



MODEL 687A01

HANDHELD VIBRATION METER KIT

- 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

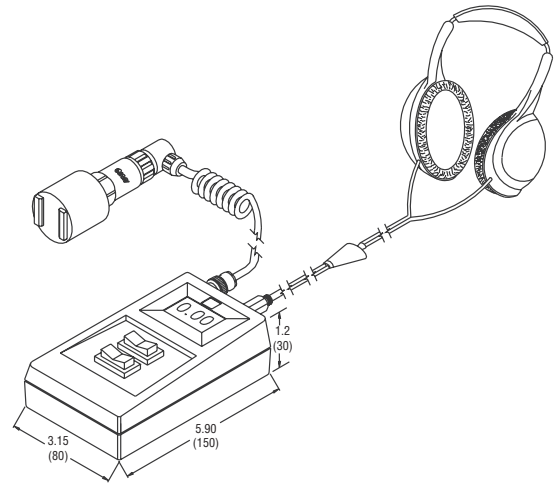


CONVENIENTLY MEASURES VIBRATION LEVELS OF INDUSTRIAL MACHINERY FOR PREDICTIVE MAINTENANCE REQUIREMENTS

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.

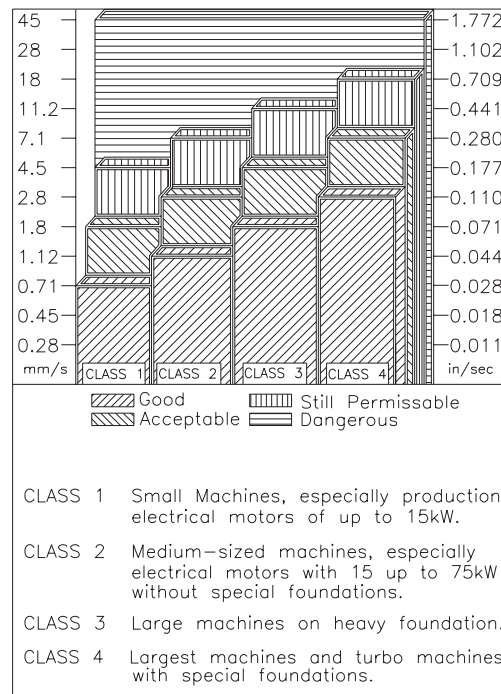
The portable, lightweight, battery powered meter provides both overall acceleration and velocity measurements. The unit is ideal for measuring the vibration severity of fans, motors, and pumps, and is also useful for verifying the DC bias voltage of industrial accelerometers for troubleshooting permanently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

| SPECIFICATIONS | |
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| Model | 687A01 |
| Performance | English (SI) |
| Meter Frequency Response (Velocity +10%, -20%) (Acceleration ± 3 dB) | 600 to 60k cpm (10 to 1000 Hz) 3000 to 3M cpm (50 to 50k Hz) |
| Acceleration Range (3-1/2 Digits) | 0.01 to 19.99 g rms |
| Velocity Range (3-1/2 Digits) | 0.001 to 1.999 in/sec rms |
| DC Bias Range (3-1/2 Digits) | 0.00 to 19.99 VDC |
| Meter Resolution | ±2 counts |
| Meter Accuracy | ±3% |
| Accelerometer Sensitivity (± 20 %) | 100 mV/g (10.2 mV/(m/s ²)) |
| Environmental | |
| Temperature Range (Accelerometer) (Meter) | -65 to +250 °F (-54 to +121 °C) +32 to +122 °F (0 to +50 °C) |
| Electrical | |
| Excitation Voltage (To Sensor) | 23 to 25 VDC |
| Constant Current Excitation (To Sensor) | 1.4 to 2.6 mA |
| Power Required | Internal Battery |
| Internal Battery (Type) (Quantity) | 9 V 1 |
| Battery Life (Supplied Alkaline) (Optional Rechargeable Ni Cad) | 10 hours 3 hours |
| Physical | |
| Electrical Connector (Sensor Input) (Headphones) | BNC Jack 1/8 in Stereo Jack (No Metric Equivalent) |
| Size (Sensor Hex x Height) (Meter L x W x H) | 11/16 x 1.65 in (11/16 in x 42.2 mm) 5.9 x 3.15 x 1.2 in (150 x 80 x 30 mm) |
| Weight (Sensor) (Meter) | 1.8 oz (51 gm) 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 | |



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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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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