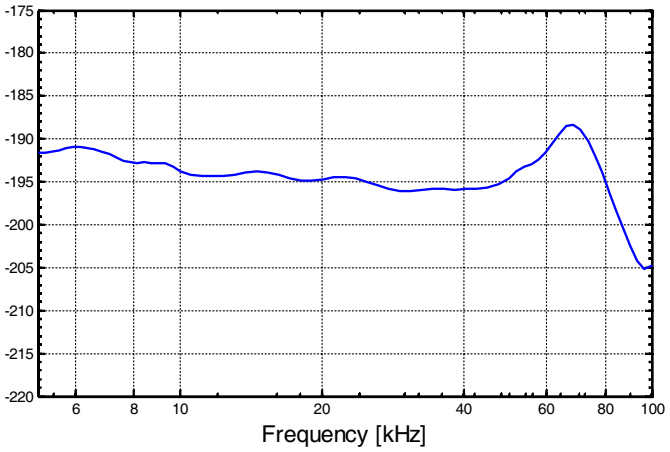
Documentation:

Receiving sensitivity:
5 kHz to 100 kHz

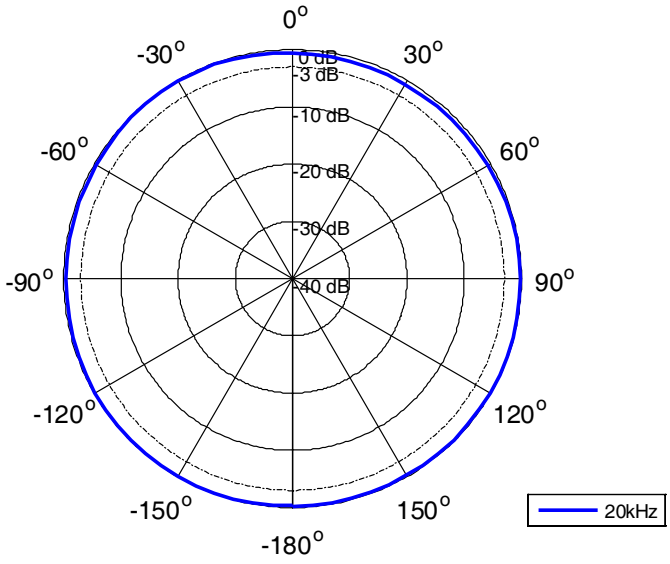
Horizontal directivity:
20 kHz

Vertical directivity:
20 kHz

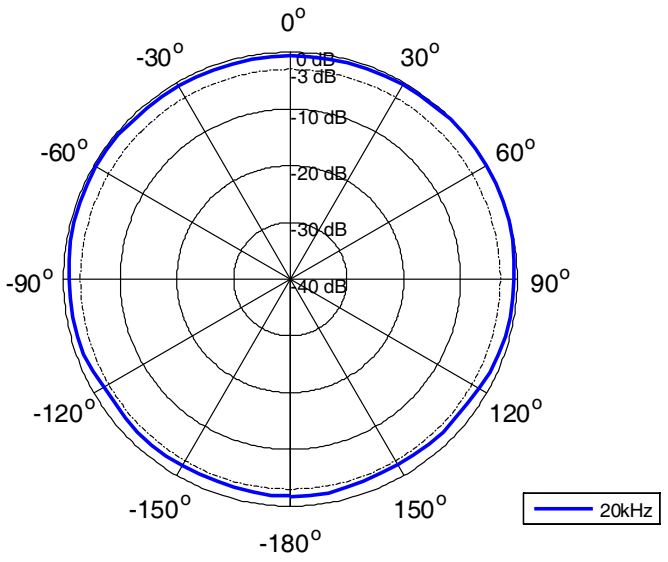
Receiving Sensitivity [dB re 1V/µPa @ 1m]



Horizontal directivity pattern



Vertical directivity pattern



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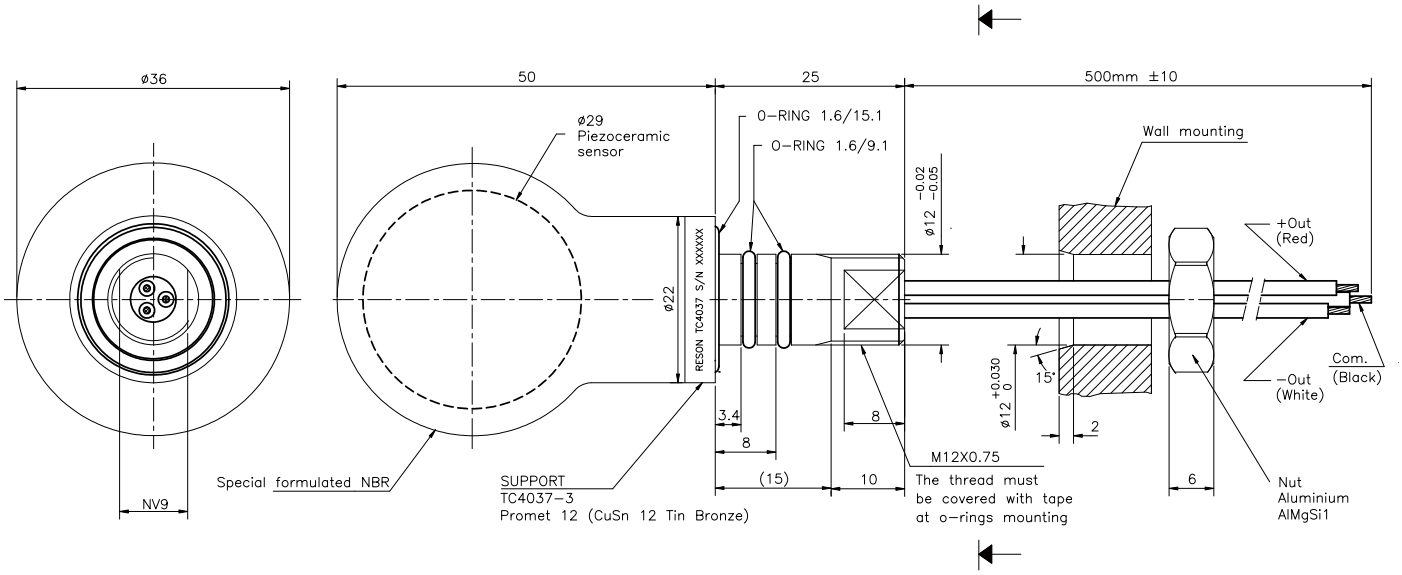
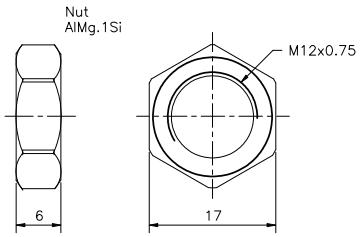
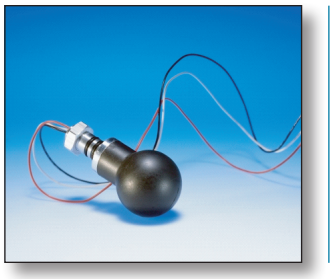
Outline Dimensions TC4037-3

TC4037-3 has got metal body made of Promet 12 CuSn 12 Tin bronze.





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



Version: B114 091218 / US

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