

**PRODUCT DATA SHEET**

**R1.5 Sensor**

Low Frequency High Sensitivity Sensor



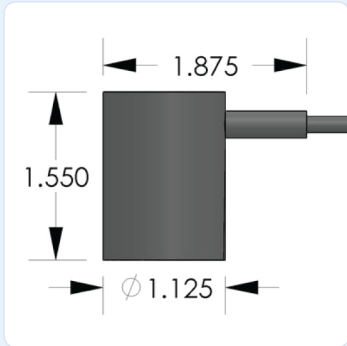
**DESCRIPTION AND FEATURES**

The R1.5 is a low frequency and high sensitivity AE sensor with 14 kHz resonance frequency, 85 dB peak sensitivity and useful bandwidth from 5 to 20 kHz. The sensor has a standard 1 meter RG58 coax cable and BNC connector on the side of the sensor. The cavity is made from stainless steel. It is approximately 1.55" (40 mm) high.

These transducers are completely enclosed in metal stainless steel housings, fabricated to minimize RFI/EMI interference.

**APPLICATIONS**

This sensor is normally used in structural health monitoring of concrete and steel structures. It is also a good choice for pipeline leak detection.



**OPERATING SPECIFICATIONS**

*Dynamic*

Peak Sensitivity, Ref V/(m/s) ..... 85 dB  
 Operating Frequency Range ..... 5-20 kHz  
 Resonant Frequency, Ref V/(m/s) ..... 14 kHz  
 Directionality ..... +/-1.5 dB

*Environmental*

Temperature Range ..... -35 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 ..... 100 grams  
 Case Material ..... Stainless Steel  
 Face Material ..... Stainless Steel  
 Connector ..... 1 m cable with BNC  
 Connector Locations ..... Side

**ORDERING INFORMATION AND ACCESSORIES**

R1.5 ..... R1.5  
 Cable (specify length in 'XX' m at end of PN) ..... 1234 - X  
 Magnetic Hold-Down ..... MHR1.5I  
 External Pre-Amplifier ..... 2/4/6 or IL  
 Preamp to System Cable (specify length in 'm') ..... 1234-X  
 Amplifier Subsystems ..... AE2A  
 Pre-amplifiers ..... 0/2/4, 2/4/6

*Sensors include*

NIST Calibration Certificate & Warranty

