

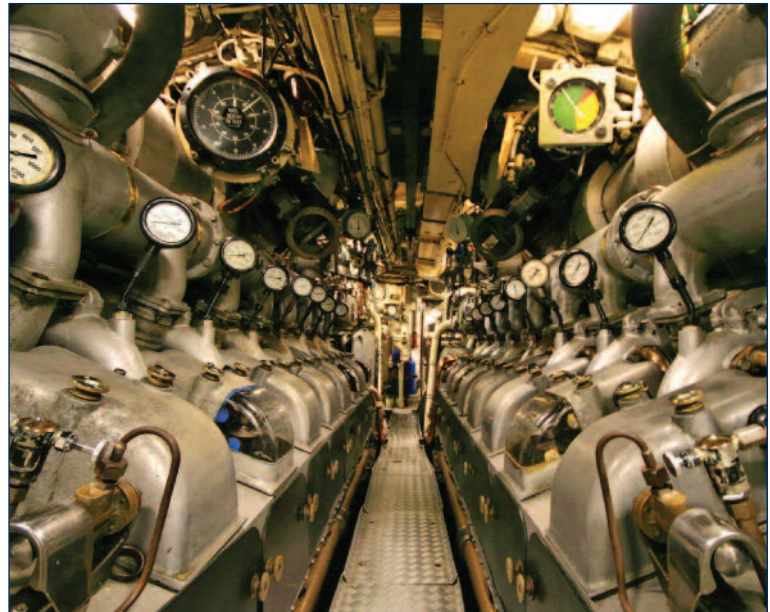


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Model 687A01

Handheld Vibration Meter Kit

Conveniently Measures Vibration Levels of Industrial Machinery for Predictive Maintenance Requirements



Highlights

- Measures Velocity and Acceleration
- Complies with ISO 2954 and ISO 10816 Standards
- Measures Vibration Severity
- Verifies Sensor Bias Voltage
- Troubleshoots Permanently Installed Sensors and Cables

The Model 687A01 Handheld Vibration Meter Kit puts predictive maintenance into the hands of machinery operators. Simple enough to use with minimal staff training, it conveniently measures the vibration levels of bearings, gears, and spindles for predictive maintenance requirements. The kit is supplied with an industrial accelerometer, a cable assembly, a high-strength mounting magnet, and headphones for audible monitoring.

The portable, lightweight, battery powered meter provides both overall acceleration and velocity measurements. The unit is ideal for measuring the vibration severity of fans, motors, and pumps, and is also useful for verifying the DC bias voltage of industrial accelerometers for troubleshooting permanently installed sensors and cables.

As with all IMI instrumentation, this equipment is complemented with toll-free applications assistance, 24-hour customer service, and is backed by a no-risk policy that guarantees satisfaction or your money refunded.



Model 687A01
Handheld Vibration Meter Kit

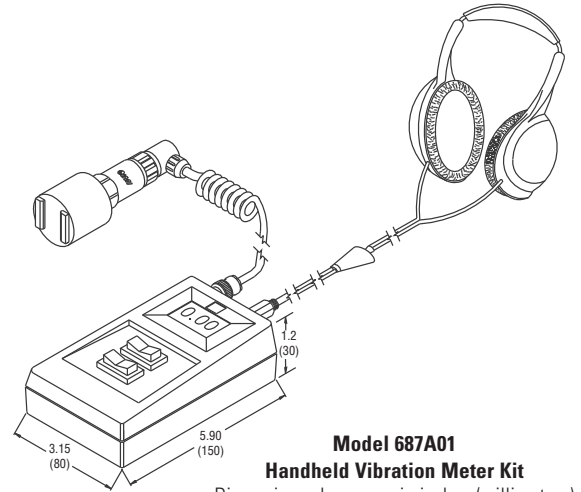
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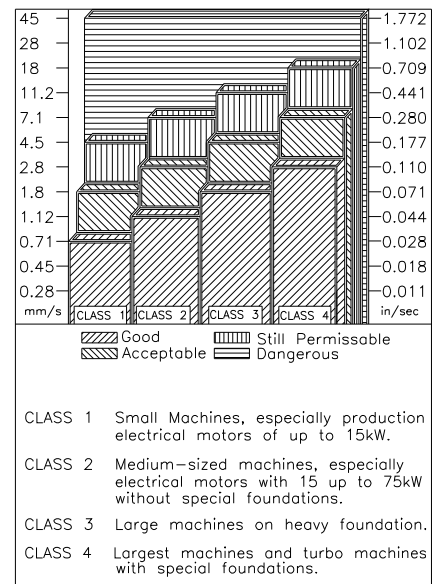


Specifications

Model		687A01	
Performance		English	SI
Meter Frequency Response	(Velocity +10%, -20%) (Acceleration ± 3 dB)	600 to 60k cpm 3000 to 3M cpm	10 to 1000 Hz 50 to 50k Hz
Acceleration Range	(3-1/2 Digits)	0.01 to 19.99 g rms	0.01 to 19.99 g rms
Velocity Range	(3-1/2 Digits)	0.001 to 1.999 in/sec rms	0.001 to 1.999 in/sec rms
DC Bias Range	(3-1/2 Digits)	0.00 to 19.99 VDC	0.00 to 19.99 VDC
Meter Resolution		± 2 counts	± 2 counts
Meter Accuracy		± 3%	± 3%
Accelerometer Sensitivity	(± 20 %)	100 mV/g	10.2 mV/(m/s ²)
Environmental			
Temperature Range	(Accelerometer) (Meter)	-65 to +250 °F +32 to +122 °F	-54 to +121 °C 0 to +50 °C
Electrical			
Excitation Voltage	(To Sensor)	23 to 25 VDC	23 to 25 VDC
Constant Current Excitation	(To Sensor)	1.4 to 2.6 mA	1.4 to 2.6 mA
Power Required		Internal Battery	Internal Battery
Internal Battery	(Type) (Quantity)	9 V 1	9 V 1
Battery Life	(Supplied Alkaline) (Optional Rechargeable Ni Cad)	10 hours 3 hours	10 hours 3 hours
Physical			
Electrical Connector	(Sensor Input) (Headphones)	BNC Jack 1/8 in Stereo Jack	BNC Jack No Metric Equivalent
Size	(Sensor Hex x Height) (Meter L x W x H)	11/16 x 1.65 in 5.9 x 3.15 x 1.2 in	11/16 in x 42.2 mm 150 x 80 x 30 mm
Weight	(Sensor) (Meter)	1.8 oz 0.569 lb	51 gm 258 gm
Mounting Thread	(Sensor)	1/4-28 Female	No Metric Equivalent
Kit Components			
Model 687A02 Meter Model 603C01 Sensor Model 050B0006AC Sensor Cable Model 070A47 Headphones Model 080A131 Magnet			
Optional Versions			
Model R687A01 - Rechargeable Kit - supplied with Ni Cad battery, external battery charger, and power cord.			
Model R687A02 - Rechargeable Meter - supplied with Ni Cad battery, external battery charger, and power cord.			
Model M687A01 - Metric Version - supplied with Model M687A02 meter scaled for velocity range of 0.01 to 19.99 mm/sec rms			



Model 687A01
Handheld Vibration Meter Kit
Dimensions shown are in inches (millimeters)



ISO 10816 Severity Chart
(Provided on the back of each meter)



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ISO 9001 CERTIFIED ■ A2LA ACCREDITED to ISO 17025

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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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