

COUNTING SCALES/COUNTING SYSTEMS



2020

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



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. For details see page 223



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



WLAN 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



Wireless data transfer:

evaluation unit using an integrated radio module



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

The balance displays serial number,

regardless of a printer connection

With weight, date and time. Only with

KERN printers, see page 171-173

Reference quantities selectable.

Display can be switched from piece

The weights of the recipe ingredients

can be added together and the total

weight of the recipe can be printed out

Internal memory for complete recipes

Internal memory for complete recipes

ingredients. User guidance through display, multiplier function, adjustment

of recipe when dosages are exceeded

The weights of similar items can be

added together and the total can be

Determining the deviation in % from

Percentage determination:

the target value (100 %)

with name and target value of the recipe

with name and target value of the

recipe ingredients. User guidance

user ID, weight, date and time,

GLP/ISO log:

GLP/ISO log:

Piece counting:

Recipe level A:

Recipe level B:

through display

Recipe level C:

or barcode recognition

Totalising level A:

printed out

to weight



Protection against dust and water splashes IPxx:

The type of protection is shown in the pictogram. For details see page 62



Stainless steel:

The balance is protected against corrosion



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:

230 V/50 Hz 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



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

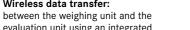


Can be switched to e.g. nonmetric units at the touch of a key. See balance model. Please refer to KERN's website for more details



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

KERN - measuring technology and testing services from a single source











Balances & Test service catalogue

Provides a complete overview of the KERN line of balances, test weights, and services such as verification, calibration, etc.

Medical scales catalogue

Complete line of medical scales, from infant scales to patient scales, chair scales and adiposity scales, as well as hand grip dynamometers, chemist's balances and veterinary scales.

Microscopes & refractometers catalogue

Extensive range in the area of optical instruments, such as, for example, biological microscopes, stereo microscopes, metallurgical microscopes, polarisation microscopes as well as analogue and digital refractometers.

SAUTER measuring equipment catalogue

Test instruments for industry and commerce, such as force, coating thickness, material thickness and calibration service.

DAkkS calibration service brochure

Detailed information on topics pertaining to the calibration and verification of balances, test weights, and force measuring devices.

Your advantages

fast

- 24 hours delivery service for products in stock – ordered today, on its way tomorrow
- Sales & service hotline available from 8:00 am to 6:00 pm

reliable

- · Up to 3 years warranty
- Precision in weighing technology for more than 175 years

competent

- DAkkS accreditation DIN EN ISO/IEC 17025
- Certified QM system DIN EN ISO 9001
- Authorisation for initial verification by the manufacturer 2014/31/EU
- Medical certifications DIN EN ISO 13485 and 93/42/EWG

versatile

- One-stop shopping: from pocket balances through to 15 t crane balance – everything from one supplier
- Find the product you want at lightning speed with the "Balance Quick-Finder" at www.kern-sohn.com



Order hotline +49 7433 9933-0



Service hotline +49 7433 9933-199



Calibration hotline +49 7433 9933-196



Our team of consultants will assist you

from Monday to Friday from 8:00 am to 6:00 pm



Online Shop

www.kern-sohn.com



E-mail order info@kern-sohn.com



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www.kern-sohn.com

Information on current product availability, product data sheets, user instructions, useful knowledge, technical glossary, images and much for you to download, practical topic areas, which will guide you to the right product in your industry as well as a clever test weight and balance search engine.

Counting scales/Counting systems

Interesting facts about density determination

Smallest part weight when counting

Smallest piece the scale will accept for piece counting and piece count display. In practice, depending on the required accuracy, we recommend to choose a counting scale with a minimum piece weight smaller than the weight of the item to be counted. To make it easier for you to select the right model, we give the smallest part weight when counting under laboratory conditions and normal conditions, see the website.

► Counting resolution

Describes the maximum quantity which can be counted with a counting accuracy of 1 %, with a minimum variation of item weights and a sufficiently large ightharpoonup reference quantity (20 pieces with counting resolution ightharpoonup 60,000 points, 50 pieces from 60,000-150,000 points, 100 pieces ightharpoonup 150,000 points). This therefore is an indication of the quality of the counting scale.

Recommended ► reference quantity

Weight tolerances of pieces to be counted are the most significant sources of error when counting. Therefore, at the start of every counting procedure, establish an average weight, the so-called **reference weight**, by placing several pieces on the balance, the so-called reference quantity. Usually this would be:

5 pieces >> often sufficient 10 pieces >> common practise

20-100 pieces >> for large deviations among piece weights

The "automatic **reference optimisation**" function increases the reference quantity gradually, whereby the average piece weight is optimised step by step. This contributes considerably to the accuracy of the subsequent counting processes.

Which counting scale for which application?

Simple counting scale

with self-explanatory user guidance on the keyboard. The graphic control panel enables you to start working immediately, without having to consult the user manual. Easy handling, value for money.

Professional counting scale

with 3 separate displays for reference weight (average weight of the pieces), total weight of all pieces and total quantity of all pieces. Very useful integrated memories, e.g. for container weight, item number, reference weight as well as audible and visual counting aids and an alphanumeric key pad for easy data entry.

Special tip for counting large quantities: Counting systems

The weighing capacities of bench counting scales are often not sufficient to count large quantities, units, palletized items, etc. Here high-performance counting systems come into operation, as these combine a high-precision reference scale with a high-capacity bulk scale.

