



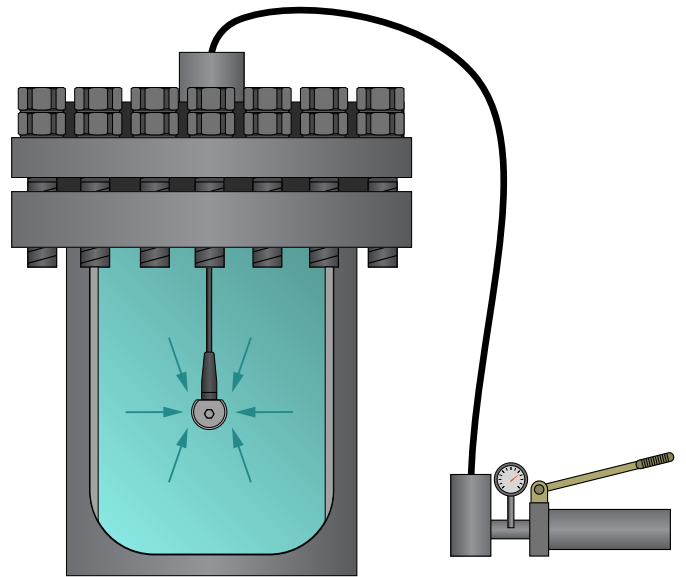
MODELS 604M18,
604M32, 625M42

SUBMERSIBLE INDUSTRIAL ICP® ACCELEROMETERS

- Watertight design rated for 500 psi (equivalent to 1000 feet below the surface)
- Single-axis and triaxial models available for diverse application requirements
- Welded stainless-steel housing for long-lasting durability
- Molded, pressure-resistant integral cable available in standard lengths of 10 ft and 50 ft, or custom lengths.

TYPICAL APPLICATIONS

- Long-term vibration monitoring in aquatic environments
- Deepwater installations where accessibility is limited
- Environments where sensor replacement is costly or impractical



HYDROTESTED FOR RELIABLE, LONG-TERM WATERTIGHT PERFORMANCE

Hydrostatic testing is a critical process used to verify the waterproof integrity of our submersible accelerometers. Each unit is subjected to a 500 psi pressure test—equivalent to depths of 1000 feet underwater—under a defined pass/fail protocol to ensure it remains fully watertight. Specialized pressure vessels, flanges, and hydraulic pumps are used to create and maintain these conditions. Testing includes careful inspection of seals, cables, and connectors to meet the highest quality standards.

Our submersible accelerometers and cables undergo a specialized epoxy and treatment process to create a watertight seal. Hydrotesting confirms its integrity, ensuring that the accelerometers deliver consistent, reliable performance in demanding underwater applications, especially where maintenance or replacement is challenging.

SPECIFICATIONS						
System of Units	English			Metric		
Model Number	604M18	604M32	625M42	604M18	604M32	625M42
Axes	Triaxial		Single axis	Triaxial		Single axis
Performance						
Sensitivity ($\pm 20\%$)	100 mV/g			10.2 mV/(m/s ²)		
Sensitivity tolerance	$\pm 20\%$		$\pm 5\%$	$\pm 20\%$		$\pm 5\%$
Measurement Range	± 50 g			± 490 m/s ²		
Frequency Range (± 3 dB)	30 to 300,000 cpm		12 to 630,000 cpm	.5 to 5,000 Hz		0.2 to 10,500 Hz
Resonant Frequency	600 kcpm		1500 kcpm	10 kHz		25 kHz
Broadband Resolution (1 to 10,000 Hz)	350 μ g		50 μ g	3434 μ m/sec ²		491 μ m/sec ²
Non-Linearity	$\pm 1\%$					
Transverse Sensitivity	$\leq 5\%$					
Environmental						
Overload Limit (Shock)	5,000 g pk			49,050 m/s ² pk		
Temperature Range (Operating)	-65 to +250°F			-54 to +121°C		
Enclosure Rating	IP68					
Electrical						
Settling Time (within 1% of bias)	≤ 2.0 sec		≤ 8.0 sec	≤ 2.0 sec		≤ 8.0 sec
Discharge Time Constant	≥ 0.3 sec		≥ 1.0 sec	≥ 0.3 sec		≥ 1.0 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)	8 μ g/ \sqrt Hz		2.5 μ g/ \sqrt Hz	78.5 (μ m/sec ²)/ \sqrt Hz		24.5 (μ m/sec ²)/ \sqrt Hz
Spectral Noise (100 Hz)	5 μ g/ \sqrt Hz		.8 μ g/ \sqrt Hz	49.1 (μ m/sec ²)/ \sqrt Hz		7.8 (μ m/sec ²)/ \sqrt Hz
Spectral Noise (1 kHz)	4 μ g/ \sqrt Hz		.5 μ g/ \sqrt Hz	39.2 (μ m/sec ²)/ \sqrt Hz		4.9 (μ m/sec ²)/ \sqrt Hz
Electrical Isolation (Case)	$>10^6$ ohm					
Physical						
Size	1.38 in x 1.0 in		1.38 in x 1.13 in	35.1 mm x 25.4 mm		35.1 mm x 28.7 mm
Weight (without cable)	4.0 oz		4.7 oz	113.3 gm		133 gm
Mounting Thread	1/4-28 UNF		Through Hole	1/4-28 UNF		Through Hole
Mounting Torque	2 to 5 ft. lbs.			2.7 to 6.8 Nm		
Sensing Element	Ceramic					
Sensing Geometry	Shear					
Housing Material	Stainless Steel					
Sealing	Welded Hermetic					
Electrical Connector	Molded Integral Cable					
Electrical Connection Position	Side					
Configurable Cable Length	≥ 750 feet	≤ 300 feet	No restrictions	≥ 229 meters	≤ 91 meters	No restrictions
Cable Type (Integral)	Polyurethane					



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IMI-VIB-Submersible-0225