

Hydrophone Type 10CH

Product Data and Specifications

Features

- *Reference hydrophone for high frequencies*
- *Linear frequency response from 100 kHz to 500 kHz*
- *Long-term stability*
- *Individually calibrated*
- *Calibration as reference hydrophone traceable to national standards established at NPL*

The G.R.A.S. Hydrophone Type 10CH (Fig. 1) is a miniature probe hydrophone, specifically for use as a standard reference hydrophone for high frequencies in the range 100 kHz to 500 kHz.

The Type 10CH has a flat frequency response and good omnidirectional characteristics in the specified frequency range. The sensor element has excellent stability with time, which ensures a reliable sensitivity over long periods.



Fig. 1 The Hydrophone Type 10CH

Because of its small size, the Type 10CH is an ideal hydrophone for acoustic measurements in near fields.

Certified calibration as standard reference hydrophones are traceable to the national standards established at NPL in the UK (available upon request).

Fig. 2 shows the overall physical dimensions.

Figs. 3 to 5 show the graphical data in detail.

Hydrophone Type 10CH

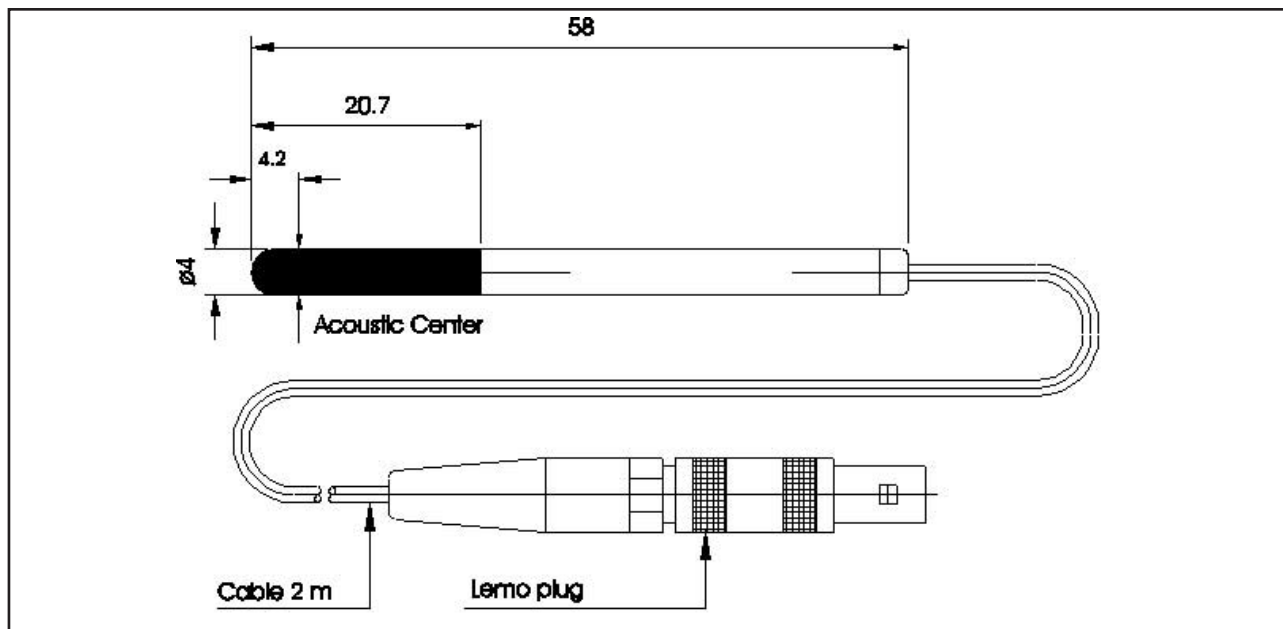


Fig. 2 Overall physical dimensions of the Hydrophone Type 10CH

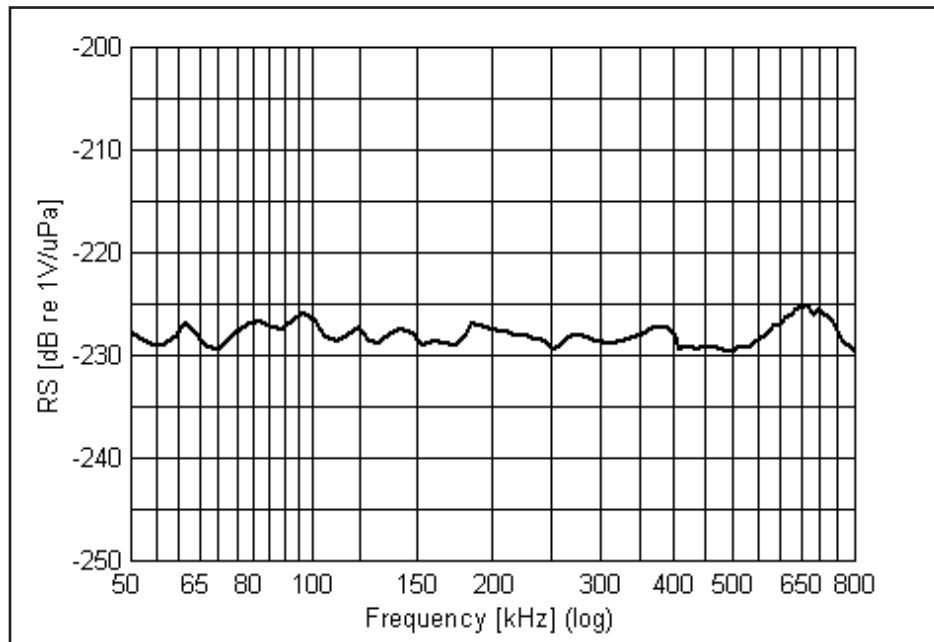


Fig. 3 Receiving sensitivity (decibels re. 1 V/μPa) from 50 kHz to 800 kHz

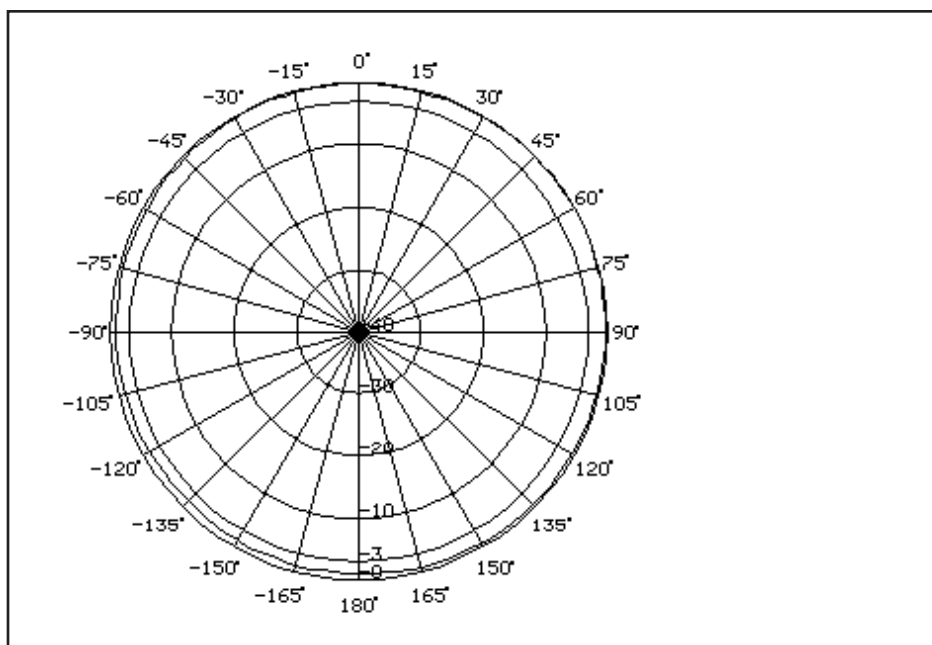


Fig. 4 Horizontal directivity pattern at 100 kHz

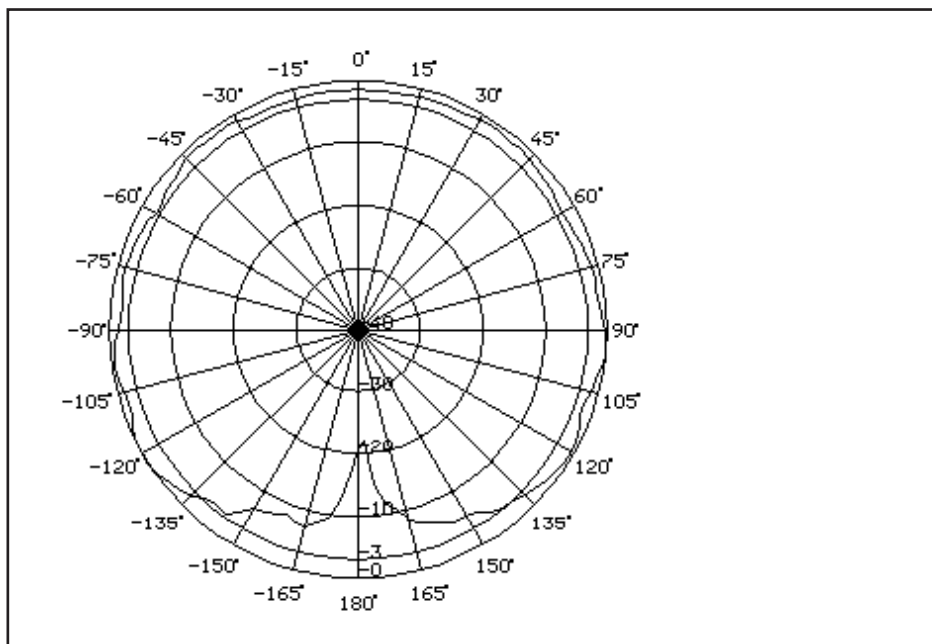


Fig. 5 Vertical directivity pattern at 100 kHz

Specifications

Usable frequency range:	10 kHz - 800 kHz	Equivalent noise with Preamp.Type 12CA:	
		at 1 kHz	80 dB re. 1 μ Pa
Linear frequency range:		Operating temperature range:	-2 °C to +40 °C
100 kHz - 500 kHz:	± 3 dB	Storage temperature range:	-30 °C to +50 °C
Receiving sensitivity (nominal):		Leakage resistance:	>2 G Ω
100 kHz	-228 dB ± 2 dB re. 1 V/ μ Pa	Minimum input impedance for minimum noise down to a lower frequency limit of 10 kHz:	100 M Ω
Horizontal directivity at 100 Hz:		Cable:	
360°:	± 2 dB	Length:	2 m
Vertical directivity at 100 Hz:		Outside diameter:	1.65 mm insulated
60° - 120°:	± 3 dB	Type	double-shielded low-noise FEP
Maximum sound pressure:	0.3 MPa	Connector:	LEMO plug FFA.00
Maximum operating pressure:	0.3 MPa = 3 atm	Weight in air:	20 gm
Maximum operating depth:	20 m		
Maximum survival depth:	30 m		

G.R.A.S. Sound & Vibration reserves the right to change specifications and accessories without notice

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Sound & Vibration

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