

Model Number  
**SEN040F**

# TRIAxIAL SHEAR ICP® ACCELEROMETER

Revision: A

## DYNAMIC PERFORMANCE

Voltage Sensitivity	1 [0,1]	mV/g [mV/ms <sup>-2</sup> ]	(±20%)
Measurement Range (±5%)	5 000 [49 050]	±g pk [±ms <sup>-2</sup> pk]	
Frequency Range (±5%)	2 to 4 000	Hz	
Mounted Resonant Frequency	≥ 55	kHz	
Electrical Filter Corner Frequency	20	kHz	[1]
Electrical Filter Roll-off	6 dB/Octave		[1]
Broadband Resolution (1Hz to 10kHz)	0.03 [0,29]	g rms [ms <sup>-2</sup> rms]	[1]
Amplitude Linearity	≤±2.5	%	[2]
Transverse Sensitivity	≤5	%	

## ENVIRONMENTAL

Shock Limit - All Axes (maximum)	10000 [98 100]	±g pk [±ms <sup>-2</sup> pk]	
Operating Temperature Range	-65 to +250 [-54 to +121]	°F [°C]	
Temperature Response	See Graph	%/°F [%/°C]	

## ELECTRICAL

Excitation Voltage/Constant Current	18 to 30 / 2 to 20	VDC/mA	
Output Impedance	<200	ohm	
Output Bias	7 to 11	VDC	
Discharge Time Constant	1.5 to 3.0	sec	
Warm Up Time (within 10% of output bias)	<10	sec	
Spectral Noise	(1 Hz)	9 000 [88 290]	µg/√Hz [(µms <sup>-2</sup> )/√Hz] [1]
	(10 Hz)	2 500 [24 525]	µg/√Hz [(µms <sup>-2</sup> )/√Hz] [1]
	(100 Hz)	800 [7 848]	µg/√Hz [(µms <sup>-2</sup> )/√Hz] [1]
	(1 kHz)	250 [2 453]	µg/√Hz [(µms <sup>-2</sup> )/√Hz] [1]

## MECHANICAL

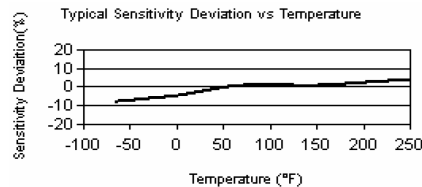
Sensing Element	Ceramic/Shear	material/geometry	
Housing	Titanium/Hermetic	material/sealing	
Size (H x L x W)	0.40x0.77x0.40 (10,2x19,6x10,2)	in [mm]	
Weight	0.19 [5,3]	oz [gm]	[1]
Electrical Connector	1/4-28 4-pin Side	type/location	
Mounting Thread	5-40 Female	size	
Mounting Torque	4 to 5 [45 to 56]	in-lb [N-cm]	

### NOTES:

- [1] Typical
- [2] Zero-based, least-squares, straight line method
- [3] See PCB Declaration of Conformance PS023 for details

### SUPPLIED ACCESSORIES:

NIST Traceable Calibration Certificate



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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