

Model Number  
393B04

# SEISMIC ICP® ACCELEROMETER

Revision: E  
ECN #: 29253

	ENGLISH	SI	
<b>Performance</b>			
Sensitivity(± 10 %)	1000 mV/g	102 mV/(m/s <sup>2</sup> )	
Measurement Range	± 5 g pk	± 49 m/s <sup>2</sup> pk	
Frequency Range(± 5 %)	0.06 to 450 Hz	0.06 to 450 Hz	
Frequency Range(± 10 %)	0.05 to 750 Hz	0.05 to 750 Hz	
Frequency Range(± 3 dB)	0.02 to 1700 Hz	0.02 to 1700 Hz	
Resonant Frequency	≥ 2.5 kHz	≥ 2.5 kHz	
Broadband Resolution(1 to 10,000 Hz)	0.000003 g rms	0.000003 m/s <sup>2</sup> rms	[1]
Non-Linearity	≤ 1 %	≤ 1 %	[2]
Transverse Sensitivity	≤ 5 %	≤ 5 %	[3]
<b>Environmental</b>			
Overload Limit(Shock)	± 300 g pk	± 2950 m/s <sup>2</sup> pk	
Temperature Range	0 to +176 °F	-18 to +80 °C	
Temperature Response	See Graph	See Graph	
Base Strain Sensitivity	≤ 0.0005 g/με	≤ 0.005 (m/s <sup>2</sup> )/με	[1]
<b>Electrical</b>			
Excitation Voltage	18 to 30 VDC	18 to 30 VDC	
Constant Current Excitation	2 to 10 mA	2 to 10 mA	
Output Impedance	<500 ohm	<500 ohm	
Output Bias Voltage	7 to 12 VDC	7 to 12 VDC	
Discharge Time Constant	5 to 15 sec	5 to 15 sec	
Settling Time	<100 sec	<100 sec	
Spectral Noise(1 Hz)	0.30 μg/√Hz	2.9 (μm/s <sup>2</sup> )/√Hz	[1]
Spectral Noise(10 Hz)	0.10 μg/√Hz	1.0 (μm/s <sup>2</sup> )/√Hz	[1]
Spectral Noise(100 Hz)	0.04 μg/√Hz	0.4 (μm/s <sup>2</sup> )/√Hz	[1]
Spectral Noise(1 kHz)	0.04 μg/√Hz	0.4 (μm/s <sup>2</sup> )/√Hz	[1]
<b>Physical</b>			
Sensing Element	Ceramic	Ceramic	
Sensing Geometry	Flexural	Flexural	
Housing Material	Titanium	Titanium	
Sealing	Hermetic	Hermetic	
Size (Diameter x Height)	0.99 in x 1.22 in	25 mm x 31 mm	
Weight	1.8 oz	50 gm	[1]
Electrical Connector	10-32 Coaxial Jack	10-32 Coaxial Jack	
Electrical Connection Position	Top	Top	
Mounting Thread	10-32 Female	10-32 Female	

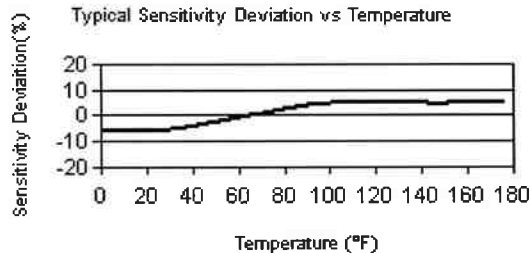
**OPTIONAL VERSIONS**  
Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.

T - TEDS Capable of Digital Memory and Communication Compliant with IEEE P1451.4  
**TLA** - TEDS LMS International - Free Format  
**TLB** - TEDS LMS International - Automotive Format  
**TLC** - TEDS LMS International - Aeronautical Format  
**TLD** - TEDS Capable of Digital Memory and Communication Compliant with IEEE 1451.4  
 Excitation Voltage 20 to 30 VDC 20 to 30 VDC  
 Output Bias Voltage 7.5 to 13 VDC 7.5 to 13 VDC

**W** - Water Resistant Cable  
 Electrical Connection Position Top Top  
 Electrical Connector Sealed Integral Cable Sealed Integral Cable

**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 081B05 Mounting Stud (10-32 to 10-32) (1)  
 Model ACS-1 NIST traceable frequency response (10 Hz to upper 5% point). (1)  
 Model ACS-4 Single axis, low frequency phase and amplitude response cal from 1.0 to 10 Hz (1)  
 Model M081B05 Mounting Stud 10-32 to M6 X 0.75 (1)



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.

Entered: BLS	Engineer: BM	Sales: PDL	Approved: EB	Spec Number:
Date: 8/18/08	Date: 8/15/08	Date: 8/15/08	Date: 8/15/08	17026

**PCB PIEZOTRONICS™**  
 VIBRATION DIVISION  
 3425 Walden Avenue, Depew, NY 14043

Phone: 716-684-0001  
 Fax: 716-685-3886  
 E-Mail: vibration@pcb.com