TEST EQUIPMENT FOR MAINTENANCE, SERVICE AND WORKPLACE SAFETY

MEASUREMENT

Discover our test instruments and their functions







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TEST INSTRUMENTS FROM GERMANY

Maintenance and Service

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

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

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



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MEASURING INSTRUMENTS

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

CONTROL SYSTEMS

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

WEIGHING EQUIPMENT

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

LABORATORY TECHNOLOGY

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



DEVELOPMENT

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

PRODUCTION

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

CALIBRATION

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

BENCHTOP SCALES COUNTING SCALE

PCE-PP SERIES

With a resolution of 1 g / hinged weighing platform

The benchtop scale is a very precise measuring device for determining weights due to the resolution of 1 g and an accuracy of ± 0.1% of measuring range. The display units available on the parcel scale are lb / oz, kg / g, kg, g, lb, oz. The illuminated LC display of the parcel scale is sized in such a way that the measured value can be read easily even in very bright ambient conditions. In addition, the display of the parcel

scale can be removed and can be positioned freely because of the spiral cable. With the piece counting function, the benchtop scale can determine the number of objects, such as screws. For this purpose, a reference measurement is first carried out on the parcel scale.

ISO cal option

- » removable display
- **»** hinged weighing platform
- **»** resolution 1 g
- various units **>>**
- piece counting function **》**
- battery and mains operation **》**



APPLICATION





TECHNICAL SPECIFICATIONS

Resolution Accuracy

1 g / 0.03 oz ±0.1% of full scale

Further specifications

Units Exceeding the measuring range Low battery voltage Automatic shutdown Power supply Power supply mains

lb / oz, kg / g, kg, g, lb, oz "O-Ld" "LO" after 5 minutes of inactivity 3 x 1.5 V AAA batteries

Ambient conditions Dimensions platform

Dimensions display Display cable Weight

Variants: PCE-PP 50 PCE-PP 20

primary: 100 ... 240 V AC / 50, 60 Hz secondary: 6 V DC, 1 A 5 ... 35 °C / 41 ... 95 °F, <90% RH, non-condensing 198 x 180 x 44 / (120 (unfolded)) mm / 7.8 x 7.0 x 1.7 / (4.7 (unfolded)) " 92 x 68 x 30 mm / 3.6 x 2.6 x 1.1" spiral cable with a length of 1100 mm / 43" 810 g / 28.5 oz





PLATFORM SCALES PARCEL SCALES

PCE-PB 150N

Stainless steel platform / up to 150 kg

The USB platform scales of the PCE-PB N series are very versatile. The functions of the USB platform scales are very extensive but one function is particularly interesting for shipping. It is the bidirectional USB interface of the platform scales that enables control by the PC. However, the USB platform scales of the

PCE-PB N series can be used with the optional, inexpensive "ProCell"

software. This software simulates keyboard input, similar to a scanner. With the help of this software, the platform scales can then transfer the weight value into active fields. Another advantage of these platform scales is the wired display. The display is supplied with a stand but it is also suitable for wall mounting.

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And Personal Property lies

ISO cal option

» bidirectional USB interface

- **»** spiral cable can be extended to approx. 1.5 m / 59"
- **»** digit height 20 mm / 0.78"
- stainless steel platform **>>**
- PEAK function (maximum value display) **>>**
- piece counting function with reference number of pieces **>>**
- multiple tare **>>**
- function for level control (drum and barrel weighing) **>>**
- Mains or battery operation **>>**
- **》** USB interface cable incl.

TECHNICAL SPECIFICATIONS

Weighing range (Max) 150 kg / 330 lbs Minimum load (Min) 150 g / 5.3 oz Readability (d) 50 200 g / 7 oz Weighing plate (L x W x H) 300 x 300 x 45 mm / 11 x 11 x 1.7" LCD 20 mm / 0.78 " digit height (backlit) Display 90 cm/ 35 " spiral cable extendable Display cable to approx. 1.5 m / 60" (Plug connection on the display) Measurement units kg / g / lb / N (Newton) Functions - PEAK Hold function (maximum value display) - multiple tare over the full weighing range - level control (auto tare OFF function) - piece counting function (min.1 pc) - animal weighing function - adjustable filters for fast response time - adjustable shutdown and lighting Interface **USB bidirectional** (query with Sx + CR + LF) Working temperature +5 ... +35 °C / 41 ... 95 °F / max. 85 % RH Power supply DC 9 V / 200 mA mains adaptor unit or 6 x AA 1.5V batteries Net weight approx. 4 kg / 8.8 lbs Recommended calibration weight M1 class (freely selectable)

Further model:

PCE-PB 60N

up to 60 kg

APPLICATION





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PLATFORM SCALES PARCEL SCALE

PCE-PB 200N

Max. weighing range up to 200 kg / with external display

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The parcel scale with a maximum weighing range of up to 200 kg and a weighing surface of 350 x 390 mm is the ideal measuring device for determining the weight of parcels or the contents of propane gas bottles. With an accuracy of ±0.3 kg, the platform scale is a precise measuring device. Furthermore, the platform scale can be used for the dosing of paints. This makes the platform scale a universally applicable test device in production, warehouse and logistics. In addition to the normal measuring mode, the parcel scale has a counting function. With the counting function, the platform scale determines, for example, the number of batteries in a package.

11/11/11/11

ISO cal option

- » optionally with ISO calibration
- » counting function
- **»** weighing units kg, lb, oz/lb
- weighing surface of 350 x 390 mm / 13.7 x 15.3" **>>**
- wall mounting bracket for the display **》**
- automatic shutdown when inactive **》**



APPLICATION





TECHNICAL SPECIFICATIONS

Weighing range Resolution Accuracy Minimum load

200 kg / 440 lb 0.1 kg / 3.5 oz ±0.3 kg / 10.5 oz 0.3 kg / 10.5 oz

Further specifications

kg, lb, oz/lb Units Display when the measuring range is exceeded "O Ld" Display when voltage is too low Operating conditions Power supply battery Mains power supply

Dimensions platform Dimensions display Weight

"LO" 5 ... 35 °C / 41 ... 95 °F, <85% RH, non-condensing 4 x 1.5 V AA batteries primary: 100 ... 240 VAC, 50/60 Hz, 0.3 A secondary: 6 VDC, 1 A 350 x 390 x 40 mm / 13.7 x 15.3 x 1.5" 180 x 88 x 33 mm / 7.0 x 3.4 x 1.3" ca. 3 kg / 6.6 lb

Further model:

PCE-PB 75N

Weighing range **75 kg / 165 lb** Resolution 0.02 kg / 0.7 oz







PCE-BSH 10000

Calibratable precision scale up to 10 kg

The low-priced precision scale impresses with a quite high resolution even in higher weighing ranges. The precision scale has a removable, easy-to-clean stainless steel weighing plate. The standard equipment of the precision scale also includes a piece counting function for counting objects of the same weight. The power supply of the precision scales is provided by a 12V power supply unit or by 6x 1.5 V AA batteries which

allow flexible use. The precision scale has adjustable feet for levelling. The precision scale is the ideal device for use in production, in the laboratory, in incoming and outgoing inspection as well as for mobile use.

ISO cal option

- >> USB interface
- » weighing range up to 10 kg
- » high resolution from 0.2 g
- piece counting function **>>**
- multiple tare up to 100% F.S. **》**
- multi-point calibration possible **>>**
- **》** calibration weight freely selectable
- **>>** variety of different weighing units
- **»** Mains or battery operation possible



TECHNICAL SPECIFICATIONS

Weighing range: Readability or resolution: Accuracy: Weighing unit selections:

0.6 ... 10000 g / 0.0014 ... 22 lbs 0.2 g ± 0.6 g g, oz, lb, dwt, ozt, ct, tl.T, tl.H, tl.J, GN, dr, MM, ToLA, GSM, TAR, TMR LCD with backlight, 20 mm / 0.79" character height multiple taring over full range USB port 12 V / 500 mA electric power adapter (included) or six 1.5 V AA batteries 0 ... +40 °C / +32 ... +104 °F 160 x 180 mm / 6.3 x 7.08" 200 x 265 x 100 mm / 7.87 x 10.43 x 3.94" 1800 g / 3.94 lbs (without batteries)

Further model:

Display: TARE:

Data interface:

Power supply:

Operating temperature:

Overall weight: Approx.

Overall dimensions:

Weighing platform dimensions:

PCE-BSH 6000

6000 g / 0.00066 ... 13 lbs

APPLICATION







power adapter or the internal battery, making the scale portable when

necessary.

PCE-WS 30

Benchtop electronic scale with 30000 g

PCE-WS 30 is an accurate and affordable compact balance or digital tabletop scale with a resolution or readability of 0.5 and a weighing capacity up to 30000 g / 30.0 kg / 66.0 lb. Featuring adjustable feet and a built-in water bubble level, this benchtop electronic balance ensures precision with a full 100% tare weight range.

PCE-WS 30 has a compact design and can be powered by the electric

ISO cal option

- » weighing units: g, kg, lb
- >> internal memory stores up to 99 readings
- » zero, tare and alarm functions
- **》** adjustable feet, settling time, backlight and data transfer settings
- » built-in water bubble level
- » no automatic shut down or auto power off feature ensures continuous, uninterrupted use

TECHNICAL SPECIFICATIONS

Weighing capacity: Resolution or readability: Minimum weight: Memory: Tare range: Weighing units: Display: Automatic calibration:

Weighing pan dimensions: Operating temperature range: Power supply:

Housing material: Interface: Dimensions: Weight:

30,000 g / 30.0 kg / 66.0 lb 0.5 0.5 g 99 readings 100% g, kg, Ib Large 6-digit LCD screen Yes, using external calibration weight (weight not included) 230 x 310 mm / 9.1 x 12.2" 0 ... +40 °C / +32 ... +104 °F 230 V / 50 Hz or 110 V / 60 Hz adapter and internal rechargeable battery (both included) ABS plastic RS-232 port Approx. 320 x 320 x 125 mm / 12.6 x 12.6 x 4.9" Approx. 2800 g / 2.8 kg / 6.2 lb

APPLICATION





GRE





PCE-PCS 30

Programmable scale for piece counting with high accuracy up to 30 kg

PCE-PCS 30 is a precision scale or balance with accurate weighing and piece or part counting functions. Ideal for use in laboratory, office, inventory and miscellaneous industrial applications, this portable scale can be powered by battery or by the included electric power supply. The scale's built-in RS-232 port enables data transfer and printing. The memory capacity of the scale and the possibility of

battery operation make it an indispensable aid in the factory. This counting scale is the optimal tool when it comes to accurately determining piece counts, e.g. for stocktaking.

ISO cal option

- » separate display for weight, piece count and reference weight
- » piece counting
- » tare weighing of the counting scale
- **》** input of tare deduction, reference count and reference weight
- battery operation **»**
- mains adapter for 230 V **》**
- totalising function (99 memory locations) **》**



APPLICATION





TECHNICAL SPECIFICATIONS

| Weight range: | 0.5 30000 g / 30 kg |
|--|-----------------------------|
| Readability: | 0.5 g |
| Repeatability: | ± 0.5 g |
| Minimum weight: | 0.5 g |
| Minimum piece weight: | 0.5 g |
| Memory positions for reference weight: | 99 |
| Stabilization time: | 3 seconds |
| TARE range: | 100 % |
| Weighing units: | Grams or kilograms (metric |
| Screen: | 3 x 6 digit LCD |
| Calibration: | Auto (requires external wei |
| Dimension of weighing pan: | 230 x 310 mm / 9.06 x 12.2 |
| Operating temperature range: | 0 + 40 °C / + 32 + 104 ° |
| Power: | 220 V AC electric power su |
| Housing: | ABS plastic |
| Interface: | RS-232 port |
| Dimensions of scale: | Approx. 320 x 320 x 125 m |
| Weight of scale: | Approx. 2.8 kg / 6.18 lb |
| | _ |
| Fuuther medal | |

Further model:

PCE-PCS 6

0.1 ... 6000 g / 6 kg (metric only)

ric only)

eight, not included) .21" ۰F upply (included) or battery

mm / 12.6 x 12.6 x 4.92"



BENCHTOP SCALES COUNTING SCALES

PCE-BSK 1100

Counting scale with piece counting function / measuring range 0 ... 1100 g

The counting scale is a scale for daily laboratory use. Another function besides the normal measurement function of the counting scale is the piece counting function. This function allows the counting scale to determine the number of screws, for example. Thus, for example, the counting scale can also be used in logistics. So that the display is readable even in poor lighting conditions, the display of the counting

scale has a backlight.

In addition to the measuring functions, the counting scale also has an RS 232 interface. Thanks to this interface, the measured values can be transferred to a PC, for example. This counting scale can be used for stationary as well as for mobile use.

ISO cal option

- » piece counting function
- » RS-232 interface
- » backlight
- » battery operation for mobile use
- level indicator to align the scale **»**
- » high precision



TECHNICAL SPECIFICATIONS

| Measuring range Resolution Repeatability Linearity Calibration Dimensions Weighing plate Dimensions Weight Operating conditions Interface Power supply Power supply | 0 1100 g 0.01 g ± 0.02 g ± 0.03 g External Ø 130 mm / 5.1 in 270 x 200 x 80 mm / 10.6 x 7.9 x 3.1 in 2 kg / 4.4 lbs 17.5 22.5°C / 63.5 72.5°F, 85% rh r RS232 Battery / 3 x 1.5V AA Power adapter Primary: 100 240V, 50/60 Hz Secondary: 6V, 500-mA |
|--|--|
| Further models: | |
| PCE-BSK 5100 | 0 5100 g Auflösung 0,1 g |
| PCE-BSK 310 | 0 310 g Auflösung 0,001 g |

0 ... 310 g Auflösung 0,001 g

APPLICATION







in

non-condensing





MOISTURE MEASUREMENT MOISTURE BALANCES

PCE-UX 3011GQD

Up to max. 95 cm³ sample volume / weighing range 220 g / with built-in printer

Our Moisture Balances is a precise device for determining moisture in liquid and solid materials. It is suitable for various applications in raw material extraction, production, processing, research and recycling. With a maximum sample weight of 220 g and a high measuring resolution of 0.001 g, the Moisture Balances enables precise moisture measurement.

The balance works on the principle of drying with simultaneous weighing. During drying, the weight loss is continuously recorded and displayed as a percentage of the total mass. With a heater output of 250 W and an adjustable heating temperature of 40 °C to 180 °C, the Moisture Balances ensures quick and flexible drying of the samples.

ISO cal option

- » weighing range: 200 g
- **»** sample weight: min. 10 g
- **》** sample volume: max. 95 cm³
- weighing pan inside: Ø 105 / 115 mm **>>**
- adjustable heating temperature: 105 ... 600 °C **》**
- radiator power: 375 W **>>**
- time setting: 1 ... 180 min **>>**
- **>>** PreFlash adjustable up to 180°C
- menu lockwith built in printer **>>**
- **》** with timer and automatic switch-off



TECHNICAL SPECIFICATIONS

Weighing range

| Measurement range up to [Max] | 200 g |
|-------------------------------|---------|
| Resolution [d] | 0,001 g |
| Accuracy | 0.001 g |

General technical data Measuring functions

Display type Display size Interface Heating temperature Minimum load [min] Menu language Protection class (device) Power supply Connector type Operating conditions Storage conditions Dimensions $(L \times W \times H \times D)$ Other dimensions Inner pan height: 9 mm Weight

Further Models:

| PCE-UX 3011 PCE-UX 3011G |
|-----------------------------|
| PCE-UX 3011Q |
| PCE-UX 3011HQ |

% moisture, % dry matter, % moisture bd, % annealing loss, g residual weight / kg Residual weight, % annealing residue LCD with backlight 4 Inch USB, RS232 105 ... 600 °C 10 g English, German, English (GB) IP20 230V AC | 50 Hz Schuko plug 10 ... 40 °C , 0 ... 90 % RH 10 ... 40 °C , 0 ... 90 % RH 380 x 380 x 330 x 280 mm Inner pan size: Ø 105 / 115 mm

8600 g

standard, 40 - 180 °C, 220 g sample weight, for wastewater treatment plants, 40-180 °C, 220 g, sample weight, determination of residue on ignition, PreFlash High temperature, 105 °C - 360 °C, initial sample weight 220 g High temperature, 105 °C - 600 °C, initial sample weight 200 g,,

APPLICATION









MOISTURE MEASUREMENT MOISTURE METER

PCE-UX 3031

For plaster and gypsum analysis / weighing range 220 g

Our Moisture Meter is a high-precision device that has been specially developed for plaster / gysum analysis. With a maximum weighing capacity of 220 g and a measuring resolution of 0.001 g, it enables exact and reliable moisture measurements. The balance works on the principle of drying with simultaneous weighing. During drying, the weight loss is continuously recorded and displayed as a percentage

of the total mass. The Moisture Meter has two adjustable heating temperature ranges: 40 °C ... 180 °C and 105 °C ... 360 °C - which are made possible by two powerful radiant heaters: a 250 W infrared heater and a 375 W quartz heater. These heating elements ensure precise and efficient drying results and can be operated independently of each other in timer or automatic mode.

