

# Model H505L-2-XXX General purpose, self-amplified hydrophone

The H505L hydrophone is designed as a small, versatile, self-amplified hydrophone for general purpose application to a wide variety of underwater acoustic measurements. Ruggedness, low cost and an ultra low-noise internal amplifier are prime features of this unit. The internal amplifier eliminates triboelectric cable noise, connector contamination problems and the requirement for an expensive in-line amplifier.

The hydrophone and cable entry are completely encapsulated in polyurethane. This alleviates water intrusion caused by cathodic action. The assembly uses pre-aged piezoelectric (PZT) sensing elements.

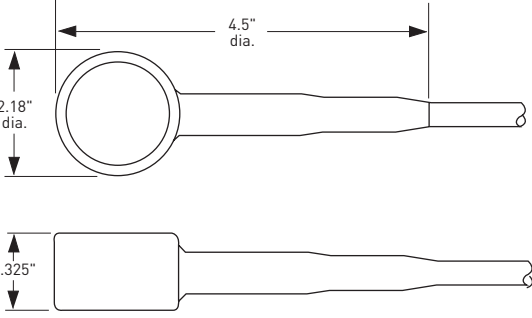
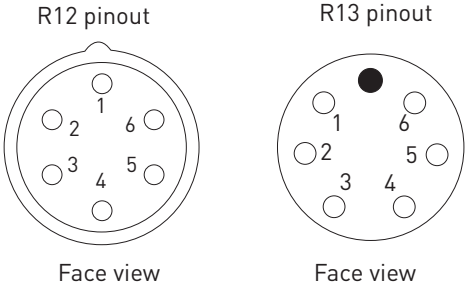
Applications for the H505L include underwater biological studies, ship noise studies, pump and machinery studies and monitoring of underwater ordnance.

Output sensitivity.....	-160 dB re 1V/μPa
Amplifier gain.....	10 dB
Typical spectrum noise:	
at 10 Hz.....	54 dB re 1μPa/√Hz
at 100 Hz.....	34 dB re 1μPa/√Hz
at 1 kHz.....	15 dB re 1μPa/√Hz
at 10 kHz.....	6 dB re 1μPa/√Hz
Frequency response, ±3dB.....	20 to 10,000 Hz
Omnidirectional.....	20 to 5,000 Hz
Maximum operating depth .....	250 meters
Output impedance .....	200 ohms
Supply voltage .....	24 VDC
Current .....	10 mA max
Cable <sup>1</sup> .....	3 conductor, shielded, 10 meters standard
Jacket material <sup>1</sup> .....	polyurethane, 0.285" dia.

Optional connector pinout		
Pin	Function	Wire color
1	case	shield
2	common	black
3	B+, signal out	red
4	N.C.	green
5	N.C.	white
6	N.C.	yellow

Connector	Function
White	n/c
Red	signal/power
Black	common
Shield	internal housing

Notes: <sup>1</sup> Standard cable for units supplied with optional connectors is 5 conductor shielded, polyurethane, 0.25" dia., 10 foot length  
Options: Customer specified cable length



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