

DualSense 115 SPHERICAL HYDROPHONE



Typical Uses: Calibration Reference Standard, Marine Mammal & Environmental Monitoring, Air Gun & Boomer



FEATURES

The DualSense 115 transducer is a horizontally omni-directional, spherical, reciprocal transducer operational over a wide frequency band (10Hz to 150kHz). It is useful for making absolute sound measurements and is one of our most popular transducers as it is easily adaptable to a variety of applications. The DualSense 115 is made with a softer ceramic making it ideal for hydrophone applications, but due to the reciprocal nature the transducer is equally useable as a transmitter. The DualSense series are highly reliable transducers and come in a protective, durable polyurethane coating.

ADVANTAGES

- Horizontally omni-directional
- Long-term stability
- Versatile
- Durable and reliable construction

ORDER NUMBER

CTG 0691 – 0001

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

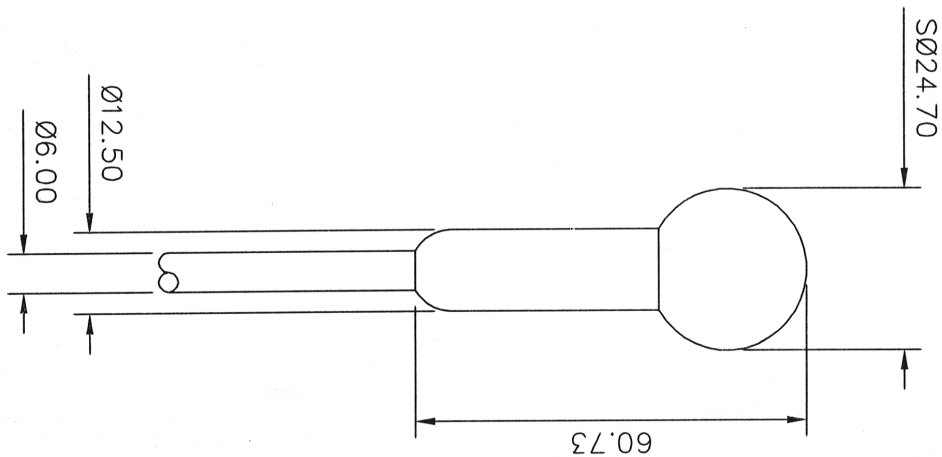
TECHNICAL SPECIFICATION

Nominal resonant frequency	115 kHz
Integral pre-amplifier or tuning element	No
Receive Sensitivity @ 116kHz	-204 dB re 1V/ μ Pa
Recommended receive frequency range	10Hz – 150kHz
Linear frequency range	10Hz – 75kHz
Maximum acoustic input @ 116kHz	+250 dB re 1 μ Pa
Transmit sensitivity @ 116kHz	+150 dB re 1 μ Pa/V at 1m
-3dB bandwidth	22kHz
Quality Factor	5.3
Recommended transmit frequency range	85kHz – 120kHz
Maximum source level @ 116kHz	+196 dB re 1 μ Pa/V at 1m
Maximum applied voltage at resonance	200Vrms
Low Frequency capacitance (@ 1kHz)	11nF
Horizontal beam pattern	Omni-directional +/- 1.5 dB at 75kHz
Vertical beam pattern	>270°

MECHANICAL SPECIFICATION

Dimensions	Maximum outer diameter 25mm, Length 61mm
Transducer head weight in air	Approximately 40g
Transducer head weight in water	Approximately 30g
Maximum recommended operating depth	1,000 m
Survival depth	2,000 m
Operating temperature range	-5 to +35°C
Cable	5m screened twisted pair cable
Connector	Bare ends, or customer specification
Mounting	Dunking

