

Examiner 1000 Vibration Meter

The **Examiner 1000** overall vibration meter and electronic stethoscope is the ideal tool for cost effective predictive maintenance. This meter is simple to operate with only one button and volume adjustment. Troubleshoot bearings and lubrication with the digital LCD and stethoscope features to enhance machinery reliability. Compare your vibration results by using the ISO 10816 Severity Chart right on the meter. **NIST traceable calibration is available.**

Features

- Electronic stethoscope - troubleshoot while listening to the bearing
- Measure vibration in:
 - Acceleration** - perfect for high speed applications
 - Velocity** - in English or Metric per ISO 10816
 - Acceleration Envelope** - high pass filter method



Facilities that establish a predictive maintenance program are able to:

- Improve machinery reliability and reduce unplanned failures
- Reduce maintenance costs
- Optimize machinery performance to increase productivity
- Lower energy consumption-less vibration usually means less friction
- Extend bearing service life

Why Measure Vibration?

Vibration is considered the best operating parameter to judge dynamic conditions such as balance (overall vibration), bearing defects (enveloping) and stress applied to components. Many machinery problems show themselves as excessive vibration. Rotor imbalance, misalignment, mechanical looseness, structural resonance, soft foundation, and gear mesh defects are some of the defects that can be measured by vibration. Measuring the “overall” vibration of a machine, a rotor in relation to a machine or the structure of a machine, and comparing the measurement to its normal value (norm) indicates the current health of the machine.

Specifications

Amplitude Ranges:	Acceleration: 0.01 to 19.99g (RMS) Velocity: 0.01 to 19.99 in/sec (RMS) 0.1 to 199.9 mm/sec (RMS) Envelope: 0.01 to 19.99 ge (PEAK)
Frequency Ranges:	Overall: 10 Hz to 10 kHz Envelope: 0.5 kHz to 10 kHz
Display Indications:	LCD 3.5 digit with Measurement, Hold and Low Battery
Vibration Sensor:	Piezoelectric Accelerometer 100 mV/g
Output:	Audio: (3.5 mm) mini plug Sensor Power: 12 Vdc
Power:	(2) “AA” cell batteries
Operating Time:	20 hours continuous without phones
Environmental:	-14 to 122°F (-10 to 50°C)
Dimensions:	6.3 x 3.3 x 1.25” (1.52 x 83 x 32 mm)
Weight:	2.85 lbs. (1.30 kg)

Vibration Severity Per ISO 10816-1

Machine		Class I Small Machines	Class II Medium Machines	Class III Large rigid foundation	Class IV Large soft foundation
Vibration Velocity Vrms	In/s	mm/s			
	0.01	0.28			
	0.02	0.45			
	0.03	0.71		Good	
	0.04	1.12			
	0.07	1.80			
	0.11	2.80		Satisfactory	
	0.18	4.50			
	0.28	7.10		Unsatisfactory	
	0.44	11.2			
0.71	18.0				
1.10	28.0		Unacceptable		
1.77	45.0				

Ordering Information

Item	Description	Part No.
Examiner 1000	Overall vibration meter and electronic stethoscope. Includes: Vibration meter, batteries, accelerometer and integrated cable, magnetic base, stinger probe, stereo headphones, field carrying case, owners manual and machinery data worksheet.	6400-011
Examiner 1000 NIST	Same as above with NIST Calibration Certificate	6400-011-Cal