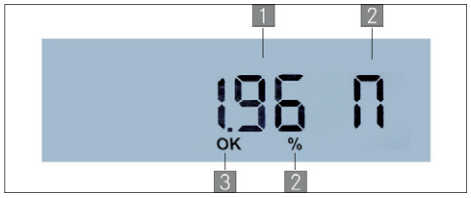
Moisture analyser KERN DLB



Robust moisture analyser for samples up to 160 g

STANDARD

CAL EXT | MEMORY | RS 232 | GLP PROTOCOL (nur mit Drucker) | UNIT | 230 V | DMS | 1 DAY | 3 YEARS WARRANTY

OPTION

DKD +3 DAYS

KERN	DLB 160-3A
Readout [d]	0,001 g / 0,01 %
Weighing range [Max]	160 g
Reproducibility, weight of sample 10 g	0,05 %
Display after drying (Display can be switched over at any time)	
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 [g] (M)	Absolute value in [g]
Temperature range	35 °C - 160 °C in steps up to 1 °C
Drying modes	• Standard drying • Rapid drying, Pre-heat level, can be switched on
Switch off criteria	• When the set time has expired 1 min - 99 min • When the weight loss per unit of time falls below the target value (60 sec)
Recall of measurement	• Continuous output (residual weight) • At the end of the drying process, manual or automatic (only in connection with KERN YKB-01N printer or PC)
Overall dimensions WxDxH	210x340x225 mm
Net weight	approx. 4,2 kg
Option DKD Calibr. Certificate	963-127

Features

- Backlit LCD display, digit height 17 mm
  1 Current moisture content in %
  2 Unit for displaying the results, e.g. % moisture
  3 Drying process active
- **Halogen quartz glass heater** 400 W
- **Internal memory** for automatic sequence of 5 complete drying processes
- The last value measured remains on the display until it is replaced by a new measurement
- **10 sample plates included**
- **Application handbook:** On the internet, you will find a practical application handbook containing many examples, field reports, adjustments and tips for each KERN moisture analyser

Accessories

- **Sample plates aluminium,** Ø 92 mm. Unit of 80 pieces, KERN MLB-A01
- **Round fiberglass filter** e.g. for samples that splash or become encrusted. Unit of 80 pieces, KERN RH-A02
- 5 **Temperature calibration set** consists of measuring sensor and display device, KERN DLB-A01
- **Protective working cover** standard, can be reordered, KERN PLJ-A01
- **Suitable printers** see page 138

KERN Pictograms

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

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

Memory: Balance contains memories, e.g. for item data, weighing data, tare weights etc. PLU.

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 peripheral devices. High tolerance against electromagnetic disturbance.

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

Bluetooth data interface: To transfer data from the balance to a printer, PC or other peripheral devices.

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. With KERN products you can also use a universal RS-232/LAN converter.

GLP/ISO record keeping: of weighing data with date, time and identification-no.
Only with printers from KERN.

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

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

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

Recipe level C: Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through displays. Additional convenient functions, such as barcode and back calculation functions.

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

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 with tolerance range: Upper and lower limiting can be programmed individually, e.g. dosing/sorting and portioning.

Vibration-free weighing: (Animal weighing program) Vibrations are filtered out so that a stable weight is obtained.

Spray and dust protection IPxx: The type of protection is shown by the pictogram.
For details see the glossary.

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.

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

Power supply: integrated in balance. 230V/50Hz in Germany. More standards e. g. GB, AUS, USA on request.

Strain gauges: Electrical resistor on an elastic deforming body.

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

Electromagnetic force compensation: Coil in a permanent magnet. For the most accurate weighings.

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.

DKD calibration possible: The time required for DKD calibration is shown in days in the pictogram.

Package shipment: The time required to manufacture the product internally is shown in days in the pictogram.

Pallet shipment: The time required to manufacture the product internally is shown in days in the pictogram.

Warranty: The warranty period is shown in the pictogram.

Precision is our business

To ensure the high precision of your balance KERN offers you the the appropriate test weight package for your balance, consisting of the test weight, box and DKD certificate, as proof of ist accuracy ... the best pre-requisite for proper balance calibration.

In the extensive KERN test weight range, you will find test weights in the international OIML error limit classes: E1, E2, F1, F2, M1, M2, M3 with weights from 1 mg - 2000 kg.

The KERN DKD calibration laboratory for electronic balances and weights has been accredited by DKD since 1994 and today is one of the most modern and best-equipped DKD calibration laboratories for balances, test weights and force-measurement in Europe.
(DKD = German Calibration Service)

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

Range of services:
- DKD calibration of balances with a maximum load of up to 6 t
- DKD calibration of weights in the range of 1 mg – 500 kg
- Database supported management of checking equipment and reminder service
- Calibration of force-measuring devices
- DKD calibration certificates in the following languages D, GB, F, I, E, NL, PL

Do you have questions about your scale, the corresponsing test weight or the calibration service ? Your KERN specialist dealer will be pleased to assist you.

Your KERN specialist dealer: