



### Specifications: Fluke 805 Vibration Meter

| <b>Vibration Meter</b>                    |  |           |
|---|--|-----------|
| 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                                     |           |
| <b>Sensor</b>                             |  |           |
| Sensitivity                               | 100 mV g $\pm$ 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 $\sim 3.8$ 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) |

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