

Model Number
353B11

ICP® ACCELEROMETER

Revision: J
ECN #: 26810

	ENGLISH	SI	
Performance			
Sensitivity(± 10 %)	5 mV/g	0.51 mV/(m/s ²)	
Measurement Range	± 1000 g pk	± 9810 m/s ² pk	
Frequency Range(± 5 %)	1 to 10,000 Hz	1 to 10,000 Hz	
Frequency Range(± 10 %)	0.7 to 18,000 Hz	0.7 to 18,000 Hz	
Frequency Range(± 3 dB)	0.35 to 30,000 Hz	0.35 to 30,000 Hz	
Resonant Frequency	≥ 70 kHz	≥ 70 kHz	
Broadband Resolution(1 to 10,000 Hz)	0.01 g rms	0.1 m/s ² rms	[1]
Non-Linearity	≤ 1 %	≤ 1 %	[2]
Transverse Sensitivity	≤ 5 %	≤ 5 %	[3]
Environmental			
Overload Limit(Shock)	± 10,000 g pk	± 98,100 m/s ² pk	
Temperature Range(Operating)	-65 to +250 °F	-54 to +121 °C	
Temperature Response	See Graph	See Graph	[1]
Base Strain Sensitivity	≤ 0.005 g/με	≤ 0.05 (m/s ²)/με	[1]
Electrical			
Excitation Voltage	18 to 30 VDC	18 to 30 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	
Discharge Time Constant	0.5 to 2.0 sec	0.5 to 2.0 sec	
Settling Time(within 10% of bias)	<5 sec	<5 sec	
Spectral Noise(1 Hz)	6400 μg/√Hz	62,784 (μm/s ²)/√Hz	[1]
Spectral Noise(10 Hz)	1400 μg/√Hz	13,734 (μm/s ²)/√Hz	[1]
Spectral Noise(100 Hz)	360 μg/√Hz	3532 (μm/s ²)/√Hz	[1]
Spectral Noise(1 kHz)	128 μg/√Hz	1256 (μm/s ²)/√Hz	[1]
Physical			
Sensing Element	Quartz	Quartz	
Sensing Geometry	Shear	Shear	
Housing Material	Titanium	Titanium	
Sealing	Hermetic	Hermetic	
Size (Hex x Height)	0.31 in x 0.43 in	7.9 mm x 10.9 mm	
Weight	0.07 oz	2.0 gm	[1]
Electrical Connector	5-44 Coaxial	5-44 Coaxial	
Electrical Connection Position	Side	Side	
Mounting Thread	5-40 Male	5-40 Male	
Mounting Torque	8 to 12 in-lb	90 to 135 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.

A - Adhesive Mount [5]
Supplied Accessory : Model 080A90 Quick Bonding Gel (1)

B - Low bias electronics
Output Bias Voltage 4.5 to 7.5 VDC 4.5 to 7.5 VDC
Excitation Voltage 12 to 30 VDC 12 to 30 VDC
Constant Current Excitation 1 to 20 mA 1 to 20 mA
Measurement Range ± 600 g pk ± 5886 m/s² pk

J - Ground Isolated
Frequency Range(± 5 %) 1 to 8000 Hz 1 to 8000 Hz
Frequency Range(± 10 %) 0.7 to 15,000 Hz 0.7 to 15,000 Hz
Resonant Frequency ≥ 56 kHz ≥ 56 kHz
Electrical Isolation(Base) ≥ 10⁸ ohm ≥ 10⁸ ohm
Size - Hex x Height 0.37 in x 0.57 in 9.5 mm x 14.5 mm
Weight 0.11 oz 3.2 gm

M - Metric Mount
Mounting Thread M3 x 0.50 Male M3 x 0.50 Male
Supplied Accessory : Model M080A15 Adhesive Mounting Base (1) replaces Model 080A15

Q - Extended discharge time constant [6]
Frequency Range(± 5 %) 0.15 to 10,000 Hz 0.15 to 10,000 Hz
Frequency Range(± 10 %) 0.1 to 20,000 Hz 0.1 to 20,000 Hz
Discharge Time Constant >5 sec >5 sec
Settling Time(within 10% of bias) <45 sec <45 sec
Supplied Accessory : Model ACS-4 Single-axis, low frequency phase and amplitude response calibration. (1)

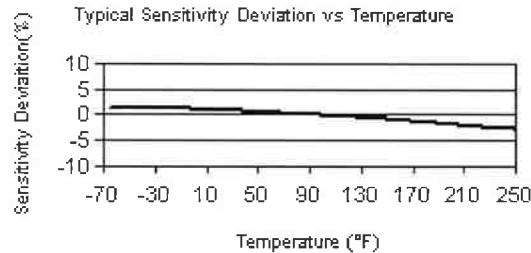
W - Water Resistant Cable
Electrical Connector Sealed Integral Cable Sealed Integral Cable
Electrical Connection Position Side Side

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.
- [5] Adhesive mounting base is not required. "Quick Bonding Gel" has maximum temperature range of 180 ° F (82°C).
- [6] ACS-4 starts at 1 Hz for sensitivities <20 mV/g.

SUPPLIED ACCESSORIES:

- Model 080A109 Petro Wax (1)
- Model 080A15 Adhesive Mounting Base (1)
- Model ACS-1 NIST traceable frequency response (10 Hz to upper 5% point). (1)



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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