

INDUSTRIAL ICP® ACCELEROMETER

Performance
Sensitivity (± 5 %) 500 mV/g [2]
Measurement Range ± 10 g [2]
Frequency Range (± 5 %) 30 to 120,000 cpm [3]
Frequency Range (± 10 %) 22 to 240,000 cpm [3]
Frequency Range (± 3 dB) 12 to 360,000 cpm [3]
Resonant Frequency 720 kcpm [1]
Broadband Resolution (1 to 10,000 Hz) 20 µg [1]
Non-Linearity ± 1 % [1]
Transverse Sensitivity ≤ 7 % [4]
Environmental
Overload Limit (Shock) 2500 g pk
Temperature Range -65 to +250 °F
Temperature Response See Graph
Enclosure Rating IP68

Electrical
Settling Time (within 1% of bias) ≤ 3.0 sec
Discharge Time Constant ≥ 1.0 sec
Excitation Voltage 18 to 28 VDC
Constant Current Excitation 2 to 20 mA
Output Impedance < 100 ohms
Output Bias Voltage 8 to 12 VDC
Spectral Noise (10 Hz) 0.9 µg/√Hz [1]
Spectral Noise (100 Hz) 0.7 µg/√Hz [1]
Spectral Noise (1 kHz) 0.3 µg/√Hz [1]
Electrical Isolation (Case) > 10⁸ ohms [1]

Physical
Size (Hex x Height) 1 3/16 in x 2 3/16 in
Weight 7.0 oz
Mounting Thread 1/4-28 UNF [5]
Mounting Torque 2 to 5 ft-lb
Sensing Element Ceramic
Sensing Geometry Shear
Housing Material Stainless Steel
Sealing Welded Hermetic
Electrical Connector 2-Pin MIL-C-5015
Electrical Connection Position Top

ENGLISH
51 mV/(m/s²)
± 98 m/s²
0.5 to 2000 Hz
0.37 to 4000 Hz
0.2 to 6000 Hz
12 kHz
196 µm/s²
± 1 %
≤ 7 %
24,525 m/s² pk
-54 to +121 °C
See Graph
IP68

SI
51 mV/(m/s²)
± 98 m/s²
0.5 to 2000 Hz
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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 081A40

NOTES:
[1] Typical.
[2] Conversion Factor 1g = 9.81 m/s².
[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.

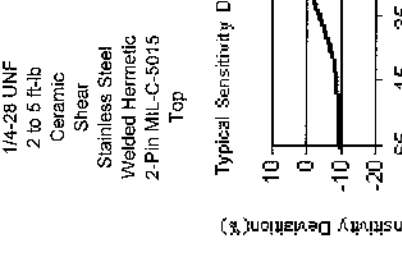
SUPPLIED ACCESSORIES:

- Model 081A40 Mounting Stud (1)
- Model 085A31 Protective Thermal Jacket (1)
- Model ICS-1 NIST-traceable single-axis amplitude response calibration from 600 cpm (10 Hz) to upper 5% frequency (1)

Industrial ICP® Accelerometer
Entered: PJS Engineer: JMS Sales: DAB Approved: NLF Spec Number:
Date: 6-18-04 Date: 6-18-04 Date: 6/24/04 Date: 18541

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Typical Sensitivity Deviation vs Temperature

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.