



1 KERN ALJ 200-5DA with optional ionisor 2, see Accessories

Analytical balance range with large weighing ranges – now also with EC type approval [M] or available as semi-micro analytical balance

#### Features

- **1 NEW:** KERN ALJ 250-5DA! High-precision semi-micro analytical balance
- **2 NEW:** KERN ALJ-A03! Ionisor to neutralise electrostatic charge for fixed installation in the analytical balance. This it makes for convenient handling as you no longer need a separate device. Simply enable the ionisor fan at the push of a button. Suitable for all models in this range, see accessories on the right

- KERN ALJ-A/-AM: **Automatic internal adjustment** in the case of a change in temperature  $\geq 1,2\text{ }^{\circ}\text{C}$  or timecontrolled every 3 h, guarantees high degree of accuracy and makes the balance independent of its location of use
- 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
- **Protective working cover** included with delivery



Technical data

- Backlit LCD display, digit height 17 mm
- Dimensions weighing surface, stainless steel, Ø 80 mm
- Overall dimensions (incl. draught shield) W×D×H 210×340×330 mm
- Weighing space W×D×H 160×140×205 mm
- Net weight approx. 7 kg
- Permissible ambient temperature KERN ALS-A/ALJ-A/ALJ-DA: 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
- **2 Draft shield rear panel with integrated ioniser** to neutralise electrostatic charge. Is fitted in place of the existing glass rear panel of the draft shield. Suitable for all models in the KERN ALS-A/ALJ-A/ALJ-AM/ALJ-DA range, please order at the time you order your balance, the scope of delivery is the rear panel, ioniser, power supply. Factory Option, KERN ALJ-A03

- **3 Set for density determination** of liquids and solids with density ≤/≥ 1, the density is indicated directly on the display, KERN YDB-03
- **4 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

CAL INT

CAL EXT

RS 232

GLP

PC

RECIPE

PERCENT

UNIT

TOL

MOVE

MULTI

FORCE

1 DAY

ALJ-A

ALS-A

OPTION

DAkkS

M

+3 DAYS

+3 DAYS

ALJ-AM

| 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 |  |
|                                                                                                                                                                                                                                           |                        |                |                           |                       |                    |              |  | KERN         |  | KERN                      |  |
| 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 200-5DA                                                                                                                                                                                                                               | 82   220               | 0,01   0,1     | -                         | -                     | 0,04   0,1         | ± 0,1   0,2  |  | -            |  | 963-101                   |  |
| 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                   |  |

New model

# KERN Pictograms

|                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <b>Internal adjusting:</b> Quick setting up of the balance's accuracy with internal adjusting weight (motordriven)                                                                                                                                                                                                                                  |  <b>GLP/ISO log:</b> The balance displays serial number, user ID, weight, date and time, regardless of a printer connection                                                                                                                  |  <b>Suspended weighing:</b> Load support with hook on the underside of the balance                                                                         |
|  <b>Adjusting program CAL:</b> For quick setting up of the balance's accuracy. External adjusting weight required                                                                                                                                                                                                                                    |  <b>GLP/ISO log:</b> With weight, date and time. Only with KERN printers                                                                                                                                                                     |  <b>Battery operation:</b> Ready for battery operation. The battery type is specified for each device                                                      |
|  <b>Memory:</b> Balance memory capacity, e.g. for article data, weighing data, tare weights, PLU etc.                                                                                                                                                                                                                                                |  <b>Piece counting:</b> Reference quantities selectable. Display can be switched from piece to weight                                                                                                                                        |  <b>Rechargeable battery pack:</b> Rechargeable set                                                                                                        |
|  <b>Alibi memory:</b> Secure, electronic archiving of weighing results, complying with the 2014/31/EU standard.                                                                                                                                                                                                                                      |  <b>Recipe level A:</b> The weights of the recipe ingredients can be added together and the total weight of the recipe can be printed out                                                                                                    |  <b>Universal mains adapter:</b> with universal input and optional input socket adapters for<br>A) EU, GB<br>B) EU, GB, CH, USA<br>C) EU, GB, CH, USA, AUS |
|  <b>Data interface RS-232:</b> To connect the balance to a printer, PC or network                                                                                                                                                                                                                                                                    |  <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>RS-485 data interface:</b> To connect the balance to a printer, PC or other peripherals. Suitable for data transfer over large distances. Network in bus topology is possible                                                                                                                                                                    |  <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>USB data interface:</b> To connect the balance to a printer, PC or other peripherals                                                                                                                                                                                                                                                             |  <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 gauges</b> Electrical resistor on an elastic deforming body                                                                 |
|  <b>Bluetooth* data interface:</b> To transfer data from the balance to a printer, PC or other peripherals                                                                                                                                                                                                                                           |  <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>WLAN data interface:</b> To transfer data from the balance to a printer, PC or other peripherals                                                                                                                                                                                                                                                |  <b>Weighing units:</b> 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                                                                                   |  <b>Weighing principle: Electromagnetic force compensation</b> Coil inside a permanent magnet. For the most accurate weighings                            |
|  <b>Control outputs (optocoupler, digital I/O):</b> To connect relays, signal lamps, valves, etc.                                                                                                                                                                                                                                                  |  <b>Weighing with tolerance range:</b> (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              |  <b>Weighing principle: Single cell technology</b> Advanced version of the force compensation principle with the highest level of precision              |
|  <b>Interface for second balance:</b> For direct connection of a second balance                                                                                                                                                                                                                                                                    |  <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>Network interface:</b> For connecting the scale to an Ethernet network                                                                                                                                                                                                                                                                         |  <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>Wireless data transfer:</b> between the weighing unit and the evaluation unit using an integrated radio module                                                                                                                                                                                                                                 |  <b>Stainless steel:</b> The balance is protected against corrosion                                                                                                                                                                        |  <b>Package shipment:</b> The time required for internal shipping preparations is shown in days in the pictogram                                         |
|  <b>KERN Communication Protocol (KCP):</b> 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 |                                                                                                                                                                                                                                                                                                                               |  <b>Pallet shipment:</b> 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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