

Model Number

301A10

ICP® ACCELEROMETER

Revision: G

ECN #: 24507

Performance

	ENGLISH	SI	
Sensitivity (± 2.0 %)	100 mV/g	10.2 mV/(m/s ²)	
Measurement Range	± 50 g pk	± 490 m/s ² pk	
Frequency Range (± 5 %)	0.5 to 10,000 Hz	0.5 to 10,000 Hz	
Frequency Range (± 10 %)	0.3 to 14,000 Hz	0.3 to 14,000 Hz	
Frequency Range (± 3 dB)	0.2 to 20,000 Hz	0.2 to 20,000 Hz	
Resonant Frequency	≥ 35 kHz	≥ 35 kHz	
Broadband Resolution	0.004 g rms	0.039 m/s ² rms	[1]
Non-Linearity	≤ 1 %	≤ 1 %	[2]
Transverse Sensitivity	≤ 3 %	≤ 3 %	

Environmental

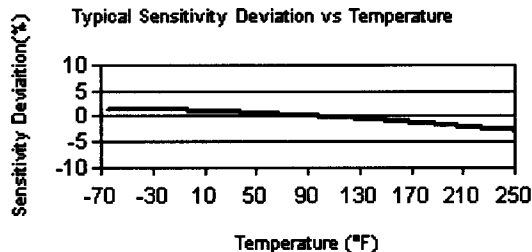
Overload Limit	± 5000 g pk	± 49,050 m/s ² pk	
Temperature Range	-65 to 250 °F	-54 to 121 °C	
Temperature Response	See Graph	See Graph	[1]

Electrical

Excitation Voltage	23 to 30 VDC	23 to 30 VDC	
Constant Current Excitation	2 to 20 mA	2 to 20 mA	
Output Impedance	<100	<100	
Output Bias Voltage	11 to 17 VDC	11 to 17 VDC	
Discharge Time Constant	2.0 to 5.0 sec	2.0 to 5.0 sec	
Settling Time (within 10% of bias)	<12.0 sec	<12.0 sec	
Spectral Noise (10 Hz)	65 µg/√Hz	638 (µm/s ²)/√Hz	[1]
Spectral Noise (100 Hz)	20 µg/√Hz	198 (µm/s ²)/√Hz	[1]
Spectral Noise (1 kHz)	15 µg/√Hz	147 (µm/s ²)/√Hz	[1]

Physical

Sensing Element	Quartz	Quartz	
Sensing Geometry	Shear	Shear	
Housing Material	316L Stainless Steel	316L Stainless Steel	
Sealing	Welded Hermetic	Welded Hermetic	
Size (Hex x Height)	1 3/16 in x 1 1/2 in	30.2 mm x 38.1 mm	
Weight	6.2 oz	176 gm	[1]
Electrical Connector	10-32 Coaxial Jack	10-32 Coaxial Jack	
Electrical Connection Position	Side	Side	
Mounting Thread (Shaker Mount)	1/4-28 Female	1/4-28 Female	
Mounting Thread (Unit Under Test Mount)	1/4-28 Female	1/4-28 Female	



[3]

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

[4]

NOTES:

- [1] Typical.
 [2] Zero-based, least-squares, straight line method.
 [3] See PCB Declaration of Conformance PS023 for details.
 [4] Sensitivity referenced at 159.2 Hz.

SUPPLIED ACCESSORIES:

- Model 081A08 Mounting Stud (10-32 to 1/4-28) (2)
 Model 081B20 Mounting Stud, with shoulder (1/4-28 to 1/4-28) (2)
 Model ACS-1 NIST traceable frequency response (10 Hz to upper 5% point). (1)
 Model ACS-4 Single-axis, low frequency phase and amplitude response calibration. (1)
 Model M081B20 Mounting Stud 1/4-28 to M6 X 0.75 (2)

Entered: <i>Let</i>	Engineer: <i>MB</i>	Sales: <i>MLA</i>	Approved: <i>[Signature]</i>	Spec Number:
Date: <i>6/26/06</i>	Date: <i>6/26/06</i>	Date: <i>6/26/06</i>	Date: <i>6/26/06</i>	2831

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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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