ISO cal option

- » weighing range: 220 g
- » sample weight: Min. 4 g
- » sample volume: Max. 95 cm³
- weighing pan inside: Ø 105 / 115 mm **》**
- adjustable heating temperature: 40 ... 180 °C **»**
- radiator power: 250 W / 375 W **》**
- time setting: 1 ... 180 min **》**
- » menu lock



TECHNICAL SPECIFICATIONS

| Absolute moisture Measurement range up to Resolution Accuracy | 0 100 % 0,01 % 0.01 |
|---|---|
| Weighing range Measurement range up to [Max] Resolution [d] Accuracy | 220 g 0,001 g 0.001 g |
| General technical data Outputs Measuring functions weight / kg, Residual weight Display type Display size Interface Heating temperature Heating temperature 2 Minimum load [min] Menu language Protection class (device) Power supply Connector type Operating conditions Storage conditions Dimensions (L x W x H x D) Other dimensions Inner pan height: 9 mm Weight | V24 % moisture, % dry matter, % m LCD with backlight 4 Inch USB, R5232 40 180 °C 105 360 °C 4 g German, English, English (GB) IP20 230 V AC 48/63 Hz Schuko plug 10 40 °C , 0 90 % RH 10 40 °C , 0 90 % RH 380 x 380 x 440 x 280 mm Inner pan size: Ø 105 / 115 mm |
| | |



APPLICATION







tter, % moisture bd, g residual



MOISTURE MEASUREMENT MOISTURE BALANCE

PCE-UX 3081WQ

For light and bulky materials / weighing range 400 g

Our Moisture Meter has been specially developed for light and bulky materials. It has an exceptionally large drying pan and is suitable for applications in the fields of raw material extraction, production, processing, research and recycling.

With a maximum weighing capacity of 400 g, a volume of 360 cm³ and a high measuring resolution of 0.001 g, the Moisture Meter enables

precise and reliable moisture measurements. The balance works according to the principle of drying with simultaneous weighing: the weight loss is continuously recorded and displayed as a percentage of the total mass. With a heater output of 2 x 400 W and an adjustable heating temperature of 105 °C to 360 °C, the Moisture Meter offers quick and flexible drying of samples.

ISO cal option

- » all Temperature-insensitive materials up to 360 °C brass chips, steel chips, titanium chips
- >> large drying tray 110 x 240 x 20 mm
- **»** weight up to 400 g
- fast and accurate results **》**
- robust industry standard **》**
- sample weight: min. 20 g **》**
- sample volume: max. 360 cm³ **》**
- **》** data output via USB and RS 232



TECHNICAL SPECIFICATIONS

| Absolute moisture Measurement range up to Resolution Accuracy | 0 100 % 0,01 % 0.01 % |
|--|--|
| Weighing range Measurement range up to [Max] Resolution [d] Accuracy | 400 g 0,001 g 0.001 g |
| General technical data Heating temperature Outputs Measurable materials | 105 360 °C V24 brass chips steel chips |
| Measuring functions | titanium chips % moisture, % dry matter, % moisture bd, g residual weight / kg, Residual weight |
| Display type | LCD with backlight |
| Display size | 4 Inch |
| Interface | USB, RS232 |
| Minimum load [min] | 20 g |
| Menu language | German, English, English (GB) |
| Protection class (device) | IP20 |
| Power supply | 230V AC 48/63 Hz |
| Connector type | Schuko plug |
| Operating conditions | 10 40 °C , 0 90 % RH |
| Storage conditions | 10 40 °C , 0 90 % RH |
| Dimensions (L x W x H x D) Other dimensions | 440 x 440 x 240 x 330 mm Inner pan size: 230 x 97 mm / |
| | 243 x 111 mm |
| Inner pan height: | 17 mm |
| Weight | 13200 g |
| - | - |

APPLICATION





TRUST IN EVERY MEASUREMENT.



Further model: PCE-UX 3081 Heating temperature Measurable materials

40 ... 200 °C all light, voluminous materials wood chips wood fibers, pellets grasses, straw, hay animal feed silage, tacco leaves tea leaves granules powder



PCE-UX 3081





PCE Instruments SE





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