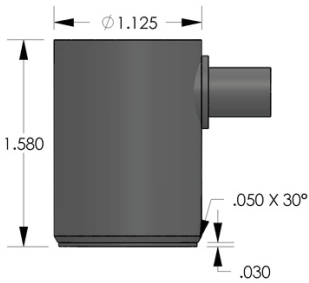


**PRODUCT DATA SHEET**

**R.45 Sensor**

Low Frequency Sensor



**DESCRIPTION AND FEATURES**

The R.45 is a low frequency resonant AE sensor with very high sensitivity. With a resonant frequency of 20 kHz the sensor is ideal for monitoring AE activity in very large structures. The sensor features a rugged stainless steel cavity with a BNC connector on the side.

**APPLICATIONS**

The sensor can be used in any application requiring a resonant low frequency sensor. Typical applications include structural health monitoring of large concrete, steel and geologic structures. The can also be used for leak detection in pipes and tanks.

**OPERATING SPECIFICATIONS**

*Dynamic*

Peak Sensitivity, Ref V/(m/s) ..... 85 dB  
 Operating Frequency Range ..... 5-30 kHz  
 Resonant Frequency, Ref V/(m/s) ..... 20 kHz  
 Directionality ..... +/-1.5 dB

*Environmental*

Temperature Range ..... -45° to 150° C  
 Shock Limit ..... 500 g  
 Completely enclosed crystal for RFI/EMI immunity

*Physical*

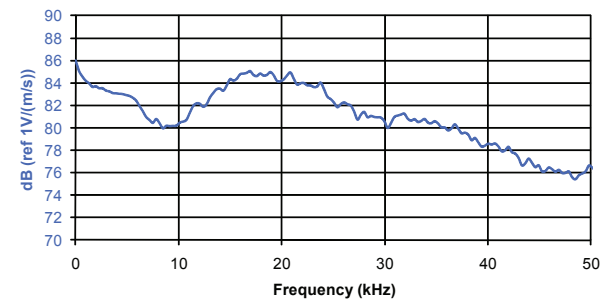
Dimensions ..... 1.125"OD X 1.55"H  
 28.6 mm OD X 40.6 mm H  
 Weight ..... 121 grams  
 Case Material ..... Stainless Steel  
 Face Material ..... Ceramic  
 Connector ..... BNC  
 Connector Locations ..... Side

**ORDERING INFORMATION AND ACCESSORIES**

R.45 ..... R.45  
 Cable (specify length in 'XX' m at end of PN) ..... 1234-X  
 Magnetic Hold-Down ..... MHSTD  
 Pre-amplifier ..... 0/2/4, 2/4/6, 1220  
 Preamp to System Cable (specify length in 'm') ..... 1234-X  
 Amplifier Subsystems ..... AE2A, AE5A

*Sensors include*

NIST Calibration Certificate & Warranty



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