



## Moisture analyser with graphics display and 10 memories for drying programs

### Features

- Backlit graphic display, digit height 15 mm
  - 1 Drying program
  - 2 Previous drying time
  - 3 Current temperature
  - 4 Unit for displaying the results
  - 5 Current moisture content in %
  - 6 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**
- **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

STANDARD										OPTION	

<b>Model KERN</b>	<b>DBS 60-3</b>
<b>Readout [d]</b>	0,001 g/0,01 %
<b>Weighing range [Max]</b>	60 g
<b>Reproducibility weight of sample 2 g</b>	0,15 %
<b>Reproducibility, weight of sample 10 g</b>	0,02 %
<b>Display after drying (Display can be switched over at any time)</b>	
<b>Moisture [%] = Moisture content (M) from wet weight (W)</b>	0-100 %
<b>Dry content [%] = Dry weight (D) from (W)</b>	100-0 %
<b>ATRO [%] [(W-D) : D] · 100%</b>	0-999 %
<b>Moisture content (M)</b>	Absolute value in [g]
<b>Temperature range</b>	50 - 200 °C in steps up to 1 °C
<b>Drying modes</b>	<input type="checkbox"/> Standard drying <input type="checkbox"/> Drying in levels <input type="checkbox"/> Gentle drying <input type="checkbox"/> Rapid drying
<b>Switch off criteria</b>	<ul style="list-style-type: none"> <li>• Automatic unrestricted switch off (Selectable loss in weight 0,01%-0,1% in 30 s)</li> <li>• Time controlled switch off (1 min - 12 h)</li> <li>• Manual switch off at the press of a button</li> </ul>
<b>Recall of measurement/ Log output</b>	Interval can be set from 1 sec - 10 min (Only when used with printer KERN YKB-01 or PC)
<b>Overall dimensions W×D×H</b>	202×336×157 mm
<b>Net weight</b>	approx. 4,2 kg
<b>Option DAkkS Calibr. Certificate</b>	963-127

### Accessories

- **Protective working cover**, standard, can be re-ordered, scope of delivery: 5 items, KERN DBS-A03S05
- **Sample plates aluminium**, ø 90 mm. Unit of 80 pieces, KERN MLB-A01A
- **Round fiberglass filter** e.g. for samples that splash or become encrusted. Box with 100 pieces, KERN RH-A02
- **Temperature calibration set** consists of measuring sensor and display device, KERN DBS-A01.
- **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
- **Display of the drying process** in conjunction with BalanceConnection, KERN SCD-4.0
- **Thermal printer**, KERN YKB-01N

# KERN Pictograms:



**Internal adjusting:** Quick setting up of the balance's accuracy with internal adjusting weight (motordriven).



**Piece counting:** Reference quantities selectable. Display can be switched from piece to weight.



**Rechargeable battery pack:** Rechargeable set.



**Adjusting program CAL:** For quick setting up of the balance's accuracy. External adjusting weight required.



**Recipe level A:** Separate memory for the weight of the tare container and the recipe ingredients (net total).



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



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



**Recipe level B:** Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display.



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



**Alibi memory:** Electronic archiving of weighing results, complying with the 2014/31/EU standard.



**Recipe level C:** Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display, multiplier function, adjustment of recipe when dosages are exceeded or barcode recognition.



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



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



**Weighing principle: Strain gauge**  
Electrical resistor on an elastic deforming body.



**RS-485 data interface:** To connect the balance to a printer, PC or other peripherals. High tolerance against electromagnetic disturbance.



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



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



**USB data interface:** To connect the balance to a printer, PC or other peripherals.



**Percentage determination:** Determining the deviation in % from the target value (100 %).



**Weighing principle: Electromagnetic force compensation** Coil inside a permanent magnet. For the most accurate weighings.



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



**Weighing units:** Can be switched to e.g. non-metric units at the touch of a key. See balance model. Please refer to KERN's website for more details.



**Weighing principle: Single cell technology**  
Advanced version of the force compensation principle with the highest level of precision.



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



**Weighing with tolerance range:** Upper and lower limiting values can be programmed individually for e.g. dosing, sorting and portioning.



**Verification possible:**  
The time required for verification is specified in the pictogram.



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



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



**DAkKS calibration possible (DKD):** The time required for DAkKS calibration is shown in days in the pictogram.



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



**Protection against dust and water splashes IPxx:** The type of protection is shown in the pictogram.



**Package shipment:** The time required for internal shipping preparations is shown in days in the pictogram.



**Network interface:** For connecting the scale to an Ethernet network. With KERN products you can use a universal RS-232/LAN converter.



**ATEX explosion protection:** Suitable for use in hazardous industrial environments, in which there is explosion danger. The ATEX marking is specified for each device.



**Pallet shipment:** The time required for internal shipping preparations is shown in days in the pictogram.



**Wireless data transfer:** between the weighing unit and the evaluation unit using an integrated radio module.



**Stainless steel:** The balance is protected against corrosion.



**Warranty:** The warranty period is shown in the pictogram.



**GLP/ISO log:** The balance displays the weight, date and time, regardless of a printer connection.



**Suspended weighing:** Load support with hook on the underside of the balance.



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



**Battery operation:** Ready for battery operation. The battery type is specified for each device.

## KERN – Precision is our business

To ensure the high precision of your balance KERN offers you the the appropriate test weight in the international OIML error limit classes E1-M3 from 1 mg - 2500 kg. In combination with a DAkKS calibration certificate the best pre-requisite for proper balance calibration.

The KERN DAkKS calibration laboratory today is one of the most modern and best-equipped DAkKS calibration laboratories for balances, test weights and force-measurement in Europe.

Thanks to the high level of automation, we can carry out DAkKS calibration of balances, test weights and force-measuring devices 24 hours a day, 7 days a week.

### Range of services:

- DAkKS calibration of balances with a maximum load of up to 50 t
- DAkKS calibration of weights in the range of 1 mg – 2500 kg
- Volume determination and measuring of magnetic susceptibility (magnetic characteristics) for test weights
- Database supported management of checking equipment and reminder service
- Calibration of force-measuring devices
- DAkKS calibration certificates in the following languages DE, GB, FR, IT, ES, NL, PL
- Conformity evaluation and reverification of balances and test weights

## Your KERN specialist dealer: