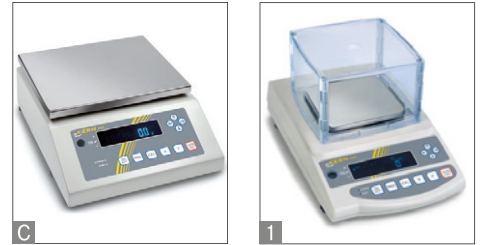


Precision balances KERN PES · PEJ



Robust laboratory and industrial precision balance, with EC type approval [M]

Features

- **2** only PEJ: **Automatic internal adjustment**
- **3** only PES: **Adjusting program CAL** for quick setting of the balance accuracy, external test weights at an additional price, see page 165 ff.
- **Metal housing:** robust and sturdy
- **Weighing with tolerance range (check-weighing):** Input of 2 upper and 2 lower limit values through 4 arrow keys. An audible signal assists with the portioning, dispensing or grading
- **1 Draught shield** standard on all models with readout [d] = 0,001 g, weighing space WxDxH 170x150x100 mm. Removable metal cover with pipette opening

Technical data

- Fluorescent display, bright with high contrast, digit height 13 mm
- Weighing plate dimensions, stainless steel, WxD
 - A** 140x120 mm
 - B** 200x200 mm, see enlarged picture
 - C** 250x220 mm
- Overall dimensions (without draught shield) WxDxH
 - A** 220x333x93 mm
 - B** 220x333x93 mm
 - C** 260x333x110 mm
- Permissible ambient temperature 10 °C / 30 °C

Accessories

- **Protective working cover** standard, can be retrofitted (not for KERN PES 31000-1M), KERN PES-A04
- Only PES: **Rechargeable battery pack internal**, operating time up to 6 h, charging time approx. 15 h (internal charging with mains adapter), KERN PES-A01
- **Relay output** with 5 outputs for weighing in 3 tolerance ranges, must be ordered at purchase, KERN PES-A02
- **RS-232/Ethernet adapter** to connect balances with an RS-232 interface to a network, via Ethernet, for details see page 158, KERN YKI-01
- **Suitable printers** see page 157 ff.

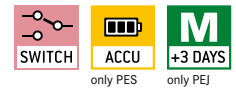
STANDARD



OPTION











































FACTORY



Model	Weighing range [Max]	Readout [d]	Verification value [e]	Reproducibility	Linearity	Net weight approx. kg	Weighing plate	Options			
								Verification		DAKKS-Calibr. Certificate	
								M	KERN	DAKKS	KERN
PES 620-3M	620	0,001	-	0,001	± 0,003	4	A	-	-	963-127	
PES 2200-2M	2200	0,01	-	0,01	± 0,02	4	B	-	-	963-127	
PES 4200-2M	4200	0,01	-	0,01	± 0,02	4	B	-	-	963-127	
PES 6200-2M	6200	0,01	-	0,01	± 0,03	4	B	-	-	963-128	
PES 15000-1M	15000	0,1	-	0,1	± 0,2	4	B	-	-	963-128	
PES 31000-1M	31000	0,1	-	0,1	± 0,4	8,9	C	-	-	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.											
PEJ 620-3M	620	0,001	0,01	0,001	± 0,003	6	A	965-201	U	963-127	
PEJ 2200-2M	2200	0,01	0,1	0,01	± 0,02	6	B	965-216	U	963-127	
PEJ 4200-2M	4200	0,01	0,1	0,01	± 0,02	6	B	965-216	U	963-127	

KERN Pictograms

 Internal adjusting: Quick setting up of the balance's accuracy with internal adjusting weight (motordriven).	 Recipe level A: Separate memory for the weight of the tare container and the recipe ingredients (net total).	 Suspended weighing: Load support with hook on the underside of the balance.
 Adjusting program CAL: For quick setting up of the balance's accuracy. External adjusting weight required.	 Recipe level B: Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display.	 Battery operation: Ready for battery operation. The battery type is specified for each device.
 Memory: Balance memory capacity, e.g. for article data, weighing data, tare weights, PLU etc.	 Recipe level C: Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display. Additional convenient functions, such as barcode and back calculation functions.	 Rechargeable battery pack: Rechargeable set.
 Data interface RS-232: To connect the balance to a printer, PC or network.	 Totalising level A: The weights of similar items can be added together and the total can be printed out.	 Mains adapter: 230V/50Hz in standard version for EU. On request GB, AUS or USA version available.
 RS-485 data interface: To connect the balance to a printer, PC or other peripherals. High tolerance against electromagnetic disturbance.	 Totalising level C: Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display. Additional convenient functions, such as barcode and back calculation.	 Power supply: Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, AUS or USA on request.
 USB data interface: To connect the balance to a printer, PC or other peripherals.	 Strain gauges: Electrical resistor on an elastic deforming body.	 Tuning fork principle: A resonating body is electromagnetically excited, causing it to oscillate.
 Bluetooth 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 %).	 Electromagnetic force compensation: Coil inside a permanent magnet. For the most accurate weighings.
 WLAN data interface: To transfer data from the balance to a printer, PC or other peripherals.	 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.	 Single cell technology: Advanced version of the force compensation principle with the highest level of precision.
 Control outputs (optocoupler, digital I/O): To connect relays, signal lamps, valves, etc.	 Weighing with tolerance range: Upper and lower limiting values can be programmed individually for e.g. dosing, sorting and portioning.	 Verification possible: The time required for verification is specified in the pictogram.
 Interface for second balance: For direct connection of a second balance.	 Vibration-free weighing: (Animal weighing program) When the weighing conditions are unstable, a stable weight is calculated as an average value.	 DAkkS calibration possible: The time required for DAkkS calibration is shown in days in the pictogram.
 Network interface: For connecting the scale to an Ethernet network. With KERN products you can use a universal RS-232/LAN converter.	 Protection against dust and water splashes IPxx: The type of protection is shown in the pictogram. For details see the glossary.	 Package shipment: The time required for internal shipping preparations is shown in days in the pictogram.
 GLP/ISO log: The balance displays the weight, date and time, regardless of a printer connection.	 ATEX explosion protection: Suitable for use in hazardous industrial environments, in which there is explosion danger. The ATEX marking is specified for each device.	 Pallet shipment: The time required for internal shipping preparations is shown in days in the pictogram.
 GLP/ISO log: With weight, date and time. Only with KERN printers, see "Accessories"	 Stainless steel: The balance is protected against corrosion.	 Warranty: The warranty period is shown in the pictogram.
 Piece counting: Reference quantities selectable. Display can be switched from piece to weight.		

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 - 2000 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.

Your KERN specialist dealer:

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 6 t
- DAkkS 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
- DAkkS calibration certificates in the following languages D, GB, F, I, E, NL