



Model 393B05

Product Type: Accelerometer, Vibration Sensor

Seismic, miniature (50 gm), ceramic shear ICP® accel., 10 V/g, 0.6 to 450 Hz, 10-32 top conn.

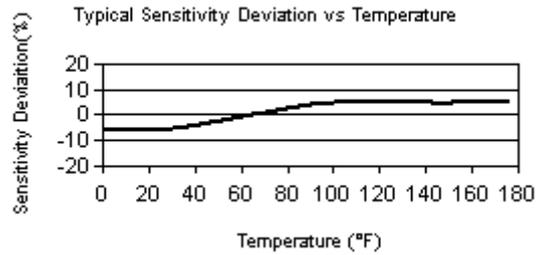
PERFORMANCE	ENGLISH	SI
Sensitivity(± 10 %)	10 V/g	1.02 V/(m/s ²)
Measurement Range	0.5 g pk	4.9 m/s ² pk
Frequency Range(± 5 %)	0.7 to 450 Hz	0.7 to 450 Hz
Frequency Range(± 10 %)	0.5 to 750 Hz	0.5 to 750 Hz
Frequency Range(± 3 dB)	0.2 to 1700 Hz	0.2 to 1700 Hz
Resonant Frequency	≥ 2.5 kHz	≥ 2.5 kHz
Broadband Resolution(1 to 10,000 Hz)	0.000004 g rms	0.00004 m/s ² rms [1]
Non-Linearity	≤ 1 %	≤ 1 % [2]
Transverse Sensitivity	≤ 5 %	≤ 5 %
ENVIRONMENTAL		
Overload Limit(Shock)	± 300 g pk	± 2950 m/s ² 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 ²)/με [1]
ELECTRICAL		
Excitation Voltage	18 to 30 VDC	18 to 30 VDC
Constant Current Excitation	2 to 10 mA	2 to 10 mA
Output Impedance		
Output Bias Voltage	7 to 12 VDC	7 to 12 VDC
Discharge Time Constant	0.5 to 2.0 sec	0.5 to 2.0 sec
Settling Time		
Spectral Noise(1 Hz)	0.50 μg/√Hz	4.9 (μm/sec ²)/√Hz [1]
Spectral Noise(10 Hz)	0.10 μg/√Hz	1.0 (μm/sec ²)/√Hz [1]
Spectral Noise(100 Hz)	0.07 μg/√Hz	0.7 (μm/sec ²)/√Hz [1]
Spectral Noise(1 kHz)	0.05 μg/√Hz	0.5 (μm/sec ²)/√Hz [1]
PHYSICAL		
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
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 M081B05 Mounting Stud 10-32 to M6 X 0.75 (1)		
OPTIONAL VERSIONS		
T- TEDS Capable of Digital Memory and Communication Compliant with IEEE P1451.4		
Excitation Voltage	20 to 30 VDC	
Output Bias Voltage	7.5 to 13 VDC	
TLA- TEDS LMS International - Free Format		
Excitation Voltage	20 to 30 VDC	
Output Bias Voltage	7.5 to 13 VDC	
TLB- TEDS LMS International - Automotive Format		
Excitation Voltage	20 to 30 VDC	
Output Bias Voltage	7.5 to 13 VDC	
TLC- TEDS LMS International - Aeronautical Format		
Excitation Voltage	20 to 30 VDC	
Output Bias Voltage	7.5 to 13 VDC	

TLD- TEDS Capable of Digital Memory and Communication Compliant with IEEE 1451.4		
Excitation Voltage	20 to 30 VDC	
Output Bias Voltage	7.5 to 13 VDC	
W- Water Resistant Cable		
Electrical Connection Position	Top	
Electrical Connector	Sealed Integral Cable	

All specifications are at room temperature unless otherwise specified.

NOTES:

- [1] Typical.
- [2] Zero-based, least-squares, straight line method.
- [3] See PCB Declaration of Conformance PS023 for details.





Model 393B31

Product Type: Accelerometer, Vibration Sensor

Seismic, high sensitivity, ceramic flexural ICP® accel., 10 V/g, 0.1 to 200 Hz, 2-pin top conn.

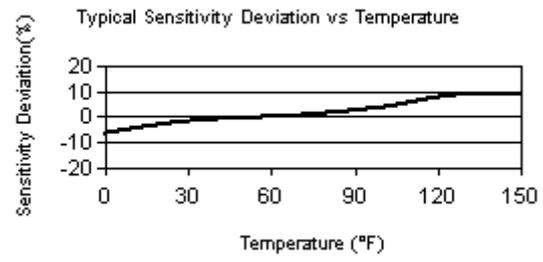
PERFORMANCE	ENGLISH	SI
Sensitivity(± 5 %)	10.0 V/g	1.02 V/(m/s ²) [2]
Measurement Range	0.5 g pk	4.9 m/s ² pk
Frequency Range(± 5 %)	0.1 to 200 Hz	0.1 to 200 Hz
Frequency Range(± 10 %)	0.07 to 300 Hz	0.07 to 300 Hz
Resonant Frequency	≥ 700 Hz	≥ 700 Hz
Broadband Resolution(1 to 10,000 Hz)	0.000001 g rms	0.000009 m/s ² rms [1]
Non-Linearity	≤ 1 %	≤ 1 % [3]
Transverse Sensitivity	≤ 5 %	≤ 5 %
ENVIRONMENTAL		
Overload Limit(Shock)	± 40 g pk	± 392 m/s ² pk
Temperature Range	0 to +150 °F	-18 to +65 °C
Temperature Response	See Graph	See Graph
Base Strain Sensitivity	≤ 0.0005 g/με	≤ 0.005 (m/s ²)/με [1]
ELECTRICAL		
Excitation Voltage	24 to 28 VDC	24 to 28 VDC
Constant Current Excitation	2 to 10 mA	2 to 10 mA
Output Impedance	≤ 500 ohm	≤ 500 ohm
Output Bias Voltage	8 to 14 VDC	8 to 14 VDC
Discharge Time Constant	≥ 5 sec	≥ 5 sec
Settling Time(within 10% of bias)	60 sec	60 sec
Spectral Noise(1 Hz)	0.06 μg/√Hz	0.6 (μm/sec ²)/√Hz [1]
Spectral Noise(10 Hz)	0.01 μg/√Hz	0.1 (μm/sec ²)/√Hz [1]
Spectral Noise(100 Hz)	0.004 μg/√Hz	0.04 (μm/sec ²)/√Hz [1]
Electrical Isolation(Case)	≥ 10 ⁸ ohm	≥ 10 ⁸ ohm
PHYSICAL		
Sensing Element	Ceramic	Ceramic
Sensing Geometry	Flexural	Flexural
Housing Material	Stainless Steel	Stainless Steel
Sealing	Hermetic	Hermetic
Size (Diameter x Height)	2.25 in x 2.8 in	57.2 mm x 71.1 mm
Weight	22.4 oz	635 gm [1]
Electrical Connector	2-Pin MIL-C-5015	2-Pin MIL-C-5015
Electrical Connection Position	Top	Top
Mounting Thread	1/4-28 Female	1/4-28 Female
Mounting Torque	2 to 5 ft-lb	2.7 to 6.8 N-m
SUPPLIED ACCESSORIES:		
Model 081B20 Mounting Stud, with shoulder (1/4-28 to 1/4-28) (1)		
Model ACS-11 NIST traceable amplitude and phase response from 0.5 Hz to upper 5% frequency (1)		
Model M081B20 Mounting Stud 1/4-28 to M6 X 0.75		

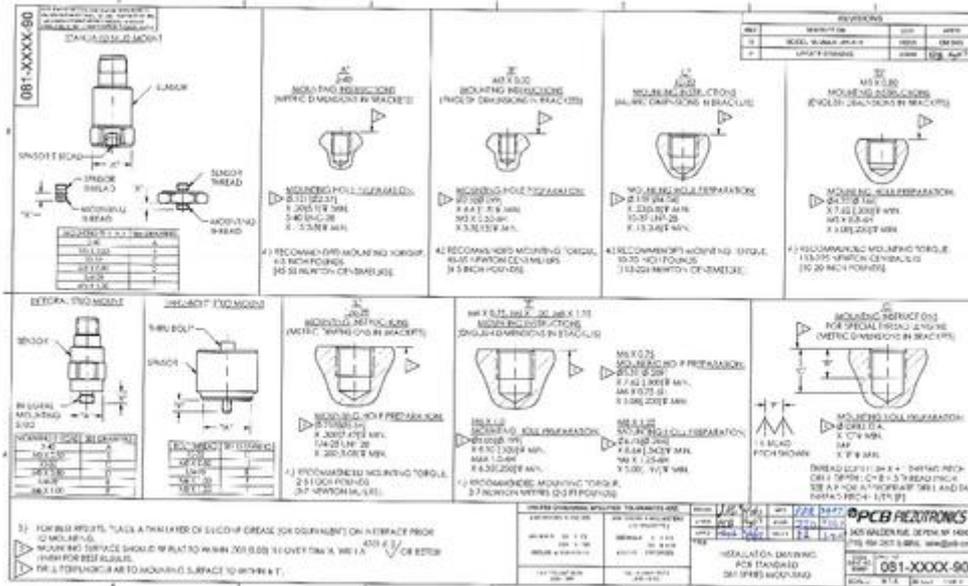
All specifications are at room temperature unless otherwise specified.

NOTES:

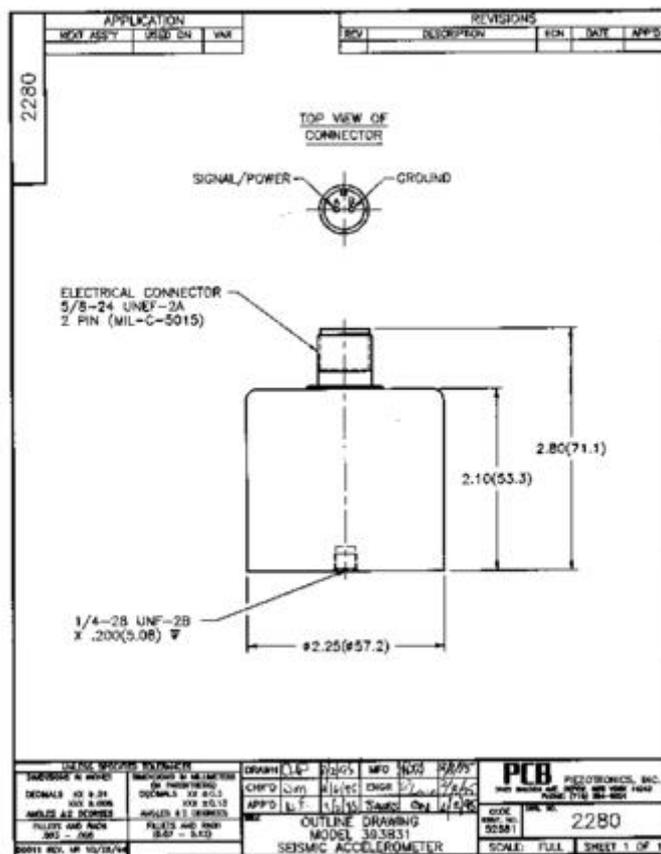
- [1] Typical.
- [2] Measured at 10 Hz, 0.1 grms
- [3] Zero-based, least-squares, straight line method.
- [4] See PCB Declaration of Conformance PS023 for details.

CE [4]





Download Drawing [081-XXXX-90-P.pdf](#)



Download Drawing [2280-NR.pdf](#)



Model 393A03

Product Type: Accelerometer, Vibration Sensor

Seismic, ceramic shear ICP® accel., 1 V/g, 0.5 to 2k Hz, 2-pin top conn.

PERFORMANCE	ENGLISH	SI
Sensitivity(± 5 %)	1000 mV/g	102 mV/(m/s ²)
Measurement Range	± 5 g pk	± 49 m/s ² pk
Frequency Range(± 5 %)	0.5 to 2000 Hz	0.5 to 2000 Hz
Frequency Range(± 10 %)	0.3 to 4000 Hz	0.3 to 4000 Hz
Frequency Range(± 3 dB)	0.2 to 6000 Hz	0.2 to 6000 Hz
Resonant Frequency	≥ 10 kHz	≥ 10 kHz
Broadband Resolution(1 to 10,000 Hz)	0.00001 g rms	0.0001 m/s ² rms [1]
Non-Linearity	≤ 1 %	≤ 1 % [2]
Transverse Sensitivity	≤ 7 %	≤ 7 %
ENVIRONMENTAL		
Overload Limit(Shock)	± 5000 g pk	± 49,050 m/s ² pk
Temperature Range	-65 to +250 °F	-54 to +121 °C
Temperature Response	See Graph	See Graph
Base Strain Sensitivity	≤ 0.0005 g/με	≤ 0.005 (m/s ²)/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		
Output Bias Voltage	8 to 12 VDC	8 to 12 VDC
Discharge Time Constant	1 to 3 sec	1 to 3 sec
Settling Time		
Spectral Noise(1 Hz)	2 μg/√Hz	20 (μm/sec ²)/√Hz [1]
Spectral Noise(10 Hz)	0.5 μg/√Hz	5 (μm/sec ²)/√Hz [1]
Spectral Noise(100 Hz)	0.2 μg/√Hz	2 (μm/sec ²)/√Hz [1]
Spectral Noise(1 kHz)	0.1 μg/√Hz	1 (μm/sec ²)/√Hz [1]
Electrical Isolation(Case)	≥ 10 ⁸ ohm	≥ 10 ⁸ ohm
PHYSICAL		
Sensing Element	Ceramic	Ceramic
Sensing Geometry	Shear	Shear
Housing Material	Stainless Steel	Stainless Steel
Sealing	Hermetic	Hermetic
Size (Hex x Height)	1 3/16 in x 2 3/16 in	30.2 mm x 55.6 mm
Weight	7.4 oz	210 gm [1]
Electrical Connector	2-Pin MIL-C-5015	2-Pin MIL-C-5015
Electrical Connection Position	Top	Top
Mounting Thread	1/4-28 Female	1/4-28 Female
Mounting Torque	2 to 5 ft-lb	3 to 7 N-m
SUPPLIED ACCESSORIES:		
Model 081B20 Mounting Stud, with shoulder (1/4-28 to 1/4-28) (1)		
Model 085A31 Protective Thermal Jacket (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 0.5 to 10 Hz (1)		
Model M081B20 Mounting Stud 1/4-28 to M6 X 0.75 (1)		
OPTIONAL VERSIONS		
T- TEDS Capable of Digital Memory and Communication Compliant with IEEE P1451.4		
Output Bias Voltage	8.5 to 12.5 VDC	

All specifications are at room temperature unless otherwise specified.

NOTES:

- [1] Typical.
- [2] Zero-based, least-squares, straight line method.
- [3] See PCB Declaration of Conformance PS023 for details.

CE [3]

