

# Analytical balances [KERN ALS-A/ALJ-A\(SK\)](#)



Precision and price down to a point,  
with automatic external and internal adjustment

## Features

- 1 only ALJ-A: **Automatic internal adjustment** in the case of a change in temperature > 1,5 °C
- 2 only ALS-A: **Adjusting program CAL** for quick setting of the balance accuracy, external test weights at an additional price, see page 143
- 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

- **Weighing with tolerance range**, ideal for portion division, dispensing, grading

## Technical data

- Backlit LCD display, digit height 17 mm
- Dimensions of weighing plate Ø 80 mm
- Overall dimensions (incl. draft shield): 210x340x330 mm
- Weighing space WxDxH 160x140x205 mm
- Net weight approx. 5,7 kg
- Permissible ambient temperature 5 °C / 35 °C

## Accessories

- **Protective working cover**, KERN ALJ-A01
- **Set for density determination** of liquids and solids with density  $\leq/\geq 1$ , details see page 142, KERN YDB-03
- 3 **Ioniser** to neutralise electrostatic charge, see page 140, KERN YBI-01
- 4 **Weighing table** to absorb vibrations and oscillations, which would otherwise distort the weighing result, see page 140, KERN YPS-03
- **Suitable printers** see page 138

## STANDARD



## OPTION






































## FACTORY



Model	Weighing range [Max] g	Readout [d] mg	Verific. value [e] mg	Repro-ducibility mg	Linea-rity mg	Options				
						Verification		DKD Calibr. Certificate		
						MT	KERN	DKD	KERN	
<b>ALS 160-4A</b>	160	0,1	-	0,1	± 0,3	-	-	963-101	-	
<b>ALS 250-4A</b>	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.										
<b>ALJ 160-4AM</b>	160	0,1	1	0,2	± 0,3	965-201	-	963-101	-	
<b>ALJ 250-4AM</b>	250	0,1	1	0,2	± 0,3	965-201	-	963-101	-	
<b>ALJ 310-4A</b>	310	0,1	-	0,1	± 0,3	-	-	963-101	-	

■ New model

# KERN Pictograms

 <b>Internal adjusting (CAL):</b> Quick setting of the balance's accuracy with internal adjusting weight (motordriven).	 <b>Recipe level A:</b> Separate memory for the weight of the tare container and the recipe ingredients (net total).	 <b>Rechargeable battery pack:</b> rechargeable set.
 <b>Adjusting program (CAL):</b> For quick setting of the balance's accuracy. External adjusting weight required.	 <b>Recipe level B:</b> Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through displays.	 <b>Mains adapter:</b> 230V/50Hz in standard version for Germany. On request GB, AUS or USA version.
 <b>Memory:</b> Balance contains memories, e.g. for item data, weighing data, tare weights etc. PLU.	 <b>Recipe level C:</b> Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through displays. Additional convenient functions, such as barcode and back calculation functions.	 <b>Power supply:</b> integrated in balance. 230V/50Hz in Germany. More standards e. g. GB, AUS, USA on request.
 <b>Data interface RS-232:</b> To connect the balance to a printer, PC or network.		 <b>Strain gauges:</b> Electrical resistor on an elastic deforming body.
 <b>RS 485 data interface:</b> To connect the balance to a printer, PC or other peripheral devices. High tolerance against electromagnetic disturbance.	 <b>Percentage determination:</b> Determining the deviation in % from the target value (100%).	 <b>Tuning fork principle:</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 peripheral devices.	 <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>Electromagnetic force compensation:</b> Coil in 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 peripheral devices.	 <b>Weighing with tolerance range:</b> Upper and lower limiting can be programmed individually, e.g. dosing/sorting and portioning.	 <b>Single cell technology:</b> Advanced version of the force compensation principle with the highest level of precision.
 <b>Control outputs (optocoupler, digital I/O):</b> to connect relays, signal lamps, valves, etc.	 <b>Vibration-free weighing:</b> (Animal weighing program) Vibrations are filtered out so that a stable weight is obtained.	 <b>Verification possible:</b> The time required for verification is specified in the pictogram.
 <b>Interface for second balance:</b> for direct connection of a second balance.	 <b>Spray and dust protection IPxx:</b> The type of protection is shown by the pictogram. For details see the glossary.	 <b>DKD calibration possible:</b> The time required for DKD calibration is shown in days in the pictogram.
 <b>Network interface:</b> For connecting the scale to an Ethernet network. With KERN products you can also use a universal RS-232/LAN converter.	 <b>Stainless steel:</b> the balance is protected against corrosion.	 <b>Package shipment:</b> The time required to manufacture the product internally is shown in days in the pictogram.
 <b>GLP/ISO record keeping:</b> of weighing data with date, time and identification-no. Only with printers from KERN.	 <b>Suspended weighing:</b> load support with hook on the underside of the balance.	 <b>Pallet shipment:</b> The time required to manufacture the product internally is shown in days in the pictogram.
 <b>Piece counting:</b> Reference quantities selectable. Display can be switched from piece to weight.	 <b>Battery operation:</b> Ready for battery operation. The battery type is specified for each device.	 <b>Warranty:</b> The warranty period is shown in the pictogram.

## Precision is our business

To ensure the high precision of your balance KERN offers you the the appropriate test weight package for your balance, consisting of the test weight, box and DKD certificate, as proof of ist accuracy ... the best pre-requisite for proper balance calibration.

In the extensive KERN test weight range, you will find test weights in the international OIML error limit classes: E1, E2, F1, F2, M1, M2, M3 with weights from 1 mg - 2000 kg.

The KERN DKD calibration laboratory for electronic balances and weights has been accredited by DKD since 1994 and today is one of the most modern and best-equipped DKD calibration laboratories for balances, test weights and force-measurement in Europe.

(DKD = German Calibration Service)

Thanks to the high level of automation, we can carry out DKD calibration of balances, test weights and force-measuring devices 24 hours a day, 7 days a week.

### Range of services:

- DKD calibration of balances with a maximum load of up to 6 t
- DKD calibration of weights in the range of 1 mg – 500 kg
- Database supported management of checking equipment and reminder service
- Calibration of force-measuring devices
- DKD calibration certificates in the following languages  
D, GB, F, I, E, NL, PL

Do you have questions about your scale, the corresponding test weight or the calibration service? Your KERN specialist dealer will be pleased to assist you.

## Your KERN specialist dealer: