

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 range up to 160 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

Read-out [d] g	Weighing range [Max] g	Model KERN	Price excl. of VAT ex works €	Page	DAYS	CAL EXT	MEMORY	RS 232
0,001	60	DBS 60-3	1270,-	42	1	●	●	●
0,001	110	DAB 100-3	1050,-	41	1	●	●	●
0,001	160	DLB 160-3A	1170,-	43	1	●	●	●

● = standard ○ = option

- ▶ **Powerful halogenquartz glass heater 400 W**
- ▶ **High level of process reliability thanks to drying programs which can be stored**
- ▶ **Memory for drying processes which have been carried out**

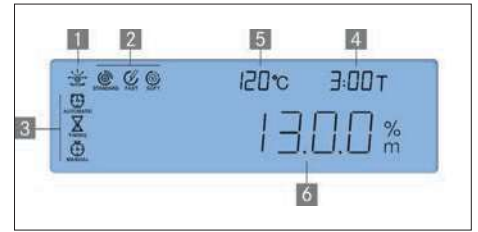


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KERN DAB



Moisture analyser with user-friendly graphics display and 15 memories for drying programs

Features

- 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**

- **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**, \varnothing 90 mm, unit of 80 pieces, KERN MLB-A01A, **€ 45,-**
- **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, **€ 80,-**
- **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, **€ 25,-**
- **Temperature calibration set** consists of measuring sensor and display device, KERN DAB-A01, **€ 110,-**
- **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, **€ 220,-**
- **RS-232/WiFi adapter** for wireless connection to networks and WLAN capable devices, such as tablets, laptops or smartphones, KERN YKI-03, **€ 750,-**
- **Thermal printer**, KERN YKB-01N, **€ 290,-**

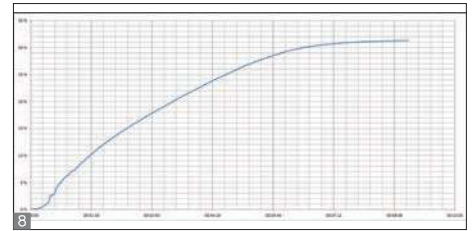
STANDARD

CAL EXT MEMORY RS 232 GLP UNIT 230 V DMS 1 DAY

OPTION

DAKKS +3 DAYS

Model KERN	DAB 100-3
Readout [d]	0,001 g/0,01 %
Weighing range [Max]	110 g
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 %
Moisture content (M)	Absolute value in [g]
Temperature range	40°C-199°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"> • Automatic switch off (2 mg loss in weight in 45 s) • Time controlled switch off (3 min - 99 min 59 sec, 10 s increments) • Manual switch off at the press of a button
Log output	• Manual at the end of the drying process, e. g. with KERN YKB-01N printer
Overall dimensions WxDxH	240x365x180 mm
Net weight	4,82 kg
Price €, excl. of VAT, ex works	1050,-
Option DAKKS Calibr. Certificate	Mass: KERN 963-127, € 72,-
Option Factory Calibr. Certificate	Temperature: KERN 964-305, € 140,-



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

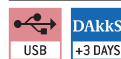
- Halogen quartz glass heater 400 W
- Observation window above the sample, useful during initial setting
- Internal memory for automatic sequence of 10 complete drying processes and 100 drying processes carried out
- The last value measured remains on the display until it is replaced by a new measurement

- **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

STANDARD



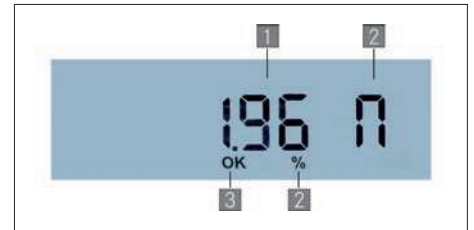
OPTION



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	<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"> • 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
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,-

Accessories

- **Protective working cover**, scope of delivery: 5 items, KERN DBS-A03S05, € 40,-
- **Sample plates aluminium**, ø 90 mm, unit of 80 pieces, KERN MLB-A01A, € 45,-
- **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, € 80,-
- **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, € 25,-
- **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, € 290,-
- **Matrix needle printer**, to print the weights on normal paper, ideal for long-term archiving, KERN 911-013, € 360,-
- **Label printer**, KERN YKE-01, € 590,-



The moisture analyser for heavy, high-volume 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

STANDARD



OPTION



Model 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 (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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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 W×D×H	210×340×225 mm
Net weight	approx. 4,2 kg
Price €, excl. of VAT, ex works	1 170,-
Option DAKKS Calibr. Certificate	Mass: 963-127, € 72,-
Option Factory Calibr. Certificate	Temperature: KERN 964-305, € 140,-

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,-
- **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, € 80,-
- **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, € 25,-
- **4 Temperature calibration set** consists of measuring sensor and display device, KERN DLB-A01, € 290,-
- **Thermal printer**, KERN YKB-01N, € 290,-
- **Matrix needle printer**, to print the weights on normal paper, ideal for long-term archiving, KERN 911-013, € 360,-