

Model Number  
**622B01**

# INDUSTRIAL ICP® ACCELEROMETER

Revision: NR  
ECN #:

## Performance

Sensitivity(± 5 %) 100 mV/g [2]  
 Measurement Range ± 50 g [2]  
 Frequency Range(± 5 %) 35 to 360,000 cpm [3]  
 Frequency Range(± 10 %) 25 to 600,000 cpm [3]  
 Frequency Range(± 3 dB) 12 to 900,000 cpm [3]  
 Resonant Frequency 18000 kcpm [1]  
 Broadband Resolution(1 to 10,000 Hz) 50 µg [1]  
 Non-Linearity ± 1 % [1]  
 Transverse Sensitivity ≤ 5 % [4]

## Environmental

Overload Limit(Shock) 5000 g pk [1]  
 Temperature Range -65 to +250 °F [1]  
 Temperature Response See Graph [1]  
 Enclosure Rating IP68 [1]

## Electrical

Settling Time(within 1% of bias) ≤ 5.0 sec [1]  
 Discharge Time Constant ≥ 0.8 sec [1]  
 Excitation Voltage 18 to 28 VDC [1]  
 Constant Current Excitation 2 to 20 mA [1]  
 Output Impedance <100 ohm [1]  
 Output Bias Voltage 8 to 12 VDC [1]  
 Spectral Noise(10 Hz) 4.0 µg/√Hz [1]  
 Spectral Noise(100 Hz) 7.85 µg/√Hz [1]  
 Spectral Noise(1 kHz) 3.92 µg/√Hz [1]  
 Electrical Isolation >10<sup>8</sup> ohm [1]  
 Electrical Protection RFI/ESD [1]

## Physical

Size (Hex x Height) 7/8 in x 2.06 in [5]  
 Weight 3.3 oz [5]  
 Mounting Thread 1/4-28 Female [5]  
 Mounting Torque 2 to 5 ft-lb [5]  
 Sensing Element Ceramic [5]  
 Sensing Geometry Shear [5]  
 Housing Material Stainless Steel [5]  
 Sealing Welded Hermetic [5]  
 Electrical Connector 2-Pin MIL-C-5015 [5]  
 Electrical Connection Position Top [5]



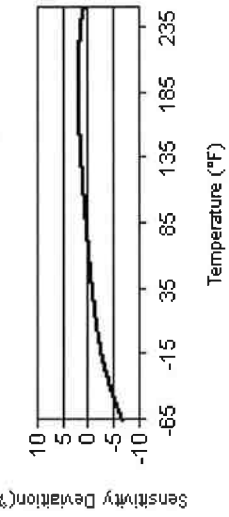
**ENGLISH**  
 100 mV/g [2]  
 ± 50 g [2]  
 35 to 360,000 cpm [3]  
 25 to 600,000 cpm [3]  
 12 to 900,000 cpm [3]  
 18000 kcpm [1]  
 50 µg [1]  
 ± 1 % [1]  
 ≤ 5 % [4]  
 5000 g pk [1]  
 -65 to +250 °F [1]  
 See Graph [1]  
 IP68 [1]

**SI**  
 10.2 mV/(m/s<sup>2</sup>) [2]  
 ± 490 m/s<sup>2</sup> [2]  
 0.58 to 6000 Hz [3]  
 0.42 to 10,000 Hz [3]  
 0.2 to 15,000 Hz [3]  
 30 kHz [1]  
 490 µm/s<sup>2</sup> [1]  
 ± 1 % [1]  
 ≤ 5 % [4]  
 49,050 m/s<sup>2</sup> pk [1]  
 -54 to +121 °C [1]  
 See Graph [1]  
 IP68 [1]

≤ 5.0 sec [1]  
 ≥ 0.8 sec [1]  
 18 to 28 VDC [1]  
 2 to 20 mA [1]  
 <100 ohm [1]  
 8 to 12 VDC [1]  
 39.2 (µm/s<sup>2</sup>)/√Hz [1]  
 7.85 (µm/s<sup>2</sup>)/√Hz [1]  
 3.92 (µm/s<sup>2</sup>)/√Hz [1]  
 >10<sup>8</sup> ohm [1]  
 RFI/ESD [1]

7/8 in x 2.06 in [5]  
 3.3 oz [5]  
 1/4-28 Female [5]  
 2 to 5 ft-lb [5]  
 Ceramic [5]  
 Shear [5]  
 Stainless Steel [5]  
 Welded Hermetic [5]  
 2-Pin MIL-C-5015 [5]  
 Top [5]

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.

**M** - Metric Mount  
 Supplied Accessory : Model M081A61 Mounting Stud 1/4-28 to M6 X 1 (1)

## NOTES:

- [1] Typical.
- [2] Conversion Factor 1g = 9.81 m/s<sup>2</sup>.
- [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] See PCB Declaration of Conformance PS023 for details.

## SUPPLIED ACCESSORIES:

Model 081A40 Mounting Stud (1)  
 Model ICS-1 NIST-traceable single-axis amplitude response calibration from 600 cpm (10 Hz) to upper 5% frequency (1)

Entered: <i>[Signature]</i>	Engineer: JJD	Sales: <i>[Signature]</i>	Approved: J.C.	Spec Number:
Date: 3/30/07	Date: 3/30/07	Date: 3/30/07	Date: 4/2/07	35885

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