BALANCES FOR LABORATORIES
Balances, microscopes and refractometers for laboratories, production, and quality assurance
KERN Pictograms

Internal adjusting:
Quick setting up of the balance’s accuracy with internal adjusting weight (motor-driven)

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.

Data interface RS-232:
To connect the balance to a printer, PC or network

USB data interface:
Balances: To connect the balance to a printer, PC or other peripherals.
Microscopes: For direct transmitting of the picture to a PC

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

WLAN data interface:
Balances: To transfer data from the balance to a printer, PC or other peripherals.
Microscopes: For transmitting of the picture to a mobile display device

Control outputs (optocoupler, digital I/O):
To connect relays, signal lamps, valves, etc.

Network interface:
For connecting the scale to an Ethernet network

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 computer-controlled industrial controllers and other digital systems

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

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

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

Protection against dust and water splashes IPXa:
The type of protection is shown in the pictograms

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

Battery operation rechargeable:
Prepared for a rechargeable battery operation

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

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

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

Weighing principle: Strain gauges:
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

360° rotatable microscope head

Monocular Microscope:
For inspection with one eye

Binocular Microscope:
For the inspection with both eyes

Trinocular Microscope:
For the inspection with both eyes and the additional option for the connection of a camera

Abbe Condenser:
With high numerical aperture for the concentration and the focusing of light

Halogen illumination:
For pictures bright and rich in contrast

LED illumination:
Cold, energy saving and especially long-life illumination

Fluorescence illumination for compound microscopes:
With 100 W mercury lamp and filter

Fluorescence illumination for compound microscopes:
With 3 W LED illumination and filter

Phase contrast unit:
For a higher contrast

Darkfield condenser/ unit:
For a higher contrast due to indirect illumination

Polarising unit:
To polarise the light

Infinity system:
Infinity corrected optical system

Integrated scale:
In the eyepiece

HDMI digital camera:
For direct transmitting of the picture to a display device

PC software:
To transfer the measurements from the device to a PC.

Automatic temperature compensation:
For measurements between 10 °C and 30 °C

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

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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/EEC

**versatile**
- One-stop shopping: from bench scales through to floor scales – everything from one supplier
- Find the product you want at www.kern-sohn.com

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

**Online Shop**
www.kern-sohn.com

**E-mail order**
info@kern-sohn.com

**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.

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**Sales conditions**
- The prices are valid from 01.01.2019 – 31.12.2019. In Europe, all prices do not include the applicable V.A.T.
- Delivery conditions: We supply ex works from Balingen, i.e. the transport costs are invoiced separately. Delivery is usually via parcel service
- Sale or return: within 14 days of purchase
- You can find our full terms and conditions on the internet at www.kern-sohn.com/en/kern/general_terms.html

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We weigh almost everything ... and that’s not all!

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Balances & Test service catalogue
Medical scales catalogue
Microscopes & refractometers catalogue
SAUTER measuring equipment catalogue
DAkkS calibration service brochure
In the KERN range you will find a large number of precision balances that exactly fit your requirements.

**KERN school balances**
are entry-level devices in the field of laboratory balances, and they cover basic applications. They feature simple operation and the very best price/performance ratio.

**KERN Basic laboratory balances**
are used in laboratory applications mostly as single-user balances for sample preparation, etc. They are fitted with all useful laboratory functions which will support the user in a helpful way.

**KERN Basic standard laboratory balances**
offer you all the tools you would need for effective and accurate work in your laboratory environment. All important laboratory functions such as a recipe weighing function or data interfaces are on board at all times.

**KERN premium laboratory balances**
are right at the top of the precision balance segment. The numerous equipment features of the standard balances are complemented by high-quality materials with robust, sturdy construction, high-quality, high-performance weighing systems, optimised operating sequences, speed benefits and in some cases, the most modern touchscreen technology.

If you have further questions on the subject of “Which balance will be best for my application?”, then please ask your personal KERN product specialist who will be happy to help you.

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**Corinna Klaass**
Product specialist

Tel. +49 7433 9933-215
Fax +49 7433 9933-29215
klaass@kern-sohn.com

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In order to make it easier for you to make the right choice of KERN balance, we have included a quality code for each model, which is made up of two quality features.

**Categorisation in A, B, C, best value: C**

**The stability quality feature**
On the basis of the information on the housing material and total weight of the balance, the stability quality feature gives you an indication of the types of application for which the balance is particularly well-suited.

**The dosing level quality feature**
comes from the values for reaction time, stabilisation time and behaviour during long-term weighing procedures. These parameters give information about how well-suited a model is for fine dosing, amongst other functions.
Precision balances

KERN EWJ

page 9
from €
340,−
School balance KERN EMB

Entry level laboratory balance with tremendous weighing performance

<table>
<thead>
<tr>
<th>Features</th>
<th>Technical data</th>
<th>Accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Simple and convenient 2-key operation</td>
<td>• Large LCD display, digit height 15 mm</td>
<td>• Stainless steel weighing plate, only for models with weighing plate size A, KERN EMB-A02, € 26,-</td>
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<tr>
<td>• Tare function facilitates formulation work</td>
<td>• Dimensions weighing surface, plastic, with conductive lacquer</td>
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<td>• Particularly flat design</td>
<td>• Ø 82 mm</td>
<td>• Stack frame for space-saving storage of precision balances from the KERN EMB range, scope of delivery 5 pieces, for models with housing dimensions W×D×H 170×244×39 mm, KERN EMB-A07, € 70,- 170×244×52 mm, KERN EMB-A09, € 85,-</td>
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<td>• Ready for use: Batteries included</td>
<td>• Ø 105 mm</td>
<td>• External universal mains adapter, with universal input and optional input socket adapters for EU, GB, USA, KERN YKA-03, € 31,-</td>
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<td>• Ring-shaped draught shield standard, only for models with weighing plate size B, weighing space Ø×H 96×35 mm</td>
<td>• Ø 150 mm, see larger picture</td>
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<td>• Hook for underfloor weighing standard</td>
<td>• Weighing plate material</td>
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<td>• Note: KERN EMB 500-1BE Black Edition</td>
<td>• plastic, with conductive lacquer B, C plastic</td>
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<td>• Net weight approx. 0,75 kg</td>
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<td>• Permissible ambient temperature 5 °C/35 °C</td>
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**Model** | **Weighing capacity [Max]** | **Readability [d]** | **Reproducibility** | **Linearity** | **Weighing plate** | **Price excl. of VAT ex works** | **DAkkS Calibr. Certificate** |
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**Price reduction**

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www.kern-sohn.com · Order hotline +49 7433 9933-0
### Compact laboratory balance KERN PCB

#### The standard in the laboratory

**Features**

- **PRE-TARE function** for manual subtraction of a known container weight, useful for checking fill-levels
- **Freely programmable weighing unit**, e.g. display direct in special units such as length of thread g/m, paper weight g/m², or similar
- **With the recipe function** you can weigh the different ingredients of a mixture. As a check, you can also call up the total weight of all the ingredients
- **Plus/minus weighing procedures**
- **Ring-shaped draught shield** standard, only for models with weighing plate size A, weighing space Ø×H 90×40 mm
- **Protective working cover** included with delivery

**Technical data**

- **Backlit LCD display**, digit height 15 mm
- **Dimensions weighing surface**
  - Ø 81 mm
  - Ø 105 mm
  - W×D 130×130 mm
  - W×D 150×170 mm, see larger picture
- **Weighing plate material**
  - plastic, with conductive lacquer
  - stainless steel
- **Overall dimensions W×D×H 163×245×79 mm** (without draught shield)
- **Optional battery operation**, 9 V block not included, operating time up to 20 h, AUTO-OFF function to preserve the battery
- **Permissible ambient temperature** 5 °C/35 °C

**Accessories**

- **Protective working cover**, scope of delivery: 5 items, for models with weighing plate size:
  - KERN PCB-A02S05, € 40,-
  - KERN PCB-A03S05, € 40,-
  - KERN PCB-A04S05, € 40,-
  - KERN PCB-A05S05, € 40,-
- **RS-232/Ethernet adapter** for connection to an IP-based Ethernet network, KERN YKI-01, € 290,-
- **Balance Connection Software**, KERN SCD-4.0, € 150,-
- **Individual header data**: the free software SHM-01 can be used to print 4 header lines on the printout when using printers 911-013, YKN-01, YKB-01N, YKE-01 and YKC-01 (in combination with YKI-02)
- **Further details, plenty of further accessories** and suitable printers see website

### Table: Compact laboratory balance KERN PCB

<table>
<thead>
<tr>
<th>Model</th>
<th>Weighing capacity [Max]</th>
<th>Readability [d]</th>
<th>Reproducibility g</th>
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[www.kern-sohn.com](http://www.kern-sohn.com) · Order hotline +49 7433 9933 - Precision balances

7
Compact laboratory balance KERN PFB

Quick-display precision balance with user-friendly concept of operation modes – now with larger housing for more stability

### Features
- **Easy to use**: All primary functions have their own key on the keypad
- **Compact size**, practical for small spaces
- **Capacity display**: A bar lights up to show how much of the weighing capacity is still available
- **Level indicator and levelling feet** for precise levelling of the scale, fitted as standard, to give the most accurate weighing result
- **Draught shield** standard for models with weighing plate size A and B, Weighing space W×D×H 158×143×64 mm

### Technical data
- **Backlit LCD display**, digit height 15 mm
- **Dimensions weighing surface**, stainless steel:
  - A Ø 80 mm
  - B Ø 120 mm
  - W×D 155×145 mm, see larger picture
- **Overall dimensions** W×D×H 210×315×90 mm (without draught shield)
- **Net weight approx.** 2,0 kg
- **Permissible ambient temperature** 15 °C/30 °C

### Accessories
- **Protective working cover**, scope of delivery: 5 items, KERN PFB-A12S05, € 40,-
- **Separate second display**, ideal for training and demonstration purposes in laboratories or industry, not permitted for direct sales to the public, KERN PFB-A08, € 115,-
- **Bluetooth data interface** for wireless data transfer to PC or tablets, must be ordered at purchase
  - Bluetooth 2.0: KERN PFB-A10, € 95,-
  - Bluetooth 4.0: KERN PFB-A11, € 125,-
- Further details, plenty of further accessories and suitable printers see website

### Technical Data

<table>
<thead>
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<th>Weighing capacity [Max] g</th>
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www.kern-sohn.com · Order hotline +49 7433 9933-0
Compact laboratory balance KERN EWJ

High-quality precision balance with automatic internal adjustment, also with EC type approval [M]

Features

- **Easy to use:** All primary functions have their own key on the keypad
- **Automatic internal adjustment:** time-controlled every 2 h, guarantees high degree of accuracy and makes the balance independent of its location
- **Capacity display:** A bar lights up to show how much of the weighing capacity is still available
- **KERN EWJ/EWJ-H/EWJ-M: USB interface** for transferring weighing data to the PC, printer etc., possibly in conjunction with KERN DBS-A02
- **Draft shield** standard on models KERN EWJ 300-3, EWJ 600-2SM, EWJ 600-2M, weighing space W×D×H 160×145×80 mm
- **KERN EWJ 300-3H:** Large glass draught shield with 3 sliding doors for easy access to the items being weighed. Weighing space W×D×H 175×155×217 mm

Technical data

- **Lase backlit LCD display, digit height 16,5 mm**
- **Dimensions weighing surface**
  - Ø 80 mm
  - Ø 120 mm, see larger picture
  - W×D 155×145 mm
- **Overall dimensions W×D×H**
  - 220×315×90 mm (without draught shield)
  - 220×340×321 mm (incl. draught shield)
- **Permissible ambient temperature**
  - KERN EWJ: 15 °C/35 °C
  - KERN EWJ-M: 15 °C/30 °C

Accessories

- **Protective working cover** included with delivery
- **Protective working cover,** scope of delivery:
  - 5 items, KERN EWJ-A04S05, € 40,-
- **Rechargeable battery pack internal,** operating time up to 15 h without backlight, charging time approx. 4 h,
  - KERN KFB-A01, € 35,-
- **KERN EWJ/EWJ-H/EWJ-M: USB Accessory Kit** for bi-directional data exchange between balance/moisture analyser and computer.
  - Scope of delivery: USB cable, driver, Software BalanceConnection, KERN DBS-A02, € 290,-
- **RS-232/WiFi adapter** for wireless connection to networks and WiFi capable devices, such as tablets, laptops or smartphones, KERN YKI-03, € 690,-
- **RS-232/Ethernet adapter** for connection to an IP-based Ethernet network, KERN YKI-01, € 290,-
- Further details, plenty of further accessories and suitable printers see website

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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.

- EWJ 600-2SM: € 350,-
  - 963-216 66,- 963-127 72,-
- EWJ 600-2M: € 360,-
  - 963-216 66,- 963-127 72,-
- EWJ 600-1SM: € 340,-
  - 963-217 77,- 963-128 88,-
- EWJ 600-1M: € 350,-
  - 963-217 77,- 963-128 88,-
All-rounder e.g. as precision balance in the laboratory or in harsh industrial applications

Features

- Thanks to the many typical laboratory functions, such as, for example, recipe function, percentage determination, GLP record keeping, combined with the high level of precision, the KERN 572 - 573 is a reliable partner for day-to-day work in the laboratory
- **The robust version**, typical industrial functions, such as piece-counting, vibration-free weighing and the large weighing capacities also make these balances ideal for all industrial applications, where a high level of precision is required
- **Freely programmable weighing unit**, e.g. display direct in special units such as length g/m, paper weight g/m², or similar

- The robust aluminium diecast housing maintains the stability, protects the weighing technology elements and is robust enough to cope with everyday use
- **Ring-shaped draught shield** standard, only for models with weighing plate size A, weighing space Ø×H 157×43 mm
- Model with resolution ≥ 240,000 Pt.: level indicator to level the balance precisely as standard
- **Loop and hook for underfloor weighing**, standard for models with [d] ≥ 0,01 g
- **Protective working cover** included with delivery

Technical data

- Large backlit LCD display, digit height 18 mm
- Dimensions weighing surface, stainless steel
  - Ø 106 mm
  - Ø 150 mm
  - W×D×H 160×200 mm, see larger picture
- Overall dimensions W×D×H 180×310×85 mm
- Permissible ambient temperature 10 °C/40 °C

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<th>Reproducibility g</th>
<th>Linearity g</th>
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The new standard in the laboratory with robust tuning fork weighing system

Features
- KERN PNJ: Automatic internal adjustment, guarantees high degree of accuracy and makes the balance independent of its location of use. Ideal for mobile applications which require verification, such as ambulatory gold and jewellery purchasing
- KERN PNS: Adjusting program CAL for quick setting of the balance accuracy using an external test weight
- High-quality tuning fork measuring system for steady weight values and continuous weighing
- Capacity display: A bar lights up to show how much of the weighing capacity is still available
- Precise counting: The automatic reference weight optimisation of reference weight gradually improves the average piece weight value
- Compact size, practical for small spaces
- Large, shock proof weighing plate made of stainless steel

- Large glass draught shield with 3 sliding doors for easy access to the items being weighed. Weighing space W×D×H 172×171×160 mm, for models with weighing plate size A
- Protective working cover included with delivery

Technical data
- Large LCD display, digit height 16,5 mm
- Dimensions weighing surface, stainless steel
  - Ø 140 mm
  - W×D 190×190 mm, see larger picture
- Overall dimensions W×D×H
  - 202×293×266 mm
  - 195×290×90 mm
- Net weight
  - approx. 2.2 kg
  - approx. 2.8 kg
- Permissible ambient temperature 5 °C/40 °C

Accessories
- Protective working cover, scope of delivery: 5 items, KERN PNJ-A01S05, € 40,-
- RS-232/Bluetooth adapter to connect to Bluetooth capable devices, such as Bluetooth printers, tablets, laptops, smartphones, etc., KERN YKI-02, € 220,-
- RS-232/WiFi adapter for wireless connection to networks and WiFi capable devices, such as tablets, laptops or smartphones, KERN YKI-03, € 690,-
- RS-232/Ethernet adapter for connection to an IP-based Ethernet network, KERN YKI-01, € 290,-
- Precious stones plate, aluminium with practical spout, W×D×H 83×66×23 mm, KERN AEJ-A05, € 40,-
- Further details, plenty of further accessories and suitable printers see website

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www.kern-sohn.com · Order hotline +49 7433 9933 - 0

Precision balances KERN PNS · PNJ

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www.kern-sohn.com · Order hotline +49 7433 9933 - 0

Precision balances KERN PNS · PNJ
Robust laboratory and industrial precision scale for heavy items, with EC type approval [M]

Features

- **KERN PEJ:** Automatic internal adjustment, guarantees high degree of accuracy and makes the balance independent of its location of use
- **KERN PES:** Adjusting program CAL for quick setting of the balance accuracy using an external test weight
- **Metal housing:** robust and sturdy
- **Weighing with tolerance range (check-weighing):** Input of two upper and two lower limit values through four arrow keys. An audible and visual signal assists with the portioning, dispensing or grading
- **Draught shield** standard for models with \([d] = 0.001\) g, weighing space \(W\times D\times H = 170\times 150\times 100\) mm
- **Underfloor weighing:** load support with loop on the underside of the balance, standard for models with \([d] = 0.001\) g, hook not included with the delivery

- **Protective working cover** included with delivery

Technical data

- Fluorescent display, bright with high contrast, digit height 14 mm
- Dimensions weighing surface, stainless steel
  \[W\times D = 140\times 120\) mm\]
  \[W\times D = 200\times 200\) mm, see larger picture\]
  \[W\times D = 250\times 220\) mm\]
- Overall dimensions \(W\times D\times H\), without draught shield
  \[220\times 330\times 90\) mm\]
  \[220\times 339\times 80\) mm\]
  \[260\times 330\times 113\) mm\]
- Permissible ambient temperature 10 °C/30 °C

Accessories

- **Protective working cover,** scope of delivery: 5 items, KERN PES-A04S05, € 40,-
- **KERN PES:** Rechargeable battery pack internal, operating time up to 32 h, without backlight, charging time approx. 15 h, KERN PES-A01, € 610,-
- **Relay output** to connect relays, signal lamps, valves etc., 5 outputs for weighing in 3 tolerance ranges, must be ordered at purchase, KERN PES-A02, € 480,-
- **RS-232/Ethernet adapter** for connection to an IP-based Ethernet network, KERN YKI-01, € 290,-
- Further details, plenty of further accessories and suitable printers see website

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**Standard option factory**

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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.

**Option**

| PEJ 620-3M | 620 | 0.001 | 0.01 | 0.1 | ± 0.003 | BB | 1480,- | 965-201 | 110,- | 963-127 | 72,- |
| PEJ 2200-2M | 2200 | 0.01 | 0.1 | 0.5 | ± 0.02 | CB | 1060,- | 965-216 | 66,- | 963-127 | 72,- |
| PEJ 4200-2M | 4200 | 0.01 | 0.1 | 0.5 | ± 0.02 | CB | 1230,- | 965-216 | 66,- | 963-127 | 72,- |
Analytical balances

**KERN ADB · ADJ**
page 14
from € 610,-
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 ≥ 2 °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
- **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, ø 90 mm
- Overall dimensions (incl. draught shield) W×D×H
  - KERN ADB/ADJ: 230×310×330 mm
  - KERN ADB-C/ADJ-C: 230×310×230 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**

- **Ionizer** to neutralise electrostatic charge, KERN YBI-01A, € 940,-
- **Precious stones plate,** aluminium with practical spout, W×D×H 83×66×23 mm, KERN AEJ-A05, € 990,-
- **Weighing table** to absorb vibrations and oscillations, which would otherwise distort the weighing result, KERN YPS-03, € 990,-
- **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 website

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**New model**
Analytical balances KERN ALS-A · ALJ-AM

Features

- **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-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

Technical data

- Backlit LCD display, digit height 17 mm
- Dimensions weighing surface, stainless steel, Ø 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-AM: 5 °C/35 °C, KERN ALJ-AM: 15 °C/30 °C

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

**Features**

- 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, Ø 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-AM: 5 °C/35 °C, KERN ALJ-AM: 15 °C/30 °C

**Model**

<table>
<thead>
<tr>
<th>Model</th>
<th>Weighing capacity [Max]</th>
<th>Readability [d] mg</th>
<th>Verification value [e] mg</th>
<th>Minimal load [Min] mg</th>
<th>Reproducibility mg</th>
<th>Linearity mg</th>
<th>Price excl. of VAT ex works €</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALS 160-4A</td>
<td>160</td>
<td>0,1</td>
<td>-</td>
<td>-</td>
<td>0,1 ± 0,3</td>
<td>0,3</td>
<td>930,-</td>
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<tr>
<td>ALS 250-4A</td>
<td>250</td>
<td>0,1</td>
<td>-</td>
<td>-</td>
<td>0,1 ± 0,3</td>
<td>0,3</td>
<td>980,-</td>
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**Model**

<table>
<thead>
<tr>
<th>Model</th>
<th>Weighing capacity [Max]</th>
<th>Readability [d] mg</th>
<th>Verification value [e] mg</th>
<th>Minimal load [Min] mg</th>
<th>Reproducibility mg</th>
<th>Linearity mg</th>
<th>Price excl. of VAT ex works €</th>
<th>Option</th>
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<tbody>
<tr>
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<td>82</td>
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<td>0,01</td>
<td>0,1</td>
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<td>1</td>
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<tr>
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<td>160</td>
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<td>-</td>
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<tr>
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<td>-</td>
<td>0,1 ± 0,3</td>
<td>0,3</td>
<td>1060,-</td>
<td></td>
</tr>
<tr>
<td>ALJ 250-4AM</td>
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<td>10</td>
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<td>± 0,3</td>
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**Model**

<table>
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<th>Model</th>
<th>Weighing capacity [Max]</th>
<th>Readability [d] mg</th>
<th>Verification value [e] mg</th>
<th>Minimal load [Min] mg</th>
<th>Reproducibility mg</th>
<th>Linearity mg</th>
<th>Price excl. of VAT ex works €</th>
<th>Option</th>
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</thead>
<tbody>
<tr>
<td>ALS 160-4A</td>
<td>160</td>
<td>0,1</td>
<td>-</td>
<td>-</td>
<td>0,1 ± 0,3</td>
<td>0,3</td>
<td>930,-</td>
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<tr>
<td>ALS 250-4A</td>
<td>250</td>
<td>0,1</td>
<td>-</td>
<td>-</td>
<td>0,1 ± 0,3</td>
<td>0,3</td>
<td>980,-</td>
<td></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.

**Price reduction**

- Protective working cover, scope of delivery: 5 items, KERN ALJ-A01S05, € 40,-
- Protective dust cover, KERN ABS-A08, € 30,-
- 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, € 620,-
- Set for density determination of liquids and solids with density ≤/≥ 1, the density is indicated directly on the display, KERN YDB-03, € 390,-
- Weighing table to absorb vibrations and oscillations, which would otherwise distort the weighing result, KERN YPS-03, € 990,-
- 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 website

Manufacturer: KERN & Sohn, Robert-Koch-Weg 12-16, 63455 Hanau, Germany, www.kern-sohn.com · Order hotline +49 7433 9933-0

Order hotline +49 7433 9933-0

www.kern-sohn.com · Order hotline +49 7433 9933-0
The bestseller in analytical balances, with high-quality single-cell weighing system, also with EC type approval [M]
Premium analytical balance with the latest Single-Cell Generation for extremely rapid, stable weighing results

KERN ABP 100-5DM with optional ionizer

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

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
Analytical balance KERN ABP

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 ≥ 1 °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.

Technical data

- Luminous OLED display, digit height 14 mm, bright with high contrast, for easy reading of the weight, even in poor lighting conditions.
- Dimensions weighing surface Ø 91 mm.
- Overall dimensions (incl. draught shield) W×D×H 213×407×344 mm.
- Weighing space W×D×H 166×156×220 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,-
- 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,-
- Weighing table to absorb vibrations and oscillations, which would otherwise distort the weighing result, KERN YPS-03, € 990,-
- 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 website.

<table>
<thead>
<tr>
<th>Model</th>
<th>Weighing capacity (Max)</th>
<th>Readability</th>
<th>Verification value</th>
<th>Minimal load</th>
<th>Reproducibility</th>
<th>Linearity</th>
<th>Price excl. of VAT ex works</th>
</tr>
</thead>
<tbody>
<tr>
<td>KERN</td>
<td></td>
<td>[d] mg</td>
<td>[e] mg</td>
<td>[Min] mg</td>
<td>[d] mg</td>
<td>mg</td>
<td>€</td>
</tr>
<tr>
<td>ABP 100-4M</td>
<td>120</td>
<td>0,1</td>
<td>1</td>
<td>10</td>
<td>0,1</td>
<td>± 0,2</td>
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<tr>
<td>ABP 200-4M</td>
<td>220</td>
<td>0,1</td>
<td>1</td>
<td>10</td>
<td>0,1</td>
<td>± 0,2</td>
<td>2220,</td>
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<tr>
<td>ABP 300-4M</td>
<td>320</td>
<td>0,1</td>
<td>1</td>
<td>10</td>
<td>0,1</td>
<td>± 0,3</td>
<td>2470,</td>
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</tbody>
</table>

Dual-range balance switches automatically to the next largest weighing capacity (Max) and readability (d).

<table>
<thead>
<tr>
<th>Model</th>
<th>Weighing capacity (Max)</th>
<th>Readability</th>
<th>Verification value</th>
<th>Minimal load</th>
<th>Reproducibility</th>
<th>Linearity</th>
<th>Price excl. of VAT ex works</th>
</tr>
</thead>
<tbody>
<tr>
<td>KERN</td>
<td></td>
<td>[d] mg</td>
<td>[e] mg</td>
<td>[Min] mg</td>
<td>[d] mg</td>
<td>mg</td>
<td>€</td>
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<td>0,1</td>
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<td>1</td>
<td>0,02</td>
<td>0,1</td>
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<tr>
<td>ABP 200-5DM</td>
<td>102</td>
<td>0,01</td>
<td>0,1</td>
<td>1</td>
<td>1</td>
<td>0,02</td>
<td>0,1</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.

Further details, plenty of further accessories and suitable printers see website.

Price of VAT ex works: € 965-201, 110,- 963-101, 138,-

www.kern-sohn.com · Order hotline +49 7433 9933-0
Moisture analysers

KERN DAB
page 20
from €
930,-
Moisture analyser which is particularly easy to use – now also as a version with \( d = 10 \) mg, ideal for recurring rapid tests

**Features**

- **NEW:** KERN DAB 200-2! Version with lower resolution, whereby the switch-off criterion is reached faster, which saves time. Ideal for quick tests and spot checks
  - Backlit graphic display, digit height 14 mm
    - Drying process active
    - Active heating profile
    - Active switch-off criteria
    - Previous drying time
    - Current temperature
    - Current moisture content in %
- **Halogen quartz glass heater** 400 W
- **Observation window above the sample**, useful during initial setting
- **Internal memory** for automatic sequence of 15 complete drying processes and 5 drying processes carried out
- The last value measured remains on the display until it is replaced by a new measurement
- **50 sample plates included**

**Model KERN**

<table>
<thead>
<tr>
<th>Model KERN</th>
<th>DAB 200-2</th>
<th>DAB 100-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Readability ([d])</td>
<td>0,01 g/0,05 %</td>
<td>0,001 g/0,01 %</td>
</tr>
<tr>
<td>Weighing capacity ([Max])</td>
<td>200 g</td>
<td>110 g</td>
</tr>
<tr>
<td>Reproducibility weight of sample 2 g</td>
<td>1,5 %</td>
<td>0,15 %</td>
</tr>
<tr>
<td>Reproducibility, weight of sample 10 g</td>
<td>0,3 %</td>
<td>0,02 %</td>
</tr>
</tbody>
</table>

**Display after drying (Display can be switched over at any time)**

- **Moisture content \([M]\) = Moisture content \([M]\) from wet weight \([W]\) \(= \frac{\text{Absolute value in } [g]}{\text{Temperature range}}\) 40 °C–199 °C in steps up to 1 °C
- **Drying modes**
  - Standard drying
  - Gentle drying
  - Rapid drying
- **Switch-off criteria**
  - Automatic switch-off (2 mg loss in weight in 45 s)
  - Time controlled switch-off (3 min - 99 min 59 s, 10 s increments)
  - Manual switch-off at the press of a button
- **Recall of measurement/Log output**
  - Interval can be set from 1 s – 10 min (Only when used with printer KERN YKB-01N or PC)

**Overall dimensions** \([W\times D\times H]\) 240 x 365 x 180 mm

**Net weight** 4,82 kg

**Price €, excl. of VAT, ex works** 930,- 1050,-

**Option DAkkS Calibr. Certificate**
- Mass: KERN 963-127, € 72,-
- Temperature: KERN 964-305, € 140,-

**New model**

**Accessories**

- **Sample plates aluminium**, Ø 90 mm, unit of 80 pieces, KERN MLB-A01A, € 45,-
- **Round fiberglass filter** high mechanical stability, with organic binder, box of 100 pieces, KERN RH-A02, € 80,-
- **Round fiberglass filter**, medium mechanical stability, without organic binder, box of 100 pieces, KERN YMF-A01, € 25,-
- **Temperature calibration set** consists of measuring sensor and display device, KERN DAB-A01., € 110,-
- **Infrared quartz glass heater**, temperature range 40 °C–160 °C, Factory Option, KERN DAB-A02, € 95,-
- **RS-232/Ethernet adapter** for connection to an IP-based Ethernet network, KERN YKI-01, € 290,-
- **RS-232/Bluetooth adapter** to connect to Bluetooth capable devices, such as Bluetooth printers, tablets, laptops, smartphones, etc., KERN YKI-02, € 220,-
- **RS-232/WiFi adapter** for wireless connection to networks and WLAN capable devices, such as tablets, laptops or smartphones, KERN YKI-03, € 690,-
- **Display of the drying process in conjunction with BalanceConnection**, KERN SCD-4.0, € 150,-
- **Thermal printer**, KERN YKB-01N, € 320,-
Moisture analyser with graphics display and 10 memories for drying programs

**Features**
- Backlit graphic display, digit height 15 mm
- Drying process active
- Previous drying time
- Current temperature
- Unit for displaying the results
- Current moisture content in %
- Active heating profile
- Halogen quartz glass heater 400 W

**Observation window above the sample**, useful during initial setting
- **Internal memory** for automatic sequence of 10 complete drying processes and 100 drying processes carried out
- The last value measured remains on the display until it is replaced by a new measurement
- **Sample description** for up to 99 samples, 2 digits, freely programmable, and is printed in the measuring protocol
- **Date and time display** as standard
- **10 sample plates included**
- **Protective working cover** included with delivery
- **Application handbook**: On the internet, you will find a practical application handbook containing many examples, field reports, settings and tips for each KERN moisture analyser

**Accessories**
- **Protective working cover**, scope of delivery: 5 items, KERN DBS-A03S05, € 40,-
- **Sample plates aluminium**, Ø 90 mm, unit of 80 pieces, KERN MLB-A01A, € 45,-
- **Round fiberglass filter** high mechanical stability, with organic binder, box of 100 pieces, KERN RH-A02, € 80,-
- **Temperature calibration set** consists of measuring sensor and display device, KERN DBS-A01, € 450,-
- **USB interface kit** for bi-directional data exchange between balance/moisture analyser and computer. Scope of delivery: USB cable, driver, Software Balance Connection, KERN DBS-A02, € 290,-
- **Display of the drying process in conjunction with BalanceConnection**, KERN SCD-4.0, € 150,-
- **Thermal printer**, KERN YKB-01N, € 320,-
- **Matrix needle printer**, to print the weights on normal paper, ideal for long-term archiving, KERN 911-013, € 390,-
- **Label printer**, KERN YKE-01, € 590,-

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**STANDARD**

<table>
<thead>
<tr>
<th>Modell KERN</th>
<th>DBS 60-3</th>
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<td>0,001 g/0,01 %</td>
</tr>
<tr>
<td>Weighing capacity [Max]</td>
<td>60 g</td>
</tr>
<tr>
<td>Reproducibility</td>
<td></td>
</tr>
<tr>
<td>weight of sample 2 g</td>
<td>0,15 %</td>
</tr>
<tr>
<td>Reproducibility, weight of sample 10 g</td>
<td>0,02 %</td>
</tr>
</tbody>
</table>

**Display after drying**

| Moisture [%] = Moisture content (M) from wet weight (W) | 0–100 % |
| Dry content [%] = Dry weight (D) from W                | 100–0 % |
| ATRO [%] ([W-D]/D) · 100%                              | 0–99.9 % |
| Moisture content (M) Absolute value in [g]            |          |
| Temperature range                                      | 50 °C–200 °C in steps up to 1 °C |

**Drying modes**

- Standard drying
- Drying in levels
- Gentle drying
- Rapid drying

**Switch-off criteria**

- Automatic unrestricted switch-off (Selectable loss in weight 0,01%–0,1% in 30 s)
- Time controlled switch-off (1 min – 12 h)
- Manual switch-off at the press of a button

**Recall of measurement/Log output**

- Interval can be set from 1 s – 10 min
  (Only when used with printer KERN YKB-01N or PC)

**Overall dimensions W×D×H**

- 204×336×167 mm

**Net weight**

- approx. 4,6 kg

**Price €, excl. of VAT, ex works**

- 1270,-

**Option DAkkS Calibr. Certificate**

- Mass: KERN 963-127, € 72,-

**Option Factory Calibr. Certificate**

- Temperature: KERN 964-305, € 140,-
Platform scales

KERN EOC
page 24
from €
270,–
Precision platform scale KERN DS

### Features

- **High-capacity precision balance**, ideal for high volume or heavy samples to be weighed with a high degree of accuracy
- **User guidance step by step** on display by Yes/No dialogue
- Numerical subtraction of tare weight for known container weight. Useful for checking fill-levels
- **Precise counting**: The automatic reference weight optimisation of reference weight gradually improves the average piece weight value
- **KERN DS**: Freely programmable weighing unit, e.g. display direct in special units such as length of wire g/m, surface weight g/m², or else
- **Protective working cover** included with delivery

### Technical data

- Large backlit LCD display, digit height 18 mm
- Weighing plate dimensions, stainless steel W×D×H
  - 228×228×95 mm
  - 308×318×75 mm, see larger picture
  - 450×350×115 mm
- Dimensions of display device W×D×H
  - 225×115×60 mm
- Cable length of display device approx.
  - A 2 m
  - B 0,6 m
- Permissible ambient temperature 10 °C/40 °C

### Accessories

- **Protective working cover** over the display device, scope of delivery: 5 items, KERN DE-A12S05, € 40,-
- **Stand** to elevate display device, for models with weighing plate size B, C, height of stand approx. 480 mm, KERN DE-A10, € 100,-
- **Mount to fasten the display device to the platform**, for models with weighing plate size B, C, can be reordered, KERN DE-A11N, € 35,-
- **Wall mount** for display device, KERN DS-A02, € 30,-
- **Set for underfloor weighing**, consists of platform, bow, hook, only for models with weighing plate size B, KERN DS-A01, € 200,-
- **Rechargeable battery pack external**, operating time up to 30 h without backlight, charging time approx. 10 h, KERN KS-A01, € 160,-
- **Rechargeable battery pack internal**, operating time up to 30 h without backlight, charging time approx. 10 h, KERN KB-A01N, € 50,-
- Further details, plenty of further accessories and suitable printers see website

### Model Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Weighing capacity [Max] kg</th>
<th>Readability [g]</th>
<th>Smallest part weight [Normal] g/piece</th>
<th>Net weight approx. kg</th>
<th>Weighing plate</th>
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<th>KERN</th>
<th>€</th>
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<td>105,-</td>
<td></td>
</tr>
</tbody>
</table>

www.kern-sohn.com · Order hotline +49 7433 9933-0
Robust and high-resolution platform scale with practical Flip/Flop display device for greatest ease of use

**Features**

- **High mobility:** thanks to rechargeable battery operation (optional), compact, lightweight construction, it is suitable for the use in several locations (laboratory, production, quality control, commissioning etc.)
- **Platform:** weighing plate stainless steel, painted steel base, silicone-coated aluminum load cell, protection against dust and water splashes IP65. **Level indicator and levelling feet** for precise levelling of the scale, fitted as standard, to give the most accurate weighing result
- **Weighing with tolerance range (check-weighing):** a visual and audible signal helps with portioning, dispensing or grading

<table>
<thead>
<tr>
<th>Model</th>
<th>Weighing capacity [Max]</th>
<th>Readability [d]</th>
<th>Smallest part weight [Normal] g/piece</th>
<th>Cable length approx. m</th>
<th>Net weight approx. kg</th>
<th>Weighing plate</th>
<th>Price excl. of VAT ex works €</th>
<th>DAkkS Calibr. Certificate</th>
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<td>9</td>
<td>500x400x120</td>
<td>340,-</td>
<td>963-129</td>
</tr>
</tbody>
</table>

- **Hold function:** When the weighing conditions are unstable, a stable weight is calculated determining an average value
- **Searching and remote control of the balance** using external control devices or computers with the KERN Communication Protocol (KCP). KCP is a standardised interface command structure for KERN balances and other instruments which allows you to recall and manage all relevant parameters and device functions. You can therefore simply connect KERN devices with KCP to computers, industrial control systems and other digital systems. In a large number of cases the KCP is compatible with the MT-SICS protocol. Only possible through data interface RS-232, other interfaces on request
- **Practical Flip/Flop display device:** flexible positioning e.g. free-standing or screwed to the wall (optional). By rotating the upper housing shell you can determine the angle of the display as well as the cable outlet.
- **Benchtop stand incl. wall mount** for display device as standard
- **Protective working cover** included with delivery

**Technical data**

- Large backlit LCD display, digit height 24 mm
- Dimensions of display device WxDxH 268x115x80 mm
- Permissible ambient temperature -10 °C/40 °C
- Further details, plenty of further accessories and suitable printers see website
Balance & weight in the quality management system

Do you already use all the modules of the KERN precision package for maximum accuracy and reliability of your balance?

### KERN precision package

<table>
<thead>
<tr>
<th>KERN Balance</th>
<th>DAkkS calibration certificate for the balance</th>
<th>Adjustment/Validation with KERN test weights</th>
<th>DAkkS calibration certificate for the test weight</th>
<th>Maximum reliability for your measurements</th>
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<tbody>
<tr>
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<td><img src="image2.png" alt="Image of test weight and certificate" /></td>
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<td><img src="image4.png" alt="Green check mark" /></td>
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</table>

**Balance not adjusted, traceable**

**Balance adjusted, weight not traceable**

**Balance adjusted, not traceable**

**Balance adjusted, completely traceable**

### Information & ordering:

www.kern-sohn.com/qmb

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The DAkkS calibration (DAkkS = German accreditation authority) documents traceability to the national standard and thus meets the specific normative requirements of QM systems.

**International recognition:**

- DAkkS/DKD
- COFRAC
- UKAS
- ACCREDIA
- SAS
- ENAC
- PCA
- AA uvm.

---

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Microscopes and Refractometers

KERN OBE
page 27
from €
385,–
EDUCATIONAL LINE

The fully equipped all-round compound microscope for school, training and laboratories

Features

- The KERN OBE series is a range of high-quality, fully-equipped compound microscopes, which can’t be beaten in terms of ease of use and ergonomic design.
- The strong and continuously dimmable 3 W LED guarantees optimum illumination of the samples and also ensures long service life. Mobile use of several models is also no problem through the use of rechargeable batteries.
- The height-adjustable and thereby focussable 1,25 Abbe condenser with aperture diaphragm is a further quality feature of the OBE series and ensures the very best concentration of light.
- Height adjustment of the fully-equipped mechanical stage is carried out using a coarse and fine focusing knob on both sides.
- The ergonomically designed coaxial drive enables you to work with the samples and move them rapidly.
- A large selection of different eyepieces and objectives, a simple polarising unit and a darkfield kit are available to you as accessories.
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of the delivery.
- Height adjustment of the fully-equipped mechanical stage is carried out using a coarse and fine focusing knob on both sides.
- A large selection of different eyepieces and objectives, a simple polarising unit and a darkfield kit are available to you as accessories.
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of the delivery.
- A C-mount adapter is required to connect a camera to the trinocular version. You can select this adapter from the following model outfit list.

Scope of application

- Training, haematology, sediment investigation, doctor’s practise.
- Training, haematology, sediment investigation, doctor’s practise.
- Translucent, thin, high-contrast, less complex samples (e.g. plant tissue, coloured cells/parasites).

Applications/Samples

- Finite optical system.
- Quadplex nosepiece.
- Siedentopf 30° inclined/360° rotatable.
- Diopter adjustment: One-sided (for binocular and trinocular models).
- Overall dimensions W×D×H 320×180×365 mm.
- Net weight approx. 5,5 kg.

Technical data

- For details on the scope of delivery and extensive accessories, see www.kern-sohn.com.

<table>
<thead>
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<th>Model</th>
<th>Standard configuration</th>
<th>Price excl. of VAT ex works €</th>
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<td>3 W LED (transmitted) 385,–</td>
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<td>3 W LED (transmitted) 480,–</td>
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<td>3 W LED (transmitted) 550,–</td>
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<td>3 W LED (transmitted) 590,–</td>
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<td>3 W LED (transmitted) 650,–</td>
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</table>
The flexible laboratory assistant with infinity optical system and fixed, pre-centred Koehler illumination

**Features**
- The OBL series stands out through its infinity optical unit and is therefore ideally suited for all demanding transmitted illumination applications. The robust and ergonomic stand base guarantees safe and comfortable working.
- Depending on the application, there is a choice of models with strong, continuously dimmable 3 W LED or 20 W halogen illumination (Philips).
- The fixed, pre-centred and focusable 1.25 Abbe condenser with aperture diaphragm and field diaphragm gives you a simplified Koehler illumination, without having to move the centre.
- The large mechanical stage and its specimen holder holds up to two samples at the same time and is quick and easy to focus using a coaxial coarse and fine focusing knob on both sides.
- A large selection of eyepieces, objectives and colour filters as well as a darkfield condenser, a simple polarising unit, different phase contrast kits through to HBO and LED fluorescence units are available to you as accessories.
- A protective dust cover, eye cups, as well as multi-lingual user instructions are included in the scope of delivery.
- A C-mount adapter is required to connect a camera to the trinocular version. You can select this adapter from the following model outfit list.

**Scope of application**
- Haematology, urology, gynaecology, dermatology, pathology, microbiology and parasitology, immunology, oncology, entomology, vets, water analysis and breweries.

**Applications/Samples**
- Translucent, thin, low-contrast, challenging samples (e.g. living mammal cells, bacteria, tissue).

**Technical data**
- Infinity optical system
- Quadplex nosepiece
- Siedentopf 30° inclined/360° rotatable
- Diopter adjustment: One-sided
- Overall dimensions W×D×H: 395×200×380 mm
- Net weight approx. 6.7 kg

For details on the scope of delivery and extensive accessories, see [www.kern-sohn.com](http://www.kern-sohn.com).
**Features**

- The fluorescence microscope in the OBN-14 series is based on the usual high quality and versatility of the OBN series. The outstanding, stable design in combination with high-quality optics set the standard in fluorescence microscopy in this class.
- The powerful, dimmable 20W halogen illumination unit (Philips) and a 100W Epi fluorescence incident illumination unit on the OBN 147/OBN 148 models ensure perfect illumination and stimulation of your fluorescence samples.
- As an alternative, with the OBN 141 model we can offer you a fluorescence microscope with a 3W LED transmitted illumination unit and 3W LED Epi fluorescence incident illumination unit.
- This series has a professional Koehler illumination unit with an adjustable field diaphragm as well as a height-adjustable 1.25 Abbe condenser which can be centred and which has an adjustable aperture diaphragm.
- The extremely large mechanical stage with ergonomic, coaxial coarse and fine focusing knob on both sides enables you to adjust and focus your sample rapidly and accurately.
- With the OBN 147/OBN 148 halogen variant you have a filter wheel which has up to 6 fittings. As standard this is fitted with a B/G or B/G/UV/V fluorescence filter. The OBN 141 LED variant is fitted with a B/G fluorescence filter with a changeover slider as standard. The changeover slider and the filter wheel mean that you can change the stimulation filter quickly.
- A large selection of eyepieces, objectives, colour filters, darkfield condensers as well as a Butterfly Tube, polarising and phase contrast units can easily be integrated thanks to the modular construction system.
- The centring objective for adjusting the fluorescence, a protective dust cover, eye cups as well as multi-lingual user instructions are included in the scope of delivery.
- A C-mount adapter is required to connect a camera. You can select this adapter from the following model outfit list.

**Scope of application**

- Haematology, urology, gynaecology, dermatology, pathology, microbiology and parasitology, immunology, Sewage treatment plants, Oncology, entomology, vets, water analysis and breweries.

**Applications/Samples**

- Specially for translucent, thin, low-contrast, challenging samples (e.g. Immunofluorescence, FISH, DAPI staining, etc.)

**Technical data**

- Infinity optical system
- Quintuple nosepiece
- Siedentopf 30° inclined/360° rotatable
- Diopter adjustment: Both-sided
- Overall dimensions W×D×H 530×220×490 mm
- Net weight approx. 23 kg

For details on the scope of delivery and extensive accessories, see www.kern-sohn.com
Microscope cameras KERN ODC

Specialists in microscopy for measurement, counting, documentation, archiving and image processing

Features

- A large selection of microscope cameras is available for your individual applications
- The universal microscope cameras can be used anywhere and can be connected to the microscope as well as to a laptop or PC using the USB cable (USB 2.0 or USB 3.0, see table)
- The power supply is through the USB cable, which means that no additional power supply is required
- Your daily work is made significantly easier with the very best synchronisation, a high frame rate as well as stable image performance together with our camera software microscope VIS KERN OXM 901 which we deliver with the product
- Details about our software can be found under Camera Software Microscope VIS CORE OXM 901 at www.kern-sohn.com
- These universal cameras can also be connected to all microscopes available on the market offering the appropriate C-mount adapter for the particular microscope

C-mount cameras – USB 2.0/3.0 KERN ODC-82 · ODC-83

Features

- Through the proven CMOS technology, in connection with the USB 2.0 or USB 3.0 the images are shown quickly and clearly
- These cameras are also ideal for more demanding applications, such as, for example, darkfield, phase contrast and for fluorescence applications
- As well as the camera, the delivery includes our multi-lingual camera software Microscope VIS KERN OXM 901, a USB cable (Length: 2 m) various eyepiece adapters and an object micrometer to calibrate the software
- Please order the appropriate C-mount adapter to fit your KERN microscope now

<table>
<thead>
<tr>
<th>Model</th>
<th>Resolution</th>
<th>Interface</th>
<th>FPS</th>
<th>Sensor</th>
<th>Sensor size</th>
<th>Colour/ Monochrome</th>
<th>Supported operating system</th>
<th>Price excl. of VAT ex works</th>
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C-mount camera – HDMI KERN ODC-85

Features

- The ODC-851 HDMI microscope camera has been specially developed for direct HDMI connection to your HDMI compatible display device. The images can also be stored directly onto the SD card delivered with the device
- As an alternative, a USB 2.0 connection is also still available to connect a laptop or PC
- Power supply is from an external 12 V power unit
- Scope of delivery: Camera, software, USB mouse, USB 2.0 cable (Length: 2 m), HDMI cable (Length: 2 m) and SD card (16 GB)
- Please order the appropriate C-mount adapter to fit your KERN microscope now

<table>
<thead>
<tr>
<th>Model</th>
<th>Resolution</th>
<th>Interface</th>
<th>FPS</th>
<th>Sensor</th>
<th>Sensor size</th>
<th>Colour/ Monochrome</th>
<th>Supported operating system</th>
<th>Price excl. of VAT ex works</th>
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<td>colour</td>
<td>Win XP, Vista, 7, 8, 10</td>
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</table>
Digital microscopy brought up to date - tablet with integrated camera for optimal observation and digital documentation of the sample

**Features**

- A 2-in-1 solution in digital microscopy as a universal system for trinocular microscopes with C-mount adapter. The ODC 241 microscope-tablet-camera consists of a large Android tablet in combination with a 5-MP camera
- The KERN ODC 241 tablet-camera has been specially developed for simple and direct observation of the sample on the screen. Ideally suited for school pupils and students in education or for demonstration purposes in the laboratory
- As well a live transfer of the image to the Android table, the integrated 5-MP camera also means that images and videos can be created for the documentation.
- Simple measuring functions such as, for example, functions for measuring distance, surfaces and angles as well as a manual counting function are also available
- Automatic white balance and automatic contrast adjustment can be performed quickly and easily, which enables efficient working procedures
- A range of additional functions are provided through the integrated interfaces, such as, for example
  - Data storage on a USB stick or SD card
  - Connection to a USB mouse
  - Transfer of the live image to an external screen using HDMI
  - Transfer of stored data to external receivers using WLAN
- The delivery includes the tablet camera with pre-installed software as well as the mains adapter

**Technical data**

- 9.7" LCD-Touchscreen
- Screen resolution: 2048×1536 pixels
- CPU: Quad Core Cortex-A17; 1.8 GHz
- Overall dimensions W×D×H 238×51×206 mm
- Net weight approx. 0.65 kg

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**Tablet Camera KERN ODC-2**

<table>
<thead>
<tr>
<th>Model</th>
<th>Resolution Camera</th>
<th>Interface</th>
<th>FPS</th>
<th>Sensor</th>
<th>Sensor size</th>
<th>Supported operating system</th>
<th>Price excl. of VAT ex works €</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODC 241</td>
<td>5 MP</td>
<td>WLAN, USB 2.0, HDMI, SD</td>
<td>15 - 30</td>
<td>CMOS</td>
<td>1/2.5&quot;</td>
<td>Android 5.1</td>
<td>890,–</td>
</tr>
</tbody>
</table>
### Features

- The KERN ORA refractometers are universal, maintenance free analogue handheld refractometers.
- The handy and robust design allows the easy, efficient and sustainable use in everyday life.
- Manually calculated conversions and errors of the user are avoided by multiple selectable scales.
- These scales are especially developed, exactly calculated and checked. They are also characterized by their thin and clear lines.
- The optical system and the prism cover are made of special material which allows a low-tolerance measuring.
- All ORA models are equipped with an eyepiece for easy and smooth setting for many different diopter strengths.
- The models marked with “ATC” have an automatic temperature compensation which enables accurate measurement at different ambient temperatures (10 °C/30 °C).
- The following accessory-parts are included:
  - Storage box
  - Calibration liquid
  - Calibration block (if required)
  - Pipette
  - Small screwdriver
  - Cleaning tissue
- Accessories are available optionally.

### Technical data

- Die-cast housing of copper-aluminium alloy, chrome coated.
- Measurement temperature without ATC: 20 °C.
- Measurement temperature range with ATC: 10 °C/30 °C.
- Dimensions of the box: 205×75×55 mm (depending on the model).
- Product length: approx. 130 – 200 mm (depending on the model).
- Net weight approx. 135 – 600 g (depending on the model).

### Standard Option

Now also available with calibration certificate!

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### Analogue refractometer KERN ORA

Refractive index measurement for laboratories and the industry.

#### Model

<table>
<thead>
<tr>
<th>Model</th>
<th>Scales</th>
<th>Measuring range</th>
<th>Division</th>
<th>ATC</th>
<th>Scope of application</th>
<th>Price excl. of VAT&lt;br&gt;ex works&lt;br&gt;€</th>
</tr>
</thead>
<tbody>
<tr>
<td>KERN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORA 32BA</td>
<td>Brix</td>
<td>0 – 32 %</td>
<td>0.2 %</td>
<td>✓</td>
<td>Sugar</td>
<td>85,–</td>
</tr>
<tr>
<td>ORA 80BB</td>
<td>Brix</td>
<td>0 – 80 %</td>
<td>0.5 %</td>
<td>✓</td>
<td>Sugar</td>
<td>80,–</td>
</tr>
<tr>
<td>ORA 6HA</td>
<td>12 – 30 %</td>
<td>0.1 %</td>
<td>‾</td>
<td>✓</td>
<td>Honey</td>
<td>100,–</td>
</tr>
<tr>
<td>ORA 3SA</td>
<td>0 – 28 %</td>
<td>0.2 %</td>
<td>✓</td>
<td>Salt</td>
<td>85,–</td>
<td></td>
</tr>
<tr>
<td>ORA 4FA</td>
<td>0 – 32 %</td>
<td>0.2 %</td>
<td>✓</td>
<td>Industry/Automotive</td>
<td>85,–</td>
<td></td>
</tr>
<tr>
<td>ORA 4RR</td>
<td>EG (G11/12)</td>
<td>1,440 – 1,520 nD</td>
<td>0.001 nD</td>
<td>✓</td>
<td>Expert applications</td>
<td>85,–</td>
</tr>
<tr>
<td>ORA 4RR</td>
<td>PG (G13)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORA 4RR</td>
<td>CW BF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORA 4RR</td>
<td>1,440 – 1,520 nD</td>
<td>0.001 nD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Refractive index measurement for pharmacy, laboratories and industry

**Features**
- The KERN ORT refractometers are universal analog Abbe refractometers
- The handy and robust design allows the easy, efficient and sustainable use in everyday life
- The integrated scale allows the use in different applications and provides the best possible security to read the measurement results accurately
- The scope of delivery includes:
  - Calibration solution
  - Calibration block
  - Pipette
  - Small screwdriver
  - Cleaning tissue
  - Digital thermometer
- Accessories are available as options

**Technical data**
- Measurement temperature: 20 °C
- Overall dimensions W×D×H 180×90×240 mm
- Net weight approx. 1950 g

**Scope of application**
- The following model is a simple yet highly reliable Abbe refractometer with a digital thermometer. Liquid, solid and pasty samples can be evaluated. This refractometer is robust, accurate and easy to use. Optionally a solid aluminium case for transport and storage is available. It measures the refractive index (nD).
- The main scope of applications is:
  - Sugar industry: for example cane sugar
  - Pharmacy
  - Beverage industry
  - Food industry
  - Chemical industry
  - Oil industry/Refinery
  - Laboratories
  - Training

---

**Model**

<table>
<thead>
<tr>
<th>Model</th>
<th>Scales</th>
<th>Measuring range</th>
<th>Accuracy</th>
<th>Division</th>
<th>Price excl. of VAT ex works</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kern ORT-1RS</td>
<td>Brix, Refractive index</td>
<td>0–95 % 1,3000-1,7000 nD</td>
<td>± 0,1 % ± 0,0002 nD</td>
<td>0,25 % 0,0005 nD</td>
<td>690,–</td>
</tr>
</tbody>
</table>
System solutions Industry 4.0

KERN KTA-T
page 38
only €
400,-
Increased efficiency is the key to greater success in ever tightening markets

This inevitably leads to increased pressure on employees in laboratories, clinics, industrial or service companies – more and more tasks must be carried out in less and less time. Often, this can only happen if it is possible to automate processes either in part or fully.

To do this we process the measuring and weighing data which has been collected digitally and transfer it to the relevant software applications in the right format for that particular user, i.e. the user software receives the measuring and weighing data in the format required for processing. To do this, as well as powerful hardware components, we use the KERN BalanceConnection multi-function software, which, in its PRO version, has been further enhanced to give an even greater range of functions. The competent team from our “Industry 4.0 centre” of expertise will be happy to help you integrate your KERN balances.

In a further step we offer users of KERN balances a wealth of EasyTouch Apps, which shapes the user-specific application into an intuitive workflow and thus guides you through the process, efficiently and reliably. This applies to chemical or biological laboratory tests just as it does to industrial and production processes in manufacturing industries or in the manufacture of food products or pharmaceutical products.

The KERN EasyTouch Apps in combination with the relevant hardware, such as, for example, with a Smartphone, tablet or PC and a balance, make your apparently simple balance into a high-tech instrument with integrated workflow and database software, which works in conjunction with other balances, network systems and database servers.

This modular software/hardware architecture creates extremely efficient weighing systems, which are customised to your own particular requirements and which can grow with you and your increasing requirements. Ask the team from our “Industry 4.0 centre of expertise”, they will be happy to help you with any questions related to application solutions/software.
Universal weighing platforms for flexible connection into process chains

Features

- Industry 4.0 process chains: these weighing platforms can be easily integrated into your process chain. All recorded values can be easily transferred and processed further in your system as digital data and data that has already been compared using the many interfaces available. This saves cost, time and resources and ensures even more effective working.

- Connecting the balance with a tablet or PC offers the advantage of being able to use the apps and programs which are on that device. These apps and programs are usually already tailored to your needs, are easy and convenient to use and can often be expanded as needed. This offers you the maximum level of flexibility when displaying, processing and saving the recorded weighing data.

- Searching and remote control of the balance using external control devices or computers with the KERN Communication Protocol (KCP). KCP is a standardised interface command structure for KERN balances and other instruments which allows you to recall and manage all relevant parameters and device functions. You can therefore simply connect KERN devices with KCP to computers, industrial control systems and other digital systems. In a large number of cases the KCP is compatible with the MT-SICS protocol.

- PRE-TARE function for manual subtraction of a known container weight, useful for checking fill-levels.

- Freely programmable weighing unit, e.g., display direct in special units such as length g/m, paper weight g/m², or similar.

- Level indicator and levelling feet for precise levelling of the scale, fitted as standard, to give the most accurate weighing result.

- Draught shield standard for models with weighing plate size A, weighing space W×D×H 146×146×80 mm.

- Included with delivery: 1 Software BalanceConnection for adjusting and managing the KERN KDP, for large-format display of the values collected on the PC as well as transfer of this data to other Apps and programs.

Technical Data

- Dimensions weighing surface A ∅ 105 mm

- Weighing plate material B plastic, with conductive lacquer

- Overall dimensions W×D×H 165×166×75 mm (without draught shield)

- Net weight approx. 1,2 kg

- Permissible ambient temperature 5 °C / 35 °C

Accessories

- Bluetooth data interface for wireless data transfer to PC or tablets, must be ordered at purchase, KERN KDP-A03, € 70,-

- WiFi interface for wireless connection of the balance to networks and WiFi capable devices, such as tablets, laptops or smartphones, must be ordered at purchase, please ask for delivery time, KERN KDP-A01, € 70,-

<table>
<thead>
<tr>
<th>Model</th>
<th>Weighing capacity [Max]</th>
<th>Read-out [d]</th>
<th>Reproducibility [g]</th>
<th>Linearity [g]</th>
<th>Weighing plate [mm]</th>
<th>Price excl. of VAT ex works</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>KERN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Dakks Calibr. Certificate</td>
</tr>
<tr>
<td>KDP 300-3</td>
<td>350</td>
<td>0,001</td>
<td>0,002</td>
<td>± 0,005</td>
<td>146</td>
<td>€ 390,-</td>
<td>963-127 72,-</td>
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<tr>
<td>KDP 3000-2</td>
<td>3500</td>
<td>0,01</td>
<td>0,02</td>
<td>± 0,05</td>
<td>146</td>
<td>€ 390,-</td>
<td>963-127 72,-</td>
</tr>
<tr>
<td>KDP 10K-4</td>
<td>10000</td>
<td>0,1</td>
<td>0,1</td>
<td>± 0,3</td>
<td>146</td>
<td>€ 390,-</td>
<td>963-128 88,-</td>
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<tr>
<td>KDP 10K-3</td>
<td>10000</td>
<td>1</td>
<td>1</td>
<td>± 3</td>
<td>146</td>
<td>€ 390,-</td>
<td>963-128 88,-</td>
</tr>
</tbody>
</table>
Modern A/D converter for the rapid recording of weighing data and forwarding it to the most varied output channels such as tablets, networks, SPS controllers, etc. – ideal for operating balances in systems or conveyors

**Features**

- With this A/D converter box your weighing processes are ready for the requirements of Industry 4.0. Simply connect a weighing platform or measuring cell, integrate the A/D converter box into the network and start weighing
- For rapid transfer of weighing data to connected networks, computers, etc.
- USB and RS-232 data interface standard
- Transfer formats are freely configurable
- Many interface variants available WiFi data interface, KERN YKV-A01, € 60,- Bluetooth data interface, KERN YKV-A02, € 60,- Other interfaces on request: A/D converter box with standard Ethernet data interface on request
- Functions: Weighing, taring
- Internal resolution 16 million divisions
- Measuring frequency 10 Hz
- Easy configuration using the software supplied

**Technical Data**

- Overall dimensions W×D×H 100×127×28 mm
- Net weight approx. 1.2 kg
- Permissible ambient temperature -10 °C/40 °C

**Accessories**

- Software BalanceConnection, flexible recording or transfer of measurements, particularly to Microsoft® Excel or Access as well as transfer of this data to other Apps and programs. The displayed result can therefore be converted to any format for communication with the different user programs, such as, for example, e.g. SAP, Oracle etc., for details see www.kern-sohn.com, KERN SCD-4.0, € 150,-

**Price** excl. of VAT ex works, KERN YKV-01, € 190,-
Convert your balance into a computer!

This modern tablet transforms your weighing components into a powerful measuring system with a wide variety of analysis options in an instant. Simply download the appropriate app on the tablet and process the weighing data according to your ideas. Thanks to this modular concept, the initial investment is kept to a minimum and, at the same time, offers you a high level of investment security and future reliability. If your requirements should increase or your area of work should expand, then simply download more Apps. In this way the investment remains predictable and you do not pay for functions which you do not need – pretty smart!

**KERN KTA-T** – Multifunctional tablet for connection to digital platforms, balances, measuring cells

**Features**
- Ideal for use in the laboratory environment, industry, test laboratories, etc., either as permanently fixed large display for one balance or as mobile display for one or more scales using WLAN or Bluetooth
- Compact, slim tablet
- Superior display size in comparison with a standard display on a balance
- Separate connection for power supply, so, when charging, the USB connection remains free for USB sticks, peripheral devices, etc.
- MicroUSB to connect peripheral devices, can also be used for power supply
- For further information and extensive accessories, please see www.kern-sohn.com/de/KTA-T

**Accessories**
- Aluminum tablet stand, infinitely adjustable in inclination for ergonomic reading and operation of the tablet, the tablet can be set upright and transversely, rubberized contact points ensure a non-slip grip and protect the tablet, W×D×H 100×35×85 mm, KERN YKD-A03, € 20,-

**KERN KTB-T** – Robust professional tablet for demanding weighing applications

**Features**
- Ideal for use in the laboratory environment, pharmaceutical field, industry, test laboratories, etc., either as permanently fixed large display for one balance or as mobile display for one or more scales using WLAN or Bluetooth
- Wide range: can be connected to a variety of balances, from the analytical balance to the floor scale, thus particularly comfortable management of the weighing systems used
- High-quality industrial tablet
- Superior display size in comparison with a standard display on a balance
- Separate connection for power supply, so, when charging, the USB connection remains free for USB sticks, peripheral devices, etc.
- A large number of standard integrated interfaces allow the parallel connection of peripheral devices, storage media, network connections, etc.
- Octopus cable as standard, allows the parallel connection of up to 5 peripheral devices, networks, etc. with only one interface
- MicroUSB for connecting peripheral devices as well as integrated VESA mounting preparation for mounting the tablet to a wide variety of standard mounts, tripods etc. as standard
- For further information and extensive accessories, please see www.kern-sohn.com/de/KTB-T

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**KERN KTA-T, € 400,- (on request)**

**KERN KTB-T, € 1290,- (on request)**
Professional and highly flexible recording or transmission of measured values, in particular also to Microsoft® Excel or Access

**Features**

- For operating systems Windows XP, Vista, 7, 8, 8.1, 10
- Supports balances measuring devices with RS 232, RS 485, Bluetooth, LAN or WLAN network (TCP/UDP/IP)
- Highly flexible formatting of the output (any order, formatting and rounding), particularly recording of date and time for every value transferred, if required
- Any number of devices/interfaces can be connected, as well as simultaneous and synchronised recording of several balances
- Key-activated or time-controlled interrogation of measurements or trigger of device functions, also for continuous recording
- The interface protocols for KERN balances are already predefined (standard configuration)
- Compatible interface cable included when you order a KERN balance at the same time
- Many different transfer and recording options:
  - Microsoft® Excel/Access/Word in the foreground or background
  - Other Windows applications (through key simulation), e.g. shipping software or ERP system (SAP, Sage, etc.)
  - File recording (e.g. as text or CSV file)
  - Print out on text or label printer
  - Screen output such as large display, line chart (drying curve for moisture analyzer), histogram, etc.
- ODBC/SQL databases such as SQL Server or MySQL
- Transfer to HTTP Webservices/Web forms
- Histogram
- Enables the connection of medical balances to practice EDP systems using the device data transfer protocol (GDT) and also the HL7 protocol
- Implementation of programs/scripts using freely-definable command lines
- Command sequences
- Defining the conditions for specific events and the reaction to these events
- Filter for stability recognition (configurable value storage)
- Central configuration repository, e.g. on the network
- On-screen displays with configurable user interface for flexible balance operation

**Benefits**

- Ideal software where weighing data which has been collected needs to be transferred to a Windows PC
- Particularly suitable for professional integration of weighing systems into existing networks where there is a high demand for automated data transfer and further processing, for integration of databases
- Automatic recording, e.g. for long-term tests
- GLP-compliant lab software
- Can be used across different branches and applications
- Also available as a cost-optimised package with 5 licenses, **you save more than 30%**!
- Also available immediately as a download license
- Scope of supplies:
  - 1 CD, 1 License KERN SCD-4.0-PRO, **€ 290,-**
  - Scope of supplies:
  - 1 CD, 5 Licenses KERN SCD-4.0-PROS05, **€ 990,-**
- Scope of supplies: Download link for 1 License, KERN SCD-4.0-PRO-DL, **€ 290,-**
KERN & SOHN GmbH
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Germany

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Fax +49 7433 9933-149

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www.kern-sohn.com

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.

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