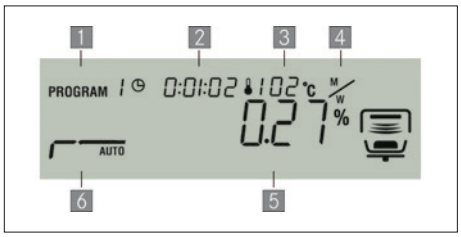

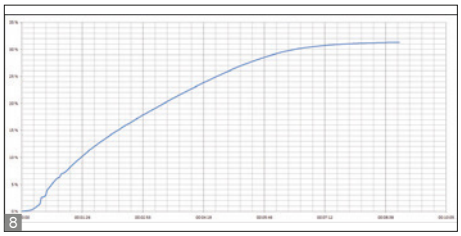

Moisture analyser with graphics display and 10 memories for drying programs

Features

- Backlit graphic display, digit height 15 mm
  - 1 Drying process active
  - 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

STANDARD

CAL EXT · MEMORY · RS 232 · GLP PRINTER · UNIT · 230 V · FORCE · 1 DAY

OPTION

USB · DAkkS +3 DAYS

Model KERN	DBS 60-3
Readout [d]	0,001 g/0,01 %
Weighing range [Max]	60 g
Reproducibility weight of sample 2 g	0,15 %
Reproducibility, weight of sample 10 g	0,02 %
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%	0–999 %
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 sec – 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
Option DAkkS Calibr. Certificate	Mass: KERN 963-127
Option Factory Calibr. Certificate	Temperature: KERN 964-305

- **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
- **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 or for determining dry mass in liquids, high mechanical stability, with organic binder, box of 100 pieces, KERN RH-A02
- **Round fiberglass filter** e.g. for samples that splash or become encrusted or for determining dry mass in liquids, medium mechanical stability, without organic binder, box of 100 pieces, KERN YMF-A01
- 7 **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
- 8 Display of the drying process in conjunction with BalanceConnection, KERN SCD-4.0
- **Thermal printer**, KERN YKB-01N
- **Matrix needle printer**, to print the weights on normal paper, ideal for long-term archiving, KERN 911-013
- **Label printer**, KERN YKE-01

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KERN Pictograms

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

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

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

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

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

RS-485 data interface: To connect the balance to a printer, PC or other peripherals. Suitable for data transfer over large distances. Network in bus topology is possible

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

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

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

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

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

Network interface: For connecting the scale to an Ethernet network

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

KERN Communication Protocol (KCP): It is a standardized interface command set for KERN balances and other instruments, which allows retrieving and controlling all relevant parameters and functions of the device. KERN devices featuring KCP are thus easily integrated with computers, industrial controllers and other digital systems

GLP/ISO log: The balance displays serial number, user ID, weight, date and time, regardless of a printer connection

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

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

Recipe level A: The weights of the recipe ingredients can be added together and the total weight of the recipe can be printed out

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

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

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

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

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

Weighing with tolerance range: (Check-weighing) Upper and lower limiting can be programmed individually, e.g. for sorting and dosing. The process is supported by an audible or visual signal, see the relevant model

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

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

Stainless steel: The balance is protected against corrosion

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

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

Rechargeable battery pack: Rechargeable set

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

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

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

Weighing principle: Strain gauges Electrical resistor on an elastic deforming body

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

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

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

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

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

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

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

KERN – 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: