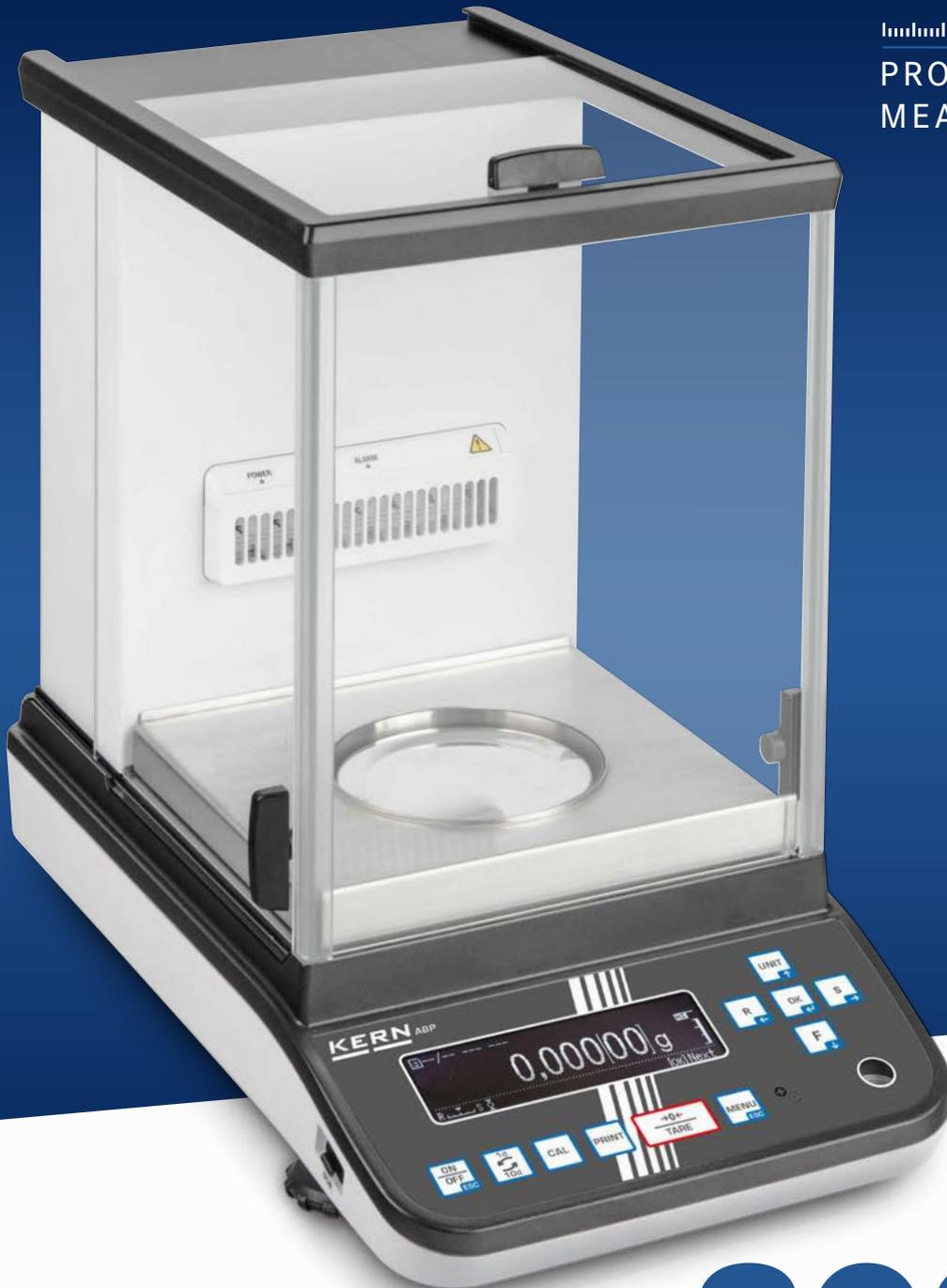


## ANALYTICAL BALANCES



PROFESSIONAL  
MEASURING

# 2020

# 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



## Easy Touch:

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



## Memory:

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



## Alibi memory:

Secure, electronic archiving of weighing results, complying with the 2014/31/EU standard. For details see page 223



## 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. 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



## 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



## KERN Communication Protocol (KCP):

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



## GLP/ISO log:

The balance displays serial number, user ID, weight, date and time, regardless of a printer connection



## GLP/ISO log:

With weight, date and time. Only with KERN printers, see page 171-173



## Piece counting:

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



## Recipe level A:

The weights of the recipe ingredients can be 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:

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



## 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



## Weighing with tolerance range:

(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



## Hold function:

(Animal weighing program) When the weighing conditions are unstable, a stable weight is calculated as an average value



## Protection against dust and water splashes IPxx:

The type of protection is shown in the pictogram. For details see page 62



## 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 for each device



## Rechargeable battery pack:

Rechargeable set



## Universal mains adapter:

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



## Mains adapter:

230V/50Hz in standard version for EU, CH. On 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



## 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



## Verification possible:

The time required for verification is specified in the pictogram



## DAkkS calibration possible (DKD):

The time required for DAkkS calibration is shown in days in the pictogram



## Package shipment:

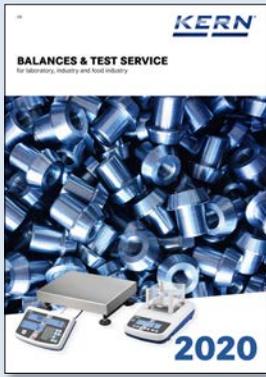
The time required for internal shipping preparations is shown in days in the pictogram



## Pallet shipment:

The time required for internal shipping preparations is shown in days in the pictogram

# KERN – measuring technology and testing services from a single source



## Balances & Test service catalogue

Provides a complete overview of the KERN line of balances, test weights, and services such as verification, calibration, etc.



## Medical scales catalogue

Complete line of medical scales, from infant scales to patient scales, chair scales and adiposity scales, as well as hand grip dynamometers, chemist's balances and veterinary scales.



## Microscopes & refractometers catalogue

Extensive range in the area of optical instruments, such as, for example, biological microscopes, stereo microscopes, metallurgical microscopes, polarisation microscopes as well as analogue and digital refractometers.



## SAUTER measuring equipment catalogue

Test instruments for industry and commerce, such as force, coating thickness, material thickness and calibration service.



## DAkkS calibration service brochure

Detailed information on topics pertaining to the calibration and verification of balances, test weights, and force measuring devices.

## Your advantages

### fast

- 24 hours delivery service for products in stock – ordered today, on its way tomorrow
- Sales & service hotline available from 8:00 am to 6:00 pm

### reliable

- Up to 3 years warranty
- Precision in weighing technology for more than 175 years

### competent

- DAkkS accreditation DIN EN ISO/IEC 17025
- Certified QM system DIN EN ISO 9001
- Authorisation for initial verification by the manufacturer 2014/31/EU
- Medical certifications DIN EN ISO 13485 and 93/42/EWG

### versatile

- One-stop shopping: from pocket balances through to 15 t crane balance – everything from one supplier
- Find the product you want at lightning speed with the “Balance Quick-Finder” at [www.kern-sohn.com](http://www.kern-sohn.com)



**Order hotline**  
+49 7433 9933-0



**Online Shop**  
[www.kern-sohn.com](http://www.kern-sohn.com)



**Service hotline**  
+49 7433 9933-199



**E-mail order**  
[info@kern-sohn.com](mailto:info@kern-sohn.com)



**Calibration hotline**  
+49 7433 9933-196



**Fax order**  
+49 7433 9933-146



**Our team of consultants will assist you**  
from Monday to Friday  
from 8:00 am to 6:00 pm



### [www.kern-sohn.com](http://www.kern-sohn.com)

Information on current product availability, product data sheets, user instructions, useful knowledge, technical glossary, images and much for you to download, practical topic areas, which will guide you to the right product in your industry as well as a clever test weight and balance search engine.

## Analytical balances

## Quick-Finder Analytical balances

Readability [d] mg	Weighing capacity [Max] g	Model  KERN	Price excl. of VAT ex works €	Page							For an explanation on the pictos, see front flap										
0,01	101	ABT 100-5NM	1900,-	44	1	○	●			●	●										
0,01   0,1	42   120	ABT 120-5DNM	2000,-	44	1	○	●			●	●										
0,01   0,1	52   120	ABP 100-5DM	2660,-	42	1	○	●			●	●										
0,01   0,1	82   220	ALJ 200-5DA	1690,-	38	1		●			●	●										
0,01   0,1	82   220	ABT 220-5DNM	2060,-	44	1	○	●			●	●										
0,01   0,1	102   220	ABP 200-5DM	2850,-	42	1	○	●			●	●										
0,1	82	ABS 80-4N	920,-	40	1					●	○										●
0,1	82	ABJ 80-4NM	1030,-	40	1	○	●			●	○										●
0,1	82	ACS 80-4	1050,-	40	1					●	○										●
0,1	82	ACJ 80-4M	1160,-	40	1	○	●			●	○										●
0,1	120	ADB 600-C3	610,-	37	1					●	○										
0,1	120	ADB 100-4	620,-	37	1					●	○										
0,1	120	ADJ 100-4	750,-	37	1					●	○										
0,1	120	ADJ 600-C3	740,-	37	1					●	○										
0,1	120	ABS 120-4N	1000,-	40	1					●	○										●
0,1	120	ABJ 120-4NM	1050,-	40	1	○	●			●	○										●
0,1	120	ABT 120-4NM	1450,-	44	1	○	●			●	○										●
0,1	120	ABP 100-4M	1840,-	42	1	○	●			●	○										●
0,1	120	ACS 100-4	1130,-	40	1					●	○										●
0,1	120	ACJ 100-4M	1180,-	40	1	○	●			●	○										●
0,1	160	ALS 160-4A	960,-	38	1					●	○										●
0,1	160	ALJ 160-4A	1060,-	38	1					●	○										●
0,1	160	ALJ 160-4AM	1130,-	38	1	○	●			●	○										●
0,1	210	ADB 200-4	640,-	37	1					●	○										
0,1	210	ADJ 200-4	790,-	37	1					●	○										
0,1	220	ABS 220-4N	1070,-	40	1					●	○										●
0,1	220	ABJ 220-4NM	1150,-	40	1	○	●			●	○										●
0,1	220	ABT 220-4NM	1760,-	44	1	○	●			●	○										●
0,1	220	ABP 200-4M	2220,-	42	1	○	●			●	○										●
0,1	220	ACS 200-4	1190,-	40	1					●	○										●
0,1	220	ACJ 200-4M	1280,-	40	1	○	●			●	○										●
0,1	250	ALS 250-4A	980,-	38	1					●	○										●
0,1	250	ALJ 250-4A	1060,-	38	1					●	○										●
0,1	250	ALJ 250-4AM	1130,-	38	1	○	●			●	○										●
0,1	310	ALJ 310-4A	1100,-	38	1					●	○										●
0,1	320	ABS 320-4N	1200,-	40	1					●	○										●
0,1	320	ABJ 320-4NM	1320,-	40	1	○	●			●	○										●
0,1	320	ABT 320-4NM	1960,-	44	1	○	●			●	○										●
0,1	320	ABP 300-4M	2470,-	42	1	○	●			●	○										●
0,1	320	ACS 300-4	1350,-	40	1					●	○										●
0,1	320	ACJ 300-4M	1470,-	40	1	○	●			●	○										●
0,1	510	ALJ 500-4A	1860,-	38	1					●	○										●

News 2020

= Carat balances

● = standard

○ = option



from €  
**740,-**



**Aleksandar Delić**

Product specialist Analytical balances

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Fax +49 7433 9933-29120

aleksandar.delic@kern-sohn.com

- ▷ Internal adjustment control
- ▷ Large glass draught shield with 3 sliding doors
- ▷ Large weighing capacities at a top price
- ▷ Now also available with internal adjustment

**HIGHLIGHT**



03

The price leader in analytical balances, now also with internal adjustment

**Features**

- **NEW KERN ADJ: Automatic internal adjustment** in the case of a change in temperature  $\geq 2\text{ }^{\circ}\text{C}$  or timecontrolled every 3 h, guarantees high degree of accuracy and makes the balance independent of its location of use
- KERN ADB: **Adjusting program CAL** for quick setting of the balance accuracy using an external test weight
- **1** ADB/ADJ 600-C3: Compact, space-saving carat balance with a readout of 0.001 ct and a weighing capacity of 600 ct. The high level of accuracy saves hard cash wherever you are weighing valuable precious stones
- Level indicator and foot screws to level the balance precisely, fitted as standard, to give the most accurate weighing results
- **Large glass draught shield** with 3 sliding doors for easy access to the items being weighed.
- **Compact size**, practical for small spaces
- **Simple and convenient 6-key operation**

**Technical data**

- Large backlit LCD display, digit height 16 mm
- Dimensions weighing surface, stainless steel,  $\varnothing$  90 mm
- Overall dimensions (incl. draught shield) W×D×H  
KERN ADB/ADJ: 230×310×330 mm  
KERN ADB-C/ADJ-C: 205×310×210 mm
- Weighing space W×D×H  
KERN ADB/ADJ: 170×160×205 mm  
KERN ADB-C/ADJ-C: 170×160×110 mm
- Permissible ambient temperature 10 °C/30 °C

**Accessories**

- **2 Ionizer** to neutralise electrostatic charge, KERN YBI-01A, **€ 890,-**
- **3 Precious stones plate**, aluminium with practical spout, W×D×H 83×66×23 mm, KERN AEJ-A05, **€ 40,-**
- **4 Weighing table** to absorb vibrations and oscillations, which would otherwise distort the weighing result, KERN YPS-03, **€ 970,-**
- **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, **€ 10,-**
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD

CAL INT   CAL EXT   RS 232   GLP   PRINTER   PCS   PERCENT   UNIT   MULTI   FORCE   1 DAY

OPTION

DAkkS +3 DAYS

Model	Weighing capacity	Readability	Reproducibility	Linearity	Net weight	Price excl. of VAT ex works €	Option	
							DAkkS KERN	DAkkS Certificate €
<b>KERN</b>	[Max] g	[d] mg	mg	mg	approx. kg			
<b>ADB 100-4</b>	120	0,1	0,2	$\pm 0,4$	4,4	<b>620,-</b>	963-101	138,-
<b>ADB 200-4</b>	210	0,1	0,2	$\pm 0,4$	4,4	<b>640,-</b>	963-101	138,-
<b>ADB 600-C3</b>	120 g   600 ct	0,1 mg   0,001 ct	0,2 mg   0,002 ct	$\pm 0,4$ mg   $\pm 0,004$ ct	3,8	<b>610,-</b>	963-101	138,-
<b>ADJ 100-4</b>	120	0,1	0,2	$\pm 0,4$	5	<b>750,-</b>	963-101	138,-
<b>ADJ 200-4</b>	210	0,1	0,2	$\pm 0,4$	5	<b>790,-</b>	963-101	138,-
<b>ADJ 600-C3</b>	120 g   600 ct	0,1 mg   0,001 ct	0,2 mg   0,002 ct	$\pm 0,4$ mg   $\pm 0,004$ ct	4,5	<b>740,-</b>	963-101	138,-

New model



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

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

#### Features

- 1 **ALJ 200-5DA**: High-precision semi-micro analytical balance. Thanks to its high level of precision, it is ideal for calibrating pipettes. Note: To prevent evaporation we recommend economical capillary tubes (see standard DIN EN ISO 8655)
- 2 **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  $\geq 1,2$  °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



**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, **€ 40,-**
- Protective dust cover, KERN ABS-A08, **€ 30,-**
- **2 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 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, **€ 620,-**
- **3 Set for density determination** of liquids and solids with density  $\leq/\geq 1$ , the density is indicated directly on the display, KERN YDB-03, **€ 390,-**

- **4 Weighing table** to absorb vibrations and oscillations, which would otherwise distort the weighing result, KERN YPS-03, **€ 970,-**
- **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, **€ 10,-**
- **Equipment qualification:** compliant qualification concept which includes the following validation services: Installation Qualification (IQ), Operating Qualification (OQ), KERN 961-231B, **€ 750,-**
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD



OPTION



FACTORY



Model	Weighing capacity [Max] g	Readability [d] mg	Verification value [e] mg	Minimal load [Min] mg	Reproducibility mg	Linearity mg	Price excl. of VAT ex works €	Option			
								Verification		DAkkS Calibr. Certificate	
KERN								MD KERN	€	DAkkS KERN	€
ALS 160-4A	160	0,1	-	-	0,1	± 0,3	960,-	-	-	963-101	138,-
ALS 250-4A	250	0,1	-	-	0,1	± 0,3	980,-	-	-	963-101	138,-
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	1	1	0,04   0,1	± 0,1   0,2	1690,-	-	-	963-101	138,-
ALJ 160-4A	160	0,1	-	-	0,1	± 0,3	1060,-	-	-	963-101	138,-
ALJ 160-4AM	160	0,1	1	10	0,2	± 0,3	1130,-	965-201	110,-	963-101	138,-
ALJ 250-4A	250	0,1	-	-	0,1	± 0,3	1060,-	-	-	963-101	138,-
ALJ 250-4AM	250	0,1	1	10	0,2	± 0,3	1130,-	965-201	110,-	963-101	138,-
ALJ 310-4A	310	0,1	-	-	0,1	± 0,3	1100,-	-	-	963-101	138,-
ALJ 500-4A	510	0,1	-	-	0,2	± 0,4	1860,-	-	-	963-101	138,-



**KERN ACS/ACJ** with standard data interface RS-232 and USB

The bestseller in analytical balances, with high-quality single-cell weighing system, also with EC type approval [M]

#### Features

- **ABJ-NM: Automatic internal adjustment** in the case of a change in temperature  $\geq 2\text{ }^{\circ}\text{C}$  or timecontrolled every 4 h, guarantees high degree of accuracy and makes the balance independent of its location of use
- **ABS-N: Adjusting program CAL** for quick setting of the balance accuracy using an external test weight
- **ACS** identical to ABS-N, **ACJ** identical to KERN ABJ-NM, but with RS-232 and USB data interface integrated as standard
- **Dosage aid:** High-stability mode and other filter settings can be selected
- **Simple recipe weighing and documenting** with a combined tare/print function. In addition, the ingredients for the recipe are numbered automatically and printed out with their corresponding number and nominal weight
- **Automatic data output to the PC/printer** each time the balance is steady
- **Identification number:** 4 digits, printed on calibration protocol freely programmable
- ABJ-NM, ACJ have OIML certification
- **Protective working cover** included with delivery



**Technical data**

- Large LCD display, digit height 14 mm
- Dimensions weighing surface, stainless steel,  $\varnothing$  91 mm
- Overall dimensions (incl. draught shield) WxDxH 210x340x325 mm
- Weighing space WxDxH 174x162x227 mm
- Net weight approx. 6 kg
- Permissible ambient temperature 10 °C/30 °C

**Accessories**

- **Protective working cover**, scope of delivery: 5 items, KERN ACS-A02S05, € 40,-
- **1 Set for density determination** of liquids and solids with density  $\leq/\geq$  1, the density is indicated directly on the display, KERN YDB-03, € 390,-
- **2 Ionizer** to neutralise electrostatic charge, KERN YBI-01A, € 890,-
- **KERN ABS-N/ABJ-NM: Data interface RS-232**, interface cable included, approx. 1,5 m KERN ACS-A01, € 90,-
- **3 Weighing table** to absorb vibrations and oscillations, which would otherwise distort the weighing result, KERN YPS-03, € 970,-
- **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, € 10,-
- Further details, plenty of further accessories and suitable printers see *Accessories*



Single-cell advanced technology:

- **Fully automatic manufactured weighing cell from one piece of material**
- **Stable temperature behaviour**
- **Short stabilisation time:** steady weight values within approx. 3 s under laboratory conditions
- **Shock proof construction**
- **High corner load performance**

STANDARD

CAL INT  
 CAL EXT  
 RS 232  
 USB  
 PRINTER  
 PCS  
 RECIPE  
 PERCENT  
 UNIT  
 TOL  
 MULTI  
 SC TECH  
 1 DAY

OPTION

RS 232  
 DAkkS  
 +3 DAYS

FACTORY

+3 DAYS

Model	Weighing capacity [Max]	Readability	Verification value	Minimal load	Reproducibility	Linearity	Price excl. of VAT ex works €	Option				
								Verification		DAkkS Calibr. Certificate		
								MI	€	DAkkS KERN	€	
<b>KERN</b>	g	[d] mg	[e] mg	[Min] mg	mg	mg	€	€	€	€		
<b>ABS 80-4N</b>	82	0,1	-	-	0,2	± 0,3	<b>920,-</b>	-	-	963-101	138,-	
<b>ABS 120-4N</b>	120	0,1	-	-	0,2	± 0,3	<b>1000,-</b>	-	-	963-101	138,-	
<b>ABS 220-4N</b>	220	0,1	-	-	0,2	± 0,3	<b>1070,-</b>	-	-	963-101	138,-	
<b>ABS 320-4N</b>	320	0,1	-	-	0,2	± 0,3	<b>1200,-</b>	-	-	963-101	138,-	
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>ABJ 80-4NM</b>	82	0,1	1	10	0,2	± 0,3	<b>1030,-</b>	965-201	110,-	963-101	138,-	
<b>ABJ 120-4NM</b>	120	0,1	1	10	0,2	± 0,3	<b>1050,-</b>	965-201	110,-	963-101	138,-	
<b>ABJ 220-4NM</b>	220	0,1	1	10	0,2	± 0,3	<b>1150,-</b>	965-201	110,-	963-101	138,-	
<b>ABJ 320-4NM</b>	320	0,1	1	10	0,2	± 0,3	<b>1320,-</b>	965-201	110,-	963-101	138,-	
<b>ACS 80-4</b>		82	0,1	-	-	0,2	+/- 0,3	<b>1050,-</b>	-	-	963-101	138,-
<b>ACS 100-4</b>		120	0,1	-	-	0,2	+/- 0,3	<b>1130,-</b>	-	-	963-101	138,-
<b>ACS 200-4</b>		220	0,1	-	-	0,2	+/- 0,3	<b>1190,-</b>	-	-	963-101	138,-
<b>ACS 300-4</b>		320	0,1	-	-	0,2	+/- 0,3	<b>1350,-</b>	-	-	963-101	138,-
<b>ACJ 80-4M</b>		82	0,1	1	10	0,2	+/- 0,3	<b>1160,-</b>	965-201	110,-	963-101	138,-
<b>ACJ 100-4M</b>		120	0,1	1	10	0,2	+/- 0,3	<b>1180,-</b>	965-201	110,-	963-101	138,-
<b>ACJ 200-4M</b>		220	0,1	1	10	0,2	+/- 0,3	<b>1280,-</b>	965-201	110,-	963-101	138,-
<b>ACJ 300-4M</b>		320	0,1	1	10	0,2	+/- 0,3	<b>1470,-</b>	965-201	110,-	963-101	138,-

New model



03



**1 KERN ABP 100-5DM with optional ionizer**

**1 NEW:** Extremely fast ionization process, thanks to the latest generation of KERN ionization technology 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

Premium analytical balance with the latest Single-Cell Generation for extremely rapid, stable weighing results



**Bright OLED display** with large viewing angle for the very best readout from a wide range of lines of sight or poor lighting conditions



**USB data interfaces and RS-232** for transferring weighing data to the PC, tablet, printer, USB as well as connecting external devices, such as barcode scanner (option), numeric keypad (option) etc.



**GLP/ISO record keeping** professional and detailed GLP protocol, so that the scale is fully compliant with the relevant standard requirements according to ISO, GLP and GMP



**Features**

- This new generation of analytical balances combines the highest level of precision with large weighing capacities. Thanks to the new Single-Cell Generation, the weighing result is displayed in a fraction of the time with comparable models. Together with the intuitively structured menu, this means that you can work efficiently and rapidly
- **Navigation pad** for super quick navigating through the menus
- **Automatic internal adjustment** in the case of a change in temperature  $\geq 1\text{ }^{\circ}\text{C}$  or timecontrolled every 4 h, guarantees high degree of accuracy and makes the balance independent of its location of use. For applications which do not require verification the time interval can be individually adjusted
- The **Minimum weight of sample** can be manually stored in the device or automatically calculated. For weighings below this value, the balance issues a warning message
- **Dosage aid:** High-stability mode and other filter settings can be selected
- **Simple recipe weighing and documenting** with a combined tare/print function. In addition, the ingredients for the recipe are numbered automatically and printed out with their corresponding number and nominal weight
- **Individual user settings for up to 10 users can be saved:** user name/user number (can be printed out or added to the record for each process), password, menu language, user profiles, accessing user settings via barcode, additional guest mode for users who are not logged in, authorizations, eg. B. balance adjustment, changing settings or conditioning or modification of a recipe only by the authorized person & performing the formulation by the user

- **U.S. FDA 21 Part 11:** assists you in data integrity in accordance with U.S. Pat. FDA 21 Part 11 (for example (weighing result, sample ID, user name, scales ID, ...))
- Menu language DE, GB
- **Automatic data output to the PC/printer** each time the balance is steady
- **Large glass draught shield** with 3 sliding doors for easy access to the items being weighed.
- **KERN ABP-DM: Multi-function weighing plate** included with delivery, minimises the effect of currents of air in the weighing space and therefore significantly improves the stabilization time and repeatability. In addition samples, sample paper, PCR containers, micro centrifuge tubes and many other items which protrude can be easily fixed in place and weighed easily
- **Protective working cover included with delivery**

**Technical data**

- Luminescent OLED display, digit height 14 mm, bright with high contrast, for easy reading of the weight, even in poor lighting conditions
- Dimensions weighing surface  $\varnothing$  91 mm
- Overall dimensions (incl. draught shield) WxDxH 213x407x344 mm
- Weighing space WxDxH 166x156x220 mm
- Net weight approx. 8 kg
- Permissible ambient temperature 10 °C/30 °C

**Accessories**

- **Protective working cover**, scope of delivery: 5 items, KERN YBA-A06S05, **€ 40,-**
- **Set for density determination** of liquids and solids with density  $\leq/\geq 1$ , the density is indicated directly on the display, KERN YDB-03, **€ 390,-**

- **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 ABP range, please order at the time you order your balance, the scope of delivery is the rear panel, ionizer, power supply. Factory Option, KERN ABP-A01, **€ 1710,-**
- **USB barcode scanner**, hand-held version, dimensions WxDxH 152x84x63 mm, KERN PET-A09, **€ 350,-**
- **Clavier USB** pour saisie aisée d'articles, dimensions LxPxH 440x128x24 mm, KERN PET-A06, **€ 45,-**
- **Weighing table** to absorb vibrations and oscillations, which would otherwise distort the weighing result, KERN YPS-03, **€ 970,-**
- **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, **€ 10,-**
- **Equipment qualification:** compliant qualification concept which includes the following validation services: Installation Qualification (IQ), Operating Qualification (OQ), KERN 961-231B, **€ 750,-**
- Further details, plenty of further accessories and suitable printers see *Accessories*

Single-cell advanced technology:

- **Fully automatic manufactured weighing cell from one piece of material**
- **Stable temperature behaviour**
- **Short stabilisation time:** steady weight values within approx. 2 s (models with [d] = 0,1 mg), approx. 8 s (models with [d] = 0,01 mg) under laboratory conditions
- **Shock proof construction**
- **High corner load performance**

STANDARD



OPTION



FACTORY



Model	Weighing capacity [Max] g	Readability [d] mg	Verification value [e] mg	Minimal load [Min] mg	Reproducibility mg	Linearity mg	Price excl. of VAT ex works €	Option					
								Verification		DAkkS Calibr. Certificate			
KERN								MT KERN	€	DAkkS KERN	€		
ABP 100-4M	120	0,1	1	10	0,1	± 0,2	1840,-	965-201	110,-	963-101	138,-		
ABP 200-4M	220	0,1	1	10	0,1	± 0,2	2220,-	965-201	110,-	963-101	138,-		
ABP 300-4M	320	0,1	1	10	0,1	± 0,3	2470,-	965-201	110,-	963-101	138,-		
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readability [d]													
ABP 100-5DM	52   120	0,01   0,1	1	1	0,02   0,1	± 0,03   0,3	2660,-	965-201	110,-	963-101	138,-		
ABP 200-5DM	102   220	0,01   0,1	1	1	0,02   0,1	± 0,03   0,3	2850,-	965-201	110,-	963-101	138,-		

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.



## The premium model with single-cell weighing system

### Features

- **Automatic internal adjustment** in the case of a change in temperature  $\geq 0,5$  °C or timecontrolled every 4 h, guarantees high degree of accuracy and makes the balance independent of its location of use
- **Dosage aid:** High-stability mode and other filter settings can be selected
- **Simple recipe weighing and documenting** with a combined tare/print function. In addition, the ingredients for the recipe are numbered automatically and printed out with their corresponding number and nominal weight
- **Identification number:** 4 digits, printed on calibration protocol freely programmable
- **Automatic data output to the PC/printer** each time the balance is steady
- **Large glass draught shield** with 3 sliding doors for easy access to the items being weighed.
- **Protective working cover** included with delivery

### Technical data

- Large LCD display, digit height 14 mm
- Dimensions weighing surface, stainless steel,  $\varnothing$  80 mm
- Overall dimensions (incl. draught shield) W×D×H 217×356×338 mm
- Weighing space W×D×H 168×172×223 mm
- Net weight approx. 7 kg
- Permissible ambient temperature 10 °C/30 °C

### Accessories

- **Protective working cover**, scope of delivery: 5 items, KERN ABT-A02S05, € 40,-
- **Set for density determination** of liquids and solids with density  $\leq/\geq 1$ , the density is indicated directly on the display, KERN YDB-03, € 390,-
- **Ionizer** to neutralise electrostatic charge, KERN YBI-01A, € 890,-

- **Weighing table** to absorb vibrations and oscillations, which would otherwise distort the weighing result, KERN YPS-03, € 970,-
- **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, € 10,-
- Further details, plenty of further accessories and suitable printers see *Accessories*

### Single-cell advanced technology:

- **Fully automatic manufactured weighing cell from one piece of material**
- **Stable temperature behaviour**
- **Short stabilisation time:** steady weight values within approx. 4 s under laboratory conditions
- **Shock proof construction**
- **High corner load performance**

#### STANDARD



#### OPTION



#### FACTORY



Model	Weighing capacity [Max] g	Readability [d] mg	Verification value [e] mg	Minimal load [Min] mg	Reproducibility mg	Linearity mg	Price excl. of VAT ex works €	Option			
								Verification		DAkkS Calibr. Certificate	
KERN								M KERN	€	DAkkS KERN	€
ABT 120-4NM	120	0,1	1	10	0,1	± 0,2	1450,-	965-201	110,-	963-101	138,-
ABT 220-4NM	220	0,1	1	10	0,1	± 0,2	1760,-	965-201	110,-	963-101	138,-
ABT 320-4NM	320	0,1	1	10	0,1	± 0,3	1960,-	965-201	110,-	963-101	138,-
ABT 100-5NM	101	0,01	1	1	0,05	± 0,15	1900,-	965-201	110,-	963-101	138,-
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readability [d]											
ABT 120-5DNM	42   120	0,01   0,1	1	1	0,02   0,1	± 0,05   0,2	2000,-	965-201	110,-	963-101	138,-
ABT 220-5DNM	82   220	0,01   0,1	1	1	0,05   0,1	± 0,1   0,2	2060,-	965-201	110,-	963-101	138,-

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.

**KERN & SOHN GmbH**  
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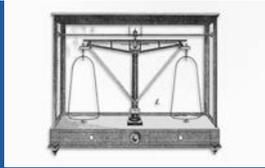
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Printed in Germany  
 by KERN & SOHN GmbH  
 z-ob-gb-kp-20201



**1769**

Ancestor Johann Jakob Sauter built the Hahn inclination scale out of iron, a foundation stone for weighing for the balance industry in Southern Germany



**1844**

KERN is founded – precision balances are produced



**1863**

A proud Gottlieb Kern with his staff



**1880**

Pharmaceutical balance with Aesculap



**1923**

Inflation – KERN wages are paid with self printed currency



**1980**

The electronic balance ousts mechanical devices



**1994**

Accredited DKD laboratory (ISO 17025)



**2000**

New premises in Balingen



**2002**

Existing QM system certification in accordance with DIN EN ISO 9001:2000 standards



**2007**

Approval for the manufacture of medical products (DIN EN 13485 and 93/42/EEC)



**2008**

Authorisation for initial verification by the manufacturer (2009/23/EC)



**2009**

Approval for the manufacture and sale of height rods (DIN EN 13485 and 93/42/EEC)



**2012**

Verification point for non-automatic balances and test weights.

New customer portal [www.kern-sohn.com](http://www.kern-sohn.com) goes live



**2014**

Expansion of the product range to include optical instruments (microscopes and refractometers)



**2015**

Inauguration of Ziegelei 2.0 with computer-controlled high-bay warehouse



**2017**

Come with KERN into the digital future: Expansion of the model ranges compatible with Industry 4.0, as well as the related services



**2019**

Significant anniversary year! 25 years of accredited DKD laboratory 175 years of KERN & SOHN 250 years of balance manufacture in the Sauter family-owned company



**2020**

Construction of Ziegelei 3.0, extension of administration building