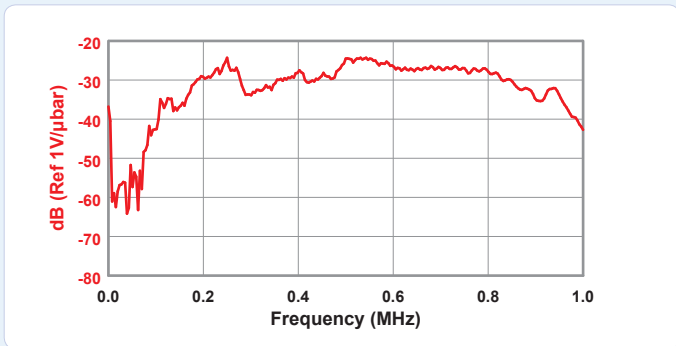
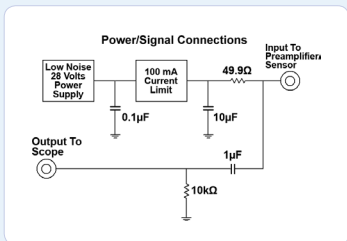
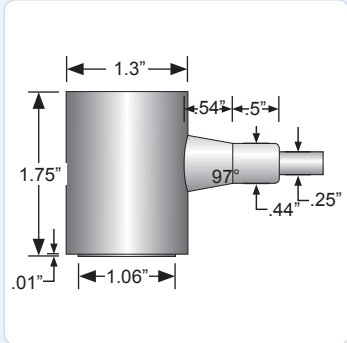


PRODUCT DATA SHEET

WDIUC-AST Sensor

Integral Pre-amplifier Underwater Sensor



DESCRIPTION AND FEATURES

PAC's integral preamp sensors were specifically engineered to attain high sensitivity and have the capability to drive long cables without the need for a separate preamplifier. Incorporating a low-noise input, 40 dB preamplifier and a filter all inside the sensor housing, The special polymer coatings on the sensor along with an integral waterproof cable make it 100% insulated and non-conductive. The sensor can be used to depths of 1000 psi.

The integrated Auto Sensor Test (AST**) capability allows this sensor to pulse as well as receive. This feature lets you verify the sensor coupling and performance at any time throughout the test.

APPLICATIONS

The sensor can be readily used for structural health monitoring of structures like pipelines, pressure vessels and storage tanks in petroleum refineries, chemical plants and offshore platforms.

OPERATING SPECIFICATIONS

Dynamic

Peak Sensitivity, Ref 1V/(m/s) 96 dB
 Peak Sensitivity, Ref 1V/µbar -25 dB
 Operating Frequency Range 200-900 kHz
 Directionality +/-1.5 dB

Environmental

Temperature Range -35 to 75°C
 Shock Limit 500 g

Physical

Dimensions* 1.31"OD X 1.75"H
 33 mm OD X 45 mm H
 Weight 98 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
 Shielding for EMI Fully shielded

ORDERING INFORMATION AND ACCESSORIES

WDIUC-AST WDIUC-AST
 Cable (specify length in '-XX' m) XX

Sensors include

Characterization Certificate & Warranty

* Due to variances in coating process, the height of coated sensors may vary within a tolerance of +/- 0.015 inches (.381 mm)

** AST — Auto Sensor Testing feature allows AE systems to control the sensor as a pulser and a receiver at the same time. It can therefore characterize its own condition as well as send out a simulated acoustic emission wave that other sensors can detect, so the condition of the nearby sensors also can be tested.



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