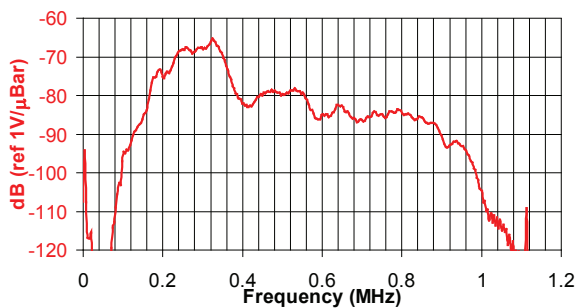
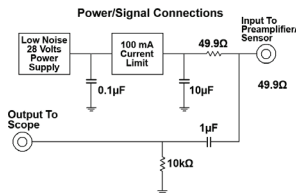
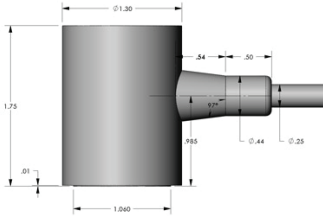


R30I-UC Sensor

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

