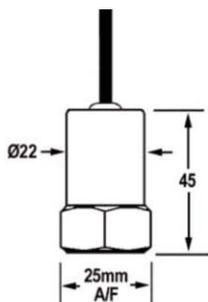




# A9012 Accelerometer

A9012 Data Sheet1215

Flame retardant, flexible cable, 100mv/g Industrial Accelerometer



**A9089:** Comes standard with 9080 and Ultra II

Use **A9012:** To order replacement accelerometer only



**A9012:** Accelerometer

### • Typical Applications

Proven use in vibration monitoring for offline applications using commercially available data collectors and online monitoring systems in the fields of Building Services, Civil Engineering, Paper and Pulp, Mining, Metals Manufacture, Utilities, Automotive, Water and Waste Treatment, Pharmaceutical, Aerospace, etc.

### • Protecting

Fans, Motors, Pumps, Compressors, Centrifuges, Conveyers, Air Handlers, Gearboxes, Roll, Dryers, Presses, Cooling, HVAC, Spindles, Machine Tooling, Process Equipment and many more.



**A9073:** Magnet

### Technical Performance

|                               |                                               |
|-------------------------------|-----------------------------------------------|
| <b>Mounted Base Resonance</b> | 22kHz (nominal)                               |
| <b>Sensitivity</b>            | 100 mV/g + 10%<br>Nominal 80 Hz at 22 °C      |
| <b>Frequency Response</b>     | 2 Hz to 10 kHz + 5%<br>0.8 Hz to 15 kHz + 3dB |
| <b>Isolation</b>              | Base isolated                                 |
| <b>Measurement Range</b>      | + 80 g                                        |
| <b>Transverse Sensitivity</b> | Less than 5%                                  |

### Electrical

|                         |                        |
|-------------------------|------------------------|
| <b>Electrical Noise</b> | 0.1 mg max             |
| <b>Current Range</b>    | 0.5 mA to 8 mA         |
| <b>Bias Voltage</b>     | 10-12 Volts DC         |
| <b>Setting Time</b>     | 2 seconds              |
| <b>Output Impedance</b> | 200 Ohms max.          |
| <b>Case Isolation</b>   | >108 Ohms at 500 Volts |

### Environmental

|                                    |                                |
|------------------------------------|--------------------------------|
| <b>Operating Temperature Range</b> | -40F to 212F<br>(-40C to 100C) |
| <b>Sealing</b>                     | IP65                           |
| <b>Maximum Shock</b>               | 5000 g                         |
| <b>Emissions</b>                   | EN61000-6-4:2001               |
| <b>Immunity</b>                    | EN61000-6-2:1999               |

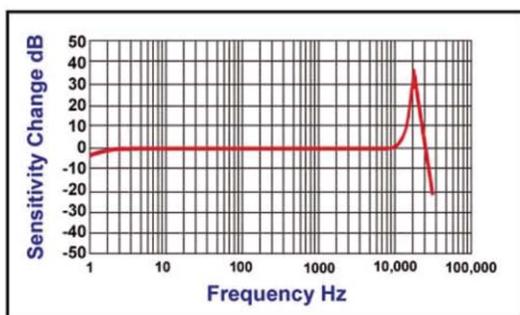
### Mechanical

|                                     |                         |
|-------------------------------------|-------------------------|
| <b>Case Material</b>                | Stainless steel         |
| <b>Sensing Element/Construction</b> | PZT/Compression         |
| <b>Mounting Torque</b>              | 70.8 inlb (8Nm)         |
| <b>Weight</b>                       | 3.9 oz. (110 g) nominal |
| <b>Standard Cable length</b>        | 3.2 feet (1 meter)      |
| <b>Mounting Threads</b>             | 1/4 X 28 UNF Female     |

### Part Number

|              |                          |
|--------------|--------------------------|
| <b>A9012</b> | Accelerometer only       |
| <b>A9073</b> | Accelerometer magnet     |
| <b>A9089</b> | Accelerometer and magnet |

### Frequency Response



### Mounting of sensor to achieve good repeatable readings.

Vibration sensor should be firmly fixed to a flat surface (spot face surface may be needed to be produced and cable anchored to sensor body.)





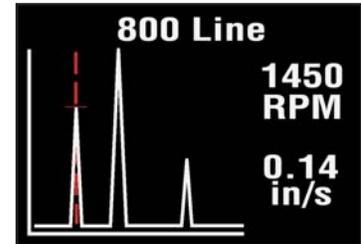
# Test the TPI Advantage

High Performance Test Instruments at the Right Price .



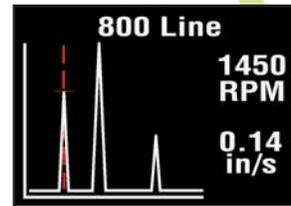
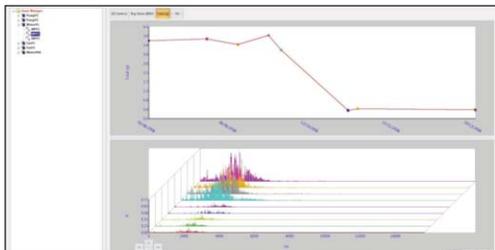
## 9070 Smart Vibration Meter

- 1 Detect out of balance, misalignment, looseness and bearing defects



## 9080 Smart Trend Meter Analyzes, Interprets and TRENDS

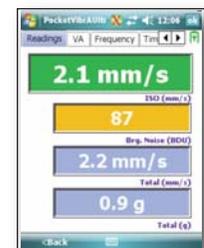
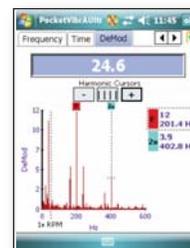
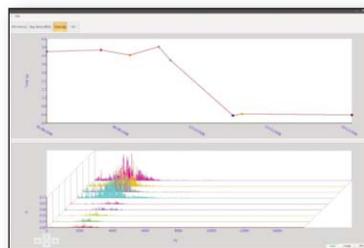
- 1 Detect out of balance, misalignment, looseness and bearing defects
- 2 Detects faults before breakdowns with VibTrend software



## Ultra II does it all

- High spec CBM data collector • Plant and asset inspections
- Single and dual plane balancing (for dual plane balancing additional A9089 accelerometer required)

- 1 Detect out of balance, misalignment, looseness and bearing defects
- 2 Detects faults by identifying the cause preventing breakdowns from happening
- 3 Trending and bearing analyses with C-Trend software



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