

Model Number  
333B50

# ICP® ACCELEROMETER

Revision: H  
ECN #: 35173

	ENGLISH	SI	
<b>Performance</b>			
Sensitivity(± 10 %)	1000 mV/g	102 mV/(m/s <sup>2</sup> )	
Measurement Range	± 5 g pk	± 49 m/s <sup>2</sup> pk	
Frequency Range(± 5 %)	0.5 to 3000 Hz	0.5 to 3000 Hz	
Resonant Frequency	≥ 20 kHz	≥ 20 kHz	
Phase Response(± 5 °)(at 70°F [21°C])	2.5 to 3000 Hz	2.5 to 3000 Hz	
Broadband Resolution(1 to 10,000 Hz)	0.00005 g rms	0.0005 m/s <sup>2</sup> rms	[1]
Non-Linearity	≤ 1 %	≤ 1 %	[2]
Transverse Sensitivity	≤ 5 %	≤ 5 %	[3]
<b>Environmental</b>			
Overload Limit	± 4000 g pk	± 39,000 m/s <sup>2</sup> pk	
Temperature Range	0 to +150 °F	-18 to +66 °C	
Temperature Response	See Graph	See Graph	[1]
Base Strain Sensitivity	0.01 g/με	0.1 (m/s <sup>2</sup> )/με	[1]
<b>Electrical</b>			
Excitation Voltage	18 to 30 VDC	18 to 30 VDC	
Constant Current Excitation	2 to 20 mA	2 to 20 mA	
Output Impedance	≤ 500 ohm	≤ 500 ohm	
Output Bias Voltage	7 to 12 VDC	7 to 12 VDC	
Discharge Time Constant	0.7 to 2.0 sec	0.7 to 2.0 sec	
Spectral Noise(10 Hz)	3.8 μg/√Hz	37 (μm/sec <sup>2</sup> )/√Hz	[1]
Spectral Noise(100 Hz)	1.1 μg/√Hz	11 (μm/sec <sup>2</sup> )/√Hz	[1]
Spectral Noise(1 kHz)	0.4 μg/√Hz	3.9 (μm/sec <sup>2</sup> )/√Hz	[1]
<b>Physical</b>			
Sensing Element	Ceramic	Ceramic	
Sensing Geometry	Shear	Shear	
Housing Material	Titanium	Titanium	
Sealing	Hermetic	Hermetic	
Size (Length x Width)	0.68 in x 0.45 in	17.3 mm x 11.4 mm	
Weight	0.26 oz	7.5 gm	[1]
Electrical Connector	10-32 Coaxial Jack	10-32 Coaxial Jack	
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	

**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.

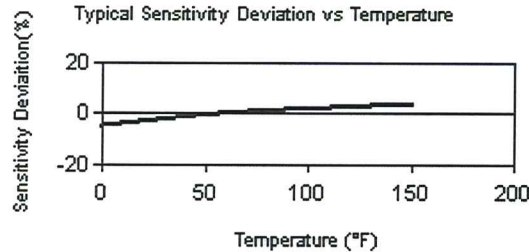
- T - TEDS Capable of Digital Memory and Communication Compliant with IEEE P1451.4
  - TLA - TEDS LMS International - Free Format
  - TLB - TEDS LMS International - Automotive Format
  - TLC - TEDS LMS International - Aeronautical Format
  - TLD - TEDS Capable of Digital Memory and Communication Compliant with IEEE 1451.4
- Output Bias Voltage                      7.5 to 13 VDC                      7.5 to 13 VDC

**NOTES:**

- [1] Typical.
- [2] Zero-based, least-squares, straight line method.
- [3] Transverse sensitivity is typically ≤ 3%.
- [4] See PCB Declaration of Conformance PS023 for details.

**SUPPLIED ACCESSORIES:**

- Model 080A109 Petro Wax (1)
- Model 080A25 Adhesive base, 0.438" hex, 5-40 tapped hole, aluminum hardcoat. (1)
- Model 080A90 Quick Bonding Gel (1)
- Model 081A27 Mounting Stud (5-40 to 5-40) (1)
- Model ACS-1 NIST traceable frequency response (10 Hz to upper 5% point). (1)
- Model M081A27 Metric mounting stud, 5-40 to M3 x 0.50 long (1)



Entered: yemw	Engineer: jrbh	Sales: b2wm	Approved: yb	Spec Number:
Date: 3/1/11	Date: 3/1/11	Date: 3/1/11	Date: 3/1/11	11867

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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