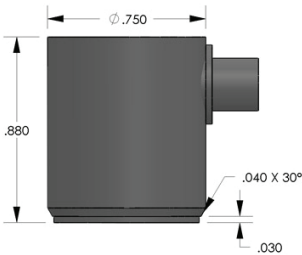


PRODUCT DATA SHEET

R15α Sensor

General Purpose Sensor



DESCRIPTION AND FEATURES

The R15α is a narrow band resonant sensor with a high sensitivity. The sensor cavity is machined from a solid stainless steel rod, making the sensor extremely rugged and reliable. The ceramic face along with a 30 degree chamfer to cavity electrically isolates the sensor cavity from the structure under test assuring a low noise operation.

The compact size of the sensor makes it readily suitable for deploying in tight spaces for monitoring. The Alpha series family of sensors features an SMA connector versus the Microdot connectors found on MISTRAS' RXX series of sensors. The alpha series includes R3α, R6α, R15α, R30α, R50α, R80α and WSα sensors.

APPLICATIONS

This general purpose sensor provides a good combination of high sensitivity and low-frequency rejection. These properties make the sensor very useful for monitoring common structures such as pipelines, vessels, bridges, and storage tanks in petroleum, refineries, chemical plants, offshore platforms, as well as factory and process monitoring applications.

OPERATING SPECIFICATIONS

Dynamic

Peak Sensitivity, Ref V/(m/s)..... 80 dB
 Peak Sensitivity, Ref V/μbar..... -63 dB
 Operating Frequency Range..... 50-400 kHz
 Resonant Frequency, Ref V/(m/s)..... 75 kHz
 Resonant Frequency, Ref V/μbar..... 150 kHz
 Directionality..... +/-1.5 dB

Environmental

Temperature Range..... -65 to 175°C
 Shock Limit..... 500 g
 Completely enclosed crystal for RFI/EMI immunity

Physical

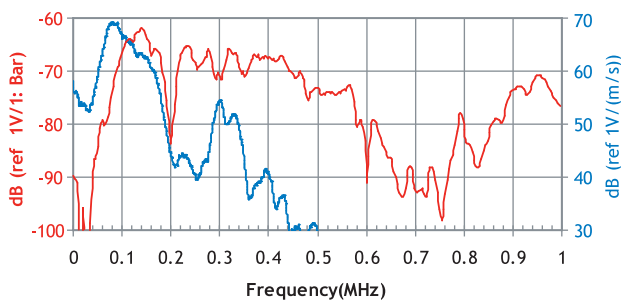
Dimensions..... 0.75"OD X 0.88"H
 19 mm OD X 22.4 mm H
 Weight..... 34 grams
 Case Material..... Stainless steel
 Face Material..... Ceramic
 Connector..... SMA
 Connector Locations..... Side
 Seal..... Epoxy
 Sensor to Preamp Cable (1 or 2 meters) 1232-X-SMA

ORDERING INFORMATION AND ACCESSORIES

R15α R15α or R15a
 Magnetic Hold-Down MHR15A
 Pre-amplifier..... 0/2/4, 2/4/6
 Amplifier subsystems ... AE2A, AE5A or standard AE systems
 Preamp to System Cable (specify length in 'm') 1234-X

Sensors include

NIST Calibration Certificate & Warranty



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