Model Number ICP® ACCELEROMETER 320C18 Performance **ENGLISH** <u>SI</u> Sensitivity(± 10 %) 10 mV/g 1.02 mV/(m/s²) Measurement Range ± 500 g pk ± 4900 m/s² pk Frequency Range(± 5 %) 1.0 to 10,000 Hz 1.0 to 10,000 Hz A - Adhesive Mount Frequency Range(± 10 %) 0.7 to 18.000 Hz 0.7 to 18.000 Hz Frequency Range(± 3 dB) 0.35 to 30.000 Hz 0.35 to 30.000 Hz Resonant Frequency ≥ 60 kHz ≥ 60 kHz J - Ground Isolated Broadband Resolution(1 to 10,000 Hz) [1] 0.05 m/s² rms 0.005 g rms Frequency Range(± 5 %) Non-Linearity ≤1% ≤1% Frequency Range(± 10 %) Transverse Sensitivity [3] ≤5% ≤5% **Environmental** Frequency Range(± 3 dB) Overload Limit(Shock) ± 10,000 g pk \pm 98.100 m/s² pk Resonant Frequency Electrical Isolation(Base) Temperature Range(Operating) -73 to +163 ℃ -100 to +325 °F Size - Hex x Height Temperature Response See Graph See Graph [1] Base Strain Sensitivity ≤ 0.0005 a/uε ≤ 0.005 (m/s²)/uε Weight Electrical M - Metric Mount **Excitation Voltage** 18 to 30 VDC 18 to 30 VDC Constant Current Excitation 2 to 20 mA 2 to 20 mA Mounting Thread Output Impedance ≤ 100 ohm ≤ 100 ohm Output Bias Voltage 8 to 12 VDC 8 to 12 VDC W - Water Resistant Cable Discharge Time Constant 0.25 to 2.0 sec 0.25 to 2.0 sec Settling Time(within 10% of bias) <5 sec <5 sec **Flectrical Connector** [1] **Electrical Connection Position** Spectral Noise(1 Hz) 2800 µg/√Hz 27,468 (µm/sec²)/√Hz Spectral Noise(10 Hz) 700 μg/√Hz 6867 (µm/sec²)/√Hz [1] Spectral Noise(100 Hz) 180 μg/√Hz [1] 1766 (µm/sec²)/√Hz Spectral Noise(1 kHz) 64 µg/√Hz 628 (µm/sec²)/√Hz [1] Physical Sensing Element Quartz Quartz Sensing Geometry Shear Shear NOTES: Titanium Housing Material Titanium [1] Typical Sealing Hermetic Hermetic Size (Hex x Height) 9/32 in x 0.74 in 9/32 in x 18.8 mm Weiaht 0.06 oz 1.7 am **Electrical Connector** 10-32 Coaxial Jack 10-32 Coaxial Jack **Electrical Connection Position** Top qoT 5-40 Male 5-40 Male Mounting Thread Mounting Torque 8 to 12 in-lb 90 to 135 N-cm Typical Sensitivity Deviation vs Temperature Sensitivity Deviaition(%) SUPPLIED ACCESSORIES: Model 080A109 Petro Wax (1) 10 0 -5 -100 -50 50 100 150 200 250 300 350

OPTIONAL VERSIONS

Revision: G

ECN #: 36906

Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.

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

1.0 to 8000 Hz 1.0 to 8000 Hz 0.7 to 12.000 Hz 0.7 to 12.000 Hz 0.35 to 25.000 Hz 0.35 to 25.000 Hz ≥ 50 kHz ≥ 50 kHz ≥ 10⁸ ohm $\geq 10^8$ ohm 3/8 in x 0.72 in 3/8 in x 18.3 mm 0.10 oz 3.0 am

M3x0.50 Male M3x0.50 Male Supplied Accessory: Model M080A15 Adhesive Mounting Base (1) replaces Model 080A15

Sealed Integral Cable Sealed Integral Cable Top Top

- [2] Zero-based, least-squares, straight line method.
- [3] Transverse sensitivity is typically ≤ 3%.
- [4] See PCB Declaration of Conformance PS023 for details.

Model 080A15 Adhesive Mounting Base (1)

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

Entered: DMW	Engineer: SDS	Sales: WDC	Approved: BAM	Spec Number:
Date: 9/19/2011	Date: 9/19/2011	Date: 9/19/2011	Date: 9/19/2011	9794



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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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Temperature (°F)