

Model Number

356A16

TRIAxIAL ICP® ACCELEROMETER

Revision: K

ECN #: 28126

Performance

| | ENGLISH | SI | |
|--------------------------------------|----------------|-----------------------------|-----|
| Sensitivity(± 10 %) | 100 mV/g | 10.2 mV/(m/s ²) | |
| Measurement Range | ± 50 g pk | ± 490 m/s ² pk | |
| Frequency Range(± 5 %)(Y- & Z-axis) | 0.5 to 5000 Hz | 0.5 to 5000 Hz | |
| Frequency Range(± 5 %)(X-axis) | 0.5 to 4500 Hz | 0.5 to 4500 Hz | |
| Frequency Range(± 10) | 0.3 to 6000 Hz | 0.3 to 6000 Hz | |
| Resonant Frequency | ≥ 25 kHz | ≥ 25 kHz | |
| Phase Response(± 5 °) | 1.0 to 5000 Hz | 1.0 to 5000 Hz | [1] |
| Broadband Resolution(1 to 10,000 Hz) | 0.0001 g rms | 0.001 m/s ² rms | [2] |
| Non-Linearity | ≤ 1 % | ≤ 1 % | |
| Transverse Sensitivity | ≤ 5 % | ≤ 5 % | |

Environmental

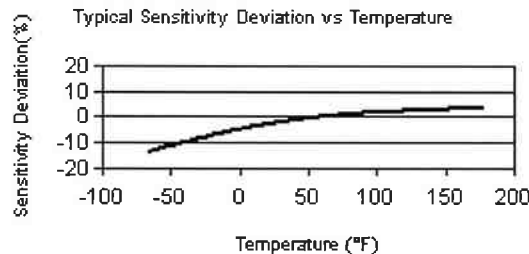
| | | | |
|------------------------------|----------------|------------------------------|-----|
| Overload Limit(Shock) | ± 7000 g pk | ± 68,600 m/s ² pk | |
| Temperature Range(Operating) | -65 to +176 °F | -54 to +80 °C | |
| Temperature Response | See Graph | See Graph | [1] |
| Base Strain Sensitivity | 0.001 g/με | 0.01 (m/s ²)/με | [1] |

Electrical

| | | | |
|-----------------------------------|----------------|-------------------------------|-----|
| Excitation Voltage | 20 to 30 VDC | 20 to 30 VDC | |
| Constant Current Excitation | 2 to 20 mA | 2 to 20 mA | |
| Output Impedance | ≤ 200 ohm | ≤ 200 ohm | |
| Output Bias Voltage | 8 to 12 VDC | 8 to 12 VDC | |
| Discharge Time Constant | 1.0 to 3.0 sec | 1.0 to 3.0 sec | |
| Settling Time(within 10% of bias) | <10 sec | <10 sec | |
| Spectral Noise(1 Hz) | 40 μg/√Hz | 392 (μm/s ²)/√Hz | [1] |
| Spectral Noise(10 Hz) | 10 μg/√Hz | 98 (μm/s ²)/√Hz | [1] |
| Spectral Noise(100 Hz) | 3 μg/√Hz | 29.4 (μm/s ²)/√Hz | [1] |
| Spectral Noise(1 kHz) | 1 μg/√Hz | 9.8 (μm/s ²)/√Hz | [1] |
| Spectral Noise(10 kHz) | 0.5 μg/√Hz | 4.9 (μm/s ²)/√Hz | [1] |

Physical

| | | | |
|--------------------------------|-----------------------------|-----------------------------|-----|
| Sensing Element | Ceramic | Ceramic | |
| Sensing Geometry | Shear | Shear | |
| Housing Material | Anodized Aluminum | Anodized Aluminum | |
| Sealing | Epoxy | Epoxy | |
| Size (Height x Length x Width) | 0.55 in x 0.80 in x 0.55 in | 14.0 mm x 20.3 mm x 14.0 mm | |
| Weight | 0.26 oz | 7.4 gm | [1] |
| Electrical Connector | 1/4-28 4-Pin | 1/4-28 4-Pin | |
| Electrical Connection Position | Side | Side | |
| Mounting Thread | 10-32 Female | 10-32 Female | |
| Mounting Torque | 10 to 20 in-lb | 113 to 225 N-cm | |



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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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 080A109 Petro Wax (1)

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

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(Operating) -65 to +176 °F -54 to +80 °C

Output Bias Voltage 8.5 to 13.0 VDC 8.5 to 13.0 VDC

NOTES:

[1] Typical.

[2] Zero-based, least-squares, straight line method.

SUPPLIED ACCESSORIES:

Model 080A109 Petro Wax (1)

Model 080A12 Adhesive Mounting Base (1)

Model 081B05 Mounting Stud (10-32 to 10-32) (1)

Model ACS-1T NIST traceable triaxial amplitude response, 10 Hz to upper 5% frequency. (1)

Model M081B05 Mounting Stud 10-32 to M6 X 0.75 (1)

| | | | | |
|----------------------|----------------------|----------------------|----------------------|--------------|
| Entered: <i>Set</i> | Engineer: <i>DDJ</i> | Sales: <i>RJZ</i> | Approved: <i>BAM</i> | Spec Number: |
| Date: <i>2-11-08</i> | Date: <i>2-11-08</i> | Date: <i>2-11-08</i> | Date: <i>2-11-08</i> | 10330 |

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