

Analytical balance KERN ABT-NM



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The premium model with single-cell weighing system

Features

- Automatic internal adjustment in the case of a change in temperature $\geq 0,5$ °C or time-controlled 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
- Printout of a GLP-compliant calibration report conveniently at the touch of a button
- 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 \varnothing 80 mm, stainless steel
- Weighing space W×D×H 168×172×223 mm
- Overall dimensions (incl. draught shield) W×D×H 217×356×338 mm
- Net weight approx. 7 kg
- Permissible ambient temperature 10 °C/30 °C

Accessories

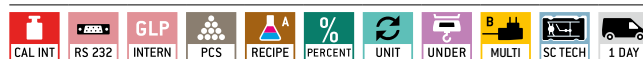
- Protective working cover, scope of delivery 5 items, KERN ABT-A02S05
- Set for density determination of liquids and solids with density $\leq/\geq 1$, the density is indicated directly on the display, KERN YDB-03

- Ioniser to neutralise electrostatic charge, KERN YBI-01A
- 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
- Equipment qualification: compliant qualification concept which includes the following validation services, Installation Qualification (IQ), Operating Qualification (OQ)

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. 4 s (models with [d] = 0,1 mg), approx. 10 s (models with [d] = 0,01 mg) under laboratory conditions
- **Shock proof construction**
- **High corner load performance**

STANDARD



OPTION



Model	Weighing capacity [Max] g	Readability [d] mg	Verification value [e] mg	Minimal load [Min] mg	Reproducibility mg	Linearity mg	Option	
							Verification	DAkkS Calibr. Certificate
KERN							MD	DAkkS
ABT 100-5NM	101	0,01	1	1	0,05	$\pm 0,15$	965-201	963-101
ABT 120-4NM	120	0,1	1	10	0,1	$\pm 0,2$	965-201	963-101
ABT 220-4NM	220	0,1	1	10	0,1	$\pm 0,2$	965-201	963-101
ABT 320-4NM	320	0,1	1	10	0,1	$\pm 0,3$	965-201	963-101
Multi-range balance, with increasing load it switches automatically to the next largest weighing range [Max] and readout [d] and when the load is fully removed, the balance switches back to the lower range								
ABT 120-5DNM	42 120	0,01 0,1	1 1	1	0,02 0,1	$\pm 0,05$ 0,2	965-201	963-101
ABT 220-5DNM	82 220	0,01 0,1	1 1	1	0,05 0,1	$\pm 0,1$ 0,2	965-201	963-101

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.

- 
Internal adjusting:
 Quick setting up of the balance's accuracy with internal adjusting weight (motordriven)
- 
Network interface:
 For connecting the scale to an Ethernet network
- 
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
- 
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
- 
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.
- 
Rechargeable battery pack:
 Rechargeable set
- 
Memory:
 Balance memory capacity, e.g. for article data, weighing data, tare weights, PLU etc.
- 
GLP/ISO log:
 The balance displays weight, date and time, independent of a printer connection
- 
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.
- 
GLP/ISO log:
 With weight, date and time. Only with KERN printers.
- 
Plug-in power supply:
 230V/50Hz in standard version for EU, CH. On request GB, USA or AUS version available
- 
KERN Universal Port (KUP):
 allows the connection of external KUP interface adapters, e.g. RS-232, RS-485, SB, Bluetooth, WLAN, Analogue, Ethernet etc. for the exchange of data and control commands, without installation effort
- 
Piece counting:
 Reference quantities selectable. Display can be switched from piece to weight
- 
Integrated power supply unit:
 Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, USA or AUS on request
- 
Data interface RS-232:
 To connect the balance to a printer, PC or network
- 
Recipe level A:
 The weights of the recipe ingredients can be added together and the total weight of the recipe can be printed out
- 
Weighing principle: Strain gauges
 Electrical resistor on an elastic deforming body
- 
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
- 
Recipe level B:
 Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display
- 
Weighing principle: Tuning fork
 A resonating body is electromagnetically excited, causing it to oscillate
- 
USB data interface:
 To connect the balance to a printer, PC or other peripherals
- 
Totalising level A:
 The weights of similar items can be added together and the total can be printed out
- 
Weighing principle: Electromagnetic force compensation
 Coil inside a permanent magnet. For the most accurate weighings
- 
Bluetooth* data interface:
 To transfer data from the balance to a printer, PC or other peripherals
- 
Percentage determination:
 Determining the deviation in % from the target value (100 %)
- 
Weighing principle: Single cell technology:
 Advanced version of the force compensation principle with the highest level of precision
- 
WiFi 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
- 
Verification possible:
 The time required for verification is specified in the pictogram
- 
Control outputs (optocoupler, digital I/O):
 To connect relays, signal lamps, valves, etc.
- 
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
- 
DAkkS calibration possible (DKD):
 The time required for DAkkS calibration is shown in days in the pictogram
- 
Analogue interface:
 to connect a suitable peripheral device for analogue processing of the measurements
- 
Hold function:
 (Animal weighing program) When the weighing conditions are unstable, a stable weight is calculated as an average value
- 
Factory calibration (ISO):
 The time required for Factory calibration is shown in days in the pictogram
- 
Interface for second balance:
 For direct connection of a second balance
- 
Protection against dust and water splashes IPxx:
 The type of protection is shown 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

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