

Model Number  
HT628F01

# HIGH TEMPERATURE INDUSTRIAL ICP® ACCELEROMETER

Revision: C  
ECN #: 34836

	ENGLISH	SI	
<b>Performance</b>			
Sensitivity(± 5 %)	100 mV/g	10.2 mV/(m/s <sup>2</sup> )	[4]
Measurement Range	± 50 g	± 490 m/s <sup>2</sup>	
Frequency Range(± 5 %)	144 to 180,000 cpm	2.4 to 3000 Hz	[5]
(± 10 %)	102 to 300,000 cpm	1.7 to 5000 Hz	
(± 3 dB)	48 to 480,000 cpm	0.8 to 8000 Hz	
Resonant Frequency	1080 kcpm	18 kHz	[2]
Broadband Resolution(1 to 10 kHz)	1 mg	9.8 mm/s <sup>2</sup>	[2]
Non-Linearity	± 1 %	± 1 %	[6]
Transverse Sensitivity	≤ 5 %	≤ 5 %	
<b>Environmental</b>			
Overload Limit(Shock)	1000 g pk	981 m/s <sup>2</sup> pk	[3]
Temperature Range	-65 to +325 °F	-54 to +162 °C	
(Survivable Limit)	+350 °F	+176 °C	
Temperature Response	See Graph	See Graph	[2]
Enclosure Rating	IP68	IP68	
<b>Electrical</b>			
Settling Time(within 1% of bias)	≤ 3 sec	≤ 3 sec	
Discharge Time Constant	≥ 0.2 sec	≥ 0.2 sec	
Excitation Voltage	18 to 28 VDC	18 to 28 VDC	
Constant Current Excitation	2 to 10 mA	2 to 10 mA	[1]
Output Impedance	<500 ohm	<500 ohm	
Output Bias Voltage	8 to 12 VDC	8 to 12 VDC	
Spectral Noise(10 Hz)	50 µg/√Hz	491 (µm/sec <sup>2</sup> )/√Hz	[2]
(100 Hz)	20 µg/√Hz	196 (µm/sec <sup>2</sup> )/√Hz	[2]
(1 kHz)	6 µg/√Hz	59 (µm/sec <sup>2</sup> )/√Hz	[2]
Electrical Protection	RFI/ESD	RFI/ESD	
Electrical Isolation(Case)	>10 <sup>8</sup> ohm	>10 <sup>8</sup> ohm	
<b>Physical</b>			
Size (Hex x Height)	7/8 in x 2.06 in	22.2 mm x 52.3 mm	
Weight	3.2 oz	91 gm	
Mounting Thread	1/4-28 UNF	No Metric Equivalent	[7]
Mounting Torque	2 to 5 ft-lb	2.7 to 6.8 N-m	
Sensing Element	Quartz	Quartz	
Sensing Geometry	Shear	Shear	
Housing Material	Stainless Steel	Stainless Steel	
Sealing	Welded Hermetic	Welded Hermetic	
Electrical Connector	MIL-C-5015	MIL-C-5015	
Electrical Connection Position	Top	Top	

## 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.

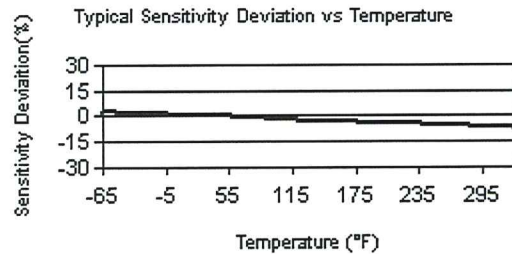
**M** - Metric Mount  
Supplied Accessory : Model M081A61 Mounting Stud 1/4-28 to M6 X 1 (1) replaces Model 081A40

## 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



[8]

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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Entered: JH	Engineer: MZ	Sales: Ezy	Approved: EB	Spec Number:
Date: 1-21-11	Date: 1-11-11	Date: 1-17-11	Date: 1-18-11	11448

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