

Compact laboratory balance KERN EMB-V



Compact laboratory balance with integrated density determination function

Features

- **Density determination made easy!** 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. For interesting facts about density determination see page 214
- Visualised process avoids operating errors
 - No learning time = reduces costs
 - Ideal for untrained users
- 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/plummet in air
 - 4 Weighing of samples/plummet in liquid. The density will be shown on the display right away
- **Particularly flat design**
- **Hook for underfloor weighing** standard

- **Ready for use:** battery 9 V block standard. AUTO-OFF function to preserve the batteries, can be switched off
- **Note:** Balance and appropriate set for density determination should be ordered at the same time, see accessories

Technical data

- Large LCD display, digit height 15 mm
- Weighing plate dimensions, stainless steel, plastic, Ø
 - A 82 mm, with conductive lacquer
 - B 150 mm, see enlarged picture. The illustration shows the EMB 2000-2V model with optional density set YDB-02
- Overall dimensions WxDxH 170x240x54 mm
- Net weight approx. 0,8 kg
- Permissible ambient temperature 5 °C / 35 °C
- **New:** Now also with carat weighing unit:
 - EMB 200-3V: 1000 ct / 0,005 ct
 - EMB 2000-2V: 10000 ct / 0,05 ct

Accessories

- for KERN EMB 200-3V:**
- **5 Set for density determination** of liquids and solids with density $\leq/\geq 1$. Scope of delivery: Weighing plate, beaker (HxØ 71x51 mm), sample holder, plummet, KERN YDB-01
 - **Calibration certificate for the plummet** (20 g), KERN 962-335V
- for KERN EMB 2000-2V:**
- **6 Set for density determination** of liquids and solids with density $\leq/\geq 1$. Scope of delivery: Weighing plate, beaker (HxØ 135x51 mm), sample holder, plummet, KERN YDB-02
 - **Calibration certificate for the plummet** (200 g), KERN 962-338V

STANDARD								OPTION	
CAL EXT	RS 232	UNDER	BATT	230 V	DMS	1 DAY	2 YEARS WARRANTY	DAKKS	+3 DAYS

Model	Weighing range	Readout	Reproducibility	Linearity	Weighing plate	Option	
						DAKKS Calibr. Certificate	
KERN	[Max] g	[d] g	g	g		DKD KERN	
EMB 200-3V	200	0,001	0,002	± 0,005	A	963-127	
EMB 2000-2V	2000	0,01	0,02	± 0,05	B	963-127	

KERN Pictograms:



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



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



Suspended weighing: Load support with hook on the underside of the balance.



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



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



Battery operation: Ready for battery operation. The battery type is specified for each device.



Memory: Balance memory capacity, e.g. for article data, weighing data, tare weights, PLU etc.



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



Rechargeable battery pack: Rechargeable set.



Alibi memory: Electronic archiving of weighing results, complying with the 2009/23/EC standard.



Recipe level C: Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display, adjustment of recipe when dosages are exceeded, multiplier function, barcode.



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



Data interface RS-232: To connect the balance to a printer, PC or network.



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



RS-485 data interface: To connect the balance to a printer, PC or other peripherals. High tolerance against electromagnetic disturbance.



Totalising level A: The weights of similar items can be added together and the total can be printed out.



Power supply: Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, USA or AUS on request.



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



Totalising level C: Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display, adjustment of recipe when dosages are exceeded, multiplier function, barcode recognition.



Weighing principle: Strain gauge
Electrical resistor on an elastic deforming body.



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



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



WLAN data interface: To transfer data from the balance to a printer, PC or other peripherals.



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



Weighing principle: Electromagnetic force compensation Coil inside a permanent magnet. For the most accurate weighings.



Control outputs (optocoupler, digital I/O): To connect relays, signal lamps, valves, etc.



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 principle: Single cell technology
Advanced version of the force compensation principle with the highest level of precision.



Interface for second balance: For direct connection of a second balance.



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



Verification possible:
The time required for verification is specified in the pictogram.



Network interface: For connecting the scale to an Ethernet network. With KERN products you can use a universal RS-232/LAN converter.



Hold function: (Animal weighing program) When the weighing conditions are unstable, a stable weight is calculated as an average value.



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



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



Protection against dust and water splashes IPxx: The type of protection is shown in the pictogram.



Package shipment: The time required for internal shipping preparations is shown in days in the pictogram.



GLP/ISO log: The balance displays the weight, date and time, regardless of a printer connection.



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



Pallet shipment: The time required for internal shipping preparations is shown in days in the pictogram.



GLP/ISO log: With weight, date and time. Only with KERN printers.



Stainless steel: The balance is protected against corrosion.



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 - 2000 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
- Database supported management of checking equipment and reminder service
- Calibration of force-measuring devices
- DAKkS calibration certificates in the following languages D, GB, F, I, E, NL, PL

Your KERN specialist dealer: