

Model Number  
HT628F01

# HIGH TEMPERATURE INDUSTRIAL ICP® ACCELEROMETER

Revision: C  
ECN #. 34836

## Performance

Sensitivity(± 5 %) 10.2 mV/(m/s<sup>2</sup>) [4]  
 Measurement Range ± 50 g [5]  
 Frequency Range(± 5 %) 144 to 180,000 cpm [2]  
 (± 10 %) 102 to 300,000 cpm [2]  
 (± 3 dB) 48 to 480,000 cpm [6]  
 Resonant Frequency 1080 kcpm [2]  
 Broadband Resolution(1 to 10 kHz) 1 mg [2]  
 Non-Linearity ± 1 % [2]  
 Transverse Sensitivity ≤ 5 % [6]

## Environmental

Overload Limit(Shock) 1000 g pk [3]  
 Temperature Range (Survivable Limit) -65 to +325 °F [2]  
 +350 °F

## Electrical

Temperature Response See Graph IP68 [2]  
 Enclosure Rating IP68  
 Settling Time(within 1% of bias) ≤ 3 sec  
 Discharge Time Constant ≥ 0.2 sec  
 Excitation Voltage 18 to 28 VDC  
 Constant Current Excitation 2 to 10 mA  
 Output Impedance <500 ohm  
 Output Bias Voltage 8 to 12 VDC  
 Spectral Noise(10 Hz) 491 (µm/sec<sup>2</sup>)/√Hz [2]  
 (100 Hz) 196 (µm/sec<sup>2</sup>)/√Hz [2]  
 (1 kHz) 59 (µm/sec<sup>2</sup>)/√Hz [2]  
 Electrical Protection RFI/ESD  
 Electrical Isolation(Case) >10<sup>8</sup> ohm

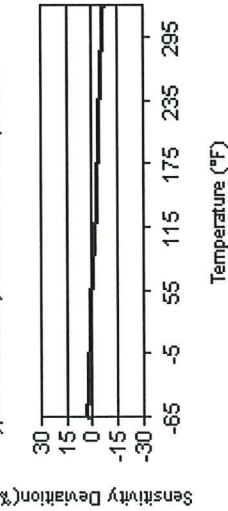
## Physical

Size (Hex x Height) 7/8 in x 2.06 in  
 Weight 3.2 oz  
 Mounting Thread 1/4-28 UNF [7]  
 Mounting Torque 2 to 5 ft-lb  
 Sensing Element Quartz  
 Sensing Geometry Shear  
 Housing Material Stainless Steel  
 Sealing Welded Hermetic  
 Electrical Connector MIL-C-5015  
 Electrical Connection Position Top

## ENGLISH

10.2 mV/(m/s<sup>2</sup>) [4]  
 ± 490 m/s<sup>2</sup>  
 2.4 to 3000 Hz [5]  
 1.7 to 5000 Hz  
 0.8 to 8000 Hz  
 18 kHz [2]  
 9.8 mm/s<sup>2</sup> [2]  
 ± 1 % [2]  
 ≤ 5 % [6]  
 981 m/s<sup>2</sup> pk [3]  
 -54 to +162 °C  
 +176 °C [2]  
 See Graph IP68 [2]  
 ≤ 3 sec  
 ≥ 0.2 sec  
 18 to 28 VDC  
 2 to 10 mA  
 <500 ohm  
 8 to 12 VDC [2]  
 491 (µm/sec<sup>2</sup>)/√Hz [2]  
 196 (µm/sec<sup>2</sup>)/√Hz [2]  
 59 (µm/sec<sup>2</sup>)/√Hz [2]  
 RFI/ESD  
 >10<sup>8</sup> ohm  
 7/8 in x 2.06 in  
 3.2 oz  
 1/4-28 UNF [7]  
 2 to 5 ft-lb  
 Quartz  
 Shear  
 Stainless Steel  
 Welded Hermetic  
 MIL-C-5015  
 Top

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.  
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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] Constant current should be reduced to ≤6 mA when operating sensor above 250°F.
- [2] Typical.
- [3] Not recommended for use with magnetic mounting base.
- [4] Conversion Factor 1g = 9.81 m/s<sup>2</sup>.
- [5] The high frequency tolerance is accurate within ±10% of the specified frequency.
- [6] Zero-based, least-squares, straight line method.
- [7] 1/4-28 has no equivalent in S.I. units.
- [8] See PCB Declaration of Conformance PS023 for details.

## SUPPLIED ACCESSORIES:

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

Entered: JH	Engineer: MF	Sales: Ely	Approved: Ep	Spec Number:
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