

Counting system KERN CCS



Counting system to count the smallest parts in large quantities, maximum number of parts which can be displayed is 999,999

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: Target count or target weight can be programmed. When the target weight is reached there is an audible and visual signal
- 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

- 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

KFP-V20 IP67, KFU-V20

- Stainless steel weighing plate, painted steel base, for models with weighing plate size **A – E**
- Aluminium singlepoint load cell (1×3000 e), protection against dust and water splashes IP65

KFP-V20 IP67, KIP-V20M

- Weighing bridge made of non-slip corrugated steel plate, lacquered, for models with weighing plate size **I-K**
- 4 load cells, steel, silicone-coated, IP67

KFU-V20

- Load range: painted steel
- 4 load cells, alloy steel, silicone-coated, IP67

Technical data

Reference scale KERN CFS

- Overall dimensions W×D×H 315×350×180 mm
- Dimensions weighing surface, stainless steel
 - CFS 300-3: Ø 80 mm
 - CFS 3K-5, CFS 6K0.1: W×D 300×225 mm
- Draught shield standard for models with weighing plate size Ø 80 mm, weighing space B×T×H 158×143×64 mm
- Net weight approx. 2.6 kg

Quantity platforms, 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

Bulk weighing bridges, KFP-V20 IP67

- Weighing plate dimensions W×D×H, steel, painted
F 1500×1250×80 mm

- F** 1500×1250×80 mm

Bulk pallet load handling, KERN KFU-V20

- Weighing plate dimensions W×D×H, steel, painted
G 840×1300×90 mm

- G** 840×1300×90 mm

Quantity platforms KERN KIP-V20

- Weighing plate dimensions W×D×H, stainless steel
 - H 1000×1000×108 mm
 - I 1500×1200×108 mm
 - J 1500×1500×108 mm

- H** 1000×1000×108 mm
I 1500×1200×108 mm
J 1500×1500×108 mm

- Connection cable approx.

- A – E** 2,5 m
F – J 5 m

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Accessories

- **2** Protective working cover, scope of delivery: 5 items, KERN CFS-A02S05
- **3** Internal rechargeable battery pack, operating time up to 60 h without backlight, charging time approx. 12 h, KERN GAB-A04
- **4** Signal lamp for visual support of weighing with tolerance range, only in combination with, KERN CFS-A03
- **5** 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*

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



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 Calibr. Certificate	
KERN								DAkkS KERN	
CCS 6K-6	6	0,2	A	300	0,001	1.200.000	0,05	962-128-127	
CCS 10K-6	15	0,5	B	300	0,001	3.000.000	0,05	962-128-127	
CCS 30K0.01	30	1	C	3000	0,01	600.000	0,5	962-128-127	
CCS 30K0.1	30	1	C	6000	0,1	300.000	1	962-128-128	
CCS 60K0.01	60	2	C	3000	0,01	1.200.000	0,5	962-129-127	
CCS 60K0.01L	60	2	D	3000	0,01	1.200.000	0,5	962-129-127	
CCS 60K0.1	60	2	C	6000	0,1	600.000	1	962-129-128	
CCS 60K0.1L	60	2	D	6000	0,1	600.000	1	962-129-128	
CCS 150K0.01	150	5	D	3000	0,01	3.000.000	0,5	962-129-127	
CCS 150K0.01L	150	5	E	3000	0,01	3.000.000	0,5	962-129-127	
CCS 150K0.1	150	5	D	6000	0,1	1.500.000	1	962-129-128	
CCS 150K0.1L	150	5	E	6000	0,1	1.500.000	1	962-129-128	
CCS 300K0.01	300	10	E	3000	0,01	6.000.000	0,5	962-129-127	
CCS 300K0.1	300	10	E	6000	0,1	3.000.000	1	962-129-128	
CCS 600K-1S*	600	200	H	6000	0,1	6.000.000	1	962-130-127	
CCS 600K-1*	600	200	I	6000	0,1	6.000.000	1	962-130-127	
CCS 600K-2U*	600	200	G	3000	0,01	12.000.000	0,5	962-130-127	
CCS 1T-4S*	1500	500	H	6000	0,1	15.000.000	1	962-130-128	
CCS 1T-4*	1500	500	I	6000	0,1	15.000.000	1	962-130-128	
CCS 1T-1L*	1500	500	F	6000	0,1	15.000.000	1	962-130-128	
CCS 1T-1U*	1500	500	G	6000	0,1	15.000.000	1	962-130-128	
CCS 3T-3*	3000	1000	I	6000	0,1	30.000.000	1	962-132-128	
CCS 3T-3L*	3000	1000	J	6000	0,1	30.000.000	1	962-132-128	

Pictograms

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