

Model Number  
605B61

# INDUSTRIAL ICP® ACCELEROMETER

Revision: NR  
ECN #:

### Performance

	ENGLISH	SI	
Sensitivity (± 20 %)	100 mV/g	10.2 mV/(m/s <sup>2</sup> )	[2]
Measurement Range	± 50 g	± 490 m/s <sup>2</sup>	
Frequency Range (± 3 dB)	30 to 300,000 cpm	0.5 to 5000 Hz	
Resonant Frequency	600 kcpm	10 kHz	[1]
Broadband Resolution (1 to 10,000 Hz)	350 µg	3434 µm/s <sup>2</sup>	[1]
Non-Linearity	± 1 %	± 1 %	[3]
Transverse Sensitivity	≤ 5 %	≤ 5 %	

### Environmental

Overload Limit (Shock)	5000 g pk	49,050 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

### Electrical

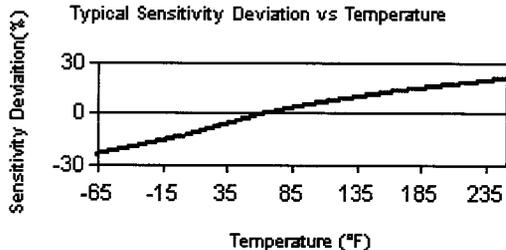
Settling Time (within 1% of bias)	≤ 2.0 sec	≤ 2.0 sec	
Discharge Time Constant	≥ 0.3 sec	≥ 0.3 sec	
Excitation Voltage	18 to 28 VDC	18 to 28 VDC	
Constant Current Excitation	2 to 20 mA	2 to 20 mA	
Output Impedance	<150 ohm	<150 ohm	
Output Bias Voltage	8 to 12 VDC	8 to 12 VDC	
Spectral Noise (10 Hz)	8 µg/√Hz	78.5 (µm/s <sup>2</sup> )/√Hz	[1]
Spectral Noise (100 Hz)	5 µg/√Hz	49.1 (µm/s <sup>2</sup> )/√Hz	[1]
Spectral Noise (1 kHz)	4 µg/√Hz	39.2 (µm/s <sup>2</sup> )/√Hz	[1]

Electrical Isolation (Case)

>10 <sup>8</sup> ohm	>10 <sup>8</sup> ohm
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### Physical

Size (Diameter x Height)	1.38 in x 1.00 in	35.1 mm x 25.4 mm	
Weight (without cable)	4.0 oz	113.3 gm	
Mounting Thread	1/4-28 UNF	No Metric Equivalent	[4]
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	Integral Armored Cable	Integral Armored Cable	
Electrical Connection Position	Side	Side	
Electrical Connections (Red)	X axis	X axis	
Electrical Connections (White)	Z axis	Z axis	
Electrical Connections (Black)	Ground	Ground	
Electrical Connections (Green)	Not Used	Not Used	
Cable Length	10 ft	3.0 m	
Cable Type	Polyurethane	Polyurethane	[5]



### 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 M081A68 Captive mounting bolt M6 x 1 (1)

### NOTES:

- [1] Typical.
- [2] Conversion Factor 1g = 9.81 m/s<sup>2</sup>.
- [3] Zero-based, least-squares, straight line method.
- [4] 1/4-28 has no equivalent in S.I. units.
- [5] Twisted shielded 4-conductor cable.
- [6] See PCB Declaration of Conformance PS023 for details.

### SUPPLIED ACCESSORIES:

Model 081A68 Captive mounting bolt 1/4-28 x .90" (1)  
Model ACS-2T NIST Traceable Single Point Calibration at 100 Hz for Each Axis (1)

Entered: <i>JRN</i>	Engineer: <i>AGB</i>	Sales: <i>DD</i>	Approved: <i>NR</i>	Spec Number:
Date: 2-8-05	Date: 2/8/05	Date: 2-8-05	Date: 1/8/02	22847

**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

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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