

School Balance KERN EMB-V

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School balance with integrated density determination function

Features

- Easy density determination: Thanks to the self-explanatory, graphic-assisted control panel, the density of solids and liquids can be determined in seconds, making them ideal for use in schools and universities. Note: Balance and appropriate set for density determination should be ordered at the same time, see *Accessories*
- Hook for underfloor weighing standard
- Self-explanatory, graphic control panel, the workings steps can be understood immediately, even without operating instructions
 - no learning time = reduces costs
 - ideal for untrained users
 - visualised process avoids operating errors
- The 4 steps are carried out from left to right:
 - 1** Tare the balance by pressing the [TARE] key
 - 2** Select density determination mode (solids/liquids)
 - 3** Weighing of samples/plummets in air
 - 4** Weighing of samples/plummets in liquid.
 The density will be shown on the display right away
- Particularly flat design

Technical data

- Large LCD display, digit height 15 mm
- Dimensions weighing surface, plastic
 - A Ø 82 mm
 - B Ø 150 mm, see larger picture
- Overall dimensions W×D×H 175×250×55 mm
- Batteries included, 9 V block, operating time up to 12 h, AUTO-OFF function preserves the battery
- Net weight approx. 0,85 kg
- Permissible ambient temperature 5 °C/35 °C
- Also with carat weighing unit:
EMB 200-3V: [Max] 1000 ct/ [d] 0,005 ct
EMB 2000-2V: [Max] 10000 ct/ [d] 0,05 ct

Accessories

KERN EMB 200-3V:

- **5** Ancillary kit for density determination of liquids and solids with density > 1. Scope of supplies: Bridge for holding the beaker (Ø 102 mm), hook (H 139 mm), KERN YDB-04
- **6** Set for density determination of liquids and solids with density ≤/≥ 1. Scope of delivery: Weighing plate, beaker (H×Ø 71×51 mm), sample holder, plummet, KERN YDB-01
- DAkkS-Calibration certificate for the plummet (20 g), KERN 962-335V

KERN EMB 2000-2V:

- **7** Set for density determination of liquids and solids with density ≤/≥ 1. Scope of delivery: Weighing plate, beaker (H×Ø 135×100 mm), sample holder, plummet KERN YDB-02
- DAkkS-Calibration certificate for the plummet (200 g), KERN 962-338V
- Thermometer, KERN YDB-A03

STANDARD



OPTION



Model	Weighing capacity	Readability	Reproducibility	Linearity	Weighing plate	Options
	[Max]	[d]				DAkkS Calibr. Certificate
KERN	g	g	g	g		DAkkS KERN
EMB 200-3V	200	0,001	0,002 g	± 0,005	A	963-127
EMB 2000-2V	2000	0,01	0,02 g	± 0,05	B	963-127

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

EasyTouch
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, WIFI, Analogue, Ethernet etc. for the exchange of data and control commands, without installation effort

RS-232 Data interface
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 intern
The balance displays weight, date and time, independent of a printer connection

GLP/ISO log Printer
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, US
C) EU, CH, GB, US, 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

Conformity Assessment
The time required for conformity assessment 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