

VIBRATION MEASUREMENT

VIBRATION ANALYZER PCE-VT 3900 / PCE-VT 3900S

Vibration analyzer with internal memory / route measurement

The vibration analyzer is an ideal measuring device for fast and precise checking of vibrating parts, machines and systems. This vibration meter uses the external vibration sensor to determine the vibration displacement (measuring range 0.000 ... 3.9 mm), the vibration velocity (measuring range 0.00 ... 399.9 mm/s) and the vibration acceleration (measuring range 0.0 ... 399.9 m/s²).

Various measurement parameters are available for the vibration meter, such as RMS, peak, peak-peak and crest factor. The vibration meter is equipped with a mode that allows a measurement to be automatically evaluated according to the limit values of ISO 10816-3.

ISO cal option

- ▶ for mobile vibration measurement
- ▶ measuring range up to 399.9 m/s² / 15744 in/s²
- ▶ FFT analysis
- ▶ route measurement
- ▶ manual measured value memory
- ▶ automatic ISO 10816-3 evaluation
- ▶ internal memory
- ▶ 2.48" LC display



APPLICATION



TECHNICAL SPECIFICATIONS

Measuring range	Acceleration 0.0 ... 399.9 m/s ² / 0.0 - 15744 in/s ² 0.1 m/s ² / 3.94 in/s ²	Sensor PCE-VT 3900	Sensor with spiral cable PCE-VT 3xxx SENSOR
Resolution	±2 %	Sensor PCE-VT 3900S	Sensor with spiral cable PCE-VT 3xxx SENSOR
Accuracy @ 160 Hz	±2 %		Magnet adapter PCE-VT VMH
Frequency range	10 Hz ... 10 kHz 1 kHz ... 10 kHz		Magnet adapter PCE-VT VMH
			Needle sensor PCE-VT NP
			Handle PCE-VT 3xxx HANDLE
Measuring range	Velocity 0.00 ... 399.9 mm/s / 0.00 - 15.74 in/s 0.1 mm/s / 0.0039 in/s	Technical Data Vibration Sensor	
Resolution	±2 %	Resonance frequency	24 kHz
Accuracy @ 160 Hz	±2 %	Transverse sensitivity	≤ 5 %
Frequency range	10 Hz ... 1 kHz	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
Measuring range	Rotational Speed 600 ... 50000 RPM	Optional accessories:	
		PCE-VT NP	Needle sensor for vibration measuring device
FFT acceleration	10 Hz ... 8 kHz	PCE-VT VMH	Magnet adapter
FFT velocity	10 Hz ... 1 kHz	CAL-PCE-VT 3xxx	ISO Calibration Certificate for vibration meter
Accuracy @ 160 Hz	±2 %	PCE-VT 3xxx SENSOR	Replacement vibration sensor
Number of FFT lines	2048		
Route measurement	100 routes each with 100 machines each with 100 measuring points with 1000 measured values each		
Measuring range	Displacement 0.000 ... 3.9 mm / 0.000 - 0.154 in 1 µm / 39.4 µin		
Resolution	±2 %		
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	ca. 15 ... 20 h (depending on display brightness)		
Operating / 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		

PCE-VT 3900 PCE-VT 3900S



Subject to change without notice