

Precision balances KERN PNS · PNJ



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 bargraph display 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

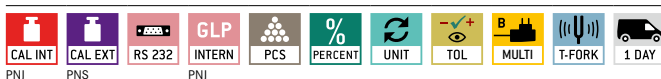
Technical data

- 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
 - A** 196×293×266 mm
 - B** 196×293×89 mm
- Net weight
 - A** approx. 2,2 kg
 - B** approx. 2,8 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 WiFi 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
- **B** Gemstones plate, aluminium with practical spout, W×D×H 123×72×15 mm, KERN AEJ-A05
- Minimum weight of sample, smallest weight to be weighed, depending on the required process accuracy, only in combination with a DAkkS calibration certificate, KERN 969-103
- Equipment qualification: compliant qualification concept which includes the following validation services: Installation Qualification (IQ), Operating Qualification (OQ), Further details see 208
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD



OPTION



FACTORY



Model	Weighing capacity [Max] g	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Linearity g	Weighing plate	Option			
							Verification		DAkkS Calibr. Certificate	
							MID	KERN	DAkkS	KERN
PNS 600-3	620	0,001	-	-	± 0,004	A	-	-	963-103	
PNS 3000-2	3200	0,01	-	-	± 0,02	B	-	-	963-127	
PNS 12000-1	12000	0,1	-	-	± 0,2	B	-	-	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.										
PNJ 600-3M	620	0,001	0,01	0,02	± 0,004	A	965-216	-	963-103	
PNJ 3000-2M	3200	0,01	0,1	0,5	± 0,02	B	965-216	-	963-127	
PNJ 12000-1M	12000	0,1	1	5	± 0,2	B	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	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	GLP/ISO log: The balance displays serial number, user ID, weight, date and time, regardless of a printer connection	Battery operation: Ready for battery operation. The battery type is specified for each device
Easy Touch: Suitable for the connection, data transmission and control through PC or tablet.	GLP/ISO log: With weight, date and time. Only with KERN printers.	Rechargeable battery pack: Rechargeable set
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	Universal plug-in power supply: with universal input and optional input socket adapters for A) EU, CH, GB; B) EU, CH, GB, USA; C) EU, CH, GB, USA, AUS
Alibi memory: Secure, electronic archiving of weighing results, complying with the 2014/31/EU standard.	Recipe level A: The weights of the recipe ingredients can be added together and the total weight of the recipe can be printed out	Plug-in power supply: 230V/50Hz in standard version for EU, CH. On request GB, USA or AUS version available
Data interface RS-232: To connect the balance to a printer, PC or network	Recipe level B: Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display	Integrated power supply unit: Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, USA or AUS on request
RS-485 data interface: To connect the balance to a printer, PC or other peripherals. Suitable for datatransfer over large distances. Network in bus topology is possible	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
USB data interface: To connect 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
Bluetooth* data interface: To transfer data from the balance to a printer, PC or other peripherals	Weighing units: Can be switched to e.g. nonmetric units. 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
WiFi data interface: To transfer data from the balance to a printer, PC or other peripherals	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
Control outputs (optocoupler, digital I/O): To connect relays, signal lamps, valves, etc.	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
Analogue interface: to connect a suitable peripheral device for analogue processing of the measurements	Protection against dust and water splashes IPxx: The type of protection is shown in the pictogram.	DAKkS calibration possible (DKD): The time required for DAKkS calibration is shown in days in the pictogram
Interface for second balance: For direct connection of a second balance		Factory calibration (ISO): The time required for Factory calibration is shown in days in the pictogram
Network interface: For connecting the scale to an Ethernet network		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

*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.

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, EN, FR, IT, ES, NL, PL
- Conformity evaluation and reverification of balances and test weights

Your KERN specialist dealer:

Impex Produkter AS
Gamle Drammensvei 107
1363 HØVIK
www.impex.no
info@impex.no
Tlf.: 22 32 77 20