| Model Number<br>351B11               | ICP® ACCELEROMETER   |   |     |                                     |
|--------------------------------------|--|---|-----|-------------------------------------|
| Performance                          | ENGLISH  | SI                                      |     |                                     |
| Sensitivity(± 10 %)                  | 5 mV/g   | 0.51 mV/(m/s²)                          |     | Optional version                    |
| Measurement Range                    | ± 300 g pk   | ± 2943 m/s² pk                          |     | Optional version                    |
| Frequency Range(± 5 %)               | 1 to 10,000 Hz   | 1 to 10,000 Hz                          |     |                                     |
| Frequency Range(± 10 %)              | 0.7 to 15,000 Hz   | 0.7 to 15,000 Hz                        |     | A - Adhesive Mo                     |
| Frequency Range(± 3 dB)              | 0.35 to 30,000 Hz  | 0.35 to 30,000 Hz                       |     |                                     |
| Resonant Frequency                   | ≥ 40 kHz   | ≥ 40 kHz                                |     | J - Ground Isola                    |
| Broadband Resolution(1 to 10,000 Hz) | 0.01 g rms   | 0.1 m/s <sup>2</sup> rms                | [1] | Frequency Rang                      |
| Non-Linearity                        | ≤ 1 %  | ≤ 1 %                                   | [2] | Frequency Rang                      |
| Transverse Sensitivity               | ≤ 5 %  | ≤ 5 %                                   | [3] | Resonant Frequ                      |
| Environmental                        |  |   |     | Electrical Isolation                |
| Overload Limit                       | ± 10,000 g pk  | ± 98,100 m/s² pk                        |     | Size - Hex x Hei                    |
| Temperature Range                    | -320 to +250 °F  | -196 to +121 °C                         |     | Weight                              |
| Temperature Response                 | See Graph  | See Graph                               | [1] |                                     |
| Base Strain Sensitivity              | ≤ 0.002 g/με   | ≤ 0.02 (m/s²)/με                        | [1] | M - Metric Mour                     |
| Electrical                           |  |   |     | Mounting Thread                     |
| Excitation Voltage                   | 20 to 30 VDC   | 20 to 30 VDC                            |     |                                     |
| Constant Current Excitation          | 2 to 20 mA   | 2 to 20 mA                              |     | W - Water Resis                     |
| Output Impedance                     | ≤ 200 Ohm  | ≤ 200 Ohm                               |     | Electrical Conne                    |
| Output Bias Voltage                  | 3 to 10 VDC  | 3 to 10 VDC                             |     | Electrical Conne                    |
| Discharge Time Constant              | 0.5 to 2.0 sec   | 0.5 to 2.0 sec                          |     |                                     |
| Spectral Noise(10 Hz)                | 400 μg/√Hz   | 3924 (µm/sec <sup>2</sup> )/√Hz         | [1] |                                     |
| Spectral Noise(100 Hz)               | 120 μg/√Hz   | 1177 (µm/sec <sup>2</sup> )/√Hz         | [1] |                                     |
| Spectral Noise(1 kHz)                | 30 μg/√Hz  | 294 (µm/sec <sup>2</sup> )/√Hz          | [1] |                                     |
| Spectral Noise(1 Hz)                 | 2000 µg/√Hz  | 19,620 (µm/sec <sup>2</sup> )/√Hz       | [1] |                                     |
| Physical                             | · -  | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |     |                                     |
| Size (Height x Hex)                  | 0.43 in x 0.31 in  | 10.9 mm x 7.9 mm                        |     |                                     |
| Weight                               | 0.07 oz  | 2.0 gm                                  | [1] |                                     |
| Sensing Element                      | Quartz   | Quartz                                  |     | NOTES:                              |
| Sensing Geometry                     | Shear  | Shear                                   |     | [1] Typical.                        |
| Housing Material                     | Titanium   | Titanium                                |     | [2] Zero-based, I                   |
| Sealing                              | Hermetic   | Hermetic                                |     | [3] Transverse s<br>[4] See PCB Dec |
| Electrical Connector                 | 5-44 Coaxial   | 5-44 Coaxial                            |     | [5] Mounting stu                    |
| Electrical Connection Position       | Side   | Side                                    |     | [0]                                 |
| Mounting Thread                      | 5-40 Male  | 5-40 Male                               |     |                                     |
| Mounting Torque                      | 8 to 12 in-lb  | 90 to 135 N-cm                          |     |                                     |
|                                      | Typical Sensitivity  | Deviation vs Temperature                |     |                                     |
| CE <sub>[4]</sub>                    | Sensitivity Deviation(%) 0 - 0 - 0 - 10 - 10 - 10 - 10 - 10 - 10 |   |     | SUPPLIED AC<br>Model ACS-1 NI       |
|                                      | -350 -250  | -150 -50 50 150                         | 250 | Entered: LK                         |

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.

Temperature (°F)

## **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 [5]

| J - Ground Isolated        |                      |                      |
|----------------------------|----------------------|----------------------|
| Frequency Range(5 %)       | 8 Hz                 | 8 kHz                |
| Frequency Range(10 %)      | 15 Hz                | 15 kHz               |
| Resonant Frequency         | ≥ 36 kHz             | ≥ 36 kHz             |
| Electrical Isolation(Base) | >10 <sup>8</sup> Ohm | >10 <sup>8</sup> Ohm |
| Size - Hex x Height        | 0.37 in x 0.55 in    | 9.5 mm x 14.0 mm     |
| Weight                     | 0.11 oz              | 3.2 gm               |

M - Metric Mount Mounting Thread

M3 x 0.50 Male M3 x 0.50 Male

Revision: D

ECN #: 48061

W - Water Resistant Cable

**Electrical Connector** Sealed Integral Cable Sealed Integral Cable **Electrical Connection Position** Side Side

## NOTES:

- [1] Typical.
  [2] Zero-based, least-squares, straight line method.
  [3] Transverse sensitivity is typically ≤ 3%.
  [4] See PCB Declaration of Conformance PS023 for details.
- [5] Mounting stud removed, adhesive mounting base not required.

## SUPPLIED ACCESSORIES:

Model ACS-1 NIST traceable frequency response (10 Hz to upper 5% point). (1)

| Entered: LK     | Engineer: LM    | Sales: WDC      | Approved: JJB   | Spec Number: |
|-----------------|-----------------|-----------------|-----------------|--------------|
| Date: 4/19/2018 | Date: 4/19/2018 | Date: 4/19/2018 | Date: 4/19/2018 | 351-2110-80  |



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