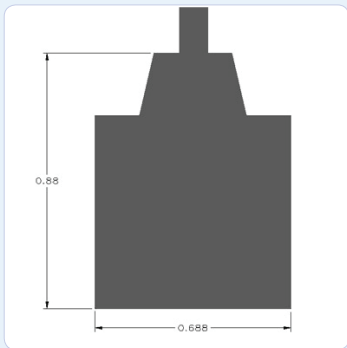


**PRODUCT DATA SHEET**

**R15-UG Sensor**  
Underground Sensor



**DESCRIPTION AND FEATURES**

R15-UG is a resonant underground sensor with very high sensitivity. The sensor features special polymer coatings making it 100% insulated and non conductive with an integral waterproof cable. The sensor is tested to depths of 1000 psi.

**APPLICATIONS**

The sensor can be used for the structural health monitoring of underground structures like pipelines, oil tanks, tunnels etc. They can also be used for monitoring geological structures and seismic activity.

**OPERATING SPECIFICATIONS**

*Dynamic*

Peak Sensitivity, Ref V/(m/s) ..... 69 dB  
 Peak Sensitivity, Ref V/ $\mu$ bar ..... -63 dB  
 Operating Frequency Range ..... 50-200 KHz  
 Resonant Frequency, Ref V/(m/s) ..... 75 dB  
 Resonant Frequency, Ref V/ $\mu$ bar ..... 150 KHz  
 Directionality ..... +/- 1.5 dB

*Environmental*

Temperature Range ..... -35 to 75°C  
 Shock Limit ..... 500 g  
 Completely enclosed crystal for RFI/EMI immunity

*Physical*

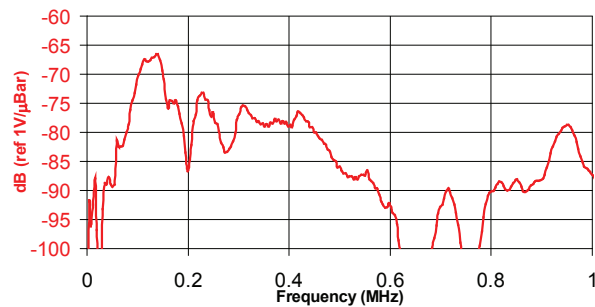
Dimensions ..... 0.69"OD X 0.68"H  
 ..... 18 mm OD X 17 mm H  
 Weight ..... 26 grams  
 Case Material ..... Stainless Steel/Epoxy  
 Face Material ..... Ceramic  
 Connector ..... BNC on integral cable  
 Connector Locations ..... Top (optional side exit)

**ORDERING INFORMATION AND ACCESSORIES**

R15-UG ..... R15-UG  
 Cable (specify length in 'XX' m at end of PN) ..... 1234-X  
 Pre-amplifiers ..... 0/2/4, 2/4/6  
 Preamp to System Cable (specify length in 'm') ..... 1234-X  
 Amplifier Subsystems ..... AE2A or AE5A

*Sensors include*

NIST Calibration Certificate & Warranty



**WORLDWIDE HEADQUARTERS:**  
 195 Clarksville Rd •  
 Princeton Jct, NJ 08550 • USA  
 T: +1.609.716.4000 • F: +1.609.716.0706  
 E-MAIL: sales.systems@mistrasgroup.com

**CANADA** T: +1.403.556.1350  
**CHINA** T: +86.10.5877.3631  
**FRANCE** T: +331.498.26040  
**GERMANY** T: +49.040.2000.4025  
**GREECE** T: +30.210.2846.801-4

**HOLLAND** T: +31.010.245.0325  
**INDIA** T: +91.22.2586.2444  
**JAPAN** T: +81.33.498.3570  
**MALAYSIA** T: +60.9.517.3788  
**MIDDLE EAST** T: +973.17.729.356

**RUSSIA** T: +7495.789.4549  
**SCANDINAVIA** T: +46(0)31.252040  
**S. AMERICA** T: +55.11.3082.5111  
**UK** T: +44(0)1954.231.612