

Model Number

356B20

# TRIAxIAL ICP® ACCELEROMETER

Revision: E

ECN #: 42197

## Performance

	ENGLISH	SI	
Sensitivity(± 20 %)	1.0 mV/g	0.1 mV/(m/s <sup>2</sup> )	
Measurement Range	± 5000 g pk	± 49,050 m/s <sup>2</sup> pk	
Frequency Range(± 5 %)(y or z axis)	2 to 10,000 Hz	2 to 10,000 Hz	
Frequency Range(± 5 %)(x axis)	2 to 7000 Hz	2 to 7000 Hz	
Resonant Frequency	≥ 55 kHz	≥ 55 kHz	
Broadband Resolution(1 to 10,000 Hz)	0.03 g rms	0.29 m/s <sup>2</sup> rms	[1]
Non-Linearity	≤ 2.5 %	≤ 2.5 %	[3]
Transverse Sensitivity	≤ 5 %	≤ 5 %	

## Environmental

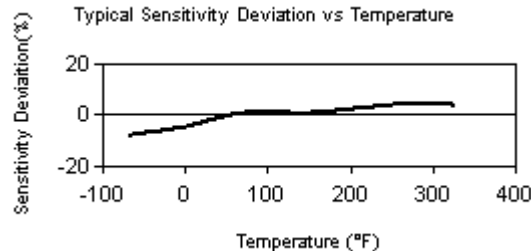
Overload Limit(Shock)	± 7000 g pk	± 68,600 m/s <sup>2</sup> pk	
Temperature Range(Operating)	-65 to +250 °F	-54 to +121 °C	[2]
Temperature Response	See Graph	See Graph	[1][2]

## Electrical

Excitation Voltage	18 to 30 VDC	18 to 30 VDC	
Constant Current Excitation	2 to 20 mA	2 to 20 mA	
Output Impedance	≤ 200 Ohm	≤ 200 Ohm	
Output Bias Voltage	7 to 12 VDC	7 to 12 VDC	
Discharge Time Constant	1.5 to 3.0 sec	1.5 to 3.0 sec	
Settling Time(within 10% of bias)	<10 sec	<10 sec	
Spectral Noise(1 Hz)	9000 µg/√Hz	88,290 (µm/sec <sup>2</sup> )/√Hz	[1]
Spectral Noise(10 Hz)	2500 µg/√Hz	24,525 (µm/sec <sup>2</sup> )/√Hz	[1]
Spectral Noise(100 Hz)	800 µg/√Hz	7848 (µm/sec <sup>2</sup> )/√Hz	[1]
Spectral Noise(1 kHz)	250 µg/√Hz	2453 (µm/sec <sup>2</sup> )/√Hz	[1]

## Physical

Sensing Element	Ceramic	Ceramic	
Sensing Geometry	Shear	Shear	
Housing Material	Titanium	Titanium	
Sealing	Hermetic	Hermetic	
Size (Height x Length x Width)	0.4 in x 0.4 in x 0.4 in	10.2 mm x 10.2 mm x 10.2 mm	
Weight	0.14 oz	4 gm	[1]
Electrical Connector	8-36 4-Pin	8-36 4-Pin	
Electrical Connection Position	Side	Side	
Mounting Thread	5-40 Female	5-40 Female	
Mounting Torque	4 to 5 in-lb	45 to 56 N-cm	



[4]

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.

**HT** - High temperature, extends normal operation temperatures

Temperature Range(Operating) -65 to +325 °F -54 to +163 °C

**J** - Ground Isolated

Frequency Range(+5 %)	7 kHz	7
Electrical Isolation(Base)	>10 <sup>8</sup> Ohm	>10 <sup>8</sup> Ohm
Size - Height x Length x Width	0.44 in x 0.40 in x 0.44 in	11.2 mm x 10.2 mm x 11.2 mm
Weight	0.16 oz	4.5 gm
Mounting	Adhesive	Adhesive
Resonant Frequency	≥ 50 kHz	≥ 50
Supplied Accessory : Model 080A109 Petro Wax	(1)	
Supplied Accessory : Model 080A90 Quick Bonding Gel	(1)	

## NOTES:

- [1] Typical.
- [2] 250° F to 325° F data valid with HT option only.
- [3] Zero-based, least-squares, straight line method.
- [4] See PCB Declaration of Conformance PS023 for details.

## SUPPLIED ACCESSORIES:

- Model 034K10 Cable 10FT Mini 4 Pin To (3) BNC (1)
- Model 080A Adhesive Mounting Base (1)
- Model 080A109 Petro Wax (1)
- Model 081A27 Mounting Stud (5-40 to 5-40) (1)
- Model 081A90 Mounting stud, 10-32 to 5-40 (1)
- Model ACS-1T NIST traceable triaxial amplitude response, 10 Hz to upper 5% frequency. (1)
- Model M081A27 Metric mounting stud, 5-40 to M3 x 0.50 long (1)

Entered: AP	Engineer: JJB	Sales: WDC	Approved: JJB	Spec Number:
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