

HydroSense 115/45

SPHERICAL PRE-AMPLIFIED HYDROPHONE



Typical Uses: Remote Marine Mammal & Environmental Monitoring, Noise measurements, Calibration standards



FEATURES

The HydroSense 115/45 hydrophone is a horizontally omni-directional, pre-amplified, spherical, hydrophone operational over a wide frequency band (10Hz to 150kHz). It is useful for making absolute sound measurements in remote environments or useful for making highly sensitive measurements.

The integral pre-amplifier provides 45dB of gain. The HydroSense series are highly reliable transducers; the pre-amplifier is contained in a sealed aluminium tube, which is then over-moulded with a protective, durable polyurethane coating.

ADVANTAGES

- Low-noise performance
- Durable and reliable construction
- Horizontally omni-directional
- Broad Band

ORDER NUMBER

CTG 2268-001

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

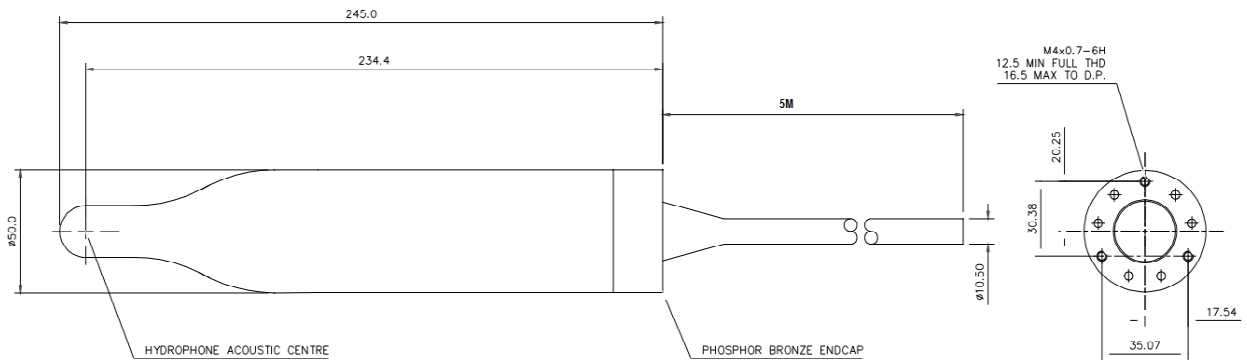
TECHNICAL SPECIFICATION

Nominal resonant frequency	115 kHz
Integral pre amplifier	Yes
Pre-amplifier type	Differential in / Differential out
Pre-amplifier gain	45 dB
Receive Sensitivity @ 110kHz	-158 dB re 1V/ μ Pa into 100 Ω differential load
Recommended receive frequency range	10Hz – 150kHz
Linear frequency range	10Hz – 40kHz
Maximum acoustic input @110kHz	+167 dB re 1 μ Pa
Power Supply	20-34 V dc
Max current consumption	35mA (with 30V supply)
Maximum output voltage	3Vrms
Low Frequency capacitance (@ 1kHz)	14nF
Horizontal beam pattern	Omni-directional +/- 5dB at 50kHz
Vertical beam pattern	>270° +/- 3dB

MECHANICAL SPECIFICATION

Dimensions	Maximum outer diameter 50mm, Length 245mm
Transducer head weight in air	Approximately 1.7 kg
Transducer head weight in water	Approximately 1.2 kg
Maximum recommended operating depth	850 m
Survival depth	425 m
Operating temperature range	-5 to +35°C
Cable	5m triple screen twisted pair cable
Connector	Bare ends
Mounting	Dunking

MECHANICAL DRAWING

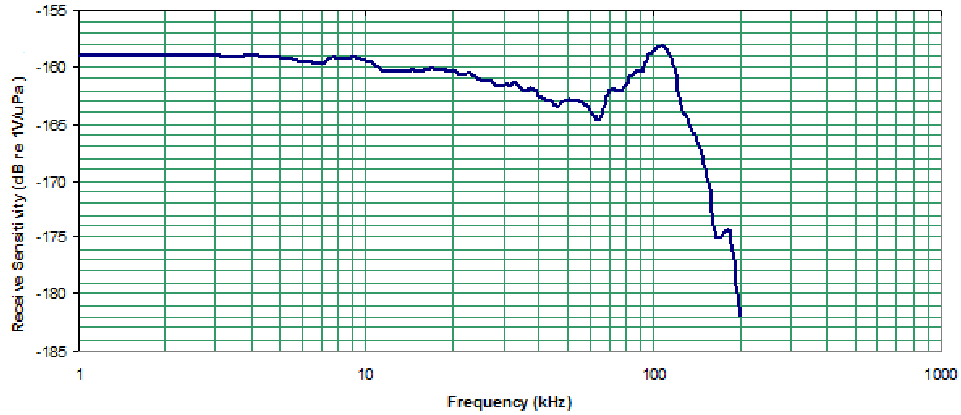


CONNECTOR LAYOUT

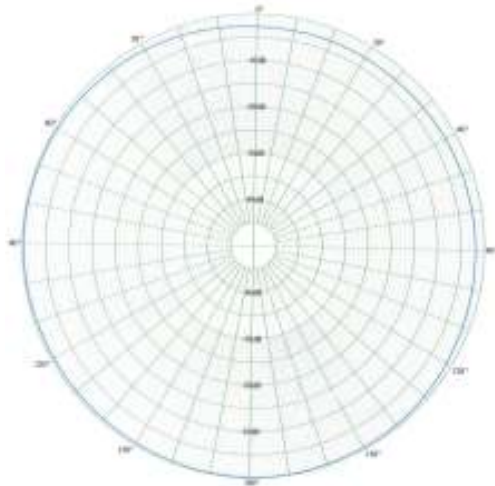
N/a

SENSITIVITY

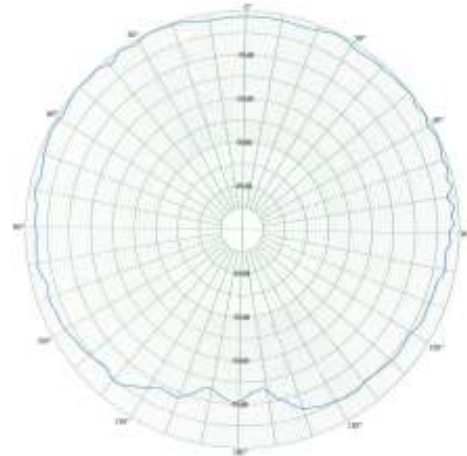
Hydro Sense 115/45 Receive Sensitivity



HORIZONTAL BEAM PATTERN @ 50kHz



VERTICAL BEAM PATTERN @ 50kHz



VARIATIONS

The HydroSense 115/19 is a spherical pre-amplified hydrophone with only 19dB of gain.
The DualSense 115 is a spherical, reciprocal hydrophone without an integral pre-amplifier covering the same receive frequency range.



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