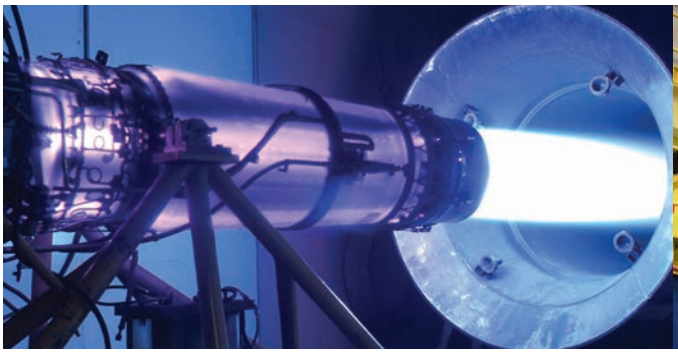
PCB PIEZOTRONICS
AN AMPHENOL COMPANY



MODEL **EX356A73**

# TRIAXIAL CHARGE MODE ACCELEROMETER WITH UHT-12™ ELEMENT

- Eliminates need for high temperature triaxial measurements to be taken with three separate single-axis accelerometers mounted on a triaxial mounting block
- ATEX/CSA/IECEx intrinsic safety certification allows sensor to be used worldwide in potentially-explosive environments
- Smaller, lighter design allows for simplified installation in even the tightest of spaces
- Use of UHT-12™ sensing element and hermetically-sealed, nickel alloy housing provides sensor endurance in very high temperatures

## PROVIDES MORE CONSISTENT SENSITIVITY OVER A WIDE TEMPERATURE RANGE

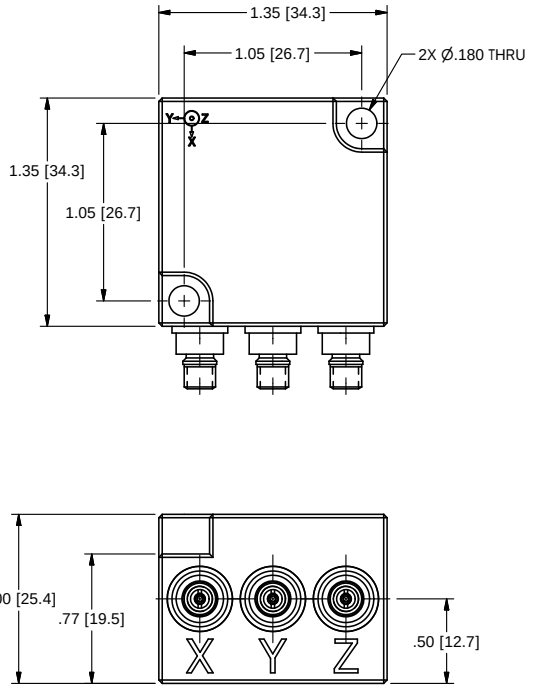
PCB Piezotronics utilizes a UHT-12™ element that features a proprietary crystal technology sealed in a hermetic package for long-term reliability. The element has no pyroelectric output that provides accurate low-frequency measurements and reduced thermal noise spikes that eliminate false alarms during monitoring. The element also has a more consistent sensitivity over a wide temperature change to provide greater accuracy. The shear mode crystals prevent base strain and transverse measurement errors.

## TYPICAL APPLICATIONS

- Aviation/Power Generation Turbine Research & Development
- Commissioning of Nuclear Power Plants
- Vehicle Exhaust System NVH

## SPECIFICATIONS

| Model Number | EX356A73 |
|---|---|
| **Performance** | |
| Sensitivity (±5%) | 3.2 pC/g |
| | 0.33 pC/(m/s²) |
| Measurement Range | ± 500 g pk |
| | ±4,905 m/s² pk |
| Frequency Range (±5%) | Up to 4 kHz |
| Resonant Frequency | 25 kHz |
| Transverse Sensitivity | ≤ 5 % |
| Non-Linearity | ≤ 1 % |
| **Environmental** | |
| Overload Limit (Shock) | ±2,000 g pk |
| | ±19,620 m/s² pk |
| Operating Temperature Range | -67 to +900 °F |
| | -55 to +482 °C |
| Base Strain Sensitivity | 0.003 g/με |
| | 0.029 (m/s²)/με |
| Radiation Exposure Limit (Integrated Neutron Flux) | 1 E10 N/cm² |
| Radiation Exposure Limit (Integrated Gamma Flux) | 1 E8 rad |
| **Electrical** | |
| Capacitance (Pole-to-Pole) | 120 pF |
| Insulation Resistance (Room Temp) | >1 GOhm |
| Insulation Resistance (900 °F / 482 °C) | >100 kOhm |
| Output Polarity | Negative |
| Electrical Isolation | Case Isolated (>1E6 Ohm) |
| **Physical** | |
| Sensing Geometry | Shear |
| Sensing Element | UHT-12™ |
| Housing Material | Nickel Alloy |
| Sealing | Hermetic Welded |
| Mounting Thread | 8-32 Male |
| Electrical Connector | Three 10-32 Coaxial Jacks |
| Electrical Connector Position | Side |
| Weight | 5.3 oz |
| | 150 g |




## SENSOR CHAIN COMPONENTS

| | Non-Radiation Environment | Radiation Environment |
|---|---|---|
| Sensor |  EX356A73 | |
| Hardline Cable |  023FZXXXGA |  023FZXXXFZ |
| Softline Cable |  003EBXXXEB | N/A |
| Charge Amplifier |  422E35 (1 mV/pC) 422E36 (10 mV/pC) |  422E65/A (1 mV/pC) 422E66/A (10 mV/pC) |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