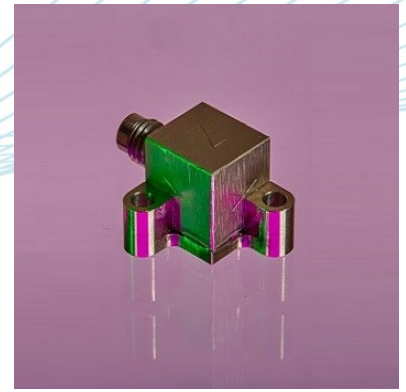


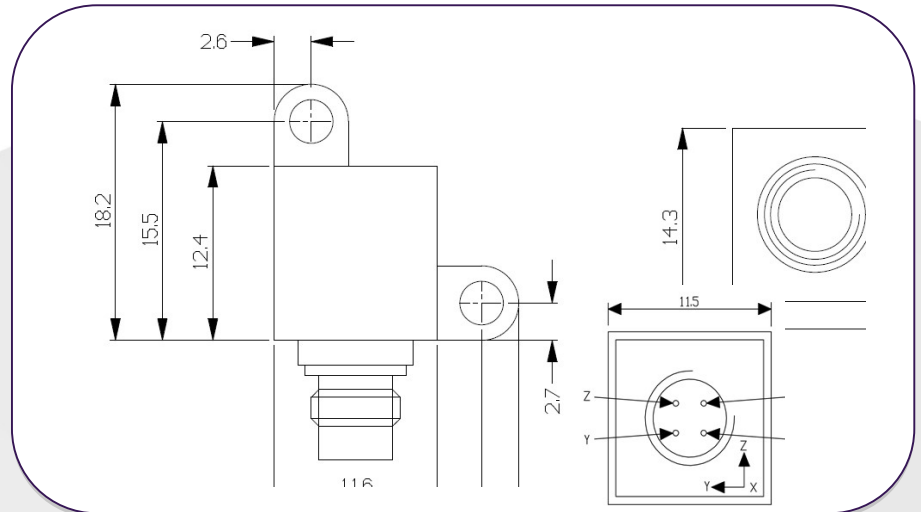
## AT/10/F Miniature Triaxial Piezo-Tronic IEPE Accelerometer

1mV/g up to 100mV/g  $\pm 10\%$     10gm    125°C Max Temp

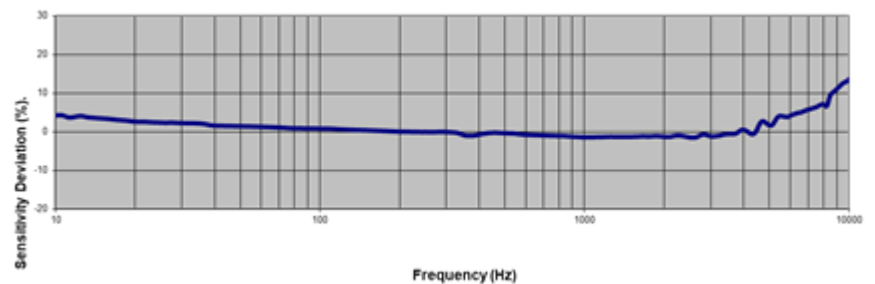


A lightweight miniature triaxial IEPE vibration transducer comprising of three voltage output piezo-electric accelerometer elements mounted orthogonally within a titanium block. The use of independent Konic Shear® sensing elements ensures a rugged and repeatable triaxial measurement under the most extreme conditions. This design will outperform single element devices. The AT/10 uses high temperature piezo-ceramics as standard to ensure thermal stability. Using the industry standard 1/4-28 UNF 4 pin connector for a single cable connection, cable assemblies of any length can be provided breaking out to 3 BNC plugs.

Standard sensitivity options are 1mV/g up to 100mV/g



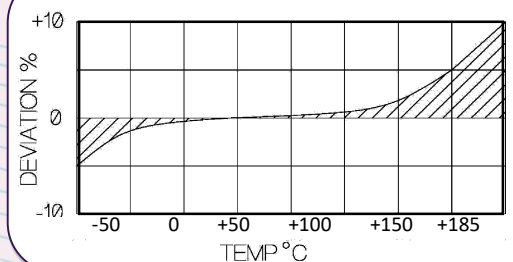
### Typical Frequency Response



### Typical Spectral Noise (100mV/g)

|       |                                      |
|-------|--------------------------------------|
| 1Hz   | 393.4 $\mu\text{g}/\sqrt{\text{Hz}}$ |
| 10Hz  | 174 $\mu\text{g}/\sqrt{\text{Hz}}$   |
| 100Hz | 32.1 $\mu\text{g}/\sqrt{\text{Hz}}$  |
| 1kHz  | 12.7 $\mu\text{g}/\sqrt{\text{Hz}}$  |
| 10kHz | 5.1 $\mu\text{g}/\sqrt{\text{Hz}}$   |

### Temperature Response



### Options

|          |                         |
|----------|-------------------------|
| AT/10    | Side entry              |
| AT/10/F  | Side entry, Flanged     |
| AT/10/TB | Side entry, Tapped base |

Please note: For information and reference only. Data should not be used as pass / fail criteria for calibration purposes

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# AT/10/F Miniature Triaxial Piezo-Tronic IEPE Accelerometer

1mV/g up to 100mV/g  $\pm 10\%$     10gm    125°C Max Temp



|                                                | Metric                  |                            |                            | Imperial                 |                            |                          |
|------------------------------------------------|-------------------------|----------------------------|----------------------------|--------------------------|----------------------------|--------------------------|
| Voltage Sensitivity @ 20°C ±10%                | 0.1mV/(m/s²)            | 1.02 mV/(m/s²)             | 10.2mV/(m/s²)              | 1mV/g                    | 10mV/g                     | 100mV/g                  |
| Resonant Frequency                             | ≥58kHz                  |                            |                            |                          |                            |                          |
| Typical Frequency range                        | ±5%<br>±10%             | 1Hz - 7kHz<br>0.7Hz - 8kHz | 1Hz - 7kHz<br>0.7Hz - 8kHz | 2Hz - 7kHz<br>1Hz - 8kHz | 1Hz - 7kHz<br>0.7Hz - 8kHz | 2Hz - 7kHz<br>1Hz - 8kHz |
| Cross Axis Error                               | ≤5% max                 |                            |                            |                          |                            |                          |
| Temperature Range                              | -50/ +125°C (+185°C HT) |                            |                            | -58/ +257°F (+365°F HT)  |                            |                          |
| Voltage Sensitivity deviation<br>(20°C / 68°F) | +5% @ +125°C            |                            |                            | +5% @ +257°F             |                            |                          |
| Supply Voltage                                 | 15V to 35V standard     |                            |                            |                          |                            |                          |
| Supply Current                                 | 2-20mA                  |                            |                            |                          |                            |                          |
| Output Impedance                               | ≤100Ω                   |                            |                            |                          |                            |                          |
| Bias Voltage (20°C / 68°F)                     | 9 to12 V DC             |                            |                            |                          |                            |                          |
| Settling time within 10% bias                  | <6 seconds              |                            |                            |                          |                            |                          |
| Amplitude Linearity (%FS)                      | ≤1%                     |                            |                            | ≤1%                      |                            |                          |
| Broadband resolution                           | 0.002grms               |                            |                            | 0.002grms                |                            |                          |
| Shock Limit                                    | 49033m/s²               |                            |                            | 5000g                    |                            |                          |
| Saturation limit (equiv. g)                    | 49033m/s²               | 4903m/s²                   | 490m/s²                    | 5000g                    | 500g                       | 50g                      |
| Case Material                                  | Titanium                |                            |                            |                          |                            |                          |
| Mounting                                       | 2x M3 mounting screws   |                            |                            |                          |                            |                          |
| Weight                                         | 10gm                    |                            |                            | 0.35oz                   |                            |                          |
| Case Seal                                      | Welded                  |                            |                            |                          |                            |                          |
| Size                                           | 12.4 x 11.6 x 14.3mm    |                            |                            | 0.49 x 0.46 x 0.56in     |                            |                          |
| Connector                                      | ¼-28UNF 4 pin           |                            |                            |                          |                            |                          |
| Base Strain Sensitivity                        | ≤0.001g/μ strain        |                            |                            |                          |                            |                          |

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