



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  $\leq/\geq 1$ , 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										OPTION		FACTORY		
1	2											3		ABJ-NM

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			
							MD KERN		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 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.												
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:

 <b>Internal adjusting:</b> Quick setting up of the balance's accuracy with internal adjusting weight (motordriven).	 <b>Piece counting:</b> Reference quantities selectable. Display can be switched from piece to weight.	 <b>Rechargeable battery pack:</b> Rechargeable set.
 <b>Adjusting program CAL:</b> For quick setting up of the balance's accuracy. External adjusting weight required.	 <b>Recipe level A:</b> Separate memory for the weight of the tare container and the recipe ingredients (net total).	 <b>Universal mains adapter:</b> with universal input and optional input socket adapters for A) EU, GB B) EU, GB, CH, USA C) EU, GB, CH, USA, AUS
 <b>Memory:</b> Balance memory capacity, e.g. for article data, weighing data, tare weights, PLU etc.	 <b>Recipe level B:</b> Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display.	 <b>Mains adapter:</b> 230V/50Hz in standard version for EU. On request GB, USA or AUS version available.
 <b>Alibi memory:</b> Electronic archiving of weighing results, complying with the 2014/31/EU standard.	 <b>Recipe level C:</b> 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.	 <b>Power supply:</b> Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, USA or AUS on request.
 <b>Data interface RS-232:</b> To connect the balance to a printer, PC or network.	 <b>Totalising level A:</b> The weights of similar items can be added together and the total can be printed out.	 <b>Weighing principle: Strain gauge</b> Electrical resistor on an elastic deforming body.
 <b>RS-485 data interface:</b> To connect the balance to a printer, PC or other peripherals. High tolerance against electromagnetic disturbance.	 <b>Percentage determination:</b> Determining the deviation in % from the target value (100 %).	 <b>Weighing principle: Tuning fork</b> A resonating body is electromagnetically excited, causing it to oscillate.
 <b>USB data interface:</b> To connect the balance to a printer, PC or other peripherals.	 <b>Weighing units:</b> 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.	 <b>Weighing principle: Electromagnetic force compensation</b> Coil inside a permanent magnet. For the most accurate weighings.
 <b>Bluetooth* data interface:</b> To transfer data from the balance to a printer, PC or other peripherals.	 <b>Weighing with tolerance range:</b> Upper and lower limiting values can be programmed individually for e.g. dosing, sorting and portioning.	 <b>Weighing principle: Single cell technology</b> Advanced version of the force compensation principle with the highest level of precision.
 <b>WLAN data interface:</b> To transfer data from the balance to a printer, PC or other peripherals.	 <b>Hold function:</b> (Animal weighing program) When the weighing conditions are unstable, a stable weight is calculated as an average value.	 <b>Verification possible:</b> The time required for verification is specified in the pictogram.
 <b>Control outputs (optocoupler, digital I/O):</b> To connect relays, signal lamps, valves, etc.	 <b>Protection against dust and water splashes IPxx:</b> The type of protection is shown in the pictogram.	 <b>DAkKS calibration possible (DKD):</b> The time required for DAkKS calibration is shown in days in the pictogram.
 <b>Interface for second balance:</b> For direct connection of a second balance.	 <b>ATEX explosion protection:</b> Suitable for use in hazardous industrial environments, in which there is explosion danger. The ATEX marking is specified for each device.	 <b>Package shipment:</b> The time required for internal shipping preparations is shown in days in the pictogram.
 <b>Network interface:</b> For connecting the scale to an Ethernet network. With KERN products you can use a universal RS-232/LAN converter.	 <b>Stainless steel:</b> The balance is protected against corrosion.	 <b>Pallet shipment:</b> The time required for internal shipping preparations is shown in days in the pictogram.
 <b>Wireless data transfer:</b> between the weighing unit and the evaluation unit using an integrated radio module.	 <b>Suspended weighing:</b> Load support with hook on the underside of the balance.	 <b>Warranty:</b> The warranty period is shown in the pictogram.
 <b>GLP/ISO log:</b> The balance displays the weight, date and time, regardless of a printer connection.	 <b>Battery operation:</b> Ready for battery operation. The battery type is specified for each device.	
 <b>GLP/ISO log:</b> With weight, date and time. Only with KERN printers.		

## 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:

# EGITRON

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