

Model Number  
**601M51**

# INDUSTRIAL ICP® ACCELEROMETER

Revision: B  
ECN #: 42938

## Performance

	<u>ENGLISH</u>	<u>SI</u>	
Sensitivity(± 20 %)	500 mV/g	51 mV/(m/s <sup>2</sup> )	[2]
Measurement Range	± 10 g	± 98 m/s <sup>2</sup>	
Frequency Range(± 5 %)	17 to 240,000 cpm	0.29 to 4000 Hz	[3]
Frequency Range(± 10 %)	13 to 300,000 cpm	0.21 to 5000 Hz	
Frequency Range(± 3 dB)	6 to 600,000 cpm	0.1 to 10,000 Hz	
Resonant Frequency	960 kcpm	16 kHz	[1]
Broadband Resolution(1 to 10,000 Hz)	35 µg	343 µm/sec <sup>2</sup>	[1]
Non-Linearity	± 1 %	± 1 %	[4]
Transverse Sensitivity	≤ 7 %	≤ 7 %	

## Environmental

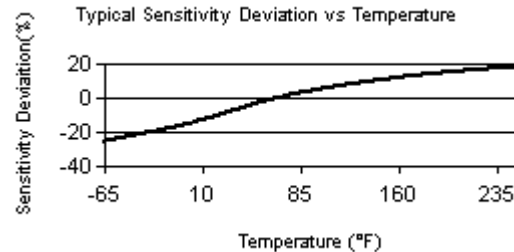
Overload Limit(Shock)	5000 g pk	49,050 m/s <sup>2</sup> pk	
Temperature Range	-65 to +250 °F	-54 to +121 °C	
Temperature Response	See Graph	See Graph	[1]
Enclosure Rating	IP68	IP68	

## Electrical

Settling Time(within 1% of bias)	≤ 15 sec	≤ 15 sec	
Discharge Time Constant	≥ 1.6 sec	≥ 1.6 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)	3 µg/√Hz	29.4 (µm/sec <sup>2</sup> )/√Hz	[1]
Spectral Noise(100 Hz)	0.7 µg/√Hz	6.9 (µm/sec <sup>2</sup> )/√Hz	[1]
Spectral Noise(1 kHz)	0.5 µg/√Hz	4.9 (µm/sec <sup>2</sup> )/√Hz	[1]
Electrical Isolation(Case)	>10 <sup>8</sup> Ohm	>10 <sup>8</sup> Ohm	

## Physical

Size (Hex x Height)	7/8 in x 1.9 in	22.2 mm x 48.3 mm	
Weight	2.8 oz	80 gm	
Mounting Thread	1/4-28 Female	1/4-28 Female	[5]
Mounting Torque	2 to 5 ft-lb	2.7 to 6.8 Nm	
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	Top	Top	



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 ICS-2 NIST-traceable single-axis single-point amplitude response calibration at 6000 cpm (100 Hz) (1)  
Model M081A61 Mounting Stud 1/4-28 to M6 X 1 (1)

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