

## Counting system KERN CCS



Counting system to count the smallest parts in the largest quantities, counting resolution up to 999,999 points

#### Features

- The highly accurate KERN CCS counting system can replace a whole range of individual balances, efficiently and at a reasonable price

#### Reference scale KERN CFS

- This professional counting scale, which can also be used as a stand-alone scale, meets the highest demands for accuracy, weighing capacity and volume of items, by being connected to a high-capacity weighing bridge
- **Programmable using numerical key pad:**
  - required reference quantity
  - known reference weight
- **Three displays** for weight display reference weight, total pieces
- **Memory (PLU)** for 100 items with additional text, reference weight and tare weight, e.g. of a container
- **Fill-to-target function**  
Programmable target quantity or target weight. A signal will be displayed when the target value is reached
- **Precise counting:** The automatic reference weight optimisation of reference weight gradually improves the average piece weight value
- **Protective working cover** included with delivery

#### Quantity scale KERN KFP-V20 IP65, KFP-V20 IP67, KFU-V20

- The high-accuracy quantity counting takes place on the weighing platform (= weighing bridge) KERN CCS. In this way even the smallest of parts can be counted in large volumes
- **Weighing plate stainless steel**, painted steel base, for models with weighing plate size **A-E**
- **Aluminium Single-Point load cell** (1×3000 e), protection against dust and water splashes IP65

#### Technical data

##### Reference scale KERN CFS

- Overall dimensions W×D×H 320×350×180 mm
- Dimensions weighing surface, stainless steel
  - I** CFS 300-3: Ø 80 mm
  - CFS 3K-5, CFS 6K0.1: W×D 300×225 mm
- Net weight approx. 2,6 kg
- Connection cable approx.
  - A-E** 2,5 m
  - F-H** 5 m

##### Quantity platform KERN KFP-V20 IP65

- Weighing plate dimensions W×D×H, stainless steel
  - A** 230×230×110 mm
  - B** 300×240×110 mm
  - C** 400×300×125 mm
  - D** 500×400×137 mm
  - E** 650×500×135 mm

##### Quantity weighing bridge KERN KFP-V20 IP67

- Weighing plate dimensions W×D×H, Lacquered steel
  - F** 1000×1000×80 mm
  - G** 1500×1250×80 mm

##### Quantity pallet scale KERN KFU-V20

- Weighing plate dimensions W×D×H, Lacquered steel
  - H** 840×1300×90 mm

## Counting system KERN CCS



### Accessories

- **Protective working cover**, scope of delivery: 5 items, KERN CFS-A02S05
- **Rechargeable battery pack internal**, operating time up to 60 h without backlight, charging time approx. 12 h, KERN GAB-A04
- **Signal lamp** for visual support of weighing with tolerance range, **Signal lamp** for visual support of weighing with tolerance range, KERN CFS-A03
- Further details, plenty of further accessories and suitable printers see *Accessories*

Information on other high-capacity bulk balances, such as, for example, pallet scales, drive-through scales or floor scales is available on request, for information on other counting systems with the KERN CFS reference balance (d = 0.1 g), please refer to the website

#### STANDARD



#### OPTION



with  
[Max]>  
600 kg

Model	Weighing capacity Quantity scale [Max] kg	Readability Quantity scale [d] g	Weighing plate	Weighing capacity Reference scale [Max] g	Readability Reference scale [d] g	Counting resolution Points	Smallest part weight [Normal] g/piece	Option	
								DAkkS KERN	DAkkS Calibr. Certificate
<b>CCS 6K-6</b>	6	0,2	A	300	0,001	1.200.000	0,05	962-128-127	
<b>CCS 10K-6</b>	15	0,5	B	300	0,001	3.000.000	0,05	962-128-127	
<b>CCS 30K0.01.</b>	30	1	C	3000	0,01	600.000	0,5	962-128-127	
<b>CCS 30K0.1.</b>	30	1	C	6000	0,1	300.000	1	962-128-128	
<b>CCS 60K0.01.</b>	60	2	C	3000	0,01	1.200.000	0,5	962-129-127	
<b>CCS 60K0.01L.</b>	60	2	D	3000	0,01	1.200.000	0,5	962-129-127	
<b>CCS 60K0.1.</b>	60	2	C	6000	0,1	600.000	1	962-129-128	
<b>CCS 60K0.1L.</b>	60	2	D	6000	0,1	600.000	1	962-129-128	
<b>CCS 150K0.01</b>	150	5	D	3000	0,01	3.000.000	0,5	962-129-127	
<b>CCS 150K0.01L</b>	150	5	E	3000	0,01	3.000.000	0,5	962-129-127	
<b>CCS 150K0.1.</b>	150	5	D	6000	0,1	1.500.000	1	962-129-128	
<b>CCS 150K0.1L</b>	150	5	E	6000	0,1	1.500.000	1	962-129-128	
<b>CCS 300K0.01</b>	300	10	E	3000	0,01	6.000.000	0,5	962-129-127	
<b>CCS 300K0.1</b>	300	10	E	6000	0,1	3.000.000	1	962-129-128	
<b>CCS 600K-2</b>	600	200	F	3000	0,01	12.000.000	0,5	962-130-127	
<b>CCS 600K-2U</b>	600	200	H	3000	0,01	12.000.000	0,5	962-130-127	
<b>CCS 1T-1L</b>	1500	500	G	6000	0,1	15.000.000	1	962-130-128	
<b>CCS 1T-1U</b>	1500	500	H	6000	0,1	15.000.000	1	962-130-128	
<b>CCS 3T-1</b>	3000	1000	G	6000	0,1	30.000.000	1	962-132-128	

## Pictograms

<b>Internal adjusting:</b> Quick setting up of the balance's accuracy with internal adjusting weight (motordriven)	<b>KERN Communication Protocol (KCP):</b> 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	<b>Protection against dust and water splashes IPxx:</b> The type of protection is shown in the pictogram.
<b>Adjusting program CAL:</b> For quick setting up of the balance's accuracy. External adjusting weight required	<b>GLP/ISO log:</b> The balance displays serial number, user ID, weight, date and time, regardless of a printer connection	<b>Stainless steel:</b> The balance is protected against corrosion
<b>Easy Touch:</b> Suitable for the connection, data transmission and control through PC, tablet or smartphone	<b>GLP/ISO log:</b> With weight, date and time. Only with KERN printers	<b>Suspended weighing:</b> Load support with hook on the underside of the balance
<b>Memory:</b> Balance memory capacity, e.g. for article data, weighing data, tare weights, PLU etc.	<b>Piece counting:</b> Reference quantities selectable. Display can be switched from piece to weight	<b>Battery operation:</b> Ready for battery operation. The battery type is specified for each device
<b>Alibi memory:</b> Secure, electronic archiving of weighing results, complying with the 2014/31/EU standard.	<b>GLP/ISO log:</b> With weight, date and time. Only with KERN printers	<b>Rechargeable battery pack:</b> Rechargeable set
<b>Data interface RS-232:</b> To connect the balance to a printer, PC or network	<b>Recipe level A:</b> The weights of the recipe ingredients can be added together and the total weight of the recipe can be printed out	<b>Universal mains adapter:</b> with universal input and optional input socket adapters for A) EU, CH; B) EU, CH, GB, USA; C) EU, CH, GB, USA, AUS
<b>RS-485 data interface:</b> To connect the balance to a printer, PC or other peripherals. Suitable for data transfer over large distances. Network in bus topology is possible	<b>Recipe level B:</b> Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display	<b>Mains adapter:</b> 230V/50Hz in standard version for EU. On request GB, USA or AUS version available
<b>USB data interface:</b> To connect the balance to a printer, PC or other peripherals	<b>Recipe level C:</b> Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display, multiplier function, adjustment of recipe when dosages are exceeded or barcode recognition	<b>Power supply:</b> Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, USA or AUS on request
<b>Bluetooth* data interface:</b> To transfer data from the balance to a printer, PC or other peripherals	<b>Totalising level A:</b> The weights of similar items can be added together and the total can be printed out	<b>Weighing principle: Strain gauges</b> Electrical resistor on an elastic deforming body
<b>WLAN data interface:</b> To transfer data from the balance to a printer, PC or other peripherals	<b>Percentage determination:</b> Determining the deviation in % from the target value (100 %)	<b>Weighing principle: Tuning fork:</b> A resonating body is electromagnetically excited, causing it to oscillate
<b>Control outputs (optocoupler, digital I/O):</b> To connect relays, signal lamps, valves, etc.	<b>Weighing units:</b> 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	<b>Weighing principle: Electromagnetic force compensation</b> Coil inside a permanent magnet. For the most accurate weighings
<b>Analogue interface:</b> to connect a suitable peripheral device for analogue processing of the measurements	<b>Weighing with tolerance range:</b> (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	<b>Weighing principle: Single cell technology:</b> Advanced version of the force compensation principle with the highest level of precision
<b>Interface for second balance:</b> For direct connection of a second balance	<b>Hold function:</b> (Animal weighing program) When the weighing conditions are unstable, a stable weight is calculated as an average value	<b>Verification possible:</b> The time required for verification is specified in the pictogram
<b>Network interface:</b> For connecting the scale to an Ethernet network		<b>DAkS calibration possible:</b> The time required for DAkS calibration is shown in days in the pictogram
<b>Wireless data transfer:</b> between the weighing unit and the evaluation unit using an integrated radio module		<b>Package shipment:</b> The time required for internal shipping preparations is shown in days in the pictogram
		<b>Pallet shipment:</b> 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 DAkS calibration certificate the best pre-requisite for proper balance calibration.

The KERN DAkS calibration laboratory today is one of the most modern and best-equipped DAkS calibration laboratories for balances, test weights and force-measurement in Europe.

Thanks to the high level of automation, we can carry out DAkS calibration of balances, test weights and force-measuring devices 24 hours a day, 7 days a week.

### Range of services:

- DAkS calibration of balances with a maximum load of up to 50 t
- DAkS 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
- DAkS calibration certificates in the following languages DE, GB, FR, IT, ES, NL, PL
- Conformity evaluation and reverification of balances and test weights

## Your KERN specialist dealer:

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