KERN

Analytical balance KERN ALS-A · ALJ-AM





■ KERN ALJ 200-5DA with optional ionisor ≥, see *Accessories*

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

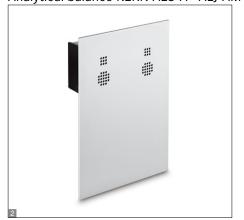
Features

- **II ALJ 200-5DA:** High-precision semi-micro analytical balance
- ALJ-A03: Ionizer to neutralise electrostatic charge for fixed installation in the analytical balance. Particularly convenient handling as you no longer need a separate device. Simply enable the ionizer fan at the push of a button. Suitable for all models
- 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
- 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

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Analytical balance KERN ALS-A · ALJ-AM







Technical data

- Backlit LCD display, digit height 17 mm
- Dimensions weighing surface, stainless steel, \varnothing 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 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
- Draft shield rear panel with integrated ionizer 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, ionizer, power supply. Factory Option, KERN ALJ-A03
- Set for density determination of liquids and solids with density ≤/≥ 1, the density is indicated directly on the display, KERN YDB-03

- 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
- Equipment qualification: compliant qualification concept which includes the following validation services, Installation Qualification (IQ), Operating Qualification (OQ), KERN 961-231B
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD												OPTION	FACTORY
i i		GLP	<u>.</u>	_ ^	%	C		^_	B	N I S	, b	DAkkS	Μ
CAL INT CAL EXT	RS 232	PRINTER	PCS	RECIPE	PERCENT	UNIT	TOL	MOVE	MULTI	FORCE	1 DAY	+3 DAYS	+3 DAYS
A 2 1 A 1 1 A													ALL AM

Model	Weighing	Readability	Verification	Minimal load	Reproduci-	Linearity		Option			
	capacity		value		bility			Verificat	ion	DAkkS Calibr. Ce	rtificate
	[Max]	[d]	[e]	[Min]				MI		DAkkS	
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 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 2005DA	82 220	0,01 0,1	1	1	0,02 0,1	± 0,03 0,3		-		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	

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KCP

PROTOCOL



Pictograms

Internal adjusting:

Quick setting up of the balance's accuracy with CAL INT internal adjusting weight (motordriven)

Adjusting program CAL:

For quick setting up of the balance's accuracy. External adjusting weight required



CAL EXT

Easy Touch:

Suitable for the connection, data transmission and control through PC, tablet or smartphone Memory:

Balance memory capacity, e.g. for article data, MEMORY

weighing data, tare weights, PLU etc. Alibi memory:

Secure, electronic archiving of weighing results, complying with the 2014/31/EU standard.



• 6534 •

ALIBI

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 RS 485 peripherals. Suitable for data transfer over large distances. Network in bus topology is possible



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.

Analogue interface:

to connect a suitable peripheral device for analogue processing of the measurements



ANALOG

Interface for second balance: For direct connection of a second balance



Network interface: For connecting the scale to an Ethernet network



Wireless data transfer:

between the weighing unit and the evaluation unit using an integrated radio module

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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 bestequipped 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.

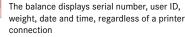
Range of services:

- · 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



PCS

GLP/ISO log:



KERN Communication Protocol (KCP):

It is a standardized interface command set for

KERN balances and other instruments, which

parameters and functions of the device. KERN

devices featuring KCP are thus easily integrated

with computers, industrial controllers and other

allows retrieving and controlling all relevant

GLP/ISO log:

With weight, date and time. Only with KERN PRINTER printers

Piece counting:

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

Recipe level A: 4

The weights of the recipe ingredients can be RECIPE added together and the total weight of the recipe can be printed out

Recipe level B:

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

Recipe level C: ∠^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



The weights of similar items can be added SUM together and the total can be printed out

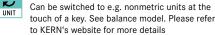


TOL

Percentage determination:

Determining the deviation in % from the target value (100 %)

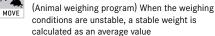
Weighing units: S

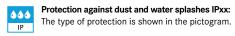


Weighing with tolerance range: ○ 3)

(Checkweighing) 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

M-Hold function:





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 BATT specified for each device



INOX

Rechargeable battery pack: Rechargeable set



Universal mains adapter:

with universal input and optional input socket adapters for A) EU, CH; B) EU, CH, GB, USA; C) EU, CH, GB, USA, AUS

Mains adapter:

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

Power supply:



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



Weighing principle: Strain gauges Electrical resistor on an elastic deforming body



SC TECH

Μ

+3 DAYS

DAkkS

+3 DAYS

1 DAY

2 DAYS

Your KERN specialist dealer:

Weighing principle: Tuning fork: A resonating body is electromagnetically

excited, causing it to oscillate

s T compensation FORCE

accurate weighings

Verification possible:

Package shipment:

Pallet shipment:

DAkkS calibration possible:

shown in days in the pictogram

the pictogram

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

Weighing principle: Single cell technology:

The time required for verification is specified in

Advanced version of the force compensation

principle with the highest level of precision

The time required for DAkkS calibration is

The time required for internal shipping

The time required for internal shipping

preparations is shown in days in the pictogram

preparations is shown in days in the pictogram



Pricing on any accessories shown can be found by keying the part number into the search box on our website. The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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Please contact us if this literature doesn't answer all your questions.