# Analytical balance KERN ALS-A · ALJ-A · ALJ-AM









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

### Features

- II 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
- Z 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
- Set for density determination of liquids and solids with density  $\leq \geq 1$ , the density is indicated directly on the display, KERN YDB-03
- 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
CAL INT CAL	EXT RS 232	GLP PRINTER	PCS	RECIPE	% PERCENT	<b>C</b> UNIT	-√+ TOL	MOVE	B H	N S FORCE	1 DAY	<b>3</b> <sub>YEARS</sub> WARRANTY	DAkkS +3 DAYS	H3 DAYS

Model	Weighing	Readout	Verification	Minimal	Repro-	Linearity		Options			
	range		value	load	ducibility			Verification		DAkkS Calibr. Certificate	
	[Max]	[d]	[e]	[Min]				MD		DKD	
KERN	g	mg	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		-		963-101	
Note: For applications that require verification, please order verificati on 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											

		Vermea	tion at the fac	tory, we need	to know the r			
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).



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



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



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



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 peripherals. High tolerance against electromagnetic disturbance.



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



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



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



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 use a universal RS-232/LAN converter.



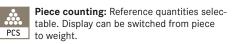
Wireless data transfer: between the weighing unit and the evaluation unit using an integrated radio module.



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



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



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



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



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.



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

Weighing units: Can be switched to e.g. non-

metric units at the touch of a key. See balance

Weighing with tolerance range: Upper and

lower limiting values can be programmed indivi-

dually for e.g. dosing, sorting and portioning.

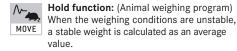
model. Please refer to KERN's website for

Percentage determination: Determining <u>70</u> the deviation in % from the target value PERCENT (100 %).

more details.

S UNIT





a stable weight is calculated as an average value. Protection against dust and water splashes **666** IPxx: The type of protection is shown in the IP



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

Stainless steel: The balance is protected against corrosion.



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

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

# KERN – Precision is our business

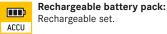
To ensure the high precision of your balance KERN offers you the the appropriate test weight in the international OIML error limit classes E1-M3 from 1 mg - 2500 kg. In combination with a DAkkS calibration certificate the best pre-requisite for proper balance calibration.

The KERN DAkkS calibration laboratory today is one of the most modern and best-equipped DAkkS calibration laboratories for balances, test weights and forcemeasurement 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
  - SOHN GmbH is under license. Other trademarks and trade names are those of their respective owner



Universal mains adapter: with universal input and optional input socket adapters for MULTI A) EU, GB B) EU, GB, CH, USA C) EU, GB, CH, USA, AUS

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



Power supply: Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, USA or AUS on request.



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



Weighing principle: Tuning fork A resonating body is electromagnetically excited, causing it to oscillate.



Weighing principle: Electromagnetic force compensation Coil inside a permanent magnet. For the most accurate weighings.

Weighing principle: Single cell technology

Advanced version of the force compensation

principle with the highest level of precision.

<u>آ</u>بوا SC TECH



#### Verification possible:

The time required for verification is specified +3 DAYS in the pictogram.



DAkkS calibration possible (DKD): The time required for DAkkS calibration is shown in days in the pictogram.



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



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



Warranty: The warranty period is shown in the pictogram.

# Your KERN specialist dealer:



INOX

pictogram.