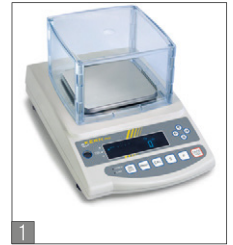


Precision balances KERN PES · PEJ



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 143 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 portion division, dispensing or grading
- **1** **Draft shield** standard on all models with readout d = 0,001 g. weighing space WxDxH 170x150x100 mm. Removable metal cover with pipette opening

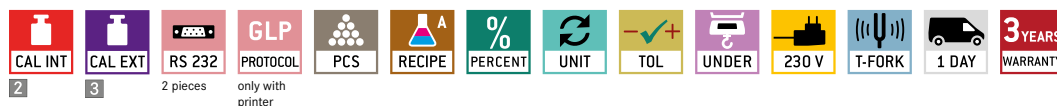
Technical data

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

Accessories

- **Protective working cover** standard, can be reordered (not for KERN PES 31000-1M), KERN PES-A04, **€ 30,-**
- Only PES: **Rechargeable battery pack internal**, operating time up to 6 h, charging time approx. 15 h (internal charging with mains adapter), must be ordered at purchase, KERN PES-A01, **€ 600,-**
- **Relay output** with 5 outputs for weighing result in 3 tolerance ranges, must be ordered at purchase, KERN PES-A02, **€ 480,-**
- **RS-232/Ethernet adapter** to connect balances with an RS-232 interface to a network, using Ethernet, details see page 139, KERN YKI-01, **€ 390,-**
- **Suitable printers** see page 138

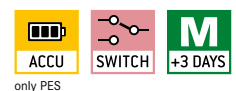
STANDARD



OPTION



FACTORY






































Model	Weighing range [Max] g	Readout [d] g	Verific. value [e] g	Reproducibility g	Linearity g	Net weight approx. kg	Weighing plate	Options			
								Verification		DKD Calibr. Certificate	
								M	KERN	DKD	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	I	963-127	
PEJ 2200-2M	2200	0,01	0,1	0,01	± 0,02	6	B	965-216	II	963-127	
PEJ 4200-2M	4200	0,01	0,1	0,01	± 0,02	6	B	965-216	III	963-127	

KERN Pictograms

 Internal adjusting (CAL): Quick setting 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).	 Rechargeable battery pack: rechargeable set.
 Adjusting program (CAL): For quick setting 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 displays.	 Mains adapter: 230V/50Hz in standard version for Germany. On request GB, AUS or USA version.
 Memory: Balance contains memories, e.g. for item data, weighing data, tare weights etc. PLU.	 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 barcode and back calculation functions.	 Power supply: integrated in balance. 230V/50Hz in Germany. More standards e. g. GB, AUS, USA on request.
 Data interface RS-232: To connect the balance to a printer, PC or network.		 Strain gauges: Electrical resistor on an elastic deforming body.
 RS 485 data interface: To connect the balance to a printer, PC or other peripheral devices. High tolerance against electromagnetic disturbance.	 Percentage determination: Determining the deviation in % from the target value (100%).	 Tuning fork principle: A resonating body is electromagnetically excited, causing it to oscillate.
 USB data interface: To connect the balance to a printer, PC or other peripheral devices.	 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.	 Electromagnetic force compensation: Coil in a permanent magnet. For the most accurate weighings.
 Bluetooth data interface: To transfer data from the balance to a printer, PC or other peripheral devices.	 Weighing with tolerance range: Upper and lower limiting can be programmed individually, e.g. dosing/sorting and portioning.	 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.	 Vibration-free weighing: (Animal weighing program) Vibrations are filtered out so that a stable weight is obtained.	 Verification possible: The time required for verification is specified in the pictogram.
 Interface for second balance: for direct connection of a second balance.	 Spray and dust protection IPxx: The type of protection is shown by the pictogram. For details see the glossary.	 DKD calibration possible: The time required for DKD calibration is shown in days in the pictogram.
 Network interface: For connecting the scale to an Ethernet network. With KERN products you can also use a universal RS-232/LAN converter.	 Stainless steel: the balance is protected against corrosion.	 Package shipment: The time required to manufacture the product internally is shown in days in the pictogram.
 GLP/ISO record keeping: of weighing data with date, time and identification-no. Only with printers from KERN.	 Suspended weighing: load support with hook on the underside of the balance.	 Pallet shipment: The time required to manufacture the product internally is shown in days in the pictogram.
 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.	 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: