

SonoTube 008/D12-DT HIGH-POWER COMMUNICATIONS DUNKING-TRANSDUCER

ctg



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



FEATURES

The SonoTube 008/D12-DT is a low frequency, broadband, high power, dunking transmitter and receiver transducer active over 6-20kHz. 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/D12-DT is designed as a dunking transducer for easy deployment. The SonoTube 008/D12-DT also boasts a protective cage to provide excellent durability against knocks.

ADVANTAGES

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

ORDER NUMBER

CTG 1330-0010

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

TECHNICAL SPECIFICATION

Nominal resonant frequency	8 & 12.5 kHz
Integral Amplifier or Tuning Element	No
Receive Sensitivity @ 8 kHz	- 170 dB re 1V/ μ Pa
Recommended receive frequency range	6-17 KHz
Linear frequency range	N/a
Maximum acoustic input @ 8 kHz	+ 227.5 dB re 1 μ Pa
Transmit sensitivity @ 12.4 kHz	+ 139 dB re 1 μ Pa/V at 1m
-3dB bandwidth	7.2 KHz
Quality Factor	1.6
Recommended transmit frequency range	6-20 KHz
Maximum source level @ 12.4 kHz	+ 196.5 dB re 1 μ Pa at 1m
Maximum applied voltage	750 Vrms
Low Frequency capacitance (@ 1kHz)	12 nF
Horizontal beam pattern	Omni-directional
Vertical beam pattern	> 270°

MECHANICAL SPECIFICATION

Dimensions	Maximum outer diameter 140 mm, Length 300 mm
Transducer mass in air	***
Transducer mass in water	***
Maximum recommended operating depth	Rated to full ocean depth
Survival depth	Rated to full ocean depth
Operating temperature range	-5 to +35°C
Cable	5m screened twisted pair cable
Connector	Bare ends
Mounting	Dunking

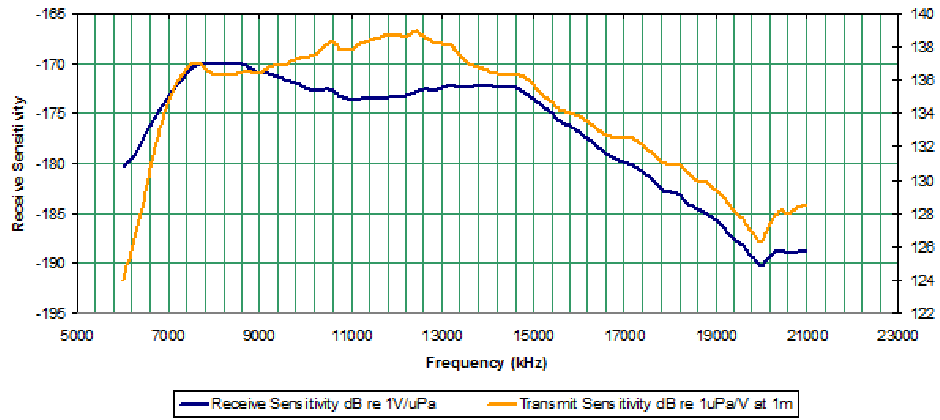
MECHANICAL DRAWING

CONNECTOR LAYOUT

N/a

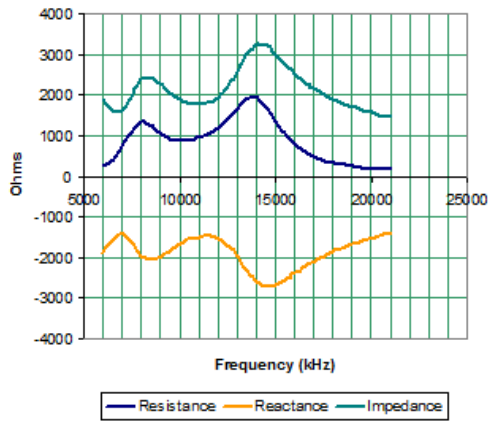
SENSITIVITY

SonoTube 008/D12 Sensitivity



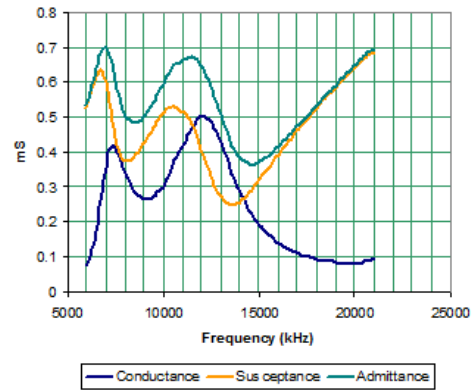
IMPEDANCE

SonoTube 008/D12 Impedance



ADMITTANCE

SonoTube 008/D12 Admittance



HORIZONTAL BEAM PATTERN

VERTICAL BEAM PATTERN

VARIATIONS

The SonoTube 008/D12 is the standard basic model of this transducer.

The SonoTube 008/D12 – UW variation includes a LMPBH-4MP Underwater connector as described in the connector layout

The SonoTube 008/D12 – PA – DT is also available as the SonoTube 008/D12-DT with an integral pre-amplifier.



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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 2271-032-RS-A)