

MODEL 687A01

Handheld Vibration Meter Kit

Conveniently Measures Vibration Levels of Industrial Machinery
for Predictive Maintenance Requirements

- 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.



Model 687A01
Handheld Vibration Meter Kit

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.

 **IMI SENSORS**
A PCB PIEZOTRONICS DIV.

Total Customer Satisfaction Guaranteed



MODEL 687A01 HANDHELD VIBRATION METER KIT

Specifications

Model		687A01	
Performance		English	SI
Meter Frequency Response	(Velocity +10%, -20%)	600 to 60k cpm	10 to 1000 Hz
	(Acceleration ± 3 dB)	3000 to 3M cpm	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)	-65 to +250 °F	-54 to +121 °C
	(Meter)	+32 to +122 °F	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)	9 V	9 V
	(Quantity)	1	1
Battery Life	(Supplied Alkaline)	10 hours	10 hours
	(Optional Rechargeable Ni Cad)	3 hours	3 hours
Physical			
Electrical Connector	(Sensor Input)	BNC Jack	BNC Jack
	(Headphones)	1/8 in Stereo Jack	No Metric Equivalent
Size	(Sensor Hex x Height)	11/16 x 1.65 in	11/16 in x 42.2 mm
	(Meter L x W x H)	5.9 x 3.15 x 1.2 in	150 x 80 x 30 mm
Weight	(Sensor)	1.8 oz	51 gm
	(Meter)	0.569 lb	258 gm
Mounting Thread	(Sensor)	1/4-28 Female	No Metric Equivalent

Kit Components

- Model 687A02 Meter
- Model 603C01 Sensor
- Model 050BQ006AC 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



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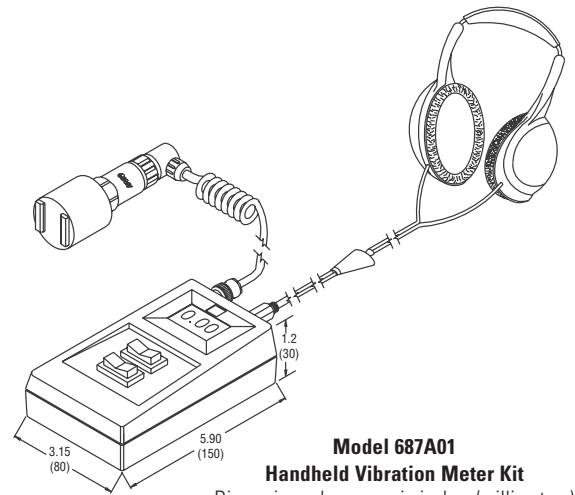
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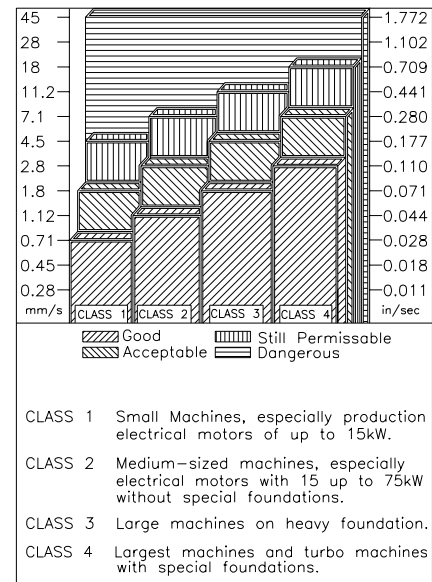
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Model 687A01 Handheld Vibration Meter Kit Dimensions shown are in inches (millimeters)



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

The IMI Sensors Division of PCB® Piezotronics, Inc. specializes in the development, application, and support of industrial vibration sensors, transmitters, meters, and accessories for machinery condition monitoring and predictive maintenance requirements. This product focus, coupled with the strengths and resources of PCB, permits the IMI Sensors Division to offer exceptional customer service, 24-hour technical assistance, and a **Total Customer Satisfaction** guarantee.

Visit www.imi-sensors.com to locate your nearest sales office