

Model Number  
320C20

# ICP® ACCELEROMETER

Revision: C  
ECN #: 31452

## Performance

	ENGLISH	SI	
Sensitivity(± 10 %)	10 mV/g	1.02 mV/(m/s <sup>2</sup> )	
Measurement Range	± 500 g pk	± 4900 m/s <sup>2</sup> pk	
Frequency Range(± 5 %)	2.0 to 5000 Hz	2.0 to 5000 Hz	
Frequency Range(± 10 %)	1.5 to 10,000 Hz	1.5 to 10,000 Hz	
Filter Type	Low Pass	Low Pass	
Electrical Filter Corner Frequency	13 kHz	13 kHz	[1]
Electrical Filter Roll-off	6 dB/octave	6 dB/octave	
Resonant Frequency	≥ 60 kHz	≥ 60 kHz	
Broadband Resolution(1 to 10,000 Hz)	0.006 g rms	0.06 m/s <sup>2</sup> rms	[1]
Non-Linearity	≤ 1 %	≤ 1 %	[2]
Transverse Sensitivity	≤ 5 %	≤ 5 %	[3]

## Environmental

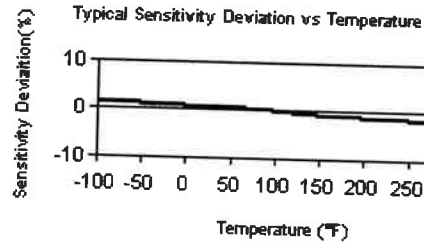
Overload Limit(Shock)	± 10,000 g pk	± 98,100 m/s <sup>2</sup> pk	
Temperature Range(Operating)	-100 to +325 °F	-73 to +163 °C	
Temperature Response	See Graph	See Graph	[1]
Base Strain Sensitivity	≤ 0.0005 g/με	≤ 0.005 (m/s <sup>2</sup> )/με	[1]

## 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	0.25 to 1 sec	0.25 to 1 sec	
Spectral Noise(1 Hz)	3200 μg/√Hz	31,400 (μm/sec <sup>2</sup> )/√Hz	
Spectral Noise(10 Hz)	600 μg/√Hz	5880 (μm/sec <sup>2</sup> )/√Hz	[1]
Spectral Noise(100 Hz)	100 μg/√Hz	980 (μm/sec <sup>2</sup> )/√Hz	[1]
Spectral Noise(1 kHz)	60 μg/√Hz	590 (μm/sec <sup>2</sup> )/√Hz	[1]

## Physical

Sensing Element	Quartz	Quartz	
Sensing Geometry	Shear	Shear	
Housing Material	Titanium	Titanium	
Sealing	Hermetic	Hermetic	
Size (Hex x Height)	0.38 in x 0.87 in	9.7 mm x 22.1 mm	
Weight	0.23 oz	6.5 gm	[1]
Electrical Connector	10-32 Coaxial Jack	10-32 Coaxial Jack	
Electrical Connection Position	Top	Top	
Mounting Thread	10-32 Male	10-32 Male	
Mounting Torque	10 to 20 in-lb	113 to 225 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.

### M - Metric Mount

Mounting Thread M6 x 0.75 Male M6 x 0.75 Male  
Supplied Accessory : Model M080A Metric adhesive mounting base, 0.5" hex x 0.187" thick, M6 x 0.75 tapped thru-hole (1) replaces Model 080A

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

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**PCB PIEZOTRONICS™**  
VIBRATION DIVISION  
3425 Walden Avenue, Depew, NY 14043

Phone: 716-684-0001  
Fax: 716-685-3886  
E-Mail: vibration@pcb.com