

Vibration Meters

PCE-S 41

Electronic vibration meter for inspection and machine maintenance

This battery powered electronic vibration meter is used to measure noises in machines, e.g. in fans or pistons. This unit gives the user the opportunity to identify problem areas before they cause a machine to breakdown (preventative maintenance). This vibration meter is an entry level product which is an easy to use, versatile unit which comes complete with transducer, probe and carrying case. The headphones of the vibration meter are equipped with two adjustable auditory protectors and a 1m cable.

- Suitable for inspection and maintenance (to find potential machine malfunctions)
- Revolving switch for volume control
- ABS plastic enclosure
- With two needles (70 + 290 mm)



Technical specifications

Measurement range	100 Hz to 10 kHz
Volume	adjustable
Tweeter	8 W
Operating conditions	-10 to +55 °C
Power	9 V battery included
Enclosure	ABS
Dimensions	meter: 206 x 50 x 32 mm sensor: 1 x 290 mm ; 1 x 70 mm (length)
Sensor	stainless steel
Weight	240 g with battery included



Contents

PCE-S 41 vibration meter, headphones with 1m cable, battery, 70 and 290 mm sensors, carrying case and user's manual

Model No.	Description
PCE-S 41	Electronic vibration meter



PCE-VT 1000 & PCE-VT 2600

Pocket-sized device to measure vibration velocity in machines and installations

The vibration meter is used primarily for the preventative maintenance of production machinery and installations. This vibration meter quickly measures imbalance and tests the state of mechanisms. It is also used to check small electromotors.

- Measures the velocity of vibration; The PCE-VT 2600 also measures acceleration of vibration and displacement
- Retains reading after each measurement
- Easy to use, powered by batteries
- Wide frequency range
- Automatic shut-off after two minutes of inactivity
- Advises when battery needs changing



Technical specifications

Measurement ranges	PCE-VT 1000	PCE-VT 2600
- acceleration	---	0.01 to 199.9 m/s ²
- velocity	0.1 to 199.9 mm/s	0.01 to 199.9 mm/s
- displacement	---	0.001 to 1.999 mm
Resolution		
- acceleration	---	0.01 m/s ²
- velocity	0.1 mm/s	0.01 mm/s
- displacement	---	1 µm
Accuracy	±5 %	±5 %
Frequency ranges		
- acceleration	---	10 Hz to 1 kHz
- velocity	10 Hz to 1 kHz	10 Hz to 1 kHz
- displacement	---	10 Hz to 500 Hz
Indicator	display LCD with 3.5 digits, with Data Hold function	
Power	2 batteries (1.5 V) CR 2032, approx. 5 hours of continuous operation	
Operating conditions	0 to +40 °C, < 85 % r.h.	
Dimensions	150 x 22 x 15 mm	
Weight	100 g	

Contents

Pen vibration meter, leather case, batteries and user's manual

Model No.	Description
PCE-VT 1000	Pen vibration meter
PCE-VT 2600	Pen vibration meter

Optional accessories

CAL-V-I	ISO Certificate for PCE-VT 1000
CAL-V-II	ISO Certificate for PCE-VT 2600



PCE-VT 2000

Pen vibration meter for velocity (RMS) and acceleration (peak)

The pen vibration meter is basically used for preventative maintenance in machines and installations by measuring velocity and acceleration. This pocket tester is ideal for personal maintenance and repair technicians. This instrument can be used anywhere as it is powered by batteries.

- Measures velocity and acceleration
- Data hold, Memory (max., min.)
- Large display
- Wide frequency range
- Shows low battery indicator
- Auto-Power-Off



Technical specifications

Measurement ranges	
- acceleration	0.1 to 199.9 m/s ²
- velocity	0.1 to 199.9 mm/s
- displacement	---
Resolution	
- acceleration	0.1 m/s ²
- velocity	0.1 mm/s
- displacement	---
Accuracy	±5 %
Frequency ranges	
- acceleration	10 Hz to 1 kHz
- velocity	10 Hz to 1 kHz
- displacement	---
Indicator	display LCD, 20 x 28 mm
Power	4 AAA batteries (1.5 V);
Operating conditions	0 to +50 °C, < 80 % r.h.
Dimensions	175 x 40 x 132 mm
Weight	240 g

Contents

Pen vibration meter, 30 mm needle probe, magnetic plate, batteries, carrying case and user's manual

Model No.	Description
PCE-VT 2000	Pen vibration meter

Optional accessories

CAL-V-I	ISO Certificate for PCE-VT 2000
---------	---------------------------------



PCE-VT 2700

Vibration meter for velocity (RMS), acceleration (peak) and displacement (peak-peak)

The vibration meter is basically used for preventative maintenance in machines and installations by measuring velocity, acceleration and displacement. This small tester is ideal for personal maintenance and repair technicians. This device can be used anywhere as it is battery powered.

- Measures velocity, acceleration and displacement
- RS-232 interface
- Retains maximum value after each measurement
- Large display
- Wide frequency range
- Shows low battery indicator
- Automatic shut-off



Technical specifications

Measurement ranges	
- acceleration	0.1 to 400.0 m/s ²
- velocity	0.1 to 400.0 mm/s
- displacement	0.001 to 4.000 mm
Resolution	0.1 m/s ² ; 0.1 mm/s; 1 µm
Accuracy	±5 %
Frequency ranges	
- acceleration	10 Hz to 1 kHz
- velocity	10 Hz to 1 kHz
- displacement	10 Hz to 1 kHz
Indicator	4 digit LCD; shows last reading
Interface	RS-232
Power	4 AAA batteries (1.5 V); approx. 4.5 hours of continuous operation
Operating conditions	0 to +50 °C, < 90 % r.h.
Dimensions	124 x 62 x 30 mm
Weight	240 g

Contents

PCE-VT 2700 vibraton meter, sensor, 2 needle probes, magnetic pedestal, case and user's manual

Model No.	Description
PCE-VT 2700	Vibration meter

Optional accessories

VT-2700-SW	Software and RS-232 interface
CAL-V-II	ISO Certificate

PCE-VT 204

Vibration meter with external acceleration sensor and tachometer function to easure revolutions, with or without contact

The PCE-VT 204 Vibration meter and hand tachometer are combined into one device. It is the ideal device for testing machines and installations that have components that rotate or vibrate. This will help detect possible damage and allow for a repair programme to be established to minimise machine down time. In future there will also be an infrared thermometer available (-20 to +270°C), that will allow this device to measure surface temperature without contact.

- measures velocity, displacement and acceleration
- optically measures revolutions with a laser point and reflective tape up to a distance of 1.5m or by contact
- measures velocity in m/min by way of a contact measurement
- external vibration sensor (Ø 18 x 40 mm) with magnetic pedestal included
- Memory for 1000 readings
- Minimum, maximum and Data-hold functions
- computer interface
- Optional: software and USB cable, calibration certificate



The order includes a needle sensor and magnetic pedestal

Technical specifications

Vibration functions	
Acceleration range	0.5 to 199.9 m/s ²
Velocity range	0.5 to 199.9 mm/s
Displacement range	0.005 to 1.999 mm
Resolution	0.1 m/s ² , 0.1 mm/s; 0.001 mm
Accuracy	±5 % ±2 digit
Frequency range	10 Hz to 1 kHz
Tachometer functions	
Revolution range (optical)	10 to 99,999 U/min
Revolution range (contact)	0.5 to 19,999 U/min
Speed range (contact)	0.05 to 1,999 m/min
Resolution	0.1 r.p.m (<1000) 1 r.p.m (>1000) 0.01 m/min (<100), 0.1 m/min (>100)
Accuracy	± 0.05 % of reading; ±1 digit
Measure. distance	50 to 1500 mm (depending on surface)
General properties	
Memory	1000 readings
Indicator	LCD with graphic bars
Power	4 AA batteries (1.5 V)
Operating conditions	0 to +50 °C, < 80 % r.h.
Dimensions	188 x 76 x 47 mm
Weight	400 g

Contents

PCE-VT 204 vibration meter / tachometer, external sensor, needle sensor, magnetic pedestal, measurement end, measurement cone (the measurement end and cone are for tachometer functions), reflective tape (600 mm), case, batteries and user's manual

Model No.	Description
PCE-VT 204	Tachometer / Vibration meter

Optional accessories

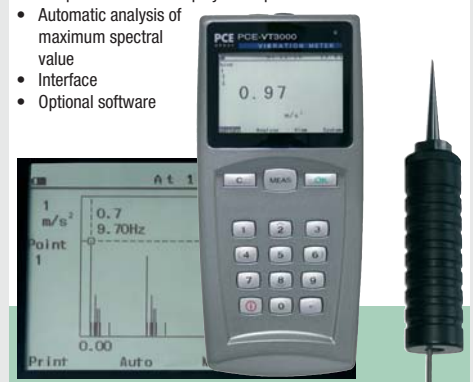
VT-204-SW	Software and USB interface
REFB	Reflective tape (5 m roll)
CAL-V-II	ISO Certificate (Vibration)
CAL-DT	ISO Certificate (Tachometer)

PCE-VT 3000

Vibration meter with memory, FFT analysis, interface for PC and optional software

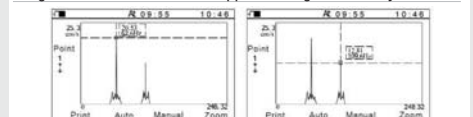
This vibration meter is an easy to use, versatil unit which measures the acceleration, displacement and oscillation speed quickly. One advantage is the possibility to store readings directly to the unit's internal memory. With the RS-232 interface, you will be able to transfer the data from the vibration meter to a PC.

- Acceleration, velocity, displacement, turn and frequency of vibration
- Internal memory to store up to 1800 values (in 25 groups of 72 values)
- Three operating modes:
 - Special mode: displays maximum acceleration, turn velocity in RMS and displacement of maximum value
 - Common mode: only displays one of the previous values in large cifres
 - Spectrum mode: displays the spectrum value
- Automatic analysis of maximum spectral value
- Interface
- Optional software



Technical specifications

Measurement ranges	
Acceleration range	0.1 m/s ² to 392 m/s ² (Peak); (39.95 g force)
Velocity range	0.01 cm/s to 80 cm/s (RMS)
Displacement range	0.001 mm to 10 mm (Peak-Peak)
Frequency ranges	
Acceleration range	10 Hz to 200 Hz, 10 Hz to 500 Hz 10 Hz to 1 kHz, 10 Hz to 10 kHz
Velocity range	10 Hz to 1 kHz
Displacement range	10 Hz to 500 Hz
General features	
Resolution	0.25 Hz
Accuracy	±5 %
Interface	RS-232
Power	rechargeable battery
Operating conditions	0 to 40 °C / <80 % r.h.
Dimensions	171 x 78,5 x 28 mm
Weight	approx. 230 g with battery



Contents

PCE-VT 3000 Vibration meter, probe (50 mm pointer with handle and 1.5m cable), battery, battery charger, carrying case and user's manual

Model No.	Description
PCE-VT 3000	Vibration meter

Optional accessories

MT-WEDGE-PCE-VT	Software and RS-232 interface
RS232-USB	RS-232 to USB Adapter
CAL-V-II	ISO Certificate