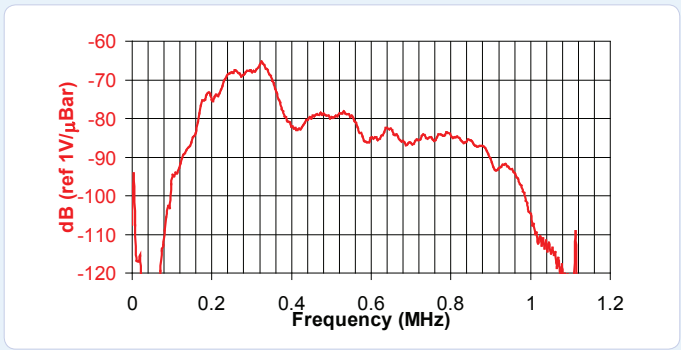
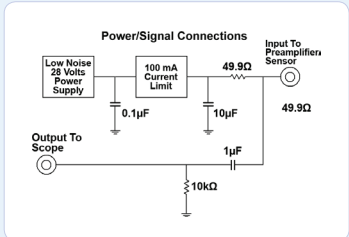
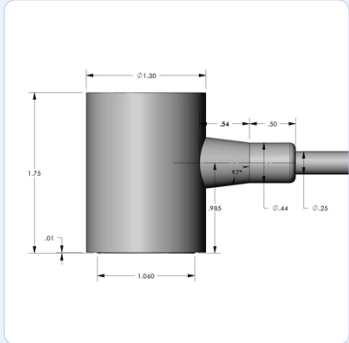


**PRODUCT DATA SHEET**

**R30I-UC Sensor**  
Underwater Sensor



**DESCRIPTION AND FEATURES**

R30I-UC is an underwater sensor with integrated preamplifier. It is a narrowband sensor with very high sensitivity featuring an integral preamplifier with a gain of 40 dB. The integrated electronics give the sensor a signal-to-drive capability for depths of 300 meters (1000 ft) or more. The sensors feature special polymer coatings making it 100% insulated and non conductive with an integral waterproof cable for underwater use. The sensor is tested to depths of 1000 psi.

**APPLICATIONS**

The sensor can be used for the structural health monitoring of submerged structures like offshore oil and gas platforms, ships etc. They can be used inside any liquid filled platforms like pipelines, chemical tanks or any other submerged structures.

**OPERATING SPECIFICATIONS**

*Dynamic*

Peak Sensitivity, Ref V/(m/s)..... 98 dB  
Peak Sensitivity, Ref V/µbar..... -24 dB  
Operating Frequency Range..... 200-400 KHz  
Resonant Frequency, Ref V/(m/s)..... 225 dB  
Resonant Frequency, Ref V/µbar..... 350 KHz  
Directionality..... +/- 1.5 dB

*Environmental*

Temperature Range..... -30 to 65°C  
Shock Limit..... 500 g  
Completely enclosed crystal for RFI/EMI immunity

*Physical*

Dimensions..... 1.31"OD X 1.38"H  
..... 33 mm OD X 35 mm H  
Weight..... 180 grams  
Case Material..... Stainless Steel/Epoxy  
Face Material..... Ceramic  
Connector..... BNC on integral cable  
Connector Locations..... Side

*Electrical*

Gain..... 40 dB  
Power Requirements..... 20-30 VDC @ 25 mA  
Dynamic Range..... > 87 dB  
Noise Level (RMS RTI)..... < 3 µV  
Output Drive Impedance..... 50 Ω  
Grounding..... Case Grounding  
Isolated from mounting surface

**ORDERING INFORMATION AND ACCESSORIES**

R30I-UC..... R30I-UC  
Amplifier Subsystems..... AE2A, AE5A

*Sensors include*

NIST Calibration Certificate & Warranty



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