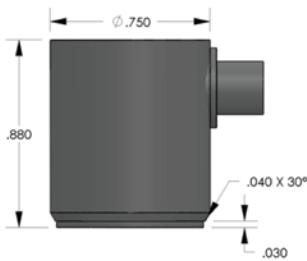


**PRODUCT DATA SHEET**

**R50α Sensor**

General Purpose Sensor



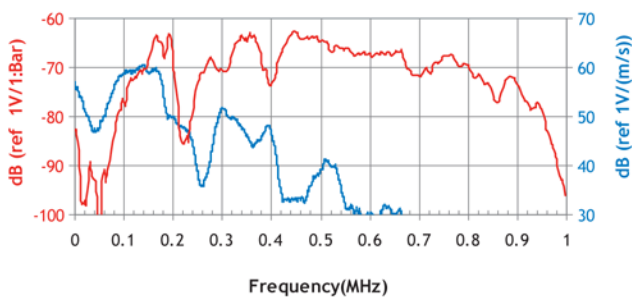
**DESCRIPTION AND FEATURES**

The R50α 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 sensor is useful in very noisy plant and process monitoring applications and is particularly suited to such applications as welding monitoring and control.



**OPERATING SPECIFICATIONS**

*Dynamic*

Peak Sensitivity, Ref V/(m/s).....	62 dB
Peak Sensitivity, Ref V/μbar.....	-62 dB
Operating Frequency Range.....	150-700 kHz
Resonant Frequency, Ref V/(m/s).....	100 kHz
Resonant Frequency, Ref V/μbar.....	500 kHz

*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.....	32 grams
Case Material.....	Stainless steel
Face Material.....	Ceramic
Connector.....	SMA
Connector Locations.....	Side
Seal.....	Epoxy

**ORDERING INFORMATION AND ACCESSORIES**

R50α.....	R50α or R50α
Magnetic Hold-Down.....	MHR15A
Sensor to Preamp Cable (1 or 2 meters).....	1232-X-SMA
Amplifier subsystems ... AE2A, AE5A or standard AE systems	
Preamplifier.....	0/2/4, 2/4/6
Preamp to System Cable (specify length in 'm').....	1234 - X

*Sensors include*

NIST Calibration Certificate & Warranty

