




Multifunctional laboratory balance with single-cell weighing system and EC type approval [M]



 only PBS: **Adjusting program CAL** for quick setting of the balance accuracy, external test weights at an additional price



**Simple recipeweighing and documenting** with a combined tare/print function. In addition, the mixing ingredients for the recipe are numbered automatically and printed out with their corresponding number and weight value



**Percentage determination:** makes it possible to store a given weight value (100 %) and to determine deviations from this target value

# Precision balances KERN PBS · PBJ



## Features

- **1** only PBJ: **Automatic internal adjustment** in the case of a change in temperature and time-controlled at defined intervals
- **Metal housing:** robust and sturdy
- **Dosage aid:** High-stability mode and other filter settings can be selected
- **Weighing with tolerance range (check-weighing):** Input of an upper/lower limit value. A visual signal assists with portion division, dispensing or grading
- **Totalizing** of individual weighing results
- **Identification number:** 4 numeric positions, printed on calibration protocol
- **Automatic data output to the PC/printer** every time the balance is steady
- **3** **Draft shield** standard, on all models with readout [d] = 0,001 g, weighing space WxDxH 180x193x87 mm

## Technical data

- Large backlit LCDdisplay, digit height 14 mm
- Dimensions of weighing plate (stainless steel)
  - A** 108x105 mm
  - B** 170x180 mm, see larger picture
- Overall dimensions (without draft shield) WxDxH 209x322x78 mm
- Net weight approx. 3 kg
- Permissible ambient temperature 10 °C / 30 °C

## Accessories

- **Protective working cover** over keyboard and housing, standard, can be reordered, for models with weighing plate sizes
  - A** KERN PBS-A01
  - B** KERN PBS-A02
- **4** **Set for density determination** for models with weighing plate sizes
  - A** KERN PBS-A04
  - B** KERN PBS-A03
- **RS-232/Ethernet adapter** to connect balances with an RS-232 interface to a network, using Ethernet, details see page 139, KERN YKI-01
- **Suitable printers** see page 138

- **5** Single-cell advanced technology:
  - **Fully automatic manufactured weighing cell from one piece of material**
  - **Stable temperature behavior**
  - **Short stabilisation time: 3 sec**
  - **Shock proof construction**
  - **High corner load performance**

## STANDARD



## OPTION



## FACTORY



Model	Weighing range [Max] g	Readout [d] g	Verific. value [e] g	Minimum load [Min] g	Repro-ducibility g	Linearity g	Weighing plate	Options			
								Verification		DKD Calibr. Certificate	
								KERN		KERN	
<b>KERN</b>											
<b>PBS 420-3M *</b>	420	0,001	-	-	0,001	± 0,002	<b>A</b>	-		963-127	
<b>PBS 620-3M</b>	620	0,001	-	-	0,001	± 0,002	<b>A</b>	-		963-127	
<b>PBS 4200-2M</b>	4200	0,01	-	-	0,01	± 0,02	<b>B</b>	-		963-127	
<b>PBS 6200-2M</b>	6200	0,01	-	-	0,01	± 0,02	<b>B</b>	-		963-128	
<b>PBS 8200-1M *</b>	8200	0,1	-	-	0,1	± 0,2	<b>B</b>	-		963-128	
<b>PBJ 420-3M *</b>	420	0,001	0,01	0,02	0,001	± 0,002	<b>A</b>	965-216		963-127	
<b>PBJ 620-3M</b>	620	0,001	0,01	0,1	0,001	± 0,002	<b>A</b>	965-201		963-127	
<b>PBJ 4200-2M</b>	4200	0,01	0,1	0,5	0,01	± 0,02	<b>B</b>	965-216		963-127	
<b>PBJ 6200-2M</b>	6200	0,01	0,1	1	0,01	± 0,02	<b>B</b>	965-202		963-128	
<b>PBJ 8200-1M</b>	8200	0,1	1	5	0,1	± 0,2	<b>B</b>	965-217		963-128	

Note: For applications that require verification, please order verification at the same time, initial verification at a later date is not possible.  
Verification at the factory, we need to know the full address of the location of use.

**! \* ONLY WHILE STOCKS LAST**

# KERN Pictograms



**Internal adjusting (CAL):** Quick setting of the balance's accuracy with internal adjusting weight (motordriven).



**Adjusting program (CAL):** For quick setting of the balance's accuracy. External adjusting weight required.



**Memory:** Balance contains memories, e.g. for item data, weighing data, tare weights etc. PLU.



**Data interface RS-232:** To connect the balance to a printer, PC or network.



**RS 485 data interface:** To connect the balance to a printer, PC or other peripheral devices. High tolerance against electromagnetic disturbance.



**USB data interface:** To connect the balance to a printer, PC or other peripheral devices.



**Bluetooth data interface:** To transfer data from the balance to a printer, PC or other peripheral devices.



**Control outputs (optocoupler, digital I/O):** to connect relays, signal lamps, valves, etc.



**Interface for second balance:** for direct connection of a second balance.



**Network interface:** For connecting the scale to an Ethernet network. With KERN products you can also use a universal RS-232/LAN converter.



**GLP/ISO record keeping:** of weighing data with date, time and identification-no. Only with printers from KERN.



**Piece counting:** Reference quantities selectable. Display can be switched from piece to weight.



**Recipe level A:** Separate memory for the weight of the tare container and the recipe ingredients (net total).



**Recipe level B:** Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through displays.



**Recipe level C:** Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through displays. Additional convenient functions, such as bar-code and back calculation functions.



**Percentage determination:** Determining the deviation in % from the target value (100%).



**Weighing units:** Can be switched to e. g. non-metric units at the touch of a key. See balance model. Please refer to KERN's website for more details.



**Weighing with tolerance range:** Upper and lower limiting can be programmed individually, e.g. dosing/sorting and portioning.



**Vibration-free weighing:** (Animal weighing program) Vibrations are filtered out so that a stable weight is obtained.



**Spray and dust protection IPxx:** The type of protection is shown by the pictogram. For details see the glossary.



**Stainless steel:** the balance is protected against corrosion.



**Suspended weighing:** load support with hook on the underside of the balance.



**Battery operation:** Ready for battery operation. The battery type is specified for each device.



**Rechargeable battery pack:** rechargeable set.



**Mains adapter:** 230V/50Hz in standard version for Germany. On request GB, AUS or USA version.



**Power supply:** integrated in balance. 230V/50Hz in Germany. More standards e. g. GB, AUS, USA on request.



**Strain gauges:** Electrical resistor on an elastic deforming body.



**Tuning fork principle:** A resonating body is electromagnetically excited, causing it to oscillate.



**Electromagnetic force compensation:** Coil in a permanent magnet. For the most accurate weighings.



**Single cell technology:** Advanced version of the force compensation principle with the highest level of precision.



**Verification possible:** The time required for verification is specified in the pictogram.



**DKD calibration possible:** The time required for DKD calibration is shown in days in the pictogram.



**Package shipment:** The time required to manufacture the product internally is shown in days in the pictogram.



**Pallet shipment:** The time required to manufacture the product internally is shown in days in the pictogram.



**Warranty:** The warranty period is shown in the pictogram.

## Precision is our business

To ensure the high precision of your balance KERN offers you the appropriate test weight package for your balance, consisting of the test weight, box and DKD certificate, as proof of its accuracy ... the best pre-requisite for proper balance calibration.

In the extensive KERN test weight range, you will find test weights in the international OIML error limit classes: E1, E2, F1, F2, M1, M2, M3 with weights from 1 mg - 2000 kg.

The KERN DKD calibration laboratory for electronic balances and weights has been accredited by DKD since 1994 and today is one of the most modern and best-equipped DKD calibration laboratories for balances, test weights and force-measurement in Europe.

(DKD = German Calibration Service)

Thanks to the high level of automation, we can carry out DKD calibration of balances, test weights and force-measuring devices 24 hours a day, 7 days a week.

### Range of services:

- DKD calibration of balances with a maximum load of up to 6 t
- DKD calibration of weights in the range of 1 mg - 500 kg
- Database supported management of checking equipment and reminder service
- Calibration of force-measuring devices
- DKD calibration certificates in the following languages  
D, GB, F, I, E, NL, PL

Do you have questions about your scale, the corresponding test weight or the calibration service? Your KERN specialist dealer will be pleased to assist you.

## Your KERN specialist dealer: