

Model Number
353B77

ICP® ACCELEROMETER

Revision: C
ECN #: 54444

	ENGLISH	SI	
Performance			
Sensitivity(± 20 %)	2 mV/g	0.204 mV/(m/s ²)	
Measurement Range	± 2,500 g pk	± 24,525 m/s ² pk	
Frequency Range(± 5 %)	1 to 10,000 Hz	1 to 10,000 Hz	
Frequency Range(± 10 %)	0.7 to 20,000 Hz	0.7 to 20,000 Hz	
Frequency Range(± 3 dB)	0.35 to 30,000 Hz	0.35 to 30,000 Hz	
Electrical Filter Corner Frequency	30,000 Hz	30,000 Hz	[1]
Electrical Filter Roll-off	6 dB/octave	6 dB/octave	[1]
Resonant Frequency	≥ 70 kHz	≥ 70 kHz	
Broadband Resolution(1 to 10,000 Hz)	0.05 g rms	0.5 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	≤ 0.007 g/με	≤ 0.07 (m/s ²)/με	[1]
Electrical			
Excitation Voltage	20 to 30 VDC	20 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 14 VDC	8 to 14 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)	6,500 μg/√Hz	63,765 (μm/sec ²)/√Hz	[1]
Spectral Noise(10 Hz)	2,000 μg/√Hz	19,620 (μm/sec ²)/√Hz	[1]
Spectral Noise(100 Hz)	600 μg/√Hz	5,890 (μm/sec ²)/√Hz	[1]
Spectral Noise(1,000 Hz)	60 μg/√Hz	590 (μm/sec ²)/√Hz	[1]
Physical			
Size (Height x Hex)	0.59 in x 9/32 in	15.0 mm x 9/32 in	
Weight	0.06 oz	1.7 gm	[1]
Sensing Element	Quartz	Quartz	
Sensing Geometry	Shear	Shear	
Housing Material	Titanium	Titanium	
Sealing	Hermetic	Hermetic	
Electrical Connector	Solder Pins	Solder Pins	
Electrical Connection Position	Top	Top	
Cable Termination	10-32 Coaxial Plug	10-32 Coaxial Plug	
Cable Length	10 ft	3.0 m	
Cable Type	031 Twisted Pair	031 Twisted Pair	
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.

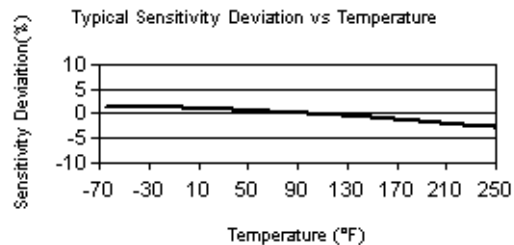
Option	Specifications	Specifications
A - Adhesive Mount	Supplied Accessory: Model 080A90 Quick Bonding Gel (1)	
J - Ground Isolated	Frequency Range 5 % Frequency Range 10 % Resonant Frequency Electrical Isolation(Base)	1 to 8,000 Hz 0.7 to 15,000 Hz ≥ 56 kHz ≥ 10 ⁸ Ohm
M - Metric Mount	Mounting Thread Supplied Accessory: Model M080A15 Adhesive Mounting Base (1)	M3 x 0.50 Male M3 x 0.50 Male
W - Water Resistant Cable	Temperature Range(Operating) Electrical Connector Electrical Connection Position Cable Length Cable Type	-20 to +220 °F Sealed Integral Cable Top 10 ft 018 Coaxial

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 080A15 Adhesive Mounting Base (1)
- Model 080A90 Quick Bonding Gel (1)
- Model ACS-1 NIST traceable frequency response (10 Hz to upper 5% point). (1)
- Model M080A15 Adhesive Mounting Base (1)



[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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