



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