ACCELEROMETER

PCE-VT 3850



- **For mobile vibration measurement**
- **Data logger function**
- **Automatic ISO 10816-3 evaluation**
- **Measuring range up to 399.9 m/s² / 15744 in/s²**
- **Hand-held device for mobile vibration measurement**
- **Rechargeable battery**

The accelerometer is the ideal companion for checking vibrating parts, machines and plant. 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-to-peak and crest factor are available as measurement parameters on the vibration meter. Another function of the vibration measuring device is the automatic evaluation according to ISO 10816-3. Accordingly, the vibration meter can determine the current vibration state of a machine via a good/bad evaluation. This means that the vibration meter is used, for example, for repair and maintenance work on machines. The built-in 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 on the vibration measuring device.

In order to process the measured values further, they can be saved directly on the accelerometer. An internal memory is available for this. The measured values can be saved manually as well as automatically by the vibration measuring device. 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 using the graphic display and tabular listing. The measurement data can be exported as a CSV file for further processing.

Specification

Acceleration	
Measuring range	0 ... 399,9 m/s²
Resolution	0,1 m/s²
Accuracy	±2% @160 Hz
Frequency range	10 Hz ... 10 kHz 1 kHz ... 10 kHz
Speed	
Measuring range	0 ... 399,9 mm/s
Resolution	0.1 mm/s
Accuracy	±2% @160 Hz
Frequency range	10 Hz ... 1 kHz
Path	
Measuring range	0 ... 3,9 mm
Resolution	1 µm
Accuracy	±2% @160 Hz
Frequency range	10 Hz ... 200 Hz
Sensor	
Designation	PCE-VT 3xxx SENSOR
Additional description	Resonance frequency: 24 kHz Cross sensitivity: Δ 5% Destruction limit: 5000 g (peak) Housing material: stainless steel Mounting thread: ¼ - 28 UNF
Dimension	Ø 19 x 48 mm

General technical data	
Number of measuring channels	1
Measuring functions	RMS, peak, Peak-peak, Crest factor
Connections	3.5 mm headphone connection
Frequency	10 ... 10000 Hz
Display type	LCD
Display size	2,8 Inch
Storage medium	Internal memory
Storage capacity	2160000 Values
Storage interval from	1 s
Storage interval to	12 min.
Interface	Micro-USB
Menu language	English, German, French, Spanish, Italian, Dutch, Portuguese, Turkish, Polish, Russian, Chinese, Japanese
Protection class (device)	IP52
Power supply	Rechargeable battery: 3.7 V USB: 5 VDC, 500 mA
(Rechargeable) battery	1 x 3,7 V LP785060 , Lithium polymer battery
Capacity	2500 mAh
Performance	9,25 Wh
Operating conditions	-20 ... 65 °C , 10 ... 95 % RH
Storage conditions	-20 ... 65 °C , 10 ... 95 % RH
Dimensions (L x W x H)	165 x 85 x 32 mm
Weight	253 g