Model H505L
General purpose, self-amplified hydrophone

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 .............................. 2.0 to 10,000 Hz
  Omnidirectional ...................................... 2.0 to 5,000 Hz
Maximum operating depth ............................ 250 meters
Maximum temperature .................................. 80°C
Output impedance .................................... 200 ohms
Supply voltage ........................................ 24 VDC
Current ..................................................... 10 mA max
Bias output voltage .................................. 10 V (nominal)
Cable ........................................................... J95, 5-conductor, shielded, 0.25" dia, length specified by customer at time of order
Jacket material ......................................... polyurethane

How to order the H505L:
Base model .................................................. H505L - XXX - RXX - LX
Cable length in feet
Optional connector (Leave blank if N/A)
Optional locking sleeves (Leave blank if N/A)
Available connectors:
  R12 underwater connector (Brantner RMK-6-MP)
  R13 underwater connector (Brantner AWM-6-MP)
Available locking rings:
  LP = plastic locking sleeve for R12 or R13
  LS = stainless steel locking sleeve for R12 or R13

The H505L hydrophone is designed as a small, versatile, self-amplified hydrophone for general purpose applications 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.

Cable color    Function    Connector pin out
shield         case        1
black          common      2
red            B+, signal out 3
green          N.C.        4
white          N.C.        5
yellow         N.C.        6

Export Classification: ECCN 6A001

Due to continued research and product development, Wilcoxon Research reserves the right to amend this specification without notice.