Model	Number
353	3B33

## **ICP® ACCELEROMETER**

Revision: P
ECN #: 5370

Performance	ENGLISH	SI	
Sensitivity(± 5 %)	100 mV/g	10.19 mV/(m/s²)	[1]
Measurement Range	± 50 g pk	± 491 m/s² pk	
Frequency Range(± 5 %)	1 to 4,000 Hz	1 to 4,000 Hz	
Frequency Range(± 10 %)	0.7 to 6,500 Hz	0.7 to 6,500 Hz	
Frequency Range(± 3 dB)	0.35 to 12,000 Hz	0.35 to 12,000 Hz	
Resonant Frequency	≥ 22 kHz	≥ 22 kHz	
Broadband Resolution(1 to 10,000 Hz)	0.0005 g rms	0.005 m/s <sup>2</sup> rms	[2]
Non-Linearity	≤ 1 %	≤ 1 %	[3]
Transverse Sensitivity	≤ 5 %	≤ 5 %	[4]
Environmental			
Overload Limit(Shock)	± 10,000 g pk	± 98,100 m/s² pk	
Temperature Range(Operating)	-65 to +250 °F	-54 to +121 ℃	
Temperature Response	See Graph	See Graph	[2]
Base Strain Sensitivity	0.0002 g/με	0.002 (m/s²)/με	[2]
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	7.5 to 12.0 VDC	7.5 to 12.0 VDC	
Discharge Time Constant	0.5 to 2.0 sec	0.5 to 2.0 sec	
Settling Time(within 10% of bias)	< 25 sec	< 25 sec	
Spectral Noise(1 Hz)	320 μg/√Hz	3,139 (µm/sec <sup>2</sup> )/√Hz	[2]
Spectral Noise(10 Hz)	70 μg/√Hz	687 (µm/sec <sup>2</sup> )/√Hz	[2]
Spectral Noise(100 Hz)	18 μg/√Hz	177 (µm/sec <sup>2</sup> )/√Hz	[2]
Spectral Noise(1 kHz)	6.4 µg/√Hz	63 (µm/sec <sup>2</sup> )/√Hz	[2]
Physical			
Size (Height x Hex)	0.93 in x 0.75 in	23.6 mm x 19.1 mm	
Weight	0.95 oz	27 gm	[2]
Sensing Element	Quartz	Quartz	
Sensing Geometry	Shear	Shear	
Housing Material	Titanium	Titanium	
Sealing	Welded Hermetic	Welded Hermetic	
Electrical Connector	10-32 Coaxial Jack	10-32 Coaxial Jack	
Electrical Connection Position	Side	Side	
Mounting Thread	10-32 Female	10-32 Female	

## **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.

	4.5 to 7.5 VDC 12 to 30 VDC 1 to 20 mA ± 30 g pk	4.5 to 7.5 VDC 12 to 30 VDC 1 to 20 mA ± 294 m/s <sup>2</sup> pk
--	---	---

Measurement Range	± 30 g pk	± 294 m/s² pk	
J - Ground Isolated Frequency Range± 5 % Frequency Range± 10 % Resonant Frequency Electrical Isolation(Base) Size - Hex Size - Height	1 to 4,000 Hz 0.7 to 6,000 Hz ≥ 18 kHz ≥ 10 <sup>8</sup> Ohm 0.75 in 0.98 in	1 to 4,000 Hz 0.7 to 6,000 Hz ≥ 18 kHz ≥ 10 <sup>8</sup> Ohm 19.1 mm 24.9 mm	[1]

O - Extended discharge time constant			١.
Frequency Range ± 5 %	0.1 to 4.000 Hz	0.1 to 4.000 Hz	
Frequency Range ± 10 %	0.07 to 6,500 Hz	0.07 to 6,500 Hz	
Dischargé Time Constant	≥ 10 sec	≥ 10 sec	
Settling Time (within 10% of	< 120 sec	< 120 sec	
bias) `			
Supplied Accessory Model ACS-4 Single	e axis. low frequency pha	se and amplitude response cal fro	m

0.3 to 10 Hz (1)		
<b>W</b> - Water Resistant Cable Electrical Connector Electrical Connection Position	Sealed Integral Cable Side	Sealed Integral Cable Side

Ν	OTES:	:

[1]B and Q options supplied with a sensitivity tolerance of  $\pm$  10 %.

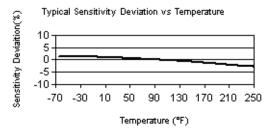
[2]Typical.

[3]Zero-based, least-squares, straight line method.

[4] Transverse sensitivity is typically  $\leq$  3%.

[5]See PCB Declaration of Conformance PS023 for details.

## CE



## **SUPPLIED ACCESSORIES:**

Model 080A109 Petro Wax (1)

Model 080A12 Adhesive Mounting Base (1)

Model 081B05 Mounting Stud (10-32 to 10-32) (1)

Model ACS-1 NIST traceable frequency response (10 Hz to upper 5% point). (1)

Model ACS-4 Single axis, low frequency phase and amplitude response cal from 0.5 to 10 Hz (1) Model M081B05 Mounting Stud 10-32 to M6 X 0.75 (1)

Entered: ND	Engineer: NJF	Sales: KK	Approved: NJF	Spec Number:
Date: 03/10/2023	Date: 03/10/2023	Date: 03/10/2023	Date: 03/10/2023	353-2330-80



3425 Walden Avenue, Depew, NY 14043

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. ICP® is a registered trademark of PCB Piezotronics, Inc.