Precision balances KERN PNS · PNJ

STANDARD ★★

EasyTouch

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 ⌀ 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
- 1 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: CAL INT (PNJ), CAL EXT (PNS), RS 232, GLP INTERN (PNJ), PCS, PERCENT, UNIT, TOL, MULTI, T-FORK, 1 DAY

OPTION: ET, DAkkS +3 DAYS

FACTORY: M +3 DAYS (PNJ)

Model KERN	Weighing capacity [Max] g	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Linearity g	Weighing plate		Option: Verification M II KERN		Option: DAkkS Calibr. Certificate 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 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.											
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

CAL INT
Internal adjusting:
Quick setting up of the balance's accuracy with internal adjusting weight (motordriven)

CAL EXT
Adjusting program CAL:
For quick setting up of the balance's accuracy. External adjusting weight required

ET
Easy Touch:
Suitable for the connection, data transmission and control through PC or tablet.

MEMORY
Memory:
Balance memory capacity, e.g. for article data, weighing data, tare weights, PLU etc.

ALIBI
Alibi memory:
Secure, electronic archiving of weighing results, complying with the 2014/31/EU standard.

RS 232
Data interface RS-232:
To connect the balance to a printer, PC or network

RS 485
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

USB
USB data interface:
To connect the balance to a printer, PC or other peripherals

BT
Bluetooth* data interface:
To transfer data from the balance to a printer, PC or other peripherals

WIFI
WiFi data interface:
To transfer data from the balance to a printer, PC or other peripherals

SWITCH
Control outputs (optocoupler, digital I/O):
To connect relays, signal lamps, valves, etc.

ANALOG
Analogue interface:
to connect a suitable peripheral device for analogue processing of the measurements

DUAL
Interface for second balance:
For direct connection of a second balance

LAN
Network interface:
For connecting the scale to an Ethernet network

KCP PROTOCOL
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

GLP INTERN
GLP/ISO log:
The balance displays serial number, user ID, weight, date and time, regardless of a printer connection

GLP PRINTER
GLP/ISO log:
With weight, date and time. Only with KERN printers.

PCS
Piece counting:
Reference quantities selectable. Display can be switched from piece to weight

RECIPE A
Recipe level A:
The weights of the recipe ingredients can be added together and the total weight of the recipe can be printed out

RECIPE B
Recipe level B:
Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display

SUM A
Totalising level A:
The weights of similar items can be added together and the total can be printed out

PERCENT
Percentage determination:
Determining the deviation in % from the target value (100 %)

UNIT
Weighing units:
Can be switched to e.g. nonmetric units. See balance model. Please refer to KERN's website for more details

TOL
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

MOVE
Hold function:
(Animal weighing program) When the weighing conditions are unstable, a stable weight is calculated as an average value

IP
Protection against dust and water splashes IPxx:
The type of protection is shown in the pictogram.

UNDER
Suspended weighing:
Load support with hook on the underside of the balance

BATT
Battery operation:
Ready for battery operation. The battery type is specified for each device

ACCU
Rechargeable battery pack:
Rechargeable set

MULTI
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

230 V
Plug-in power supply:
230V/50Hz in standard version for EU, CH. On request GB, USA or AUS version available

230 V
Integrated power supply unit:
Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, USA or AUS on request

DMS
Weighing principle: Strain gauges:
Electrical resistor on an elastic deforming body

T-FORK
Weighing principle: Tuning fork:
A resonating body is electromagnetically excited, causing it to oscillate

FORCE
Weighing principle: Electromagnetic force compensation:
Coil inside a permanent magnet. For the most accurate weighings

SC TECH
Weighing principle: Single cell technology:
Advanced version of the force compensation principle with the highest level of precision

M +3 DAYS
Verification possible:
The time required for verification is specified in the pictogram

DAkkS +3 DAYS
DAkkS calibration possible (DKD):
The time required for DAkkS calibration is shown in days in the pictogram

ISO +4 DAYS
Factory calibration (ISO):
The time required for Factory calibration is shown in days in the pictogram

1 DAY
Package shipment:
The time required for internal shipping preparations is shown in days in the pictogram

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

Your KERN specialist dealer:

Wolf Laboratories Limited

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Use the above details to contact us if this literature doesn't answer all your questions.

Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.