

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 measure-

ment 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 ±2 % 10 Hz ... 10 kHz 1 kHz ... 10 kHz	Sensor PCE-VT 3900	Sensor with spiral cable PCE-VT 3xxx SENSOR Magnet adapter PCE-VT VMH
Resolution		Sensor PCE-VT 3900S	Sensor with spiral cable PCE-VT 3xxx SENSOR Needle sensor PCE-VT NP Handle PCE-VT 3xxx HANDLE
Accuracy @ 160 Hz			
Frequency range			
Measuring range	Velocity 0.00 ... 399.9 mm/s / 0.00 - 15.74 in/s 0.1 mm/s / 0.0039 in/s ±2 % 10 Hz ... 1 kHz	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
Resolution		Housing material	stainless steel
Accuracy @ 160 Hz		Mounting thread	¼ - 28"
Frequency range		Dimensions	Ø 17 x 46 mm / 0.67 x 1.8"
Measuring range	Rotational Speed 600 ... 50000 RPM	Weight (without cable)	52 g / 1.8 oz
Resolution		Optional accessories:	PCE-VT NP Needle sensor PCE-VT VMH Magnet adapter CAL-PCE-VT 3xxx ISO Calibration Certificate PCE-VT 3xxx SENSOR replacement vibration sensor
Accuracy @ 160 Hz		Further models:	PCE-VT 3950 incl. sensor, magnetic adapter, headset PCE-VT 3950S incl. needle sensor with handgrip, headset
Frequency range	FFT acceleration 10 Hz ... 8 kHz FFT velocity 10 Hz ... 1 kHz ±2 % 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 ±2 % 10 Hz ... 200 Hz		
Resolution			
Accuracy @ 160 Hz			
Frequency range			
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 43.200 measured values each can be switched to metric / imperial		
Units			
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