

Model Number
356A15

ACCELEROMETER, ICP®, TRIAXIAL

Revision R
ECN #: 27623

Optional Versions (Optional versions have identical specifications and accessories as listed for standard model except where noted below. More than one option may be used.)

A - Adhesive Mount
 Supplied Accessory: Model 080A109 Petro Wax
 Supplied Accessory: Model 080A90 Quick bond Gel (for use with accelerometer adhesive mtg bases to fill gaps on rough surfaces)

HT - High temperature, extends normal operation temperatures
 Frequency Range ($\pm 5\%$) 10 to 5000 Hz
 Frequency Range ($\pm 10\%$) 7 to 6500 Hz
 Broadband Resolution (1 to 10000 Hz) 0.0005 g rms

Temperature Range (Operating) -65 to +325 °F
 Excitation Voltage 24 to 30 VDC
 Output Bias Voltage 7 to 16 VDC
 Discharge Time Constant 0.03 to 0.1 sec

Spectral Noise (1 Hz) 110 $\mu\text{g}/\sqrt{\text{Hz}}$
 Spectral Noise (10 Hz) 50 $\mu\text{g}/\sqrt{\text{Hz}}$
 Spectral Noise (100 Hz) 30 $\mu\text{g}/\sqrt{\text{Hz}}$
 Spectral Noise (1 kHz) 10 $\mu\text{g}/\sqrt{\text{Hz}}$

J - Ground Isolated
 Electrical Isolation (Base) $>10^8$ ohm
 Size (Height x Length x Width) 0.59 in x 0.80 in x 15.0 mm x 20.3 mm x 14.0 mm
 Weight 0.55 in
 Mounting 0.37 oz
 Adhesive Adhesive

Supplied Accessory: Model 080A109 Petro Wax
 Supplied Accessory: Model 080A90 Quick bond Gel (for use with accelerometer adhesive mtg bases to fill gaps on rough surfaces)

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

Output Bias Voltage 8.7 to 13.0 VDC 8.7 to 13.0 VDC

Notes

- [1] Typical.
- [2] TEDS option adds 1.0 VDC to bias voltage.
- [3] 250° F to 325° F data valid with HT option only.
- [4] Zero-based, least-squares, straight line method.
- [5] See PCB Declaration of Conformance PS023 for details.

Supplied Accessories

- 080A109 Petro Wax (1)
- 080A12 Adhesive Mounting Base (1)
- 080A90 Quick Bonding Gel (1)
- 081B05 Mounting Stud (10-32 to 10-32) (1)
- ACS-1T NIST traceable triaxial amplitude response, 10 Hz to upper 5% frequency. (1)
- M081B05 Mounting Stud 10-32 to M6 X 0.75 (1)

Performance
 Sensitivity ($\pm 10\%$) 10.2 mV/(m/s²)
 Measurement Range ± 490 m/s² pk
 Frequency Range ($\pm 5\%$) 2 to 5000 Hz
 Frequency Range ($\pm 10\%$) 1.4 to 6500 Hz
 Resonant Frequency ≥ 25 kHz
 Broadband Resolution (1 to 10000 Hz) 0.002 m/s² rms
 Non-Linearity $\leq 1\%$
 Transverse Sensitivity $\leq 5\%$

Environmental
 Overload Limit (Shock) ± 68600 m/s² pk
 Temperature Range (Operating) -54 to +121 °C
 Temperature Response See Graph
 Base Strain Sensitivity 0.01 (m/s²)/ μe

Electrical
 Excitation Voltage 20 to 30 VDC
 Constant Current Excitation 2 to 20 mA
 Output Impedance <200 ohm
 Output Bias Voltage 8 to 12 VDC
 Discharge Time Constant 0.2 to 0.8 sec
 Settling Time (within 10% of bias) <5 sec
 Spectral Noise (1 Hz) 785 $(\mu\text{m/s}^2)/\sqrt{\text{Hz}}$
 Spectral Noise (10 Hz) 147 $(\mu\text{m/s}^2)/\sqrt{\text{Hz}}$
 Spectral Noise (100 Hz) 49 $(\mu\text{m/s}^2)/\sqrt{\text{Hz}}$
 Spectral Noise (1 kHz) 2 $(\mu\text{m/s}^2)/\sqrt{\text{Hz}}$
 Spectral Noise (10 kHz) 1 $(\mu\text{m/s}^2)/\sqrt{\text{Hz}}$

Physical
 Sensing Element Ceramic
 Sensing Geometry Shear
 Housing Material Titanium
 Sealing Hermetic

Size (Height x Length x Width) 0.55 in x 0.80 in x 14.0 mm x 20.3 mm x 14.0 mm

Weight 0.55 in
 Electrical Connector 10-32 Female
 Electrical Connection Position 10 to 20 in-lb
 Mounting Thread 10-32 Female
 Mounting Torque 113 to 225 N-cm

SI
 10.2 mV/(m/s²)
 ± 490 m/s² pk
 2 to 5000 Hz
 1.4 to 6500 Hz
 ≥ 25 kHz
 0.002 m/s² rms
 $\leq 1\%$
 $\leq 5\%$

ENGLISH
 100 mV/g
 ± 50 g pk
 2 to 5000 Hz
 1.4 to 6500 Hz
 ≥ 25 kHz
 0.0002 g rms
 $\leq 1\%$
 $\leq 5\%$

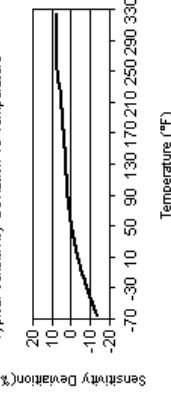
± 7000 g pk
 -65 to +250 °F
 See Graph
 0.001 g/ μe

20 to 30 VDC
 2 to 20 mA
 <200 ohm
 8 to 12 VDC
 0.2 to 0.8 sec
 <5 sec
 80 $\mu\text{g}/\sqrt{\text{Hz}}$
 15 $\mu\text{g}/\sqrt{\text{Hz}}$
 5 $\mu\text{g}/\sqrt{\text{Hz}}$
 2 $\mu\text{g}/\sqrt{\text{Hz}}$
 1 $\mu\text{g}/\sqrt{\text{Hz}}$

Ceramic
 Shear
 Titanium
 Hermetic

0.55 in
 0.37 oz
 1/4-28 4-Pin
 Side
 10-32 Female
 10 to 20 in-lb

Typical Sensitivity Deviation vs Temperature



Entered: BLS	Engineer: BAM	Sales: R.JL	Approved: JJB
Date:	Date:	Date:	Date:
			Spec Number: 10329

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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