Model	Number		
350B01			

SHEAR ICP® SHOCK ACCELEROMETER

Revision: G ECN #: 51341

Performance	ENGLISH	SI	
Sensitivity(± 30 %)	0.05 mV/g	0.005 mV/(m/s ²)	
Measurement Range	± 100,000 g pk	$\pm 981,000 \text{ m/s}^2 \text{ pk}$	
Frequency Range(± 1 dB)	4 to 10,000 Hz	4 to 10,000 Hz	
Frequency Range(- 3 dB)	2 to 25,000 Hz	2 to 25,000 Hz	[1]
Electrical Filter Corner Frequency(- 3 dB)	17 kHz	17 kHz	[2][3]
Mechanical Filter Resonant Frequency	35 kHz	35 kHz	[2][4]
Resonant Frequency	≥ 100 kHz	≥ 100 kHz	
Broadband Resolution(1 to 10,000 Hz)	0.5 g rms	4.9 m/s ² rms	[2]
Non-Linearity(per 10,000 g (98,100 m/s ²))	≤ 2.5 %	≤ 2.5 %	
Transverse Sensitivity	≤ 7 %	≤ 7 %	
Environmental			
Overload Limit(Shock)	± 150,000 g pk	± 1,471,500 m/s² pk	
Temperature Range(Operating)	-10 to +150 °F	-23 to +66 °C	
Temperature Range(Storage)	-40 to +200 °F	-40 to +93 ℃	
Temperature Response	See Graph	See Graph	[2][5]
Electrical			
Excitation Voltage	20 to 30 VDC	20 to 30 VDC	
Constant Current Excitation	2 to 20 mA	2 to 20 mA	
Output Impedance	≤ 200 Ohm	≤ 200 Ohm	
Output Bias Voltage	8 to 14 VDC	8 to 14 VDC	
Discharge Time Constant	0.10 sec	0.10 sec	[2]
Settling Time(within 10% of bias)	< 1 sec	< 1 sec	
Electrical Isolation(Case)	> 1,000,000 Ohm	> 1,000,000 Ohm	
Physical			
Sensing Element	Ceramic	Ceramic	
Sensing Geometry	Shear	Shear	
Housing Material	Titanium	Titanium	
Sealing	Hermetic	Hermetic	
Size (Hex x Height)	0.375 in x 1.04 in	9.5 mm x 26.5 mm	
Weight(without cable)	0.20 oz	5.5 gm	[2]
Electrical Connector	Integral Cable	Integral Cable	
Cable Length	10 ft	3.05 m	
Cable Type	031 Twisted Pair	031 Twisted Pair	
Mounting Thread	1/4-28 Male	1/4-28 Male	

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

NOTES:

 $\label{thm:constraint} \mbox{[1]Typical corner frequency for coupled electrical and mechanical filters.}$

[2]Typical.

[3]Electrical filter is a second order filter.

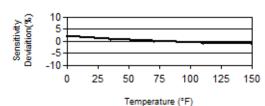
[4]Amplitude at resonance is +9 dB.

[5]Test conducted on shaker at 100Hz.

[6] See PCB Declaration of Conformance PS135 for details.

Typical Sensitivity Deviation vs Temperature





SUPPLIED ACCESSORIES:

Model ACS-14 High G shock accelerometer calibration using Hopkinson bar. (1) Model ACS-22 NIST Traceable frequency response (100Hz to ± 1 dB point) (1)

Entered: LK	Engineer: AJA	Sales: RWM	Approved: BAM	Spec Number:
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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^{\otimes} is a registered trademark of PCB Piezotronics, Inc.