

Handheld Vibration Meter Kit

Conveniently Measures Vibration Levels of Industrial Machinery for Predictive Maintenance Requirements

- **Provides Portable Velocity and Acceleration Measurements**
- **Complies with ISO 2954 and ISO 10816 Standards**
- **Measures the Vibration Severity of Fans, Motors, and Pumps**
- **Verifies Bias Voltage of Industrial Accelerometers for Troubleshooting Permanently Installed Sensors and Cables**



The Model 687A01 Vibration Meter Kit puts predictive maintenance into the hands of machinery operators. Simple enough to use with minimal training, it conveniently measures the vibration levels of bearings, gears, and spindles for predictive maintenance requirements. The kit is supplied with headphones for audible monitoring, an industrial accelerometer, a cable assembly, and a high-strength mounting magnet. The portable, lightweight, battery-powered meter provides both overall acceleration and velocity measurements. Ideal for measuring the vibration severity of fans, motors, and pumps, it also verifies the DC bias voltage of industrial accelerometers for troubleshooting permanently installed sensors and cables.

Model 687A01 Vibration Meter Kit Specifications

Dynamic Performance

Meter Frequency Response:	
Acceleration (± 3 dB)	50 to 50k Hz (3000 to 3M cpm)
Velocity (+10 %, -20 %)	10 to 1000 Hz (600 to 60k cpm)
Display Ranges (3½ digit):	
Acceleration (2)	0.01 to 19.99 g rms
Velocity (3)	0.001 to 1.999 in/sec rms
Sensor DC Bias	0.00 to 19.99 VDC
Accelerometer Sensitivity (± 20 %)	100 mV/g (10.2 mV/(m/s ²))
Meter Resolution	± 2 counts
Accuracy (meter)	± 3 %

Electrical

Sensor Excitation Voltage (± 1 VDC)	24 VDC
Sensor Excitation Current (± 0.6 mA)	2 mA
Battery Life - alkaline (supplied)	10 hours
- rechargeable (optional)	3 hours (Varta TR 7/8 or EverReady N88)

Environmental

Temperature Range:	
Accelerometer	-65 to +250 °F (-54 to +121 °C)
Meter (non-condensing)	+32 to +122 °F (0 to +50 °C)

Mechanical

Sensor (Model 601A01):	
Size (hex x height)	7/8 x 1.9 in (7/8 in x 48.3 mm)
Weight	2.8 oz (80 gm)
Mounting Thread	1/4-28 UNF
Meter (Model 687A02):	
Size (L x W x H)	5.9 x 3.15 x 1.2 in (150 x 80 x 30 mm)
Weight (with battery)	0.569 lb (258 gm)
Connectors:	
Input	BNC Jack
Headphones	1/8 in Stereo Jack
Charger	2.5 mm Jack

Model 687A01 Vibration Meter Kit includes:

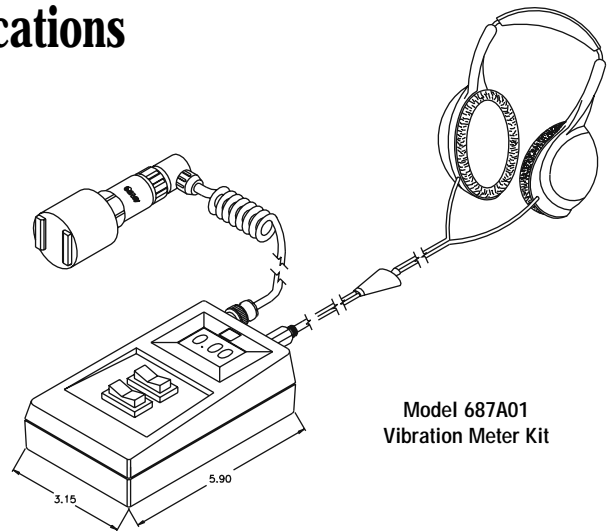
- 1 Vibration Meter (Model 687A02)
- 1 Accelerometer (Model 601A01)
- 1 Cable Assembly (Model 050BQ006AC)
- 1 Magnet (Model 080A155)
- 1 Set of Headphones (Model 070A47)
- 1 9-volt Alkaline Battery

Notes:

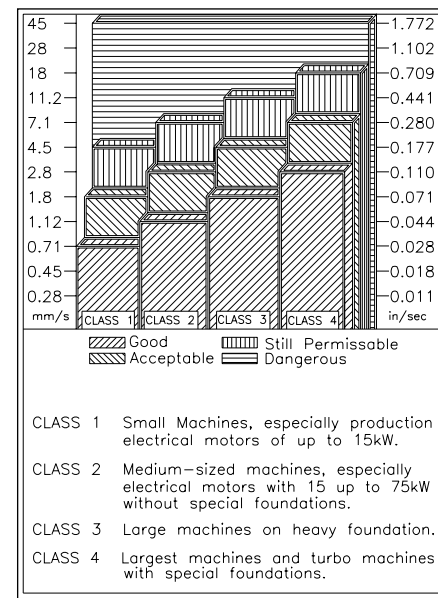
1. All items available separately by their individual model numbers shown.
2. 1 g = 9.81 m/s²
3. 1 in/Sec = 0.0254 m/sec

Optional Versions:

- Model R687A01** - Model 687A01 with Model 073M12 battery charger and (1) 9-volt NiCad battery.
- Model R687A02** - Model 687A02 with Model 073M12 battery charger and (1) 9-volt NiCad battery.



Model 687A01
Vibration Meter Kit



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

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



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ISO 9001 CERTIFIED

A2LA ACCREDITED

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