TEST EQUIPMENT FOR MAINTENANCE, SERVICE AND WORKPLACE SAFETY

29.03.2021 17:01

976 Hz

114 Hz

HOLD

0.0 Hz; 0.00 i

VIBRATION TESTER

PCE-VT 3900

0 Hz

MENU

MEASUREMENT

Discover our test instruments and their functions



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TEST INSTRUMENTS FROM GERMANY

Maintenance and Service

PCE Deutschland GmbH, based in Meschede-Freienohl in the Sauerland region of Germany, was founded in 1999 by three engineers. With more than 140 employees and locations worldwide, PCE Instruments specialises in the development, manufacture and sale of high-performance, innovative products in the fields of measurement technology, control technology, weighing technology and laboratory technology.

PCE Deutschland GmbH is DIN EN ISO 9001:2015 and DIN EN ISO 14001:2015 certified and manufactures test equipment that is customised to meet specific customer requirements. PCE Instruments supplies to customers in the government, industrial and academic sectors, among others.

PCE Instruments' comprehensive range of products and services offers you high precision and flexibility in all applications, as well as outstanding quality and functionality. Take a look at the categories in the overview.





PCE Instruments

Headquarters

PCE Deutschland GmbH Im Langel 26 59872 Meschede Germany

Phone

+49 (0) 2903 976 99 8903

Contact info@pce-instruments.com Subsidiary USA PCE Americas Inc.

1201 Jupiter Park Drive, Suite 8 Jupiter / Palm Beach 33458 FL, USA

Phone +1 (561) 320-9162

Contact info@pce-americas.com

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PCE-DFG X	(Series	
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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 volume, conductivity, redox, vibration acceleration and more.





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.

PCE-VOL 161

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

TECHNICAL SPECIFICATIONS

Parameter Temperature measuring range Accuracy Sampling rate	-20 +65 °C ±0.2 °C 1 s 1800 s
Relative humidity measuring range Accuracy Sampling rate	0 100 % RH ±1.8 % RH 1 s 1800 s
Air pressure measuring range Accuracy Sampling rate	10 2000 mbar ±2 mbar (within range 750 1100 ml 1 s 1800 s
Light measuring range Sampling rate	0.045 188,000 lux 1 s 1800 s
3-axis acceleration measuring range ±16 g Accuracy Sampling rate	±0.24 g 800 Hz 1 Hz
General technical data of the mini data logg	er PCE-VDL 161
Memory capacity Keys LED	2.5 readings per measurem included 32 GB memory car start / stop of a measureme Log: operating status Alarm: alarm indicator Charge: charging status USB: status of PC connectio
Power supply Integrated sensors Interface PC software	integrated rechargeable Li-I The meter is charged via the 3-axis acceleration USB free setup and evaluation so
Operating conditions Storage conditions Standards Weight Dimensions (L x W x H)	temperature -20 +65 °C temperature +5 +45 °C (id 10 95 % RH, non-condens complies with EU regulation approx. 60 g 87 x 44 x 23 mm

Optional accessories:

Mounting plate

Order code PCE-VDL MNT

APPLICATION







ibar) otherwise ±4 m bar

nent, 3.2 billion readings with rd ent; data logger on / off

n lon battery 3.7 V / 500 mAh ne USB interface.

oftware (Windows XP / Vista / 7 / 8 / and evaluate data

deal storage conditions for battery) sing NOHS/WEEE





VIBRATION MEASUREMENT 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 mesures 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



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

Keys LED

2.5 readings per measurement, 3.2 billion readings with included 32 GB microSD memory card start / stop of a measurement; data logger on / off Log: operating status Alarm: alarm indicator Charge: charging status USB: status of PC connection

Power supply

Integrated sensors Interface PC software

Memory capacity

Operating conditions Storage conditions

Standards Weight Dimensions (L x W x H) complies with EU regulation RoHS/WEEE approx. 60 g 87 x 44 x 23 mm

temperature -20 ... +65 °C

temperature +5 ... +45 °C

3-axis acceleration

USB

Optional accessories:

Mounting plate

Order code PCE-VDL MNT

APPLICATION







integrated rechargeable Li-Ion battery 3.7 V / 500 mAh The meter is charged via the USB interface.

setup and evaluation software included 10 32 bit / 64 bit) to record and evaluate data

(ideal storage conditions for battery) 10 ... 95 % RH, non-condensing





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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.



TECHNICAL SPECIFICATIONS

Measuring range	Acceleration	Optional ac
Resolution	0.0 m/s^2	PCF-VT NP
Accuracy (a) 160 Hz	+2 %	PCF-VT VM
i requericy range		
M	Mala site	PLE-VI 3XX
Measuring range	Velocity	
- 1.4	0.00 399.9 mm/s	Further mo
Resolution	0.1 mm/s	
Accuracy @ 160 Hz	±2 %	PCE-VT 375
Frequency range	10 Hz 1 kHz	PCE-VT 375
Measuring range	Displacement	
	0.000 3.9 mm	
Resolution	1µm	
Accuracu @ 160 Hz	+2 %	
Frequencu range	10 Hz 200 Hz	
Measurement parameters	RMS, Peak, Peak-Peak	
	Crest factor	
Units	switchable metric / imperia	I
Display	3.5" LC display	
Menu languages	English, German, French	
5 5	Spanish. Italian. Dutch	
	Portuguese, Turkish, Polish	1
	Russian, Chinese, Jananese	1
Power supplu	3 x 15 V AA hatteries	
Operating and storage conditions	-20 +65 °C / -4 149 °E · 1	IN 95%rH
Dimensions	$150 \times 80 \times 38 \text{ mm} / 59 \times 3$	1 x 1 5"
Woight	170 g / 6 oz	1 × 1.5
Weight	170 g / 0 02	
Sensor PCE-VT 3700	Sensor with spiral cable	
	PCE-VT 3xxx SENSOR	
	Magnet adapter PCE-VT VN	1H
Sensor PCE-VT 3700S	Sensor with spiral cable	
	PCE-VT 3xxx SENSOR	
	Magnet adapter PCE-VT VN	1H
	Needle sensor PCE-VT NP	
	Handgrip PCE-VT 3xxx HAN	IDLE
Technical data vibration sensor		
Resonance frequencu	30 kHz	
Transverse sensitivitu	<5 %	
Destruction limit	5000 a (neak)	
Operating and storage tomporature	-20 ±80 °C / _/ 176 °C ·	m⊃v Q5 % r⊔
Housing material	Stainloss stool	пах. ээ 70 і.П.
Housting thread		
Niouring Infeau Dimonsions		
Dimensions	ю х 36 mm / U.6 х I.4"	
weight (without cable)	35 g / 1.2 OZ	

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)ptional accessories:

PCE-VT NP PCE-VT VMH PCE-VT 3700 CASE AL-PCE-VT 3700 PCE-VT 3xxx SENSOR

urther models:

PCE-VT 3750 PCE-VT 37505 Needle sensor for vibration meter Magnet adapter Case with rigid foam insert ISO-calibration for vibration meter Replacement sensor

incl. sensor, magnetic adapter, headset incl. needle sensor with handgrip, headset



PCE-VT 3700



VIBRATION MEASUREMENT VIBRATION ANALYZER

PCE-VT 3800 / PCE-VT 38005

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/s² 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/s² / 15744 in/s²
- hand-held device for mobile vibration measurement **》**
- **>>** rechargeable battery
- **»** 2.48" LC display



APPLICATION







TECHNICAL SPECIFICATIONS

Measuring range

Resolution Accuracy @ 160 Hz Frequency range

Acceleration 0.0 ... 399.9 m/s² / 0.0 - 15744 in/s²

Velocity

±2 %

±2 %

10 Hz ... 1 kHz

Displacement

1 µm / 39.4 µin

10 Hz ... 200 Hz

Crest factor

values each

2.8" LC display

approx. 15 ... 20 h

non-condensing

IP52

RMS, Peak, Peak-Peak

Various start/stop triggers

English, German, French Spanish, Italian, Dutch

Portuguese, Turkish, Polish

Russian, Chinese, Japanese

external: USB 5 VDC, 500 mA

humidity: 10% RH ... 95% RH,

(depending on display brightness)

0.00 ... 399.9 mm/s / 0.00 - 15.74 in/s

0.000 ... 3.9 mm / 0.000 - 0.154 in

99 folders with 50 measured values each

Measurement interval between 1 s ... 12 h

internal: LiPo battery (3.7 V, 2.500 mAh)

temperature: -20 ... +65 °C / -4 ... 149 °F

can be switched to metric / imperial

0.1 mm/s / 0.0039 in/s

0.1 m/s² / 3.94 in/s² ±2 % 10 Hz ... 10 kHz 1 kHz ... 10 kHz

Measuring range

Resolution Accuracy @ 160 Hz Frequency range

Measuring range

Resolution Accuracy @ 160 Hz Frequency range

Measurement parameters

Manual memory Data logger

Units Display Menu languages

Power supply

Operating time

Operating and storage conditions

Protection Class Dimensions Weight

Technical Data Vibration Sensor

Resonance frequency Transverse sensitivity **Destruction limit** Operating and storage temperature

239 g / 8.4 oz 24 kHz ≤5 % 5000 g (peak)

165 x 85 x 32 mm / 6.5 x 3.3 x 1.3"

-55 °C ... +150 °C / -67 °F ... 302 °F



Housing material Mounting thread Dimensions Weight (without cable)

Sensor PCE-VT 3800

Sensor PCE-VT 3800S

Optional accessories:

PCE-VT NP PCE-VT VMH CAL-PCE-VT 3xxx PCE-VT 3xxx SENSOR

Further models:

PCE-VT 3850

PCE-VT 38505

stainless steel 1/4 - 28" Ø 17 x 46 mm / 0.67 x 1.8" 52 g / 1.8 oz

Sensor with spiral cable PCE-VT 3xxx SENSOR Magnet adapter PCE-VT VMH Sensor with spiral cable PCE-VT 3xxx SENSOR Needle sensor PCE-VT NP Handle PCE-VT 3xxx HANDLE

Needle sensor Magnet adapter ISO Calibration Certificate Replacement vibration sensor

incl. sensor, magnetic adapter, headset incl. needle sensor with handgrip, headset



PCE-VT 3800



PCE-VT 38005



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

Resolution Accuracy @ 160 Hz Frequency range

Measuring range

Resolution Accuracy @ 160 Hz

Measuring range

FFT acceleration FFT velocity Accuracy @ 160 Hz Number of FFT lines Route measurement

Accuracy @ 160 Hz Frequency range

Measurement parameters

Units Display Menu languages

Power supply

Operating time Operating / storage conditions

Dimensions Weight

Acceleration 0.0 ... 399.9 m/s² / 0.0 - 15744 in/s² 0.1 m/s² / 3.94 in/s²

Frequency range

Measuring range

Resolution

Manual memory

Data logger

±2 % 10 Hz ... 10 kHz 1 kHz ... 10 kHz 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

Rotational Speed 600 ... 50000 RPM

10 Hz ... 8 kHz 10 Hz... 1 kHz ±2 % 2048 100 routes each with 100 machines each with 100 measuring points with 1000 measured values each

Displacement

0.000 ... 3.9 mm / 0.000 - 0.154 in 1 µm / 39.4 µin ±2 % 10 Hz ... 200 Hz

RMS, Peak, Peak-Peak Crest factor 99 folders with 50 measured values each 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 2.48" LC display English, German, French, Spanish, Italian, Dutch, Portuguese, Turkish, Polish, Russian, Chinese, Japanese internal: LiPo battery (3.7 V, 2500 mAh) external: USB 5 VDC, 500 mA ca. 15 ... 20 h (depending on display brightness) temperature: -20 ... +65 °C / -4 ... 149 °F humidity: 10% RH ... 95% RH, non-condensing 165 x 85 x 32 mm / 6.5 x 3.3 x 1.3" 239 g / 8.4 oz

TRUST IN EVERY MEASUREMENT.



	Concernuith enivel cohio
Sensor PLE-VI 3900	Sensor with spiral cable
	PCE-VT 3xxx SENSOR
	Magnet adapter PCE-VT VMH
Sensor PCE-VT 3900S	Sensor with spiral cable
	PCE-VT 3xxx SENSOR
	Needle sensor PCE-VT NP
	Handle PCE-VT 3xxx HANDLE

24 kHz

≤5%

Technical Data Vibration Sensor

Resonance frequency Transverse sensitivity Destruction limit Operating and storage temperature

Housing material Mounting thread Dimensions Weight (without cable) 5000 g (peak) -55 °C ... +150 °C / -67 °F ... 302 °F stainless steel

1⁄4 - 28" Ø 17 x 46 mm / 0.67 x 1.8" 52 g / 1.8 oz

Optional accessories:

PCE-VT NP PCE-VT VMH CAL-PCE-VT 3xxx PCE-VT 3xxx SENSOR Needle sensor Magnet adapter ISO Calibration Certificate replacement vibration sensor

Further models:

PCE-VT 3950 PCE-VT 39505 incl. sensor, magnetic adapter, headset incl. needle sensor with handgrip, headset



PCE-VT 3900





RPM MEASUREMENT STROBOSCOPE

PCE-LES 103

LED tachometer with a range of 60 ... 300.000 flashes

The LED stroboscope PCE-LES 103 combines LED technology with intelligent and compact electronics for precise control of the flash frequency. The mobile handheld stroboscope is particularly suitable for non-contact measurement and visualisation of movements on machines and systems. The frequency of the PCE-LES 103 can be continuously adjusted between 1 and 5000 Hz (60 - 300,000 flashes

per minute). The high-power LEDs used ensure a particularly long service life of the light sources. The stroboscope achieves an illuminance of 6160 lux at 1000 Hz and a distance of 30 cm. A long operating time is achieved by the large Li-ion battery.

ISO cal option

- >> brightness: 3 High Power LEDs
- » UV models available
- » flash frequency up to 300.000 FPM
- » 6160 lux at 30 cm / 1000 Hz
- » adjustable flash duration and phase shift
- » phase shift: -360° to +360°
- » automatic shutdown



APPLICATION





TECHNICAL SPECIFICATIONS

Display Type TFT Color Display Display Size 2.8 inches **Operating Time** 4.5 hours Additional Information at flash frequency 100 Hz, 1%, display brightness 70% Adjustable Auto Shutdown 2 ... 10 min. Auto Shutdown Deactivatable Yes 11730 lux @ 20cm @ 1000Hz 1 % Brightness 6160 lux @ 30cm @ 1000Hz 1 % 2650 lux @ 50cm @ 1000Hz 1 % Light Color 6500 K Phase Shift -360 ... 360 ° Pulse Width 0.01 ... 1% of pulse duration Resolution: 0.01% 0.01 ° ... 3.60 ° of 360 ° Resolution: 0.01 ° Menu Language German, English, Spanish, French, Italian, Dutch, Turkish, Polish, Russian, Chinese IP52 Protection Class (Device) 5V DC, 2A Power Supply Weight 284 g Dimensions (L x W x H) 165 x 90 x 35 mm / 6,4 x 3,5 x 1,3 in Operating Conditions -20 ... 60 °C, 35 ... 85% r.H Storage Conditions -20 ... 60 °C, 35 ... 85% r.H Instruction Manual Languages German, English Frequency +60 FPM ... +9999.99 FPM Measurement Range 0.01 FPM Resolution 0.003 % of the setting or ±1LSD Accuracy Frequency +10000 FPM ... +300000 FPM Measurement Range 0.1 FPM Resolution 0.003 % of the setting or ±1LSD Accuracy Frequency Measurement Range +1 Hz ... +5000 Hz Resolution 0.01 Hz Accuracy 0.003 % of the setting or ±1LSD



Batteries and Accumulators

Туре	Lithium-Ion Battery
Lithium Info	Lithium in the product (built-in or included)
Capacity	2200 mAh
Voltage	7.4 V
System	Secondary: Rechargeable Battery /
	Accumulator Number
Further Models:	
PCE-LES 103UV-365	3 high power UVA LEDs
	UVA light 365 370 nm
PCE-LES 103UV-385	3 high power UVA LEDs
	UVA light 380 390 nm

With external trigger input and output

PCE-LES 303 PCE-LES 303UV-365 PCE-LES 303UV-385





RPM MEASUREMENT STROBOSCOPE

PCE-LES 108

with 8 High Power LEDs / 9150 lux @ 30cm @ 1000Hz 1%

Analysing the movement of rotating machines is guick and easy with our stroboscope. The stroboscope is equipped with 8 high-power LEDs, which together generate a light intensity of 17670 lux at 20 cm / 1000 Hz. The stroboscope allows you to precisely set the flash frequency in both FPM and Hz. The stroboscope is pocket-sized and is also mainsindependent thanks to the rechargeable battery. The stroboscope is

operated intuitively using the 10 buttons, allowing guick adjustments to be made. The phase shift allows the observation point to be moved variably. The pulse width can be used to set the duration and therefore also the intensity of the flash frequency.

ISO cal option

- » powerful 8 High Power LEDs
- flash frequency adjustable in FPM and Hz **>>**
- **》** 9150 lux at 30 cm / 1000 Hz
- digital pulse width modulation **>>**
- phase shift 360 ° ... + 360 ° **>>**
- quick adjustment using x2 and ÷2 button **>>**
- intuitive control buttons and clear display **>>**
- >> pocket size
- **》** route measurement
- **》** slow motion mode

APPLICATION







TECHNICAL SPECIFICATIONS

Frequency Measuring range Resolution Accuracy

60 ... 9999.99 FPM 0.01 FPM ±0.003 % of the setting or ±1 LSD

10000 ... 300000 FPM

0.1 FPM

Frequency Measuring range Resolution Accuracy

Frequency Measuring range Resolution Accuracy

General technical data

Display Type Display size Storage medium Operating time Operating time Hz,1%, Automatic switch-off from ... to Automatic switch-off can be deactivated Yes Light intensity

Light colour Phase shift Pulse width Resolution:

Resolution: Trigger

Output: Route measurement

Menu language

Protection class (device) Power supply Plug type Rechargeable battery/battery Capacity Operating conditions Storage conditions Dimensions (LxWxH) Weight

1... 5000 Hz 0.01 Hz ±0.003 % of the setting or ±1 LSD LC colour display 2.8 inch Internal memory 4.5 h Additional information at flash frequency 100 display brightness 70 % 2 ... 10 min.

17670 lux @ 20 cm @ 1000 Hz 1% 9150 lux @ 30 cm @ 1000 Hz 1% 4100 lux @ 50 cm @ 1000 Hz 1% 6200 K -360 ... 360 ° 0.01 ... 1 % of pulse duration 0.01% 0.01 ° ... 3.60 ° of 360 ° 0.01 ° input: Permissible input: NPN signal, 24 V DC, sensor supply: 24 V / 100 mA for external sensors Open-drain output, up to 24 V, 50 mA Up to 15 routes, 10 machines per route, 5 points per machine Turkish, English (US), Polish, Spanish, German, Chinese, Russian, French, Italian, Dutch IP52 5 V DC, 2 A Device Euro plug 1 x 7.4 V internal, lithium-ion battery 2200 mAh -20 ... 60 °C , 35 ... 85 % r. H. -20 ... 60 °C , 35 ... 85 % r. H. 165 x 90 x 35 mm 284 g



Further Models::

PCE-LES 108UV-365

PCE-LES 108UV-385

8 UVA HochleistungsLEDs UVA-Licht 365 ... 370 nm 8 UVA Hochleistungs LEDs UVA-Licht 380 ... 390 nm

With external trigger input and output ±0.003 % of the setting or ±1 LSD

PCE-LES 308 PCE-LES 308UV-365 PCE-LES 308UV-385





PCE-BTM 2000A

To measure the tension of V-belts or drive belts

The PCE-BTM 2000 is a measuring instrument to determine the tension of V-belts or drive belts. Belt tension can only be measured when the belt is not in operation. A small impulse with the help of a beater is enough to make the belt vibrate. With a measuring probe and a sensor beam, the generated vibration frequency is determined. The belt tension is calculated on the basis of the measuring data of

the natural frequency as well as the belt mass and the length of the free belt span. It is not necessary to enter the belt mass and the belt length. The maximum service life of V-belts or drive belts can only be achieved with ideal tension.

ISO cal option

- » measures vibration frequency of the belt
- » intuitive operation
- » calculation of belt tension (trum force)
- » displays belt tension in N
- » 6 menu languages
- » memory for 750 readings
- » sensor with gooseneck
- » belt length and belt mass can be entered

APPLICATION







TECHNICAL SPECIFICATIONS

Measurement range Accuracy Repeatability 10 ... 900 Hz ±(1 % of Rd + 4 digits) ±1 Hz

Resolution

<100 Hz: 0.1 Hz >100 Hz: 1 Hz

Sensor length

16 cm / 6,2 in

Belt length Belt mass max. 9.999 m max. 9.999 kg/m

3 x 1.5 V AA battery

150 x 80 x 38 mm

0 ... 50 °C; max. 95 % RH

-20 ... 65 °C; max. 95 % RH

approx. 200 g incl. batteries

Memory

750 readings 15 folders, 50 measuring points/folder

Menu languages

English, German, Spanish, French, Italian, Dutch

Power supply Operating conditions Storage conditions Dimensions Weight

Further Model: PCE-BTM 2000L

Sensor length 25 cm / 9,8 in











PCE-T 420

4 Channels for Various Thermocouples / Data Storage for 10 Million Readings

The 4-channel temperature meter for thermocouples allows for the display and archiving of measured values from multiple temperature sensors simultaneously. It can be connected to up to 8 different types of thermocouples. Notably, the data logger offers high accuracy, especially with Type K thermocouples, with an accuracy of ±(0.04% + 0.3 °C). The measurement overview of the 4-channel temperature meter

provides a quick overview of the 4 displayed temperatures. Another view displays the maximum, minimum, and average values since the start of measurement. Additionally, each channel can be compared with all other channels, showing the current measurement value of the channel and the difference from the reference channel.

ISO cal option

- >> measurement range from -200 ... +1800 °C
- **»** compatible with 8 types of thermocouples
- **»** adjustable storage interval from 1 s to 12 h
- **»** display of maximum, minimum, and average values
- storage capacity for 10 million readings **»**
- adjustable alarm thresholds **》**
- high accuracy ±(0.04 % + 0.3 °C)

APPLICATION







TECHNICAL SPECIFICATIONS

Temperature Type K Measurement Range Pesolution	-200 °C +1370 °C 0 1 °C	Battery Type Operating Duration	Lithium-Ion Polymer Battery 15 h Annrox, 15 – 20 h (depending on
Accuracy	± (0.04% + 0.3 °C)	display brightness)	
Temperature Type J Measurement Range Resolution	-200 °C +1050 °C 0.1 °C	Menu Language	English, German, French, Spanish Italian, Dutch, Portuguese, Turkis Polish, Russian, Chinese, Japanes Danish
Accuracy	± (0.04% + 0.3 °C)	Protection Class	IP52
Temperature Type S Measurement Range	0 °C +1750 °C	Operating Conditions Dimensions Weight	-20 65 °C, 10 95% r.H. 165 x 85 x 32 mm (L x W x H) 255 g
Accuracy	± (0.05% + 1 °C)	Optional accessories:	
Tomporature Tupe D		Llich Tomporature Concor	Order po TE E14
Temperature Type R Measurement Range Resolution Accuracy	0 °C +1750 °C 0.1 °C ± (0.05% + 1 °C)	High Temperature Sensor Surface temperature sensor Surface temperature roller sensor Screw-on Sensor Surface Sensor (actionation)	Order no.: IF-514 Order no.: PCE-SP-202 Order no.: PCE-SP-101 Order no.: TF-524
Temperature Type E Measurement Range Resolution	-200 °C +850 °C 0.1 °C	Magnetic Surface Sensor HT Surface Sensor Flexible Temperature Sensor	Order no.: TF-509 Order no.: TF-513 Order no.: TF-110A Order no.: TF-500
Accuracy Temperature Type T Measurement Range Resolution	± 0.6°C -200 °C +400 °C 0.1 °C	Screw-in Sensor Temperature Sensor Crocodile Clip Sensor Insulated Surface Temperature Sens High Temperature Sensor (extra Ion	Order no.: IF-119 Order no.: TF-101 Order no.: TF-109 sor Order no.: TF-102A g) Order no.: TF-104B
Accuracy	± 0.6°C	Penetration / Immersion Sensor	Order no.: TF-106
Temperature Type N Measurement Range Resolution Accuracy	-200 °C +1300 °C 0.1 °C ± 0.6°C		
Temperature Type B Measurement Range Resolution Accuracy	+600 °C +1800 °C 0.1 °C ± (0.05% + 1 °C)		
General Technical Data			
Inputs	4 channels for thermocouples	i	
Display Type	LCD		
Display Size Storage Capacity	2.8 inches 100 data sets up to 100,000 readings per da	ata set	
Storage Interval	1 43,200 s		
Data Interface	USB-C		
Power Supply	USB 5V DC 500mA		
Battery Capacity Battery Voltage	2,500 mAh 3.7 V		Subject to change without no



sh, se,



ACOUSTIC MEASUREMENT CALIBRATOR



Class I / Sound pressure level 94 and 114 db

The sound calibrator is a battery powered sound source. With the sound calibrator, direct and fast calibrations of sound level meters and other systems for noise measurement can be carried out. Sound level sensors of 1, ½ and ¼ inch can be connected to the sound calibrator and checked via the adapter attachments.

The calibration frequency for the sound calibrator is 1000 Hz. This is the reference frequency for the internationally standardized evaluation curves. With this sound calibrator you can calibrate sound measuring devices with weighting filters A, B, C, or D. The calibration pressure for this sound calibrator is $94 \pm 0.3 \text{ dB}$ (1 Pa) and $114 \pm 0.3 \text{ dB}$ (10 Pa).

ISO cal option

- » sound pressure level 94 and 114 db
- » for weighting filters A, B, C, D
- » ready for immediate use
- **»** accuracy class 1, IEC 942
- **»** easy handling
- » adapter for various microphones



TECHNICAL SPECIFICATIONS

Sound pressure level Accuracy class Sound level accuracy 94 dB, 114 dB IEC 942, class 1 ±0.3 dB (20 °C / 68 °F, 760 mm Hg)

Frequency Accuracy frequency

Microphone size Display Height dependency Temperature coefficient Battery status Power supply Operating conditions

Storage conditions

Dimensions Weight

1000 Hz for A, B, C and D frequency weighting

± 0.01%

1", 1/2" (with included adapter), 1/4" (with optional adapter) digital 0.1 dB per 610 m difference in height from zero level 0 ... 0.01 dB / °C / °F graphical display of the battery status 2 x 1.5 V AA batteries -10... 50 °C / 14 ... 122°F 20 ... 90 % r. H., not condensing -40 ... 65°C / -40 ... 149°F 20 ... 90 % r. H., non-condensing (without battery)

100 mm x 100 mm x 75 mm / 3.9 x 3.9 x 3 in (L x W x H) 250 g / < 1 lb

APPLICATION









CONDUCTIVITY MEASUREMENT CONDUCTIVITY TESTER FOR NFE METALS

PCE-COM 20

With wide measuring range of up to 112 % IACS or 65 MS/m

The conductivity tester for measuring the electrical conductivity of non-ferrous metals such as aluminium or copper belongs to the group of NDT devices. The conductivity tester is used in non-destructive material testing. By means of the eddy current measuring principle which has proven for this application, the electrical conductivity of metallic materials can be determined quickly and precisely. With its

operating frequency of 60 kHz, the conductivity tester has a wide measuring range of 0.51 ... 112 % IACS and reaches an accuracy of +/-0.5 % at 20 °C, with a resolution of up to 0.01 % IACS.

ISO cal option

- » user-friendly hand-held meter
- memory for up to 500 groups of measurements **>>**
- **》** durable internal rechargeable battery
- **>>** lift-off and temperature compensation
- **>>** adjustable backlight
- for mobile use **>>**
- automatic calibration **>>**
- **>>** operating frequency of 60 kHz
- **》** incl. 3 calibration plates (titanium 1.03 % IACS, bronze 8.11 % IACS and copper 100 % IACS)







🔒 (Messum #IACS 29.20 (20°C) f= 60KHz 0(20)=29.20 ..=0.0038 SURFACE CONDUCTIVITY METER

CE



TECHNICAL SPECIFICATIONS

Operating frequency Conductivity measuring range

Conductivity resolution

Conductivity accuracy

Lift-off effect Temperature measuring range Temperature accuracy Automatic compensation

Operating conditions Display Menu languages Power supply Probe Memory Data interface Dimensions Weight

Optional accessories:

Calibration standard titanium Calibration standard brass Calibration standard magnesium Calibration standard magnesium Calibration standard copper Calibration standard copper Calibration standard copper Calibration standard bronze Calibration standard bronze Calibration standard bronze Calibration standard aluminium Calibration standard aluminium Calibration standard aluminium Calibration standard aluminium

60 kHz. sine wave 0.51 % IACS ... 112 % IACS 0.3 MS/m ... 65 MS/m resistance 0.015388 ... 3.33333 Ω•mm²/m 0.01 % IACS (at <51 % IACS) 0.1 % IACS (at 51 % IACS ... 112 % IACS) ±0.5 % at +20 °C / 68 °F ±1 % at 0 ... +40 °C / 32 ... 104 °F probe compensation 0.5 mm 0 ... +50 °C / 32 ... 122 °F ±0.5 °C Automatic adjustment of conductivity result to the value at 20 °C / 68 °F 0 ... 50 °C / 32 ... 122 °F, 0 ... 95 % RH LCD with backlight English, German, Chinese (simplified) internal rechargeable battery Ø 14 mm / ≈ 0.55 in up to 500 groups of measurement values USB 220 x 95 x 35 mm / 8.66 x 3.74 x 1.38 in 415 g / 1 lb (with probe)

1.02 % IACS Order code PCE-COM 20-CP1 21.02 % IACS Order code PCE-COM 20-CP9 11.88 % IACS Order code PCE-COM 20-CP11 31.88 % IACS Order code PCE-COM 20-CP3 87.24 % IACS Order code PCE-COM 20-CP10 60.69 % IACS Order code PCE-COM 20-CP8 101.03 % IACS Order code PCE-COM 20-CP13 8.47 % IACS Order code PCE-COM 20-CP12 10.55 % IACS Order code PCE-COM 20-CP5 15.24 % IACS Order code PCE-COM 20-CP2 15.29 % IACS Order code PCE-COM 20-CP7 32.07 % IACS Order code PCE-COM 20-CP6 57.41 % IACS Order code PCE-COM 20-CP4 41.21 % IACS Order code PCE-COM 20-CP14





MAGNETIC FIELD MEASUREMENT ELECTROMAGNETIC FIELD GAUGE

PCE-MFM 2400 SERIES

Tesla and Gauss measurement for static magnetic fields

With a measuring range up to 2,400 mT, the electromagnetic field meter covers a wide range of measuring tasks. The electromagnetic field meter has an accuracy of 1 % which makes it a very precise meter. The electromagnetic field meter can be used, for instance, to test relays and permanent magnets for existing magnetic fields. It is therefore often used in production processes or in quality control.

With the backlight of the electromagnetic field meter, the measured values are always easy to read even under poor lighting conditions.

ISO cal option

- >> very precise measurement technology
- **»** measuring range up to 24,000 G and 2,400 mT
- **>>** transversal and axial sensor
- measures static magnetic fields **>>**
- automatic shutdown **>>**

APPLICATION







TECHNICAL SPECIFICATIONS

Measuring range 0... 200 mT 200... 2,400 mT 0 ... 2,000 G 2,000 ... 24,000 G ±1 % of Rd Accuracy Resolution 0.01 mT 0.1 g Measuring direction Transversal Magnetic field Static (DC) Unit mT, G 1 x 9 V block battery Power supply Automatic shutdown Automatic shutdown after 5 minutes in idle status Modes Hold mode, measurement mode Display Backlight, digital 4-digit display 32 ... 122 °F, / 0 ... 50 °C Operating temperature -4 ... 122 °F / 20 ... 50 °C Storage temperature 185 x 97 x 40 mm / 7.28 x 3.82 x 1.57 in Dimensions Weight 0.68 lb, 310 g Further Models: PCE-MFM 2400 Sensor Hall sensor transversal, cable length approx. 3.28 ft., 1 m PCE-MFM 2400+ Axial Hall sensor, cable length approx. 6.56 ft., 2 m Sensor PCE-MFM 2400+ PCE-MFM 2400







THICKNESS MEASUREMENT COATING THICKNESS GAUGE

PCE-CT 80 SERIES

Paint layer thickness gauge for Fe and NFe

The paint layer thickness gauge PCE-CT 80 is a measuring device for the non-destructive measurement of coatings (lacquers, paints, plastics ...) on steel / iron and non-ferrous metals. Thanks to the externally connected sensor on the PCE-CT 80 paint coating thickness gauge, even difficult-to-reach measuring locations can be easily reached. The menu navigation of the paint thickness gauge allows easy adjustment and setting to new parameters and makes this handy paint coating thickness gauge an indispensable tool for control measurements in production, workshop and quality assurance.

ISO cal option

- » for many materials such as iron, steel, aluminium, copper, brass and stainless steel
- **》** measurements cannot be influenced by vibrations
- **》** wear-resistant, spring-mounted measuring head for precise measurement results
- practical V-groove on the measuring heads **》**
- **》** internal data memory
- warning for measurements exceeding the measuring range »
- **»** all PCE-CT 80 HP models feature a particularly high accuracy

APPLICATION



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COATING THICKNESS Min Max 11.8 µm 14.9 µm PCE-CT 80HP HIGH PRECISION REFRESH

TECHNICAL SPECIFICATIONS

Measurement range

Fe: 0 ... 5000 µm / 0 ... 196.9 mils (depending on probe) NFe: 0 ... 3000 µm / 0 ... 118.1 mils (depending on probe)

±(2 % v. Rd. + 1 µm)

±(1% v. Rd. + 1µm)

0.1 µm (<100 µm) 1 µm (>100 µm)

Accuracy PCE-CT 80 Serie PCE-CT 80 HP Serie

Resolution

Measurable materials

Min. radius of curvature convex Min. radius of curvature concave Min. measuring surface Min. layer thickness

Probe mode

Measurement modes

Calibration Units Data transfer Memory

Statistical functions Alarm Operating time Power supply Display Displayed information Operating conditions Storage conditions Dimensions Weight

Models:

PCE-CT 80-F5N3 PCE-CT 80-FN0D5 PCE-CT 80-FN1D5 PCE-CT 80-FN2 PCE-CT 80-FN2D5 PCE-CT 80-FN3

PCE-CT 80HP-F5N3 PCE-CT 80HP-FN0D5 PCE-CT 80HP-FN1D5 PCE-CT 80HP-FN2 PCE-CT 80HP-FN2D5 PCE-CT 80HP-FN3

Non-magnetic layers on steel, iron, ... Non-electrically conductive layers on aluminium, copper, ... 5 mm 25 mm Ø 17 mm 0.2 mm (on magnetic materials) 0.05 mm (on non-magnetic materials) Autom. mode with material detection (Fe + NFe) Magnetic mode (Fe) Eddy current mode (NFe) Single measurement Continuous measurement Multipoint calibration (1... 4 points for each group) zero point calibration µm, mm, mils USB 2.0 One volatile measuring group (DIR mode) Four measuring groups with autom. storage and max. 2000 readings (GEN mode)

Number of measured values, mean, minimum, maximum, standard deviation Display when the adjustable upper and lower alarm limits are exceeded Auto Power Off mode (3 min) 3 x 1.5 V AAA batteries 128 x 128 px LCD Battery status / flaw detection 20 ... 90 % RH not condensing 0 ... 50 °C / 32 ... 122 °F / -10 ... 60 °C / 14 ... 140 °F / 20 ... 90 % RH not condensing 143 x 71 x 37 mm / 5.6 x 2.8 x 1.5 in (L x W x H) with sensor and batteries: approx. 271 g / <1 lb

Measurement range: Fe: 0 ... 5000 µm, NFe: 0 ... 3000 µm Measurement range: Fe: 0 ... 500 µm, NFe: 0 ... 500 µm Measurement range: Fe: 0 ... 1500 µm, NFe: 0 ... 1500 µm Measurement range: Fe: 0 ... 2000 µm, NFe: 0 ... 2000 µm Measurement range: Fe: 0 ... 2500 µm, NFe: 0 ... 2500 µm Measurement range: Fe: 0 ... 3000 µm, NFe: 0 ... 3000 µm

Measurement range: Fe: 0 ... 5000 µm, NFe: 0 ... 3000 µm Measurement range: Fe: 0 ... 500 µm, NFe: 0 ... 500 µm Measurement range: Fe: 0 ... 1500 $\mu m,$ NFe: 0 ... 1500 μm Measurement range: Fe: 0 ... 2000 µm, NFe: 0 ... 2000 µm Measurement range: Fe: 0 ... 2500 µm, NFe: 0 ... 2500 µm Measurement range: Fe: 0 ... 3000 µm, NFe: 0 ... 3000 µm







FLOW MEASUREMENT ULTRASONIC FLOW METER

PCE-TDS 200 SERIES

Flow velocity / volume flow and volume / heat quantity

The flow meter has a measuring range of ±32 m/s. With an accuracy of ± 1.5 % f.s. for a pipe diameter of DN ≥ 50 , ± 3.5 % f.s. for a pipe diameter of DN <50 and a reproducibility of ±0.5 % f.s., the flow meter is a particularly precise measuring device. The installation aid graphically displays the signal quality from the flow meter. In addition, it is graphically displayed whether the sensors of the flow meter are positioned

at the correct distance from each other. To carry out flow measurement with the flow meter, the flow velocity, the volume flow and the volume are displayed after entering the pipe and medium specifications.

ISO cal option

- >> measuring range: ±32 m/s
- **》** reproducibility of ±0.5 % of the measured value
- **》** various ultrasonic probes available
- heat quantity measurement (only PCE-TDS 200+ series) **>>**
- data memory for 10 million measuring points (32 GB) **》**
- individually adjustable alarm limits **>>**
- **》** USB-C interface for data transfer
- **》** optional: software and calibration certificate ISO or DAkkS



APPLICATION





User defined (manual input of the sound velocity of the pipe material) No lining Epoxy resin Rubber Mortar Polystyrene PS Polyethylene PE Polytetrafluoroethylene PTFE Polyurethane PU Polypropylene PP User defined (man. Input of the longitudin Sound velocity of the inner lining of the pipe)

TECHNICAL SPECIFICATIONS

Flow measurement

Measuring range ±32 m/s 0.001 m/s ±1.5 % of Rd for velocities >0.3 m/s Accuracy $DN \ge 50 \text{ mm}$ Accuracy DN < 50 mm ±3.5 % of Rd for velocities >0.3 m/s ±0.5 % of Rd Temperature resistance -30 ... +160 °C N/V/W/Z Measuring method

Petrol

Medium

Resolution

Repeatability

Diesel Ethanol Sea water Methanol Oil Petroleum Crude oil Water User defined (manual input of sound velocity from the medium) Suitable for all liquids with an impurity of less than 5 %.

Pipe material

Copper CU Steel FE Stainless steel VA Aluminium AL Brass ME Cast iron CI Iron FE Nickel NI Titanium TI Zinc ZI Acrylic AC Polyethylene PE Polypropylene PP Polyvinyl chloride PVC Nylon NY

Inner pipe lining

Temperature (only PCE-TDS 200+)

Measuring range	type B	600 1800 °C
	type E	-100 900 °C
	type J	-100 1150 °C
	type K	-100 1370 °C
	type N	-100 1150 °C
	type R	0 1700 °C
	type S	0 1500 °C
	type T	-100 +400 °C
Resolution	0,1 °C	
Accuracy	type B	±(0,5 % + 3 °C)
	type E	±(0,4 % + 1 °C)
	type J	±(0,4 % + 1 °C)
	type K	±(0,4 % + 1 °C)
	type N	±(0,4 % + 1 °C)
	type R	±(0,5 % + 3 °C)
	type S	±(0,5 % + 3 °C)
	type T	±(0,4 % + 1 °C)



FLOW MEASUREMENT ULTRASONIC FLOW METER

TECHNICAL SPECIFICATIONS

Further specifications

Measuring parameters flow velocity / volume flow / volume PCE-TDS 200 Measuring parameters flow velocity / volume flow / volume PCE-TDS 200+ Temperature / Heat output / Heat quantity Unit | linear dimension mm / in m/s / ft/s Unit | Flow velocity $m^3/l/gal/igl/mgl/cf/bal/ib/ob$ Unit | Flow rate m³ / l / gal / igl / mgl / cf / bal / ib / ob Unit | Volume °C/°F Unit | Temperature K / kJ / MJ / Wh / kWh / MWh / Btu / Unit | Heat quantity kBtu / MBtu Unit | Heat output W / kW / MW / J/h / kJ/h / MJ/h / Btu/h / kBtu/h / MBtu/h Unit | Cost display €/£/\$/TL/Zł/¥ second / minute / hour / day Date / Time Display LCD of 2.8 Units metric / Imperial 10 million values (32 GB) Memory German / Chinese / Danish / English / Turkish / Menu languages French / Italian / English / Turkish / French / Italian Italian / Japanese / Dutch / Polish / Portuguese / Russian / Polish / Portuguese / Russian / Spanish Operating and -20 ... +65 °C Storage conditions 10 ... 95 % H.r. non-condensing Interface USB | For online measurement, reading out of the internal memory and for recharging the battery IP52 Protection class LiPo battery / 3.7 V / 2500 mAh Power supply USB / 5 V DC / 500 mA Charger approx. 10 h Operating time 165 x 85 x 32 mm Dimensions Weight 255 g

Sensor Orderno.	Nominal diameter in DN *	Dimensions Sensor	Temperature Measuring range	Rail
PCE-TDS 200 L SENSOR	DN 300 6000	70 x 40 x 37 mm	-30 160 °C	no
PCE-TDS 200 M SENSOR	DN 50 700	70 x 40 x 37 mm	-30 160 °C	no
PCE-TDS 200 MR SENSOR	DN 50 700	280 x 60 x 40 mm	-30 160 °C	yes
PCE-TDS 200 S SENSOR	DN 15 100	45 x 30 x 30 mm	-30 160 °C	no
PCE-TDS 200 SR SENSOR	DN 15 100	198 x 45 x 25 mm	-30 160 °C	ues

*The nominal diameter is the inside diameter of a pipe.

Note : If you order the sensor later, we need the PCE-TDS 200 device to adapt the sensor to the device.



TECHNICAL SPECIFICATIONS

Model PCE-TDS 200	Sensors are included in the scope of delivery Standard version
PCE-TDS 200 L PCE-TDS 200 M PCE-TDS 200 MI	PCE-TDS 200 L SENSOR for DN 300 6000 PCE-TDS 200 M SENSOR for DN 50 700 PCE-TDS 200 M SENSOR for DN 50 700
	PCE-TDS 200 L SENSOR for DN 300 6000
PCE-TDS 200 MR	PCE-TDS 200 MR SENSOR for DN 50 700
PCE-TDS 200 S	PCE-TDS 200 S SENSOR for DN 15 100
PCE-TDS 200 SL	PCE-TDS 200 S SENSOR for DN 15 100
	PLE-TUS 200 L SENSUR for DN 300 6000
	PCE-TDS 200 3 SENSOR 101 DN 15 100 PCE-TDS 200 M SENSOR for DN 50 700
PCF-TDS 200 SMI	PCE-TDS 200 M SENSOR for DN 15 100
	PCE-TDS 200 M SENSOR for DN 50 700
	PCE-TDS 200 L SENSOR for DN 300 6000
PCE-TDS 200 SR	PCE-TDS 200 SR SENSOR for DN 15 100
Model	Sensors included in the scope of deliveru
PCE-TDS 200+	Version with temperature sensors
	PCE-TDS 200 L SENSOR TOT DN 500 0000
PCE-TDS 200+ M	PCE-TDS 200 M SENSOR for DN 50 700
	PCE-TDS 200 L SENSOR for DN 300 6000
PCE-TDS 200+ MR	PCE-TDS 200 MR SENSOR for DN 50 700
PCE-TDS 200+ S	PCE-TDS 200 S SENSOR for DN 15 100
PCE-TDS 200+ SL	PCE-TDS 200 S SENSOR for DN 15 100
	PCE-TDS 200 L SENSOR for DN 300 6000
PCE-TDS 200+ SM	PLE-TDS 200 S SENSUR for DN 15 100
PLE-TUS 200+ SIML	PCE-TDS 200 3 SENSOR 101 DN 15 100 PCE-TDS 200 M SENSOR for DN 50 700
	PCE-TDS 200 L SENSOR for DN 300 6000
PCE-TDS 200+ SR	PCE-TDS 200 SR SENSOR for DN 15 100
Accessories	
CAL-PCE-TDS-ISO	ISO Calibration Certificate
CAL-PCE-TDS-DAkkS	DAkkS Calibration Certificate
CAL-T2	Calibration certificate for 2-channel thermome
Additional sensors	see table above
PCE-TDS 200 case	spare transport case
PCE-TDS 200 SW	software
TF-RA330	Temperature Contact Sensor Typ T, 1 m
TF-RA330-3	Temperature Contact Sensor Typ T, 3 m
1F-RA330-5	Temperature Contact Sensor Typ, 5 m
	UITRASONIC LONTACT GEI, 100 MI High Tomporature Coupling Col. 100 ml
11-061	nigh remperature coupling del, IOO III



Delivery Scope

1 x Ultrasonic flow meter PCE-TDS 200 1 x Flow sensors (depending on model) 2 x Temperature sensor TF-RA330 (only PCE-TDS 200+) 2 x Connection cable 5 m 2 x detachable cable ties 1 x power supply unit 1 x USB-C cable 1 x ultrasonic contact gel 1 x PCE measuring tape 1 x plastic case 1 x instruction manual



neter



THICKNESS MEASUREMENT ULTRASONIC THICKNESS GAUGE

PCE-TG 75A

Material thickness measurement up to 225 mm

The thickness meter can measure material thicknesses up to 225 mm / 8.85". So that the material thickness of a wide variety of homogeneous materials can be measured, it is possible to store the corresponding speed of sound in the thickness meter. For materials such as steel, aluminum, zinc, silver and gold, the appropriate sound speeds are already stored in the device library. This means that the thickness meter can be used universally. With the limit value function in the thickness meter, individual maximum and minimum values can be stored. If the measured value of the test piece is outside the limits, the thickness meter signals this visually.

ISO cal option

- >> measured value memory
- **»** calibration reference on the housing
- **>>** automatic shutdown
- material thickness measurement up to 225 mm / 8.85" **>>**
- battery status indicator **》**
- optionally with ISO calibration certificate **》**



TECHNICAL SPECIFICATIONS

Measuring range Resolution

Accuracy

Storage space Probe frequency Standard sensor

Further specifications

Adjustable speed of sound Smallest pipe diameter Material library Calibration reference Display

Power supply Automatic switch-off Ambient conditions Dimensions Weight

Optional accessories:

Standard probe for the PCE-TG 75/150

1.00 ... 225.0 mm / 0.04 ... 8.85" 0.01 mm at ≤99.99 mm 0.1 mm at ≥100.0 mm ±0.5 % of measured value + 0.05 mm

500 measured values 5 MHz sensor PCE-TG 5M10d

1000 ... 9999 m/s Ø 20 x 3 mm (steel) 15 memory locations 4 mm 2.4 inch TFT LCD color display with brightness adjustment 3 x 1.5 V AA batteries switched off, 2, 5, 10, 30 minutes 0 ... 40 °C / 32 ... 104 °F, <90 % RH, non-condensing 168 x 87 x 35 mm / 6.4 x 3.2 x 1.5" 230 g / 8.1 oz

Order no.: PCE-TG 5M10d

APPLICATION













THICKNESS MEASUREMENT **ULTRASONIC THICKNESS GAUGE**

PCE-TG 150A

Material thickness meter up to 300 mm

The thickness meter can measure material thicknesses up to 300 mm / 11.81". So that the material thickness of a wide variety of homogeneous materials can be measured, it is possible to store the corresponding speed of sound in the thickness meter. For materials such as steel, aluminum, zinc, silver and gold, the appropriate sound speeds are already stored in the device library. This means that the thickness meter can be used universally. With the limit value function in the thickness meter, individual maximum and minimum values can be stored. If the measured value of the test piece is outside the limits, the thickness meter signals this visually.

ISO cal option

- >> measured value memory
- **》** calibration reference on the housing
- **>>** automatic shutdown
- material thickness measurement up to 300 mm / 11.81" **>>**
- battery status indicator **>>**
- data logger **>>**
- **》** optionally high temperature sensor
- **>>** optionally with ISO calibration certificate

APPLICATION







TECHNICAL SPECIFICATIONS

Measuring range Resolution

Accuracy

Storage space Probe frequency Standard sensor

Further specifications

Adjustable speed of sound Smallest pipe diameter Material library Calibration reference Display

Power supply Automatic switch-off Ambient conditions Dimensions Weight

Further Model:

PCE-TG 150A HT

1.00 ... 300.0 mm / 0.04 ... 11.81" 0.01 mm at ≤99.99 mm 0.1 mm at ≥100.0 mm ±0.5 % of measured value +0.05 mm

1500 measured values 5 MHz / 2.5 MHz sensor PCE-TG 5M10d

1000 ... 9999 m/s Ø 20 x 3 mm (steel) 15 memory locations 4 mm 2.4 inch TFT LCD color display with brightness adjustment 3 x 1.5 V AA batteries switched off, 2, 5, 10, 30 minutes 0 ... 40 °C / 32 ... 104 °F, <90 % RH, non-condensing 168 x 87 x 35 mm / 6.4 x 3.2 x 1.5" 230 g / 8,11 oz

Probe frequency 5 MHz

PCE-TG 150 F2.5

Probe frequency 2.5 MHz

Optional accessories:

2.5 Mhz sensor High temperature sensor Miniature sensor Standard probe for the PCE-TG 75A/150A Order no.: PCE-TG 2.5M Order no.: PCE-TG HT Order no.: PCE-TG 5M6d Order no.: PCE-TG 5M10d









THICKNESS MEASUREMENT WALL THICKNESS GAUGE

PCE-TG 300 SERIES WITH BLUETOOTH

With a wide measuring range of up to 600 mm

The PCE-TG 300 is a wall thickness gauge with special probes for various applications. In general, the wall thicknesses of all homogeneous materials can be measured with the PCE-TG 300. For damping or scattering materials such as plastic or cast iron, a special probe is available. An angled 90 ° probe also enables measurements at hardto-reach measuring positions. The speed of sound can be set freely

ISO cal option

- » wide measuring range
- **》** various probes available
- **》** battery operation

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- fault and cavity detection **>>**
- internal measurement data memory **>>**
- **》** printing via Bluetooth

and thus adapted to a wide variety of materials. The measured values are displayed directly on the easy-to-read TFT colour display.



TECHNICAL SPECIFICATIONS

Measuring range Accuracy	PE: pulse-echo mode 0.65 600 mm (steel) ±0.04 mm H [mm] (< 10 mm); ±0.4 % H [mm] (> 10 mm) H refers to the material thickness of the
Resolution Measurable materials	O.1 mm / 0.01 mm / 0.001 mm (adjustable) Metals Plastics Ceramics Epoxy resin Glass
Working modes	and all homogeneous materials Pulse echo mode (fault and cavity detection) Echo-Echo mode (hiding layer thicknesses, e.g. lacquers)
Calibration	Sound velocity calibration Zero point calibration Two-point calibration
View mode	Normal mode, scan mode, difference mode
Units	mm / inch
Data transfer	Printing via Bluetooth / USB 2.0
Memory	Non-volatile memory with 100 data groups
	with IUU data sets each
Operating time	Continuous operation 100 h
	Automatic stand-by mode (adjustable)
	Automatic power off mode (adjustable)
Power supply	4 x AA battery 1.5 V
Display	320 x 240 pixel TFT LCD colour display with
0	
Uperating conditions	U 5U °C / 32 122 °F, ≤8U % RH non condensing
Storage conditions	-20 /0 °C / -4 158 °F, ≤80 % RH non-
D ¹	condensing
Dimensions	185 x 97 x 40 mm / 7.3 x 3.8 x 1.6 in
Weight	375 g / <1 lb
Models	
PCE-TG 300-P5EE	
Frequency	5 MHz
Diameter	10 mm
Measurement range	P-E: 2 600 mm, E-E: 2,5 100 mm Minimum pipe

PCE-TG 300-NO2 Frequency / Ø Measurement range

diameter

Description

Description

(not suitable for curved materials) 2.5 MHz / 14 mm 3 ... 40 mm (steel) 3 ... 300 mm (steel) For damping / scattering materials (plastics, cast iron)

normal measurement and E-E test

20 x 3 mm

APPLICATION









PCE-TG 300-N05

Frequency / Ø Measurement range Minimum pipe diameter Description

PCE-TG-300-N05/90 NO5 / 90 °

Frequency / Ø Measurement range Minimum pipe diameter Description

PCE-TG 300-N07

Frequency / Ø Measurement range Minimum pipe diameter Description

PCE-TG 300-HT5

Frequency / Ø Measurement range Minimum pipe diameter Description

5 MHz / 10 mm 1... 600 mm (steel)

20 x 3 mm normal measurement

5 MHz / 10 mm 1... 600 mm (steel)

20 x 3 mm normal measurement

7 MHz / 6 mm 0.65 ... 200 mm (steel)

15 x 2 mm for thin-walled or strongly curved pipes

5 MHz / 12 mm 1... 600 mm (steel)

30 mm for high temperatures (max. 300 °C)



FORCE MEASUREMENT DIGITAL FORCE GAUGE

PCE-DFG X SERIES

Force gauge with internal load cell for tensile and compressive force measurement up to 1,000 N

The force measuring device can be used to record both tensile and compressive forces with high accuracy. Tensile and compressive forces are often measured in the test laboratory. For example, to determine the yield point, the tear-off force or the force required to actuate buttons or switches. The force gauge has an internal measuring cell and can measure forces up to 1,000 N. Various eyelets or

hooks with an M6 thread can be attached to the measuring cells. It is also possible to attach your own devices to the measuring cell using these threads. The internal memory of 32 GB offers space for 30 million measuring points. This allows measurement logs to be created, saved and exported. The force tester has a USB-C interface that can be used to read the measurement data into the PC software..

ISO cal option

- » measuring range up to 1,000 N
- **»** accuracy 0.05 % FS
- **》** sampling rate up to 7,200 Hz
- limit value function **>>**
- various units of measurement **>>**
- graphical evaluation **>>**
- memory for 30 x 1,000,000 readings **>>**
- **>>** various alarm modes
- time / date **>>**
- **》** control and evaluation software
- USB-C interface **>>**
- **»** mains operation possible





TECHNICAL SPECIFICATIONS

Model	Measuring range	Resolution
PCE-DFG 5 X	0 5 N	0.001 N
PCE-DFG 10 X	0 10 N	0.005 N
PCE-DFG 20 X	0 20 N	0.01 N
PCE-DFG 200 X	0 200 N	0.1 N
PCE-DFG 500 X	0 500 N	0.1 N
PCE-DFG 1000 X	0 1,000 N	0.5 N
General technical data		
Accuracy	±0.05 % FS	
Units	N, kg, g, t, kN, Pa, kPa, Nm	n, Ncm, lb, ft
Display	2.8" LCD graphical display	1
Alarm modes	overrun, underrun, inside	, outside
Alarm type	Visual, acoustic	
Sampling rate	17,200 Hz	
Calibration	mV/V, individually up to 1	5 measuring points
Memory	30 x 1 Mio data points	
Power supply	internal: LiPo battery, ext	ernal: USB 5 V DC, 50
Menu languages	German, English, French,	Spanish, Italian, Dut
	Turkish, Polish, Russian, (Chinese, Japanese, D
Operating time	approx. 13 h	
Interface	USB-C	
Protection class	IP 52	
Operating and storage conditions	-2065 °C / -4 149 °F, 1	0 95 % RH non-co
Force absorption element	M6 x 7 mm	
Dimensions	165 x 85 x 32 mm / 65 x 3	3.5 x 12.6 in
Weight	540 g / 1.2 lbs	
Optional accessories:		
Clamp for peel-off tests	Order co	de PCE-SJJ035
Holder for button and rivet testing	Order co	de PCE-SJJ032
Clamping device for bristle testing	Order co	de PCE-SJJ029
Clamping device for bristle testing	Order co	de PCE-SJJO2O

noider for burion and inter repling	oraci coac	
Clamping device for bristle testing	Order code	PCE-SJJ029
Clamping device for bristle testing	Order code	PCE-SJJ020
Clamping device for tensile tests	Order code	PCE-SJJ012
Fork holder for tensile & compr. tests	Order code	PCE-SJJ09
Clamping tool for tensile tests	Order code	PCE-SJJ08
Clamping device for tensile tests	Order code	PCE-SJJ07
Clamping device for tensile tests	Order code	PCE-SJJ017
Adaptor clamp for tensile tests	Order code	PCE-SJJ010
Adaptor clamp for tensile tests	Order code	PCE-SJJ06
Round adaptor stamp for compr. tests	Order code	PCE-SJJ04
Adaptor for compr. tests	Order code	PCE-SJJ01
Motorised force test stand	Order code	PCE-MTS50
Force test stand	Order code	PCE-FTS50
Clamping device for test stand	Order code	PCE-SJJ03
Adaptor ring for tensile tests	Order code	PCE-SJJO2
Clamping device for test stand	Order code	PCE-SJJ024
Clamping device for test stand	Order code	PCE-SJJ015
Clamping jaw for test stand	Order code	PCE-SJJ130

APPLICATION







ution

V DC, 500 mA ian, Dutch, Portuguese, nese, Danish

non-condensing





PCE-SJJ017

























PCE-DFG K X SERIES

Force gauge with external load cell for tensile and compressive force measurement up to 100 kN / 10 t

The force gauge can be used to measure both tensile and compressive forces with high accuracy. Tensile and compressive forces are often measured in the test laboratory. For example, to determine the yield point, the tear-off force or the force required to actuate buttons or switches. The force measuring device is supplied with an external measuring cell and can measure forces of up to 100,000 N. Various eyelets or hooks with an M12 thread can be attached to the measuring cells. It is also possible to attach your own devices to the measuring cell using these threads.

The internal memory of 32 GB offers space for 30 million measuring points. This allows measurement logs to be created, saved and exported.

ISO cal option

- » measuring range up to 100,000 N
- **»** accuracy 0.05 % FS
- **》** sampling rate up to 7,200 Hz
- limit value function **>>**
- various units of measurement **>>**
- graphical evaluation **>>**
- memory for 30 x 1,000,000 readings **>>**
- **>>** various alarm modes
- time / date **>>**
- **》** control and evaluation software
- USB-C interface **>>**
- **»** mains operation possible



TECHNICAL SPECIFICATIONS

Model	Measuring range	Resolu
PCE-DFG 1K X	0 1,000 N / 100 kg	0.5 N
PCE-DFG 2K5 X	0 2,500 N / 250 kg	1 N
PCE-DFG 5K X	0 5,000 N / 500 kg	1 N
PCE-DFG 10K X	0 10,000 N / 1 t	2 N
PCE-DFG 20K X	0 20,000 N / 2 t	2 N
PCE-DFG 50K X	0 50,000 N / 5 t	5 N
PCE-DFG 100K X	0 100,000 N / 10 t	10 N
General technical data		
Accuracy	±0.05 % FS	
Units	N, kg, g, t, kN, Pa, kPa, Nm, N	icm, lb, ft
Display	2.8" TFT graphical display	
Alarm modes	overrun, underrun, inside, ou	utside
Alarm type	Visual, acoustic	
Sampling rate	1 7,200 Hz	
Calibration	mV/V, individually up to 15 n	neasuring
Menu languages	German, English, French, Spanish, Ita	
	Turkish, Polish, Russian, Chir	nese, Japa
Memory	30 x 1 Mio data points	
Power supply	internal: LiPo battery	
	external: USB 5 V DC, 500 m	A
Operating time	approx. 13 h	
Interface	USB-C	
Protection class	IP 52	
Protection class measuring cell	IP 67	
Operating and storage conditions	-2065 °C / -4 149 °F, 10	95 % RH
Dimensions	165 x 85 x 32 mm / 65 x 33.5	5 x 12.6 in
Weight handheld	255 g / 0.6 lbs	
Optional accessories:		
Fork holder for tensile & compr. te	sts Order code	PCE-
Adaptor clamp for tensile tests	Order code	PCE-

Order code

Order code

Order code

Round adaptor stamp for compr. tests

Adaptor for compr. tests

Clamping device for test stand

APPLICATION







ution

points ian, Dutch, Portuguese, anese, Danish

non-condensing

-51109 PCE-SJJ06 PCE-SJJ04 PCE-SJJ01 PCE-SJJ015







FORCE MEASUREMENT PEEL TESTER

PCE-PST1X

Edge band tester for Edge Tests / Measures up to 500 N

PCE-PST1X edge band tester is designed to check the adhesive force of edges on support materials. With the edge band tester, checks can be made with respect to the quality of workmanship. Feed speed, travel distance, tension, and traction angle are fixed. Ball transfer units on the guide surface of the Test Stand reduce the coefficient of friction. Likewise the self-locking jaws and smooth guide rollers

always guarantee reproducible and comparable results. Measurement errors caused by the "human factor" are reduced to a minimum. The PCE-PST1X edge band tester is designed for adhesive forces up to 500 N or 110 pounds.

(=)

ISO cal option

- >> for adhesive forces to 500 N or 110 pounds
- » high repeatability
- » defined test parameters
- mobile implementation **>>**
- automatic and manual measurement mode **>>**



TECHNICAL SPECIFICATIONS

Measuring range Measurable edge thickness

Measurable plate thicknesses

Measurement accuracy

Environmental conditions

Speed

Traverse

Display

Interface

Weight

Power supply Dimensions (LxWxH)

Resolution Max. overload

Operating modes

500 N / 50 kg / 110 lbs 0.4 ... 3.5 mm 0.02 ... 0.14 in 10 ... 64 mm 0.4 ... 2.5 in 300 mm/min / 11.8 in/min 100 mm/min / 3.9 in/min 130 mm / 3.9 in ±0.1 % of the measuring range 0.1 N / 0.010 kg / 0.02 lbs ±20 % graphic display with backlight 61 x 34 mm / 2.4 x 1.3 in manual / automatic USB -10°C ... 40°C / 14°F ... 104°F ca. 9 kg / 19.8 lbs 230 V / 110 V / 12 V; 1.2 A 490 x 210 x 150 mm

Optional accessories:

Test Table Support table extension Order no.: PS-PST1 Order no.: AV-PST1

19.3 x 8.3 x 5.9 in

APPLICATION









FORCE MEASUREMENT TEST STAND FOR FORCE GAUGE

PCE-MTS500-FD 300 KIT

Motorized force test stand for force-distance-measurement

The motorised material test stand PCE-MTS500-FD 300 KIT can be used to create force-distance diagrams and curves. The software included in the scope of delivery offers the user an optimised interface for evaluating force-displacement diagrams and graphs. In this way, material tests with forces of up to 5000 N (500 kg) can be realised. To perform a force-distance measurement, a tensile test is carried out first.

In this tensile test, a sample or the component to be tested is fixed in a test stand by means of clamping devices. Subsequently, this test stand generates a tensile force which results in an elongation of the component or the sample.

ISO cal option

- » length measuring device: -150 ... 150 mm / -5.9 ... 5.9"
- **》** adjustable feed speed
- **>>** robust steel design
- **>>** adjustable travel
- **>>** large force measuring range up to 5000N
- **>>** mains connection
- manual or automatic system **>>**
- **>>** all PCE force devices adaptable

APPLICATION







TECHNICAL SPECIFICATIONS

Force range Travel distance Feed rate Test table Sample width Guide columns Dimensions Weight

max. 5000 N (500 kg / 1100 lbs) max. 300 mm / 11.8" 30 ... 230 mm/min / 1.18 ... 9.05 in/min Ø 160 mm/ 6.3" max. 200 mm / 7.9" Ø 32 mm / 1.3" 1020 x 400 x 250 mm / 40.2 x 15.7 x 9.8" ca. 60 kg / 132 lbs

Length measuring device PCE-DFG FD 300

Measuring range Resolution Accuracu Operating conditions Storage conditions

Weight Power supply Dimensions

Optional accessories:

Set of thrust washers (square) for engine test stand Thrust washer set (round) for engine test bench Adapter Plate for Force test stand Universal clamping device Clamping device for tensile tests Fork holder for tensile & compr. tests Adaptor clamp for tensile tests Round adaptor stamp for compr. tests Adaptor for compr. tests Adapter Ring for Tensile Tests Clamping Device for test stand Clamp Jaw for test stand Clamp Jaw for test stand Clamp Jaw for test stand Clamping device for test stand Universal Clamping Device

-150 ... 150 mm / -5.9 ... 5.9" 0.01 mm / 0.0004" ±0.03 mm / 0.001" Temperature: 0 ... +50 °C / 32 ... 122 °F Temperature: -20 ... +65 °C / -4 ... 149 °F Humidity: 10 ... 95 % RH, non-condensing 360 g / 12.7 oz 3VCR 2032 394 x 40 x 10 mm / 15.5 x 1.5 x 0.4" (HxWxD)

Order code MTS-DSE

Order code MTS-DSR Order code ADP-UNI Order code PCE-SJJ017 Order code PCE-SJJ012 Order code PCE-SJJ09 Order code PCE-SJJO6 Order code PCE-SJJO4 Order code PCE-SJJ01 Order code PCE-SJJO2 Order code PCE-SJJO3 Order code PCE-SIJO5 Order code PCE-SJJ011 Order code PCE-SJJ013 Order code PCE-SJJ015 Order code PCE-SJJ031







PCE-HFG SERIES

For the measurement of compression forces in mechanical systems

The hydraulic force transducer PCE HFG series is used for the absorption of static pressure forces and is made of stainless steel. The force transducer can measure forces over a long period of time due to its independence from power sources. With the integrated drag indicator the respective PEAK value is stored for later read out. The force transducer uses the measuring principle of hydraulic transmission of

forces. The forces applied to the plunger are transmitted to the dial gauge via the medium and are displayed on the Newton scale [N]. Due to the 27 mm ring opening, it is also possible to use the force transducer axially and to determine axial shaft forces, for example.

ISO cal option

- » measurement of static pressure forces
- **»** for stationary maintenance measurements and adjustment work
- **»** independent of power sources
- **》** analogue meter scale
- compact for small installation spaces **》**
- pressure force display in kilonewtons [kN] **》**
- **》** stainless steel
- » integrated drag indicators



APPLICATION





TECHNICAL SPECIFICATIONS

Models of the PCE-HFG series:

Measured value: Force [N]

Measuring range	
PCE-HFG 1K	0 1000 N
PCE-HFG 2.5K	0 2500 M
PCE-HFG 10K	0 10000 N
PCE-HFG 25K	0 25000

Models with 1 m long hydraulic hose

01000 N
0 2500 N
0 10000 N
0 25000 N

Resolution:	
PCE-HFG 1K	
PCE-HFG 2.5K	
PCE-HFG 10K	
PCE-HFG 25K	

Accuracy:

Temperature range: Weight: Mounting holes: Inner diameter of the ring: Display dimensions:

±(1.6 % pressure gauge +0.25 % reading error) from measuring range 0... 50 °C 1.6 kg 2 x M6

20 N

100 N

200 N

1000 N

Ø 27 mm

Ø 55 mm

TRUST IN EVERY MEASUREMENT.







HARDNESS TESTING HARDNESS TESTER

PCE-2000N

Leeb hardness tester for metals

The PCE-2000N hardness tester from PCE-Instruments uses the Leeb rebound method. This is a dynamic hardness test method in which a standardized test specimen, usually a hard metal ball, hits a test surface at a defined impact energy. The impact of the hard metal ball on the test surface results in a plastic deformation of the surface at the point of impact. This deformation results in an energy loss which is proportional to the hardness of the workpiece and which can be determined by means of the ratio of rebound to impact velocity of the specimen.

ISO cal option

- » various other impactors as accessories
- **》** measurement in different angles possible
- **》** readings are saved to USB pen drive
- external impact device with 1.5 m cable **>>**
- **>>** wide measurement range
- **»** 6 different hardness scales



APPLICATION





TECHNICAL SPECIFICATIONS

Measurement ranges	170 960 HLD 17.9 69.5 HRC 19 683 HB 80 1042 HV 30.6 102.6 HS 59.1 88 HRA 13.5 101.7 HRB	
Impact device included (optional impact devices) Cable length impact device Accuracy Repeatability	D (DC, D+15, C, G, DL) approx. 1.5 m ±0.5 % (@800 HLD) 0.8 % (@800 HLD)	
Hardness scales	HL (Leeb) HV (Vickers) HB (Brinell) HS (Shore) HRA (Rockwell A) HRB (Rockwell B) HRC (Rockwell C)	
Measurable materials	Steel Cast steel Alloy steel Stainless steel Grey cast iron Spheroidal graphite iron Cast aluminium alloy Cu-zinc (brass) Copper-tin alloy Copper	
Copper	HB 45 315	
Optional accessories:		
Impact device D Impact device DC Impact device D+15 Impact device C	Order code Order code Order code Order code	PCE PCE PCE PCF

Order code

Order code

Impact device G

Impact device DL





Display resolution Data memory Data output Power supply Auto Power Off **Operating conditions** Storage conditions Dimensions Weight

Material Steel / cold-rolled steel

Alloyed tool steel

Stainless steel

Grey cast iron Spheroidal graphite iron Cast aluminium

Brass

Bronze

128 x 64 pixel OLED 600 averages in 6 data groups USB pen drive 3 x AAA batteries after 12 min of inactivity +10 ... +50 °C, 20 ... 90 % RH -30 ... +60 °C 160 x 80 x 40 mm (H x W x D) Meter with batteries: approx. 300 g / <1 lb Impact device: approx. 75 g / <1 lb

HRA 59.1 ... 85.8 HRC 20 ... 68.5 HRB 38.4 ... 99.6 HB 127 ... 651 HSD 32.2 ... 99.5 HV 83 ... 976

HRC 20.4 ... 67.1 HV 80 ... 898

HRB 46.5 ... 101.7 HB 85 ... 655 HV 85 ... 802

HB 93 ... 334 HB 131 ... 387 HRB 23.8 ... 84.6 HB 19 ... 164

HRB 13.5 ... 95.3 HB 40 ... 173 HB 60 ... 290





HARDNESS TESTING **HARDNESS TESTER**

PCE-900

Leeb hardness tester for metals / measurement of tensile strength

The Leeb hardness tester PCE-900 measures the hardness of nine different metals using the Leeb rebound method. This means that an impact body bounces on a metallic surface and the intensity of the rebound is used as an indicator of the material hardness. The hardness test instrument PCE-900 can show the metal hardness

in 6 different hardness scales, including: Rockwell, Vickers, Leeb,

Brinell and Shore. A distinction is made between Rockwell B and C when measuring in the Rockwell scale. Via the data interface, the measured values can be transmitted live to the PC. The delivery scope is completed by an ISO calibration certificate.

ISO cal option

- » hardness test by the rebound method
- **》** nine saved material characteristic curves
- » easy to use
- data interface **>>**
- six different hardness scales **>>**
- incl. D-type impact device and test block **》**
- **》** optional software available









TECHNICAL SPECIFICATIONS

Measuring accuracy Materials Hardness scales Display Included impact device Memoru

Measurement range

Interface Power supply Operating temperature: Environmental conditions

Dimensions Weight

Cable length

Optional accessories:

Surface adaptor for concave spherical surfaces Surface adaptor for concave spherical surfaces Surface adaptor for concave spherical surfaces Surface adaptor convex Adaptor convex Adaptor concave Adaptor concave Adaptor concave



HK16.5-30

200 ... 900 HLD ±10 HLD 9 different materials Leeb: HL Rockwell C: HRC Rockwell B: HRB Brinell: HB Vickers: HV Shore: HSD 12.5 mm LCD with backlight D-type 50 data records RS-232 4 x 1.5 V AAA batteries -10 ... 50 °C Storage temperature: -30 ... 60 °C relative humidity: <90 % 142 x 77 x 40 mm Meter: ca. 130 g Impact device: 75 g approx. 1.2 m

Order o	ode	HK16.5-30	16
Order o	ode	HK12.5-17	12.5
Order o Order o Order o Order o Order o Order o	code code code code code code	HK11-13 Z25-50 Z10-15 HZ16.5-30 HZ12.5-17 HZ11-13	11 25 10 16 12 11

Z25-50

HZ11-13





5.5 ... 30 mm

5 ... 17 mm

1 ... 13 mm 5 ... 50 mm (outside) Surface) ... 15 mm (outside) Surface 6.5 ... 30 mm (inside) Surface 2.5 ... 17 mm (inside) Surface 1 ... 13 mm (inside)







PCE-PA 6500 SERIES

Power analyzer for energy monitoring / configuration and data transfer via app

The power analyser measures current and voltage values using the connected current transformers and test leads. From this, the active, apparent and reactive power are determined and transmitted to the measuring platform every second via Wi-Fi. The data is then filed historically on the power analyser, processed graphically and can be analysed or exported. The measurement with the power analyser

is carried out using Rogowski coils or folding current transformers. Alternatively (if no internet connection is available), the data can be recorded in the built-in 8 MB flash memory in the form of a CSV file for further processing at a later date.

ISO cal option

- » active, apparent and reactive power
- **»** power factor and electrical energy
- » 8 MB internal memory
- **》** app for Android
- data as CSV file **»**
- **》** measurement via Rogowski coils
- » no additional mains connection necessary

APPLICATION







TECHNICAL SPECIFICATIONS

Sampling rate	26000 Hz	Models:	
Storage medium	Internal memory		
Memory capacity	8 MB	PCE-PA 6500 F150	incl. 3x Rogowski coils 150 mm -
Memory capacity (additional information)	separate phases: 22000 data records, summarised phases: 38000 data records		Rogowski coils 2 4800 A RMS (flexible)
Storage interval from	1s	PCE-PA 6500 F50	incl. 3x Rogowski coils 50 mm -
Storage interval to	60 min		Rogowski coils 2 1250 A
Current consumption of current clamp	100 mA DC		RMS (flexible)
Maximum cable diameter	49 mm	PCE-PA 6500 R11	incl. 3x Folding current transformer
Safetu standard	CAT III 300V		11 mm Folding current transformer
Fuse(s)	250mA, FA, IR>=30kA		0 80 A RMS (rigid)
Menu language	German, English (GB), English (US),		
incha language	Snanish French		
Protection class (device)	IP40		
Power cumlu	100 2/10 V 50/60 Hz (+/- 10%) (between		
i owei suppig	noutral conductor and phase A)		
Weight			
Operating conditions			
Operating conditions			
	-5 40 °C, 0 80 % RH		
Dimensions (L X W X H)	123 x 96 x 36 mm		
Alternating voltage AC			
Measurement range	40 400 V		
Pecolution	0 01 V		
Δεεμερεί	+1% of Dd		
Accuracy			
Alternating current AC			
Measurement range	2 1250 A		
Resolution	0.01 A		
Accuracu	±1% of Rd.		
Active power			
Measurement range	80 W 500 kW		
Resolution	0.01 W		
Accuracy	±1% of Rd.		
Reactive power			
Measurement range	80 VAR 500 kVAR		
Resolution	0.01 VAR		
Accuracy	±1% of Rd.		
Americant menual			
Apparent power			
Niedsuferiienii fallye			
ACCURACY	±1 % UT KQ.		

Power factor Measurement range Resolution Accuracy

0...1 0.01 ±1% of Rd.





PCE-WSAC 50

Anemometer with pre-alarm and full alarm / wind speed display

This wind speed alarm controller is suitable for lots of different applications. The anemometer can measure the slightest wind movements. The wind alarm controller can be used to monitor the curremt wind speed but also to get an average value of the wind velocities measured in the last two or five minutes. If wind speeds are higher than the preset values, a pre-alarm is first applied before the full

alarm is emitted. Both alarms are visual and audible.

ISO calibrated

- » wind speed alarm controller with adjustable alarms
- 2 alarm types
- » power supply: 230 V AC
- input signal: 4...20 mA **》**
- communication: RS485 **》**
- » 2 alarm relays
- » beep sound for alarm
- » sensor supply via display unit



TECHNICAL SPECIFICATIONS

Power supply		230 V AC
Supply voltage for senso	rs (output)	12 V DC 24 V DC
Measurement range Measuring accuracy Signal input		0 50 m/s ±3 % of measurement range 4 20 mA
Alarm relay		2 x changeover contact 220
Interface Operating temperature		RS485 (optional) -20 +60 °C
Protection class Dimensions		IP66 197.5 x 90 x 45 mm
Optional accessories:		
Sensor cable 25 m Mounting bracket Wind sensor Wind sensor	Order code Order code Order code Order code	PCE-WSAC 50-SC25 PCE-FST 200-201 MNT PCE-FST-200-201-U voltage PCE-FST-200-201-I current c
Power supply and senso	r input signal indiv	vidually selectable:
Power supply		230 V AC 115 V AC 24 V DC
Sensor input signal		4 20 mA 0 10 V

Wind sensor and interface optional (at extra cost)

APPLICATION







) V AC / 10 A

output output





FLOW MEASUREMENT OUTDOOR WIRELESS ANEMOMETER



PCE-WSAC 50W SERIES

Radio transmission / Power supply 110 ... 230V AC or +24V DC

Wind Speed Meter PCE-WSAC 50W 230 is primarily used to measure and monitor the wind load on cranes or wind turbines. Furthermore, the wind situation can be measured and analyzed before commissioning a wind turbine. The Wind Speed Meter PCE-WSAC 50W 230 is equipped with alarm relay for a pre-alarm or main alarm. Due to the high measuring range of up to 50 m / s of the anemometer, stormy

gusts can also be monitored. The radio range of the anemometer is in the open field up to 750 m / 2500 ft in the free frequency band of 2.4 GHz. When installing the display of the anemometer PCE-WSAC 50W 230 in buildings, a range of up to 60 m / 200 ft can be achieved for the wind sensor.

ISO cal option

» robust plastic housing

- **》** units: km / h, mph, m / s
- **>>** 4 ... 20-mA analog output
- 128 x 64 pixel LC display **>>**
- **>>** alarm relay
- measuring range up to 180 km / h **>>**
- durable stainless steel ball bearings **>>**
- **》** ambient temperature -20 ... 70°C / -4 ... 158°F
- **»** radio transmission



APPLICATION





TECHNICAL SPECIFICATIONS

Display of the Wind Speed Meter PCE-WSAC 50W 230

Input	Pulse, analog (4 20-n
Radio	IEEE 802.15.4 ISM 2.4 0
Units	km / h, mph, m / s
Power supply for sensors	+15V DC
Analog output	4 20-mA
Maximum input impedance	500 Ω
Resolution of the analog output	10 bits
Accuracy of the analog output	± 1.5%
Alarm relay	Max. 250V AC, 8 A
Display	Backlit 128 x 64 pixel L(
Casing	Robust plastic housing
Protection class	IP65
Dimensions	145 x 95 x 125 mm / 5.7
Weight	650 g / 1.4 lbs

Sensor of the Wind Speed Meter PCE-WSAC 50W 230

Measuring range Minimum start speed Accuracy

Power supply Power consumption Housing material Ball-bearing Holder Weight (with standard bracket) Geicht with self-leveling bracket Dimensions Storage temperature Ambient temperature Protection

4 ... 180 km / h 8 km / h ± 1 km / h in the range 4 ... 15 km / h ± 3% in the range 16 ... 180 km / h Battery mono cell D 1.5V DC approx. 0.3 W with 1.5V DC power supply PA + FG Stainless steel X65Cr13 Stainless steel AISI 304 about 680 g / 1.5 lbs about 900 g / 2 lbs 320 x 110 x 100 mm / 12.6 x 4.3 x 3.9 in -35 ... 70°C / -31 ...158°F -20 ... 70°C / -4 ... 158°F IP65

Models:

PCE-WSAC 50W 24 PCE-WSAC 50W 230 Supply voltage: 24 V DC Supply voltage: 110 ... 230 V AC , 50 / 60 H

58



alog (4 ... 20-mA) or radio 15.4 ISM 2.4 GHz

8 x 64 pixel LC display

125 mm / 5.7 x 3.7 x 4.9 in



PLASTICS TESTING MATERIAL FLOW INDEX TESTER

PCE-MFI 400

Melt mass flow rate of plastics

The plastometer is used for rapid testing of the melt mass flow rate of plastics. The plastics testing device is designed for both incoming goods inspection and continuous production monitoring. The clear display of all relevant parameters on the 7" touch screen makes it possible to make measurements very quickly. The automatic cutting function additionally contributes to the high reproducibility of the

plastics tester. Some saved standard plastics make some cumbersome configuration processes unnecessary. These include PS, PP, PE, ABS, PC, PMMA and many more.

ISO cal option

- » large 7" TFT touch display
- » clear presentation
- » heating temperature up to +400 °C
- **》** pre-set materials
- robust metal housing **»**
- » different weights included



.

TECHNICAL SPECIFICATIONS

Measurement rate / Melting rate Temperature Measuring accuracy temperature Resolution

Test load Test piston Ø Capillary Ø Standards

+120 ... +400 °C ±0.2 °C / 0.36 °F 0.1 °C / 0.18 °F

0.1 ... 400.0 g / 10 min

Display Type Resolution Colour depth

Dimensions (without test load) Weight (without test load) Power supply Power consumption (at full load) 0.325 ... 21.6 kg

9.48 mm 2.095 mm IS01133-1997, ASTM 1238-04C, GB/T3682-2000

7" LCD touch display 800 x 480 pixels 16000 colours

500 x 320 x 500 mm / 19.7 x 12.6 x 19.7 in approx. 15 kg / 33 lbs 90 ... 264 V AC approx. 0.6 kVA

APPLICATION











PCE-AQD 50A

Temperature, humidity, atmospheric pressure, CO₂ / measurement range up to 40,000 ppm

The environmental meter is specially designed for long-term monitoring of climatic conditions in, for example, offices, classrooms or lecture halls. Among other things, the air quality meter has a carbon dioxide sensor up to 40,000 ppm, a temperature sensor with a measuring range between 0 ... 50 °C, an ambient humidity sensor with a measuring range between 0 ... 100% RH and a barometer with a measuring

range between 300 ... 2000 hPa. The air guality meter can therefore be used in many applications due to its large number of sensors. The measured values are shown directly on the e-paper display of the air guality measuring device. A good / medium / bad rating of the carbon dioxide content in the ambient air is also displayed.

ISO cal option

- » battery life of up to 10 months
- measuring range up to 40,000 ppm CO₃ **>>**
- **>>** 32 GB data storage
- temperature and humidity sensor **》**
- **>>** csv file format
- E-paper display with histogram display **>>**
- display of atmospheric pressure **>>**
- **》** good / medium / bad rating

🖺 15% 07.03.2024 14:12 шш 🔈 ок C 22.8 °C co_2 48.3 %r.H. 834 ppm ③ 995.5 hPa **.**. (€ CO2 DATA LOGGER PCE-AQD Series

APPLICATION





TECHNICAL SPECIFICATIONS

Temperature

Measuring range Resolution Accuracy

0 ... +50 °C / 32 ... 122 °F 0.1 °C ±0.15 °C (a) 0 ... 20 °C / 32 ... 60 °F ±0.1 °C @ 20 ... 50 °C / 68 ... 122 °F

Ambient Humidity Measuring range

Resolution

Accuracy

0 ... 100 % RH 0.1 % RH ±1.5 % RH @ 0 ... 80 % RH ±2 % RH @ 80 ... 100 % RH

Atmospheric Pressure

Measuring range Resolution Accuracy

300 ... 2000 hPa 0.1 hPa ±2 hPa @ 25 ºC / 77 ºF and 750 ... 1100 hPa ±4 hPa @ 0 ... +50 °C / 32 ... 122 °F and 300 ... 1200 hPa

CO, Measuring range Resolution Accuracy

0 ... 40000 ppm 1 ppm ±(30 ppm + 3% of measured value) @ 400 ... 10000 ppm @25 °C / 77 °F ±(6 ... 10 % of measured value) @ 0 ... 400 ppm or 10000 ... 40000 ppm

Temperature Stability

2.5 ppm/°C @ T = 0 ... 50 °C / 32 ... 122 °F, 400 ... 10000 ppm

Further Specifications Display Battery life*

2.7" E-Paper ca. 10 months for the measurement intervals: Temperature: 60 minutes Ambient humidity: 60 minutes Atmospheric pressure: 60 minutes CO₂: 60 minutes *further information on battery life can be found in the instructions MicroSD card with 32 GB of storage for a total of 1 trillion measuring points

Sampling intervals

Storage capacity

Power supply Power supply Protection class Operating conditions

Storage conditions

Dimensions Weight

30s. 1 min. 2 min. 10 min. 15 min. 30 min. 1 h, 2 h, 6 h, 12 h, 24 h battery 7.4 V DC / 3400 mAh, Li-Ion battery mains power adapter 12 V DC / 1.5 A IP30 0 ... +50 °C / 32 ... 122 °F 0 ... 100 % RH, non-condensing -20 ... +60 °C / -4 ... 140 °F 0 ... 100 % RH, non-condensing 128.5 x 88.5 x 41 mm / 1.1 x 3.4 x 1.6" 300 g / 10.5 oz





WATER ANALYSIS **PHOTOMETER**

PCE-CP SERIES

Multi-parameter photometer with Bluetooth interface / storage of measured values

The multi-parameter photometer is a mobile measuring device for liquid analysis. This means that the most varied of measurements can be carried out with the multi-parameter photometer. With this multiparameter photometer it is possible, for example, to determine alkalinity, chlorine, cyanuric acid or the pH value. In order to carry out a measurement with the multi-parameter photometer, a water sample

of 10 ml must be placed in a cuvette.

The LED built into the multi-parameter photometer generates a test light in the wavelength ranges of 503 nm, 570 nm and 620 nm. A photodiode now recognizes the value to be measured based on the light transmission of the sample.

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ISO cal option

- >> bluetooth connection with app
- exchangeable and lockable cuvette **>>**
- **>>** 503 nm / 570 nm / 620 nm LED
- automatic shutdown when inactive **>>**
- many different menu languages **>>**
- **>>** light detector: photodiode
- **»** cuvette: 36 x ø 21 mm / 3.6 x ø 2.1 cm (10 ml)

TECHNICAL SPECIFICATIONS

Calibration Light source Light detector Power supply Dimensions of the cuvette Menu languages	Zero point calibration 503 nm / 570 nm / 620 nm LED Photodiode 4 x 1.5V AA batteries 36 x ø 21 mm / 3.6 x ø 2.1 cm (10ml) English, German, French, Spanish and Italian
Storage	Automatic storage of measured values and readout
Storage space Interface	256 values Bluetooth connection with app and PC software After 200 seconds of inactivity
Operating conditions	5 45°C / 41 113°F, 20 90% RH non-condensing
Storage conditions	5 45°C / 41 113°F, 20 90% RH non-condensing
Dimensions Weight	165 x 95 x 50 mm / 6.5 x 3.7 x 2 in 230 g / < 1 lb
Models:	
PCE-CP 04	up to 5 selectable parameters e. g. Alkalinity, pH, Calcium hardness, total hardness
PCE-CP 10	up to 5 selectable parameters e. g. Alkalinity, Chlorine, Cuanuric acid. pH
PCE-CP 11	up to 7 selectable parameters e. g. Chlorine, pH, Iron, total hardness
PCE-CP 20	up to 7 selectable parameter e. g. Alkalinity, Chlorine, Cyanuric acid, pH_total bardness
PCE-CP 21	e, g. Chlorine, pH, Iron, Cyanuric acid, Rromine, Indine,
PCE-CP 22	up to 13 selectable parameter e. g. pH, Iron, Urea, Nitrite, Nitrate, Phosphate, Ammonia, Copper, Potassium
PCE-CP 30	up to 13 selectable parameter e. g. Alkalinity, Chlorine, Cyanuric acid,
Calcium hardness,	Active oxygen, Chlorine dioxide, Bromin
Ozone,	Hydrogen peroxide - small measuring
range (LR),	Hydrogen peroxide - large measuring r
(HR),	PHMB (polyhexanide), Urea, total hardı











Reagent Kit Urea

Liquid Reagent No. 1 for Urea

Liquid Reagent No. 2 for Urea

Bromine Auxiliary Tablets

Ammonia No1 Tablets PCE-CP XO

Polyhexanide Tablets PCE-CP XO

Reagent Tablets for pH Value Measurement Reagent Kit for Hydrogen Peroxide Order no.: PCE-CP XO High Range

Reagent Tablets for Hydrogen Peroxide Low Range

DPD N° 3 Reagent Tablets for Free Chlorine, Total Chlorine DPD N° 1 Reagent Tablets for Free Chlorine DPD N° 4 Reagent Tablets for Active Oxygen **Light Protection Cover**

Carrying Case Replacement Cuvette Stirring Stick for the PCE-CP 10 Microfiber Cloth

Dosing Pipette 10 ml Calibration Set PCE-CP XO Cal-Set Reagent Kit Total Hardness

Reagent Kit Calcium Hardness

id, pH,

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ng range

ardness

Tab Kit Urea Order no.: PCE-CP XO Tab PL Urea No1 Order no.: PCE-CP XO Tab PL Urea No2 Order no.: PCE-CP XO Tab Glycine Order no.: PCE-CP XO Tab Ammonia No1 Order no.: PCE-CP XO Tab PHMB Order no.: PCE-CP XO Tab Phenol Red Tab Kit Hydrogen Peroxide HR Order no.: PCE-CP XO Tab Hydrogen Peroxide LR Order no.: PCE-CP XO Tab DPD 3 Order no.: PCE-CP XO Tab DPD 1 Order no.: PCE-CP XO Tab DPD 4 Order no.:PCE-CP XO **Cuvette Cover** Order no.: PCE-CP XO Case Order no.: PCE-CP XO Cuvette Order no.: PCE-CP XO Spurtle Order no.: PCE-CP XO **Microfibre Cloth** Order no..: PCE-CP XO PIP Order no.: PCE-CP XO Cal-Set Order no.: PCE-CP XO Tab Kit Total Hardness Order no.: PCE-CP XO Tab Kit Calcium Hardness

Order no.: PCE-CP XO





PCE-PH 228 SERIES

pH Meter with GLP Data Management / High Accuracy ± 0.002 pH + 2 Digits

The advanced pH meter stands for precision, user-friendliness, and GLP compliance (Good Laboratory Practice). With a high-resolution LCD display, the pH meter provides a clear and concise presentation of measurement values. GLP compliance is ensured through automatic data recording and traceable documentation. It allows measurement of pH or redox value and temperature with external sensors.

A Permanent Measurement Verification (PMV) indicates to the operator, using a color bar, where the measurement value is located within the calibration range, providing insight into whether the measurement is in the correct range. User and sample management enable easy navigation and adjustment of measurement parameters on the pH meter.

24.07.23 12:54

5.028pH

δ. 20.0 °C

Max 6.863 pH

Min 3.728 pH

pH METER

PCE-PH 228 Series

MENU

◄

C

5

REC

CE

pH value

ISO cal option

- » fast, precise pH and temperature measurement
- » range -2 pH ... +20 pH
- **»** redox measurement (with optional electrode)
- GLP data management **>>**
- easy 2, 3, 4, and 5-point calibration **》**
- calibration reminder **>>**
- **》** permanent Measurement Verification (PMV)
- **》** graphical display of measurement history
- » data logger

APPLICATION









pH Measurement Range Resolution Accuracy Electrode Designation Measurement Range Temperature Range Application Reference Electrolyte Shaft Material	-2 pH +20 pH 0.001 pH ± 0.002 pH + 2 digits PE-03 +1 pH +13 pH 5 60 °C Aqueous non-corrosive media Ag/AgCl Epoxy resin	Optional accessor Calibration Solutio Electrode Storage pH Electrode IJ-44 Diaphragm Cleane Cleaning solution p REDOX-Electrode I Redox Solution +4 Redox Solution +2 Temperature sens pH-Electrode PE-0	ies: n pH4 and pH7 and pH10 Solution 3mol / I A r with Thiourea pepsin / hydrochloric acid ORP-14 68 mV 40 mV or TP-07 13	Order no.: PCE-PH4710 Order no.: PCE-SSO Order no.: IJ-44A Order no.: PCE-DCS-250 Order no.: PCE-GCS-500 Order no.: ORP-14 Order no.: PCE-RTS-468 Order no.: PCE-RTS-220 Order no.: TP-07 Order no.: PE-03
Shaft Length	160 mm	Food pH-electrode	1	Order no.: CPC-OSH-12-01
Shaft Diameter	12 mm			
Cable Length	1 m			
Redox		Models:		
Measurement Range	-2000 mV +2000 mV	PCE-PH 228	general pH measurement	s in aqueous solutions
Resolution	1 mV	PCE-PH 228HTE	high-temperature measur	rements up to 100 °C
Accuracy	± 2 mV	PCE-PH 228LIQ	pH measurements specifi	cally for beer, milk, blood
Temperature Sensor		PCE-PH 228M	pH measurements in food	l, pH electrode with stainless
Minimum Temperature	-20 °C		steel blade	
Maximum Temperature	100 °C	PCE-PH 228P	pH measurements in past	'y media such as shampoo,
Resolution	0.1 °C		soap, pastes, paints and la	icquers
Accuracy	± 0.5 °C (@ 20 °C)	PCE-PH 228R	measurement of redox po	itential
General Technical Data		PCE-PH 2285	measurements in loose so	oil and seeds
Storage Medium	Infernal memory	PLE-PH 2285F	surface pH measurement	5
Storage Interval from	15	PLE-PH 2285LUR	pH measurements in slud	ge and soll
Storage Interval to	12 N	PLE-PH 228WINE	pH measurements in wine	2
Storage Capacity	32 GB			
Storage Lapacity	100 records with a maximum of	100 000 data		
	noints per record	100,000 uala		
Interface				
Menu Language	German, English, French, Spanisl Portuguese, Turkish, Polish, Rus Danish, Japanese	h, Italian, Dutch, sian, Chinese,		
Protection Class (Device)	IP52			
Power Supply	5 V DC, 500 mA			
Weight	252 g			
Dimensions (L x W x H)	178 x 85 x 32 mm / 7 x 3,3 x 1,2 ii	n		
Operating Conditions	-20 65 °C , 10 95 % r.H			
Storage Conditions	-20 65 °C , 10 95 % r.H			
Languages of the Manual	German, English			
Batteries and Accumulators	Lithium polumer batteru			

Type Lithium Info Capacity Voltage System Quantity

German, Englisn
Lithium polymer battery
2500 mAh
3.7 V
Secondary: Rechargeable baffery

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MOISTURE MEASUREMENT MOISTURE METER

PCE-WMT 200

Bluetooth moisture meter with ram electrode / For 44 different types of wood

When burning wood, it is important to know the wood moisture content. If the wood moisture content is too high during combustion, the water must first be heated and evaporated. This results in lower flame temperatures and smoldering gases. In addition, it can lead to incomplete combustion of the wood. In summary, too high a wood moisture content results in poor efficiency, pollutants and also odor

emissions.

With the Bluetooth wood moisture meter PCE-WMT 200, up to 44 different types of wood can be checked for their moisture content. These include 36 hardwoods and 8 conifers, such as beech, spruce, pine and maple.

ISO cal option

- >>>> temperature compensation up to 50°C / 122°F
- >> 44 different types of wood
- **»** ramming electrode with pairs of needles
- up to 150% moisture **>>**
- » bluetooth 4.0 interface



APPLICATION





TECHNICAL SPECIFICATIONS

Resolution Resolution digit display Repeatability Temperature compensation Measuring principle Sensor type Pairs of needles maximum penetration depth

Protection class Power supply

Interface Cable length Power consumption Dimensions Ram electrode: Measuring device: Pair of needles:

Weight

Material Hardwoods Maple American birch Basla Sycamore maple Birch Beech Real mahogany Sweet chestnut Alder Ash False acacia Yellow birch Hornbeam European hornbeam Canadian birch Cherry tree Walnut Poplar Plum tree Plane Black locust European beech Black alder Sipo Stone beech

English oak

± 0.5%

0.1%

1

-20 ... 50°C / -4 ... 122°F, manual / automatic Electrical resistance measurement Ram electrode

45 x Ø3.05 mm: 30 mm 165 x Ø2.85 mm: 150 mm IP 52 9V block battery / 9V DC, 1 A mains connection Bluetooth 4.0 Approx. 1 m / 39.4 in Max.1A

332 x Ø45 mm / 13.1 x Ø1.8 in 175 x 90 x 35 mm / 6.9 x 3.5 x 1.4 in 45 x Ø3.05 mm / 1.8 x Ø0.1 in 165 x Ø2.85 mm / 6.5 x Ø0.1 in Ram electrode: 1677 g / 3.7 lbs Measuring device: 250 g / 0.6 lbs

Measuring range

7.9 150%
6.4 150%
7.3 150%
7.9 150%
8.1 150%
7.2 150%
6.7 150%
8.1 150%
8.1 150%
8.1 150%
8.1 150%
6.4 150%
8.1 150%
8.1 150%
8.1 150%
8.1 150%
8.1 150%
6.8 150%
8.1 150%
7.1 150%
8.1 150%
7.2 150%
8.1 150%
9.7 150%
8.1 150%
7.0 150%



leak	6.8 150%
Sessile oak	7.0 150%
Elm	8.0 150%
Willow	6.1 150%
White maple	7.9 150%
White birch	8.1 150%
White beech	8.1 150%
Sugar birch	8.1 150%
Damson plum	8.1 150%
Softwoods	
Douglas fir	6.6 150%
Spruce, common	8.1 150%
Pine	6.6 150%

Central European spruce	8.1 150%
Scandinavian spruce	8.1 150%
Fir	8.5 150%
Cypress	6.7 150%

The moisture content is based on the dry matter at a temperature of 20°C / 68°F

More building materials

Building moisture (digit display)	11 200 digits
Wood fiber insulation board	6.8 150%
Chipboard	3.5 150%

Optional accessories:

PCE-WMT 200 RE MMK-E-150 MMK-E-30

Ram Electrode MMK-E-150 needles MMK-E-10 30-mm needles

7.5 ... 150%



Subject to change without notice

Larch



PCE Instruments SE





CONTACT

PCE Americas Inc. dba PCE Instruments 1201 Jupiter Park Drive, Suite 8 Jupiter, FL 33458 USA

Sales: +1 561-320-9162 info@pce-americas.com

Monday - Friday 9 am - 5 pm ET

www.pce-instruments.com

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