High Temperature ICP® Accelerometers

IMI Sensors offers a series of ICP® accelerometers with industry leading high temperature response

NEW!

Series HT602D

- Industry leading high temp performance in ICP® designs
- Variety of rugged connector and integral cable options
- Top and side exit versions available for easy installation
- Integrates with data collectors

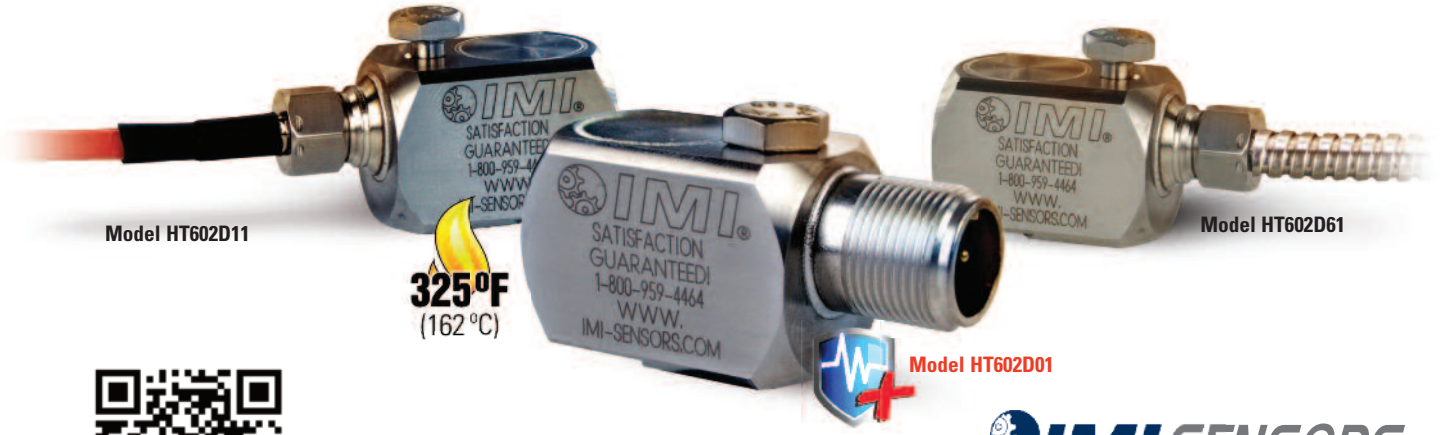
IMI Sensors is the industry leader in high temperature accelerometers. Our high temperature accelerometers with internal electronics (ICP®) have the best temperature capability of any design on the market today. Often used by predictive maintenance departments in the industry of paper, plastics and steel manufacturing, these accelerometers provide critical machinery data that prevents failures and reduces downtime.

Designed to withstand some of the humid, harsh and corrosive environments, these high temperature ICP® accelerometers are capable of surviving continuous temperatures of 325 °F (162 °C). For applications that exceed these temperatures we have a variety of charge mode accelerometers that can reach 1200 °F (649 °C).

Typical Applications

- Paper Machines & Conveyors
- Steel Rolling & Annealing
- Plastics Manufacturing
- Power Generation
- Oil & Gas
- Food Processing

In Stock, Ready to Ship!



Model HT602D11

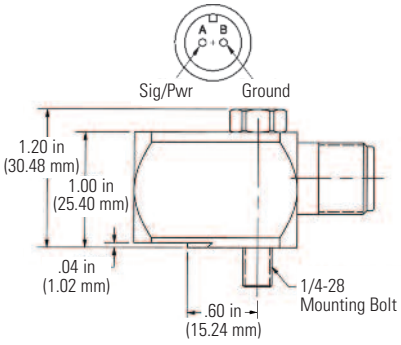
Model HT602D61

Model HT602D01

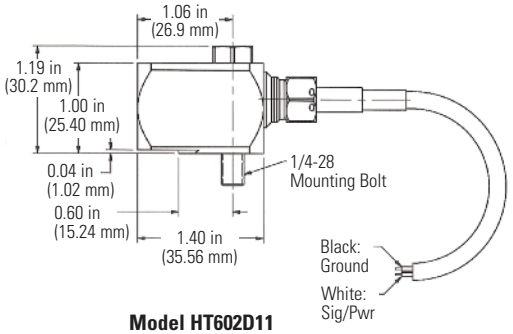
IMI SENSORS
A PCB PIEZOTRONICS DIV.

