

Model Number  
**621B40**

## INDUSTRIAL ICP® ACCELEROMETER

Revision L  
ECN #: 24100

### Performance

Sensitivity ( $\pm 10\%$ ) [2]  
Measurement Range  $\pm 500$  g [3][4]  
Frequency Range ( $\pm 10\%$ ) 204 to 1080000 Hz [3][4]  
Frequency Range ( $\pm 3$  dB) 96 to 1800000 cpm [3][4]  
Resonant Frequency 5100 kcpm [1][5]  
Broadband Resolution (1 to 10000 Hz) 1.2 mg rms [1]  
Non-Linearity  $\pm 1\%$  [6]  
Transverse Sensitivity  $\leq 5\%$

### Environmental

Overload Limit (Shock) 10000 g pk  
Temperature Range  $-65$  to  $+250$  °F  
Temperature Response See Graph [1]

### Electrical

Settling Time (within 1% of bias)  $\leq 3.0$  sec  
Discharge Time Constant  $\geq 0.1$  sec  
Excitation Voltage 18 to 28 VDC  
Constant Current Excitation 2 to 20 mA  
Output Impedance  $< 100$  ohm  
Output Bias Voltage 8 to 12 VDC  
Spectral Noise (10 Hz) 980 ( $\mu\text{m/s}^2$ )/ $\sqrt{\text{Hz}}$  [1]  
Spectral Noise (100 Hz) 294 ( $\mu\text{m/s}^2$ )/ $\sqrt{\text{Hz}}$  [1]  
Spectral Noise (1 kHz) 98.1 ( $\mu\text{m/s}^2$ )/ $\sqrt{\text{Hz}}$  [1]

### Physical

Size (Hex x Height) 3/8 in x 0.66 in  
Weight 0.10 oz  
Mounting Thread 5-40 Male  
Mounting Torque 18 to 20 in-lb  
Sensing Element Ceramic  
Sensing Geometry Shear  
Housing Material Titanium  
Sealing Welded Hermetic  
Electrical Connector 5-44 Coaxial Jack  
Electrical Connection Position Top

**Optional Versions** (Optional versions have identical specifications and accessories as listed for standard model except where noted below. More than one option may be used.)  
**M** - Metric Mount

### Notes

- [1] Typical value
- [2] Conversion Factor  $1g = 9.81 \text{ m/s}^2$ .
- [3] The high frequency tolerance is accurate within  $\pm 10\%$  of the specified frequency.
- [4] Frequency response with adhesive base.
- [5] Mounted resonance (nominal) without magnet.
- [6] Zero-based, least-squares, straight line method.
- [7] See PCB Declaration of Conformance PS023 for details.

### Supplied Accessories

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

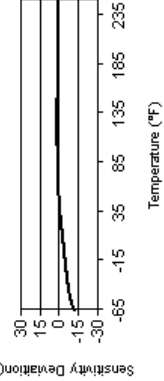
### ENGLISH

SI  
1.02 mV/(m/s<sup>2</sup>)  
 $\pm 4905 \text{ m/s}^2$   
3.4 to 18000 Hz  
1.6 to 30000 Hz  
85 kHz  
1176  $\mu\text{m/s}^2$   
 $\pm 1\%$   
 $\leq 5\%$   
98100 m/s<sup>2</sup> pk  
 $-54$  to  $+121$  °C  
See Graph

### SI

10 mV/g  
 $\pm 500$  g  
204 to 1080000  
cpm  
96 to 1800000 cpm  
5100 kcpm  
1.2 mg rms  
 $\pm 1\%$   
 $\leq 5\%$   
10000 g pk  
 $-65$  to  $+250$  °F  
See Graph

Typical Sensitivity Deviation vs Temperature



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All specifications are at room temperature unless otherwise specified.  
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