

TECHNICAL DATA

# Fluke 805 Vibration Meter



## Key features

- Reliable, repeatable, accurate device for checking bearings and overall vibration
- Features innovative sensor design that minimizes measurement variations caused by device angle or contact pressure
- Provides consistent data quality at both low and high frequency ranges
- Offers four-level severity scale to assess urgency of problems and bearing condition

## Product overview: Fluke 805 Vibration Meter

### The Reliable, Repeatable, Accurate Way to Check Bearings and Overall Vibration

Make go or no-go maintenance decisions with confidence. The Fluke 805 Vibration Meter is the most reliable vibration screening device available for frontline mechanical troubleshooting teams that need repeatable, severity-scaled readings of overall vibration and bearing condition.

### What Makes the 805 the Best Choice?

- A meter – not a pen – that measures overall vibration as well as specific variables like bearing condition and temperature, to provide a more complete picture
- A combination vibration and force sensor tip that compensates for user variance (force or angle) yielding accurate, repeatable readings

- A four-level severity scale and onboard processor calculate bearing condition and overall vibration using easy-to-understand textual alerts (Good, Satisfactory, Unsatisfactory, Unacceptable)
- Sensor sensitivity can read a wide range of frequencies (10 to 1,000 Hz and 4,000 to 20,000 Hz) covering most machine and component types
- Straight-forward user interface that minimizes the user inputs to RPM range and equipment type

#### Other useful features:

- Measures overall vibration (10 Hz to 1,000 Hz) for acceleration, velocity, and displacement units of measurement for a wide variety of machines
- Provides Crest Factor+ technology for reliable bearing assessment using direct sensor tip measurements between 4,000 Hz and 20,000 Hz
- Compares vibration levels with ISO-10816 severity scales
- Allows you to view trending in Microsoft® Excel using pre-built templates
- Features colored lighting system (green, red) and on-screen comments to indicate how much pressure needs to be applied to take measurements
- Measures temperature with Spot IR Sensor to increase diagnostic capabilities
- Holds and saves up to 3,500 measurements in on-board memory
- Provides external accelerometer support for hard to reach locations
- Allows you to export data via USB
- Provides audio output for listening to bearing tones directly
- Features built-in flashlight for viewing measurement locations in dark areas
- Provides large high-resolution display for easy navigation and viewing

## Specifications: Fluke 805 Vibration Meter

Vibration Meter		
Low frequency range (overall measurement)	10 Hz to 1,000 Hz	
High frequency range (CF+ measurement)	4,000 Hz to 20,000 Hz	
Severity levels	Good, satisfactory, unsatisfactory, unacceptable	
Vibration limit	50 g peak (100 g peak-peak)	
A/D converter	16-bit	
Signal to noise ratio	80 dB	
Sampling rate	Low frequency	20,000 Hz
	High frequency	80,000 Hz
Real time clock backup	Coin battery	
Sensor		
Sensitivity	100 mV g ±10%	
Measurement range	0.01 g to 50 g	

Low frequency range (overall measurement)	10 Hz to 1,000 Hz
High frequency range	4,000 Hz to 20,000 Hz
Resolution	0.01 g
Accuracy	At 100 Hz $\pm 5\%$ of measured value
<b>Amplitude Units</b>	
Acceleration	g, m/sec <sup>2</sup>
Velocity	in/sec, mm/sec
Displacement	mils, mm
<b>Infrared Thermometer (Temperature Measurement)</b>	
Range	-20°C to 200°C (-4°F to 392°F)
Accuracy	$\pm 2^\circ\text{C}$ (4°F)
Focal length	Fixed, at ~3.8 cm (1.5 in)
<b>External sensor</b>	
Fluke supports but does not provide external sensors	
Frequency range	10 Hz to 1,000 Hz
Bias voltage (to supply power)	20 VDC to 22 VDC
Bias current (to supply power)	Maximum 5 mA
<b>Firmware</b>	
External interfaces	USB 2.0 (full speed) communication
Data capacity	Database on internal flash memory
Upgrade	Through USB
Memory	Up to 3,500 measurements
<b>Radiated Emission</b>	
Electrostatic discharge: burst	Standard EN 61000-4-2
Electromagnetic interference	Standard EN 61000-4-3
RE	Standard CISPR 11, Class A
<b>Environmental</b>	
Operating temperature	-20°C to 50°C (-4°F to 122°F)
Storage temperature	-30°C to 80°C (-22°F to 176°F)
Operating humidity	10% to 95% RH (non-condensing)
Operating/storage altitude	Sea level to 3,048 meters (10,000 feet)
IP rating	IP54
Vibration limit	500 g peak
Drop test	1 meter
<b>General Specifications</b>	

Battery type	AA (2) Lithium Iron Disulfide
Battery life	250 measurements
Size (L x W x H)	24.1 x 7.1 x 5.8 cm (9.5 x 2.8 x 2.3 in)
Weight	0.40 kg (0.89 lb)
Connectors	USB mini-B 7-pin, stereo audio output jack (3.5 mm Audio Plug), external sensor jack (SMB connector)

## Ordering information



### **Fluke 805**

Fluke 805 Vibration Meter

Includes:

- USB cable
- Storage case
- Belt holster
- Quick reference guide
- CD-ROM (includes MS Excel template and documentation)
- Two (2) AA batteries

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