

MODELS

601A92, 602D91, 603C91, 604B91, 639A91

ICP® ACCELEROMETERS WITH M12 CONNECTOR

- Consistent worldwide specifications ensure that M12 connectors on different equipment and cabling are mutually compatible, thereby reducing installation and service time.
- Screw locking mechanism provides connection even when subjected to shock or vibration.
- Sealed housing provides reliability in harsh industrial and weather environments.
- IP68, IP69K enclosure rating ensures resistance to moisture and foreign debris/dust.
- Keyway prevents mismatching.
- Hexagon locking sleeve facilitates hand tightening or torquing of connections.
- Use in conjunction with 507QSXX cable assembly for an IP69K-rated sensor kit for washdown zones.



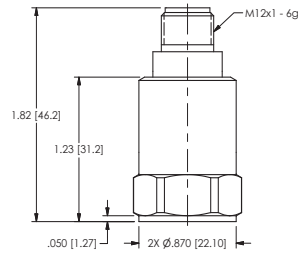
DESIGNED FOR CONNECTOR CONSISTENCY IN INDUSTRIAL, PERMANENT-MOUNT VIBRATION MONITORING

IMI Sensors has developed three single-axis (Models 601A92, 602D91 and 603C91) and two triaxial (Models 604B91 and [EX]639A91) ICP® accelerometers with an M12 connector. The connector has become an industry standard in industrial control and instrumentation applications for its consistency in specifications, as governed by the International Electrotechnical Commission's Standard 61076-2-101.

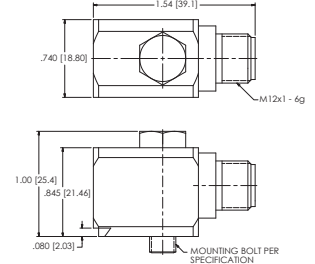
TYPICAL APPLICATIONS

- Motors
- Mixers
- Pumps
- Conveyors
- Gearboxes

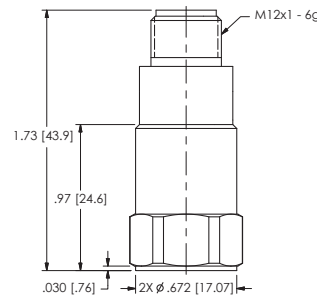
SPECIFICATIONS					
Model Number	601A92	602D91	603C91	604B91	(EX)639A91
Performance					
Sensitivity ($\pm 20\%$)	500 mV/g	100 mV/g			
	51 mV/(m/s ²)	10.2 mV/(m/s ²)			
Measurement Range	± 10 g pk	± 50 g pk			
	± 98 m/s ² pk	± 490 m/s ² pk			
Frequency Range ($\pm 5\%$)	0.47 to 4,000 Hz	N/A			8.0 to 5,500 Hz
Frequency Range ($\pm 10\%$)	0.33 to 5,000 Hz	N/A			
Frequency Range (± 3 dB)	0.17 to 10,000 Hz	0.5 to 8,000 Hz		0.5 to 10,000 Hz	
Resonant Frequency	16 kHz	25 kHz		10 kHz	25 kHz
Broadband Resolution (1 to 10,000 Hz)	35 μ g	350 μ g			300 μ g
	343 μ m/sec ²	3,434 μ m/sec ²			3,000 μ m/sec ²
Non-Linearity	$\pm 1\%$				
Environmental					
Overload Limit (Shock)	$\pm 5,000$ g pk				
	$\pm 49,050$ m/s ² pk				
Temperature Range (Operating)	-65 to +250 °F				
	-54 to +121 °C				
Enclosure Rating	IP68, IP69K				
Electrical					
Settling Time (within 1% of bias)	≤ 10.0 sec	≤ 3.0 sec		≤ 2.0 sec	
Discharge Time Constant	≥ 1.0 sec	≥ 0.3 sec			≥ 0.32 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)	3.0 μ g/ $\sqrt{\text{Hz}}$	8.0 μ g/ $\sqrt{\text{Hz}}$			20.0 μ g/ $\sqrt{\text{Hz}}$
	0.7 μ g/ $\sqrt{\text{Hz}}$	5.0 μ g/ $\sqrt{\text{Hz}}$			10.0 μ g/ $\sqrt{\text{Hz}}$
Spectral Noise (100 Hz)	0.7 μ g/ $\sqrt{\text{Hz}}$	5.0 μ g/ $\sqrt{\text{Hz}}$			10.0 μ g/ $\sqrt{\text{Hz}}$
Spectral Noise (1 kHz)	0.5 μ g/ $\sqrt{\text{Hz}}$	4.0 μ g/ $\sqrt{\text{Hz}}$			3.0 μ g/ $\sqrt{\text{Hz}}$
Electrical Isolation (Case)	$>10^8$ ohm				
Physical					
Sensing Element and Geometry	Ceramic Shear				
Housing Material	316L Stainless Steel				
Sealing	Welded Hermetic				
Mounting Thread	1/4-28 Female	1/4-28 Male	1/4-28 Female	1/4-28 Male	
Mounting Torque	2 to 5 ft-lbs				
	2.7 to 6.8 Nm				
Electrical Connector	4-pin M12				
Electrical Connector Position	Top	Side	Top	Side	
Weight	2.80 oz	2.61 oz	1.95 oz	4.2 oz	3.00 oz
	80 g	74 g	55 g	119 g	85 g



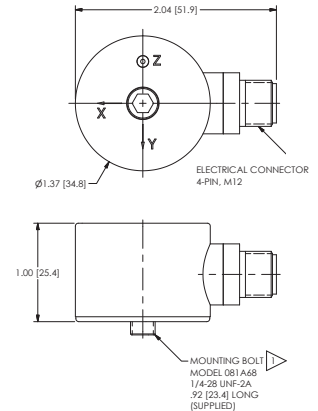
601A92



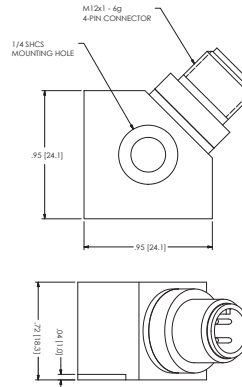
602D91



603C91



604B91



(EX)639A91



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IMI Sensors, a division of PCB Piezotronics, Inc. manufactures industrial vibration monitoring instrumentation, such as accelerometers, vibration transmitters and switches that feature rugged stainless steel housings and survive in harsh environments like paper and steel mills, mines, gas turbines, water treatment facilities and power plants. Integrating with portable analyzers and PLC's, IMI instrumentation helps maintenance departments reduce downtime and protect critical machinery. Visit IMI Sensors at www.pcb.com. PCB Piezotronics, Inc. is a wholly owned subsidiary of MTS Systems Corporation. Additional information on MTS can be found at www.mts.com.

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IMI-VIB-M12Connector-0119



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