KERN BALANCES & TEST SERVICES CATALOGUE 2020

School balance KERN EMB-V











School 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
- 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 le to right:
 Tare the balance by pressing the [TARE] key
 Select density determination mode (solids/liquids)

Weighing of samples/plummets in air
Weighing of samples/plummets in liquid.
The density will be shown on the display right away

- Particularly flat design
- Hook for underfloor weighing standard
- Ready for use: Batteries included, 9 V-Block, operating time up to 12 h, AUTO-OFF function to preserve the battery

• 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
- Dimensions weighing surface, plastic

 Ø 82 mm
- Ø 150 mm, see larger picture
- Overall dimensions W×D×H 175×245×54 mm
- Net weight approx. 0,85 kg
- Permissible ambient temperature 5 °C/35 °C
- Now also with carat weighing unit: EMB 200-3V: 1000 ct/0,005 ct EMB 2000-2V: 10000 ct/0,05 ct

Accessories

KERN EMB 200-3V:

- If Ancillary kit for density determination of liquids and solids with density > 1. Scope of supplies: Weighing plate (Ø 102 mm), hook (H 139 mm), suitable for models with weighing plate size III, KERN YDB-04
- Iset for density determination of liquids and solids with density ≤/≥ 1. Scope of delivery: Weighing plate, beaker (Hר 71×51 mm), sample holder, plummet, KERN YDB-01
- DAkkS-Calibration certificate for the plummet (20 g), KERN 962-335V

KERN EMB 2000-2V:

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



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

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Internal adjusting:

Quick setting up of the balance's accuracy with CAL INT internal adjusting weight (motordriven)

Adjusting program CAL:

For quick setting up of the balance's accuracy. External adjusting weight required



CAL EXT

Easy Touch:

Suitable for the connection, data transmission and control through PC, tablet or smartphone Memory:

Balance memory capacity, e.g. for article data,

MEMORY

weighing data, tare weights, PLU etc. Alibi memory: Secure, electronic archiving of weighing results,

ALIBI complying with the 2014/31/EU standard.

Data interface RS-232:

• 6550 • To connect the balance to a printer, PC or RS 232 network

RS-485 data interface:

• 6534 • To connect the balance to a printer, PC or other RS 485 peripherals. Suitable for data transfer over large distances. Network in bus topology is possible



USB data interface:

Bluetooth* data interface:

To connect the balance to a printer, PC or other peripherals

₿ BT

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.

to connect a suitable peripheral device for ANALOG

analogue processing of the measurements Interface for second balance:

For direct connection of a second balance



Network interface:

Analogue interface:

For connecting the scale to an Ethernet network



LAN

Wireless data transfer:

between the weighing unit and the evaluation unit using an integrated radio module

*The Bluetooth[®] word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by KERN & SOHN GmbH is under license. Other trademarks and trade names are those of their respective owners.

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 bestequipped 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

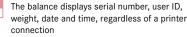


PCS

PROTOCOL

GLP/ISO log:

digital systems



KERN Communication Protocol (KCP):

It is a standardized interface command set for

KERN balances and other instruments, which

parameters and functions of the device. KERN

devices featuring KCP are thus easily integrated

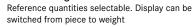
with computers, industrial controllers and other

allows retrieving and controlling all relevant

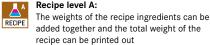
GLP/ISO log:

With weight, date and time. Only with KERN PRINTER printers

Piece counting:



Recipe level A:



Recipe level B:

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

Recipe level C: ∠^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:

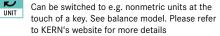
The weights of similar items can be added SUM together and the total can be printed out



Percentage determination:

Determining the deviation in % from the target value (100 %)

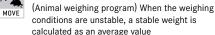
Weighing units: C

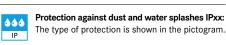


Weighing with tolerance range: ○ 3)

(Checkweighing) Upper and lower limiting can TOL be programmed individually, e.g. for sorting and dosing. The process is supported by an audible or visual signal, see the relevant model

M--Hold function:





KERN

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 BATT specified for each device



INOX

Rechargeable battery pack: Rechargeable set



Universal mains adapter:

with universal input and optional input socket adapters for A) EU, CH, GB; B) EU, CH, GB, USA; C) EU, CH, GB, USA, AUS

Mains adapter:

230V/50Hz in standard version for EU, CH. 230 V 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 gauges Electrical resistor on an elastic deforming body

(((1))) T-FORK

s T

Weighing principle: Tuning fork A resonating body is electromagnetically

excited, causing it to oscillate

Weighing principle: Electromagnetic force

compensation FORCE Coil inside a permanent magnet. For the most accurate weighings

SC TECH

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

Μ

Verification possible: The time required for verification is specified in

Package shipment:

Pallet shipment:

DAkkS calibration possible:

is shown in days in the pictogram

The time required for DAkkS calibration

The time required for internal shipping

The time required for internal shipping

preparations is shown in days in the pictogram

preparations is shown in days in the pictogram

the pictogram

+3 DAYS

DAkkS

+3 DAYS

1 DAY

2 DAYS

Your KERN specialist dealer: