MEASUREMENT

Discover our test instruments
and their functions

PCE INSTRUMENTS

TEST INSTRUMENTS FROM THE EU

Maintenance and Service

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

PCE Instruments' wide range of products and services offers high precision and flexibility in any application as well as outstanding quality and functionality. Hereby PCE Instruments develops and manufactures test instruments mainly in its headquarter in Germany but also in various daughter companies in Spain, Poland, Romania ...

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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.

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.

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PCE-DFG X Series
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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

TECHNICAL SPECIFICATIONS

Made in

Flow measurement			Temperature (only PCE-TDS 200+)		
Measuring range	**±32 m/s**		Measuring range	type B	600 ... 1800 ºC
Resolution	0.001 m/s			type E	-100 ... 900 ºC
Accuracy DN ≥ 50 mm	±1.5 % of Rd for velocities >0.3 m/s			type J	-100 ... 1150 ºC
Accuracy DN < 50 mm	±3.5 % of Rd for velocities >0.3 m/s			type K	-100 ... 1370 ºC
Repeatability	±0.5 % of Rd			type N	-100 ... 1150 ºC
Temperature resistance	-30 ... +160 ºC			type R	0 ... 1700 ºC
Measuring method	N / V / W / Z			type S	0 ... 1500 ºC
				type T	-100 ... +400 ºC
Medium	Petrol		Resolution	0,1 ºC	
	Diesel		Accuracy	type B	±(0,5 % + 3 ºC)
	Ethanol			type E	±(0,4 % + 1 ºC)
	Sea water			type J	±(0,4 % + 1 ºC)
	Methanol			type K	±(0,4 % + 1 ºC)
	Oil			type N	±(0,4 % + 1 ºC)
	Petroleum			type R	±(0,5 % + 3 ºC)
	Crude oil			type S	±(0,5 % + 3 ºC)
	Water			type T	±(0,4 % + 1 ºC)
	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
User defined (manual input of the sound velocity of the pipe material)

Inner pipe lining
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)

Subject to change without notice

TECHNICAL SPECIFICATIONS

Further specifications

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

Sensor Order.-no.	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 ºC	no
PCE-TDS 200 M SENSOR	DN 50 ... 700	70 x 40 x 37 mm	-30 ... 160 ºC	no
PCE-TDS 200 MR SENSOR	DN 50 ... 700	280 x 60 x 40 mm	-30 ... 160 ºC	yes
PCE-TDS 200 S SENSOR	DN 15 ... 100	45 x 30 x 30 mm	-30 ... 160 ºC	no
PCE-TDS 200 SR SENSOR	DN 15 ... 100	198 x 45 x 25 mm	-30 ... 160 ºC	yes

*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

Made in 🇩🇪

Model PCE-TDS 200	Sensors are included in the scope of delivery Standard version
PCE-TDS 200 L	PCE-TDS 200 L SENSOR for DN 300 ... 6000
PCE-TDS 200 M	PCE-TDS 200 M SENSOR for DN 50 ... 700
PCE-TDS 200 ML	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	PCE-TDS 200 S SENSOR for DN 15 ... 100 PCE-TDS 200 M SENSOR for DN 50 ... 700
PCE-TDS 200 SML	PCE-TDS 200 S 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 PCE-TDS 200+	Sensors included in the scope of delivery Version with temperature sensors
PCE-TDS 200+ L	PCE-TDS 200 L SENSOR for DN 300 ... 6000
PCE-TDS 200+ M	PCE-TDS 200 M SENSOR for DN 50 ... 700
PCE-TDS 200+ ML	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	PCE-TDS 200 S SENSOR for DN 15 ... 100 PCE-TDS 200 M SENSOR for DN 50 ... 700
PCE-TDS 200+ SML	PCE-TDS 200 S 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

Accessories

CAL-PCE-TDS-ISO	ISO Calibration Certificate
CAL-PCE-TDS-DAkkS	DAkkS Calibration Certificate
CAL-T2	Calibration certificate for 2-channel thermometer
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
TF-RA330-5	Temperature Contact Sensor Typ, 5 m
TT-GEL	Ultrasonic Contact Gel, 100 ml
K-Gel	High Temperature Coupling Gel, 100 ml

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

Subject to change without notice

PCE-VDL 16I

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

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

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

ISO cal option

» 3-axis acceleration up to 800 Hz

» measures temperature, humidity, air pressure and light

» 32 GB SD memory card

» compact design: 86.8 x 44.1 x 22.2 mm

» country of origin Germany

APPLICATION

TECHNICAL SPECIFICATIONS

Made in

Parameter

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

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

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

Optional accessories:

Mounting plate	Order code PCE-VDL MNT

Subject to change without notice

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 acce-

leration 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

Made in

Parameter 3-axis acceleration

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

General technical data of the 3-axis acceleration sensor

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

Optional accessories:

Mounting plate	Order code PCE-VDL MNT

APPLICATION

Subject to changewithout notice

PCE-VT 3700 / PCE-VT 3700S

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

The vibration meter is ideal for maintenance workers to quickly check vibrating parts, machines and systems. This vibration meter shows the vibration acceleration, vibration velocity and vibration displacement directly on the display. You can use the device to quickly and reliably detect machine imbalances which can lead to, for example, bearing damage. The vibration meter is equipped with a mode that allows a measurement according to ISO 10816-3 to be carried out. The vibration meter analyzes the measured values and automatically shows a good / bad evaluation on the display. The vibration meter is supplied with a sensor on a spiral cable, magnet adapter, service bag and batteries. The ISO factory certificate completes the scope of delivery.

ISO cal option

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

PCE-VT 3700

PCE-VT 3700S

APPLICATION

TECHNICAL SPECIFICATIONS

Made in 🇩🇪

Measuring range	Acceleration		
	0.0 ... 399.9 m/s²	**Optional accessories:**	
Resolution	0.1 m/s²		
Accuracy @ 160 Hz	±2 %	PCE-VT NP	Needle sensor for vibration meter
Frequency range	10 Hz ... 1 kHz	PCE-VT VMH	Magnet adapter
	10 Hz ... 10 kHz	PCE-VT 3700 CASE	Case with rigid foam insert
		CAL-PCE-VT 3700	ISO-calibration for vibration meter
		PCE-VT 3xxx SENSOR	Replacement sensor
Measuring range	Velocity		
	0.00 ... 399.9 mm/s	**Further models:**	
Resolution	0.1 mm/s		
Accuracy @ 160 Hz	±2 %	PCE-VT 3750	incl. sensor, magnetic adapter, headset
Frequency range	10 Hz ... 1 kHz	PCE-VT 3750S	incl. needle sensor with handgrip, headset
Measuring range	Displacement		
	0.000 ... 3.9 mm		
Resolution	1 µm		
Accuracy @ 160 Hz	±2 %		
Frequency range	10 Hz ... 200 Hz		
Measurement parameters	RMS, Peak, Peak-Peak		
	Crest factor		
Units	switchable metric / imperial		
Display	3.5" LC display		
Menu languages	English, German, French		
	Spanish, Italian, Dutch		
	Portuguese, Turkish, Polish		
	Russian, Chinese, Japanese		
Power supply	3 x 1.5 V AA batteries		
Operating and storage conditions	-20 ... +65 ºC / -4 ... 149 ºF; 10 ... 95 % r.H.		
Dimensions	150 x 80 x 38 mm / 5.9 x 3.1 x 1.5"		
Weight	170 g / 6 oz		
Sensor PCE-VT 3700	Sensor with spiral cable		
	PCE-VT 3xxx SENSOR		
	Magnet adapter PCE-VT VMH		
Sensor PCE-VT 3700S	Sensor with spiral cable		
	PCE-VT 3xxx SENSOR		
	Magnet adapter PCE-VT VMH		
	Needle sensor PCE-VT NP		
	Handgrip PCE-VT 3xxx HANDLE		

Technical data vibration sensor

Resonance frequency	30 kHz
Transverse sensitivity	≤5 %
Destruction limit	5000 g (peak)
Operating and storage temperature	-20 ... +80 ºC / -4 ... 176 ºF; max. 95 % r.H.
Housing material	Stainless steel
Mounting thread	M5
Dimensions	16 x 36 mm / 0.6 x 1.4"
Weight (without cable)	35 g / 1.2 oz

PCE-VT 3700   PCE-VT 3700S

PCE-VT 3800 / PCE-VT 3800S

Vibration analyzer with external sensor / data logger function

The vibration analyzer is the ideal companion for checking vibrating parts, machines and plant. With the external vibration sensor of the vibration meter, the vibration displacement up to 3.9 mm, the vibration velocity up to 399.9 mm/s and the vibration acceleration up to 399.9 m/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

PCE-VT 3800

PCE-VT 3800S

APPLICATION

TECHNICAL SPECIFICATIONS

Made in

Measuring range	**Acceleration**	
	0.0 ... 399.9 m/s² / 0.0 - 15744 in/s²	
Resolution	0.1 m/s² / 3.94 in/s²	
Accuracy @ 160 Hz	±2 %	
Frequency range	10 Hz ... 10 kHz	
	1 kHz ... 10 kHz	
Measuring range	**Velocity**	
	0.00 ... 399.9 mm/s / 0.00 - 15.74 in/s	
Resolution	0.1 mm/s / 0.0039 in/s	
Accuracy @ 160 Hz	±2 %	
Frequency range	10 Hz ... 1 kHz	
Measuring range	**Displacement**	
	0.000 ... 3.9 mm / 0.000 - 0.154 in	
Resolution	1 µm / 39.4 µin	
Accuracy @ 160 Hz	±2 %	
Frequency range	10 Hz ... 200 Hz	
Measurement parameters	RMS, Peak, Peak-Peak	
	Crest factor	
Manual memory	99 folders with 50 measured values each	
Data logger	Various start/stop triggers	
	Measurement interval between 1 s ... 12 h	
	50 memory locations with 43.200 measured values each	
Units	can be switched to metric / imperial	
Display	2.8" LC display	
Menu languages	English, German, French	
	Spanish, Italian, Dutch	
	Portuguese, Turkish, Polish	
	Russian, Chinese, Japanese	
Power supply	internal: LiPo battery (3.7 V, 2.500 mAh)	
	external: USB 5 VDC, 500 mA	
Operating time	approx. 15 ... 20 h	
	(depending on display brightness)	
Operating and storage conditions	temperature: -20 ... +65 °C / -4 ... 149 °F	
	humidity: 10% RH ... 95% RH, non-condensing	
Protection Class	IP52	
Dimensions	165 x 85 x 32 mm / 6.5 x 3.3 x 1.3"	
Weight	239 g / 8.4 oz	

Technical Data Vibration Sensor

Resonance frequency	24 kHz
Transverse sensitivity	≤5 %
Destruction limit	5000 g (peak)
Operating and storage temperature	-55 °C ... +150 °C / -67 °F ... 302 °F

Housing material	stainless steel
Mounting thread	¼ - 28"
Dimensions	Ø 17 x 46 mm / 0.67 x 1.8"
Weight (without cable)	52 g / 1.8 oz
Sensor PCE-VT 3800	Sensor with spiral cable
	PCE-VT 3xxx SENSOR
	Magnet adapter PCE-VT VMH
Sensor PCE-VT 3800S	Sensor with spiral cable
	PCE-VT 3xxx SENSOR
	Needle sensor PCE-VT NP
	Handle PCE-VT 3xxx HANDLE **Optional**

accessories:

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

Further models:

PCE-VT 3850	incl. sensor, magnetic adapter, headset
PCE-VT 3850S	incl. needle sensor with handgrip, headset

PCE-VT 3800   PCE-VT 3800S

Subject to change without notice

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

PCE-VT 3900

PCE-VT 3900S

APPLICATION

TECHNICAL SPECIFICATIONS

Made in

Measuring range	**Acceleration**	Sensor PCE-VT 3900	Sensor with spiral cable
	0.0 ... 399.9 m/s² / 0.0 - 15744 in/s²		PCE-VT 3xxx SENSOR
Resolution	0.1 m/s² / 3.94 in/s²		Magnet adapter PCE-VT VMH
Accuracy @ 160 Hz	±2 %	Sensor PCE-VT 3900S	Sensor with spiral cable
Frequency range	10 Hz ... 10 kHz		PCE-VT 3xxx SENSOR
	1 kHz ... 10 kHz		Needle sensor PCE-VT NP
			Handle PCE-VT 3xxx HANDLE

Measuring range	**Velocity**	**Technical Data Vibration Sensor**	
	0.00 ... 399.9 mm/s / 0.00 - 15.74 in/s	Resonance frequency	24 kHz
Resolution	0.1 mm/s / 0.0039 in/s	Transverse sensitivity	≤ 5 %
Accuracy @ 160 Hz	±2 %	Destruction limit	5000 g (peak)
Frequency range	10 Hz ... 1 kHz	Operating and storage	
		temperature	-55 °C ... +150 °C /
Measuring range	**Rotational Speed**		-67 °F ... 302 °F
	600 ... 50000 RPM	Housing material	stainless steel
		Mounting thread	¼ - 28"
FFT acceleration	10 Hz ... 8 kHz	Dimensions	Ø 17 x 46 mm / 0.67 x 1.8"
FFT velocity	10 Hz... 1 kHz	Weight (without cable)	52 g / 1.8 oz
Accuracy @ 160 Hz	±2 %		
Number of FFT lines	2048	**Optional accessories:**	
Route measurement	100 routes each with 100 machines		
	each with 100 measuring points	PCE-VT NP	Needle sensor
	with 1000 measured values each	PCE-VT VMH	Magnet adapter
		CAL-PCE-VT 3xxx	ISO Calibration Certificate
Measuring range	**Displacement**	PCE-VT 3xxx SENSOR	replacement vibration sensor
	0.000 ... 3.9 mm / 0.000 - 0.154 in		
Resolution	1 µm / 39.4 µin	**Further models:**	
Accuracy @ 160 Hz	±2 %		
Frequency range	10 Hz ... 200 Hz	PCE-VT 3950	incl. sensor, magnetic adapter,headset
		PCE-VT 3950S	incl. needle sensor with handgrip,
Measurement parameters	RMS, Peak, Peak-Peak		headset
	Crest factor		
Manual memory	99 folders with 50 measured values		
	each		
Data logger	Various start/stop triggers		
	Measurement interval		
	between 1 s ... 12 h		
	50 memory locations with 43.200		
	measured values each		
Units	can be switched to metric / imperial		
Display	2.48" LC display		
Menu languages	English, German, French,Spanish,		
	Italian, Dutch, Portuguese, Turkish,		
	Polish, Russian, Chinese, Japanese		
Power supply	internal: LiPo battery (3.7 V, 2500 mAh)		
	external: USB 5 VDC, 500 mA		
Operating time	ca. 15 ... 20 h (depending on display brightness)		
Operating / storage conditions	temperature: -20 ... +65 °C / -4 ... 149 °F		
	humidity: 10% RH ... 95% RH,		
	non-condensing		
Dimensions	165 x 85 x 32 mm / 6.5 x 3.3 x 1.3"		
Weight	239 g / 8.4 oz		

PCE-VT 3900   PCE-VT 3900S

Subject to change without notice

PCE-VM 20

Vibration meter for vibration measurement on machines

Rotating components in machines generally cause machine vibrations which can go over to the entire machine via mechanically coupled components. This creates a mixture of vibration with different frequencies. This machine vibration can have different effects some of which may be desired (e. g., in conveyors or vibrating sieves) – however, in most cases they are undesirable and cause poor manufacturing qualities and increased wear of the machine. Increased wear and tear due to machine vibrations leads to reduced running times, higher failure rates and higher maintenance expenditure, i. e. to avoidable costs as a whole.

ISO cal option

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

APPLICATION

TECHNICAL SPECIFICATIONS

Made in

Vibration acceleration	0 ... 200 m/s², RMS and Peak-Peak
Vibration velocity	0 ... 200 mm/s, RMS
Vibration displacement	0 ... 2000 µm, Peak-Peak
Accuracy vibration	±5 %
Operating modes	vibration, temperature, revolutions
Representable measured variables	Frequency Vibration acceleration
	vibration velocity
	vibration
	FFT spectrum
Units	metric, imperial
	mm/s², mm/s, µm RPM und Hz
Interface	USB 2.0
Memory	4 GB micro SD card
Battery life	up to 8 h continuous operation
Battery type	lithium polymer
Display	128 x 160 pixel colour LCD
Environmental conditions	-10 ... +55 ºC
	≤80 % RH non-condensing
Dimensions	132 x 70 x 33 mm / 5.2 x 2.8 x 1.3 in (L x W x D)
Weight	approx. 150 g

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

Technical data of the vibration sensor

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

PCE-VM 22

Vibration analyzer with 4 GB data memory / Measuring range 0 ... 200 mm/s²

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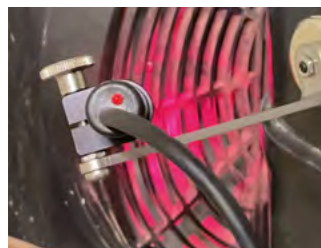ing a button, it is possible to switch from the FFT analysis to the actual wave view of the vibration. This makes it possible to analyse and evaluate a vibration even better with the vibration meter. The magnetic holder of the vibration sensor of the vibration meter is designed in such a way that it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

ISO cal option

» measuring range 0 ... 200 m/s²

» infrared temperature measurement

» 4 GB data storage

» 8 hours of battery life

» optionally with ISO calibration certificate

» FFT analysis and wave view of the vibration

APPLICATION

TECHNICAL SPECIFICATIONS

Made in 🇪🇸

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

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

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

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

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

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

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

Vibration sensor specifications
Sensitivity	100 mV/g
Cable length	approx. 1.5 m / 4.9 ft
Connection	2 pin MIL-DTL-5015
Case material	316L stainless steel
Dimensions	Ø 25 x 53 mm / Ø 0.98 x 2.08"
Weight	86 g / 3.0 oz

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

Infrared and RPM sensor specifications
Cable length	ca. 1.2 m / 3.9 ft
Dimensions	Ø 16 x 83 mm / Ø 0.63 x 3.26"
Weight	75 g / 2.6 oz

Subject to changewithout notice

PCE-VM 400B

Measurement of Acceleration, Velocity, Displacement, and Rotational Speed

The vibration analyzer is a technologically advanced instrument for the precise measurement and evaluation of vibrations in industrial applications. It enables the simultaneous measurement of vibrations on shafts and bearings across four independent channels. Equipped with high-quality piezoelectric acceleration sensors, even the smallest vibrations can be accurately captured. The vibration analyzer has various measurement functions, including acceleration, velocity, displacement, and rotational speed, to cover a wide range of applications. It also offers the capability of balancing with up to 8 correction planes to counterbalance imbalances in rotating machinery. Additionally, the vibration analyzer allows for route measurement, specifically for recurring measurements at identical measuring points.

ISO cal option

» 4 channels for measuring and evaluating vibrations

» measurement on shafts and bearings

» reliable piezoelectric acceleration sensors

» wide frequency range: 1 ... 25000 Hz

» acceleration measurement range: 0.001 ... 200 m/s²

» velocity measurement range: 0.001 ... 200 mm/s

» balancing - up to 8 correction planes

» evaluation according to ISO 10816

APPLICATION

TECHNICAL SPECIFICATIONS

Made in 🇪🇸

Acceleration	
Measurement Range	+0.001 m/s² ... +200 m/s²
Resolution	0.001 m/s²
Accuracy	± 5 %
Velocity	
Measurement Range	+0.001 mm/s ... +200 mm/s
Resolution	0.001 mm/s
Accuracy	± 5 %
Displacement	
Measurement Range	+0.001 µm ... +2000 µm
Resolution	0.001 µm
Accuracy	± 5 %
Optical Rotational Speed	
Measurement Range	+10 rpm ... +200000 rpm
Resolution	1 rpm
Accuracy	± 5 %
General Technical Data	
Number of Measurement Channels	4
Frequency	1 ... 25000 Hz
Display Type	VGA Color Display
Display Size	3.5 inches
Storage Capacity	4 GB
Data Interface	USB
Battery Capacity	3200 mAh
Battery Voltage	3.6 V
Battery Type	Lithium-Ion Battery
Operating Time	8 hours
Selectable Auto Power Off	30 ... 99999 s
Menu Language	German, English, Spanish, Polish, Russian, French, Chinese, Indonesian
Protection Class (Device)	IP20
Power Supply	Battery, Power Adapter
Weight	460 g / 1.0 lb
Device Weight with Accessories	2800 g / 6.1 lb
Device Weight with Accessories and Packaging	2800 g / 6.1 lb
Dimensions (L x W x H)	220 x 100 x 42 mm / 8.6 x 3.9 x 1.6 in
Additional Dimensions	Sensor Cable Length: 140 cm
Operating Conditions	-10 ... 50 ℃ , 90 % r.H
Storage Conditions	-10 ... 50 ℃ , 90 % r.H

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

Made in

Measurement range	10 ... 900 Hz
Accuracy	±(1 % of Rd + 4 digits)
Repeatability	±1 Hz
Resolution	<100 Hz: 0.1 Hz
	>100 Hz: 1 Hz
Sensor length	**16 cm / 6,2 in**
Belt length	max. 9.999 m
Belt mass	max. 9.999 kg/m
Memory	750 readings
	15 folders, 50 measuring points/folder
Menu languages	English, German, Spanish, French, Italian, Dutch
Power supply	3 x 1.5 V AA battery
Operating conditions	0 ... 50 °C; max. 95 % RH
Storage conditions	-20 ... 65 °C; max. 95 % RH
Dimensions	150 x 80 x 38 mm
Weight	approx. 200 g incl. batteries

Further Model:

PCE-BTM 2000L	**Sensor length**	**25 cm / 9,8 in**

PCE-BTM 2000 SHS

PCE-MH

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. At 6,000 flashes per minute and a distance of 30 cm, the stroboscope achieves an illuminance of 2,900 lux. A long operating time is achieved by the large Li-ion battery.

ISO cal option

» brightness: 3 High Power LEDs

» 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

Made in

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
Brightness	11730 lux @ 20cm @ 1000Hz 1%
	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
Protection Class (Device)	IP52
Power Supply	5V DC, 2A
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

Measurement Range	+60 FPM ... +9999.99 FPM
Resolution	0.01 FPM
Accuracy	0.001%

Frequency

Measurement Range	+10000 FPM ... +300000 FPM
Resolution	0.1 FPM
Accuracy	0.001%

Frequency

Measurement Range	+1 Hz ... +5000 Hz
Resolution	0.01 Hz
Accuracy	0.001%

Batteries and Accumulators

Type	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	1

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

Subject to change without notice

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)

APPLICATION

TECHNICAL SPECIFICATIONS

Made in 🇩🇪

Operating frequency	60 kHz, sine wave
Conductivity measuring range	0.51 % IACS ... 112 % IACS
	0.3 MS/m ... 65 MS/m
	resistance 0.015388 ... 3.33333 Ω•mm²/m
Conductivity resolution	0.01 % IACS (at <51 % IACS)
	0.1 % IACS (at 51 % IACS ... 112 % IACS)
Conductivity accuracy	±0.5 % at +20 °C / 68 °F
	±1 % at 0 ... +40 °C / 32 ... 104 °F
Lift-off effect	probe compensation 0.5 mm
Temperature measuring range	0 ... +50 °C / 32 ... 122 °F
Temperature accuracy	±0.5 °C
Automatic compensation	Automatic adjustment of conductivity result to the value at 20 °C / 68 °F
Operating conditions	0 ... 50 °C / 32 ... 122 °F, 0 ... 95 % RH
Display	LCD with backlight
Menu languages	English, German, Chinese (simplified)
Power supply	internal rechargeable battery
Probe	Ø 14 mm / ≈ 0.55 in
Memory	up to 500 groups of measurement values
Data interface	USB
Dimensions	220 x 95 x 35 mm / 8.66 x 3.74 x 1.38 in
Weight	415 g / 1 lb (with probe)

Optional accessories:

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

Subject to change without notice

GAUSS METER
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

Made in 🇩🇪

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

PCE-MFM 2400

PCE-MFM 2400+

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

» practical V-groove on the measuring heads

» internal data memory

» warning for measurements exceeding the measuring range

» wear-resistant, spring-mounted measuring head for precise measurement results

» all PCE-CT 80 HP models feature a particularly high accuracy

APPLICATION

TECHNICAL SPECIFICATIONS

Made in

Measurement range	Fe: 0 ... 5000 µm / 0 ... 196.9 mils (depending on probe)
	NFe: 0 ... 3000 µm / 0 ... 118.1 mils (depending on probe)
Accuracy	
PCE-CT 80 Serie	±(2 % v. Mw. + 1 µm)
PCE-CT 80 HP Serie	±(1 % v. Mw. + 1 µm)
Resolution	0.1 µm (<100 µm)
	1 µm (>100 µm)
Measurable materials	Non-magnetic layers on steel, iron, ...
	Non-electrically conductive layers on aluminium, copper, ...
Min. radius of curvature convex	5 mm
Min. radius of curvature concave	25 mm
Min. measuring surface	Ø 17 mm
Min. layer thickness	0.2 mm (on magnetic materials)
	0.05 mm (on non-magnetic materials)
Probe mode	Autom. mode with material detection (Fe + NFe)
	Magnetic mode (Fe)
	Eddy current mode (NFe)
Measurement modes	Single measurement
	Continuous measurement
Calibration	Multipoint calibration (1 ... 4 points for each group) zero point calibration
Units	µm, mm, mils
Data transfer	USB 2.0
Memory	One volatile measuring group (DIR mode)
	Four measuring groups with autom. storage and max. 2000 readings (GEN mode)
Statistical functions	Number of measured values, mean, minimum, maximum, standard deviation
Alarm	Display when the adjustable upper and lower alarm limits are exceeded
Operating time	Auto Power Off mode (3 min)
Power supply	3 x 1.5 V AAA batteries
Display	128 x 128 px LCD
Displayed information	Battery status / flaw detection
Operating conditions	0 ... 50 °C / 32 ... 122 °F / 20 ... 90 % RH not condensing
Storage conditions	-10 ... 60 °C / 14 ... 140 °F / 20 ... 90 % RH not condensing
Dimensions	143 x 71 x 37 mm / 5.6 x 2.8 x 1.5 in (L x W x H)
Weight	with sensor and batteries: approx. 271 g / <1 lb

Models:

PCE-CT 80-F5N3	Measurement range: Fe: 0 ... 5000 µm, NFe: 0 ... 3000 µm
PCE-CT 80-FN0D5	Measurement range: Fe: 0 ... 500 µm, NFe: 0 ... 500 µm
PCE-CT 80-FN1D5	Measurement range: Fe: 0 ... 1500 µm, NFe: 0 ... 1500 µm
PCE-CT 80-FN2	Measurement range: Fe: 0 ... 2000 µm, NFe: 0 ... 2000 µm
PCE-CT 80-FN2D5	Measurement range: Fe: 0 ... 2500 µm, NFe: 0 ... 2500 µm
PCE-CT 80-FN3	Measurement range: Fe: 0 ... 3000 µm, NFe: 0 ... 3000 µm
PCE-CT 80HP-F5N3	Measurement range: Fe: 0 ... 5000 µm, NFe: 0 ... 3000 µm
PCE-CT 80HP-FN0D5	Measurement range: Fe: 0 ... 500 µm, NFe: 0 ... 500 µm
PCE-CT 80HP-FN1D5	Measurement range: Fe: 0 ... 1500 µm, NFe: 0 ... 1500 µm
PCE-CT 80HP-FN2	Measurement range: Fe: 0 ... 2000 µm, NFe: 0 ... 2000 µm
PCE-CT 80HP-FN2D5	Measurement range: Fe: 0 ... 2500 µm, NFe: 0 ... 2500 µm
PCE-CT 80HP-FN3	Measurement range: Fe: 0 ... 3000 µm, NFe: 0 ... 3000 µm

Subject to change without notice

PCE-TG 75

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

Made in

Measuring range	1.00 ... 225.0 mm / 0.04 ... 8.85"
Resolution	0.01 mm at ≤99.99 mm
	0.1 mm at ≥100.0 mm
Accuracy	±0.5 % of measured value + 0.05 mm
Storage space	500 measured values
Probe frequency	5 MHz
Standard sensor	sensor PCE-TG 5M10d

Further specifications

Adjustable speed of sound	
1000 ... 9999 m/s	
Smallest pipe diameter	Ø 20 x 3 mm (steel)
Material library	15 memory locations
Calibration reference	4 mm
Display	2.4 inch TFT LCD color display
	with brightness adjustment
Power supply	3 x 1.5 V AA batteries
Automatic switch-off	switched off, 2, 5, 10, 30 minutes
Ambient conditions	0 ... 40 °C / 32 ... 104 °F, <90 % RH, non-condensing
Dimensions	163 x 82 x 38 mm / 6.4 x 3.2 x 1.5"
Weight	320 g / 11.2 oz

Optional accessories:

Standard probe for the PCE-TG 75/150	Order no.: PCE-TG 5M10d

MATERIAL
THICKNESS GAUGE

PCE-TG 75

APPLICATION

PCE-TG 150

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

» optionally with ISO calibration certificate

APPLICATION

TECHNICAL SPECIFICATIONS

Measuring range	1.00 ... 300.0 mm / 0.04 ... 11.81"
Resolution	0.01 mm at ≤99.99 mm
	0.1 mm at ≥100.0 mm
Accuracy	±0.5 % of measured value +0.05 mm
Storage space	1500 measured values
Probe frequency	5 MHz / 2.5 MHz
Standard sensor	sensor PCE-TG 5M10d

Further specifications

Adjustable speed of sound	1000 ... 9999 m/s
Smallest pipe diameter	Ø 20 x 3 mm (steel)
Material library	15 memory locations
Calibration reference	4 mm
Display	2.4 inch TFT LCD color display
	with brightness adjustment
Power supply	3 x 1.5 V AA batteries
Automatic switch-off	switched off, 2, 5, 10, 30 minutes
Ambient conditions	0 ... 40 °C / 32 ... 104 °F, <90 % RH, non-condensing
Dimensions	163 x 82 x 38 mm / 6.4 x 3.2 x 1.5"
Weight	320 g / 11.2 oz

Further Model:

PCE-TG 150 HT	Probe frequency 5 MHz

PCE-TG 150 F2.5	Probe frequency 2.5 MHz

Optional accessories:

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

Made in 🇩🇪

Subject to change without notice

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 hard-to-reach measuring positions. The speed of sound can be set freely

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

ISO cal option

» wide measuring range
» various probes available
» battery operation
» fault and cavity detection
» internal measurement data memory
» printing via Bluetooth

APPLICATION

TECHNICAL SPECIFICATIONS

Made in 🇩🇪

Measuring range	PE: pulse-echo mode 0.65 ... 600 mm (steel)
Accuracy	±0.04 mm H [mm] (< 10 mm); ±0.4 % H [mm] (> 10 mm)
	H refers to the material thickness of the
workpiece	
Resolution	0.1 mm / 0.01 mm / 0.001 mm (adjustable)
Measurable materials	Metals
	Plastics
	Ceramics
	Epoxy resin
	Glass
	and all homogeneous materials
Working modes	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 100 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 brightness adjustment
Operating conditions	0 ... 50 ℃ / 32 ... 122 °F, ≤80 % RH non condensing
Storage conditions	-20 ... 70 ℃ / -4 ... 158 °F, ≤80 % RH non-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
diameter	20 x 3 mm
Description	normal measurement and E-E test

PCE-TG 300-N02   (not suitable for curved materials)

Frequency / Ø	2.5 MHz / 14 mm
Measurement range	3 ... 40 mm (steel)
	3 ... 300 mm (steel)
Description	For damping / scattering materials (plastics, cast iron)

PCE-TG 300-N05

Frequency / Ø	5 MHz / 10 mm
Measurement range	1 ... 600 mm (steel)
Minimum pipe diameter	20 x 3 mm
Description	normal measurement

PCE-TG-300-N05/90
N05 / 90 °

Frequency / Ø	5 MHz / 10 mm
Measurement range	1 ... 600 mm (steel)
Minimum pipe diameter	20 x 3 mm
Description	normal measurement

PCE-TG 300-N07

Frequency / Ø	7 MHz / 6 mm
Measurement range	0.65 ... 200 mm (steel)
Minimum pipe diameter	15 x 2 mm
Description	for thin-walled or strongly curved pipes

PCE-TG 300-HT5

Frequency / Ø	5 MHz / 12 mm
Measurement range	1 ... 600 mm (steel)
Minimum pipe diameter	30 mm
Description	for high temperatures (max. 300 ℃)

www.pce-instruments.com

PCE-DFG X Series

TECHNICAL SPECIFICATIONS

Made in 🇩🇪

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..

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

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

General technical data

Accuracy	±0.05 % FS
Units	N, kg, g, t, kN, Pa, kPa, Nm, Ncm, lb, ft
Display	2.8" LCD graphical display
Alarm modes	overrun, underrun, inside, outside
Alarm type	Visual, acoustic
Sampling rate	1 ... 7,200 Hz
Calibration	mV/V, individually up to 15 measuring points
Memory	30 x 1 Mio data points
Power supply	internal: LiPo battery, external: USB 5 V DC, 500 mA
Menu languages	German, English, French, Spanish, Italian, Dutch, Portuguese, Turkish, Polish, Russian, Chinese, Japanese, Danish
Operating time	approx. 13 h
Interface	USB-C
Protection class	IP 52
Operating and storage conditions	-20 ...65 °C / -4 ... 149 °F, 10 ... 95 % RH non-condensing
Force absorption element	M6 x 7 mm
Dimensions	165 x 85 x 32 mm / 6.5 x 33.5 x 12.6 in
Weight	540 g / 1.2 lbs

Optional accessories:

Clamp for peel-off tests	Order code	PCE-SJJ035
Holder for button and rivet testing	Order code	PCE-SJJ032
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-SJJ02
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

PCE-SJJ035   PCE-SJJ012

PCE-SJJ032   PCE-SJJ029

PCE-SJJ017

Subject to changewithout notice

APPLICATION

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

APPLICATION
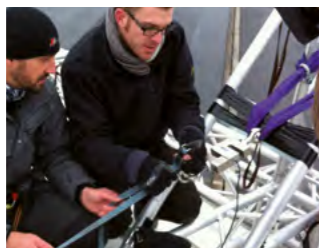
TECHNICAL SPECIFICATIONS

Model	Measuring range	Resolution
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, Ncm, lb, ft
Display	2.8" TFT graphical display
Alarm modes	overrun, underrun, inside, outside
Alarm type	Visual, acoustic
Sampling rate	1 ... 7,200 Hz
Calibration	mV/V, individually up to 15 measuring points
Menu languages	German, English, French, Spanish, Italian, Dutch, Portuguese, Turkish, Polish, Russian, Chinese, Japanese, Danish
Memory	30 x 1 Mio data points
Power supply	internal: LiPo battery / external: USB 5 V DC, 500 mA
Operating time	approx. 13 h
Interface	USB-C
Protection class	IP 52
Protection class measuring cell	IP 67
Operating and storage conditions	-20 ...65 °C / -4 ... 149 °F, 10 ... 95 % RH non-condensing
Dimensions	165 x 85 x 32 mm / 65 x 33.5 x 12.6 in
Weight handheld	255 g / 0.6 lbs

Optional accessories:

Fork holder for tensile & compr. tests	Order code	PCE-SJJ09
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
Clamping device for test stand	Order code	PCE-SJJ015

PCE-SJJ06   PCE-SJJ015

Subject to change without notice

PCE-PST 1

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

PCE-PST 1 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-PST 1 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
» evaluation via software

TECHNICAL SPECIFICATIONS

Made in

Measuring range	500 N / 50 kg / 110 lbs
Measurable edge thickness	0.4 mm … 3.5 mm
	0.02 in … 0.14 in
Measurable plate thicknesses	10 mm … 64 mm
	0.4 in … 2.5 in
Travel speed	0.3 m/min / 11.8 in/min
Traverse	100 mm / 3.9 in
Measurement accuracy	± 0.1% of the measuring range
Resolution	0.1 N / 0.010 kg / 0.02 lbs
Max. overload	± 20%
Display	Graphic display with backlight
	61 mm x 34 mm / 2.4 in x 1.3 in
Operating modes	Manual / automatic
Interface	USB
Environmental conditions	-10°C … 40°C / 14°F … 104°F
Weight	ca. 9 kg / 19.8 lbs
Power supply	230V / 110V / 12V; 1.2 A
Dimensions (LxWxH)	490 mm x 210 mm x 150 mm
	19.3 in x 8.3 in x 5.9 in

Optional accessories:

Test Table	Order no.: PS-PST 1
Support table extension	Order no.: AV-PST 1

APPLICATION

Subject to change without notice

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

Made in

Models of the PCE-HFG series:

Measured value: Force [N]

Measuring range

PCE-HFG 1K	0... 1000 N
PCE-HFG 2.5K	0... 2500 N
PCE-HFG 10K	0... 10000 N
PCE-HFG 25K	0... 25000 N

Models with 1 m long hydraulic hose

PCE-HFG 1K E100	0 ... ..1000 N
PCE-HFG 2.5K E100	0 ... 2500 N
PCE-HFG 10K E100	0 ... 10000 N
PCE-HFG 25K E100	0 ... 25000 N

Resolution:

PCE-HFG 1K	20 N
PCE-HFG 2.5K	100 N
PCE-HFG 10K	200 N
PCE-HFG 25K	1000 N

Accuracy:	±(1.6 % pressure gauge +0.25 % reading error) from measuring range
Temperature range:	0... 50 ºC
weight:	1.6 kg
Mounting holes:	2 x M6
Inner diameter of the ring:	Ø 27 mm
Display dimensions:	Ø 55 mm

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

TECHNICAL SPECIFICATIONS

Made in

Measurement ranges	170 ... 960 HLD	Display resolution	128 x 64 pixel OLED
	17.9 ... 69.5 HRC	Data memory	600 averages in 6 data groups
	19 ... 683 HB	Data output	USB pen drive
	80 ... 1042 HV	Power supply	3 x AAA batteries
	30.6 ... 102.6 HS	Auto Power Off	after 12 min of inactivity
	59.1 ... 88 HRA	Operating conditions	+10 ... +50 °C, 20 ... 90 % RH
	13.5 ... 101.7 HRB	Storage conditions	-30 ... +60 °C
		Dimensions	160 x 80 x 40 mm (H x W x D)
Impact device included	D	Weight	Meter with batteries: approx. 300 g / <1 lb
(optional impact devices)	(DC, D+15, C, G, DL)		
Cable length impact device	approx. 1.5 m		Impact device: approx. 75 g / <1 lb
Accuracy	±0.5 % (@800 HLD)	Material	
Repeatability	0.8 % (@800 HLD)	Steel / cold-rolled steel	HRA 59.1 ... 85.8
			HRC 20 ... 68.5
Hardness scales	HL (Leeb)		HRB 38.4 ... 99.6
	HV (Vickers)		HB 127 ... 651
	HB (Brinell)		HSD 32.2 ... 99.5
	HS (Shore)		HV 83 ... 976
	HRA (Rockwell A)		
	HRB (Rockwell B)	Alloyed tool steel	HRC 20.4 ... 67.1
	HRC (Rockwell C)		HV 80 ... 898
Measurable materials	Steel	Stainless steel	HRB 46.5 ... 101.7
	Cast steel		HB 85 ... 655
	Alloy steel		HV 85 ... 802
	Stainless steel		
	Grey cast	Grey cast iron	HB 93 ... 334
	iron	Spheroidal graphite iron	HB 131 ... 387
	Spheroidal	Cast aluminium	HRB 23.8 ... 84.6
	graphite iron		HB 19 ... 164
	Cast aluminium alloy		
	Cu-zinc (brass)	Brass	HRB 13.5 ... 95.3
	Copper-tin alloy		HB 40 ... 173
	Copper	Bronze	HB 60 ... 290
Copper	HB 45 ... 315		

Optional accessories:

Impact device D	Order code	PCE-2000N Probe D
Impact device DC	Order code	PCE-2000N Probe DC
Impact device D+15	Order code	PCE-2000N Probe D+15
Impact device C	Order code	PCE-2000N Probe C
Impact device G	Order code	PCE-2000N Probe G
Impact device DL	Order code	PCE-2000N Probe DL

APPLICATION

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

APPLICATION

TECHNICAL SPECIFICATIONS

Made in

Measurement range	200 ... 900 HLD
Measuring accuracy	±10 HLD
Materials	9 different materials
	Leeb: HL
	Rockwell C: HRC
	Rockwell B: HRB
Hardness scales	Brinell: HB
	Vickers: HV
	Shore: HSD
Display	12.5 mm LCD with backlight
Included impact device	D-type
Memory	50 data records
Interface	RS-232
Power supply	4 x 1.5 V AAA batteries
Operating temperature:	-10 ... 50 ºC
Environmental conditions	Storage temperature: -30 ... 60 ºC
	relative humidity: <90 %
Dimensions	142 x 77 x 40 mm
Weight	Meter: ca. 130 g
	Impact device: 75 g
Cable length	approx. 1.2 m

Optional accessories:

Surface adaptor for concave spherical surfaces	Order code	HK16.5-30	16.5 ... 30 mm
Surface adaptor for concave spherical surfaces	Order code	HK12.5-17	12.5 ... 17 mm
Surface adaptor for concave spherical surfaces	Order code	HK11-13	11 ... 13 mm
Surface adaptor convex	Order code	Z25-50	25 ... 50 mm (outside) Surface
adaptor convex	Order code	Z10-15	10 ... 15 mm (outside) Surface
adaptor concave	Order code	HZ16.5-30	16.5 ... 30 mm (inside) Surface
adaptor concave	Order code	HZ12.5-17	12.5 ... 17 mm (inside) Surface
adaptor concave	Order code	HZ11-13	11 ... 13 mm (inside)

Subject to change without notice

PCE-LMD 100

For luminance measurement / for monitors, screens, LED video walls

The luminance meter is designed for measuring the luminance of self-illuminating surfaces, such as monitor matrices, TV screens, negatoscopes, reading boards, etc. e.g. monitor matrices, TV sets, negatoscopes, reading panels, etc. The luminance meter guarantees an accurate measurement, regardless of the spatial distribution of the measured luminance or the backlighting of the surface to be tested. It is indispensable for checking medical screens and negatoscopes. The unit cd/m² relates the photometric quantity cd (abbreviation for candela) to the area of the display, expressed in square metres. Another feature of the luminance meter is the integrated measured value memory. With this function, measurement results can be easily saved and automatically recorded.

ISO cal option

» accuracy class: A according to DIN 5032-7

» large measuring range: 0.00 ... 50000 cd/m²

» external sensor with multifunction button

» 8 GB measured value memory

TECHNICAL SPECIFICATIONS

Made in

Luminance

Measuring range	0 cd/m² ... +500 cd/m²
Resolution	0.01 cd/m²
Accuracy	Total error at +10 ... +40°C: 2.5%
Total error at -10 ... +50°C: 3%	
Class A (CIE, DIN 5032-7)	

Luminance

Measuring range	+500 cd/m² ... +50000 cd/m²
Resolution	1 cd/m²
Accuracy	Total error at +10 ... +40°C: 2.5%
Total error at -10 ... +50°C: 3%	
Class A (CIE, DIN 5032-7)	

General technical data

Display type	NULL
Display refresh rate	1 x per second
Storage medium	Micro SD card
Storage interval of	1 s
Memory interval up to	60 s
Memory capacity	8 GB
Interface	Micro-USB
Operating time	23 h
Measurement rate	1 Hz
Measuring field	10 mm
Measuring angle	1 °
Menu language	English, Polish
Protection class (device)	IP20
Power supply	5V DC / max. 2.1A
Weight	172 g
Device weight with scope of delivery	1.4 kg
Device weight with scope of delivery and outer packaging	1.8 kg
Dimensions (L x W x H)	118 x 74 x 21 mm
Other dimensions	Probe dimensions: Ø 25 x 160 mm
Operating conditions	-10 ... 50 °C , 90 % r.h.
Storage conditions	-10 ... 50 °C , 90 % r.h.

APPLICATION

PCE-UV 40A

Simultaneous measurement of UVA and light

The light measuring device / lux meter is a highly developed instrument that is characterized by its versatility and precision. With its dual measurement channels, the light measuring device / lux meter enables the simultaneous measurement of UV-A radiation and visible light.

The external sensor allows the light measuring device / lux meter to be positioned flexibly to carry out precise measurements in different locations. This function is helpful, for example, when measuring UV lights for material testing according to the standards "EN ISO 9934-1 Non-destructive testing with magnetic powder" and "EN ISO 3059 Non-destructive testing, penetrant testing and magnetic particle testing

ISO cal option

» two-channel measuring device UV-A and visible light
» external sensor
» simultaneous measurement
» two UV-A measuring ranges up to 100 W/m²
» control of UV lights for material testing
» automatic measuring range changeover 0 lx ... 10 klx
» accurate measurement of illuminance regardless of lamp type
» measured value memory

APPLICATION

TECHNICAL SPECIFICATIONS

Made in

Light
Measuring range	0 lx ... 10 klx
resolution	0.1 lx
accuracy	f1 ≤ 3 %

UV
Measuring range	0 W/m² ... +100 W/m²
resolution	0.01W/m²
accuracy	According to EN ISO 3059 V(λ) CIE
Δλ1/10 320 – 395nm	
Δλ1/2 337 – 385nm	
λmax 365nm	
Sλ=313nm < 5%	
Sλ=405nm < 0.5%	

General technical data
Display type	LCD with lighting
Storage medium	Internal memory
Storage capacity	20 records
interface	Mini USB
Norm(s)	ISO/CIE 19476, EN ISO 3059, EN ISO 9934
Measuring rate	1Hz
Menu language	English, Polish
Protection class (device)	IP20
Weight	148g / 0.3 lbs
Device weight with scope of delivery	1198g / 2.6 lbs
Device weight including scope of delivery and outer packaging	1377g / 3 lbs
Dimensions (L x W x H)	118 x 72 x 20 mm / 4.6 x 2.8 x 0.8 in
Other dimensions	Probe Ø 44 x 25.5 mm
Cable length probe 1.5 m / 4.9 ft	
Extension rod 460 mm / 18.1 in	
Operating conditions	-10 ... 50 ℃ / 14 ... 122 °F, 0 ... 90 % RH
Storage conditions	-10 ... 50 ℃ / 14 ... 122 °F, 0 ... 80 % RH
Languages of the instructions	English

Subject to change without notice

PCE-LMD 200

Lux Meter class A according to DIN 5032-7 / data logger with 8 GB measured value memory

The lux meter is a precise measuring instrument that meets the highest demands for light measurements. In accordance with DIN 5032-7, it fulfils the requirements of precision class A, which enables accurate and reliable detection of light intensities. With an impressive measuring range of 0.000 lux to 500,000 lux, the lux meter is extremely versatile.

Whether for lighting control at the workplace, in exhibitions or outdoors - the lux meter covers a wide range of applications. Accuracy class A not only ensures precise measurements, but also high reproducibility of the results. This is particularly important in applications where accurate light measurements are crucial.

ISO cal option

» precision according to DIN 5032-7

» large measuring range: 0.000 lx ... 500 klux

» accuracy class: A

» external sensor

» 8 GB measured value memory

» battery operation

APPLICATION

TECHNICAL SPECIFICATIONS

Light

Measurement range	0 lx ... +50 lx
Resolution	0.001 lx
Accuracy	Total error ≤ 2.0% (CIE, DIN 5032-7) Class A @ 10 ... 40 °C

Light

Measurement range	+50 lx ... +5 klx
Resolution	0.1 lx
Accuracy	Total error ≤ 2.0% (CIE, DIN 5032-7) Class A @ 10 ... 40 °C

Light

Measurement range	+5 klx ... +500 klx
Resolution	0.01 klx
accuracy	total error ≤ 2.0% (CIE, DIN 5032-7) class A @ 10 ... 40 °C

General technical data

Units	lx, klx
Display type	LCD
Display refresh rate	1 x per second
Storage medium	Micro-SD card
Memory interval of	1 s
Memory interval up to	60 s
Memory capacity	8 GB
Interface	Micro-USB
Standard(s)	DIN 5032-7, ISO/CIE 19476, EN 12464-1, EN 12464-2, EN 12665
Operating time	23 h
Measurement rate	1 Hz
Classification	A (CIE, DIN 5032-7)
Menu language	English, Polish
Protection class (appliance)	IP20
Power supply	5V DC / max. 2,1A
Weight	172 g
Device weight with delivery	1.67 kg
Equipment weight with scope of delivery and outer packaging	1,71 kg
Dimensions (L x W x H)	118 x 74 x 21 mm
Other dimensions	Probe dimensions: Ø 44 x 25 mm
. Extension rod: approx. 1 metre	
Operating conditions	-20 ... 50 °C , 90 % r.H.
storage conditions	-20 ... 50 °C , 90 % RH
Languages of the instructions	English

Further Model:

PCE-LMD 200-LD-KIT
incl.luminance accessory

Made in

PCE-LMDC 200

Simulator for light measuring devices / Light intensity 100 lx / Light colour 3000 k

The simulator for light measuring devices is characterised by its precise properties. The light intensity of the simulator is fixed at 100 lux and ensures reliable and precise adjustment of the light sensors. Light measuring devices that are checked and adjusted with the simulator provide reliable measured values under real conditions. Another important feature of the simulator is its defined light colour

of 3000 Kelvin. This colour temperature of the simulator's light source is adapted to common lighting conditions and therefore enables realistic calibration. The working period of the simulator is 1 minute. This short period of time ensures that the simulator's light source is not subject to unnecessary wear and tear.

ISO cal option

» light intensity 100 lx

» light colour 3000 K

» working period 1 min.

» input voltage control

» suitable for PCE-LMD 200

» Ø probe 44 mm Ø receiving field 12.5 mm.

TECHNICAL SPECIFICATIONS

Made in

Luminous intensity	100 lx
Light colour	3000 K
Accuracy	±0.1 % (max. ±0.3 %)
after 3000 periods or 1 year ±1 %	
Protection class (device)	IP20
Power supply	12V DC 0.6 A
Plug type	Euro plug device
Weight	650 g
Device weight with scope of delivery	1310 g
Device weight with scope of delivery and outer packaging	1450 g
Dimensions (L x W x H)	110 x 80 x 80 mm
Operating conditions	0 ... 40 °C , 0 ... 80 % r.H
Storage conditions	0 ... 40 °C , 0 ... 80 % r.H

APPLICATION

PCE-LDC 8

Leak detector for compressed air lines / operating frequency 40 kHz

The Gas Leak Detector is used to locate leaks on compressed air lines. Furthermore, the Gas Leak Detector can also be used on coolant lines or gas lines for leak detection. The Gas Leak Detector is equipped with an ultrasonic sensor that can precisely detect leaks in air lines. The ultrasound sensor from the Gas Leak Detector works at a frequency of 40 kHz. This means that the Gas Leak Detector is calibrated to the medium frequency that leaks on pressure lines emit. This is in the range between 20 ... 80 kHz. A high-pass filter in the leak detector ensures that all noises are filtered at a frequency <40 kHz in order to perform a better leak detection. An integrated amplifier element in the leak detector ensures that the high-frequency tones.

ISO cal option

» working frequency of 40 kHz

» easy to use

» up to 6 h battery operation

» Leak detection via headphones and LCD display

» robust and ergonomic

» can be used over long distances

APPLICATION

TECHNICAL SPECIFICATIONS

Made in

measuring principle	Ultrasonic
measuring medium	Air, coolant, non-explosive gases
operating frequency	40 kHz ± 2 kHz
connections	3.5 mm jack plug for sensor
	3.5 mm jack plug for headphones and charger
display	LC display
power supply	NiMH battery
operating time	approx. 6 h without laser pointer
	approx. 4 h with laser pointer
charging time	about 1.5 h
operating temperature	Normal operation: 0 ... 40 ° C
	Charging mode: 10 ... 40 ° C
laser	2nd grade; <1mW; 650 nm
Dimensions	7.54 x 3.44 x 2.09 in; 191.5 x 87.5 x 53 mm
Weight	approx. 250 g

Measurement options pressure vs. Diameter / range

print	diameter	Range
0.5 bar	0.1 mm	6.6 ft, 2 m
	0.2 mm	6.6 ft, 2 m
	0.5 mm	32.8 ft, 10 m

print	diameter	Range
5 bar	0.1 mm	26.2 ft, 8 m
	0.2 mm	45.9 ft, 14 m
	0.5 mm	59.1 ft, 18 m

PCE-LDC 15

Leakage detection via sound/noise measurement / operating frequency 40 kHz

The leak detector is used in various areas of industry. For example, the leak detector is used on compressed air, gas, steam and vacuum systems, as well as on refrigeration systems and door seals. The working frequency of the leak detector is 40 kHz (± 2 kHz). The soundproof headphones on the leak detector ensure that it can also be used in extremely noisy environments. The leak detector is used wherever gases can escape from leaks in piping systems. The noises caused by the outflow are often in the ultrasonic range and are therefore imperceptible to the human ear.

ISO cal option

» working frequency 40 kHz (± 2 kHz)

» operating time >10 hours

» various attachments

» transport case for safe transport

» easy to use thanks to the touchscreen

» soundproof headphones

TECHNICAL SPECIFICATIONS

Working frequency	40 kHz (± 2 kHz)
Laser	wavelength 630 ... 660 nm, output power <1mW (laser class 2)
Color display	3.5" touch panel TFT
Connections	3.5 mm jack plug for headphones, power supply socket for connecting an external charger USB port for software updates
Power supply	internal 7.4 V lithium-ion battery
Charging time	max. 4 hours
Operating time	>10 h (continuous operation)
Degree of protection	IP20
Operating conditions	-5 ... +50 °C / 23 ... 122 °F, <95 % RH, non-condensing
Storage conditions	-20 ... 60 °C / -4 ... 140 °F, <95 % RH, non-condensing
Altitude	4000 m above sea level
Permitted Pollution degree	2
Dimensions	263 x 96 x 280 mm / 10.3 x 3.7 x 11" (with preamplifier and horn)
Weight	0.55 kg / 1.2 lb with preamplifier and horn, complete set in case approx. 3.0 kg / 6.6 lb

Made in

APPLICATION

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

Made in

Power supply	230 V AC
Supply voltage for sensors (output)	12 V DC 24 V DC
Measurement range	0 ... 50 m/s
Measuring accuracy	±3 % of measurement range
Signal input	4 ... 20 mA
Alarm relay	2 x changeover contact 220 V AC / 10 A
Interface	RS485 (optional)
Operating temperature	-20 ... +60 ºC
Protection class	IP66
Dimensions	197.5 x 90 x 45 mm

Optional accessories:

Sensor cable 25 m	Order code	PCE-WSAC 50-SC25
Mounting bracket	Order code	PCE-FST 200-201 MNT
Wind sensor	Order code	PCE-FST-200-201-U voltage output
Wind sensor	Order code	PCE-FST-200-201-I current output

Power supply and sensor input signal individually 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

Subject to change without notice

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 ... 70ºC / -4 ... 158ºF

» radio transmission

APPLICATION

TECHNICAL SPECIFICATIONS

Made in

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

Input	Pulse, analog (4 ... 20-mA) or radio
Radio	**IEEE 802.15.4 ISM 2.4 GHz**
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 LC display
Casing	Robust plastic housing
Protection class	IP65
Dimensions	145 x 95 x 125 mm / 5.7 x 3.7 x 4.9 in
Weight	650 g / 1.4 lbs

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

Measuring range	4 ... 180 km / h
Minimum start speed	8 km / h
Accuracy	± 1 km / h in the range 4 ... 15 km / h
	± 3% in the range 16 ... 180 km / h
Power supply	Battery mono cell D 1.5V DC
Power consumption	approx. 0.3 W with 1.5V DC power supply
Housing material	PA + FG
Ball-bearing	Stainless steel X65Cr13
Holder	Stainless steel AISI 304
Weight (with standard bracket)	about 680 g / 1.5 lbs
Geicht with self-leveling bracket	about 900 g / 2 lbs
Dimensions	320 x 110 x 100 mm / 12.6 x 4.3 x 3.9 in
Storage temperature	-35 ... 70ºC / -31 ...158ºF
Ambient temperature	-20 ... 70ºC / -4 ... 158ºF
Protection	IP65

Models:

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

Subject to changewithout notice

PCE-PDA 01L

Digital pressure meter with a datalogger

The differential pressure gauges of the PCE-PDA series are reliable differential pressure gauges for pressure measurement of gases in the range of ± 200 Pa, ± 2kPa and 20 kPa depending on the model. The differential pressure gauge has many different pressure measuring functions. This gives the user more than 16 units. Furthermore, the differential pressure gauge measures in addition to the differential pressure, the temperature, flow velocity and volume flow. In addition, the maximum and minimum differential pressure can be displayed in the two-part graphic display. The resolution of the differential pressure can optionally be switched. The differential pressure gauge incorporates a high-precision mode that increases the resolution tenfold.

ISO cal option

» datalogger and leak test

» quick coupling connection

» temperature, flow and leakage measurement

» high precision measuring mode

» simple operation (voice-controlled)

» units switchable (Pa, kPa, hPa, ...)

TECHNICAL SPECIFICATIONS

Made in 🇨🇿

Measuring range temperature	0 ... 50°C / 32 ... 122°F
Resolution	0.1°C / 0.18°F
Accuracy	± 1°C / 1.8°F
Measuring range pressure	± 200 Pa
Resolution	0.01 / 0.1 Pa
Accuracy	± 1% of final value
Nominal pressure	200 Pa
Overpressure	1 kPa
Burst pressure	20 kPa
Media	air
Measuring rate	10 Hz
Measurement units	Pa, hPa, kPa, MPa, mbar, bar, ATM, kg / cm², mmH2O, cmH2O, inH2O, mmHg, inHg, Torr, PSI, PSF
Pressure	Differential
	Pressure relative pressure (if neg. Pressure connection open)
Pressure connections	5 mm nipple for quick connectors
Max, Min and Hold function	Yes
Data logger	1024 memory slots
	1 s ... 255 h Recording time per memory location
	1 s ... 24h recording interval
Medium	For air and non-explosive gasses
Zero correction	Yes, with a zero key
Averaging	Yes, between 0.1 ... 9.9 s
Display	Graphic LCD with backlight
Protection	IP41
Power supply	2 x 1.5V AA battery / 1.2V NiMh battery
	5V / 500-mA USB power adapter
Current consumption	50-mA (with backlight)
	10-mA (without backlight)
Operating temperatur	0 ... 50°C / 32 ... 122°F
Storage temperature	10 ... 55°C / 50 ... 131°F
Dimensions	145 x 85 x 35 mm / 5.7 x 3.3 x 1.4 in
Weight	About 285 g / < 1 lb

Further models of the PCE-PDA series:

PCE-PDA 1L	Differential	Measuring range pressure ±2 kPa
PCE-PDA 10L	Differential	Measuring range pressure ±20 kPa
PCE-PDA 100L	Differential/absolute	Measuring range pressure -100 ... 200 kPa
PCE-PDA 1000L	Relative	Measuring range pressure -100 ... 2000 kPa

APPLICATION

PCE-PDA 10L

For maintenance of ventilation ducts / pitot tube optional / adaptable to the unit

The Flow Meters of the PCE-PDA series are reliable differential pressure gauges for pressure measurement of gases in the range of ± 200 kPa, ± 2 kPa and 20 kPa depending on the model. The Flow Meter has many different pressure measuring functions. This gives the user more than 16 units. Furthermore, the Flow Meter measures in addition to the differential pressure, the temperature, flow velocity and volume flow. In addition, the maximum and minimum differential pressure can be displayed in the two-part graphic display. The resolution of the differential pressure can optionally be switched. The Flow Meter incorporates a high-precision mode that increases the resolution tenfold.

ISO cal option

» graphic display with lighting

» Min and Max value memory

» datalogger and leak test

» quick coupling connection

» temperature measurement, flow measurement

» high precision measuring mode

» simple operation (voice-controlled)

» units switchable (Pa, kPa, hPa, ...)

APPLICATION

TECHNICAL SPECIFICATIONS

Made in

Measuring range temperature	0 ... 50°C / 32 ... 122°F
Resolution	0.1°C / 0.18°F
Accuracy	± 1°C / 1.8°F
Measuring range pressure	± 20 kPa
Resolution	1/ 10 Pa
Accuracy	± 0.5% of final value
Nominal pressure	20 kPa
Overpressure	40 kPa
Burst pressure	100 kPa
Media	Liquids, air
Measuring rate	10 Hz
Measurement units	Pa, hPa, kPa, MPa, mbar, bar, ATM, kg / cm², mmH2O, cmH2O, inH2O, mmHg, inHg, Torr, PSI, PSF
Pressure	Differential
	Pressure relative pressure (if neg. Pressure connection open)
Pressure connections	5 mm nipple for quick connectors
Max, Min and Hold function	Yes
Data logger	1024 memory slots
	1 s ... 255 h Recording time per memory location
	1 s ... 24h recording interval
Medium	For air and non-explosive gases
Zero correction	Yes, with a zero key
Averaging	Yes, between 0.1 ... 9.9 s
Display	Graphic LCD with backlight
Protection	IP41
Power supply	2 x 1.5V AA battery / 1.2V NiMh battery
	5V / 500-mA USB power adapter
Current consumption	50-mA (with backlight)
	10-mA (without backlight)
Operating temperature	0 ... 50°C / 32 ... 122°F
Storage temperature	10 ... 55°C / 50 ... 131°F
Dimensions	145 x 85 x 35 mm / 5.7 x 3.3 x 1.4 in
Weight	About 285 g / < 1 lb

Optional accessories:

Pitot Tube SR-795	Order no.:	SR-795
Pitot Tube SR 483	Order no.:	SR-483
Pitot Tube SR-305	Order no.:	SR-305

PCE-PDA A100L

For barometric absolute pressure up to 200 kPa

The pressure meter PCE-PDA A100L is suitable for the measurement of the atmospheric pressure. This pressure meter records the pressure from absolute zero to 200 kPa. The pressure meter can be used for many mobile applications in industry and crafts. This professional pressure gauge can either be operated with batteries or rechargeable

batteries. In battery mode, the USB interface allows charging of the inserted batteries. The PCE-PDA A100L pressure meter is equipped with a large LC display. A display illumination makes it easier to read the measured values even under poor conditions. The pressure is measured by an internally installed sensor.

ISO cal option

» graphic LCD
» USB interface
» datalogger
» absolute pressure measurement
» different units
» MAX MIN HOLD function
» measured value smoothing
» integrated temperature measurement

TECHNICAL SPECIFICATIONS

Made in

Measuring range pressure	0 ... 200 kPa absolute
Resolution	0.01 kPa, 0.1 kPa
Accuracy	<± 0.5% of the measuring range
Nominal pressure	200 kPa
Overpressure	200 kPa
Burst pressure	300 kPa
Media	Liquids
	Air
	Non-aggressive gasses
Measuring rate	10 Hz
Measurement units	Pa, hPa, kPa, MPa, mbar, bar, ATM, kg / cm², mmH2O, cmH2O, inH2O, mmHg, inHg, Torr, PSI, PSF
Pressure	Absolute pressure
Pressure connections	5 mm nipple for quick connectors
Max, Min and Hold function	Yes
Data logger	1024 memory slots
	1 s ... 255 h Recording time per memory location
	1 s ... 24h recording interval
Medium	For air and non-explosive gasses
Zero correction	Yes, with a zero key
Averaging	Yes, between 0.1 ... 9.9 s
Display	Graphic LCD with backlight
Protection	IP41
Power supply	2 x 1.5V AA battery / 1.2V NiMh battery
	5V / 500-mA USB power adapter
Current consumption	50-mA (with backlight)
	10-mA (without backlight)
Operating temperature	0 ... 50°C / 32 ... 122°F
Storage temperature	10 ... 55°C / 50 ... 131°F
Dimensions	145 x 85 x 35 mm / 5.7 x 3.3 x 1.4 in
Weight	About 285 g / < 1 lb

APPLICATION

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 ºC

» pre-set materials

» robust metal housing

» different weights included

TECHNICAL SPECIFICATIONS

Made in

Measurement rate	
Melting rate	0.1 ... 400.0 g / 10 min
Temperature	+120 ... +400 ºC
Measuring accuracy temperature	±0.2 ºC
Resolution	0.1 ºC
Test load	0.325 ... 21.6 kg
Test piston Ø	9.48 mm
Capillary Ø	2.095 mm
Standards	ISO1133-1997, ASTM 1238-04C, GB/T3682-2000
Display	
Type	7" LCD touch display
Resolution	800 x 480 pixels
Colour depth	16000 colours
Dimensions (without test load)	500 x 320 x 500 mm / 19.7 x 12.6 x 19.7 in
Weight (without test load)	approx. 15 kg / 33 lbs
Power supply	90 ... 264 V AC
Power consumption (at full load)	approx. 0.6 kVA

APPLICATION

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 multi-parameter 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.

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)

APPLICATION

TECHNICAL SPECIFICATIONS

Made in

Calibration	Zero point calibration
Light source	503 nm / 570 nm / 620 nm LED
Light detector	Photodiode
Power supply	4 x 1.5V AA batteries
Dimensions of the cuvette	36 x ø 21 mm / 3.6 x ø 2.1 cm (10ml)
Menu languages	English, German, French, Spanish and Italian Storage Automatic storage of measured values and readout
Storage space	256 values
interface	Bluetooth connection with app and PC software
Automatic shutdown	After 300 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	165 x 95 x 50 mm / 6.5 x 3.7 x 2 in
Weight	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, Cyanuric 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 hardness
PCE-CP 21	up to 7 selectable parameter e. g. Chlorine, pH, Iron, Cyanuric acid, Bromine, Iodine
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, pH,

Calcium hardness,

Ozone,

range (LR),

(HR),

Active oxygen, Chlorine dioxide, Bromine,

Hydrogen peroxide - small measuring

Hydrogen peroxide - large measuring range

PHMB (polyhexanide), Urea, total hardness

Optional accessories:

Reagent Kit Urea	Order no.: PCE-CP X0 Tab Kit Urea
Liquid Reagent No. 1 for Urea	Order no.: PCE-CP X0 Tab PL Urea No1
Liquid Reagent No. 2 for Urea	Order no.: PCE-CP X0 Tab PL Urea No2
Bromine Auxiliary Tablets	Order no.: PCE-CP X0 Tab Glycine
Ammonia No1 Tablets PCE-CP X0	Order no.: PCE-CP X0 Tab Ammonia No1
Polyhexanide Tablets PCE-CP X0	Order no.: PCE-CP X0 Tab PHMB
Reagent Tablets for pH Value Measurement	Order no.: PCE-CP X0 Tab Phenol Red
Reagent Kit for Hydrogen Peroxide High Range	Order no.: PCE-CP X0 Tab Kit Hydrogen Peroxide HR
Reagent Tablets for Hydrogen Peroxide Low Range	Order no.: PCE-CP X0 Tab Hydrogen Peroxide LR
DPD N° 3 Reagent Tablets for Free Chlorine, Total Chlorine	Order no.: PCE-CP X0 Tab DPD 3
DPD N° 1 Reagent Tablets for Free Chlorine	Order no.: PCE-CP X0 Tab DPD 1
DPD N° 4 Reagent Tablets for Active Oxygen	Order no.: PCE-CP X0 Tab DPD 4
Light Protection Cover	Order no.:PCE-CP X0 Cuvette Cover
Carrying Case	Order no.: PCE-CP X0 Case
Replacement Cuvette	Order no.: PCE-CP X0 Cuvette
Stirring Stick for the PCE-CP 10	Order no.: PCE-CP X0 Spurtle
Microfiber Cloth	Order no.: PCE-CP X0 Microfibre Cloth
Dosing Pipette 10 ml	Order no..: PCE-CP X0 PIP
Calibration Set PCE-CP X0 Cal-Set	Order no.: PCE-CP X0 Cal-Set
Reagent Kit Total Hardness	Order no.: PCE-CP X0 Tab Kit Total Hardness
Reagent Kit Calcium Hardness	Order no.: PCE-CP X0 Tab Kit Calcium Hardness

Subject to change without notice

PCE-PH 228

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.

ISO cal option

» fast, precise pH and temperature measurement

» 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

TECHNICAL SPECIFICATIONS

Made in

pH	
Measurement Range	-2 pH … +20 pH
Resolution	0.001 pH
Accuracy	± 0.002 pH + 2 digits
Electrode	
Designation	PE-03
Measurement Range	+1 pH … +13 pH
Temperature Range	5 … 60 ºC
Application	Aqueous non-corrosive media
Reference Electrolyte	Ag/AgCl
Shaft Material	Epoxy resin
Shaft Length	160 mm
Shaft Diameter	12 mm
Cable Length	1 m
Redox	
Measurement Range	-2000 mV … +2000 mV
Resolution	1 mV
Accuracy	± 2 mV
Temperature Sensor	
Minimum Temperature	-20 ºC
Maximum Temperature	100 ºC
Resolution	0.1 ºC
Accuracy	± 0.5 ºC (@ 20 ºC)
General Technical Data	
Storage Medium	Internal memory
Storage Interval from	1 s
Storage Interval to	12 h
Storage Capacity	32 GB
Storage Capacity	
Additional Information	100 records with a maximum of 100,000 data points per record
Interface	USB-C
Menu Language	German, English, French, Spanish, Italian, Dutch, Portuguese, Turkish, Polish, Russian, Chinese, Danish, Japanese
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 in
Operating Conditions	-20 … 65 ºC , 10 … 95 % r.H
Storage Conditions	-20 … 65 ºC , 10 … 95 % r.H
Languages of the Manual	German, English

Batteries and Accumulators	
Type	Lithium polymer battery
Lithium Info	Lithium in the product (built-in or included)
Capacity	2500 mAh
Voltage	3.7 V
System	Secondary: Rechargeable battery
Quantity	1

Optional accessories:	
Calibration Solution pH4 and pH7 and pH10	Order no.: PCE-PH4710
Electrode Storage Solution 3mol / l	Order no.: PCE-SSO
pH Electrode IJ-44A	Order no.: IJ-44A
Diaphragm Cleaner with Thiourea	Order no.: PCE-DCS-250
Cleaning solution pepsin / hydrochloric acid	Order no.: PCE-GCS-500
REDOX-Electrode ORP-14	Order no.: ORP-14
Redox Solution +468 mV	Order no.: PCE-RTS-468
Redox Solution +240 mV	Order no.: PCE-RTS-220
Temperature sensor TP-07	Order no.: TP-07
pH-Electrode PE-03	Order no.: PE-03
Food pH-electrode	Order no.: CPC-OSH-12-01

Subject to change without notice

Meter 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

APPLICATION

TECHNICAL SPECIFICATIONS

Made in

Temperature Type K	
Measurement Range	-200 °C ... +1370 °C
Resolution	0.1 °C
Accuracy	± (0.04% + 0.3 °C)

Temperature Type J	
Measurement Range	-200 °C ... +1050 °C
Resolution	0.1 °C
Accuracy	± (0.04% + 0.3 °C)

Temperature Type S	
Measurement Range	0 °C ... +1750 °C
Resolution	0.1 °C
Accuracy	± (0.05% + 1 °C)

Temperature Type R	
Measurement Range	0 °C ... +1750 °C
Resolution	0.1 °C
Accuracy	± (0.05% + 1 °C)

Temperature Type E	
Measurement Range	-200 °C ... +850 °C
Resolution	0.1 °C
Accuracy	± 0.6°C

Temperature Type T	
Measurement Range	-200 °C ... +400 °C
Resolution	0.1 °C
Accuracy	± 0.6°C

Temperature Type N	
Measurement Range	-200 °C ... +1300 °C
Resolution	0.1 °C
Accuracy	± 0.6°C

Temperature Type B	
Measurement Range	+600 °C ... +1800 °C
Resolution	0.1 °C
Accuracy	± (0.05% + 1 °C)

General Technical Data

Inputs	4 channels for thermocouples
Display Type	LCD
Display Size	2.8 inches
Storage Capacity	100 data sets
	up to 100,000 readings per data set
Storage Interval	1 ... 43,200 s
Data Interface	USB-C
Power Supply	USB 5V DC 500mA
Battery Capacity	2,500 mAh
Battery Voltage	3.7 V

Battery Type	Lithium-Ion Polymer Battery
Operating Duration	15 h
	Approx. 15 ... 20 h (depending on display brightness)
Menu Language	English, German, French, Spanish, Italian, Dutch, Portuguese, Turkish, Polish, Russian, Chinese, Japanese, Danish
Protection Class	IP52
Operating Conditions	-20 ... 65 °C, 10 ... 95% r.H.
Dimensions	165 x 85 x 32 mm (L x W x H)
Weight	255 g

Optional accessories:

High Temperature Sensor	Order no.:	TF-514
Surface temperature sensor	Order no.	PCE-SP-202
Surface temperature roller sensor	Order no.:	PCE-SP-101
Screw-on Sensor	Order no.:	TF-524
Surface Sensor (self-adhesive)	Order no.:	TF-509
Magnetic Surface Sensor	Order no.:	TF-513
HT Surface Sensor	Order no.:	TF-110A
Flexible Temperature Sensor	Order no.:	TF-500
Screw-in Sensor	Order no.:	TF-119
Temperature Sensor	Order no.:	TF-101
Crocodile Clip Sensor	Order no.:	TF-109
Insulated Surface Temperature Sensor	Order no.:	TF-102A
High Temperature Sensor (extra long)	Order no.:	TF-104B
Penetration / Immersion Sensor	Order no.:	TF-106

Subject to change without notice

PCE-AQD 50

Temperature, humidity, atmospheric pressure, CO_2 / 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 quality 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 quality 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 CO_2

» 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

APPLICATION

TECHNICAL SPECIFICATIONS

Made in

Temperature
Measuring range	0 ... +50 °C / 32 ... 122 °F
Resolution	0.1 °C
Accuracy	±0.15 °C @ 0 ... 20 °C / 32 ... 60 °F
	±0.1 °C @ 20 ... 50 °C / 68 ... 122 °F

Ambient Humidity
Measuring range	0 ... 100 % RH
Resolution	0.1 % RH
Accuracy	±1.5 % RH @ 0 ... 80 % RH
	±2 % RH @ 80 ... 100 % RH

Atmospheric Pressure
Measuring range	300 ... 2000 hPa
Resolution	0.1 hPa
Accuracy	±2 hPa @ 25 °C / 77 °F and 750 ... 1100 hPa
	±4 hPa @ 0 ... +50 °C / 32 ... 122 °F
	and 300 ... 1200 hPa

CO_2
Measuring range	0 ... 40000 ppm
Resolution	1 ppm
Accuracy	±(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	2.7" E-Paper
Battery life*	ca. 10 months for the measurement intervals:
	Temperature: 60 minutes
	Ambient humidity: 60 minutes
	Atmospheric pressure: 60 minutes
	CO_2: 60 minutes

*further information on battery life can be found in the instructions

Storage capacity	MicroSD card with 32 GB of storage for a total of 1 trillion measuring points
Sampling intervals	30s, 1 min, 2 min, 10 min, 15 min, 30 min, 1 h, 2 h, 6 h, 12 h, 24 h
Power supply	battery 7.4 V DC / 3400 mAh, Li-Ion battery
Power supply	mains power adapter 12 V DC / 1.5 A
Protection class	IP30
Operating conditions	0 ... +50 °C / 32 ... 122 °F
	0 ... 100 % RH, non-condensing
Storage conditions	-20 ... +60 °C / -4 ... 140 °F
	0 ... 100 % RH, non-condensing
Dimensions	128.5 x 88.5 x 41 mm / 1.1 x 3.4 x 1.6"
Weight	300 g / 10.5 oz

PCE-EMD 5

Connection of up to four sensors at the same time / Digit height of 100 mm (3.9")

The large display can be connected to up to four external temperature and humidity modules. The temperature measuring range for the sensors of the thermo-hygrometer is 0.0 ... 50.0 ºC and the humidity measuring range is 0.0 ... 99.9% RH. The power supply of the thermo-hygrometer is via a mains connection of 110 ... 220 V AC. The integrated sensor supply can supply the connected sensors from the thermo-hygrometer with 12 or 24 V DC. As soon as the sensors are connected, they are automatically recognized by the large display. The communication between the sensor modules and the thermo-hygrometer takes place via an analog 4 ... 20 mA signal.

ISO cal option

» digit height of 100 mm (3.9")

» measuring ranges: 0.0 ... 50.0 ºC

» wall mounting

» connection of up to four external sensors

» analog 4 ... 20 mA input signal

» optionally with ISO calibration certificate

APPLICATION

TECHNICAL SPECIFICATIONS

Made in 🇪🇸

Measuring range temperature	**0.0 ... 50.0 ºC**	**Further Model:**
Resolution	0.1 ºC	PCE-EMD 10 Temperature measuring range: **32.0... 122.0 ºF**
Accuracy	±0.5 ºC	

Measuring range humidity	0.0 ... 99.9 % RH
Resolution	0.1 % RH
Accuracy	±3 % RH

Further specifications	
Response time	<15 seconds at a wind speed of <1 m/s
Display interval	1 Hz
Number of usable sensors	4
Digit height	100 mm / 3.9"
Digit colour	white
Sensor supply voltage	12 and 24 V DC
Maximum sensor supply current	100 mA
Impedance current input	<200 Ω
Housing material	black painted aluminium housing
Screen protection	anti-reflective methacrylate
Housing material sensor	ABS
Protection class display	IP20
Protection class sensor	IP30
Power supply display	110 ... 220 V AC 50 / 60 Hz
Maximum power consumption	18 W
Mounting display	wall mounting, monitor stand (75 x 75 mm / 2.95 x 2.95")
Mounting sensor	wall mounting
Terminal strip power supply cable cross-section	0.5 ... 2.5 mm² (AWG 14) rigid cable
	0.5 ... 1.5 mm² (AWG 15) flexible cable
Terminal strip sensor connection cable cross-section	0.14 ... 0.15 mm² (AWG 18) rigid cable
	0.15 ... 1 mm² (AWG16) flexible cable
Terminal strip torque	1.2 Nm
Terminal strip screw length	<12 mm / 0.47"
Dimensions display	535 x 327 x 53 mm / 21.0 x 12.8 x 2.0"
Dimensions sensor	80 x 80 x 35 mm / 3.1 x 3.1 x 1.3"
Operating conditions	-10 ... 60 ºC, 5 ... 95 % RH, non-condensing
Storage conditions	-20 ... 70 ºC, 5 ... 95 % RH, non-condensing
Weight display	4579 g / 161.5 oz
Weight sensor	66 g / 2.3 oz

Subject to change without notice

PCE-G1

For relative humidity and temperature with a large display

The air humidity meter is intended for stationary measurement of relative humidity and temperature and direct display on a large display. This air humidity meter consists of a large monochrome display and is protected according to IP 54.
The measured variables are displayed alternately: relative humidity (2 s) and temperature (2 s). The sensors of the air humidity meter are calibrated at the factory. However, an ISO calibration certificate can also be ordered as an option. Simple, accurate and robust.

ISO cal option

» ingress protection type: IP 54 rating

» large, easy-to-read 100 mm / 3.9 in tall LED digits

» temperature and relative humidity values are displayed every 2 seconds (in 2-second intervals)

» displays temperature in degrees Celsius (°C) only

» ready for wall mounting

» long life

» excellent readability

» high accuracy

TECHNICAL SPECIFICATIONS

Made in

Measurement ranges

relative humidity / temperature	10 to 95% r.h. / 0 to 60°C
Resolution	
relative humidity / temperature	1% r.h. / 1°C
Accuracy	
relative humidity / temperature	±2% r.h. / 1°C
Visible distance	can be read from 50m away
Sensor type	
relative humidity / temperature	capacitive / PT1000
Response time T90	approx. 4 seconds
Cable length	
(between sensor and display)	1 meter
Display	100mm high LED (alternates values)
Port	RS-232
Power	110V to 230V / 50 to 60Hz
Dimensions	Sensor: 50 x 70 x 20mm
Display: 175 x 250 x 75mm	
Protection	IP 54
Weight	1.3kg (with sensor and cable)

Further Model:

PCE-G1A   Analog output: two channel 4-20 mA (passive)

APPLICATION

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

Made in 🇩🇪

Resolution	0.1%
Resolution digit display	1
Repeatability	± 0.5%
Temperature compensation	-20 ... 50°C / -4 ... 122°F, manual / automatic
Measuring principle	Electrical resistance measurement
Sensor type	Ram electrode
Pairs of needles maximum penetration depth	45 x Ø3.05 mm: 30 mm
	165 x Ø2.85 mm: 150 mm
Protection class	IP 52
Power supply	9V block battery /
	9V DC, 1 A mains connection
Interface	Bluetooth 4.0
Cable length	Approx. 1 m / 39.4 in
Power consumption	Max. 1 A
Dimensions	
Ram electrode:	332 x Ø45 mm / 13.1 x Ø1.8 in
Measuring device:	175 x 90 x 35 mm / 6.9 x 3.5 x 1.4 in
Pair of needles:	45 x Ø3.05 mm / 1.8 x Ø0.1 in
	165 x Ø2.85 mm / 6.5 x Ø0.1 in
Weight	Ram electrode: 1677 g / 3.7 lbs
	Measuring device: 250 g / 0.6 lbs

Material	
Hardwoods	Measuring range
Maple	7.9 ... 150%
American birch	6.4 ... 150%
Basla	7.3 ... 150%
Sycamore maple	7.9 ... 150%
Birch	8.1 ... 150%
Beech	7.2 ... 150%
Real mahogany	6.7 ... 150%
Sweet chestnut	8.1 ... 150%
Alder	8.1 ... 150%
Ash	8.1 ... 150%
False acacia	8.1 ... 150%
Yellow birch	6.4 ... 150%
Hornbeam	8.1 ... 150%
European hornbeam	8.1 ... 150%
Canadian birch	8.1 ... 150%
Cherry tree	8.1 ... 150%
Walnut	8.1 ... 150%
Poplar	6.8 ... 150%
Plum tree	8.1 ... 150%
Plane	7.1 ... 150%
Black locust	8.1 ... 150%
European beech	7.2 ... 150%
Black alder	8.1 ... 150%
Sipo	9.7 ... 150%
Stone beech	8.1 ... 150%
English oak	7.0 ... 150%
Teak	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%
Larch	7.5 ... 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	Ram Electrode
MMK-E-150	MMK-E-150 needles
MMK-E-30	MMK-E-10 30-mm needles

Subject to change without notice

PCE-PMI 3

For concrete and wood

The moisture meter is a small and reliable measuring instrument for the determination of existing moisture in, for example, concrete and wood. Corresponding scales for measuring moisture are already stored in the library of the moisture meter. After selecting the scale, the required measurement can be carried out with the moisture meter. The measurement result is displayed on the moisture meter both numerically and graphically after a few seconds. Another special feature of the moisture meter is the possibility of displaying the calcium carbide method (CM%) for screed. Also in this measurement, the moisture meter is placed on the surface to be tested.

ISO cal option

» for measurements on wood and concrete

» ergonomic shape with anti-slip rubber

» individually adjustable alarm limits

» numeric and graphical view

» easy three-button operation

» automatic shutdown

TECHNICAL SPECIFICATIONS

Made in

Measuring function	Measuring range
Relative scale	0.0 ... 99.9%
anhydrite (Weight percent)	0.0 ... 3.5%
anhydrite (Calcium carbide method)*	0.0 ... 1.5%
cement screed (Weight percent)	0.0 ... 4.7%
cement screed (Calcium carbide method)*	0.0 ... 3.0%
Concrete (weight percent)	0.0 ... 6.0%
gypsum plaster (Weight percent)	0.0 ... 10.0%
hardwood (Weight percent)	0.0 ... 37.0%
softwood (Weight percent)	0.0 ... 51.0%

*The calcium carbide method is approximate.

Further specification

Accuracy	± 0.5%
Resolution	0.1%
Power supply	2 x 1.5V AA batteries
Uptime	About 20 hours
Automatic shutdown	After 5 minutes of inactivity
Menu languages	English, German, Dutch, Spanish, French
Display	Graphically monochrome, 128 x 64 pixels, 61 x 33 mm, backlight
Operating conditions	5 ... 40ºC / 41 ... 104ºF
Dimensions	147 x 89 x 33 mm / 5.8 x 3.5 x 1.3 in
Weight	200 g / < 1 lb (with batteries)

APPLICATION

PCE-PMI 4

Non-destructive measurement on floors and walls / with eight spring electrodes

The moisture meter is a measuring device for nondestructive moisture measurement on concrete and screed. Here, the spring electrodes of the moisture meter are pressed onto the surface to be tested. Within seconds, the moisture meter will show the moisture content to the operator. Different scales are already stored in the moisture meter for a wide variety of surfaces. These are available to the operator directly from the moisture meter.

As another special feature, the moisture meter has an automatic shutdown. This feature automatically shuts off the meter if the moisture meter is not used for 5 minutes. This prevents a sudden discharge of the battery at the moisture meter. Another function of the moisture meter is the Max HOLD function.

ISO cal option

» for measuring the moisture in concrete and screed

» numeric and graphical view

» eight spring electrodes are used for the measurement

» automatic shutdown

» ergonomic shape with anti-slip rubber

» normal measurement and max. HOLD display

TECHNICAL SPECIFICATIONS

Made in

Measuring function	Measuring range
Concrete (H2O)	0 ... 6%
Cement screed (H2O)	0 ... 6%
cement screed (Calcium carbide method)*	0 ... 4%
Anhydrite screed (H2O)	0 ... 3.5%
anhydrite (Calcium carbide method)*	0 ... 1.9%
Caisson scale	0.3 ... 15.3 m
Relative scale	0 ... 100%

*The calcium carbide method is approximate.

Further specification	
Accuracy	± 0.5%
Resolution	0.1%
Display	Graphically monochrome, 128 x 64 pixels, 61 x 33 mm / 2.4 x 1.3 in, backlight
Operating conditions	5 ... 40°C / 41 ... 104°F
Automatic shutdown	After 5 minutes of inactivity
Power supply	2 x 1.5V AA batteries
Uptime	About 20 hours
Dimensions	147 x 89 x 33 mm / 5.8 x 3.5 x 1.3 in
Weight	Approx. 250 g / < 1 lb (with batteries)

Optional accessories:

Penetration Probe	PCE-PMI 4-ST100G
Penetration Probe	PCE-PMI 4-ST230
Brush Electrode	PCE-PMI 4-B120

APPLICATION

Subject to changewithout notice

PCE-PEL 20

Measuring sensor probe 1000 mm / Measuring range   10 ... 20 %

PCE-PEL 20 is a portable handheld digital moisture analyzer used to measure the moisture or water content of pellets and biomass such as sawdust, wood chips, straw, hay, sunflower shells, buckwheat, corn and soy. Designed in collaboration with biomass power plant operators, this pellet moisture analyzer features automatic temperature compensation. The PCE-PEL 20 pellet moisture meter uses the resis-

tance measuring method to determine a material's moisture or water content. Therefore, it is of great importance to select the appropriate characteristic curve and temperature when taking measurements with the pellet moisture meter.

ISO cal option

» measuring range: 10 ... 20 % moisture content

» resolution: 0.1 % moisture content

» 1000 mm / 39.97" long acid-proof steel measuring probe

» easy to use

» LCD display

» battery-powered

TECHNICAL SPECIFICATIONS

Made in

Measuring range	10 ... 20 % moisture or water content
Resolution	0.1 %
Temperature compensation range	0 ... +50 ºC (32 ... 122 ºF)
Response time	Approx. 3 sec.
Measuring sensor probe	Ø 10 mm x 1000 mm / Ø 0.4" x 39.37", acid-proof steel
Display	LCD
Power supply	12 V battery type 23A
Battery life	Approx. 10,000 measurements
Automatic power off	After approx. 10 min. inactivity
Dimensions of carrying case	Ø 80 mm x 12500 mm / Ø 3.15" x 492.13"
Weight	Approx. 900 g / 2 lb

APPLICATION

Subject to change without notice

PCE-WMH-3

With characteristic curves for 9 different types of wood

PCE-WMH-3 is a portable handheld digital wood moisture meter or analyzer used to measure the moisture content of wood. This hammer-style wood moisture analyzer features preset characteristic curves for measuring moisture in 270 different wood types.

A table of exotic wood type coefficient values is provided in the user manual to allow for proper calculation. The table lists coefficient values for exotic wood types including but not limited to Gonzales Alves, Pine, Brazilian-Rosewood, Chipboard, Cedar, Dogwood, European Aspen, Elm, Oak, Juniper, Maple, Ash, Quebracho Blanco and Colorado, Sandalwood, Mahagony, Olive, Umbrella, Pear, Persimmon, African Walnut, Teak, Willow and more.

ISO cal option

» delivers moisture content measurements in seconds

» preset characteristic curves for 270 wood types

» automatic temperature compensation

» compact, handheld, portable

» easy-to-read LCD screen

» no preparation required

» battery powered

TECHNICAL SPECIFICATIONS

Made in

Measurement range	6 … 60 % moisture content
Accuracy	±1 % (within 6 … 12 % range), ±2 % (13 … 28 %), ±2 %(29 … 60 %)
Resolution	0.1 %
Number of different wood types	270
Wood temperature range	-10 … +60 ºC / 14 … 140 ºF
Display	LCD
Electrode dimensions	Approx. 3.5 x 12 mm / 0.1 x 0.4", 2.5 x 8 mm / 0.09 x 0.3", 2 x 6 mm / 0.07 x 0.2" diameter
Power supply	1 x 12V 23A battery
Battery life	Approx. 10000 measurements
Unit dimensions	Approx. 180 x 80 x 42 mm / 7 x 3.1 x 1.6"
Unit weight	Approx. 0.8 kg / 1.77 lbs

APPLICATION

Subject to changewithout notice

PCE-WT1N

Moisture meter for the absolute humidity of sawdust, straw, hay

The moisture meter is intended for professional use in the exit control of sawmills or in the entrance inspection of pelleting plants, manufacturers of heating briquettes and other branches of production. The moisture meter determines the absolute humidity of sawdust and other types of biomass such as wood chips, hay, straw. The operation is fast and easy. The sawdust moisture meter is filled, the sample is pressed in the device and after setting the type of sample in the sawdust moisture meter, the moisture can be read. The sawdust moisture meter determines the humidity with the electrical resistance method. The sawdust moisture meter helps to quickly determine the moisture content.

ISO cal option

» fast moisture determination

» electrical resistance method

» for biomass such as straw, hay, sawdust etc.

» sample size up to 120 cm³

» simple and fast operation

» robust design with overpressure protection

» battery operated

» incl. Carrying case

TECHNICAL SPECIFICATIONS

Made in

Measuring range Saw chip moisture meter

Sawdust, wood chips*	8 ... 30%
Straw, hay	8 ... 25%

General information about the sawdust moisture meter

Resolution	0.1%
Accuracy	± 10% of measured value
	Example: measured value 15% = possible tolerance ± 1.5%
Volume of the measuring chamber	120 cm³
Sample size for wood chips	*Max. 20 x 15 x 15 mm
Pressure during the measurement	About 0.2 MPa
Temperature compensation	Digital adjustable
Display	3-digit LCD
Care	12V, battery type 23A
Ambient temperature range	0 ... 50°C / 32 ... 122°F
Dimensions	300 x 220 x 65 mm / 11.8 x 8.7 x 2.6 in
Weight	990 g / 2.2 lbs

APPLICATION

PCE-W3

Moisture meter for waste paper (% H2O)

PCE-W3 is a waste paper moisture meter designed for professional use in the input control of large amounts of waste paper or containers of paper. The waste paper moisture meter can detect absolute moisture in waste paper in order to determine the exact moisture content in the collection center or the paper plant. The meter is very easy to use, with a very small size as well as a solid structure. PCE-W3

moisture meter is sent with a calibration certificate, however an ISO calibration certificate can be required as an option (see accessories). Besides, a recalibration can be performed at any time. PCE-W3 moisture meter for waste paper has a very robust and long penetrating probe to detect absolute moisture with high accuracy.

ISO cal option

» measurement range: 6 ... 30%

» resolution: 0.1%

» accuracy: ±10% of the measurement value

» long and heavy-duty penetrating probe

» accurate measurement

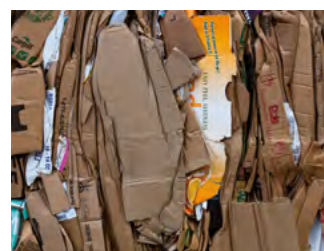## TECHNICAL SPECIFICATIONS

Made in

Measurement range	6 ... 30 %
Resolution	0.1 %
Accuracy	±10 % of the measurement value
Electrodes length	85 mm / 3.3 in
Display	3.5 digits LCD display
Power	1 x 9 V battery
Dimensions	Meter: 165 x 80 x 33 mm / 6.4 x 3.1 x 1.2 in
	Case: 270 x 180 x 55 mm / 10.6 x 7 x 2.1 in
Weight	680 g / 1.5 lbs (electrode and cable included)

APPLICATION

PCE-WM 1

Used to determine relative humidity (% RH), absolute humidity (g/m³)

PCE-WM1 is a multi-function humidity detector used to determine relative humidity (% RH), absolute humidity (g/m³), air temperature, dew-point temperature and surface temperature (°C). This Metric-only measuring instrument comes complete with an external sensor probe for taking the surface temperature of different materials.
This device is used extensively in the construction industry to evaluate building materials and working conditions. It is also used in the food industry to ensure product quality and freshness. In addition, heating, ventilation and air conditioning (HVAC) technicians trust this meter to perform HVAC system performance audits.

ISO cal option

» measures relative humidity,
air temperature and surface temperature

» calculates absolute humidity and dew-point temperature

» includes external sensor probe for taking
surface temperature

» displays measurements in Metric units only

» features minimum, maximum,
peak hold and non-linearity correction functions

TECHNICAL SPECIFICATIONS

Made in

Measuring ranges	Temperature: -20 ... 80°C
	Relative humidity: 10 ... 95% RH
	Absolute humidity: 0.5 ... 74.4 g/m³
Measuring units	Metric only
Resolution	0.1
Accuracy	Temperature: ±0.5°C
	Relative humidity: ±3%
	Absolute humidity: ±2%
Response time	Approx. 10 seconds
Functions	Minimum, maximum, peak hold, non-linearity correction
Sensor cable length	1.1 m / 3.6 cm
Power supply	1 x 9V battery
Auto power off	Yes, after 4 minutes of inactivity
Display	LCD
Dimensions	Approx. 165 x 80 x 33 mm / 6.5 x 3.2 x 1.3 in
Weight	Approx. 380 g / < 1 lb

APPLICATION

PCE-428

Class II with octave band filter / A, B, C and Z frequency weightings

PCE-428 is a class 2 data-logging sound level meter that meets IEC 60651:1979, IEC 60804:2000, IEC 61672-1:2013, ANSI S1.4-1983 and ANSI S1.43-1997 requirements. This portable high-accuracy sound level meter has a large easy-to-read illuminated LCD screen that displays the sound pressure level (SPL) numerically and graphically in real time. Thanks to octave band filtering, even the slightest difference in frequency is detected.

The handheld meter also functions as a data logger, recording measurements at an adjustable interval from 1 s ... 24 h and storing the recorded measurement data to a micro SD card memory. The SD card can be removed from the meter and inserted into the SD card reader of a PC.

ISO cal option

» accuracy class 2

» A, B, C and Z frequency weightings

» fast, slow and impulse time weightings

» 1/1 octave band filter (optional 1/3 octave band filter upgrade)

» adjustable data-recording interval from 1 s ... 24 h

» real-time numerical and graphical LCD display

» adjustable alarm

APPLICATION

TECHNICAL SPECIFICATIONS

Made in

Measuring range	25 ... 136 db(A)
Accuracy	Class 2
Frequency range	20 Hz ... 12.5 kHz
Standards	GB/T 3785.1-2010
	GB/T 3785.2-2010
	IEC 60651:1979
	IEC 60804:2000
	IEC 61672-1:2013
	ANSI S1.4-1983
	ANSI S1.43-1997
Frequency analysis	1/1 Octave band filter: 20 Hz ... 8 kHz
	1/3 Octave band filter: 20 Hz ... 12.5 kHz
Microphone	1/2"
	Microphone Class: 2
	Sensitivity: 40 mV/PA
	Frequency range: 20 Hz ... 12.5 kHz
	Connection: TNC
	Power supply: ICCP Standard
Data-logging interval	1 s ... 24 h (adjustable)
Measuring functions	LXY (SPL), LXeq, LXYSD, LXSEL,
	LXE, LXYmax, LXYmin, LXPeak, LXN
	X = Frequency weighting: A, B, C, Z
	Y = Time weighting: F, S, I
	N = Statistics in %: 1 ... 99%
Frequency weightings	A, B, C, Z
Time weightings	Fast (F) 125ms, Slow (S) 1 sec, Impulse (I) 35 ms
Inherent noise	Microphone: 20 db(A), 26 db(C), 31 db(Z)
	Electronics: 14 db(A), 19 db(C), 24 db(Z)
AD converter	24 Bit
AD Sample rate	Standard: 48 kHz
	LN Mode: 20 ms
Measuring display	Numerical
	Bar graph
	Graphical
Display	160 x 160 pixel LCD with backlight
Memory	4 GB Micro SD card
Interface	USB (Memory readable via software or directly as
mass storage) RS-232	
Voltage output	AC 5V RMS
	DC 10 mV/db
Alarm	Adjustable
Power supply	4 x 1.5V AA Batteries
	12V / 1 A Power plug
	5V / 1 A USB
Battery life	Min. 10 h continuous use
Dimensions	70 x 300 x 36 mm / 2.76 x 11.81 x 1.42 in
	(W x H x D)
Weight	approx. 620 g / 1.4 lbs incl. batteries

Optional accessories:

Class I Decibel Meter	
Calibrator	Order no.: PCE-SC 09
Power supply	Order no.: NET-PCE-4XX
Microphone cable 50 m	Order no.: MIC-50-4XX
Microphone cable 20 m	Order no.: MIC-20-4XX
Microphone cable 10 m	Order no.: MIC-10-4XX
Microphone cable 2 m	Order no.: MIC-2-4XX
Outdoor Sound	
Monitor Kit	Order no.:PCE-4xx-EKIT-EU
Check book	Order no.: PCE-SL-PB
Outdoor Microph. Class 1	Order no.: PCE-4xx-EMIC
Wind noise suppressor	Order no.: SOFT-BALL
Firmware Upgrade to 1/3	
Octave Band Filter	Order no.: PCE-OCT II
Mini Tripod	Order no.: MINI-STAT

Further model:

PCE-428-EKIT	Sound level meter
	incl. outdoor noise kit

PCE-430

Class 1 with 1/1 octave band / A, B, C & Z Frequency weighting

PCE-430 is a class 1 sound level meter that meets IEC 60651:1979, IEC 60804:2000, IEC 61672-1:2013, ANSI S1.4-1983 and ANSI S1.43-1997 requirements. This portable high-accuracy sound level meter has a large easy-to-read illuminated LCD screen that displays the sound pressure level (SPL) numerically and graphically in real time. Thanks to octave band filtering, even the slightest difference in frequency is detected. The handheld meter also functions as a data logger, recording measurements at an adjustable interval from 1 s … 24 h and storing the recorded measurement data to a micro SD card memory. The SD card can be removed from the class 1 sound level meter and inserted into the SD card reader of a PC.

ISO cal option

» 1/1 octave band included
» 1/3 octave band optional
» accuracy class 1
» A, B, C & Z Frequency weighting
» fast, Slow, Pulse and Peak time weighting
» statistics function
» display of the sound curve as a graph
» 3 measurement profiles adjustable

APPLICATION

TECHNICAL SPECIFICATIONS

Made in 🇩🇪

Measuring range	22 … 136 db(A)	
Accuracy	Class 1	
Frequency range	3 Hz … 20 kHz	
Standards	GB/T 3785.1-2010	
	GB/T 3785.2-2010	
	IEC 60651:1979	
	IEC 60804:2000	
	IEC 61672-1:2013	
	ANSI S1.4-1983	
	ANSI S1.43-1997	
Frequency analysis	1/1 Octave band filter: 8 Hz … 16 kHz	
	1/3 Octave band filter: 6.3 Hz … 20 kHz	
Microphone	1/2" Microphone Class: 1	
	Sensitivity: 40 mV/PA	
	Frequency range: 3 Hz … 20 kHz	
	Connection: TNC	
	Power supply: ICCP Standard	
Data-logging interval	1 s … 24 h (adjustable)	
Measuring functions	LXY (SPL), LXeq, LXYSD, LXSEL,	
	LXE, LXYmax, LXYmin, LXPeak, LXN	
	X = Frequency weighting: A, B, C, Z	
	Y = Time weighting: F, S, I	
	N = Statistics in %: 1 … 99 %	
Frequency weightings	A, B, C, Z	
Time weightings	Fast (F) 125ms, Slow (S) 1 sec, Impulse (I) 35 ms	
Inherent noise	Microphone: 19 db(A), 25 db(C), 31 db(Z)	
	Electronics: 13 db(A), 17 db(C), 24 db(Z)	
AD converter	24 Bit	
AD Sample rate	Standard: 48 kHz	
	LN Mode: 20 ms	
Measuring display	Numerical	
	Bar graph	
	Graphical	
Display	160 x 160 pixel LCD with backlight	
Memory	4 GB Micro SD card	
Interface	USB (Memory readable via software	
	or directly as mass storage)	
	RS-232	
Voltage output	AC 5V RMS	
	DC 10 mV/db	
Alarm	Adjustable	
Power supply	4 x 1.5 V AA Batteries	
	12 V / 1 A Power plug	
	5 V / 1 A USB	
Battery life	Min. 10 h continuous use	
Dimensions	70 x 300 x 36 mm / 2.76 x 11.81 x 1.42" (W x H x D)	
Weight	approx. 620 g / 1.4 lbs incl. batteries	

Optional accessories:

Class I Decibel Meter	
Calibrator	Order no.: PCE-SC 09
Power supply	Order no.: NET-PCE-4XX
Microphone cable 50 m	Order no.: MIC-50-4XX
Microphone cable 20 m	Order no.: MIC-20-4XX
Microphone cable 10 m	Order no.: MIC-10-4XX
Microphone cable 2 m	Order no.: MIC-2-4XX
Outdoor Sound	
Monitor Kit	Order no.:PCE-4xx-EKIT-EU
Check book	Order no.: PCE-SL-PB
Outdoor Microph. Class 1	Order no.: PCE-4xx-EMIC
Wind noise suppressor	Order no.: SOFT-BALL
Firmware Upgrade to 1/3	
Octave Band Filter	Order no.: PCE-OCT II
Mini Tripod	Order no.: MINI-STAT

Further models:

PCE-432	Sound Level meter with GPS
PCE-430-EKIT	Sound level meter
	incl. outdoor noise kit
PCE-432-EKIT-ICA	Sound Level meter with GPS
	incl. outdoor noise kit

PCE-SC 09

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 ± 0.3 dB (1 Pa) and 114 ± 0.3 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

Made in 🇩🇪

Sound pressure level	94 dB, 114 dB
Accuracy class	IEC 942, class 1
Sound level accuracy	± 0.3 dB (20°C / 68°F, 760 mm Hg)
Frequency	1000 Hz for A, B, C and D frequency weighting
Accuracy frequency	± 0.01%
Microphone size	1", 1/2" (with included adapter), 1/4" (with optional adapter)
Display	digital
Height dependency	0.1 dB per 610 m difference in height from zero level
Temperature coefficient	0 ... 0.01 dB / °C / °F
Battery status	graphical display of the battery status
Power supply	2 x 1.5V AA batteries
Operating conditions	-10... 50°C / 14 ... 122°F
	20 ... 90% r. H., not condensing
Storage conditions	-40 ... 65°C / -40 ... 149°F
	20 ... 90% r. H., non-condensing (without battery)
Dimensions	100 mm x 100 mm x 75 mm / 3.9 x 3.9 x 3 in (L x W x H)
Weight	250 g / < 1 lb

APPLICATION

PCE-WS P

Wind Speed Sensor for fixed installation

The Wind Speed Meter / Wind Speed Sensor impresses with its compact design and various output signals. The Wind Speed Meter can be used for applications in warning technology, building automation and home technology. Depending on the Wind Speed Meter, a 4 ... 20 mA, 0 ... 10 V, Modbus or pulse output is available. The Wind Speed Meter is designed as a star, so that operation independent of the wind direction is guaranteed. The Wind Speed Meter is made of robust plastic and is therefore resistant to rust and corrosion. The Wind Speed Meter is also protected to IP65. The design of the Wind Speed Meter also ensures that it is particularly protected against high-frequency and electromagnetic radiation.

ISO cal option

» robust PA plastic housing

» IP 65 protection

» mA, V, pulse or Modbus output

» long lifetime

» direct measurement of wind speed

» measurement from 2.62 ft/s, 0.8 m / s

TECHNICAL SPECIFICATIONS

Made in 🇪🇸

Measuring range	2.62 ... 164.04 ft/s, 0.8 m / s ... 50 m / s
Measurement from	≤2.62 ft/s, 0.8 m / s
Output	pulses (reed contact)
Accuracy	<13.12 ft/s: ± 0.89 ft/s, <4 m / s: ± 0.27 m / s
	> 13.12 ft/s: ± 3%, > 4 m / s: ± 3%
Operating voltage	12 ... 30 V DC
Operating temperature range	-4 ... +185 ° F, -20 ... +80 ° C at ≤95% rel. humidity
Maximum wind speed	180.45 ft/s, 123 mph, 55 m / s
Electrical connection	65 ft, 20 m connection cable
Protection class	IP65

Optional accessories:

PCE-WS/MOUNT	Optional Mounting Kit	Order no.: PCE-WS/MOUNT
PCE-N160	Industrial Tachometer Display	Order no.: PCE-N160
PCE-N300	Industrial Tachometer Display	Order no.: PCE-N300

Further Model:

PCE-WS A	4-20mA analog output. Range: 180km/h. Cable 20m.
PCE-WS V	0-10V analog output. Range: 180km/h. Cable 20m.

APPLICATION
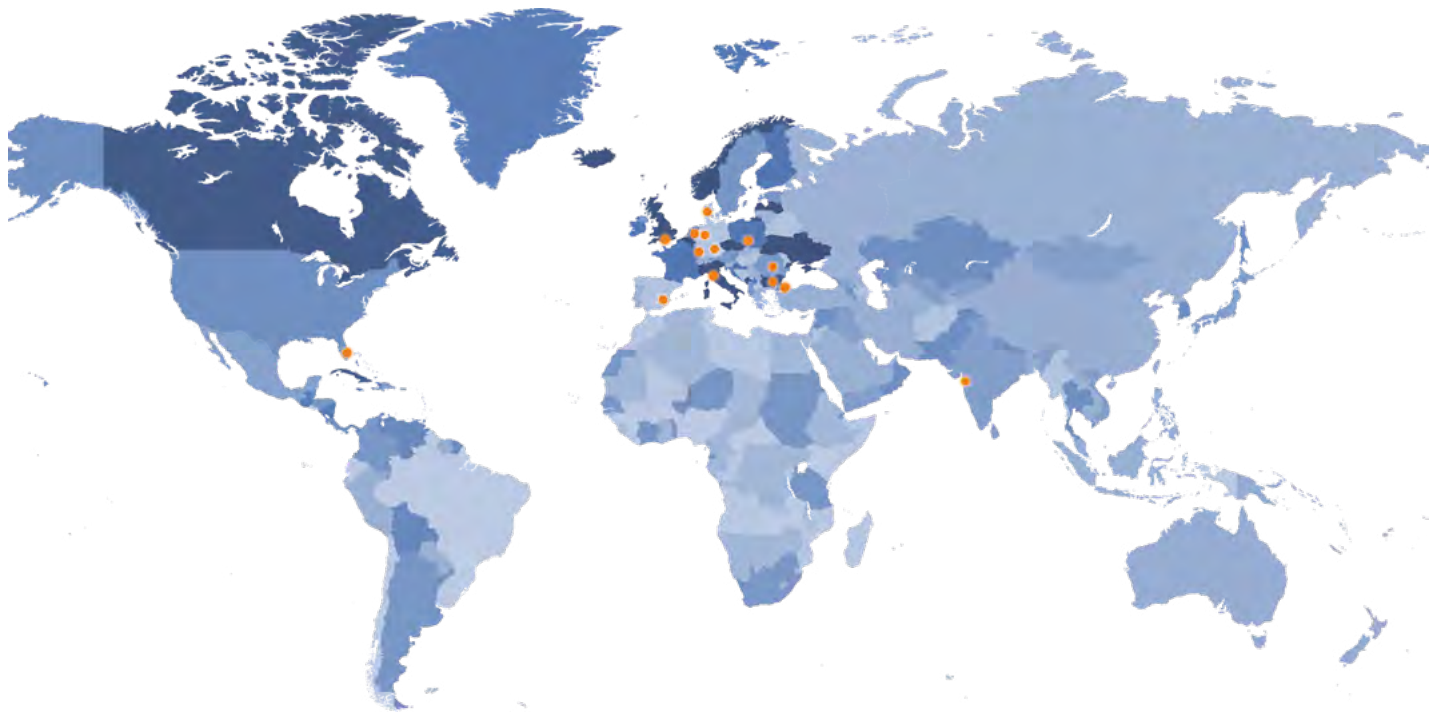
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