



Range of analytical balances, with large weighing ranges, also with EC type approval [M]

Features

- **1** KERN ALJ-A/-AM: **Automatic internal adjustment** in the case of a change in temperature 1,2 °C or timecontrolled every 3 h, guarantees high degree of accuracy and makes the balance independent of its location of use
- **2** KERN ALS-A: **Adjusting program CAL** for quick setting of the balance accuracy using an external test weight
- **Ergonomically optimised keypad** for left and righthanded users
- **Large glass draught shield** with 3 sliding doors for easy access to the items being weighed
- **Compact size**, practical for small spaces
- **Percentage determination**: makes it possible to store a given weight value (100 %) and to determine deviations from this target value

Technical data

- Backlit LCD display, digit height 17 mm
- Dimensions weighing surface, stainless steel, ø 80 mm
- Overall dimensions W×D×H 210×340×330 mm (incl. draught shield)
- Weighing space W×D×H 160×140×205 mm
- Net weight approx. 5,7 kg
- Permissible ambient temperature KERN ALS-A/ALJ-A: 5°C/35°C KERN ALJ-AM: 15°C/30°C

Accessories

- **Protective working cover**, scope of delivery: 5 items, KERN ALJ-A01S05
- **Protective dust cover**, KERN ABS-A08
- **3** **Set for density determination** of liquids and solids with density $\leq/\geq 1$, the density is indicated directly on the display, KERN YDB-03
- **4** **Ioniser** to neutralise electrostatic charge, KERN YBI-01A
- **5** **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*

STANDARD



OPTION



FACTORY



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		
ALS 160-4A	160	0,1	-	-	0,1	± 0,3	-	-	963-101		
ALS 250-4A	250	0,1	-	-	0,1	± 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.

ALJ 160-4A	160	0,1	-	-	0,1	± 0,3	-	-	963-101		
ALJ 160-4AM	160	0,1	1	10	0,2	± 0,3	965-201	-	963-101		
ALJ 250-4A	250	0,1	-	-	0,1	± 0,3	-	-	963-101		
ALJ 250-4AM	250	0,1	1	10	0,2	± 0,3	965-201	-	963-101		
ALJ 310-4A	310	0,1	-	-	0,1	± 0,3	-	-	963-101		
ALJ 500-4A	510	0,1	-	-	0,2	± 0,4	-	-	963-101		

KERN Pictograms:



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



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



Rechargeable battery pack: Rechargeable set.



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



Recipe level A: Separate memory for the weight of the tare container and the recipe ingredients (net total).



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



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



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



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



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



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.



Power supply: 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.



Weighing principle: Strain gauge
Electrical resistor on an elastic deforming body.



RS-485 data interface: To connect the balance to a printer, PC or other peripherals. High tolerance against electromagnetic disturbance.



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



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.



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



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.



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



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



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



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.



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



DAKkS calibration possible (DKD): The time required for DAKkS 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.



Network interface: For connecting the scale to an Ethernet network. With KERN products you can use a universal RS-232/LAN converter.



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



Pallet shipment: The time required for internal shipping preparations is shown in days in the pictogram.



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



Stainless steel: The balance is protected against corrosion.



Warranty: The warranty period is shown in the pictogram.



GLP/ISO log: The balance displays the weight, date and time, regardless of a printer connection.



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



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



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

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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