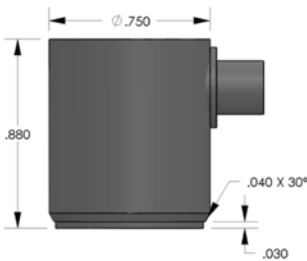


PRODUCT DATA SHEET

R80α Sensor

General Purpose, 800 kHz Resonant Frequency Sensor



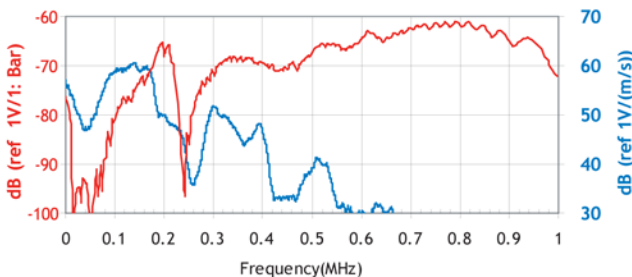
DESCRIPTION AND FEATURES

The R80α 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

High frequency AE sensors such as the R80α are often used in a high noise environments on applications such as brittle crack detection and processing of AE signals with high frequency components.



OPERATING SPECIFICATIONS

Dynamic

Peak Sensitivity, Ref V/(m/s).....	58 dB
Peak Sensitivity, Ref V/μbar.....	-62 dB
Operating Frequency Range.....	200-1000 kHz
Resonant Frequency, Ref V/(m/s).....	200 kHz
Resonant Frequency, Ref V/μbar.....	800 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 0.84"H
	19 mm OD X 21.4 mm H
Weight.....	32 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

R80α.....	R80α or R80a
Magnetic Hold-Down.....	MHR15A
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