▶ See the glossary on page 223-225



Bettina Schwedt Product specialist Counting scales

Tel. +49 7433 9933-141 Fax +49 7433 9933-29141 bettina.schwedt@kern-sohn.com

- High-resolution counting system with EC type approval [M]
- Ergonomic display device with large keypad
- Three displays for weight display (verifiable), reference weight, total pieces
- 100 item memories for master data such as reference weight, reference quantity, container weight (PRE-TARE) etc.

890,-



HIGHLIGHT

Quick-Finder Counting scales/Counting systems Weighing Counting Model Price M T ... • ABBA • capacity resolution excl. of VAT DAYS RS 232 ACCU [d] [Max] ex works **Points KERN** For an explanation on the pictos, see front flap kg € 0,001 0,3 60.000 CFS 300-3 365, 84 0,36 360.000 0.001 CKE 360-3 310. 85 1.200.000 88 0,001 6 CCS 6K-6 630. 2 0,001 15 3.000.000 CCS 10K-6 660, 88 • 2 • 0.01 200.000 CKE 2000-2 330 85 • 0,01 3 60.000 **CFS 3K-5** 310, 84 0.01 316 360.000 CKE 3600-2 350, 85 1 0,01 316 600.000 CCA 6K-5M 890, 90 0,01 6 I 15 600.000 **CCA 10K-5M** 890, 90 15 I 30 1.500.000 90 0.01 **CCA 30K-5M** 960.-2 0,01 30 600.000 CCS 30K0.01 540, 88 2 0 0,01 30 | 60 3.000.000 90 CCA 60K-5M 960. 2 • 1.200.000 CCS 60K0.01 540, 88 0,01 60 2 0.01 60 1.200.000 CCS 60K0.01L 620 88 60 I 150 15.000.000 CCA 100K-5M 1070, 90 2 0.01 3.000.000 CCS 150K0.01 88 0,01 150 650 2 0,01 150 3.000.000 CCS 150K0.01L 860, 88 2 150 I 300 90 2, 0,01 30.000.000 CCA 300K-5M 1250 0,01 300 6.000.000 CCS 300K0.01 860, 88 2* 0,01 600 12.000.000 CCS 600K-2U 1490, 88 2* 600 12.000.000 CCS 600K-2 1540, 88 0,01 0,01 600 12.000.000 CCS 600K-2L 1950, 88 2* 0.02 4 200.000 CDS 4K0.02 560, 87 0,02 6 300.000 CKE 6K0.02 490, 85 1 8 160.000 85 0.05 **CKE 8K0.05** 470. 0,05 15 300.000 CDS 15K0.05 490, 87 • 0.05 320.000 CKE 16K0.05 570. 85 16 0,1 6 60.000 **CPB 6K0.1N** 225, 82 • 60.000 270. 84 0,1 6 CFS 6K0.1 • • 85 0,1 16 160.000 **CKE 16K0.1** 460, • 0.1 16 160.000 CDS 16K0.1 470 87 . 0,1 300.000 CDS 30K0.1 560, 87 0,1 30 300.000 CDS 30K0.1L 720. 87 1 0,1 30 300.000 CCS 30K0.1. 490, 88 0,1 36 360.000 CKE 36K0.1 520, 85 0,1 60 600.000 CCS 60K0.1. 495,-88 0,1 60 600.000 CCS 60K0.1L 570. 88 2 150 1.500.000 CCS 150K0.1. 540, 88 0,1 0,1 150 1.500.000 CCS 150K0.1L 820, 88 2 • 300 790, 2* 0.1 3.000.000 CCS 300K0.1 88 0,1 300 | 600 6.000.000 CCS 600K-1S 1400, 88 2* • • • 2* 0.1 300 | 600 6.000.000 CCS 600K-1 1650. 88 • • 1500 15.000.000 **CCS 1T-4S** 1400, 88 2* 600 I 1500 CCS 1T-4 1650, 88 2, 0.1 15.000.000 1500 | 3000 2* 30.000.000 CCS 3T-3 1650, 88 2, 0,1 1500 | 3000 30.000.000 CCS 3T-31 1850 88 0,1 1500 15.000.000 CCS 1T-1U 1430, 88 5, 0.1 1500 15.000.000 CCS 1T-1L 1880 88 0,1 3000 30.000.000 CCS 3T-1 1890, 88 5* 0,1 | 0,2 3 | 6 60.000 **IFS 6K-4S** 390,-85 1 • • $0,1 \mid 0,2$ 6 | 15 75.000 IFS 10K-4 405,-85 3 30.000 **CXB 3K0.2** 230, 83 • 0,2 15 60.000 225,-0.2 **CPB 15K0.2N** 82 0,2 15 75.000 CFS 15K0.2 270, 84 1 0 87 36 180.000 710. 0.2 CDS 36K0.2L • 60 300.000 CDS 60K0.2 720, 87 • 0,2 0.2 65 325.000 CKE 65K0.2 520 85 0,2 | 0,5 12 | 30 60.000 IFS 30K0.2DL 85 • 450 83 30.000 CXB 6K0.5 0,5 6 230 • 0,5 30 60.000 **CPB 30K0.5N** 225, 82 0,5 30 60.000 CFS 30K0.5 270, 84 . 0,5 65 130.000 CKE 65K0.5 480, 85 0,5 | 1 30 | 60 60.000 IFS 60K0.5D 450, 85 1 • • 0 30 | 60 60.000 IFS 60K0.5DL 550, 85 0,5 | 1 3 30.000 CXB 3K1NM 245, 83 0 • 1 15 30.000 **CXB 15K1** 83 230. 1 50 50.000 CFS 50K-3 295,-84 1 | 2 3 | 6 60.000 CPB 6K1DM 225. 82 0 • 1 | 2 3 | 6 IFS 6K-3SM 350, 85 0 • 60.000

