

Model Number

625B02

INDUSTRIAL ICP<sup>®</sup> ACCELEROMETER

Revision: C

ECN #: 14824

## Performance

	ENGLISH	SI	
Sensitivity ( $\pm 5\%$ )	500 mV/g	51 mV/(m/s <sup>2</sup> )	[2]
Measurement Range	$\pm 10$ g	$\pm 98$ m/s <sup>2</sup>	
Frequency Range ( $\pm 5\%$ )	30 to 120000 cpm	0.5 to 2000 Hz	[3]
Frequency Range ( $\pm 10\%$ )	22 to 240000 cpm	0.37 to 4000 Hz	
Frequency Range ( $\pm 3$ dB)	12 to 360000 cpm	0.2 to 6000 Hz	
Resonant Frequency	720 kcpm	12 kHz	[1]
Broadband Resolution (1 to 10000 Hz)	15 $\mu$ g	147 $\mu$ m/s <sup>2</sup>	[1]
Non-Linearity	$\pm 1\%$	$\pm 1\%$	[4]
Transverse Sensitivity	$\leq 7\%$	$\leq 7\%$	

## Environmental

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	

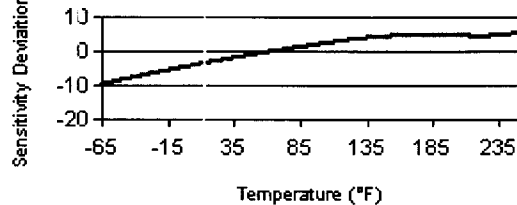
## Electrical

Settling Time (within 1% of bias)	$\leq 4.5$ sec	$\leq 4.5$ sec	
Discharge Time Constant	$\geq 1.0$ sec	$\geq 1.0$ 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 $\mu$ g/ $\sqrt$ Hz	8.8 ( $\mu$ m/s <sup>2</sup> )/ $\sqrt$ Hz	[1]
Spectral Noise (100 Hz)	0.7 $\mu$ g/ $\sqrt$ Hz	7.0 ( $\mu$ m/s <sup>2</sup> )/ $\sqrt$ Hz	[1]
Spectral Noise (1 kHz)	0.3 $\mu$ g/ $\sqrt$ Hz	3.1 ( $\mu$ m/s <sup>2</sup> )/ $\sqrt$ Hz	[1]
Electrical Isolation (Case)	>10 <sup>8</sup> ohms	>10 <sup>8</sup> ohms	
Electrical Protection	RFI/ESD	RFI/ESD	

## Physical

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	[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	2-Pin MIL-C-5015	2-Pin MIL-C-5015	
Electrical Connection Position	Side	Side	

Typical Sensitivity Deviation vs Temperature



[6]

## 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.

## LB - Low Bias Voltage

Output Bias Voltage	6 to 8 VDC	6 to 8 VDC
Excitation Voltage	12 to 28 VDC	12 to 28 VDC
Measurement Range	$\pm 7$ g	$\pm 69$ m/s <sup>2</sup>

## M - Metric Mount

Supplied Accessory: Model M081A73 Mounting Bolt M6 x 1.00

## TO - Temperature Output

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

## NOTES:

- [1] Typical.  
 [2] Conversion Factor 1g = 9.81 m/s<sup>2</sup>.  
 [3] The high frequency tolerance is accurate within  $\pm 10\%$  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 080B45 Thermal Eoot (1)  
 Model 081A73 Captive 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

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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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