Model	Number		
350C24			

# **ICP® SHOCK ACCELEROMETER**

Revision: D ECN #: 51341

330C24			0
Performance Sensitivity(± 30 %)	ENGLISH 1.0 mV/g	<b>SI</b> 0.1 mV/(m/s²)	
Measurement Range	± 5,000 g pk	± 49,000 m/s <sup>2</sup> pk	
Frequency Range(± 1 dB)	0.4 to 10,000 Hz	0.4 to 10,000 Hz	
Frequency Range(= 1 dB)	0.2 to 25,000 Hz	0.2 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	1-11-1
Broadband Resolution(1 to 10,000 Hz)	0.02 g rms	0.20 m/s <sup>2</sup> rms	[2]
Non-Linearity(per 1000 g (9810 m/s <sup>2</sup> ))	≤ 2.0 %	≤ 2.0 %	
Transverse Sensitivity	≤ 7 %	≤ 7 %	
Environmental			
Overload Limit(Shock)	± 50,000 g pk	± 490,000 m/s² pk	
Temperature Range(Operating)	-10 to +150 °F	-23 to +66 °C	
Temperature Range(Storage)	-40 to +200 °F	-40 to +93 °C	
Temperature Response	See Graph	See Graph	[2][5]
Base Strain Sensitivity	0.002 g/με	0.02 (m/s²)/με	[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	1.0 to 2.0 sec	1.0 to 2.0 sec	[2]
Settling Time(within 10% of bias)	< 10 sec	< 10 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 0.88 in	9.5 mm x 22.4 mm	
Weight(without cable)	0.19 oz	5.4 gm	[2]
Electrical Connector	10-32 Coaxial Plug	10-32 Coaxial Plug	
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:

[1] Typical corner frequency for coupled electrical and mechanical filters.

[2]Typical.

[3]Electrical filter is a second order filter.

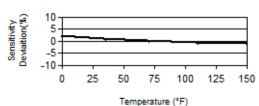
[4]Amplitude at resonance is +9 dB.

[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  $\pm 1$  dB point) (1)

Entered: LK	Engineer: AJA	Sales: RWM	Approved: BAM	Spec Number:
Date: 12/17/2020	Date: 12/17/2020	Date: 12/17/2020	Date: 12/17/2020	60174



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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.