



## TECHNOLOGY FOR MACHINERY VIBRATION MEASUREMENT



## PCE Instruments

Discover our new test instruments and their functions.



## TEST INSTRUMENTS FROM GERMANY

### Vibration measurement

The company PCE Instruments based in Meschede-Freienohl in the German Sauerland region was founded in 1999 by three engineers. With more than 120 employees and several branches around the world, the company focuses on the development, production and distribution of high-performance and innovative products from the fields of measuring instruments, control systems, weighing equipment and laboratory technology.

PCE Instruments' wide range of products and services offers high precision and flexibility in any application as well as outstanding quality and functionality. The different fields can be seen in the overview.



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### MEASURING INSTRUMENTS

The field of measuring instruments covers a multitude of innovative portable products as well as products for fixed installation that measure electrical, mechanical, biological and chemical parameters.

### CONTROL SYSTEMS

The range of control systems covers the complete demand for sensors, displays, controllers and paperless recorders.

### WEIGHING EQUIPMENT

The field of weighing equipment comprises a wide standard range of high-quality scales and balances that can be calibrated and/or verified for trade.

### LABORATORY TECHNOLOGY

High-end analytical and laboratory devices have been developed for professional applications and in particular for use in laboratories.



### DEVELOPMENT

In order to develop modified test equipment in line with customers' specifications, proficient engineers and technicians cooperate closely with the customer.

### PRODUCTION

PCE Instruments manufactures industrial test instruments that help improving process analysis and optimisation.

### CALIBRATION

Our DIN EN ISO 9001:2015 certified calibration laboratory verifies the measuring accuracy of our products. They calibrate pressure, hardness, force, material thickness, sound pressure, conductivity, redox, vibration acceleration and more.

## VIBRATION METER PCE-VT 3700 / PCE-VT 3700S

### Handy entry-level device for vibration monitoring of machines and systems

The vibration meter is ideal for maintenance workers to quickly check vibrating parts, machines and systems. This vibration meter shows the vibration acceleration, vibration velocity and vibration displacement directly on the display. You can use the device to quickly and reliably detect machine imbalances which can lead to, for example, bearing damage. The vibration meter is

equipped with a mode that allows a measurement according to ISO 10816-3 to be carried out. The vibration meter analyzes the measured values and automatically shows a good / bad evaluation on the display. The vibration meter is supplied with a sensor on a spiral cable, magnet adapter, service bag and batteries. The ISO factory certificate completes the scope of delivery.

### ISO cal option

- ▶ automatic ISO 10816-3 evaluation
- ▶ easy to handle
- ▶ for mobile vibration measurement
- ▶ colored graphic display
- ▶ peak-hold function



### APPLICATION



## TECHNICAL SPECIFICATIONS

Measuring range	Acceleration 0.0 ... 399.9 m/s <sup>2</sup> 0.1 m/s <sup>2</sup>
Resolution	±2 %
Accuracy @ 160 Hz	10 Hz ... 1 kHz
Frequency range	10 Hz ... 10 kHz
Measuring range	Velocity 0.00 ... 399.9 mm/s 0.1 mm/s
Resolution	±2 %
Accuracy @ 160 Hz	10 Hz ... 1 kHz
Frequency range	
Measuring range	Displacement 0.000 ... 3.9 mm 1 µm
Resolution	±2 %
Accuracy @ 160 Hz	10 Hz ... 200 Hz
Frequency range	
Measurement parameters	RMS, Peak, Peak-Peak Crest factor
Units	switchable metric / imperial
Display	3.5" LC display
Menu languages	English, German, French Spanish, Italian, Dutch Portuguese, Turkish, Polish Russian, Chinese, Japanese
Power supply	3 x 1.5 V AA batteries
Operating and storage conditions	-20 ... +65 °C / -4 ... 149 °F; 10 ... 95 % r.H.
Dimensions	150 x 80 x 38 mm / 5.9 x 3.1 x 1.5"
Weight	170 g / 6 oz
Sensor PCE-VT 3700	Sensor with spiral cable PCE-VT 3xxx SENSOR
Sensor PCE-VT 3700S	Magnet adapter PCE-VT VMH Sensor with spiral cable PCE-VT 3xxx SENSOR Magnet adapter PCE-VT VMH Needle sensor PCE-VT NP Handgrip PCE-VT 3xxx HANDLE
<b>Technical data vibration sensor</b>	
Resonance frequency	30 kHz
Transverse sensitivity	≤5 %
Destruction limit	5000 g (peak)
Operating and storage temperature	-20 ... +80 °C / -4 ... 176 °F; max. 95 % r.H.
Housing material	Stainless steel
Mounting thread	M5
Dimensions	16 x 36 mm / 0.6 x 1.4"
Weight (without cable)	35 g / 1.2 oz

### Optional accessories:

PCE-VT NP	Needle sensor for vibration meter
PCE-VT VMH	Magnet adapter
PCE-VT 3xxx HANDLE	Handgrip für vibration meter
PCE-VT 3700 CASE	Case with rigid foam insert
CAL-PCE-VT 3700	ISO-calibration for vibration meter
PCE-VT 3xxx SENSOR	Replacement sensor



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## 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/s<sup>2</sup> 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/s<sup>2</sup> / 15744 in/s<sup>2</sup>
- ▶ hand-held device for mobile vibration measurement
- ▶ rechargeable battery
- ▶ 2.48" LC display



### APPLICATION



## TECHNICAL SPECIFICATIONS

Measuring range	<b>Acceleration</b> 0.0 ... 399.9 m/s <sup>2</sup> / 0.0 - 15744 in/s <sup>2</sup> 0.1 m/s <sup>2</sup> / 3.94 in/s <sup>2</sup>	Sensor PCE-VT 3800	Sensor with spiral cable PCE-VT 3xxx SENSOR Magnet adapter PCE-VT VMH
Resolution	±2 %	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
Accuracy @ 160 Hz			
Frequency range	10 Hz ... 10 kHz 1 kHz ... 10 kHz		
Measuring range	<b>Velocity</b> 0.00 ... 399.9 mm/s / 0.00 - 15.74 in/s 0.1 mm/s / 0.0039 in/s	<b>Optional accessories:</b>	
Resolution	±2 %	PCE-VT NP	Needle sensor for vibration measuring device
Accuracy @ 160 Hz		PCE-VT VMH	Magnet adapter
Frequency range	10 Hz ... 1 kHz	CAL-PCE-VT 3xxx	ISO Calibration Certificate for vibration meter
Measuring range	<b>Displacement</b> 0.000 ... 3.9 mm / 0.000 - 0.154 in 1 µm / 39.4 µin	PCE-VT 3xxx SENSOR	Replacement vibration sensor
Resolution	±2 %		
Accuracy @ 160 Hz			
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 each		
values	can be switched to metric / imperial		
Units	2.48" LC display		
Display	English, German, French Spanish, Italian, Dutch Portuguese, Turkish, Polish Russian, Chinese, Japanese		
Menu languages	internal: LiPo battery (3.7 V, 2500 mAh) external: USB 5 VDC, 500 mA		
Power supply	ca. 15 ... 20 h (depending on display brightness)		
Operating time	temperature: -20 ... +65 °C / -4 ... 149 °F		
Operating and storage conditions	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		
<b>Technical Data Vibration Sensor</b>			
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



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## 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/s<sup>2</sup>).

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/s<sup>2</sup> / 15744 in/s<sup>2</sup>
- ▶ FFT analysis
- ▶ route measurement
- ▶ manual measured value memory
- ▶ automatic ISO 10816-3 evaluation
- ▶ internal memory
- ▶ 2.48" LC display



### APPLICATION



## TECHNICAL SPECIFICATIONS

Measuring range	<b>Acceleration</b> 0.0 ... 399.9 m/s <sup>2</sup> / 0.0 - 15744 in/s <sup>2</sup> 0.1 m/s <sup>2</sup> / 3.94 in/s <sup>2</sup>	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	<b>Velocity</b> 0.00 ... 399.9 mm/s / 0.00 - 15.74 in/s 0.1 mm/s / 0.0039 in/s	<b>Technical Data Vibration Sensor</b>	
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
Measuring range	<b>Rotational Speed</b> 600 ... 50000 RPM	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
<b>FFT acceleration</b>	10 Hz ... 8 kHz	<b>Optional accessories:</b>	
<b>FFT velocity</b>	10 Hz ... 1 kHz	PCE-VT NP	Needle sensor for vibration measuring device
Accuracy @ 160 Hz	± 2%	PCE-VT VMH	Magnet adapter
Number of FFT lines	2048	CAL-PCE-VT 3xxx	ISO Calibration Certificate for vibration meter
Route measurement	100 routes each with 100 machines each with 100 measuring points with 1000 measured values each	PCE-VT 3xxx SENSOR	Replacement vibration sensor
Measuring range	<b>Displacement</b> 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



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## VIBRATION ANALYZER PCE-VT 1100 Series

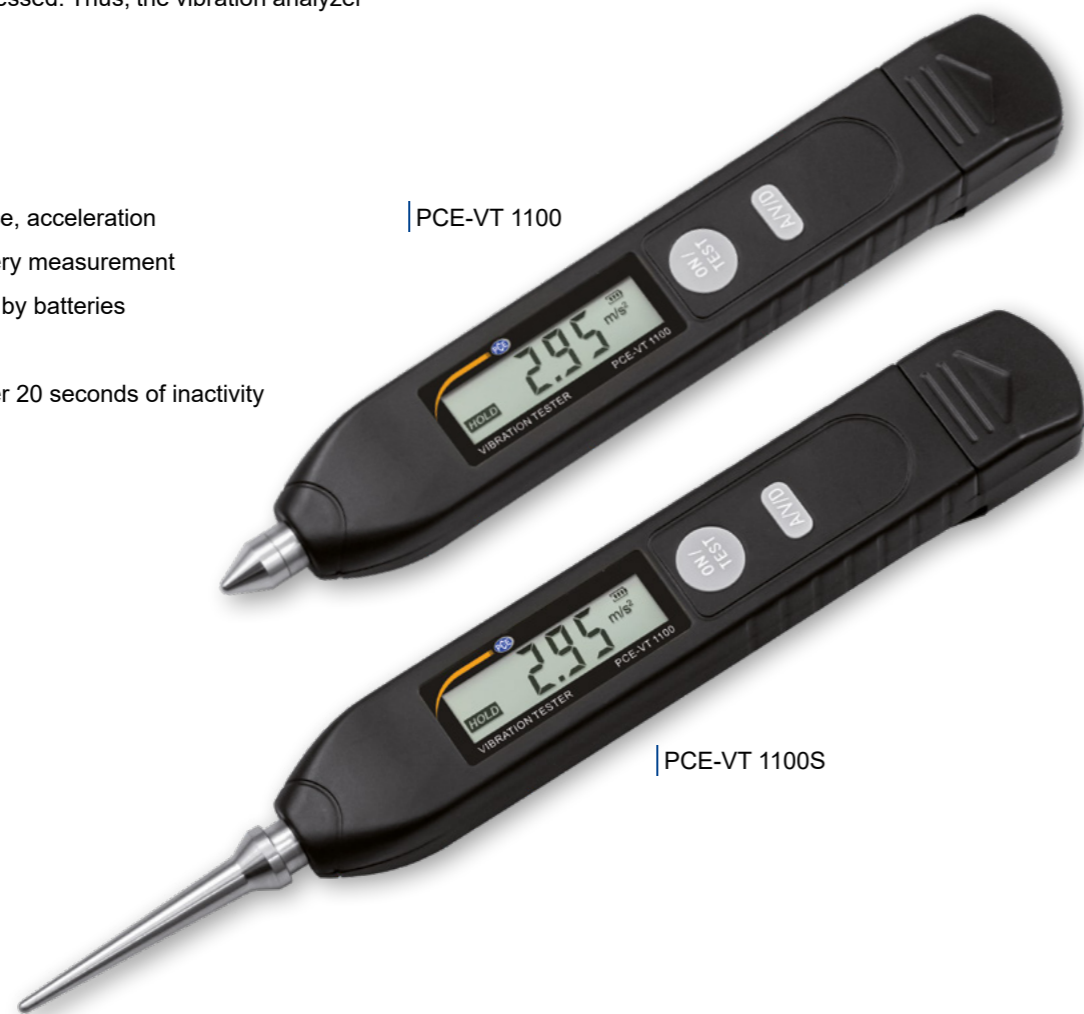
### Measurement of acceleration, vibration velocity and displacement

The vibration analyzer is used as a hand-held measuring device for the individual assessment of vibrations on machines and systems. With the help of this vibration analyzer, the actual state can easily be determined on site. Thus, corresponding changes can be made directly on site after the measurement. Thereafter, the new condition can be assessed. Thus, the vibration analyzer

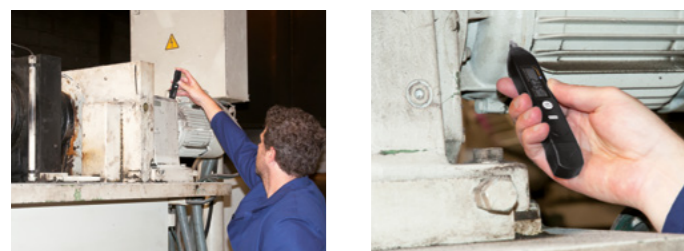
serves as a measuring device for a relative measurement on different machines. The vibration analyzer serves essentially as precautionary or preventive maintenance of production machines. Very often, the vibration analyzer is used to assess the state of smaller electric motors.

### ISO cal option

- ▶ measures speed, distance, acceleration
- ▶ keeps the value after every measurement
- ▶ easy to handle, powered by batteries
- ▶ wide frequency range
- ▶ automatic shut-down after 20 seconds of inactivity to protect battery life
- ▶ low battery indicator



### APPLICATION



## TECHNICAL SPECIFICATIONS

Parameter	Measuring Range	Frequency Range
Acceleration	0.01 ... 199.9 m/s <sup>2</sup> peak	10 Hz ... 1 kHz
Vibration speed	0.01 ... 199.9 mm/s rms	10 Hz ... 1 kHz
Displacement	0.001 ... 1.999 mm p-p	10 ... 500 Hz
Measurement accuracy	Acceleration: ≤ 3 % Vibration speed: ±5 %, ±2 Digits Displacement: +10/-20 % (10...20 Hz); ±5 % (20...1000 Hz)	

### General specifications

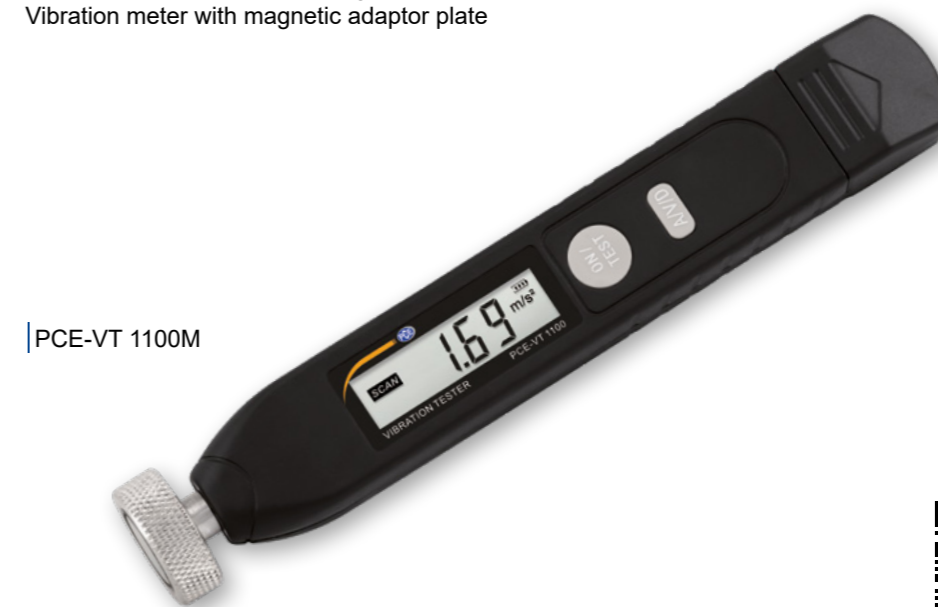
Display	LCD, Response time approx. 1 second	
Power supply	2 x 6 V CR2032 button cell	
Battery life	about 5 hours (in continuous operation)	
Environmental conditions	0 ... +40 °C / 32 ... 104 °F, 0 ... 84 % r.H.	
Dimensions	155 x 24 x 18.7 mm / 6.1 x 0.9 x 0.7 "	
Weight	ca. 40 g / 1.4 oz (incl. batteries)	

### Optional accessories::

Standard probe	length 10mm	Order no.: PCE-VT-NF-10
Vibration Sensor	length 45 mm	Order no.: PCE-VT-NF-45
1 point calibration at:	159.2 Hz; 10 mm/s; 14.1 m/s <sup>2</sup> ; 0.028 mm	Order no.: CAL-V-I

### Model:

PCE-VT 1100	Vibration meter with sensor length 10 mm
PCE-VT 1100S	Vibration meter with sensor length 45 mm
PCE-VT 1100M	Vibration meter with magnetic adaptor plate



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## VIBRATION METER PCE-VT 1350 / PCE-VT 1350S

### Later analyzes thanks to data storage

The vibration meter is a measuring device for one-hand operation. This is made possible by the built-in acceleration sensor in the vibration meter. So that the measured values can be read from different angles on the vibration analyzer, the display can be rotated by the vibration meter in 0°, 90°, 180° and 270°. The display of the vibration meter is designed so that all measure-

ment parameters such as acceleration, speed and the way can be read. Another special feature of the vibration meter is the vibration evaluation according to ISO 10816-1. The vibration meter thus graphically shows directly on the display in which area the measured value is located.

### ISO cal option

- ▶ for fast vibration measurement
- ▶ display rotatable by 0°, 90°, 18° and 270°
- ▶ data storage for later analyzes
- ▶ carrying case included
- ▶ for mobile use
- ▶ graphic and numerical representation



### APPLICATION



## TECHNICAL SPECIFICATIONS

### Acceleration measurement function

Measuring range	Resolution	Accuracy
0.1 ... 199.9 m (655.8 ft) / s <sup>2</sup>	0.1 m (3.9 in) / s <sup>2</sup>	< 2 m (6.6 ft) / s <sup>2</sup> < ± 10 % > 2 m (6.6 ft) / s <sup>2</sup> < ± 5 %

### Measuring function speed

Measuring range	Resolution	Accuracy
0.1 ... 199.9 mm / s	0.1 mm / s	< 2 mm / s < ± 10 % > 2 mm / s < ± 5 %

### Measuring function way

Measuring range	Resolution	Accuracy
0.001 ... 1.999 mm	0.001 mm	< 0.02 mm < ± 10 % > 2 mm < ± 5 %

Sensor	Piezoelectric ceramics Accelerometer (shear type)
Sensor tip	10 mm / 0.4 in attachment
Frequency range <b>acceleration</b>	High frequency: 1 ... 15 KHz (HI) Low frequency: 20 Hz ... 1 KHz (LO)
Frequency range <b>speed</b>	Low frequency: 20 Hz ... 1 KHz (LO)
Frequency range <b>path</b>	Low frequency: 20 Hz ... 1 KHz (LO)
Display	2 in LCD
Update rate from the display	1 Hz
Maximum number of storage spaces	Approx. 100 measuring points
Maximum number of storage groups	7
Vibration assessment	According to ISO 10816-1
Power supply	2 x 1.5 V AAA batteries
Environmental conditions	0 ... 40 °C / 32 ... 104 °F, 30 ... 90 % RH
Dimensions	180 x 80 x 38 mm / 7.1 x 3.2 x 1.5 in
Weight	Approx. 250 g / < 1 lb (without batteries)

### Models:

PCE-VT 1350	Vibration meter with vibration sensor length 10 mm
PCE-VT 1350S	Vibration meter with vibration sensor length 45 mm



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## VIBRATION METER PCE-VM 20

### Vibration meter for vibration measurement on machines

Rotating components in machines generally cause machine vibrations which can go over to the entire machine via mechanically coupled components. This creates a mixture of vibration with different frequencies. This machine vibration can have different effects some of which may be desired (e. g., in conveyors or vibrating sieves) – however, in most cases they are undesirable

and cause poor manufacturing qualities and increased wear of the machine. Increased wear and tear due to machine vibrations leads to reduced running times, higher failure rates and higher maintenance expenditure, i. e. to avoidable costs as a whole.

### ISO cal option

- ▶ real-time FFT analysis
- ▶ robust housing
- ▶ many vibration parameters
- ▶ integrated rechargeable LiPo battery
- ▶ direct evaluation of machine vibration in compliance with DIN ISO 10816



### APPLICATION



## TECHNICAL SPECIFICATIONS

Vibration acceleration	0 ... 200 m/s <sup>2</sup> , RMS and Peak-Peak
Vibration velocity	0 ... 200 mm/s, RMS
Vibration displacement	0 ... 2000 µm, Peak-Peak
Accuracy vibration	±5 %
Operating modes	vibration, temperature, revolutions
Representable measured variables	Frequency Vibration acceleration vibration velocity vibration FFT spectrum
Units	metric, imperial mm/s <sup>2</sup> , mm/s, µm RPM und Hz
Interface	USB 2.0
Memory	4 GB micro SD card
Battery life	up to 8 h continuous operation
Battery type	lithium polymer
Display	128 x 160 pixel colour LCD
Environmental conditions	-10 ... +55 °C ≤ 80 % RH non-condensing
Dimensions	132 x 70 x 33 mm / 5.2 x 2.8 x 1.3 in (L x W x D)
Weight	approx. 150 g

**Handset:** must not be exposed to strong vibration, magnetic fields, corrosive media or dust

### Technical data of the vibration sensor

Sensitivity	100 mV/g
Frequency response (± 3 dB)	0.5 ... 15000 Hz
Frequency response (± 10 %)	2.0 ... 10000 Hz
Dynamic range	±50 g, peak
Power supply (IEPE)	18 ... 30 V DC
Constant current source	2 ... 10 mA
Spectral noise at 10 Hz	14 µg / √Hz
Spectral noise at 100 Hz	2.3 µg / √Hz
Spectral noise at 1000 Hz	2 µg / √Hz
Output impedance	< 100 Ω
Bias voltage	10 ... 14 V DC
Housing insulation	> 100 MΩ
Environmental conditions	-50 ... 121 °C / -58 ... 249.8 °F
Maximum impact protection	5000 g, peak
Resonant frequency	23,000 Hz
Housing material	316L stainless steel
Connection	2-pin MIL-C-5015
Protection class	IP 68
Weight	90 g / < 1 lb



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## MECHANICS STETHOSCOPE PCE-S 42

**Machine stethoscope to listen to bearings and motors / 32 sound levels**

The automotive-testing mechanics stethoscope PCE-S 42 is designed for listening to individual machine parts, which enables you to carry out maintenance and repair work using the machine stethoscope. The use of a machine stethoscope thus makes it easier to listen to sound phenomena in bearings and motors. This makes it possible to amplify noises that imply that the machine

is slightly damaged, which can cause severe impairments and damage to the machine if not observed. The machine stethoscope comes with headphones the shape of which is adapted to the human head and thus are perfectly suitable to be used in noisy environments. The big, padded earpieces have a noise-suppressing effect and at the same time offer wearing comfort.

- ▶ two different measuring tips
- ▶ non-stationary measuring device
- ▶ 32 volume levels
- ▶ headphones adapted to the human head
- ▶ for preventive maintenance and servicing
- ▶ noise-suppressing headphones



## APPLICATION



## TECHNICAL SPECIFICATIONS

Frequency range	30 Hz ... 15 KHz
Operating temperature	-10 ... +40 °C
Output volume	digitally adjustable (32 levels)
Headphones	32 Ω
Power supply	4 x AAA battery
Battery life	30 h
Dimensions	220 x 35 x 35 mm
Length sensors	70 / 280 mm



Subject to change without notice

## VIBRATION METER PCE-VDL 24I

### 3-axis acceleration up to 1600 Hz

The acceleration sensor of this 3-axis data logger has a sampling rate of 1600 Hz. The sensor measures the current acceleration (3 axes), for instance in case of a shock or vibration. The measurements are made in pre-set (selectable) time intervals. The data measured with the internal 3-axis acceleration sensor are saved to a 32 GB memory card. This makes the data logger perfectly

suitable to determine the acceleration for the purposes of fault diagnostics / stress test of components, machine monitoring, shock measurements and preventive maintenance in general.

### ISO cal option

- ▶ 3-axis acceleration up to 1600 Hz
- ▶ 32 GB SD memory card
- ▶ compact design: 86.8 x 44.1 x 22.2 mm
- ▶ country of origin Germany



## APPLICATION



## TECHNICAL SPECIFICATIONS

### Parameter 3-axis acceleration

Measurement range	±16 g
Accuracy	±0.24 g
Sampling rate	1600 Hz ... 1 Hz

### General technical data of the 3-axis acceleration sensor

Memory capacity	2.5 readings per measurement, 3.2 billion readings with included 32 GB microSD memory card
Keys	start / stop of a measurement; data logger on / off
LED	Log: operating status Alarm: alarm indicator Charge: charging status USB: status of PC connection
Power supply	integrated rechargeable Li-Ion battery 3.7 V / 500 mAh The meter is charged via the USB interface.
Integrated sensors	3-axis acceleration
Interface	USB
PC software	free setup an evaluation software (Windows XP / Vista / 7 / 8 / 10 32 bit / 64 bit) to record and evaluate data
Operating conditions	temperature -20 ... +65 °C
Storage conditions	temperature +5 ... +45 °C (ideal storage conditions for battery) 10 ... 95 % RH, non-condensing
Standards	complies with EU regulation RoHS/WEEE
Weight	approx. 60 g
Dimensions (L x W x H)	87 x 44 x 23 mm

### Optional accessories:

Mounting plate	Order code PCE-VDL MNT
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## DATA LOGGER PCE-VDL 16I

### For the parameters temperature, relative humidity, air pressure, light and vibration

The mechanical engineering data logger PCE-VDL 16I from PCE Instruments measures and records the relevant parameters temperature, relative humidity, air pressure, light as well as 3-axis acceleration by means of a vibration sensor. This makes the data logger the ideal tool for monitoring machine vibration and at the same time measuring and recording important

environmental conditions of the equipment. Depending on the sampling rate, the data logger can record for several days. The recorded readings are saved to the internal 32 GB SD card and can be transferred to other media for evaluation where required.

### ISO cal option

- ▶ 3-axis acceleration up to 800 Hz
- ▶ measures temperature, humidity, air pressure and light
- ▶ 32 GB SD memory card
- ▶ compact design: 86.8 x 44.1 x 22.2 mm
- ▶ country of origin Germany



## APPLICATION



## TECHNICAL SPECIFICATIONS

Parameter	
Temperature measuring range	-20 ... +65 °C
Accuracy	±0.2 °C
Sampling rate	1 s ... 1800 s
Relative humidity measuring range	0 ... 100 % RH
Accuracy	±1.8 % RH
Sampling rate	1 s ... 1800 s
Air pressure measuring range	10 ... 2000 mbar
Accuracy	±2 mbar (within range 750 ... 1100 mbar) otherwise ±4 m bar
Sampling rate	1 s ... 1800 s
Light measuring range	0.045 ... 188,000 lux
Sampling rate	1 s      1800 s
3-axis acceleration measuring range	±16 g
Accuracy	±0.24 g
Sampling rate	800 Hz      1 Hz

### General technical data of the mini data logger PCE-VDL 16I

Memory capacity	2.5 readings per measurement, 3.2 billion readings with included 32 GB memory card
Keys	start / stop of a measurement; data logger on / off
LED	Log: operating status Alarm: alarm indicator Charge: charging status USB: status of PC connection
Power supply	integrated rechargeable Li-Ion battery 3.7 V / 500 mAh The meter is charged via the USB interface.
Integrated sensors	3-axis acceleration
Interface	USB
PC software	free setup and evaluation software (Windows XP / Vista / 7 / 8 / 10 32 bit / 64 bit) to record and evaluate data
Operating conditions	temperature -20 ... +65 °C
Storage conditions	temperature +5 ... +45 °C (ideal storage conditions for battery) 10 ... 95 % RH, non-condensing
Standards	complies with EU regulation RoHS/WEEE
Weight	approx. 60 g
Dimensions (L x W x H)	87 x 44 x 23 mm

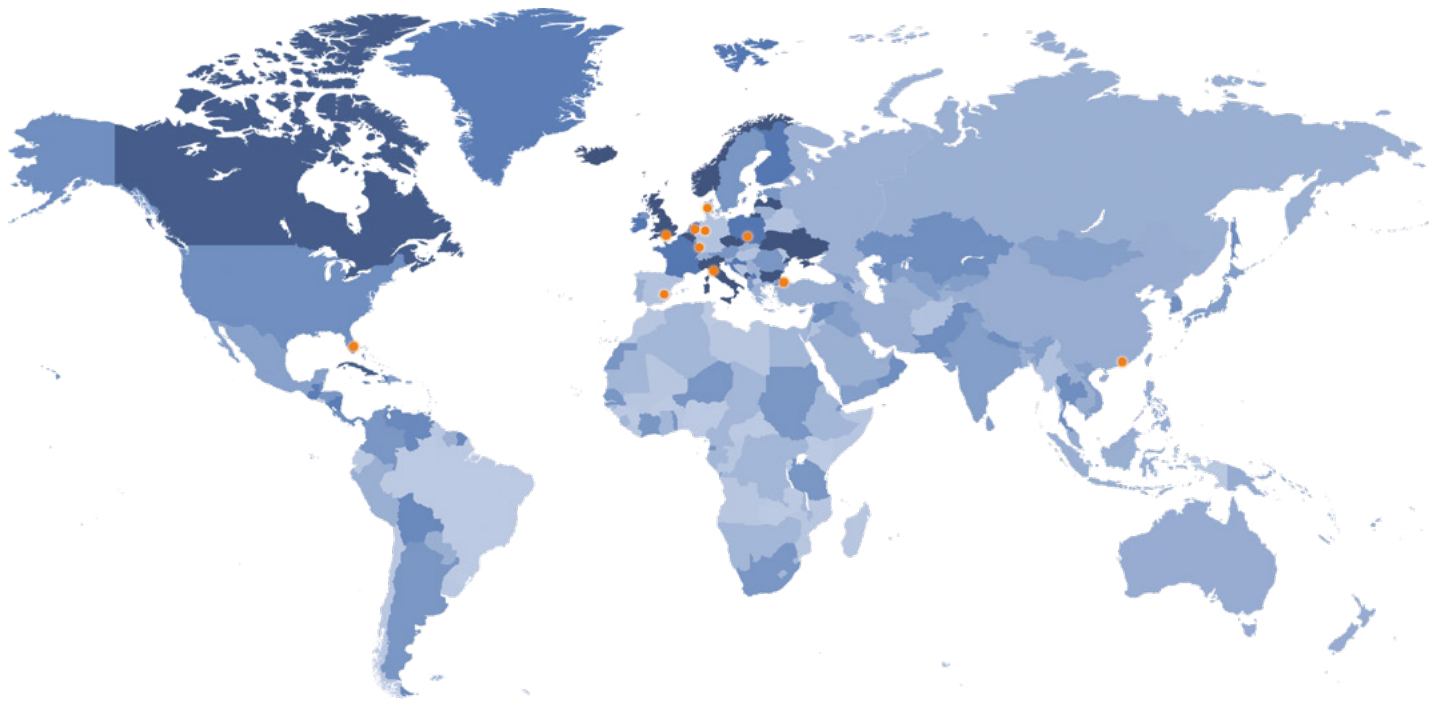
### Optional accessories:

Mounting plate      Order code PCE-VDL MNT



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# COMPANY LOCATIONS



## Contact

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