TRADITION AND INNOVATION – 169 YEARS OF KERN

Independent and family-run, KERN is already in its 6th generation and is synonymous with quality and reliability in customer service.

FAST
• 24 hours delivery service – order today, on its way tomorrow
• Sales & service hotline from 8:00 am to 6:00 pm

COMPETENT
• DKD accreditation (DIN EN ISO/IEC 17025)
• GM system (DIN EN ISO 9001:2008)
• Initial verification by the manufacturer (2009/23/ECC)
• Medical (DIN EN ISO 13485 & 93/42/EWG)

RELIABLE
• 2+ years warranty
• Precision in weighing technology for the last 169 years

DIVERSE
• One-stop shopping: from pocket balances through to floor scales – everything from one supplier
• Find the balance you want in no time with the „Balance Quick-Finder“

ANALYTICAL BALANCES
## 3 Analytical balances

### KERN Analytical balances with Single-cell cutting edge technology

To satisfy stricter requirements for precision, speed, and reproducibility of weight values, monolithic balance cells are increasingly the standard. These are measurement sensors for determination of weight that are fabricated from an aluminium. These systems distinguish themselves from conventional balance cells in terms of both quality and performance:

- Higher measurement speed
- Better measurement precision
- Stable temperature behaviour
- Improved mechanical sturdiness
- Higher corner load reliability

KERN analytical balances on this measurement principle are designated as using "Single Cell Technology" (SC TECH).

### Quick-Finder

<table>
<thead>
<tr>
<th>Read-out d</th>
<th>Weighing range</th>
<th>Model KERN</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,01 mg</td>
<td>101 g</td>
<td>ABT 100-5M</td>
<td>46</td>
</tr>
<tr>
<td>0,01 mg</td>
<td>42/120 g</td>
<td>ABT 120-5DM</td>
<td>46</td>
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<tr>
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<td>42</td>
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<tr>
<td>0,1 mg</td>
<td>120 g</td>
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<td>120 g</td>
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<td>0,1 mg</td>
<td>320 g</td>
<td>AEJ 320-4NM</td>
<td>42</td>
</tr>
</tbody>
</table>

For an explanation of the symbols, see the flap of the envelope.

To avoid relevant result variations when weighing with high-precision analytical balances, we recommend noting a few basic things:

- Daily adjustment, particularly if there are temperature variations, etc.
- Use of the internal automatic adjustment feature is strongly recommended
- Avoidance of air movement, e.g. open doors, windows, wind protection
- Use of a special weighing table, e.g. KERN YPS-01, p. 132
- Use of an ioniser to neutralise electrostatic charges on the items being weighed, e.g. KERN YBI-01, p. 132

> See the glossary on page 158/159
Analytical balance KERN ABS-N · ABJ-NM

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

Features

- Only ABJ-N: **Automatic internal adjustment** in the case of a change in temperature > 2 °C or time-controlled every 4 hours
- Only ABS-N: **Adjusting program CAL**, external test weights at an additional price, see page 133 ff.
- **Dosage aid**: High-stability mode and other filter settings can be selected
- **Simple recipeweighing and documenting** with a combined tare/print function. In addition, the mixing ingredients for the recipe are numbered automatically and printed out with their corresponding number and weight value
- **Identification number**: 4 numeric positions, printed on calibration protocol
- **Automatic data output** to the PC/printer each time the balance reaches a steady state

Technical data

- Large LCD display, digit height 14 mm
- Dimensions of weighing plate Ø 91 mm
- **Overall dimensions** WxDxH 210x340x325 mm
- Weighing space WxDxH 174x162x227 mm
- Permissible ambient temperature 10 °C / 30 °C
- Net weight approx. 6 kg

Accessories

- **Data interface RS-232** interface cable included, KERN ACS-A01
- **Protective working cover** standard, can be reordered, KERN ACS-A02
- **Set for density determination** of liquids and solids, KERN ACS-A03
- **Ioniser** to neutralise electrostatic charge, see page 132, KERN YBI-01
- **Weighing table** to absorb vibrations and oscillations, which would otherwise distort the weighing result, see page 132, KERN YPS-01
- **Suitable printers** see page 130

<table>
<thead>
<tr>
<th></th>
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<td>0,2</td>
<td>± 0,3</td>
<td></td>
<td></td>
</tr>
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<td></td>
<td>0,2</td>
<td>± 0,3</td>
<td></td>
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</tr>
<tr>
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<td>10</td>
<td>0,2</td>
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<td>963-101</td>
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<td>± 0,3</td>
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</tr>
</tbody>
</table>

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.
Analytical balance KERN ALS-A · ALJ-A

Precision and price down to a point, with external and internal adjustment

**Features**

- **only ALJ-A**: Automatic internal adjustment in the case of a change in temperature > 1,5 °C
- **only ALS-A**: Adjusting program CAL for quick setting of the balance accuracy, external test weights at an additional price, see page 133
- 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
- Ioniser to neutralise electrostatic charge, see page 132, KERN YBI-01
- Weighing table to absorb vibrations and oscillations, which would otherwise distort the weighing result, see page 132, KERN YPS-01
- Set for density determination of liquids and solids, KERN ALT-A02
- Suitable printers see page 130

**Model**

<table>
<thead>
<tr>
<th>Model</th>
<th>Weighing range [Max]</th>
<th>Read-out [d]</th>
<th>Reproducibility g</th>
<th>Linearity mg</th>
<th>Option DKD Calibr. Certificate</th>
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</thead>
<tbody>
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<td>ALS 250-4A</td>
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<td>± 0,3</td>
<td>963-101</td>
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<tr>
<td>ALJ 160-4A</td>
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<td>0,1</td>
<td>± 0,3</td>
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<td>0,1</td>
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<td>0,1</td>
<td>0,1</td>
<td>± 0,3</td>
<td>963-101</td>
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</table>
Analytical balance KERN AES-N · AEJ-NM

Compact high-end analytical balance with useful pipette calibration program

Features

- **only AEJ-NM**: Automatic internal adjustment in the case of a change in temperature > 0.8 °C or time-controlled every 3 hours
- **Intuitive pipette calibration function** to ensure data integrity and to minimise the risks in the daily work with your pipettes
- **Vmin**: 10% of the volume
- **Va**: Arithmetic mean
- **Es**: Systematic error
- **Vmax**: 100% of the volume
- **Vmax**: 10% of the volume
- **Sr**: Standard deviation
- **GLP/ISO record keeping** of weight values with date, time and serial number
- **Higher weighing speed by switching off the last digit**

• **Totalizing** of weights (manual/automatic)
• **Modern all glass draft wind shield** for optimal visibility of the weighing object
• **Dispensing mode**: By pressing one key you can set all relevant parameters for this dispensing process

Technical data

- Large backlit LCD display, digit height 17 mm
- Dimensions of weighing plate 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 reordered, KERN ALS-A02
- **Set for density determination** of liquids and solids. Step-by-step user guidance, as well as the calculated density shown immediately on the display, similar to illustration, KERN AES-A01N
- **Ioniser** to neutralise electrostatic charge, see page 132, KERN YBI-01
- **Weighing table** to absorb vibrations and oscillations, which would otherwise distort the weighing result, see page 132, KERN YPS-01
- **Suitable printers** see page 130

<table>
<thead>
<tr>
<th>Model</th>
<th>Weighing range [Max] g</th>
<th>Read-out [d] g</th>
<th>Verific. value [e] g</th>
<th>Minimum load [Min] mg</th>
<th>Reproducibility [f] g</th>
<th>Linearity [g] mg</th>
<th>Options</th>
<th>DKD Calibr. Certificate</th>
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<td>0.1</td>
<td>–</td>
<td>–</td>
<td>0.2</td>
<td>± 0.2</td>
<td>–</td>
<td>KERN</td>
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<tr>
<td>AES 200-4N</td>
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<td>–</td>
<td>–</td>
<td>0.2</td>
<td>± 0.2</td>
<td>–</td>
<td>KERN</td>
</tr>
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<td>AES 200-5N</td>
<td>80</td>
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<td>0.1</td>
<td>1</td>
<td>10</td>
<td>0.2</td>
<td>± 0.3</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Model</th>
<th>Weighing range [Max] g</th>
<th>Read-out [d] g</th>
<th>Verific. value [e] g</th>
<th>Minimum load [Min] mg</th>
<th>Reproducibility [f] g</th>
<th>Linearity [g] mg</th>
<th>Options</th>
<th>DKD Calibr. Certificate</th>
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</thead>
<tbody>
<tr>
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<td>160</td>
<td>0.1</td>
<td>1</td>
<td>10</td>
<td>0.2</td>
<td>± 0.3</td>
<td>965-201</td>
<td>963-101</td>
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<tr>
<td>AEJ 200-4NM</td>
<td>220</td>
<td>0.1</td>
<td>1</td>
<td>10</td>
<td>0.2</td>
<td>± 0.3</td>
<td>965-201</td>
<td>963-101</td>
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<td>AEJ 200-5NM</td>
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<td>1</td>
<td>0.04</td>
<td>0.1</td>
</tr>
</tbody>
</table>

Order Hotline: Go to back page of catalogue
Analytical balance KERN ALT-B

Features

- Convenient recipe-weighing: with the recipe database, in which up to 99 recipes can be stored, each with up to 20 recipe ingredients with name and target value
- Rapid and efficient operation thanks to the graphics display
- Simple plain text user guidance in the display in the following languages: D, GB, F, I, E, PT
- Automatic internal adjustment in the case of a change in temperature > 1,5 °C or time-controlled every 20 minutes
- Percentage determination: makes it possible to store a given weight value (100%) and to determine deviations from this target value
- Weighing with tolerance range (checkweighing): Input of an upper/lower limit value. A visual signal assists with portion division, dispensing or grading

- Vibration-free weighing: at the push of a button, a stable average weight is given when the environmental conditions are unstable
- GLP/ISO record keeping of weight values with date, time and serial number
- Modern all glass draft wind shield for optimal visibility of the weighing object

Technical data

- Large backlit LCD display, digit height 15 mm
- Dimensions weighing surface Ø 80 mm
- Dimensions housing WxDxH 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
- Ioniser to neutralise electrostatic charge, see page 132, KERN YBI-01
- Weighing table to absorb vibrations and oscillations, which would otherwise distort the weighing result, see page 132, KERN YPS-01
- Set for density determination of liquids and solids. Step-by-step user guidance, as well as the calculated density shown immediately on the display, KERN ALT-A02
- Suitable printers, see page 130

Order Hotline: Go to back page of catalogue
Analytical balance KERN ABT

The premium model with single-cell weighing system

### Features
- **Automatic internal adjustment** in the case of a change in temperature > 0.5 °C or time-controlled every 4 hours
- **Dosage aid**: High-stability mode and other filter settings can be selected
- **Simple recipeweighing and documenting** with a combined tare/print function. In addition, the mixing ingredients for the recipe are numbered automatically and printed out with their corresponding number and weight value
- **Identification number**: 4 numeric positions, printed on calibration protocol
- **Automatic data output to the PC/printer** every time the balance is steady

### Technical data
- **Large LCD display**, digit height 14 mm
- Dimensions of weighing plate Ø 80 mm
- Overall dimensions WxDxH 217x356x338 mm
- Weighing space WxDxH 168x172x223 mm
- Net weight approx. 7 kg
- Permissible ambient temperature 10 °C / 30 °C

### Accessories
- **Protective working cover**, standard, can be reordered, KERN ABT-A02
- **Set for density determination** of liquids and solids. The density is indicated directly on the display, KERN ABT-A01
- **Ioniser** to neutralise electrostatic charge, KERN YBI-01
- **Weighing table** to absorb vibrations and oscillations, which would otherwise distort the weighing result, KERN YPS-01
- **Suitable printers** see page 130

### Options
- **Verification DKD Calibr. Certificate**
  - KERN 965-201
  - KERN 963-101

### Model Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Weighing range [Max] g</th>
<th>Read-out [d] g</th>
<th>Verific. value [e] g</th>
<th>Minimum load [Min] mg</th>
<th>Reproducibility g</th>
<th>Linearity mg</th>
<th>Options</th>
<th>Verification</th>
<th>DKD Calibr. Certificate</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT 120-4M</td>
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<td>0,1</td>
<td>1</td>
<td>10</td>
<td>0,1</td>
<td>± 0,2</td>
<td>965-201</td>
<td>963-101</td>
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<td>0,1</td>
<td>± 0,2</td>
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<td>± 0,3</td>
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<td>963-101</td>
<td></td>
</tr>
<tr>
<td>ABT 100-5M</td>
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<td>1</td>
<td>0,05</td>
<td>± 0,15</td>
<td>965-201</td>
<td>963-101</td>
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</tr>
</tbody>
</table>

**Dual-range balance (D = Dual):** switches automatically to the next largest weighing range [Max.] and readout [d].

<table>
<thead>
<tr>
<th>Model</th>
<th>Weighing range [Max] g</th>
<th>Read-out [d] g</th>
<th>Verific. value [e] g</th>
<th>Minimum load [Min] mg</th>
<th>Reproducibility g</th>
<th>Linearity mg</th>
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<td>1</td>
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<td>0,05</td>
<td>± 0,1</td>
<td>965-201</td>
<td>963-101</td>
</tr>
</tbody>
</table>

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