KERN BALANCES & TEST SERVICES 2022

KERN

Counting scale KERN CFS





Professional, high-resolution counting scale with 100 item memories and second balance interface, counting resolution up to 75,000 points

Features

- Memory (PLU) for 100 items with additional text, reference weight and tare weight, e.g. of a container
- Precise counting: The automatic reference weight optimisation of reference weight gradually improves the average piece weight value
- Programmable using numerical key pad: - required reference quantity
- known reference weight
- Three displays for weight display, reference weight, total pieces
- Weighing with tolerance range (checkweighing): a visual and audible signal helps with portioning, dispensing or grading
- Fill-to-target function Programmable target quantity or target weight. A signal will be displayed when the target value is reached
- PRE-TARE function for manual subtraction of a known container weight, useful for checking fill-levels

- Second balance interface to construct a high-resolution counting system, standard, e.g. with weighing bridges of KERN KFP V20
- Draught shield standard for models with weighing plate size A, weighing space W×D×H 158×143×64 mm
- Protective working cover included with delivery, for models with weighing plate size
 A, B

Technical data

- Large backlit LCD displays, digit height 20 mm
- Dimensions weighing surface
- ▲ Ø 80 mm ■ W×D 295×225 mm
- W×D 370×240 mm
- Overall dimensions W×D×H
- 🖪 315×350×180 mm (incl. draught shield)
- 315×350×180 mm
- C 375×350×130 mm
- Permissible ambient temperature 0 °C/40 °C

Accessories

- Protective working cover, scope of delivery:
 5 items, for models with weighing plate size
 A, B, KERN CFS-A02S05
- Internal rechargeable battery pack, operating time up to 70 h without backlight, charging time approx. 14 h, KERN GAB-A04
- Signal lamp for visual support of weighing with tolerance range, only in combination with, KERN CFS-A03
- Y-cable for parallel connection of two terminal devices to the RS-232 interface on the scale, e.g. signal lamp and printer, KERN CFS-A04
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD				OPTION	
CAL EXT MEMORY RS 232	KCP PROTOCOL DUAL	SUM TOL MULTI	DMS 1 DAY		kks Days

Model	Weighing capacity	Readability	Smallest part weight	Counting resolution	Net weight	Weighing plate	Option DAkkS Calibr. Certificate	
KERN	[Max] kg	[d] g	[Normal] g/piece	Points	approx. kg		DAkkS KERN	
CFS 300-3	0,3	0,001	0,05	60.000	2,6	A	963-127	
CFS 3K-5	3	0,01	0,5	60.000	3,4	В	963-127	
CFS 6K0.1	6	0,1	1	60.000	3,2	В	963-128	
CFS 15K0.2	15	0,2	2	75.000	3,4	В	963-128	
CFS 30K0.5	30	0,5	5	60.000	3,4	В	963-128	
CFS 50K-3	50	1	10	50.000	4,4	C	963-128	

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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



Easy Touch:

Suitable for the connection, data transmission and control through PC or tablet.

Memory: 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.

Data interface RS-232:

• 6558.• To connect the balance to a printer, PC or RS 232 network



RS-485 data interface:

To connect the balance to a printer, PC or other peripherals. Suitable for datatransfer 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:

KERN – Precision is our business

For direct connection of a second balance



balance calibration.

ment in Europe

Range of services:

characteristics) for test weights

· Calibration of force-measuring devices

Network interface:

For connecting the scale to an Ethernet network

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

The KERN DAkkS calibration laboratory today is one of the most modern and bestequipped DAkkS calibration laboratories for balances, test weights and force-measure-

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.

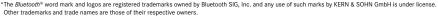
· Volume determination and measuring of magnetic susceptibility (magnetic

· Conformity evaluation and reverification of balances and test weights

· Database supported management of checking equipment and reminder service

· DAkkS calibration certificates in the following languages DE, EN, FR, IT, ES, NL, PL

· 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





KCP

PROTOCOL

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

Piece counting:

connection

digital systems GLP/ISO log:

Reference quantities selectable. Display can PCS be switched from piece to weight

KERN Communication Protocol (KCP):

It is a standardized interface command set for

KERN balances and other instruments, which

devices featuring KCP are thus easily integrated

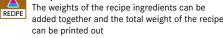
with computers, industrial controllers and other

The balance displays serial number, user ID,

weight, date and time, regardless of a printer

allows retrieving and controlling all relevant parameters and functions of the device. KERN

Recipe level A:



Recipe level B:

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

Totalising level A:

Η' 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:

Can be switched to e.g. nonmetric units. See UNIT 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 MOVE conditions are unstable, a stable weight is calculated as an average value



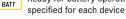
Protection against dust and water splashes IPxx:

The type of protection is shown in the pictogram.

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

Battery operation:







Ready for battery operation. The battery type is

Rechargeable battery pack: Rechargeable set



Universal plug-in power supply:

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

1	DMS

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:

DAkkS calibration possible (DKD):

is shown in days in the pictogram

Factory calibration (ISO):

Package shipment:

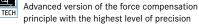
Pallet shipment:

The time required for DAkkS calibration

The time required for Factory calibration

The time required for internal shipping preparations

The time required for internal shipping preparations



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

М +3 DAYS

DAkkS

+3 DAYS

ISO

+4 DAYS

1 DAY

ò

2 DAYS

Your KERN specialist dealer: