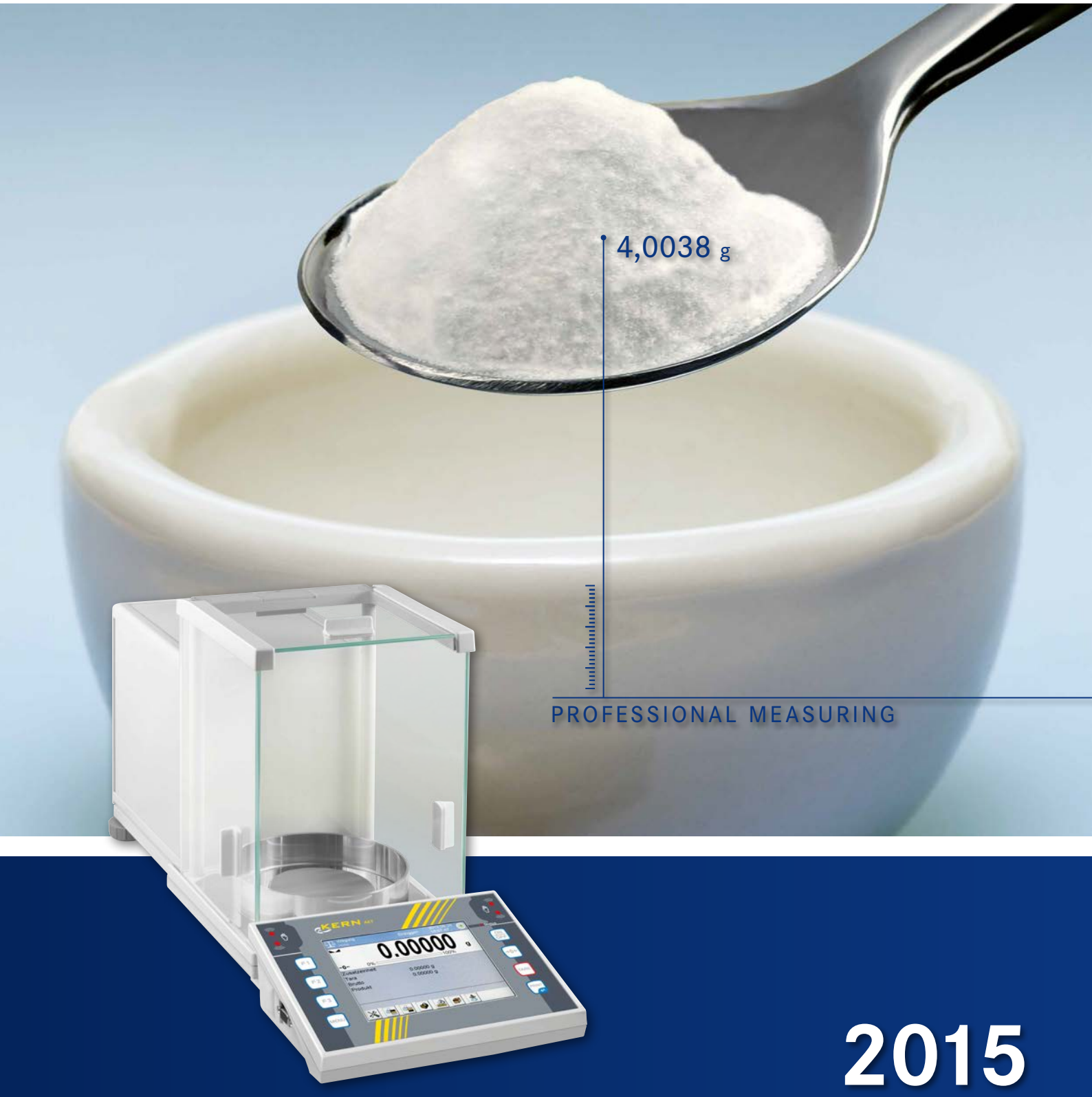
GB

KERN®

ANALYTICAL BALANCES



2015

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.

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.

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, see "Accessories"

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 display.

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

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

Totalising level C:
Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display. Additional convenient functions, such as barcode and back calculation.

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:
Upper and lower limiting values can be programmed individually for e.g. dosing, sorting and portioning.

Vibration-free weighing:
(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 the glossary.

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 for each device.

Rechargeable battery pack:
Rechargeable set.

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

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

Strain gauges:
Electrical resistor on an elastic deforming body.

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

Electromagnetic force compensation:
Coil inside 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.

DAkkS calibration possible:
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.

Often it is the small things which make daily laboratory life easier.
On this page we have put together a small selection of practical accessories for your demanding weighing processes.

For additional details and further accessories, please see page 157

Weighing table

Accurate measuring results require stable working conditions! The KERN YPS-03 weighing table has been constructed to absorb vibrations and oscillations, which would otherwise distort the weighing result.
Suitable for all KERN analytical balances with total dimensions ≤ WxD 270x410 mm

KERN YPS-03,

Ioniser to neutralise electrostatic charge

Goods to be weighed which are non-conductive, such as plastic, china, glass, etc often carry electrostatic charge. The electromagnetic field which then occurs between the goods to be weighed and the balance can cause the weighing result to be distorted by up to a gramme.
Suitable for all KERN analytical balances.

KERN YBI-01,

Protective dust cover

For protection from dust and light.
Suitable for all KERN analytical balances.

KERN ABS-A08,

Universal density set

Universal density set for precise and convenient density determination of liquids and solids ≤/≥ 1.
Suitable for all KERN analytical balances.

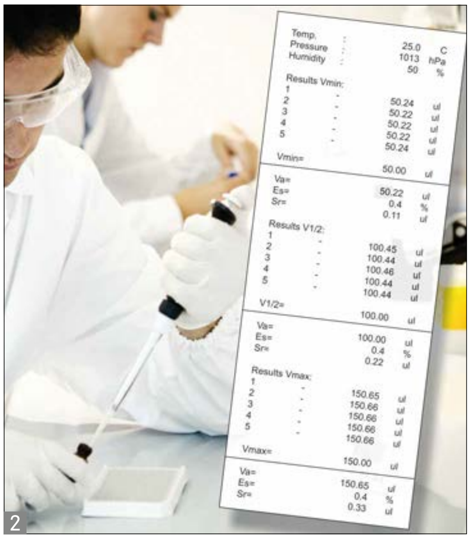
KERN YDB-03,

Thermal statistics printer

For printing weights, recipes etc. or for GLP record keeping of weighing data with date and time print. With extensive statistical functions for the analysis of measurements series.
Suitable for all KERN analytical balances (except AET).

KERN YKS-01,

Analytical balance KERN AES-C · AEJ-CM



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Note: For weighings where verification is mandatory, and which are to be analysed and processed by a PC, the legislative body requires electronic archiving using a verifiable, non-manipulatable data memory (alibi memory).

Compact high-end analytical balance with useful pipette calibration program and alibi memory

Features

- [1] only AEJ-CM: **Automatic internal adjustment** in the case of a change in temperature > 0,8 °C and time-controlled every 3 hours
- [1] **Intuitive pipette calibration function** to ensure data integrity and to minimise the risks in the daily work with your pipettes
- Higher weighing speed by switching off the last digit
- **Modern all glass draught shield** for ideal visibility of the weighing object
- **Dispensing mode:** By pressing one key you can set all relevant parameters for dispensing
- **Alibi memory:** Paperless archiving of up to 100,000 weighing results. Additional information on page 11
- **Internal memory** for up to 999 weighing results, 1000 items or recipe ingredients, 100 container weights, 100 users

Technical data

- Large backlit LCD display, digit height 17 mm
- Dimensions of weighing plate, stainless steel, Ø 85 mm
- Overall dimensions WxDxH 206x335x335 mm
- Weighing space WxDxH 168x160x225 mm
- Net weight approx. 5,4 kg
- Permissible ambient temperature 18 °C / 30 °C

Accessories

- **Protective working cover,** standard, can be retrofitted, KERN ALS-A02,
- **Set for density determination** of liquids and solids with density ≤/≥ 1, for details see page 161. Step-by-step user guidance and calculated density shown immediately on the display, KERN YDB-03,
- **Ioniser** to neutralise electrostatic charge, see page 162, KERN YBI-01,
- **Weighing table** to absorb vibrations and oscillations, which would otherwise distort the weighing result, see page 162, KERN YPS-03,
- **Suitable printers** see page 157 ff.

STANDARD: CAL INT · CAL EXT · MEMORY · RS 232 · USB · GLP INTERN · PCS · RECIPE · PERCENT · UNIT · TOL · UNDER · 230 V · FORCE · 1 DAY · 3 YEARS WARRANTY

OPTION: DAkkS +3 DAYS

FACTORY: M +3 DAYS

only AEJ-CM

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Model KERN	Weighing range [Max] g	Readout [d] mg	Verification value [e] mg	Minimum load [Min] mg	Reproducibility mg	Linearity mg		Options: Verification M KERN		DAkkS Calibr. Certificate DAkkS KERN	
AES 100-4C	160	0,1	–	–	0,2	± 0,2		–	–	963-101	
AES 200-4C	220	0,1	–	–	0,2	± 0,2		–	–	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.											
AEJ 200-5CM	80 | 220	0,01 | 0,1	1 | 1	1	0,04 | 0,1	± 0,1 | 0,2		965-201		963-101	
AEJ 100-4CM	160	0,1	1	10	0,2	± 0,3		965-201		963-101	
AEJ 200-4CM	220	0,1	1	10	0,2	± 0,3		965-201		963-101	

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Use the above details to contact us if this literature doesn't answer all your questions.

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.