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The bestseller in analytical balances, with high-quality single-cell weighing system, also with EC type approval [M]

Features

- 1 ABJ-NM: **Automatic internal adjustment** in the case of a change in temperature 2 °C or timecontrolled every 4 h, guarantees high degree of accuracy and makes the balance independent of its location of use
- 2 ABS-N: **Adjusting program CAL** for quick setting of the balance accuracy using an external test weight
- **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
- **Automatic data output to the PC/printer** each time the balance is steady
- **Identification number:** 4 digits, printed on calibration protocol freely programmable
- ABJ-NM has OIML certification

Technical data

- Large LCD display, digit height 14 mm
- Dimensions weighing surface, stainless steel, ø 91 mm
- Overall dimensions W×D×H 210×340×325 mm
- Weighing space W×D×H 174×162×227 mm
- Net weight approx. 6 kg
- Permissible ambient temperature 10 °C/30 °C

Accessories

- **Protective working cover**, standard, can be re-ordered, scope of delivery: 5 items, KERN ACS-A02S05
- 3 **Data interface RS-232**, interface cable included, approx. 1,5 m, KERN ACS-A01
- 4 **Set for density determination** of liquids and solids with density ≤/≥ 1, the density is indicated directly on the display, KERN YDB-03
- 5 **Ioniser** to neutralise electrostatic charge, KERN YBI-01A
- 6 **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*

7 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 (1), CAL EXT (2), GLP, PRINTER, PCS, RECIPE, PERCENT, UNIT, TOL, MULTI, SC TECH, 1 DAY, 3 YEARS WARRANTY

OPTION: RS 232 (3), DAkkS +3 DAYS

FACTORY: M +3 DAYS (ABJ-NM)

Model KERN	Weighing range [Max] g	Readout [d] mg	Verification value [e] mg	Minimal load [Min] mg	Repro-ducibility mg	Linearity mg		Options Verification MT KERN		Options DAkkS Calibr. Certificate DKD KERN	
ABS 80-4N	82	0,1	-	-	0,2	± 0,3		-		963-101	
ABS 120-4N	120	0,1	-	-	0,2	± 0,3		-		963-101	
ABS 220-4N	220	0,1	-	-	0,2	± 0,3		-		963-101	
ABS 320-4N	320	0,1	-	-	0,2	± 0,3		-		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.											
ABJ 80-4NM	82	0,1	1	10	0,2	± 0,3		965-201		963-101	
ABJ 120-4NM	120	0,1	1	10	0,2	± 0,3		965-201		963-101	
ABJ 220-4NM	220	0,1	1	10	0,2	± 0,3		965-201		963-101	
ABJ 320-4NM	320	0,1	1	10	0,2	± 0,3		965-201		963-101	

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: 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. High tolerance against electromagnetic disturbance.

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. With KERN products you can use a universal RS-232/LAN converter.

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

GLP/ISO log: The balance displays the 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: Separate memory for the weight of the tare container and the recipe ingredients (net total).

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. non-metric units at the touch of a key. See balance model. Please refer to KERN's website for more details.

Weighing with tolerance range: Upper and lower limiting values can be programmed individually for e.g. dosing, sorting and portioning.

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.

ATEX explosion protection: Suitable for use in hazardous industrial environments, in which there is explosion danger. The ATEX marking is specified for each device.

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 gauge 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.

Warranty: The warranty period is shown 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: