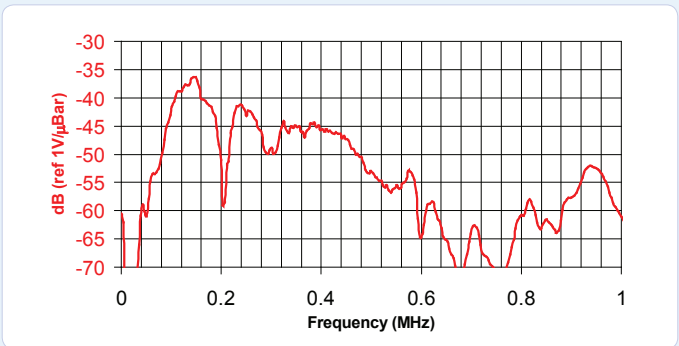
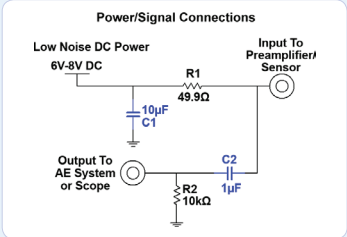
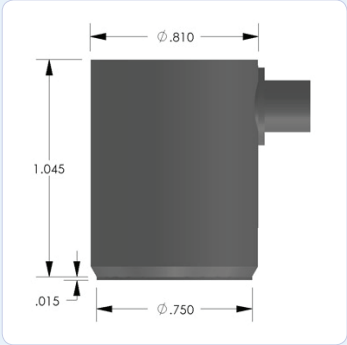


**PRODUCT DATA SHEET**

**PK15I Sensor**

Medium Frequency Integral Pre-amplifier Resonant Sensor



**DESCRIPTION AND FEATURES**

The PK15I sensor is a medium frequency, resonant, acoustic emission sensor with an integral, ultra low noise, low power, filtered, 26dB preamplifier, which can drive up to 200 meters of cable. This new sensor represents an improvement in both noise and low power consumption performance, with noise level below 3 μV and power consumption of 25 mW. The PK15I features a strong stainless steel, integrated body structure. The sensor is smaller size and the same frequency response as the R15I sensor.

The integrated Auto Sensor Test (AST\*) capability allows these sensors to pulse as well as receive. This feature lets you verify the sensor coupling and performance at any time before, during or after the test.

**APPLICATIONS**

The PK15I sensor has been designed to be used with the Pocket AE, a small handheld AE system, or with the Sensor Highway II, an outdoor rated, on-line monitoring system.

**OPERATING SPECIFICATIONS**

*Dynamic*

Peak Sensitivity, Ref V/μbar ..... -36 dB  
 Operating Frequency Range ..... 100-450 kHz  
 Resonant Frequency, Ref V/μbar ..... 150 kHz  
 Directionality ..... +/- 1.5 dB

*Environmental*

Temperature Range ..... -35 to 80°C  
 Shock Limit ..... 500 g  
 Completely enclosed crystal for RFI/EMI immunity

*Physical*

Dimensions ..... 0.812" OD X 1.06" H  
 20.6 mm OD X 27 mm H  
 Weight ..... 51 grams  
 Case Material ..... Stainless Steel  
 Face Material ..... Ceramic  
 Connector ..... SMA  
 Connector Locations ..... Side

*Electrical*

Gain ..... 26 dB  
 Power Requirements ..... 4-7 VDC @ 5 mA  
 Operating/Max Current ..... 5/35 mA  
 Noise Level (RMS RTI) ..... < 3 μV

**ORDERING INFORMATION AND ACCESSORIES**

PK15I ..... PK15I  
 Cable (specify cable length) ..... 1234-SMA/BNC-X  
 Magnetic Hold-Down ..... MHPK15I  
 Amplifier Subsystem ..... AE2A, AE5A

*Sensors include*

NIST Calibration Certificate & Warranty

\* AST — Auto Sensor Testing feature allows AE systems to control the sensor as a pulser and a receiver at the same time. It can therefore characterize its own condition as well as send out a simulated acoustic emission wave that other sensors can detect, so the condition of the nearby sensors also can be tested.



**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