## Model Number 356A01

# TRIAXIAL ICP® ACCELEROMETER

Revision: G

ECN #: 42197

| Performance                          | ENGLISH                     | SI                                |        |  |
|--------------------------------------|-----------------------------|-----------------------------------|--------|--|
| Sensitivity(± 20 %)                  | 5 mV/g                      | 0.51 mV/(m/s²)                    |        |  |
| Measurement Range                    | ± 1000 g pk                 | ± 9810 m/s² pk                    |        |  |
| Frequency Range(± 5 %)(y or z axis)  | 2 to 8000 Hz                | 2 to 8000 Hz                      |        |  |
| Frequency Range(± 5 %)(x axis)       | 2 to 5000 Hz                | 2 to 5000 Hz                      |        |  |
| Frequency Range(+1 dB)(x axis)       | ≥ 8 kHz                     | ≥ 8 kHz                           |        |  |
| Resonant Frequency                   | ≥ 50 kHz                    | ≥ 50 kHz                          |        |  |
| Broadband Resolution(1 to 10,000 Hz) | 0.003 g rms                 | 0.03 m/s <sup>2</sup> rms         | [1]    |  |
| Non-Linearity                        | ≤ 1 %                       | ≤ 1 %                             | [3]    |  |
| Transverse Sensitivity               | ≤ 5 %                       | ≤ 5 %                             |        |  |
| Environmental                        |                             |                                   |        |  |
| Overload Limit(Shock)                | ± 10,000 g pk               | ± 98,100 m/s <sup>2</sup> pk      |        |  |
| Temperature Range(Operating)         | -65 to +250 °F              | -54 to +121 °C                    | [2]    |  |
| Temperature Response                 | See Graph                   | See Graph                         | [1][2] |  |
| 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              | 0.24 to 1.0 sec             | 0.24 to 1.0 sec                   |        |  |
| Settling Time(within 10% of bias)    | <3 sec                      | <3 sec                            |        |  |
| Spectral Noise(1 Hz)                 | 1200 μg/√Hz                 | 11,772 (μm/sec <sup>2</sup> )/√Hz | [1]    |  |
| Spectral Noise(10 Hz)                | 300 μg/√Hz                  | 2943 (µm/sec <sup>2</sup> )/√Hz   | [1]    |  |
| Spectral Noise(100 Hz)               | 100 μg/√Hz                  | 981 (μm/sec <sup>2</sup> )/√Hz    | [1]    |  |
| Spectral Noise(1 kHz)                | 30 μg/√Hz                   | 294 (µm/sec <sup>2</sup> )/√Hz    | [1]    |  |
| Physical                             |                             | ,                                 |        |  |
| Sensing Element                      | Ceramic                     | Ceramic                           |        |  |
| Sensing Geometry                     | Shear                       | Shear                             |        |  |
| Housing Material                     | Titanium                    | Titanium                          |        |  |
| Sealing                              | Hermetic                    | Hermetic                          |        |  |
| Size (Height x Length x Width)       | 0.25 in x 0.25 in x 0.25 in | 6.35 mm x 6.35 mm x 6.35 mm       |        |  |
| Weight(without cable)                | 0.04 oz                     | 1.0 gm                            | [1]    |  |
| Electrical Connector                 | Integral Cable              | Integral Cable                    |        |  |
| Electrical Connection Position       | Side                        | Side                              |        |  |
| Cable Length                         | 5 ft                        | 1.5 m                             |        |  |
| Cable Type                           | 034 4-cond Shielded         | 034 4-cond Shielded               |        |  |
| Mounting                             | Adhesive                    | Adhesive                          |        |  |
|                                      | ू Typical Sens              | sitivity Deviation vs Temperature |        |  |

### **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

Temperature Range(Operating) -54 to +163 °C

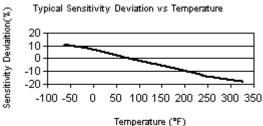
W - Water Resistant Cable

**Electrical Connector** Sealed Integral Cable Sealed Integral Cable

#### NOTES:

- [1] Typical.
- [2] 250° F to 325° F data valid with HT option only.
- [3] Zero-based, least-squares, straight line method.

[4] See PCB Declaration of Conformance PS023 for details.



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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#### **SUPPLIED ACCESSORIES:**

Model 034G05 4-cond. shielded cable, 5 ft (1.5M), 4-pin plug to (3) BNC plugs (1) Model 080A109 Petro Wax (1)

Model 080A90 Quick Bonding Gel (1)

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

| Entered: AP     | Engineer: JJB   | Sales: WDC      | Approved: JJB   | Spec Number: |
|-----------------|-----------------|-----------------|-----------------|--------------|
| Date: 11/8/2013 | Date: 11/8/2013 | Date: 11/8/2013 | Date: 11/8/2013 | 21822        |



Phone: 716-684-0001 Fax: 716-684-0987 E-Mail: info@pcb.com