visit us at www.imi-sensors.com ☎ Toll-Free in USA 800-959-4464 ☎ 716-684-0003

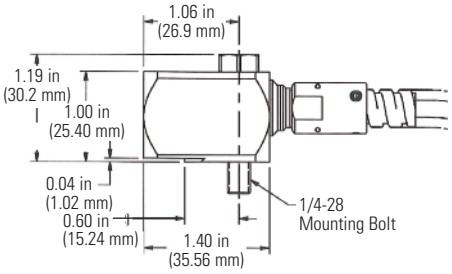
High Temperature ICP® Accelerometers



Model HT602D01



Model HT602D11



Model HT602D61

Technical Specifications

Model Number	HT602D01	HT602D11	HT602D61
Performance			
Sensitivity (±10 %)	100 mV/g		
	10.2 mV/(m/s²) [2]		
Measurement Range	±50 g		
	±490 m/s²		
Frequency Range (±10%)	102 to 180,000 cpm	N/A	
	1.7 to 3 kHz [4][7]		
Frequency Range (±3 dB)	48 to 480,000 cpm		
	0.8 to 8 kHz [4][7]		
Resonant Frequency	1,500 kcpm		
	25 kHz [5]		
Broadband Resolution (1 to 10 kHz)	150 µg		
	1,472 µm/sec² [5]		
Non-linearity	±1 % [6]	±1 % [5]	±1 % [6]
Transverse Sensitivity	≤ 5 %		
Environmental			
Overload Limit (Shock)	5,000 g pk		
	49,050 m/s² pk		
Temperature Range	-65 to 325 °F		
	-54 to 162 °C		
Enclosure Rating	IP68	IP67	
Electrical			
Settling Time (within 1% of bias)	≤ 2.0 sec		
Discharge Time Constant	≥ 0.2 sec		
Excitation Voltage	18 to 28 VDC		
Constant Current Excitation	2 to 20 mA		
Output Impedance	<150 ohm		
Output Bias Voltage	8 to 12 VDC		
Spectral Noise (10 Hz)	9.0 µg/√Hz		
	88.3 (µm/sec²)/√Hz [5]		
Spectral Noise (100 Hz)	4.0 µg/√Hz		
	39.2 (µm/sec²)/√Hz [5]		
Spectral Noise (1 kHz)	2.0 µg/√Hz		
	19.6 (µm/sec²)/√Hz [5]		
Electrical Isolation (Case)	>10⁸ ohm		

Model No.	HT602D01	HT602D11	HT602D61
Physical			
Size - Length	2.1 in		
	53.3 mm		
Size - Width	1.0 in		
	25.4 mm		
Size - Height	1.0 in		
	25.4 mm		
Weight (without cable)	5.4 oz		
	153 gm		
Mounting	1/4-28 UNF [1]		
Mounting Torque	2 to 5 ft-lb		
	2.7 to 6.8 N-m		
Sensing Element	Ceramic Shear		
Housing Material	Stainless Steel		
Sealing	Welded Hermetic		
Electrical Connector	2-pin MIL-C-5015 (side)	Integral Cable (side)	Armored Integral Cable (side)
Cable Termination	N/A	Blunt Cut	
Electrical Connections	Signal/Power (Pin A)	Signal/Power (White)	
	Ground (Pin B)	Ground (Black)	
Cable Length	N/A	10 ft	
		3 m	
Cable Type	N/A	Teflon® Jacketed	
Supplied Accessories			
	Model 081A73 Captive mounting bolt 1/4-28 x 1.34" (1)		

All specifications are at room temperature unless otherwise specified

Notes

[1] 1/4-28 has no equivalent in S.I. units.
[2] Conversion Factor 1g = 9.81 m/s².
[3] For CE reference PCB® Declaration of Conformance PS023 for details.
[4] The high frequency tolerance is accurate within ±10% of the specified frequency.
[5] Typical.
[6] Zero-based, least-squares, straight line method.
[7] 1Hz = 60 cpm (cycles per minute).
[8] Constant current should be reduced to ≤6 mA when operating sensor above 250°F.
[9] Not recommended for use with magnetic mounting base.

Optional Versions

M - Metric Mount For Models: HT602D01, HT602D11, HT602D61

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IMI Sensors designs and manufactures a full line of accelerometers, sensors, vibration switches, vibration transmitters, cables and accessories for predictive maintenance, continuous vibration monitoring, and machinery equipment protection. Products include rugged industrial ICP® accelerometers, 4-20 mA industrial vibration sensors and transmitters for 24/7 monitoring, electronic and mechanical vibration switches, the patented Bearing Fault Detector, high temperature accelerometers to +900 °F (+482 °C), 2-wire Smart Vibration Switch, and the patented Reciprocating Machinery Protector. CE approved and intrinsically safe versions are available for most products.

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