

CTG691-001 SPHERICAL HYDROPHONE



Features

The **CTG0691** hydrophones offer a wide range of operational frequencies and sensitivities - to suit a wide range of tasks. These spherical hydrophone transducers are highly reliable and come in a protective, durable polyurethane coating.

Advantages

- Omni-directional
- Long term stability
- Versatile
- Durable construction

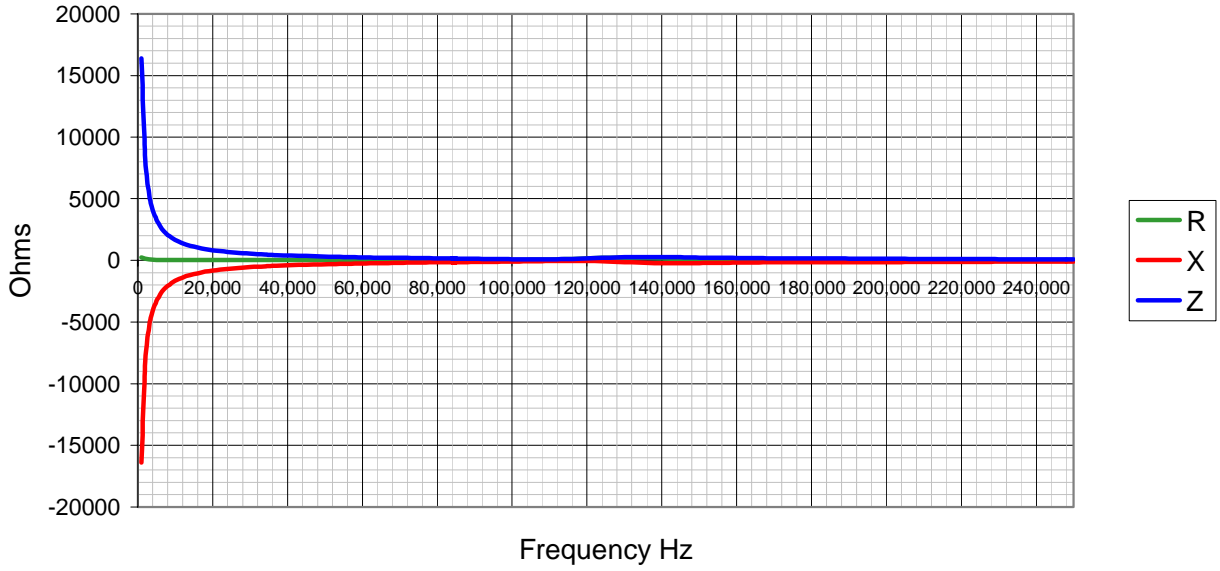
Technical Specification

Nominal Resonant Frequency	110 kHz
Receive Sensitivity	-203 dB re 1V/ μ Pa@10 kHz
Transmit Sensitivity	151dB
Useable Frequency Range	10Hz -150 kHz
Linear Frequency Range	See Graph
Horizontal Beam Pattern	Omnidirectional \pm 1 dB
Vertical Beam Pattern	$>270 \pm 1$ dB
Capacitance	10nF

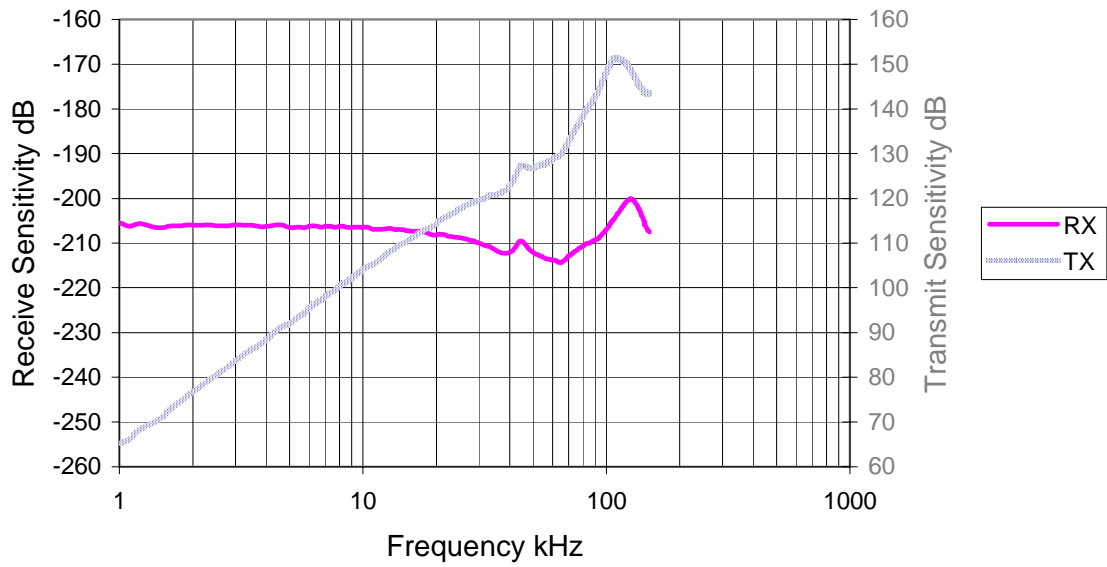
Mechanical Specification

Operating Depth	500m
Operating Temperature Range	-2 to +35°C
Cable	3m screened twisted pair cable
Connector	N/A
Dimensions	Max OD 25mm
Weight	Approx. 50g in air, 42g in water
Mounting	Dunking
Order Number	CTG0691-0001 For long cable runs
	CTG0691-0010 For short cable runs
	Specify alternative cable, connector and calibration requirements.

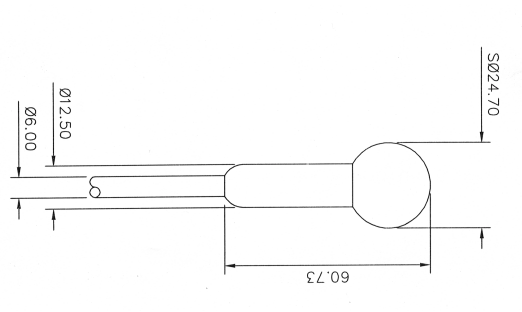
CTG0691



CTG0691 Sensitivity



Pin	Signal name
1	+Signal
2	-Signal
Screen	Gnd



We have developed these recommendations to improve measurements, and extend the life of our transducers.

Care

- Never physically touch the sensing part of the device.
- Limit the amount of time the device is immersed in liquid.
- Rinse with fresh water and store carefully in a (non waterproof) robust case after use.
- Take extra care to protect the cable from damage.

The device and the cable must not be left in direct sunlight when out of the water. These transducers are quite a robust, however direct sunlight on the moulded surface can produce high temperatures. This could not only degrade the polyurethane but also the ceramics inside, inner wiring and cable jacket.

Preparation

Ensure the device is cleaned prior to use, to minimise surface contamination ensure good wetting. Wetting is the readiness of a liquid to bond to the surface of a solid. A mild detergent will usually be sufficient for cleaning general dirt and grease. In addition it is recommended the device is soaked in water for at least 1hr prior to use to get optimum performance.

Mounting Considerations

A number of mounting methods can be used ranging from free-flooding tubular poles made from carbon-fibre, metal or plastic, to miniature clamping brackets or some times custom designs to fit a particular hydrophone model. In general, the mount should possess enough rigidity and strength to enable accurate positioning and orientation of the hydrophone, but should perturb the acoustic field as little as possible and introduce as few artefacts into the hydrophone response as possible. These requirements may conflict and a compromise must be reached.

