

# INDUSTRIAL ICP® ACCELEROMETER

Model Number  
**625B02**

Revision: C  
ECN #: 14824

### ENGLISH

### SI

### 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.

<b>Performance</b>		
Sensitivity (±5 %)	500 mV/g	51 mV/(m/s <sup>2</sup> )
Measurement Range	±10 g	±98 m/s <sup>2</sup>
Frequency Range (±10 %)	30 to 120000 cpm	0.37 to 4000 Hz
Frequency Range (±10 %)	22 to 240000 cpm	0.2 to 6000 Hz
Frequency Range (±3 dB)	12 to 360000 cpm	12 KHz
Resonant Frequency	720 kcpm	147 μm/s <sup>2</sup>
Broadband Resolution (1 to 10000 Hz)	15 μg	±1 %
Non-Linearity	±1 %	±7 %
Transverse Sensitivity	±7 %	±7 %
<b>Environmental</b>		
Overload Limit (Shock)	2500 g pk	24525 m/s <sup>2</sup> pk
Temperature Range	-65 to +250 °F	-54 to +121 °C
Temperature Response	See Graph	See Graph
Enclosure Rating	IP68	IP68
<b>Electrical</b>		
Setting Time (within 1% of bias)	≤4.5 sec	≤4.5 sec
Discharge Time Constant	≥1.0 sec	≥1.0 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)	0.9 μg/√Hz	8.8 (μm/s <sup>2</sup> )/√Hz
Spectral Noise (100 Hz)	0.7 μg/√Hz	7.0 (μm/s <sup>2</sup> )/√Hz
Spectral Noise (1 kHz)	0.3 μg/√Hz	3.1 (μm/s <sup>2</sup> )/√Hz
Electrical Isolation (Case)	>10 <sup>8</sup> ohms	>10 <sup>8</sup> ohms
Electrical Protection	RFI/ESD	RFI/ESD
<b>Physical</b>		
Size (Diameter x Height)	1.3 in x 1 1/8 in	35.1 mm x 28.7 mm
Weight	6.1 oz	173 gm
Mounting	Through Hole	Through Hole
Mounting Thread	1/4-28 Male	Not Applicable
Mounting Torque	2 to 5 ft-lb	2.7 to 6.8 N-m
Sensing Element	Ceramic	Ceramic
Sensing Geometry	Shear	Shear
Housing Material	Stainless Steel	Stainless Steel
Sealing	Welded Hermetic	Welded Hermetic
Electrical Connector	2-Pin MIL-C-5015	2-Pin MIL-C-5015
Electrical Connection Position	Side	Side

<b>LB - Low Bias Voltage</b>		
Output Bias Voltage	6 to 8 VDC	6 to 8 VDC
Excitation Voltage	12 to 28 VDC	12 to 28 VDC
Measurement Range	±7 g	±69 m/s <sup>2</sup>
<b>M - Metric Mount</b>		
Supplied Accessory:	Model W081A73 Mounting Bolt M6 x 1.00	
<b>TO - Temperature Output</b>		
Temperature Output Range	+36 to +250 °F	+2 to +121 °C
Temperature Scale Factor	5.56 mV/°F + 32	+10 mV/°C
Electrical Connector	3-Pin	3-Pin
Electrical Connections (Pin A)	Acceleration Output	Acceleration Output
Electrical Connections (Pin B)	Ground	Ground
Electrical Connections (Pin C)	Temperature Output	Temperature Output

Typical Sensitivity Deviation (%)	Temperature (°F)
10	-65
0	-15
-10	35
-20	85
	135
	185
	235

Typical Sensitivity Deviation vs Temperature

1.3 in x 1 1/8 in	35.1 mm x 28.7 mm
6.1 oz	173 gm
Through Hole	Through Hole
1/4-28 Male	Not Applicable
2 to 5 ft-lb	2.7 to 6.8 N-m
Ceramic	Ceramic
Shear	Shear
Stainless Steel	Stainless Steel
Welded Hermetic	Welded Hermetic
2-Pin MIL-C-5015	2-Pin MIL-C-5015
Side	Side

[5]

1.3 in x 1 1/8 in	35.1 mm x 28.7 mm
6.1 oz	173 gm
Through Hole	Through Hole
1/4-28 Male	Not Applicable
2 to 5 ft-lb	2.7 to 6.8 N-m
Ceramic	Ceramic
Shear	Shear
Stainless Steel	Stainless Steel
Welded Hermetic	Welded Hermetic
2-Pin MIL-C-5015	2-Pin MIL-C-5015
Side	Side

[5]



[6]

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. ICP® is a registered trademark of PCB Group, Inc.

Entered: <i>MJS</i>	Engineer: <i>MJS</i>	Sales: <i>BG7</i>	Approved: <i>UJ</i>	Spec Number:
Date: <i>11/1/02</i>	Date: <i>11/1/02</i>	Date: <i>11/5/02</i>	Date: <i>11/1/02</i>	<b>10955</b>

**SUPPLIED ACCESSORIES:**  
 Model 080B4.5 Thermal Foot (1)  
 Model 081A7.3 Caplve mounting bolt 1/4-28 x 1.34" (1)  
 Model ICS-1 NIST-traceable single-axis amplitude response calibration from 600 cpm (10 Hz) to upper 5% frequency

- 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.

**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](mailto:imi@pcb.com)