## 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 Ⓐ, weighing space W×D×H 158×143×64 mm
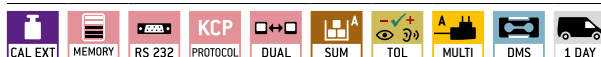- Protective working cover included with delivery, for models with weighing plate size Ⓐ, Ⓑ

### 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
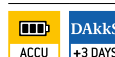  - Ⓒ 375×350×130 mm
- Permissible ambient temperature 0 °C/40 °C

### Accessories

- Protective working cover, scope of delivery: 5 items, for models with weighing plate size Ⓐ, Ⓑ, 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**

| CAL EXT | MEMORY | RS 232 | KCP PROTOCOL | DUAL | SUM | TOL | MULTI | DMS | 1 DAY |

**OPTION**

| ACCU | DAkkS +3 DAYS |

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

## 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, tablet or smartphone.

**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:**
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:**
The balance displays serial number, user ID, weight, date and time, regardless of a printer connection

**GLP/ISO log:**
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 at the touch of a key. 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 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. 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

**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

**Verification possible:**
The time required for verification 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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## 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 best-equipped 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, EN, FR, IT, ES, NL, PL
· Conformity evaluation and reverification of balances and test weights

## Your KERN specialist dealer: