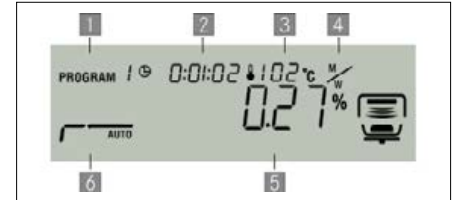


Moisture analyser KERN DBS



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Moisture analyser with high-quality single-cell weighing system for outstanding stability, reliability and response speed

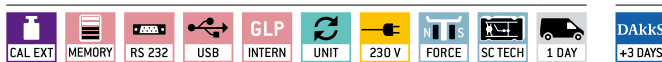
Features

- Tip: Suitable for samples with low moisture content, e.g. plastics
- 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

- 400 W halogen-quartz glass heater
- Excellent temperature control thanks to halogen technology, suitable for temperature-sensitive samples
- 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
- Password protection to prevent manipulation of stored settings, data, etc.

- Sample description for up to 99 samples, 2 digits, freely programmable, and is printed in the measuring protocol
- Date and time display as standard
- USB data interface for transferring weighing data to the PC, printer etc., *only in connection with DBS-A02
- 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

STANDARD



Modell KERN	DBS 60-3
Readability [d]	0,001 g/0,01 %
Weighing capacity [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	<input type="checkbox"/> Standard drying <input type="checkbox"/> Drying in levels <input checked="" type="checkbox"/> Gentle drying <input type="checkbox"/> 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 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

* application-dependent

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, medium mechanical stability, without organic binder, box of 100 pieces, KERN RH-A02
- 7 Temperature calibration set consists of measuring sensor and display device, KERN DBS-A01.
- 8 Visualisation of the drying process in connection with BalanceConnection, KERN SCD-4.0
- Software BalanceConnection, for flexible recording or transmission of measured values, in particular also to Microsoft® Excel or Access as well as transfer of this data to other Apps and programs, For details see the internet, Scope of supplies: 1 CD, 1 license, KERN SCD-4.0-DL
- USB 2.0 cable, KERN DBS-A04
- Thermal printer, KERN YKB-01N
- Matrix needle printer, to print the weights on normal paper, ideal for long-term archiving, KERN 911-013
- Affordable universal label printer to print out weights on thermal labels, KERN YKE-01



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



Easy Touch:

Suitable for the connection, data transmission and control through PC or tablet.



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.



KERN Universal Port (KUP):

allows the connection of external KUP interface adapters, e.g. RS-232, RS-485, SB, Bluetooth, WLAN, Analogue, Ethernet etc. for the exchange of data and control commands, without installation effort



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



WiFi 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.



Analogue interface:

to connect a suitable peripheral device for analogue processing of the measurements



Interface for second balance:

For direct connection of a second balance



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 computers, industrial controllers and other digital systems



GLP/ISO log:

The balance displays weight, date and time, independent 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



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. 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



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.



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 plug-in power supply:

with universal input and optional input socket adapters for

A) EU, CH, GB

B) EU, CH, GB, USA

C) EU, CH, GB, USA, AUS



Plug-in power supply:

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



Integrated power supply unit:

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



Factory calibration (ISO):

The time required for Factory 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