Model Number 320C15

ICP® ACCELEROMETER

Revision: G

ECN #: 36906

320013				
Performance	<u>ENGLISH</u>	<u>SI</u>		
Sensitivity(± 10 %)	10 mV/g	1.02 mV/(m/s²)		
Measurement Range	± 500 g pk	± 4900 m/s² pk		
Frequency Range(± 5 %)	1.0 to 10,000 Hz	1.0 to 10,000 Hz		
Frequency Range(± 10 %)	0.7 to 18,000 Hz	0.7 to 18,000 Hz		
Frequency Range(± 3 dB)	0.35 to 30,000 Hz	0.35 to 30,000 Hz		
Resonant Frequency	≥ 60 kHz	≥ 60 kHz		
Broadband Resolution(1 to 10,000 Hz)	0.005 g rms	0.05 m/s ² rms	[1]	
Non-Linearity	≤ 1 %	≤ 1 %	[2]	
Transverse Sensitivity	≤ 5 %	≤ 5 %	[3]	
Environmental				
Overload Limit(Shock)	± 10,000 g pk	± 98,100 m/s² pk		
Temperature Range(Operating)	-100 to +325 ℉	-73 to +163 ℃		
Temperature Response	See Graph	See Graph	[1]	
Base Strain Sensitivity	≤ 0.0005 g/με	$\leq 0.005 \text{ (m/s}^2)/\mu\epsilon$	[1]	
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	8 to 12 VDC	8 to 12 VDC		
Discharge Time Constant	0.25 to 2.0 sec	0.25 to 2.0 sec		
Settling Time(within 10% of bias)	<5 sec	<5 sec		
Spectral Noise(1 Hz)	2800 μg/√Hz	27,468 (µm/sec ²)/√Hz	[1]	
Spectral Noise(10 Hz)	700 μg/√Hz	6867 (µm/sec ²)/√Hz	[1]	
Spectral Noise(100 Hz)	180 μg/√Hz	1766 (µm/sec ²)/√Hz	[1]	
Spectral Noise(1 kHz)	. σ 64 μg/√Hz	628 (µm/sec ²)/√Hz	[1]	
Physical	1.0	(p		
Sensing Element	Quartz	Quartz		
Sensing Geometry	Shear	Shear		
Housing Material	Titanium	Titanium		
Sealing	Welded Hermetic	Welded Hermetic		
Size (Hex x Height)	5/16 in x 0.43 in	5/16 in x 10.9 mm		
Weight	0.07 oz	2.0 gm	[1]	
Electrical Connector	5-44 Coaxial	5-44 Coaxial		
Electrical Connection Position	Side	Side		
Mounting Thread	5-40 Male	5-40 Male		
Mounting Torque	8 to 12 in-lb	90 to 135 N-cm		
	Fig. 7 Typical Sensitivity Deviation vs Temperature			
	Sensitivity 10 10 10 10 10 10 10 10 10 10 10 10 10		_	
	5			
CE			-	
[4]	i≩ -10 			
1.3	்த் -100 -50 0 50 100 150 200 250			
	Temperature (°F)			

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.

A - Adhesive Mount

Supplied Accessory: Model 080A90 Quick Bonding Gel (1)

${f J}$ - Ground Isolated

1.0 to 8000 Hz	1.0 to 8000 Hz
0.7 to 12,000 Hz	0.7 to 12,000 Hz
0.35 to 25,000 Hz	0.35 to 25,000 Hz
≥ 50 kHz	≥ 50 kHz
≥ 10 ⁸ ohm	≥ 10 ⁸ ohm
3/8 in x 0.38 in	3/8 in x 9.7 mm
0.11 oz	3.1 gm
	0.7 to 12,000 Hz 0.35 to 25,000 Hz ≥ 50 kHz ≥ 10^8 ohm 3/8 in x 0.38 in

M - Metric Mount

Mounting Thread M3x0.50 Male M3x0.50 Male Supplied Accessory: Model M080A15 Adhesive Mounting Base (1) replaces Model 080A15

W - Water Resistant Cable

Electrical Connector	Sealed Integral Cable	Sealed Integral Cable	
Electrical Connection Position	Side	Side	

NOTES:

- [1] Typical.

- [2] Zero-based, least-squares, straight line method.
 [3] Transverse sensitivity is typically ≤ 3%.
 [4] See PCB Declaration of Conformance PS023 for details.

SUPPLIED ACCESSORIES:

Model 080A109 Petro Wax (1)

Model 080A15 Adhesive Mounting Base (1)

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

Entered: DMW	Engineer: SDS	Sales: WDC	Approved: BAM	Spec Number:
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Phone: 716-684-0001 Fax: 716-685-3886

E-Mail: vibration@pcb.com

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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