Model Number 601A02

# INDUSTRIAL ICP® ACCELEROMETER

Revision: D

ECN #: 14824

| Performance                          | ENGLISH               | SI                      |     |
|--------------------------------------|-----------------------|-------------------------|-----|
| Sensitivity (±20 %)                  | 500 mV/g              | 51 mV/(m/s²)            | [2] |
| Measurement Range                    | ±10 g                 | ± 98 m/s <sup>2</sup>   | .,  |
| Frequency Range (±5 %)               | 28 to 240000 cpm      | 0.47 to 4000 Hz         | [3] |
| Frequency Range (±10 %)              | 20 to 300000 cpm      | 0.33 to 5000 Hz         |     |
| Frequency Range (±3 dB)              | 10 to 600000 cpm      | 0.17 to 10000 Hz        |     |
| Resonant Frequency                   | 960 kcpm              | 16 kHz                  | [1] |
| Broadband Resolution (1 to 10000 Hz) | 35 μg                 | 343 μm/s²               | [1] |
| Non-Linearity                        | ±1 %                  | ±1 %                    | [4] |
| Transverse Sensitivity               | ≤7 %                  | ≤7 %                    | • • |
| Environmental                        | =- ,0                 | _: ,,                   |     |
| Overload Limit (Shock)               | 5000 g pk             | 49050 m/s² pk           |     |
| Temperature Range                    | -65 to +250 °F        | -54 to +121 °C          |     |
| Enclosure Rating                     | IP68                  | IP68                    |     |
| Electrical                           |                       |                         |     |
| Settling Time (within 1% of bias)    | ≤10 sec               | ≤10 sec                 |     |
| Discharge Time Constant              | ≥1.0 sec              | ≥1.0 sec                |     |
| Excitation Voltage                   | 18 to 28 VDC          | 18 to 28 VDC            |     |
| Constant Current Excitation          | 2 to 20 mA            | 2 to 20 mA              |     |
| Output Impedance                     | <150 ohms             | <150 ohms               |     |
| Output Bias Voltage                  | 8 to 12 VDC           | 8 to 12 VDC             |     |
| Spectral Noise (10 Hz)               | 3 μg/√Hz              | 29.4 (μm/s²)/√Hz        | [1] |
| Spectral Noise (100 Hz)              | 0.7 μg/√Hz            | 6.9 (μm/s²)/√Hz         | [1] |
| Spectral Noise (1 kHz)               | 0.5 μg/√Hz            | 4.9 (μm/s²)/√Hz         | [1] |
| Electrical Isolation (Case)          | >10 <sup>8</sup> ohms | >10 <sup>8</sup> ohms   |     |
| Physical                             |                       |                         |     |
| Size (Hex x Height)                  | 7/8 in x 1.9 in       | 22.2 mm x 48.3 mm       |     |
| Weight                               | 2.8 oz                | 80 gm                   |     |
| Mounting Thread                      | 1/4-28 Female         | Not Applicable          | [5] |
| Mounting Torque                      | 2 to 5 ft-lb          | 2.7 to 6.8 N-m          |     |
| Sensing Element                      | Ceramic               | Ceramic                 |     |
| Sensing Geometry                     | Shear                 | Shear                   |     |
| Housing Material                     | Stainless Steel       | Stainless Steel         |     |
| Sealing                              | Welded Hermetic       | Welded Hermetic         |     |
| Electrical Connector                 | 2-Pin MIL-C-5015      | 2-Pin MIL-C-5015        |     |
| Electrical Connection Position       | Тор                   | Тор                     |     |
|                                      |                       | eviation vs Temperature |     |
|                                      | 8                     |                         |     |

## 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.

#### M - Metric Mount

Supplied Accessory: Model M081A61 Mounting Stud 1/4-28 to M6 X 1 (1) replaces Model

### NOTES:

- [1] Typical.
- [2] Conversion Factor 1g = 9.81 m/s<sup>2</sup>.
- [3] The high frequency tolerance is accurate within ±10% of the specified frequency.
- [4] Zero-based, least-squares, straight line method.
- [5] 1/4-28 has no equivalent in S.I. units.
- [6] See PCB Declaration of Conformance PS023 for details.

Sensitivity Deviaition ( 20 -20 -40 --65 0 70 150 225 250 Temperature (°F)

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.

#### SUPPLIED ACCESSORIES:

Model 081A40 Mounting Stud (1)

Model ICS-2 NIST-traceable single-axis single-point amplitude response calibration at 6000 cpm (100 Hz) (1)

Approved: Spec Number. 6136



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