

Model Number

352C33

## ICP® ACCELEROMETER

Revision: H

ECN #: 28610

## Performance

	ENGLISH	SI	
Sensitivity(± 10 %)	100 mV/g	10.2 mV/(m/s <sup>2</sup> )	
Measurement Range	± 50 g pk	± 490 m/s <sup>2</sup> pk	
Frequency Range(± 5 %)	0.5 to 10,000 Hz	0.5 to 10,000 Hz	
Frequency Range(± 10 %)	0.3 to 15,000 Hz	0.3 to 15,000 Hz	
Resonant Frequency	≥ 50 kHz	≥ 50 kHz	
Broadband Resolution(1 to 10,000 Hz)	0.00015 g rms	0.0015 m/s <sup>2</sup> rms	[1]
Non-Linearity	≤ 1 %	≤ 1 %	[4]
Transverse Sensitivity	≤ 5 %	≤ 5 %	[5]

## Environmental

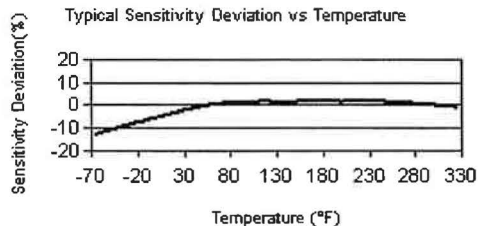
Overload Limit(Shock)	± 5000 g pk	± 49,000 m/s <sup>2</sup> pk	
Temperature Range(Operating)	-65 to +200 °F	-54 to +93 °C	[3]
Temperature Response	See Graph	See Graph	[3][1]
Base Strain Sensitivity	0.003 g/με	0.029 (m/s <sup>2</sup> )/με	[1]

## Electrical

Excitation Voltage	18 to 30 VDC	18 to 30 VDC	
Constant Current Excitation	2 to 20 mA	2 to 20 mA	
Output Impedance	≤ 200 ohm	≤ 200 ohm	
Output Bias Voltage	7 to 12 VDC	7 to 12 VDC	
Discharge Time Constant	1.0 to 2.5 sec	1.0 to 2.5 sec	
Settling Time(within 10% of bias)	<10 sec	<10 sec	
Spectral Noise(1 Hz)	39 μg/√Hz	380 (μm/s <sup>2</sup> )/√Hz	[1]
Spectral Noise(10 Hz)	11 μg/√Hz	110 (μm/s <sup>2</sup> )/√Hz	[1]
Spectral Noise(100 Hz)	3.4 μg/√Hz	33 (μm/s <sup>2</sup> )/√Hz	[1]
Spectral Noise(1 kHz)	1.4 μg/√Hz	14 (μm/s <sup>2</sup> )/√Hz	[1]

## Physical

Sensing Element	Ceramic	Ceramic	
Sensing Geometry	Shear	Shear	
Housing Material	Titanium	Titanium	
Sealing	Hermetic	Hermetic	
Size (Hex x Height)	0.44 in x 0.62 in	11.2 mm x 15.7 mm	
Weight	0.20 oz	5.8 gm	[1]
Electrical Connector	10-32 Coaxial Jack	10-32 Coaxial Jack	
Electrical Connection Position	Side	Side	
Mounting Thread	10-32 Female	10-32 Female	
Mounting Torque	10 to 20 in-lb	113 to 226 N-cm	



CE [6]

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.

## 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.

## HT - High temperature, extends normal operation temperatures [3]

Frequency Range(5 %)	6 to 10,000 Hz	6 to 10,000 Hz
Frequency Range(10 %)	4.5 to 15,000 Hz	4.5 to 15,000 Hz
Broadband Resolution(1 to 10,000 Hz)	0.0009 g rms	0.009 m/s <sup>2</sup> rms
Temperature Range(Operating)	-65 to +325 °F	-54 to +163 °C
Excitation Voltage	22 to 30 VDC	22 to 30 VDC
Discharge Time Constant	0.07 to 0.15 sec	0.07 to 0.15 sec
Spectral Noise(1 Hz)	107 μg/√Hz	1050 (μm/s <sup>2</sup> )/√Hz
Spectral Noise(10 Hz)	58 μg/√Hz	570 (μm/s <sup>2</sup> )/√Hz
Spectral Noise(100 Hz)	41 μg/√Hz	400 (μm/s <sup>2</sup> )/√Hz
Spectral Noise(1 kHz)	9.8 μg/√Hz	96 (μm/s <sup>2</sup> )/√Hz
Output Bias Voltage	10 to 15 VDC	10 to 15 VDC
Supplied Accessory : Model ACS-68 Single Axis Amplitude Response Calibration from 5 Hz to upper 5% plotted on dB scale replaces Model ACS-1		[2]

## J - Ground Isolated

Frequency Range(5 %)	9 kHz	9 kHz
Frequency Range(10 %)	14 kHz	14 kHz
Resonant Frequency	≥ 40 kHz	≥ 40 kHz
Electrical Isolation(Base)	>10 <sup>8</sup> ohm	>10 <sup>8</sup> ohm
Size - Hex x Height	0.44 in x 0.67 in	11.2 mm x 17.0 mm
Weight	0.21 oz	6.0 gm

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

Temperature Range(Memory Access)	-10 to +200 °F	-23 to +93 °C
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 Connector	Sealed Integral Cable	Sealed Integral Cable
Electrical Connection Position	Side	Side

## NOTES:

- [1] Typical.
- [2] TEDS option adds 1.0 VDC to bias voltage.
- [3] 200 °F to 325 °F data valid with HT option only.
- [4] Zero-based, least-squares, straight line method.
- [5] Transverse sensitivity is typically ≤ 3%.
- [6] See PCB Declaration of Conformance PS023 for details.

## SUPPLIED ACCESSORIES:

- Model 080A Adhesive Mounting Base (1)
- Model 080A109 Petro Wax (1)
- 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 M081B05 Mounting Stud 10-32 to M6 X 0.75 (1)

Entered: BLS	Engineer: BM	Sales: WDC	Approved: EIS	Spec Number:
Date: 4-15-08	Date: 4-15-08	Date: 4-15-08	Date: 4-15-08	13118

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

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