



MODEL 624B01, 627A01, 628F01

ICP[®] ACCELEROMETERS WITH QUARTZ ELEMENT



- Naturally piezoelectric for excellent long-term stability and repeatability.
- Non-pyroelectric for production of accurate output regardless of temperature.
- Low temperature coefficient for delivery of a linear sensitivity in thermally-active environments.

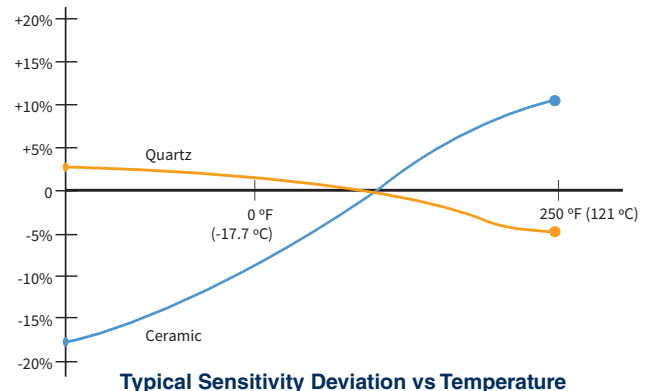
TYPICAL APPLICATIONS

- Permanent Installations for Long-Term Monitoring
- Thermally Active Environments:
 - Conveyors
 - Outdoor Installations
 - Paper Mills
 - Power Plants



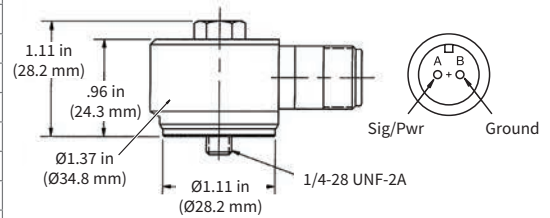
PROVIDE LONG-TERM, STABLE SENSITIVITY IN A WIDE RANGE OF TEMPERATURES

IMI Sensors is the industry leader in industrial ICP[®] accelerometers with a quartz sensing element. Quartz sensors are available in a wide variety of configurations to meet specific application requirements, including top and side connector versions, integral cable versions, high temperature versions (up to 325 °F [162 °C]) and dual output (vibration/temperature) versions.



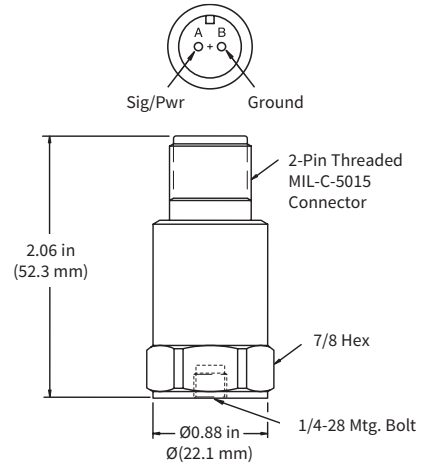
Typical Sensitivity Deviation vs Temperature

| SPECIFICATIONS | | | |
|--------------------------------|------------------------------|------------------------------|------------------------------|
| Model Number | 740B02 | 740M04 | 628F01 |
| Performance | | | |
| Sensitivity ($\pm 20\%$) | 100 mv/g | 100 mv/g | 100 mv/g |
| Sensitivity ($\pm 20\%$) | 10.2 mV/(m/s ²) | 10.2 mV/(m/s ²) | 10.2 mV/(m/s ²) |
| Measurement Range | ± 50 g | ± 50 g | ± 50 g |
| | ± 490 m/s ² | ± 490 m/s ² | ± 490 m/s ² |
| Frequency Range ($\pm 5\%$) | 2.4 to 5,000 Hz | N/A | 1 to 4,000 Hz |
| Frequency Range ($\pm 10\%$) | 1.7 to 7,000 Hz | N/A | 0.67 to 6,500 Hz |
| Frequency Range (± 3 dB) | 0.8 to 10,000 Hz | 0.33 to 10,000 Hz | 0.33 to 12,000 Hz |
| Resonant Frequency | 18 kHz | 18 kHz | 18 kHz |
| Broadband Resolution | 1,000 μ g | 1,000 μ g | 1,000 μ g |
| | 9,810 μ m/s ² | 9,810 μ m/s ² | 9,810 μ m/s ² |
| Non-Linearity | ± 1 % | ± 1 % | ± 1 % |
| Transverse Sensitivity | ≤ 5 % | ≤ 5 % | ≤ 5 % |
| Environmental | | | |
| Overload Limit (Shock) | 5,000 g pk | 5,000 g pk | 5,000 g pk |
| | 49,050 m/s ² pk | 49,050 m/s ² pk | 49,050 m/s ² pk |
| Temperature Range | -65 to +250 °F | -65 to +250 °F | -65 to +250 °F |
| | -53 to +121 °C | -53 to +121 °C | -53 to +121 °C |
| Enclosure Rating | IP68 | IP68 | IP68 |
| Electrical | | | |
| Settling Time | ≤ 10.0 s | ≤ 10.0 s | ≤ 10.0 s |
| | ≥ 0.2 s | ≥ 0.5 s | ≥ 0.5 s |
| Temperature Range | 18 to 28 VDC | 18 to 28 VDC | 18 to 28 VDC |
| Spectral Noise (10 kHz) | 2 to 20 mA | 2 to 20 mA | 2 to 20 mA |
| Output Impedance | <100 Ohm | <100 Ohm | <100 Ohm |
| Output Bias Voltage | 8 to 12 VDC | 8 to 12 VDC | 8 to 12 VDC |
| Spectral Noise (10 Hz) | 50 μ g/ \sqrt Hz | 50 μ g/ \sqrt Hz | 50 μ g/ \sqrt Hz |
| Spectral Noise (100 Hz) | 20 μ g/ \sqrt Hz | 20 μ g/ \sqrt Hz | 20 μ g/ \sqrt Hz |
| Spectral Noise (1 kHz) | 6 μ g/ \sqrt Hz | 6 μ g/ \sqrt Hz | 6 μ g/ \sqrt Hz |
| Electrical Isolation (Case) | >10 ⁸ ohm | >10 ⁸ ohm | >10 ⁸ ohm |
| Physical | | | |
| Sensing Element | Quartz | Quartz | Quartz |
| Sensing Geometry | Shear | Shear | Shear |
| Housing Material | Stainless Steel | Stainless Steel | Stainless Steel |
| Sealing | Welded Hermetic | Welded Hermetic | Welded Hermetic |
| Mounting Thread | 1/4-28 Male | 1/4-28 Female | 1/4-28 Female |
| Mounting Torque | 2 to 5 ft-lb | 2 to 5 ft-lb | 2 to 5 ft-lb |
| | 2.7 to 6.8 N-m | 2.7 to 6.8 N-m | 2.7 to 6.8 N-m |
| Electrical Connector | 2-Pin MIL-C-5015 | 2-Pin MIL-C-5015 | 2-Pin MIL-C-5015 |
| Electrical Connector Position | Side | Top | Top |
| Size | 1.37 x 0.96 in | 0.88 x 2.06 in | 0.88 x 2.06 in |
| | 22.0 x 52.3 mm | 22.0 x 52.3 mm | 22.0 x 52.3 mm |
| Weight | 4.2 oz | 3.3 oz | 3.3 oz |
| | 120 g | 94 g | 94 g |



Model 624B01

Technical Drawing



Model 627A01 & 628F01

Technical Drawing



3425 Walden Avenue, Depew, NY 14043-2495 USA

Toll-Free in the USA: 800 959 4464

Phone: 1 716 684 0001 | Email: info@pcb.com

IMI Sensors, a division of PCB Piezotronics, Inc. manufactures industrial vibration monitoring instrumentation, such as accelerometers, vibration transmitters and switches that feature rugged stainless steel housings and survive in harsh environments like paper and steel mills, mines, gas turbines, water treatment facilities and power plants. Integrating with portable analyzers and PLC's, IMI instrumentation helps maintenance departments reduce downtime and protect critical machinery. Visit IMI Sensors at www.pcb.com. PCB Piezotronics, Inc. is a wholly owned subsidiary of MTS Systems Corporation. Additional information on MTS can be found at www.mts.com.

© 2019 PCB Piezotronics, Inc. In the interest of constant product improvement, specifications are subject to change without notice. PCB®, ICP®, Swiveler®, Modally Tuned®, and IMI® with associated logo are registered trademarks of PCB Piezotronics, Inc. in the United States. ICP® is a registered trademark of PCB Piezotronics Europe GmbH in Germany and other countries. UHT-12™ is a trademark of PCB Piezotronics, Inc. SensorLine™ is a service mark of PCB Piezotronics, Inc. SWIFT® is a registered trademark of MTS Systems Corporation in the United States.

IMI-ICPQuartz-0319



MTS Sensors, a division of MTS Systems Corporation (NASDAQ: MTSC), vastly expanded its range of products and solutions after MTS acquired PCB Piezotronics, Inc. in July, 2016. PCB Piezotronics, Inc. is a wholly owned subsidiary of MTS Systems Corp.; IMI Sensors and Larson Davis are divisions of PCB Piezotronics, Inc.; Accumetrics, Inc. and The Modal Shop, Inc. are subsidiaries of PCB Piezotronics, Inc.