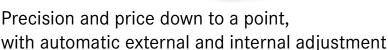
## Analytical balances KERN ALS-A · ALJ-A









### Features

- 11 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 ≤/≥1, details see page 142, KERN YDB-03
- 3 loniser to neutralise electrostatic charge, see page 140, KERN YBI-01
- • 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

































only ALJ-AM

Model	Weighing	Readout	Verific.	Repro-	Linea-	Options			
	range		value	ducibility	rity	Verification		DKD Calibr.	Certificate
	[Max]	[d]	[e]			MI		DKD	
KERN	g	mg	mg	mg	mg	KERN		KERN	
ALS 160-4A	160	0,1	-	0,1	± 0,3	-		963-101	
ALS 250-4A	250	0,1	-	0,1	± 0,3	I		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 160-4AM	160	0,1	1	0,2	± 0,3	965-20	1	963-101			

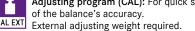
### **KERN Pictograms**



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



Adjusting program (CAL): For quick setting





Memory: Balance contains memories, e.g. for item data, weighing data, tare weights etc.



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 peripheral devices. High tolerance against electromagnetic disturbance.



USB data interface: To connect the balance to a printer, PC or other peripheral devices.



Bluetooth data interface: To transfer data from the balance to a printer, PC or other peripheral devices.



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 also use a universal RS-232/LAN



GLP/ISO record keeping: of weighing data with date, time and identification-no. Only with printers from KERN.



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 displays.



Recipe level C: Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through displays. Additional convenient functions, such as bar-

code and back calculation functions.



Rechargeable battery pack: rechargeable set.



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



Power supply: integrated in balance. 230V/50Hz in Germany. More standards e. g. GB, AUS, USA on request.



Strain gauges: Electrical resistor on an elastic deforming body.



Tuning fork principle: A resonating body is



electromagnetically excited, causing it to T-FORK oscillate.



Electromagnetic force compensation: Coil in a permanent magnet. For the most accurate weighings.



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.



pictogram.

in days in the pictogram.

DKD calibration possible: The time required for DKD calibration is shown in days in the



Package shipment: The time required to manufacture the product internally is shown



Pallet shipment: The time required to manufacture the product internally is shown in days in the pictogram.



Warranty: The warranty period is shown in the pictogram.



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



Weighing units: 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.



lower limiting can be programmed individually, e.g. dosing/sorting and portioning. Vibration-free weighing: (Animal weighing

program) Vibrations are filtered out so that a

stable weight is obtained.

For details see the glossary.

Weighing with tolerance range: Upper and



Spray and dust protection IPxx: The type of protection is shown by the pictogram.



Stainless steel: the balance is protected against corrosion.



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



BATT

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

## 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

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 forcemeasurement 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 corresponsing test weight or the calibration service? Your KERN specialist dealer will be pleased to assist you.

# Your KERN specialist dealer: