

Model Number  
**SEN021F**

# TRIAxIAL ICP® ACCELEROMETER

Revision: R

## Performance

Voltage Sensitivity ( $\pm 10\%$ )  
Measurement Range  
Frequency Range ( $\pm 5\%$ )  
Frequency Range ( $\pm 10\%$ )  
Resonant Frequency  
Broadband Resolution (1 to 10000 Hz)  
Non-Linearity (400 g, 3920 m/s<sup>2</sup>)  
Non-Linearity (500 g, 4900 m/s<sup>2</sup>)  
Transverse Sensitivity

## ENGLISH

10 mV/g  
 $\pm 500$  g pk  
1 to 5000 Hz  
0.5 to 6000 Hz  
 $\geq 25$  kHz  
0.0005 g rms  
 $\leq 1\%$   
 $\leq 2\%$   
 $\leq 5\%$

## SI

1.02 mV/(m/s<sup>2</sup>)  
 $\pm 4900$  m/s<sup>2</sup> pk  
1 to 5000 Hz  
0.5 to 6000 Hz  
 $\geq 25$  kHz  
0.005 m/s<sup>2</sup> rms  
 $\leq 1\%$   
 $\leq 2\%$   
 $\leq 5\%$

## Notes

[1]  
[4]  
[4]

## Environmental

Overload Limit (Shock)  
Temperature Range (Operating)  
Temperature Response  
Base Strain Sensitivity

$\pm 7000$  g pk  
-65 to +250 °F  
See Graph  
0.001 g/ $\mu\epsilon$

$\pm 68600$  m/s<sup>2</sup> pk  
-54 to +121 °C  
See Graph  
0.01 (m/s<sup>2</sup>)/ $\mu\epsilon$

[1]  
[1]

## Electrical

Excitation Voltage  
Constant Current Excitation  
Output Impedance  
Output Bias Voltage  
Discharge Time Constant  
Settling Time (within 10 % of bias)  
Spectral Noise (1 Hz)  
Spectral Noise (10 Hz)  
Spectral Noise (100 Hz)  
Spectral Noise (1 kHz)

20 to 30 VDC  
2 to 20 mA  
 $\leq 200$  Ohms  
8 to 12 VDC  
0.6 to 2.0 s  
< 5 s  
150  $\mu\text{g}/\sqrt{\text{Hz}}$   
25  $\mu\text{g}/\sqrt{\text{Hz}}$   
10  $\mu\text{g}/\sqrt{\text{Hz}}$   
5  $\mu\text{g}/\sqrt{\text{Hz}}$

20 to 30 VDC  
2 to 20 mA  
 $\leq 200$  Ohms  
8 to 12 VDC  
0.6 to 2.0 s  
< 5 s  
1472 ( $\mu\text{m}/\text{s}^2$ )/ $\sqrt{\text{Hz}}$   
245 ( $\mu\text{m}/\text{s}^2$ )/ $\sqrt{\text{Hz}}$   
98 ( $\mu\text{m}/\text{s}^2$ )/ $\sqrt{\text{Hz}}$   
49 ( $\mu\text{m}/\text{s}^2$ )/ $\sqrt{\text{Hz}}$

[1]  
[1]  
[1]  
[1]

## Physical

Sensing Element  
Sensing Geometry  
Housing Material  
Sealing  
Size (Height x Length x Width)  
Weight  
Electrical Connector  
Electrical Connector Position  
Mounting Thread  
Mounting Torque

Ceramic  
Shear  
Titanium  
Hermetic  
0.55 x 0.80 x 0.55 in  
0.37 oz  
¼-28 4-Pin  
Side  
10-32 Female  
10 to 20 in-lb

Ceramic  
Shear  
Titanium  
Hermetic  
14.0 x 20.3 x 14.0 mm  
10.5 gm  
¼-28 4-Pin  
Side  
10-32 Female  
113 to 225 N-cm

[1]

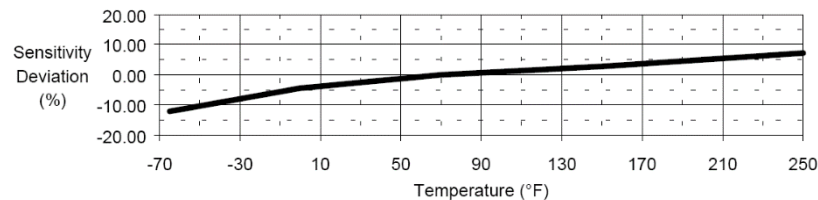


## Notes

[1] Typical  
[4] Zero-based, least-square, straight line method

## Supplied Accessories

NIST Traceable Calibration Certificate  
Model 080A109 Petro Wax (1)  
Model 010A12 Adhesive Mounting Base (1)  
Model 080A90 Quick Bonding Gel (1)  
Model 080B05 Mounting Stud (10-32 to 10-32) (1)  
Model M081B05 Mounting Stud 10-32 to M6 x 0.75



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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