VIBRATION MEASUREMENT

VIBRATION ANALYZER PCE-VT 3800 / PCE-VT 3800S

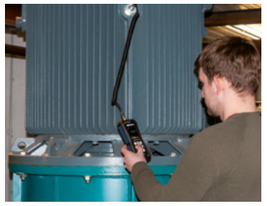
Vibration analyzer with external sensor / data logger function

The vibration analyzer 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.

ISO cal option

- 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
- 2.48" LC display

APPLICATION



TECHNICAL SPECIFICATIONS

Measuring range	**Acceleration**
	0.0 ... 399.9 m/s² / 0.0 - 15744 in/s²
Resolution	0.1 m/s² / 3.94 in/s²
Accuracy @ 160 Hz	±2 %
Frequency range	10 Hz ... 10 kHz
	1 kHz ... 10 kHz
Measuring range	**Velocity**
	0.00 ... 399.9 mm/s / 0.00 - 15.74 in/s
Resolution	0.1 mm/s / 0.0039 in/s
Accuracy @ 160 Hz	±2 %
Frequency range	10 Hz ... 1 kHz
Measuring range	**Displacement**
	0.000 ... 3.9 mm / 0.000 - 0.154 in
Resolution	1 µm / 39.4 µin
Accuracy @ 160 Hz	±2 %
Frequency range	10 Hz ... 200 Hz
Measurement parameters	RMS, Peak, Peak-Peak
	Crest factor
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
Units	can be switched to metric / imperial
Display	2.48" LC display
Menu languages	English, German, French
	Spanish, Italian, Dutch
	Portuguese, Turkish, Polish
	Russian, Chinese, Japanese
Power supply	internal: LiPo battery (3.7 V, 2500 mAh)
	external: USB 5 VDC, 500 mA
Operating time	approx. 15 … 20 h (depending on display
brightness)	
Operating and storage conditions	temperature: -20 ... +65 °C / -4 ... 149 °F
	humidity: 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

Sensor PCE-VT 3800	Sensor with spiral cable
	PCE-VT 3xxx SENSOR
	Magnet adapter PCE-VT VMH
Sensor PCE-VT 3800S	Sensor with spiral cable
	PCE-VT 3xxx SENSOR
	Magnet adapter PCE-VT VMH
	Needle sensor PCE-VT NP
	Handle PCE-VT 3xxx HANDLE
Optional accessories:	
PCE-VT NP	Needle sensor for vibration measuring device
PCE-VT VMH	Magnet adapter
CAL-PCE-VT 3xxx	ISO Calibration Certificate for vibration meter
PCE-VT 3xxx SENSOR	Replacement vibration sensor

Technical Data Vibration Sensor

Resonance frequency	24 kHz
Transverse sensitivity	≤5 %
Destruction limit	5000 g (peak)
Operating and storage temperature	-55 °C … +150 °C / -67 °F ... 302 °F
Housing material	stainless steel
Mounting thread	¼ - 28“
Dimensions	Ø 17 x 46 mm / 0.67 x 1.8"
Weight (without cable)	52 g / 1.8 oz

PCE-VT 3800 PCE-VT 3800S

Subject to change without notice