

Model Number
623C00

HIGH FREQUENCY INDUSTRIAL ICP® ACCELEROMETER

Revision: E
ECN #: 56599

Performance

	ENGLISH	SI	
Sensitivity(± 5 %)	10 mV/g	1.0 mV/(m/s ²)	[1]
Measurement Range	± 500 g	± 4,905 m/s ²	
Frequency Range(± 5 %)	144 to 480,000 cpm	2.4 to 8,000 Hz	[2]
Frequency Range(± 10 %)	102 to 600,000 cpm	1.7 to 10,000 Hz	
Frequency Range(± 3 dB)	48 to 900,000 cpm	0.8 to 15,000 Hz	
Resonant Frequency	2,400 kcpm	40 kHz	[3]
Broadband Resolution(1 to 10,000 Hz)	300 µg	2,943 µm/sec ²	[3]
Non-Linearity	± 1 %	± 1 %	[4]
Transverse Sensitivity	≤ 5 %	≤ 5 %	

Environmental

Overload Limit(Shock)	5,000 g pk	49,050 m/s ² pk	
Temperature Range	-65 to +250 °F	-54 to +121 °C	
Temperature Response	See Graph	See Graph	[3]
Enclosure Rating	IP68	IP68	

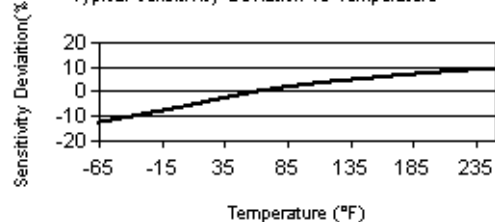
Electrical

Settling Time(within 1% of bias)	≤ 3.0 sec	≤ 3.0 sec	
Discharge Time Constant	≥ 0.2 sec	≥ 0.2 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 Ohm	< 100 Ohm	
Output Bias Voltage	8 to 12 VDC	8 to 12 VDC	
Spectral Noise(10 Hz)	12 µg/√Hz	117 (µm/sec ²)/√Hz	[3]
Spectral Noise(100 Hz)	4.5 µg/√Hz	44 (µm/sec ²)/√Hz	[3]
Spectral Noise(1 kHz)	2.7 µg/√Hz	26.5 (µm/sec ²)/√Hz	[3]
Electrical Protection	RFI/ESD	RFI/ESD	
Electrical Isolation(Case)	> 10 ⁸ Ohm	> 10 ⁸ Ohm	

Physical

Size (Hex x Height)	11/16 in x 1.97 in	17.5 mm x 50 mm	
Weight	1.80 oz	51 gm	
Mounting Thread	1/4-28 Female	Not Applicable	[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	

Typical Sensitivity Deviation vs Temperature



[6]



[7]

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. [7]

EX - Hazardous Area Approval- contact factory for specific approvals

LB - Low Bias Voltage

Output Bias Voltage

Excitation Voltage

Measurement Range

6 to 8 VDC

12 to 28 VDC

± 350 g

6 to 8 VDC

12 to 28 VDC

± 3,434 m/s²

M - Metric Mount

Supplied Accessory: Model M081A61 Mounting Stud 1/4-28 to M6 X 1 (1) replaces Model 081A40

NOTES:

[1] Conversion Factor 1g = 9.81 m/s².

[2] The high frequency tolerance is accurate within ±10% of the specified frequency.

[3] Typical.

[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 or PS061 for details.

[7] EEx ia IIC T4, -54°C ≤ Ta ≤ 121°C, II 1 G

[8] See Model's "Instructions For Use" (IFU) for North American Conformity and Certification Statements

SUPPLIED ACCESSORIES:

Model 081A40 Mounting Stud (1)

Model ICS-1 NIST-traceable single-axis amplitude response calibration from 600 cpm (10 Hz) to upper 5% frequency

Entered: ND	Engineer: gs	Sales: JL	Approved: BAM	Spec Number:
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