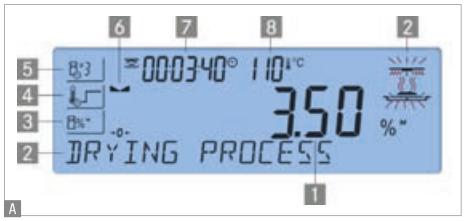
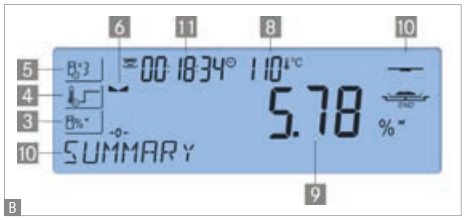
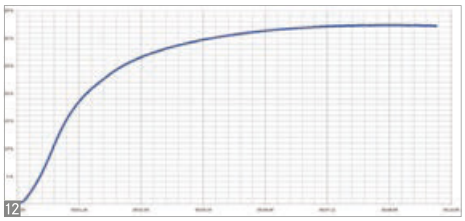
Moisture analyser KERN MLS-D







Infrared moisture analyzer with graphics display and a vast database

Features

- Backlit graphic display, digit height 14 mm
  - A **Display during the drying process:**
  - 1 Current moisture content in %
  - 2 Drying process active
  - 3 Active result display
  - 4 Active heating profile
  - 5 Active switch-off criteria
  - 6 Stability display
  - 7 Previous drying time
  - 8 Current temperature
  - B **Display after the drying process:**
  - 9 End result moisture content in %
  - 10 Drying process has finished
  - 11 Drying period
- **Infrared heater** 400 W
- **Observation window above the sample**, useful during initial setting

STANDARD: CAL EXT, MEMORY, RS 232, GLP INTERN, UNIT, 230 V, FORCE, 1 DAY, 3 YEARS WARRANTY
OPTION: DAkkS +3 DAYS

- **Balance contains memory** for automatic sequence of 100 complete drying programs (92 drying programs with optimised drying characteristics for rapid sample warming and therefore shorter drying times, pre-installed at factory), 100 users with related authorisations, 1.000 drying processes performed and 1.000 weighing results (ring memory)
- 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, settings and tips for each KERN moisture analyser

Model KERN	MLS 50-3D
Readout [d]	0,001 g/0,01 %
Weighing range [Max]	50 g
Reproducibility weight of sample 2 g	0,1 %
Reproducibility, weight of sample 10 g	0,02 %
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 (M)	Absolute value in [g]
Temperature range	40 °C - 160 °C in Schritten zu 1 °C
Drying modes	Standard drying Drying in levels Gentle drying Rapid drying
Switch off criteria	• Automatisches Abschalten (AUTO 1 - 5) • Automatisches freies Abschalten (wählbar 1 -10 mg / 10 - 120 s) • Zeitgesteuertes Abschalten (1min - 99h 59 min) • Manuelles Abschalten per Tastendruck
Recall of measurement / Log output	Manuell oder automatisch, Intervall einstellbar von 1 sec - 5 min (Nur in Verbindung mit Drucker KERN YKB-01N oder PC)
Overall dimensions W×D×H	206×333×192 mm
Net weight	ca. 4,9 kg
Option DAkkS Calibr. Certificate	963-127

Accessories

- **Protective working cover**, standard, can be re-ordered, scope of delivery: 5 items, KERN ALS-A02S05
- **Sample plates aluminium**, ⌀ 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 MLB-A12.
- 12 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).

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: 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. High tolerance against electromagnetic disturbance.

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

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

GLP/ISO log: The balance displays the 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: 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 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. 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 values can be programmed individually for e.g. dosing, sorting and portioning.

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.

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

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 gauge 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.

Warranty: The warranty period is shown 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: