



The premium model with single-cell weighing system

Features

- **Automatic internal adjustment** in the case of a change in temperature $\geq 0,5\text{ }^{\circ}\text{C}$ or timecontrolled every 4 h, guarantees high degree of accuracy and makes the balance independent of its location of use
- **Dosage aid:** High-stability mode and other filter settings can be selected
- **Simple recipe weighing and documenting** with a combined tare/print function. In addition, the ingredients for the recipe are numbered automatically and printed out with their corresponding number and nominal weight
- **Identification number:** 4 digits, printed on calibration protocol freely programmable
- **Automatic data output to the PC/printer** each time the balance is steady

- **Large glass draught shield** with 3 sliding doors for easy access to the items being weighed.
- **Protective working cover** included with delivery

Technical data

- Large LCD display, digit height 14 mm
- Dimensions weighing surface, stainless steel, $\varnothing$ 80 mm
- Overall dimensions (incl. draught shield) W×D×H 217×356×338 mm
- Weighing space W×D×H 168×172×223 mm
- Net weight approx. 7 kg
- Permissible ambient temperature 10 °C/30 °C

Accessories

- **Protective working cover**, scope of delivery: 5 items, KERN ABT-A02S05
- **1 Set for density determination** of liquids and solids with density $\leq/\geq 1$, the density is indicated directly on the display, KERN YDB-03
- **2 Ioniser** to neutralise electrostatic charge, KERN YBI-01A
- **3 Weighing table** to absorb vibrations and oscillations, which would otherwise distort the weighing result, KERN YPS-03
- **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
- Further details, plenty of further accessories and suitable printers see *Accessories*

- 4 Single-cell advanced technology:
 - **Fully automatic manufactured weighing cell from one piece of material**
 - **Stable temperature behaviour**
 - **Short stabilisation time:** steady weight values within approx. 3 sec under laboratory conditions
 - **Shock proof construction**
 - **High corner load performance**

STANDARD

CAL INT

RS 232

GLP

INTERN

PCS

RECIPE

PERCENT

UNIT

UNDER

MULTI

SC TECH

1 DAY

OPTION

DAkkS

+3 DAYS

FACTORY

M

+3 DAYS

Model	Weighing range [Max] g	Readout [d] mg	Verification value [e] mg	Minimal load [Min] mg	Reproducibility mg	Linearity mg	Options			
							Verification		DAkkS Calibr. Certificate	
							MI KERN		DKD KERN	
KERN										
ABT 120-4NM	120	0,1	1	10	0,1	± 0,2	↓	965-201	963-101	
ABT 220-4NM	220	0,1	1	10	0,1	± 0,2		965-201	963-101	
ABT 320-4NM	320	0,1	1	10	0,1	± 0,3	↓	965-201	963-101	
ABT 100-5NM	101	0,01	1	1	0,05	± 0,15		965-201	963-101	
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.										
Dual-range balance switches automatically to the next largest weighing range [Max] and readout [d]										
ABT 120-5DNM	42 120	0,01 0,1	1	1	0,02 0,1	± 0,05 0,2		965-201	963-101	
ABT 220-5DNM	82 220	0,01 0,1	1	1	0,05 0,1	± 0,1 0,2	↓	965-201	963-101	

↓ Price reduction

KERN Pictograms



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



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



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



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



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



RS-485 data interface: To connect the balance to a printer, PC or other peripherals. Suitable for data transfer over large distances. Network in bus topology is possible



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



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



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



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



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



Network interface: For connecting the scale to an Ethernet network



Wireless data transfer: between the weighing unit and the evaluation unit using an integrated radio module



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



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



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



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



Recipe level C: 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



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



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



Weighing units: 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



Weighing with tolerance range: (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



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



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



Stainless steel: The balance is protected against corrosion



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



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



Rechargeable battery pack: Rechargeable set



Universal mains adapter: with universal input and optional input socket adapters for
A) EU, GB
B) EU, GB, CH, USA
C) EU, GB, CH, USA, AUS



Mains adapter: 230V/50Hz in standard version for EU. On request GB, USA or AUS version available



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



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



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



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



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



Verification possible: The time required for verification is specified in the pictogram



DAkKS calibration possible (DKD): The time required for DAkKS calibration is shown in days in the pictogram



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

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:

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