

IoT-Line Bench Scale KERN FCB













The new FCB: Checkweighing and portioning scale with up to three interfaces

Features

- · Standardised, convenient KERN concept of operation, consistency across products in terms of design, menu structure, button functions, interface connection and interface protocol
- · Compact size, practical for small spaces
- Industry 4.0: Data and control commands can be exchanged through the KERN Universal Port using one interface, which can be connected to the housing, or through three parallel interfaces using the KUP Extension box. The following interfaces are available as an option: RS-232, USB, Ethernet, WiFi, Bluetooth
- Data query and remote control of the balance using a computer or CRM/ERP systems using the KERN Communication Protocol
- · For further information on KUP and KCP see page 20/21
- · High mobility: Thanks to battery operation/ rechargeable battery operation (optional), compact, lightweight construction, it is suitable for the use in several locations (production, warehouse, dispatch department, etc.)

- Weighing with tolerance range (checkweighing): Input of two upper and two lower limit values through four arrow keys. An audible and visual signal assists with the portioning, dispensing or grading
- · Summation of weight values
- · Protective working cover included with delivery

Technical data

- · Backlit LCD display, digit height 24 mm
- · Dimensions weighing surface, stainless steel, W×D 252×225 mm
- Overall dimensions W×D×H 322×267×91 mm
- Optional battery operation, 4×1.5 V AA not included in scope of delivery, operating time up to 20 h
- · Net weight approx. 3,8 kg
- Permissible ambient temperature 0 °C/40 °C

Accessories

- · Protective working cover, scope of delivery 5 items, KERN YBA-A14S05
- II Signal lamp for visual support of weighing with tolerance range. connection is only possible in combination with KUP-01 (RS 232 interface), KERN CES-A03
- · Internal rechargeable battery pack, operating time up to 48 h without backlight, charging time approx. 8 h, KERN YKR-01
- · External data interface RS-232, interface cable included, KERN KUP-01
- · External data interface USB, interface cable included, KERN KUP-03
- · Interface adapter Ethernet, KERN KUP-04
- Interface adapter WiFi, KERN KUP-05
- · Bluetooth interface adapter, KERN KUP-06
- 2 Extension box for connecting up to three interfaces in parallel, KERN KUP-13
- · Further details, plenty of further accessories and suitable printers see Accessories

STANDARD









































Model		Weighing capacity [Max]	Readability [d]	Reproducibility	Linearity	Smallest part weight (Normal)	Resolution	Options DAkkS Calibr. Certificate DAkkS
KERN		kg	g	g	g	g/piece	Points	KERN
FCB 6K-5	NEW	6	0,05	0,05	± 0,15	0,5	120.000	963-128
FCB 8K0.1	NEW	8	0,1	0,1	± 0,3	1	80.000	963-128
FCB 12K-4	NEW	12	0,1	0,1	± 0,3	1	120.000	963-128
FCB 12K1	NEW	12	1	1	± 3	10	12.000	963-128
FCB 30K-4	NEW	30	0,2	0,2	± 0,6	2	150.000	963-128
FCB 30K1	NEW	30	1	1	± 3	10	30.000	963-128

New model



BALANCES & TEST SERVICE 2024

KERN Pictograms



Conformity Assessment

conformity assessment is

specified in the pictogram

The time required for

DAkkS calibration

DAkkS calibration

pictogram

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is shown in days in the

The time required for

Package shipment

The time required for

in the pictogram

Pallet shipment

in the pictogram

The time required for

internal shipping prepa-

rations is shown in days

internal shipping prepa-

rations is shown in days

in days in the pictogram

Factory calibration (ISO)

Factory calibration is shown

possible (DKD)

M

DAkkS

+3 DAYS

ISO

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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 A

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



