

SonoTube 008/D13-DT Communications Transducers



Typical Uses: Underwater Wireless Communication Applications, Underwater Positioning and Navigation Applications, Underwater Telephones & Acoustic Reference Standards



FEATURES

The SonoTube 008/D13-DT is a low frequency high power transmitter and receiver transducer active over 7-16kHz. It is operational to full ocean depth thanks to the oil filled rubber encapsulated design. It is particularly useful in systems for underwater communications and positioning and navigation.

The SonoTube 008/D13-DT is designed as a dunking transducer for easy deployment. The SonoTube 008/D13-DT also boasts a protective cage to provide excellent durability against knocks for damage limitation.

ADVANTAGES

- Rated to Full Ocean Depth
- Long-term stability
- Durable and reliable construction
- Low Frequency High Power Transmitter and Receiver

ORDER NUMBER

CTG 0052-0010

Please specify any additional cable, alternative connectors and/or calibration requirements with order

TECHNICAL SPECIFICATION

Nominal resonant frequency	8.5 & 13 kHz
Integral Amplifier or Tuning Element	No
Receive Sensitivity @ 8.9kHz	- 175 dB re 1V/ μ Pa
Recommended receive frequency range	7-16 kHz
Linear frequency range	N/a
Maximum acoustic input @ 8.9kHz	+ 235 dB re 1 μ Pa
Transmit sensitivity @ 8.7 kHz	+ 135 dB re 1 μ Pa/V at 1m
-3dB bandwidth	2.2 kHz
Quality Factor	3.9
Recommended transmit frequency range	7-16 KHz
Maximum source level @ 8.7kHz	+ 192.5 dB re 1 μ Pa at 1m
Maximum applied voltage	750 Vrms
Low Frequency capacitance (@ 1kHz)	13 nF
Horizontal beam pattern	Omni-directional +/- 2 dB at 10kHz
Vertical beam pattern	> 270°

MECHANICAL SPECIFICATION

Dimensions	Maximum outer diameter 140 mm, Length 300 mm
Transducer head weight in air	Approximately 2.2 kg
Transducer head weight in water	Approximately 1.5 kg
Maximum recommended operating depth	Rated to full ocean depth
Survival depth	Rated to full ocean depth
Operating temperature range	-5 to +35°C
Cable	10m
Connector	Bare Ends
Mounting	Dunking

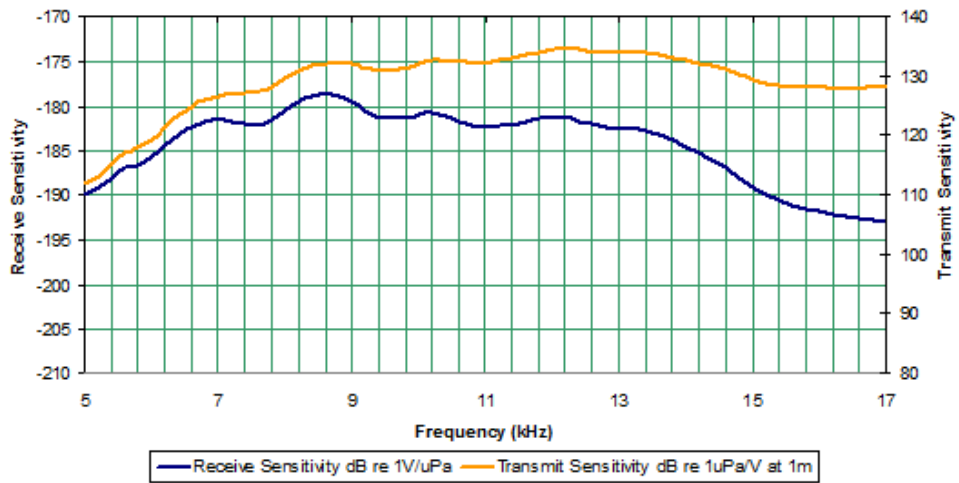
MECHANICAL DRAWING

CONNECTOR LAYOUT

N/a

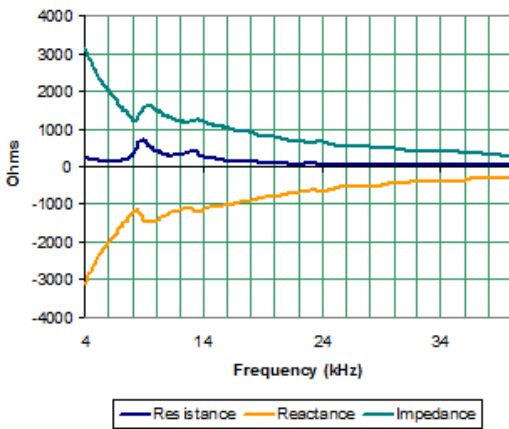
SENSITIVITY

SonoTube 008/D13 Sensitivity



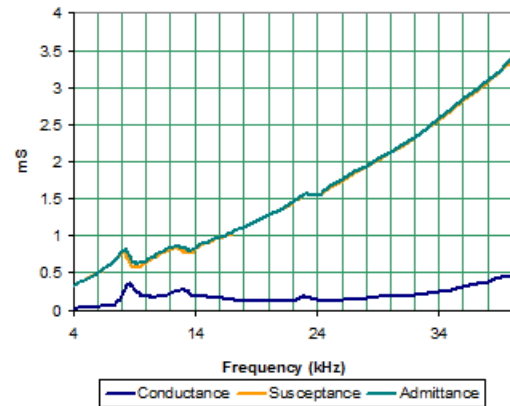
IMPEDANCE

SonoTube 008/D13 Impedance



ADMITTANCE

SonoTube 008/D13 Admittance



HORIZONTAL BEAM PATTERN

VERTICAL BEAM PATTERN

VARIATIONS

The SonoTube 008/D13 is the standard unit without the cage of ability to deploy on a cable as above. This is designed to be fixed to telemetry units, pressure vessels etc.

The SonoTube 008/D13 – UW variation includes an LPMBH-4 Underwater connector, this also includes a cage for extra protection but does not have the ability to be deployed by cable.



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*** Please contact CTG for further information

In view of our policy of continual improvement, the designs and specifications of our products may vary from those described 2271-030-RS-A)