

Model Number
604B31

INDUSTRIAL ICP® ACCELEROMETER

Revision: A
ECN #: 27957

	ENGLISH	SI	
Performance			
Sensitivity(± 20 %)	100 mV/g	10.2 mV/(m/s ²)	[2]
Measurement Range	± 50 g	± 490 m/s ²	
Frequency Range(± 3 dB)	30 to 300,000 cpm	0.5 to 5000 Hz	[3]
Resonant Frequency	600 kcpm	10 kHz	[1]
Broadband Resolution(1 to 10,000 Hz)	350 µg	3434 µm/s ²	[1]
Non-Linearity	± 1 %	± 1 %	[4]
Transverse Sensitivity	≤ 5 %	≤ 5 %	
Environmental			
Overload Limit(Shock)	5000 g pk	49,050 m/s ² pk	
Temperature Range	-65 to +250 °F	-54 to +121 °C	
Temperature Response	See Graph	See Graph	[1]
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 ²)/√Hz	[1]
Spectral Noise(100 Hz)	5 µg/√Hz	49.1 (µm/s ²)/√Hz	[1]
Spectral Noise(1 kHz)	4 µg/√Hz	39.2 (µm/s ²)/√Hz	[1]
Electrical Isolation(Case)	>10 ⁸ ohm	>10 ⁸ ohm	
Physical			
Size (Diameter x Height)	1.38 in x 1.00 in	35.1 mm x 25.4 mm	
Weight	4.4 oz	124 gm	
Mounting	Through Hole	Through Hole	
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	Ceramic	Ceramic	
Sensing Geometry	Shear	Shear	
Housing Material	Stainless Steel	Stainless Steel	
Sealing	Welded Hermetic	Welded Hermetic	
Electrical Connector	4-Pin MIL-C-26482	4-Pin MIL-C-26482	
Electrical Connection Position	Side	Side	
Electrical Connections(Pin A)	X axis	X axis	
Electrical Connections(Pin B)	Y axis	Y axis	
Electrical Connections(Pin C)	Z axis	Z axis	
Electrical Connections(Pin D)	Ground	Ground	

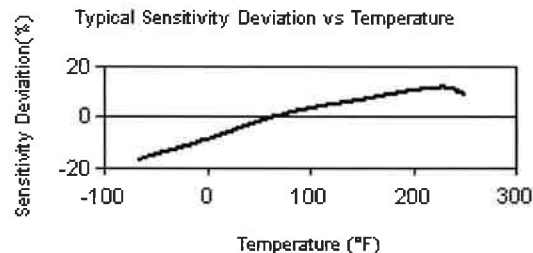
OPTIONAL VERSIONS
Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.

CS - Canadian Standards Association Approved Intrinsically Safe [7]

M - Metric Mount
Supplied Accessory : Model M081A68 Captive mounting bolt M6 x 1 (1)

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] See PCB Declaration of Conformance PS023 for details.
- [7] Division 1; Class I; Group C & D; Temperature Code T4



[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.

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SUPPLIED ACCESSORIES:

Model 081A68 Captive mounting bolt 1/4-28 x .90" (1)

Entered: <i>JH</i>	Engineer: <i>JEC</i>	Sales: <i>JR</i>	Approved: <i>HT</i>	Spec Number:
Date: <i>1-11-08</i>	Date: <i>1-10-08</i>	Date: <i>1-11-08</i>	Date: <i>1-11-08</i>	21814

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