Vibration Analyzer PCE-VM 22

Vibration analyzer with 4 GB data memory / FFT analysis / Waveform display / Infrared temperature meter / Measuring range 0 ... 200 mm/s² / Battery life of 8 hours /
Micro USB interface / Magnetic holder / Optical speed measurement

The vibration analyzer has a measuring range of 0 ... 200 m/s² for acceleration. In addition to acceleration, the vibration meter can also measure speed, displacement, frequency and an ISO 18016-3 measurement. During the vibration measurement, an FFT view is simultaneously displayed on the vibration meter. By pressing a button, it is possible to switch from the FFT analysis to the actual wave view of the vibration. This makes it possible to analyse and evaluate a vibration even better with the vibration meter. The magnetic holder of the vibration sensor of the vibration meter is designed in such a way that it can be attached to curvatures with a minimum radius of 20 mm / 0.78".

In addition to the vibration measurement, the vibration analyzer also has an external infrared temperature sensor. With this temperature sensor, surface temperatures between -70 ... 380 °C / 158 ... 716 °F can be measured. Another measuring function of the vibration meter is the contactless speed measurement. This means that the number of revolutions of ventilation systems, for example, can be checked with the vibration meter.

The vibration analyzer has a 4 GB memory. The measurement data can then be transferred from the vibration meter to a PC. Free software is available to analyse the data.

Because of its many functions, the vibration analyzer is a universally applicable measuring tool. Thus, the vibration meter can be used, for example, for maintenance work on generators or engines. Optionally, the vibration meter can be equipped with an ISO certificate.

- ▶ Measuring range 0 ... 200 m/s²
- ▶ Infrared temperature measurement
- ▶ 4 GB data storage
- ▶ 8 hours of battery life
- ▶ Optionally with ISO calibration certificate
- ▶ FFT analysis and wave view of the vibration

Specifications

Frequency

Measuring range	**1 ... 10,000 Hz**
Resolution	0.1 Hz
Accuracy	±5 %

Acceleration

Measuring range	**0 ... 200 m/s²**
Resolution	0.01 m/s²
Accuracy	±5 %

Speed

Measuring range	**0 ... 200 mm/s**
Resolution	0.01 mm/s
Accuracy	±5 %

Displacement

Measuring range	**0 ... 2000 µm**
Resolution	0.01 µm
Accuracy	±5 %

Infrared temperature measurement

Measuring range	**-70 ... 380 °C / -94 ... 716 °F**
Resolution	0.1 °C / °F
Accuracy	±0.5% at (0...+60°C), (32 ... 140 °F) ±1% at (-40 ... 0, 60 ... 120 °C), (-40 ... 32, 140 ... 248 °F) ±2% at (-70 ... -40, 120 ... 180 °C), (-94 ... -40, 248 ... 356 °F) ±4% at (180 ... +380 °C), (356 ... 716 °F)
Emissivity	1 fixed

Tachometer

Measuring range	**10 ... 200,000 RPM**
Resolution	0.1 RPM
Accuracy	±0.1% and ±1 RPM
Units	RPM, Hz

Subject to change

Further specifications for the handheld device

FFT spectrum resolution	400, 800, 1600 lines
Dynamic range	106 dB
A/D converter resolution	24 bit
Storage space	4 GB
Display	128 x 160 pixels
Interfaces	Micro USB interface
Power supply battery	3.7 V, 1000 mAh battery
Battery life	ca. 8 hours
Power supply for power pack	5 V DC, 1 A
Operating conditions	0 ... 50 °C / 32 ... 122 °F, <85% RH, non-condensing
Storage conditions	-20 ... 60 °C / -4 ... 140 °F, <85% RH, non-condensing
Dimensions	132 x 70 x 33 mm / 5.2 x 2.7 x 1.3"
Weight	150 g / 5.3 oz

Vibration sensor specifications

Sensitivity	100 mV/g
Cable length	ca. 1.5 m / 4.9 ft
Connection	2 pin MIL-DTL-5015
Case material	316L stainless steel
Dimensions	Ø25 x 53 mm / Ø0.98 x 2.08"
Weight	86 g / 3.0 oz

Magnetic holder specifications

Diameter	30 mm / 1.18"
Magnetic force	20 kg / 44 lbs
Connection thread	1/4"-28 UNF female
Smallest radius	20 mm / 0.78"

Infrared and RPM sensor specifications

Cable length	ca. 1.2 m / 3.9 ft
Dimensions	Ø16 x 83 mm / Ø0.63 x 3.26"
Weight	75 g / 2.6 oz

Subject to change