## SHEAR ICP® SHOCK ACCELEROMETER

Revision: B ECN #: 43858

Performance		ENGLISH	SI			
Sensitivity(± 30 %)		0.05 mV/g	0.005 mV/(m/s²)			
Measurement Range		± 100,000 g pk	± 981,000 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	[3]		
Electrical Filter Corner Frequency(-3 dB)		21 kHz	21 kHz	[1][4]		
Mechanical Filter Resonant Frequency		35 kHz	35 kHz	[1][5]		
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/s <sup>2</sup> 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][2]		
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 1.04 in	9.5 mm x 26.5 mm			
Weight(without cable)		0.20 oz	5.5 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			
Mounting Torque		25 to 35 in-lb	280 to 390 N-cm			
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	Sensitivity Deviaition(%)	0 25 50	75 100 125	5 150		

## **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.

## NOTES:

[1]Typical.
[2]Test conducted on shaker at 100Hz.
[3]Typical corner frequency for coupled electrical and mechanical filters.

[4]Electrical filter is a second order filter.

[5]Amplitude at resonance is +9 dB.

## SUPPLIED ACCESSORIES:

Model ACS-22 NIST Traceable frequency response (100Hz to ±1 dB point) (1)

Entered: AP	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® is a registered trademark of PCB Group, Inc.

Temperature (°F)