

Precision balances KERN PBS · PBJ



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

Features

- KERN PBJ: **Internal adjustment** in the case of a change in temperature and time-controlled at defined intervals, guarantees high degree of accuracy and makes the balance independent of its location of use
- KERN PBS: **Adjusting program CAL** for quick setting of the balance accuracy using an external test weight
- **Metal housing:** robust and sturdy
- **Dosage aid:** High-stability mode and other filter settings can be selected
- **Weighing with tolerance range (check-weighing):** a visual signal helps with portioning, dispensing or grading
- **Totalising** of weights
- **Identification number:** 4 digits, printed on calibration protocol freely programmable
- **Automatic data output to the PC/printer** each time the balance is steady

- **1 Draught shield** standard for models with [d] = 0,001 g, weighing space W×D×H 180×193×87 mm
- **Protective working cover** included with delivery

Technical data

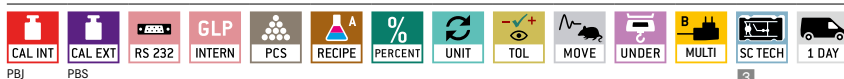
- Large backlit LCD display, digit height 14 mm
- Dimensions weighing surface, stainless steel
 - A W×D 108×105 mm
 - B W×D 180×190 mm, see larger picture
- Overall dimensions W×D×H 209×322×78 mm (without draught shield)
- Net weight approx. 3,2 kg
- Permissible ambient temperature 10 °C/30 °C

Accessories

- **Protective working cover**, scope of delivery: 5 items, for models with weighing plate size
 - A KERN PBS-A01S05
 - B KERN PBS-A02S05
- **2 Set for density determination** of liquids and solids with density ≥ 1, for models with weighing plate size
 - A KERN PBS-A04
 - B KERN PBS-A03
- **RS-232/Ethernet adapter** for connection to an IP-based Ethernet network, KERN YKI-01
- Further details, plenty of further accessories and suitable printers see *Accessories*

- **3 Single-cell advanced technology:**
 - **Fully automatic manufactured weighing cell from one piece of material**
 - **Stable temperature behaviour**
 - **Short stabilisation time:** steady weight values within approx. 3 s under laboratory conditions
 - **Shock proof construction**
 - **High corner load performance**

STANDARD



OPTION



FACTORY



Model	Weighing capacity [Max] g	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Linearity g	Weighing plate	Quality code	Option	
								Verification	DAkkS Calibr. Certificate
KERN									
PBS 620-3M	620	0,001	-	-	± 0,002	A	BC	-	963-127
PBS 4200-2M	4200	0,01	-	-	± 0,02	B	BC	-	963-127
PBS 6200-2M	6200	0,01	-	-	± 0,02	B	BC	-	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.									
PBJ 620-3M	620	0,001	0,01	0,1	± 0,002	A	BC	965-201	963-127
PBJ 4200-2M	4200	0,01	0,1	0,5	± 0,02	B	CC	965-216	963-127
PBJ 6200-2M	6200	0,01	0,1	1	± 0,02	B	CC	965-202	963-128
PBJ 8200-1M	8200	0,1	1	5	± 0,2	B	CC	965-217	963-128

Pictograms

Internal adjusting: Quick setting up of the balance's accuracy with internal adjusting weight (motordriven)	KERN Communication Protocol (KCP): It is a standardized interface command set for KERN balances and other instruments, which allows retrieving and controlling all relevant parameters and functions of the device. KERN devices featuring KCP are thus easily integrated with computers, industrial controllers and other digital systems	Protection against dust and water splashes IPxx: The type of protection is shown in the pictogram.
Adjusting program CAL: For quick setting up of the balance's accuracy. External adjusting weight required	GLP/ISO log: The balance displays serial number, user ID, weight, date and time, regardless of a printer connection	Stainless steel: The balance is protected against corrosion
Easy Touch: Suitable for the connection, data transmission and control through PC, tablet or smartphone	GLP/ISO log: With weight, date and time. Only with KERN printers	Suspended weighing: Load support with hook on the underside of the balance
Memory: Balance memory capacity, e.g. for article data, weighing data, tare weights, PLU etc.	Piece counting: Reference quantities selectable. Display can be switched from piece to weight	Battery operation: Ready for battery operation. The battery type is specified for each device
Alibi memory: Secure, electronic archiving of weighing results, complying with the 2014/31/EU standard.	GLP/ISO log: With weight, date and time. Only with KERN printers	Rechargeable battery pack: Rechargeable set
Data interface RS-232: To connect the balance to a printer, PC or network	Recipe level A: The weights of the recipe ingredients can be added together and the total weight of the recipe can be printed out	Universal mains adapter: with universal input and optional input socket adapters for A) EU, CH, GB; B) EU, CH, GB, USA; C) EU, CH, GB, USA, AUS
RS-485 data interface: To connect the balance to a printer, PC or other peripherals. Suitable for data transfer over large distances. Network in bus topology is possible	Recipe level B: Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display	Mains adapter: 230V/50Hz in standard version for EU, CH. On request GB, USA or AUS version available
USB data interface: To connect the balance to a printer, PC or other peripherals	Recipe level C: Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display, multiplier function, adjustment of recipe when dosages are exceeded or barcode recognition	Power supply: Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, USA or AUS on request
Bluetooth* data interface: To transfer data from the balance to a printer, PC or other peripherals	Totalising level A: The weights of similar items can be added together and the total can be printed out	Weighing principle: Strain gauges Electrical resistor on an elastic deforming body
WLAN data interface: To transfer data from the balance to a printer, PC or other peripherals	Percentage determination: Determining the deviation in % from the target value (100 %)	Weighing principle: Tuning fork A resonating body is electromagnetically excited, causing it to oscillate
Control outputs (optocoupler, digital I/O): To connect relays, signal lamps, valves, etc.	Weighing units: Can be switched to e.g. nonmetric units at the touch of a key. See balance model. Please refer to KERN's website for more details	Weighing principle: Electromagnetic force compensation Coil inside a permanent magnet. For the most accurate weighings
Analogue interface: to connect a suitable peripheral device for analogue processing of the measurements	Weighing with tolerance range: (Checkweighing) Upper and lower limiting can be programmed individually, e.g. for sorting and dosing. The process is supported by an audible or visual signal, see the relevant model	Weighing principle: Single cell technology: Advanced version of the force compensation principle with the highest level of precision
Interface for second balance: For direct connection of a second balance	Hold function: (Animal weighing program) When the weighing conditions are unstable, a stable weight is calculated as an average value	Verification possible: The time required for verification is specified in the pictogram
Network interface: For connecting the scale to an Ethernet network		DAKkS calibration possible: The time required for DAKkS calibration is shown in days in the pictogram
Wireless data transfer: between the weighing unit and the evaluation unit using an integrated radio module		Package shipment: The time required for internal shipping preparations is shown in days in the pictogram
		Pallet shipment: The time required for internal shipping preparations is shown in days in the pictogram

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KERN – Precision is our business

To ensure the high precision of your balance KERN offers you the the appropriate test weight in the international OIML error limit classes E1-M3 from 1 mg - 2500 kg. In combination with a DAKkS calibration certificate the best pre-requisite for proper balance calibration.

The KERN DAKkS calibration laboratory today is one of the most modern and best-equipped DAKkS calibration laboratories for balances, test weights and force-measurement in Europe.

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

Range of services:

- DAKkS calibration of balances with a maximum load of up to 50 t
- DAKkS calibration of weights in the range of 1 mg - 2500 kg
- Volume determination and measuring of magnetic susceptibility (magnetic characteristics) for test weights
- Database supported management of checking equipment and reminder service
- Calibration of force-measuring devices
- DAKkS calibration certificates in the following languages DE, GB, FR, IT, ES, NL, PL
- Conformity evaluation and reverification of balances and test weights

Your KERN specialist dealer: