



## The new standard in the laboratory with robust tuning fork weighing system

### Features

- KERN PNJ: **Automatic internal adjustment**, guarantees high degree of accuracy and makes the balance independent of its location of use. Ideal for mobile applications which require verification, such as ambulatory gold and jewellery purchasing
- KERN PNS: **Adjusting program CAL** for quick setting of the balance accuracy using an external test weight
- **High-quality tuning fork measuring system** for steady weight values and continuous weighing
- **Capacity display:** A bar lights up to show how much of the weighing range is still available
- **Precise counting:** The automatic reference weight optimisation of reference weight gradually improves the average piece weight value
- **Compact size**, practical for small spaces

- **Large, shock proof weighing plate made of stainless steel**
- **Large glass draught shield** with 3 sliding doors for easy access to the items being weighed. Weighing space W×D×H 172×171×160 mm, for models with weighing plate size **A**
- **Protective working cover** included with delivery

### Technical data

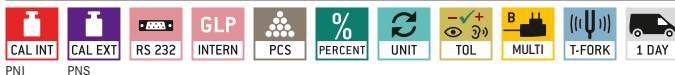
- Large LCD display, digit height 16,5 mm
- Dimensions weighing surface, stainless steel
  - A** ø 140 mm
  - B** W×D 190×190 mm, see larger picture
- Overall dimensions W×D×H, without draught shield
  - A** 202×293×266 mm
  - B** 196×293×89 mm
- Net weight
  - A** approx. 2,2 kg
  - B** approx. 2,6 kg

- Permissible ambient temperature 5 °C/40 °C

### Accessories

- **Protective working cover**, scope of delivery: 5 items, KERN PNJ-A01S05
- **RS-232/Bluetooth adapter** to connect to Bluetooth capable devices, such as Bluetooth printers, tablets, laptops, smartphones, etc., KERN YKI-02
- **RS-232/WiFi adapter** for wireless connection to networks and WLAN capable devices, such as tablets, laptops or smartphones, KERN YKI-03
- **RS-232/Ethernet adapter** for connection to an IP-based Ethernet network, KERN YKI-01
- **1 Precious stones plate**, aluminium with practical spout, W×D×H 83×66×23 mm, KERN AEJ-A05
- Further details, plenty of further accessories and suitable printers see *Accessories*

### STANDARD



### OPTION



### FACTORY



Model	Weighing range [Max] g	Readout [d] g	Verification value [e] g	Minimal load [Min] g	Linearity g	Weighing plate	Option			
							Verification		DAkks Calibr. Certificate	
							M II KERN		DKD KERN	
KERN PNS 600-3	620	0,001	-	-	± 0,004	<b>A</b>	-		963-127	
KERN PNS 3000-2	3200	0,01	-	-	± 0,02	<b>B</b>	-		963-127	
KERN PNS 12000-1	12000	0,1	-	-	± 0,2	<b>B</b>	-		963-128	
Note: For applications that require verification, please order verificati on 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.										
KERN PNJ 600-3M	620	0,001	0,01	0,02	± 0,004	<b>A</b>	↓	965-216		963-127
KERN PNJ 3000-2M	3200	0,01	0,1	0,5	± 0,02	<b>B</b>		965-216		963-127
KERN PNJ 12000-1M	12000	0,1	1	5	± 0,2	<b>B</b>		965-217		963-128

↓ Price reduction

# KERN Pictograms

 <b>Internal adjusting:</b> Quick setting up of the balance's accuracy with internal adjusting weight (motordriven)	 <b>GLP/ISO log:</b> The balance displays serial number, user ID, weight, date and time, regardless of a printer connection	 <b>Suspended weighing:</b> Load support with hook on the underside of the balance
 <b>Adjusting program CAL:</b> For quick setting up of the balance's accuracy. External adjusting weight required	 <b>GLP/ISO log:</b> With weight, date and time. Only with KERN printers	 <b>Battery operation:</b> Ready for battery operation. The battery type is specified for each device
 <b>Memory:</b> Balance memory capacity, e.g. for article data, weighing data, tare weights, PLU etc.	 <b>Piece counting:</b> Reference quantities selectable. Display can be switched from piece to weight	 <b>Rechargeable battery pack:</b> Rechargeable set
 <b>Alibi memory:</b> Secure, electronic archiving of weighing results, complying with the 2014/31/EU standard.	 <b>Recipe level A:</b> The weights of the recipe ingredients can be added together and the total weight of the recipe can be printed out	 <b>Universal mains adapter:</b> with universal input and optional input socket adapters for A) EU, GB B) EU, GB, CH, USA C) EU, GB, CH, USA, AUS
 <b>Data interface RS-232:</b> To connect the balance to a printer, PC or network	 <b>Recipe level B:</b> Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display	 <b>Mains adapter:</b> 230V/50Hz in standard version for EU. On request GB, USA or AUS version available
 <b>RS-485 data interface:</b> To connect the balance to a printer, PC or other peripherals. Suitable for data transfer over large distances. Network in bus topology is possible	 <b>Recipe level C:</b> 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	 <b>Power supply:</b> Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, USA or AUS on request
 <b>USB data interface:</b> To connect the balance to a printer, PC or other peripherals	 <b>Totalising level A:</b> The weights of similar items can be added together and the total can be printed out	 <b>Weighing principle: Strain gauges</b> Electrical resistor on an elastic deforming body
 <b>Bluetooth* data interface:</b> To transfer data from the balance to a printer, PC or other peripherals	 <b>Percentage determination:</b> Determining the deviation in % from the target value (100 %)	 <b>Weighing principle: Tuning fork</b> A resonating body is electromagnetically excited, causing it to oscillate
 <b>WLAN data interface:</b> To transfer data from the balance to a printer, PC or other peripherals	 <b>Weighing units:</b> 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	 <b>Weighing principle: Electromagnetic force compensation</b> Coil inside a permanent magnet. For the most accurate weighings
 <b>Control outputs (optocoupler, digital I/O):</b> To connect relays, signal lamps, valves, etc.	 <b>Weighing with tolerance range:</b> (Check-weighing) 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	 <b>Weighing principle: Single cell technology</b> Advanced version of the force compensation principle with the highest level of precision
 <b>Interface for second balance:</b> For direct connection of a second balance	 <b>Hold function:</b> (Animal weighing program) When the weighing conditions are unstable, a stable weight is calculated as an average value	 <b>Verification possible:</b> The time required for verification is specified in the pictogram <b>+3 DAYS</b>
 <b>Network interface:</b> For connecting the scale to an Ethernet network	 <b>Protection against dust and water splashes IPxx:</b> The type of protection is shown in the pictogram.	 <b>DAkkS calibration possible (DKD):</b> The time required for DAkkS calibration is shown in days in the pictogram <b>+3 DAYS</b>
 <b>Wireless data transfer:</b> between the weighing unit and the evaluation unit using an integrated radio module	 <b>Stainless steel:</b> The balance is protected against corrosion	 <b>Package shipment:</b> The time required for internal shipping preparations is shown in days in the pictogram <b>1 DAY</b>
 <b>KERN Communication Protocol (KCP):</b> 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		 <b>Pallet shipment:</b> The time required for internal shipping preparations is shown in days in the pictogram <b>2 DAYS</b>

## 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:

Distributed by:		Tallaght Business Park Whitestown, Dublin 24, Ireland D24 RFK3	Quatro House, Frimley Road, Camberley, United Kingdom GU16 7ER
 <b>Lab Unlimited</b> <small>CARL STUART GROUP</small>		Tel: (01) 4523432	Tel: 08452 30 40 30
		Fax: (01) 4523967	Fax: 08452 30 50 30
		E-mail: <a href="mailto:info@labunlimited.com">info@labunlimited.com</a>	E-mail: <a href="mailto:info@labunlimited.co.uk">info@labunlimited.co.uk</a>
		Web: <a href="http://www.labunlimited.com">www.labunlimited.com</a>	Web: <a href="http://www.labunlimited.co.uk">www.labunlimited.co.uk</a>

\*The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by KERN & SOHN GmbH is under license. Other trademarks and trade names are those of their respective owners.