

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

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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

# **BALANCES & TEST SERVICE 2024**

**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 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 recipés 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



 $\mathcal{Z}$ 

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



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