

Model Number
623C01

HIGH FREQUENCY INDUSTRIAL ICP® ACCELEROMETER

Revision: H
ECN #: 56599

Performance	ENGLISH	SI	
Sensitivity(± 5 %)	100 mV/g	10.2 mV/(m/s ²)	[1]
Measurement Range	± 50 g	± 490 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)	100 µg	981 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)	≤ 2.0 sec	≤ 2.0 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)	7.0 µg/√Hz	68.7 (µm/sec ²)/√Hz	[3]
Spectral Noise(100 Hz)	2.8 µg/√Hz	27.5 (µm/sec ²)/√Hz	[3]
Spectral Noise(1 kHz)	0.9 µg/√Hz	8.8 (µm/sec ²)/√Hz	[3]
Electrical Protection	RFI/ESD	RFI/ESD	
Electrical Isolation	> 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	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.		
EX - Hazardous Area Approval- contact factory for specific approvals Hazardous Area Approval	EEx ia IIC T4, - 54°C <=Ta <=121°C, II 1 G	EEx ia IIC T4, - 54°C <=Ta <=121°C, II 1 G
LB - Low Bias Voltage Output Bias Voltage Excitation Voltage Measurement Range	6 to 8 VDC 12 to 28 VDC ± 35 g	6 to 8 VDC 12 to 28 VDC ± 343 m/s ²
M - Metric Mount Supplied Accessory: Model M081A61 Mounting Stud 1/4-28 to M6 X 1 (1) replaces Model 081A40		
MS - Mine Safety & Health Administration Certification		

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] 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 (1)

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