MECHANICAL DRAWING

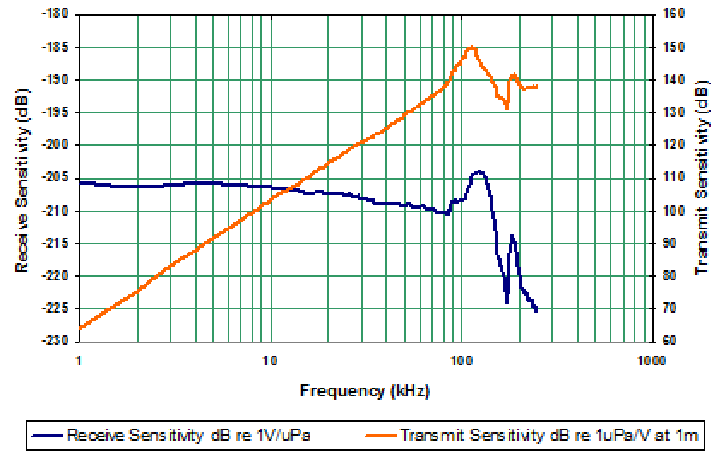


CONNECTOR LAYOUT

Not Applicable

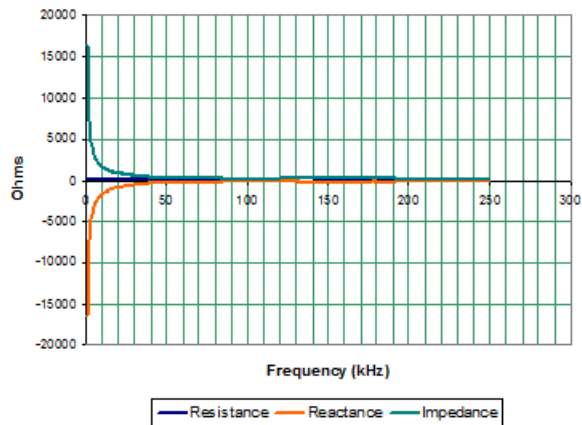
SENSITIVITY

DualSense 115 Sensitivity



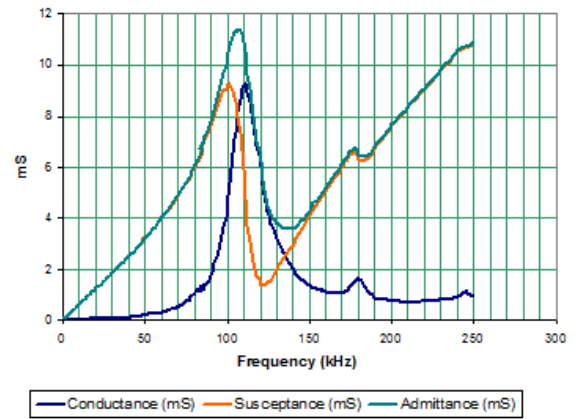
IMPEDANCE

DualSense 115 Impedance



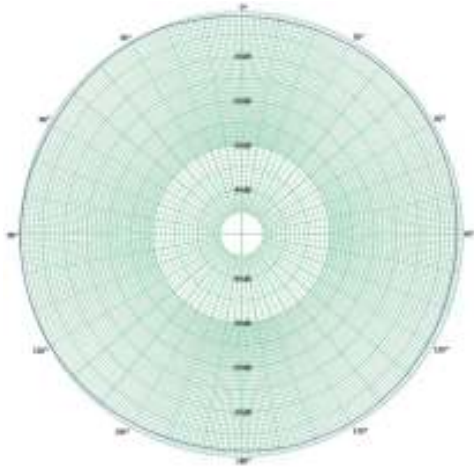
ADMITTANCE

DualSense 115 Admittance



HORIZONTAL BEAM PATTERN @ 75kHz

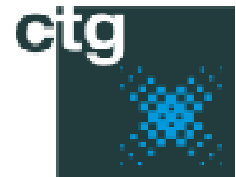
VERTICAL BEAM PATTERN



VARIATIONS

The HydroSense 115/45 is also available. This is a spherical hydrophone with a resonant frequency of 115kHz, with the addition of an integral pre-amplifier.

The DualSense 115 is also available with a flange mounting upon request.



*** 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 2271-011-RS-A)

Chelsea
Technologies
Group Ltd

55 Central Avenue
West Molesey
Surrey KT8 2QZ
United Kingdom
Tel: +44 (0)20 8481 9000
Fax: +44 (0)20 8941 9319
sales@chelsea.co.uk
www.chelsea.co.uk