



Vibration Analyzer

PCE-VT 3800

PCE-VT 3800S



PCE-VT 3800 Series

Vibration analyzer with external sensor / peak value measurement / software / various menu languages / PC connection via micro USB / internal memory

The vibration analyzer is the ideal companion for checking vibrating parts, machines and equipment. With the external vibration sensor of the vibration meter, the vibration displacement up to 3.9 mm, the vibration velocity up to 399.9 mm/s and the vibration acceleration up to 399.9 m/s² can be determined. RMS, peak, peak-peak and crest factor are available as measurement parameters. The vibration meter also features automatic evaluation according to ISO 10816-3. Accordingly, the vibration analyzer can determine the current vibration state of a machine via a good/bad evaluation. This means that the vibration meter can be used, for example, for repair and maintenance work on machines. The integrated LiPo battery with a capacity of 2500 mAh allows a battery life of up to 20 hours. The LiPo battery can be recharged via the micro USB interface of the vibration meter.

In order to process the measured values further, they can be saved directly on the vibration analyzer. An internal memory is available for this. The measured values can be saved manually as well as automatically by the vibration meter. After a measurement, the recorded measured values can be read out on a PC. The software for the vibration meter can be used to analyse the measured data which are shown in a graph and in a chart. The measurement data can be exported as a CSV file for further processing. If a firmware update is available for the vibration meter, this can also be carried out directly via the software.

- ▶ hand-held device for mobile vibration measurement
- ▶ measurement range up to 399.9 m/s² / 15744 in/s²
- ▶ automatic ISO 10816-3 evaluation
- ▶ data logger function
- ▶ automatic firmware update

General features and specifications PCE-VT 3800 Series

PCE-VT 3800 vibration analyzer

| | |
|----------------------------------|---|
| Measurements | acceleration, velocity, displacement, RMS, peak, peak-peak, crest factor, automatic ISO 10816-3 evaluation |
| Units | can be switched to metric / imperial |
| Manual memory | 99 folders with 50 measured values each |
| Data logger | various start/stop triggers measurement interval between 1 s ... 12 h 50 memory locations with 43200 measured values each |
| Menu languages | English, German, French, Spanish, Italian, Dutch, Portuguese, Turkish, Polish, Russian, Chinese, Japanese |
| Display | 2.48" LC display |
| Interface | micro USB interface |
| Power supply | LiPo battery (3.7 V, 2500 mAh), rechargeable, with USB 5 VDC, 500 mA |
| Operating time | approx. 15 ... 20 h (depending on display brightness) |
| Operating and storage conditions | -20 ... +65 °C / -4 ... 149 °F 10% RH ... 95% RH, non-condensing |
| Dimensions | 165 x 85 x 32 mm / 6.5 x 3.3 x 1.3" |
| Weight | 239 g / 8.4 oz |

Technical specifications depending on measurement parameter

Vibration acceleration

| | |
|-------------------|--------------------------------|
| Measurement range | 0.0 ... 399.9 m/s ² |
| Resolution | 0.1 m/s ² |
| Accuracy* | ±2 % |
| Frequency range | 10 Hz ... 10 kHz |

Vibration velocity

| | |
|-------------------|--------------------|
| Measurement range | 0.0 ... 399.9 mm/s |
| Resolution | 0.1 mm/s |
| Accuracy* | ±2 % |
| Frequency range | 10 Hz ... 1 kHz |

Vibration displacement

| | |
|-------------------|------------------|
| Measurement range | 0.0 ... 3.9 mm |
| Resolution | 1.0 µm |
| Accuracy* | ±2 % |
| Frequency range | 10 Hz ... 200 Hz |

* Accuracy with reference frequency 160 Hz

Model types differing only in sensors

| Technical data vibration sensor | PCE-VT 3800 | PCE-VT 3800S |
|-----------------------------------|--|--|
| Housing material | stainless steel | stainless steel and plastic |
| Resonance frequency | 24 kHz | 24 kHz |
| Transverse sensitivity | < 5 % | < 5 % |
| Destruction limit | 5000 g (Peak) | 5000 g (Peak) |
| Operating and storage temperature | -55 °C ... +150 °C -67 °F ... +302 °F | -55 °C ... +150 °C -67 °F ... +302 °F |
| Sensor dimensions | Ø 17 x 46 mm / Ø 0.67 x 1.8" | Ø 29 x 81 mm / 1.14 x 3.18" |
| Weight (without cable) | 52 g / 1.8 oz | Ø 119 g / 4.2 oz |
| Mounting thread | ¼" - 28 UNF | ¼" - 28 UNF |

Subject to change