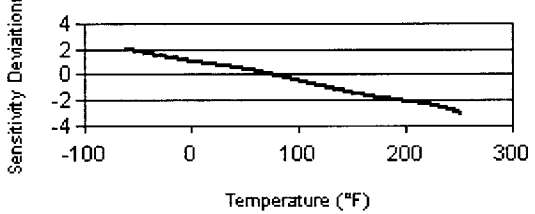
| Model Number | INDUSTRIAL ICP® ACCELEROMETER | Revision: NR |
|---|---|---|
| 624B11 | | ECN #: |

| Performance | ENGLISH | SI | |
|---|---|---|---|
| Sensitivity (±5 %) | 100 mV/g | 10.2 mV/(m/s²) | [2] |
| Measurement Range | ±50 g | ±490 m/s² | |
| Frequency Range (±5 %) | 144 to 300000 cpm | 2.4 to 5000 Hz | [3] |
| Frequency Range (±10 %) | 102 to 420000 cpm | 1.7 to 7000 Hz | |
| Frequency Range (±3 dB) | 48 to 600000 cpm | 0.8 to 10000 Hz | |
| Resonant Frequency | 1080 kcpm | 18 kHz | [1] |
| Broadband Resolution (1 to 10000 Hz) | 1000 µg | 9810 µm/s² | [1] |
| Non-Linearity | ±1 % | ±1 % | [4] |
| Transverse Sensitivity | ≤5 % | ≤5 % | |
| **Environmental** | | | |
| Overload Limit (Shock) | 5000 g pk | 49050 m/s² pk | |
| Temperature Range | -65 to +250 °F | -54 to +121 °C | |
| Temperature Response | See Graph | See Graph | |
| Enclosure Rating | IP68 | IP68 | |
| **Electrical** | | | |
| Settling Time (within 1% of bias) | ≤10 sec | ≤10 sec | |
| Discharge Time Constant | ≥0.2 sec | ≥0.2 sec | |
| Excitation Voltage | 18 to 28 VDC | 18 to 28 VDC | |
| Constant Current Excitation | 2 to 20 mA | 2 to 20 mA | |
| Output Impedance | <100 ohms | <100 ohms | |
| Output Bias Voltage | 8 to 12 VDC | 8 to 12 VDC | |
| Spectral Noise (10 Hz) | 50 µg/√Hz | 491 (µm/s²)/√Hz | [1] |
| Spectral Noise (100 Hz) | 20 µg/√Hz | 196 (µm/s²)/√Hz | [1] |
| Spectral Noise (1 kHz) | 6 µg/√Hz | 59 (µm/s²)/√Hz | [1] |
| Electrical Isolation (Case) | $>10^8$ ohms | $>10^8$ ohms | |
| Electrical Protection | RFI/ESD | RFI/ESD | |
| **Physical** | | | |
| Size (Diameter x Height) | 1.37 in x .955 in | 34.8 mm x 24.3 mm | |
| Weight (without cable) | 4.2 oz | 120 gm | |
| Mounting Thread | 1/4-28 Male | Not Applicable | [5] |
| Mounting Torque | 2 to 5 ft-lb | 2.7 to 6.8 N-m | |
| Sensing Element | Quartz | Quartz | |
| Sensing Geometry | Shear | Shear | |
| Housing Material | Stainless Steel | Stainless Steel | |
| Sealing | Welded Hermetic | Welded Hermetic | |
| Electrical Connector | Molded Integral Cable | Molded Integral Cable | |
| Electrical Connection Position | Side | Side | |
| Cable Length | 10 ft | 3.0 m | |
| Cable Type | Polyurethane | Polyurethane | [6] |

CE [7]

Typical Sensitivity Deviation vs Temperature




*All specifications are at room temperature unless otherwise specified.*
*In the interest of constant product improvement, we reserve the right to change specifications without notice.*

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## OPTIONAL VERSIONS

Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.

**LB** - Low Bias Voltage

| | | |
|---|---|---|
| Output Bias Voltage | 6 to 8 VDC | 6 to 8 VDC |
| Excitation Voltage | 12 to 28 VDC | 12 to 28 VDC |
| Measurement Range | ±35 g | ±343 m/s² |

**M** - Metric Mount

Supplied Accessory : Model M081A67 Captive mounting bolt M6 x 1 (1) replaces Model 081A67

**TO** - Temperature Output

| | | |
|---|---|---|
| Temperature Output Range | +36 to +250 °F | +2 to +121 °C |
| Temperature Scale Factor | 5.56 mV/°F + 32 | +10 mV/°C |
| Electrical Connector | Molded Integral Cable | Molded Integral Cable |
| Electrical Connections (Green) | Ground | Ground |
| Electrical Connections (Black) | Ground | Ground |
| Electrical Connections (White) | Temperature Output | Temperature Output |
| Electrical Connections (Red) | Acceleration Output | Acceleration Output |

**NOTES:**

[1] Typical.
[2] Conversion Factor 1g = 9.81 m/s².
[3] The high frequency tolerance is accurate within ±10% of the specified frequency.
[4] Zero-based, least-squares, straight line method.
[5] 1/4-28 has no equivalent in S.I. units.
[6] Twisted shielded pair.
[7] See PCB Declaration of Conformance PS023 for details.

**SUPPLIED ACCESSORIES:**

Model 081A67 Captive mounting bolt 1/4-28 x 1.12" (1)
Model ICS-1 NIST-traceable single-axis amplitude response calibration from 600 cpm (10 Hz) to upper 5% frequency (1)

| Entered: MR | Engineer: MR | Sales: BG | Approved: UP | Spec Number: |
|---|---|---|---|---|
| Date: 10/1/02 | Date: 10/1/02 | Date: 10/7/02 | Date: 10/7/02 | 20626 |

IMI SENSORS
A PCB PIEZOTRONICS DIV.
3425 Walden Avenue, Depew, NY 14043

Phone: 800-959-4464
Fax: 716-684-3823
E-Mail: imi@pcb.com