

Model Number  
**352C68**

# ICP® ACCELEROMETER

Revision: N  
ECN #: 31827

### Performance

	ENGLISH	SI
Sensitivity(± 10 %)	100 mV/g ± 50 g pk	10.2 mV/(m/s <sup>2</sup> ) ± 491 m/s <sup>2</sup> pk
Measurement Range	0.5 to 10,000 Hz	0.5 to 10,000 Hz
Frequency Range(± 5 %)	0.3 to 12,000 Hz	0.3 to 12,000 Hz
Frequency Range(± 10 %)	0.2 to 20,000 Hz	0.2 to 20,000 Hz
Resonant Frequency	≥ 35 kHz	≥ 35 kHz
Phase Response(± 5 %)(at 70°F [21°C])	2 to 6000 Hz	2 to 6000 Hz
Broadband Resolution(1 to 10,000 Hz)	0.0015 g rms	0.0015 m/s <sup>2</sup> rms
Non-Linearity	≤ 1 %	≤ 1 %
Transverse Sensitivity	≤ 5 %	≤ 5 %

### Environmental

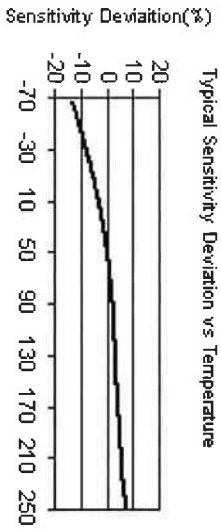
Overload Limit(Shock)	± 5000 g pk	± 49,050 m/s <sup>2</sup> pk
Temperature Range(Operating)	-65 to +200 °F	-53 to +93 °C
Temperature Response	See Graph	See Graph
Base Strain Sensitivity	≤ 0.005 g/µε	≤ 0.05 (m/s <sup>2</sup> )/µε

### Electrical

Excitation Voltage	18 to 30 VDC	18 to 30 VDC
Constant Current Excitation	2 to 20 mA	2 to 20 mA
Output Impedance	≤ 300 ohm	≤ 300 ohm
Output Bias Voltage	8 to 12 VDC	8 to 12 VDC
Discharge Time Constant	0.8 to 2.4 sec	0.8 to 2.4 sec
Settling Time(within 10% of bias)	<10 sec	<10 sec
Spectral Noise(1 Hz)	60 µg/√Hz	588 (µm/sec <sup>2</sup> )/√Hz
Spectral Noise(10 Hz)	16 µg/√Hz	157 (µm/sec <sup>2</sup> )/√Hz
Spectral Noise(100 Hz)	5 µg/√Hz	49 (µm/sec <sup>2</sup> )/√Hz
Spectral Noise(1 kHz)	1.5 µg/√Hz	14.7 (µm/sec <sup>2</sup> )/√Hz

### Physical

Sensing Element	Ceramic	Ceramic
Sensing Geometry	Shear	Shear
Housing Material	Titanium	Titanium
Sealing	Welded Hermetic	Welded Hermetic
Size (Hex x Height)	9/32 in x 0.73 in	9/32 in x 18.5 mm
Weight	0.070 oz	2.0 gm
Electrical Connector	10-32 Coaxial Jack	10-32 Coaxial Jack
Mounting Thread	Top	Top
Mounting Torque	5-40 Male 8 to 12 in-lb	5-40 Male 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.

<b>A - Adhesive Mount</b> Supplied Accessory : Model 080A90 Quick Bonding Gel (1) replaces Model 080A15		
<b>HT - High temperature, extends normal operation temperatures</b>	5 to 10,000 Hz	5 to 10,000 Hz
Frequency Range(5 %)	3 to 12,000 Hz	3 to 12,000 Hz
Frequency Range(10 %)	2 to 20,000 Hz	2 to 20,000 Hz
Frequency Range(3 dB)	0.0002 g rms	0.002 m/s <sup>2</sup> rms
Broadband Resolution(1 to 10,000 Hz)	-65 to +250 °F	-54 to +121 °C
Discharge Time Constant	0.08 to 0.24 sec	0.08 to 0.24 sec
Spectral Noise(1 Hz)	75 µg/√Hz	736 (µm/sec <sup>2</sup> )/√Hz
Spectral Noise(10 Hz)	25 µg/√Hz	245 (µm/sec <sup>2</sup> )/√Hz

<b>J - Ground Isolated</b>	0.5 to 8000 Hz	0.5 to 8000 Hz
Frequency Range(5 %)	0.3 to 10,000 Hz	0.3 to 10,000 Hz
Frequency Range(10 %)	0.2 to 16,000 Hz	0.2 to 16,000 Hz
Frequency Range(3 dB)	≥ 30 kHz	≥ 30 kHz
Resonant Frequency	≥ 10 <sup>8</sup> ohm	≥ 10 <sup>8</sup> ohm
Electrical Isolation(Base)	Size - Hex x Height 3/8 in x 0.75 in	3/8 in x 19.1 mm
Weight	0.1 oz	2.8 gm

<b>M - Metric Mount</b> Mounting Thread Supplied Accessory : Model M080A15 Adhesive Mounting Base (1) replaces Model 080A15	M3 x 0.50 Male	M3 x 0.50 Male
<b>W - Water Resistant Cable</b> Electrical Connector Electrical Connection Position	Sealed Integral Cable Side	Sealed Integral Cable Side

### NOTES:

- [1] Typical.
- [2] 200°F to 250°F data valid with HT option only.
- [3] Zero-based, least-squares, straight line method.
- [4] Transverse sensitivity is typically ≤ 3%.
- [5] See PCB Declaration of Conformance PS023 for details.

### 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).

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