

**Model Number**  
66102ANZ1

# ICP® LOW-PROFILE TO-5 ACCELEROMETER

Revision: C  
ECN #: 55512

|   | ENGLISH           | SI                               |        |
|---|-------------------|----------------------------------|--------|
| <b>Performance</b>                          |                   |                                  |        |
| Sensitivity(± 20 %)                         | 10 mV/g           | 1.02 mV/(m/s <sup>2</sup> )      | [1][2] |
| Measurement Range                           | ± 500 g           | ± 5,000 m/s <sup>2</sup>         |        |
| Frequency Range(± 3 dB)                     | 0.5 to 10 kHz     | 0.5 to 10 kHz                    | [3][4] |
| Resonant Frequency                          | > 25 kHz          | > 25 kHz                         | [4]    |
| Broadband Resolution                        | 0.0018 g rms      | 0.017658 m/s <sup>2</sup> rms    | [5]    |
| Non-Linearity                               | ≤ 1 %             | ≤ 1 %                            | [6]    |
| Transverse Sensitivity                      | ≤ 7 %             | ≤ 7 %                            |        |
| <b>Environmental</b>                        |                   |                                  |        |
| Overload Limit(Shock)                       | 5,000 g pk        | 49k m/s <sup>2</sup> pk          |        |
| Temperature Range(Operating)                | -65 to +185 °F    | -54 to +85 °C                    |        |
| Temperature Response                        | See Graph         | See Graph                        | [5]    |
| <b>Electrical</b>                           |                   |                                  |        |
| Settling Time(within 1% of bias)            | ≤ 2 sec           | ≤ 2 sec                          |        |
| Discharge Time Constant                     | ≥ 0.3 sec         | ≥ 0.3 sec                        |        |
| Excitation Voltage                          | 18 to 28 VDC      | 18 to 28 VDC                     |        |
| Constant Current Excitation                 | 2 to 20 mA        | 2 to 20 mA                       |        |
| Output Impedance                            | < 100 Ohm         | < 100 Ohm                        |        |
| Output Bias Voltage                         | 8 to 12 VDC       | 8 to 12 VDC                      |        |
| Spectral Noise(10 Hz)                       | 19 µg/√Hz         | 186.4 (µm/sec <sup>2</sup> )/√Hz | [5]    |
| Spectral Noise(100 Hz)                      | 8 µg/√Hz          | 78.5 (µm/sec <sup>2</sup> )/√Hz  | [5]    |
| Spectral Noise(1 kHz)                       | 5 µg/√Hz          | 49.1 (µm/sec <sup>2</sup> )/√Hz  | [5]    |
| <b>Physical</b>                             |                   |                                  |        |
| Size (Lip Diameter x Height)                | 0.36 in x 0.26 in | 9.1 mm x 6.6 mm                  |        |
| Weight                                      | 0.08 oz           | 2.2 gm                           |        |
| Mounting                                    | Adhesive/Solder   | Adhesive/Solder                  |        |
| Sensing Element                             | Ceramic           | Ceramic                          |        |
| Sensing Geometry                            | Shear             | Shear                            |        |
| Housing Material                            | Stainless Steel   | Stainless Steel                  |        |
| Sealing                                     | Welded Hermetic   | Welded Hermetic                  |        |
| Electrical Connector                        | Header Pins       | Header Pins                      |        |
| Electrical Connection Position              | Bottom            | Bottom                           |        |
| Electrical Connections(Pin 1)               | Signal / Power    | Signal / Power                   |        |
| Electrical Connections(Chrome-Plated Brass) | Neg (-) Ground    | Neg (-) Ground                   |        |
| Electrical Connections(Pin 3)               | No Connection     | No Connection                    |        |

## 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) -65 to 250 °F -54 to 121 °C

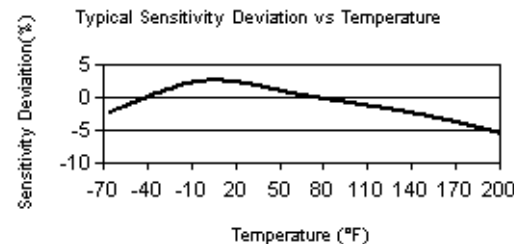
**RH** - RoHS Compliant

## NOTES:

- [1] Negative output along Z-axis (in upward direction when pin mounted).
- [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] Performance depends on mounting
- [5] Typical.
- [6] Zero-based, least-squares, straight line method.
- [7] See PCB Declaration of Conformance PS023 for details.

## SUPPLIED ACCESSORIES:

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



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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|                  |                  |                  |                  |              |
|------------------|------------------|------------------|------------------|--------------|
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