

## Moisture analysers

Moisture analysing is an integral part of production and processing of many raw and finished products and has a crucial impact on the quality of the product.

Moisture analysers are used particularly in the food industry, water resource management (sewage plants, etc.), plastics industry, agriculture and the energy industry (bio-energy plants, etc.).

Determining moisture requires a great deal of experience. Depending on the type of sample and the task involved, various drying processes are used.

KERN has concentrated on the most widely-used drying method: halogen drying, which brings many advantages:

- Sample is evenly warmed from above, without risk of burning the sample surface
- Affordable purchase costs ensure rapid amortisation of the device
- Most common temperature ranges from 35 – 200 °C
- High measuring precision, up to 0.01 %
- Sufficient buffer capacity, weighing capacity up to 200 g
- Various drying programs (soft drying, standard drying, drying in levels, rapid drying (Boost))

The numerous memories of the KERN moisture analyser are particularly useful, as they hold information on the complete drying processes with drying parameters such as drying time, drying period, drying temperature, display settings, switch off criteria, etc. This saves an enormous amount of time and helps to achieve repeatable results.

On the internet, you will find a practical application handbook containing many examples, field reports, settings and tips for each KERN moisture analyser.





### Determination of drying parameters

We would be pleased to carry out individual analyses on the sample you submit, which will help you when setting the parameters of your moisture analyser and will lead to results which can be reproduced. KERN 965-243, € 95,-/hour

### Temperature calibration by KERN moisture analyzers (factory calibration certificate)

In order to guarantee the comparability of the results of moisture analyses it is crucial that the heating chamber and therefore the sample are maintained at the correct temperature. Over time, for example, deposits or dirt can contaminate the heating chamber of the moisture analyser and this can distort the measuring results. It is therefore necessary to carry out regular temperature calibration. KERN 964-305, € 140,-

## Quick-Finder Moisture analysers

Readability [d] g	Weighing capacity [Max] g	Model  KERN	Price excl. of VAT ex works €	Page	 DAYS	 CAL EXT	 MEMORY	 RS 232
For an explanation on the pictos, see front flap								
0,001	60	DBS 60-3	1270,-	47	1	●	●	●
0,001	110	DAB 100-3	1050,-	46	1	●	●	●
0,001	160	DLB 160-3A	1150,-	48	1	●	●	●
0,01	200	DAB 200-2	940,-	46	1	●	●	●

● = standard ○ = option

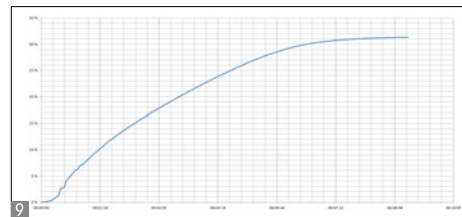
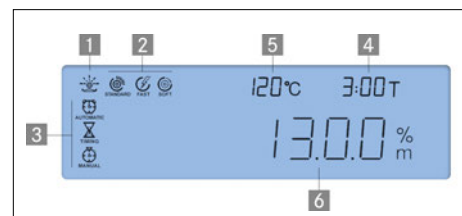
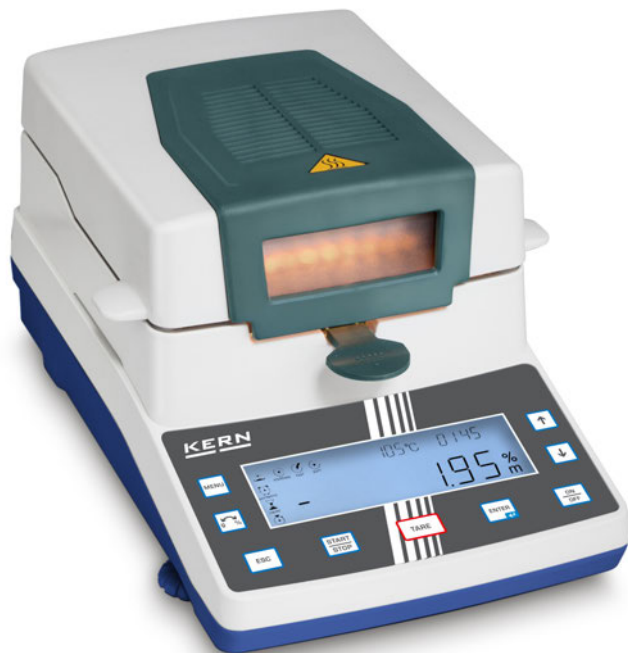
- ▷ **Powerful 400 W halogen quartz glass heater**
- ▷ **High process reliability thanks to 10 storable drying programs and 100 executed drying processes**
- ▷ **Up to 99 samples can be individually labelled and printed out in the measuring protocol**

**Jesús Martínez**  
Product specialist Moisture analysers  
Tel. +49 7433 9933-209  
Fax +49 7433 9933-29209  
jesus.martinez@kern-sohn.com



only €  
**1270,-**

# HIGHLIGHT



Particularly user-friendly moisture analyzer with high-quality halogen quartz glass heater- also available as version with [d] = 10 mg, ideal for recurring rapid tests

#### Features

- KERN DAB 200-2: Version with lower resolution, whereby the switch-off criterion is reached faster, which saves time. Ideal for quick tests and spot checks
- Backlit graphic display, digit height 14 mm

- 1 Drying process active
- 2 Active heating profile
- 3 Active switch-off criteria
- 4 Previous drying time
- 5 Current temperature
- 6 Current moisture content in %

- **Halogen quartz glass heater** 400 W
- **Observation window above the sample**, useful during initial setting
- **Internal memory** for automatic sequence of 15 complete drying processes and 5 drying processes carried out
- The last value measured remains on the display until it is replaced by a new measurement
- **50 sample plates included**

#### STANDARD



#### OPTION

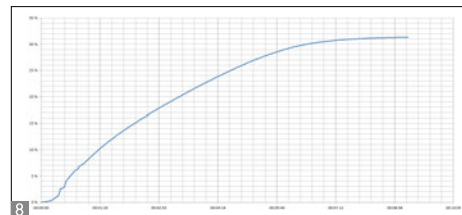


Model KERN	DAB 200-2	DAB 100-3
Readability [d]	0,01 g/0,05 %	0,001 g/0,01 %
Weighing capacity [Max]	200 g	110 g
Reproducibility weight of sample 2 g	1,5 %	0,15 %
Reproducibility, weight of sample 10 g	0,3 %	0,02 %
Display after drying (Display can be switched over at any time)		
Moisture [%] = Moisture content (M) from wet weight (W)	0 - 100 %	
Dry content [%] = Dry weight (D) from W	100 - 0 %	
Moisture content (M)	Absolute value in [g]	
Temperature range	40 °C - 199 °C in steps up to 1 °C	40 °C - 160 °C in steps up to 1 °C
Drying modes	<input type="checkbox"/> Standard drying <input type="checkbox"/> Gentle drying <input type="checkbox"/> Rapid drying	
Switch-off criteria	<ul style="list-style-type: none"> <li>• Automatic switch-off (2 mg loss in weight in 45 s)</li> <li>• Time controlled switch-off (3 min - 99 min 59 s, 10 s increments)</li> <li>• Manual switch-off at the press of a button</li> </ul>	
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	240×365×180 mm	
Net weight	4,82 kg	
Price €, excl. of VAT, ex works	940,-	1050,-
Option DAKKS Calibr. Certificate	Mass: KERN 963-127, € 72,-	
Option Factory Calibr. Certificate	Temperature: KERN 964-305, € 140,-	

- **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

- **Sample plates aluminium**, Ø 90 mm, unit of 80 pieces, KERN MLB-A01A, € 45,-
- **Round fiberglass filter** high mechanical stability, with organic binder, box of 100 pieces, KERN RH-A02, € 80,-
- **Round fiberglass filter**, medium mechanical stability, without organic binder, box of 100 pieces, KERN YMF-A01, € 40,-
- **Temperature calibration set** consists of measuring sensor and display device, KERN DAB-A01., € 110,-
- **Infrared quartz glass heater**, temperature range 40 °C-160 °C, Factory Option, KERN DAB-A02, € 165,-
- **RS-232/Ethernet adapter** for connection to an IP-based Ethernet network, KERN YKI-01, € 290,-
- **RS-232/Bluetooth adapter** to connect to Bluetooth capable devices, such as Bluetooth printers, tablets, laptops, smartphones, etc., KERN YKI-02, € 290,-
- **RS-232/WiFi adapter** for wireless connection to networks and WLAN capable devices, such as tablets, laptops or smartphones, KERN YKI-03, € 690,-
- **Display of the drying process** in conjunction with BalanceConnection, KERN SCD-4.0, € 150,-
- **Thermal printer**, KERN YKB-01N, € 310,-
- **Matrix needle printer**, to print the weights on normal paper, ideal for long-term archiving, KERN 911-013, € 390,-



## Moisture analyzer 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

- **Halogen quartz glass heater** 400 W
- 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

### STANDARD



### OPTION



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 type="checkbox"/> Gentle drying <input type="checkbox"/> Rapid drying
Switch-off criteria	<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>
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
Price €, excl. of VAT, ex works	1270,-
Option DAKKS Calibr. Certificate	Mass: KERN 963-127, € 72,-
Option Factory Calibr. Certificate	Temperature: KERN 964-305, € 140,-

- 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. \*Can only be used in combination with KERN 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

### Accessories

- **Protective working cover**, scope of delivery: 5 items, KERN DBS-A03S05, € 65,-
- **Sample plates aluminium**, Ø 90 mm, unit of 80 pieces, KERN MLB-A01A, € 45,-
- **Round fiberglass filter** high mechanical stability, with organic binder, box of 100 pieces, KERN RH-A02, € 80,-
- **Temperature calibration set** consists of measuring sensor and display device, KERN DBS-A01., € 450,-
- **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, € 290,-
- **Display of the drying process** in conjunction with BalanceConnection, KERN SCD-4.0, € 150,-
- **Thermal printer**, KERN YKB-01N, € 310,-
- **Matrix needle printer**, to print the weights on normal paper, ideal for long-term archiving, KERN 911-013, € 390,-
- **Label printer**, KERN YKE-01, € 590,-



The moisture analyser for heavy samples

Features

- Backlit LCD display, digit height 17 mm
  - 1 Current moisture content in %
  - 2 Unit for displaying the results
  - 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
- 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 ALJ-A01S05, € 40,-
- Sample plates aluminium, Ø 90 mm. unit of 80 pieces, KERN MLB-A01A, € 45,-
- 4 Round fiberglass filter high mechanical stability, with organic binder, box of 100 pieces, KERN RH-A02, € 80,-
- Round fiberglass filter, medium mechanical stability, without organic binder, box of 100 pieces, KERN YMF-A01, € 40,-
- 4 Temperature calibration set consists of measuring sensor and display device, KERN DLB-A01N., € 460,-
- Thermal printer, KERN YKB-01N, € 310,-
- Matrix needle printer, to print the weights on normal paper, ideal for long-term archiving, KERN 911-013, € 390,-

STANDARD

CAL EXT

MEMORY

RS 232

GLP PRINTER

UNIT

230 V

DMS

1 DAY

OPTION

DAkKS

+3 DAYS

Modell KERN	DLB 160-3A
Readability [d]	0,001 g/0,01 %
Weighing capacity [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 (M)	Absolute value in [g]
Temperature range	35 °C–160 °C in steps up to 1 °C
Drying modes	<input checked="" type="checkbox"/> Standard drying <input checked="" type="checkbox"/> Rapid drying, preheating can be switched on
Switch-off criteria	• Automatic unrestricted switch-off (Selectable loss in weight 0,1%-9,9% in 60 s) • Time controlled switch-off (1 min – 99 min) • Manual switch-off at the press of a button
Log output	• Continuous output (residual weight) • At the end of the drying process, manual or automatic (Only in connection with printer or PC)
Overall dimensions W×D×H	210×340×225 mm
Net weight	approx. 4,2 kg
Price €, excl. of VAT, ex works	1150,- <sup>1</sup>
Option DAkKS Calibr. Certificate	Mass: KERN 963-127, € 72,-
Option Factory Calibr. Certificate	Temperature: KERN 964-305, € 140,-

<sup>1</sup> Price reduction