Model Number 350D02

# SHEAR ICP® SHOCK ACCELEROMETER

Revision: A

ECN #: 40313

Performance	<u>ENGLISH</u>	<u>SI</u>	
Sensitivity(± 30 %)	0.1 mV/g 0.01 mV/(m/s <sup>2</sup> )		
Measurement Range	$\pm$ 50,000 g pk $\pm$ 490,000 m/s <sup>2</sup> 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	[2]
Electrical Filter Corner Frequency(-3 dB)	17 kHz	17 kHz	[1][3]
Mechanical Filter Resonant Frequency	45 kHz 45 kHz		[1][4]
Resonant Frequency	≥ 100 kHz ≥ 100 kHz		
Broadband Resolution(1 to 10,000 Hz)	0.5 g rms	4.9 m/s <sup>2</sup> rms	[1]
Non-Linearity(per 10,000 g (98,100 m/s²))	≤ 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)	0 to +150 °F	-18 to +66 °C	
Temperature Range(Storage)	-40 to +200 °F	-40 to +93 °C	
Temperature Response	See Graph	See Graph	[1]
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	[1]
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 0.87 in	9.5 mm x 22.1 mm	
Weight(without cable)	0.16 oz	4.5 gm	[1]
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	
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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.

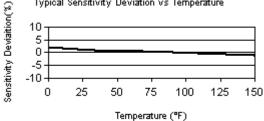
M - Metric Mount

Mounting Thread M6 x 0.75 Male M6 x 0.75 Male

## NOTES:

- [1] Typical.
  [2] Typical corner frequency for coupled electrical and mechanical filters.
  [3] Electrical filter is a second order filter.
- [4] Amplitude at resonance is +9 dB.

# 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: AP	Engineer: AJA	Sales: RWM	Approved: JJB	Spec Number:
Date: 12/3/2012	Date: 12/3/2012	Date: 12/3/2012	Date: 12/3/2012	52264

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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Phone: 716-684-0001 Fax: 716-684-0987 E-Mail: info@pcb.com