1 | 2

1 | 2

630

85

85

60.000

IFS 100K-3

60.000 | IFS 100K-3L

75 | 150

75 | 150

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News 2020

^{790,-}* Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs

Quick-Finder Counting scales/Counting systems Weighing capacity Readability Counting Model Price M ï MEMORY □↔□ - ASSA • resolution excl. of VAT DAYS RS 232 ACCU [d] [Max] ex works **Points KERN** For an explanation on the pictos, see front flap kg € g 245,-2 30.000 CXB 6K2NM 83 6 2 30 30.000 CXB 30K2 230,-83 2 | 5 6 | 15 60.000 CPB 15K2DM 225,-82 0 0 1 6 | 15 75.000 IFS 10K-3M 410, 85 0 2 | 5 460, 0 • 75.000 | **IFS 10K-3LM** 85 6 | 15 2 | 5 150 | 300 60.000 IFS 300K-3 790,-85 30.000 5 245,-83 0 • 15 CXB 15K5NM 1 • 5 | 10 15 | 30 60.000 CPB 30K5DM 225,-82 0 5 | 10 15 | 30 60.000 IFS 30K-3M 460,-85 0 • 245,-10 30 30.000 CXB 30K10NM 83 0 10 | 20 30 | 60 60.000 | **IFS 60K-2M** 460,-85 0 • 0 10 | 20 30 | 60 60.000 IFS 60K-2LM 550,-85 0 • 0 20 | 50 60 | 150 60.000 | **IFS 100K-2M** 550,-85 0 • 20 | 50 60 | 150 60.000 IFS 100K-2LM 720, 85 O 50 | 100 150 | 300 60.000 IFS 300K-2M 720,-85 0 •

News 2020 * Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs





Note: Official verification duty for commercial trade

Professional model, also with EC type approval [M], counting resolution up to 60,000 points

Features

- 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 (verifiable), reference weight, total pieces
- · Counting results memory: adds up all individual piece counts, result is shown in total weight and total pieces
- · Fill-to-target function: Target count or target weight can be programmed. 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

- High mobility: thanks to rechargeable battery operation (optional), compact, lightweight construction, it is suitable for the use in several locations (production, warehouse, dispatch department etc.)
- Two balances in one: Changes from counting mode to weighing mode at the touch of a key
- Protective working cover included with delivery

Technical data

- · Large backlit LCD displays, digit height 20 mm
- Dimensions weighing surface, stainless steel, W×D 295×225 mm
- Overall dimensions W×D×H 315×350×105 mm
- · Net weight approx. 3,2 kg
- Permissible ambient temperature 0 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN CFS-A02S05, € 40,-
- Rechargeable battery pack internal, operating time up to 90 h without backlight, charging time approx. 12 h, KERN GAB-A04, € 40,-
- Signal lamp for visual support of weighing with tolerance range, KERN CFS-A03, € 250,-
- · 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, € 35,-
- · Further details, plenty of further accessories and suitable printers see Accessories

STANDARD































Model	Weighing	Readability	Verification	Minimal load	Smallest part	Counting	Price		(Option	
	capacity		value		weight	resolution	excl. of VAT	Verifica	tion	DAkkS Calibr. Ce	ertificate
	[Max]	[d]	[e]	[Min]	[Normal]		ex works	MIII		DAkkS	
KERN	kg	g	g	g	g/piece	Points	€	KERN	€	KERN	€
CPB 6K0.1N	6	0,1	-	-	1	60.000	225,-	-	-	963-128	88,-
CPB 15K0.2N	15	0,2	-	-	2,5	60.000	225,-	-	-	963-128	88,-
CPB 30K0.5N	30	0.5	_	_	5	60.000	225	_	_	963-128	88

Dual-range balance switches automatically to the next largest weighing capacity [Max] and readibility [d]

Note: For applications that require verification, please order verification at the same time, initial verification at a later date is not possible.

	verification at the factory, we need to know the full address of the location of use.												
CPB 6K1DM	3 6	1 2	1 2	20	1	60.000	225,-	965-228	70,-	963-128	88,-		
CPB 15K2DM	6 15	2 5	2 5	40	2,5	60.000	225,-	965-228	70,-	963-128	88,-		
CPB 30K5DM	15 30	5 10	5 10	100	5	60.000	225,-	965-228	70,-	963-128	88,-		





Note: Official verification duty for commercial trade

Entry level model into professional counting, also with EC type approval [M], counting resolution of 30,000 points

Features

- 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 (verifiable), reference weight, total pieces
- Fill-to-target function: Target count or target weight can be programmed. A signal will be displayed when the target value is
- 10 memories for reference weights
- · Counting results memory: adds up all individual piece counts, result is shown in total weight and total pieces
- Integrated ESD protection, therefore suitable for weighing small plastic parts

- Energy management: Backlight turns off after 5 s
- PRE-TARE function for manual subtraction of a known container weight, useful for checking fill-levels
- · Two balances in one: Changes from counting mode to weighing mode at the touch of a key
- Protective working cover included with
- · Internal rechargeable battery pack included with delivery

Technical data

- · Large backlit LCD displays, digit height 18 mm
- Dimensions weighing surface, stainless steel, W×D 300×225 mm
- · Dimensions housing W×D×H, 300×330×110 mm
- · Rechargeable battery pack internal, operating time up to 200 h without backlight, charging time approx. 8 h
- Permissible ambient temperature -10 °C/40 °C

- · Protective working cover, scope of delivery: 5 items, KERN CXB-A01S05, € 40,-
- Rechargeable battery pack internal, operating time up to 200 h without backlight, charging time approx. 8 h, KERN GAB-A04, € 40,-

















Model	Weighing	Readability	Verification	Minimal	Smallest part	Counting	Net weight	Price		C	Option	
	capacity		value	load	weight	resolution		excl. of VAT	Verifica	tion	DAkkS Calibr. Ce	rtificate
	[Max]	[d]	[e]	[Min]	[Normal]		approx.	ex works	MIII		DAkkS	
KERN	kg	g	g	g	g/piece	Points	kg	€	KERN	€	KERN	€
CXB 3K0.2	3	0,2	-	-	1	30.000	4,0	230,-	-	-	963-127	72,-
CXB 6K0.5	6	0,5	-	-	2	30.000	4,0	230,-	-	-	963-128	88,-
CXB 15K1	15	1	-	-	5	30.000	4,0	230,-	-	-	963-128	88,-
CXB 30K2	30	2	-	-	10	30.000	4,2	230,-	-	-	963-128	88,-
Note: F	or applicati	ons that req	uire verifica	tion, please	order verificat	tion at the s	same time, i	nitial verificat	ion at a later	date is n	ot possible.	

	Verification at the factory, we need to know the full address of the location of use.													
CXB 3K1NM	3	1	1	20	1	30.000	4,0	245,-	965-227	55,-	963-127	72,-		
CXB 6K2NM	6	2	2	40	2	30.000	4,2	245,-	965-228	70,-	963-128	88,-		
CXB 15K5NM	15	5	5	100	5	30.000	4,0	245,-	965-228	70,-	963-128	88,-		
CXB 30K10NM														







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 (verifiable), 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
- · Protective working cover included with delivery, for models with weighing plate size Α, Β

Technical data

- · Large backlit LCD displays, digit height 20 mm
- · Dimensions weighing surface
- Ø 80 mm
- **B** W×D 295×225 mm
- W×D 295×225 mm
- Overall dimensions W×D×H
- A 315×350×180 mm (incl. draught shield)
- B 315×350×110 mm
- 365×250×125 mm
- Permissible ambient temperature 0 °C/40 °C

- · Protective working cover, standard for models with weighing plate size A, B, scope of delivery: 5 items, KERN CFS-A02S05, € 40,-
- Rechargeable battery pack internal, operating time up to 70 h without backlight, charging time approx. 14 h, KERN GAB-A04, € 40,-
- Signal lamp for visual support of weighing with tolerance range, KERN CFS-A03, € 250,-
- · 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, € 35,-
- · Further details, plenty of further accessories and suitable printers see Accessories

































Model	Weighing	Readability	Smallest part	Counting	Net weight	Weighing plate	Price	Option	
	capacity		weight	resolution			excl. of VAT	DAkkS Calibr. Ce	ertificate
	[Max]	[d]	[Normal]		approx.		ex works	DAkkS	
KERN	kg	g	g/piece	Points	kg		€	KERN	€
CFS 300-3	0,3	0,001	0,05	60.000	2,6	A	365,-	963-127	72,-
CFS 3K-5	3	0,01	0,5	60.000	3,4	В	310,-	963-127	72,-
CFS 6K0.1	6	0,1	1	60.000	3,2	В	270,-	963-128	88,-
CFS 15K0.2	15	0,2	2	75.000	3,4	В	270,-	963-128	88,-
CFS 30K0.5	30	0,5	5	60.000	3,4	В	270,-	963-128	88,-
CFS 50K-3	50	1	10	50.000	4,4	C	295,-	963-128	88,-







Easy to use, self-explanatory counting scale with laboratory accuracy, counting resolution up to 360,000 points

Features

- · Self-explanatory graphic control panel, the workings steps can be understood immediately, even without operating instructions
- no learning time = reduces costs
- ideal for untrained users
- visualised process avoids operating errors • The 4 steps are carried out from left to right:
- Place the empty container onto the weighing plate and tare by pressing the TARE key Place the reference quantity for the goods to be counted into the container (5, 10 or 20 pieces)
- Confirm the selected reference quantity by pressing the key (5, 10 or 20)
- Pour in the goods to be counted. The number of pieces will immediately be shown in the display

- Precise counting: The automatic reference weight optimisation of reference weight gradually improves the average piece weight
- Two balances in one: Changes from counting mode to weighing mode at the touch of a key
- Protective working cover included with delivery

Technical data

- · Large backlit display
 - A, B digit height 9 mm
- digit height 25 mm
- Dimensions weighing surface
- A Ø 81 mm, plastic
- B W×D 150×170 mm, stainless steel
- 6 340×240 mm, stainless steel

- · Overall dimensions W×D×H A, B 167×250×85 mm 350×390×120 mm
- Optional battery operation,6×1.5 V Size C not included in scope of delivery, operating time up to 40 h, for models with weighing plate size 🗓
- Permissible ambient temperature 10 °C/40 °C

Accessories

- · Protective working cover, scope of delivery: 5 items, for models with weighing plate size
- KERN PCB-A02S05, € 40,-
- KERN PCB-A05S05, € 40,-
- KERN FKB-A02S05, € 40,-
- Rechargeable battery pack external, operating time up to 30 h without backlight, charging time approx. 10 h, KERN KS-A01, € 160,-
- Internal rechargable battery pack, operating time up to 30 h without backlight, charging time approx. 10 h, for models with weighing plate size A, B, KERN KB-A01N, € 50,-
- · Further details, plenty of further accessories and suitable printers see Accessories

STANDARD



















Model	Weighing	Readability	Smallest part	Counting	Net weight	Weighing plate	Price	Option	
	capacity		weight	resolution				DAkkS Calibr. Ce	ertificate
	[Max]	[d]	[Normal]		approx.		ex works	DAkkS	
KERN	kg	g	g/piece	Points	kg		€	KERN	€
CKE 360-3	0,36	0,001	0,01	360.000	1	А	290,- 🕛	963-127	72,-
CKE 2000-2	2	0,01	0,1	200.000	1,8	В	330,- 🕛	963-127	72,-
CKE 3600-2	3,6	0,01	0,1	360.000	1,8	В	350,- 🕛	963-127	72,-
CKE 6K0.02	6	0,02	0,2	300.000	7	C	490,- 🕛	963-128	88,-
CKE 8K0.05	8	0,05	0,5	160.000	7	С	470,- 🕛	963-128	88,-
CKE 16K0.05	16	0,05	0,5	320.000	7	C	570,- 🕛	963-128	88,-
CKE 16K0.1	16	0,1	1	160.000	7	С	460,- 🕛	963-128	88,-
CKE 36K0.1	36	0,1	1	360.000	7	С	520,- 🕛	963-128	88,-
CKE 65K0.2	65	0,2	2	325.000	7	С	520,- 🕛	963-129	105,-
CKE 65K0.5	65	0,5	5	130.000	7	С	480,- 🕛	963-129	105,-







Industrial counting scale with convenient decimal keypad for easy data entry - now also with EC type approval [M], counting resolution up to 75000 points

Features

- · Tough industry standard suitable for use in harsh industrial applications
- Ergonomic display device with large keypad and high-contrast LCD display for easy entry and reading of, e.g., tare weights, reference weights, limit values etc.
- Three displays for weight display (verifiable), reference weight, total pieces
- 100 item memories for master data such as reference weight, reference quantity, container weight (PRE-TARE) etc.
- · Printout of date and time for GLP and GMP compliant data logging

- Precise counting: The manual reference weight optimisation gradually improves the average value of the piece weight
- · Totalising of pieces when counting
- · Protective working cover included with delivery

Technical data

- · Large backlit LCD displays, digit height 16,5 mm
- Dimensions weighing surface, stainless steel
- A 230×230×110 mm
- **B** 300×240×110 mm
- © 400×300×120 mm
- **■** 650×500×140 mm

- Dimensions of display device W×D×H 260×150×65 mm
- Cable length of display device approx. 3 m
- Permissible ambient temperature -10 °C/40 °C

- · Protective working cover, scope of delivery: 5 items, KERN KFB-A02S05, € 40,-
- II Stand to elevate display device, Height of stand approx. 330 mm, KERN IFB-A01, € 50,-Column height approx. 600 mm, for models with weighing plate size D, E, KERN IFB-A02, € 60,-
- Rechargeable battery pack internal, operating time up to 40 h, without backlight, charging time approx. 12 h, must be ordered at purchase, KERN KFB-A01, € 35,-
- **ESD drain** to protect against electrostatic discharge e.g. for electrostatically-charged weighing objects or people who work with the scale, KERN YGR-01, € 55,-
- Further details, plenty of further accessories and suitable printers see Accessories

- D 500×400×140 mm

STANDARD)											OPT	ION	FACTORY	
I		· AHA ·	KCP	GLP	**	Lan ^A	<u>%</u>	-√+ ③ ③)	<u>^</u> #			•	kkS		M
CAL EXT	MEMORY	RS 232	PROTOCOL	INTERN	PCS	SUM	PERCENT	TOL	MULTI	DMS	1 DAY	+3	DAYS	ACCU	+3 DAYS
															IFS-M
Mada		1	M/a:-la:-a	Dana	. بدا: المالية ا	\/:£:	1: a a C	الممالممم		C		NIa4a	: _ _ L	\A/a:-la:-a	D.

Model	Weighing	Readability	Verification	Smallest part	Counting	Net weight	Weighing	Price		(Option	
	capacity		value	weight	resolution		plate	excl. of VAT	Verifica		DAkkS Calibr. Ce	ertificate
	[Max]	[d]	[e]	[Normal]		approx.		ex works	MIII		DAkkS	
KERN	kg	g	g	g/piece	Points	kg		€	KERN	€	KERN	€
		Dual-range	balance swi	tches automati	cally to the ne	xt largest we	ighing ca	pacity [Max] a	nd readibility	y [d]		
IFS 6K-4S	3 6	0,1 0,2	-	1	60.000	4,6	А	390,-	-	-	963-128	88,-
IFS 10K-4	6 15	0,1 0,2	-	2	75.000	6	В	405,-	-	-	963-128	88,-
IFS 30K0.2DL	12 30	0,2 0,5	-	5	60.000	11	C	450,-	-	-	963-128	88,-
IFS 60K0.5D	30 60	0,5 1	-	10	60.000	10	C	450,-	-	-	963-129	105,-
IFS 60K0.5DL	30 60	0,5 1	-	10	60.000	12	D	550,-	-	-	963-129	105,-
IFS 100K-3	75 150	1 2	-	25	60.000	12	D	630,-	-	-	963-129	105,-
IFS 100K-3L	75 150	1 2	-	25	60.000	20	E	790,-	-	-	963-129	105,-
IFS 300K-3	150 300	2 5	-	50	60.000	22	Ε	790,-	-	-	963-129	105,-
No	te: For appli	cations that	•	cation, please						date is r	ot possible.	
			Verification	at the factory, v	we need to kn	ow the full ac	ddress of t	the location of		,		
IFS 6K-3SM	3 6	1 2	1 2	1	60.000	6	Α	350,-	965-228	70,-	963-128	88,-
IFS 6K-3M	3 6	1 2	1 2	1	60.000	6	В	410,-	965-228	70,-	963-128	88,-
IFS 10K-3M	6 15	2 5	2 5	2	75.000	6	В	410,-	965-228	70,-	963-128	88,-
IFS 10K-3LM	6 15	2 5	2 5	2	75.000	10	C	460,-	965-228	70,-	963-128	88,-
IFS 30K-3M	15 30	5 10	5 10	5	60.000	10	C	460,-	965-228	70,-	963-128	88,-
IFS 60K-2M	30 60	10 20	10 20	10	60.000	11	C	460,-	965-229	93,-	963-129	105,-
IFS 60K-2LM	30 60	10 20	10 20	10	60.000	13	D	550,-	965-229	93,-	963-129	105,-
IFS 100K-2M	60 150	20 50	20 50	25	60.000	12	D	550,-	965-229	93,-	963-129	105,-
IFS 100K-2LM	60 150	20 50	20 50	25	60.000	22	Е	720,-	965-229	93,-	963-129	105,-
IFS 300K-2M	150 300	50 100	50 100	50	60.000	22	E	720,-	965-229	93,-	963-129	105,-





Easy to use industrial counting scale for heavy loads, counting resolution up to 300,000 points

Features

- Self-explanatory graphic control panel, the workings steps can be understood immediately, even without operating instructions
- no learning time = reduces costs
- ideal for untrained users
- visualised process avoids operating errors
- The 4 steps are carried out from left to right:
 Place the empty container onto the weighing plate and tare by pressing the TARE key
 Place the reference quantity for the goods to be counted into the container (5, 10 or 20 pieces)
- **■** Confirm the selected reference quantity by pressing the key (5, 10 or 20)
- Pour in the goods to be counted. The number of pieces will immediately be shown in the display
- Precise counting: The automatic reference weight optimisation of reference weight gradually improves the average piece weight value
- Protective working cover included with delivery

Technical data

- Backlit LCD display, digit height 18 mm
- Dimensions weighing surface, stainless steel
 W×D 228×228 mm
 - **B** W×D 308×318 mm
 - W×D 450×350 mm
- Dimensions of display device W×D×H 225×115×60 mm
- Permissible ambient temperature 10 °C/40 °C

- Protective working cover over the display device, scope of delivery: 5 items, KERN DE-A12S05, € 40,-
- Mount to fasten the display device to the platform, KERN DE-A11N, € 35,-
- Stand to elevate display device, height of stand approx. 480 mm, can be reordered, KERN DE-A10, € 100,-
- Rechargeable battery pack external, operating time up to 30 h without backlight, charging time approx. 10 h, KERN KS-A01, € 160,-
- Rechargeable battery pack internal, operating time up to 30 h without backlight, charging time approx. 10 h, KERN KB-A01N, € 50,-
- Set for underfloor weighing, consists of platform, bow, hook, only for models with weighing plate ■, KERN DS-A01, € 200,-
- Further details, plenty of further accessories and suitable printers see *Accessories*



Model	Weighing	Readability	Smallest part	Counting	Net weight	Cable length	Weighing plate	Price	Option	
	capacity		weight	resolution				excl. of VAT	DAkkS Calibr. Ce	rtificate
	[Max]	[d]	[Normal]		approx.	approx.		ex works	DAkkS	
KERN	kg	g	g/piece	Points	kg	m		€	KERN	€
CDS 4K0.02	4	0,02	0,2	200.000	6	2	А	560,-	963-127	72,-
CDS 15K0.05	15	0,05	0,5	300.000	8	2	В	490,-	963-128	88,-
CDS 16K0.1	16	0,1	1	160.000	8	2	В	470,-	963-128	88,-
CDS 30K0.1	30	0,1	1	300.000	8	2	В	560,-	963-128	88,-
CDS 30K0.1L	30	0,1	1	300.000	10	0,6	C	720,-	963-128	88,-
CDS 36K0.2L	36	0,2	2	180.000	10	0,6	C	710,-	963-128	88,-
CDS 60K0.2	60	0,2	2	300.000	10	0,6	C	720,-	963-129	105,-



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: Target count or target weight can be programmed. 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
- 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
 □ CFS 300-3: Ø 80 mm
 CFS 3K-5, CFS 6K0.1: W×D 300×225 mm
- Net weight approx. 2,6 kg

Quantity platform KERN KFP-V20 IP65

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

Quantity weighing bridge KERN KFP-V20 IP67

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

Quantity pallet scale KERN KFU-V20

- Weighing plate dimensions W×D×H, Lacquered steel
- **340×1300×90 mm**

Quantity platform KERN KIP-V20M

- Weighing plate dimensions W×D×H, Lacquered steel
- **Ⅲ** 1000×1000×108 mm
- 1500×1200×108 mm
- **■** 1500×1500×108 mm
- · Connection cable approx.
- A-E 2,5 m
- **E**-**J** 5 m











Accessories

- 2 KERN CFS: Protective working cover, scope of delivery: 5 items, KERN CFS-A02S05, € 40,-
- 3 Rechargeable battery pack internal, operating time up to 60 h without backlight, charging time approx. 12 h, KERN GAB-A04, € 40,-
- 4 Signal lamp for visual support of weighing with tolerance range, Signal lamp for visual support of weighing with tolerance range, KERN CFS-A03, € 250,-
- 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, € 35,-
- 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



Model	Weighing capacity	Readability	Weighing	Weighing capacity	Readability	Counting	Smallest part	Price	Option	
	Quantity scale	Quantity scale	plate	Reference scale	Reference scale	resolution	weight	excl. of VAT	DAkkS Calibr. Ce	ertificate
	[Max]	[d]		[Max]	[d]		[Normal]	ex works	DAkkS	
KERN	kg	g		g	g	Points	g/piece	€	KERN	€
CCS 6K-6	6	0,2	Α	300	0,001	1.200.000	0,05	630,-	962-128-127	145,-
CCS 10K-6	15	0,5	В	300	0,001	3.000.000	0,05	660,-	962-128-127	145,-
CCS 30K0.01.	30	1	C	3000	0,01	600.000	0,5	540,-	962-128-127	145,-
CCS 30K0.1.	30	1	C	6000	0,1	300.000	1	490,-	962-128-128	175,-
CCS 60K0.01.	60	2	C	3000	0,01	1.200.000	0,5	540,-	962-129-127	160,-
CCS 60K0.01L.	60	2	D	3000	0,01	1.200.000	0,5	620,-	962-129-127	160,-
CCS 60K0.1.	60	2	C	6000	0,1	600.000	1	495,-	962-129-128	175,-
CCS 60K0.1L.	60	2	D	6000	0,1	600.000	1	570,-	962-129-128	175,-
CCS 150K0.01	150	5	D	3000	0,01	3.000.000	0,5	650,-	962-129-127	160,-
CCS 150K0.01L	150	5	Е	3000	0,01	3.000.000	0,5	860,-	962-129-127	160,-
CCS 150K0.1.	150	5	D	6000	0,1	1.500.000	1	540,-	962-129-128	175,-
CCS 150K0.1L	150	5	Ε	6000	0,1	1.500.000	1	820,-	962-129-128	175,-
CCS 300K0.01	300	10	Е	3000	0,01	6.000.000	0,5	860,-	962-129-127	160,-
CCS 300K0.1	300	10	Е	6000	0,1	3.000.000	1	790,-	962-129-128	175,-
CCS 600K-2U	600	200	G	3000	0,01	12.000.000	0,5	1490,-	962-130-127	237,-
CCS 1T-1L	1500	500	F	6000	0,1	15.000.000	1	1880,-	962-130-128	253,-
CCS 1T-1U	1500	500	G	6000	0,1	15.000.000	1	1430,-	962-130-128	253,-
CCS 3T-1	3000	1000	F	6000	0,1	30.000.000	1	1890,-	962-132-128	528,-
CCS 600K-1S	300 600	0,1 0,2	Н	6000	0,1	6.000.000	1	1400,-	962-130-127	237,-
CCS 600K-1	300 600	0,1 0,2		6000	0,1	6.000.000	1	1650,-	962-130-127	237,-
CCS 1T-4S	600 1500	0,2 0,5	Н	6000	0,1	15.000.000	1	1400,-	962-130-128	253,-
CCS 1T-4	600 1500	0,2 0,5		6000	0,1	15.000.000	1	1650,-	962-130-128	253,-
CCS 3T-3	1500 3000	0,5 1		6000	0,1	30.000.000	1	1650,-	962-132-128	528,-
CCS 3T-3L	1500 3000	0,5 1	J	6000	0,1	30.000.000	1	1850,-	962-132-128	528,-



High-resolution counting system with EC type approval [M] to count the smallest parts in the largest quantities, counting resolution up to 300.000.000 points

Features

- The highly accurate KERN CCS counting system can replace a whole range of individual balances, efficiently and at a reasonable price
- Thanks to EC type approval [M], it is also suitable for use in verified applications
- The balances are connected to one another with an RS-232 Y-cable (KERN CCA-A01, included with delivery), which also allows you to connect a printer

Reference scale KERN EWJ

- This precision balance, which can be used as an individual balance, also fulfils the highest demands through connection with a high-capacity weighing bridge
- Easy to use: All primary functions have their own key on the keypad
- Automatic internal adjustment, time-controlled every 2 h, guarantees high degree of accuracya and makes the balance independent of its location
- Draught shield standard, weighing space W×D×H 134×128×80 mm
- Protective working cover included with delivery

Quantity scale KERN IFS

- The high-accuracy quantity counting takes place on the weighing platform (= weighing bridge) KERN CCA. In this way even the smallest of parts can be counted in large volumes
- Tough industry standard suitable for use in harsh industrial applications
- Tough industry standard suitable for use in harsh industrial applications
- Ergonomic display device with large keypad and high-contrast LCD display for easy entry and reading of, e.g., tare weights, reference weights, limit values etc.
- Three displays for weight display (verifiable), reference weight, total pieces
- 100 item memories for master data such as reference weight, reference quantity, container weight (PRE-TARE) etc.
- Printout of date and time for GLP and GMP compliant data logging
- Precise counting: The manual reference weight optimisation gradually improves the average value of the piece weight
- Totalising of pieces when counting
- Aluminium Single-Point load cell (1×3000 e), protection against dust and water splashes IP65

Protective working cover included with delivery

Technical data

Reference scale KERN EWJ

- Overall dimensions (incl. draught shield)
 W×D×H 220×340×321 mm
- Dimensions weighing surface, stainless steel ø 120 mm
- · Net weight approx. 3,2 kg
- Connection cable approx. 1,5 m

Quantity scale KERN IFS

- Weighing plate dimensions W×D×H, stainless steel
 - A 300×240×110 mm
 - **B** 400×300×120 mm, see larger picture
 - © 500×400×140 mm

Accessories

- Signal lamp for visual support of weighing with tolerance range,
 KERN CFS-A03, € 250,-
- RS-232/WiFi adapter for wireless connection to networks and WiFi capable devices, such as tablets, laptops or smartphones, KERN YKI-03, € 690,-
- RS-232/Ethernet adapter for connection to an IP-based Ethernet network, KERN YKI-01, € 290,-

Reference scale KERN EWJ

- Protective working cover, scope of delivery:
 5 items, KERN EWJ-A04S05, € 40,-
- Rechargeable battery pack internal, operating time up to 15 h without backlight, charging time approx. 4 h, KERN KFB-A01, € 35,-

Quantity scale KERN IFS

- Protective working cover, scope of delivery:
 5 items, KERN KFB-A02S05, € 40,-
- Rechargeable battery pack internal, operating time up to 40 h, without backlight, charging time approx. 12 h, must be ordered at purchase, KERN KFB-A01, € 35,-
- Further details, plenty of further accessories and suitable printers see Accessories



Model	Weighing capacity	Readability	Weighing	Weighing capacity	Readability	Counting	Smallest part	Price	Optio	n
	Quantity scale	Quantity scale	plate		Reference scale	resolution	weight	excl. of VAT	Verificat	tion
	[Max]	[d]		[Max]	[d]		[Normal]	ex works	MIII	
KERN	kg	g		g	g	Points	g/piece	€	KERN	€
CCA 6K-5M	3 6	1 2	Α	600	0,01	6.000.000	0,2	890,-	965-228-216	121,-
CCA 10K-5M	6 15	2 5	Α	600	0,01	15.000.000	0,2	890,-	965-228-216	121,-
CCA 30K-5M	15 30	5 10	В	600	0,01	30.000.000	0,2	960,-	965-228-216	121,-
CCA 60K-5M	30 60	10 20	В	600	0,01	60.000.000	0,2	960,-	965-229-216	159,-
CCA 100K-5M	60 150	20 50	C	600	0,01	150.000.000	0,2	1070,-	965-229-216	159,-
CCA 300K-5M	150 300	50 100	С	600	0,01	300.000.000	0,2	1250,-	965-229-216	159,-

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Ancestor Johann Jakob Sauter built the Hahn inclination scale out of iron, a foundation stone for weighing for the balance industry in Southern Germany



1844

KERN is founded precision balances are produced



A proud Gottlieb Kern with his staff



Pharmaceutical balance with Aesculap

1880



1923

Inflation - KERN wages are paid with self printed currency



1980

The electronic balance ousts mechanical devices



1994

Accredited DKD laboratory (ISO 17025)



2000

New premises in Balingen



2002

Existing QM system certification in accordance with DIN EN ISO 9001:2000 standards



2007

Approval for the manufacture of medical products (DIN EN 13485 and 93/42/EEC)



Authorisation for initial verification by the manufacturer (2009/23/EC)



2009

Approval for the manufacture and sale of height rods (DIN EN 13485 and 93/42/EEC)



Verification point for non-automatic balances and test weights.

New customer portal www.kern-sohn.com goes live



Expansion of the product range to include optical instruments (microscopes and refractometers)



Inauguration of Ziegelei 2.0 with computer-controlled high-bay warehouse



Come with KERN into the digital future: Expansion of the model ranges compatible with Industry 4.0, as well as the related services



2019

Significant anniversary year! 25 years of accredited DKD laboratory 175 years of KERN & SOHN 250 years of balance manufacture in the Sauter

family-owned company



2020

Construction of Ziegelei 3.0, extension of administration building