## School Balance KERN EMB















# Entry level laboratory balance with tremendous weighing performance

## Features

- · Simple and convenient 2-key operation
- Tare function facilitates formulation work
- · Particularly flat design
- · Ready for use: Batteries included
- A Ring-shaped draught shield standard, only for models with weighing plate size A, weighing space Ø×H 96×35 mm
- · Hook for underfloor weighing standard
- 1 Also available as KERN EMB 500-1BE Black Edition
- · Note: With the optional auxiliary set for density determination KERN YDB-04 also well suited for school and teaching operation, see Accessories

## Technical data

- · Large LCD display, digit height 15 mm
- · Dimensions weighing surface
- A Ø 82 mm, plastic, with conductive lacquer
- **■** Ø 105 mm, plastic
- **©** Ø 150 mm, plastic, see larger picture
- · Overall dimensions W×D×H
- A 170×244×54 mm
- B, C 170×244×39 mm
- · Batteries included, 9 V block, respectively 2×1.5 V AA
- · Net weight approx. 0,85 kg
- Permissible ambient temperature 5 °C/35 °C

## Accessories

- · Stainless steel weighing plate, only for models with weighing plate size B, KERN FMB-A02
- · External universal mains adapter, with universal input and optional input socket adapters for EU, CH, GB, US, KERN YKA-03N
- 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

## STANDARD



















Model	Weighing capacity	Readability	Reproducibility	Linearity	Weighing plate	Options
	[Max]	[d]				DAkkS Calibr. Certificate DAkkS
KERN	g	g	g	g		KERN
EMB 100-3	100	0,001	0,001 g	± 0,005	А	963-127
EMB 200-3	200	0,001	0,001 g	± 0,005	А	963-127
EMB 200-2	200	0,01	0,01 g	± 0,02	В	963-127
EMB 600-2	600	0,01	0,01 g	± 0,03	В	963-127
EMB 1000-2	1000	0,01	0,01 g	± 0,05	С	963-127
EMB 2000-2	2000	0,01	0,01 g	± 0,05	C	963-127
EMB 500-1	500	0,1	0,1 g	± 0,2	C	963-127
EMB 500-1BE	500	0,1	0,1 g	± 0,2	C	963-127
EMB 1200-1	1200	0,1	0,1 g	± 0,3	C	963-127
EMB 3000-1	3000	0,1	0,1 g	± 0,3	C	963-127
EMB 6000-1	6000	0,1	0,1 g	± 0,3	C	963-128
EMB 2200-0	2200	1	1 g	± 2	C	963-127
EMB 5.2K1	5200	1	1 g	± 3	C	963-128
EMB 5.2K5	5200	5	5 g	± 10	C	963-128

**KERN Pictograms** 





### 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



## **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

Weighing units Can be switched to e.g.



(100 %)

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 vlagus

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

