

COUNTING SCALES/COUNTING SYSTEMS






































PROFESSIONAL MEASURING

2021



KERN 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	 Battery operation: Ready for battery operation. The battery type is specified for each device
 Adjusting program CAL: For quick setting up of the balance's accuracy. External adjusting weight required	 GLP/ISO log: The balance displays serial number, user ID, weight, date and time, regardless of a printer connection	 Rechargeable battery pack: Rechargeable set
 Easy Touch: Suitable for the connection, data transmission and control through PC, tablet or smartphone. For details see page 131	 GLP/ISO log: With weight, date and time. Only with KERN printers, see page 170–172	 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
 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, see page 170–172	 Mains adapter: 230V/50Hz in standard version for EU, CH. On request GB, USA or AUS version available
 Alibi memory: Secure, electronic archiving of weighing results, complying with the 2014/31/EU standard. For details see page 223	 Piece counting: Reference quantities selectable. Display can be switched from piece to weight	 Power supply: Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, USA or AUS on request
 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	 Weighing principle: Strain gauges Electrical resistor on an elastic deforming body
 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: Tuning fork A resonating body is electromagnetically excited, causing it to oscillate
 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: Electromagnetic force compensation Coil inside a permanent magnet. For the most accurate weighings
 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: Single cell technology: Advanced version of the force compensation principle with the highest level of precision
 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	 Verification possible: The time required for verification is specified in the pictogram
 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	 DAKkS calibration possible (DKD): The time required for DAKkS calibration is shown in days 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	 Factory calibration (ISO): The time required for Factory 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. For details see page 58	 Package shipment: The time required for internal shipping preparations is shown in days in the pictogram
 Network interface: For connecting the scale to an Ethernet network	 Suspended weighing: Load support with hook on the underside of the balance	 Pallet shipment: The time required for internal shipping preparations is shown in days in the pictogram

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, 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 12 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



Online Shop
www.kern-sohn.com



Service hotline
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E-mail order
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Calibration hotline
+49 7433 9933-196



Fax order
+49 7433 9933-146



Our team of consultants will assist you
from Monday to Friday
from 8:00 am to 6:00 pm



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 counting

Smallest part weight for piece counting

This is the smallest piece weight the scale will accept for piece counting and will display it piece by piece. 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 specify 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 ► **reference quantity** (20 pieces with counting resolution \leq 60,000 points, 50 pieces from 60,000–150,000 points, 100 pieces \geq 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

KERN CIB








Page 80

- o Robust counting scale
- o Large article memory
- o Special checkweighing display
- o Three displays for weight indication, reference weight, total quantity

only €
240,-



Quick-Finder Counting scales/Counting systems

Readability [d] g	Weighing capacity [Max] kg	Counting resolution Points	Model KERN	Price excl. of VAT ex works €	Page								For an explanation on the pictos, see front flap						
1 2	75 150	60.000	IFS 100K-3L	790,-	85	1		●	●	●			○						
2	6	30.000	CXB 6K2NM	245,-	81	1	○	●					●						
2	30	30.000	CIB 30K-3	240,-	80	1		●											
2	30	30.000	CXB 30K2	230,-	81	1		●											
2 5	6 15	60.000	CPB 15K2DM	225,-	82	1	○	●		●			○						
2 5	6 15	75.000	IFS 10K-3M	410,-	85	1	○	●	●	●			○						
2 5	6 15	75.000	IFS 10K-3LM	460,-	85	1	○	●	●	●			○						
2 5	6 15	75.000	IFS 300K-3	790,-	85	1		●	●	●			○						
5	15	30.000	CIB 10K-3	240,-	80	1		●											
5	15	30.000	CXB 15K5NM	245,-	81	1	○	●											
10	30	30.000	CXB 30K10NM	245,-	81	1	○	●											
50	15 30	60.000	CPB 30K5DM	225,-	82	1	○	●		●			○						
50	15 30	60.000	IFS 30K-3M	460,-	85	1	○	●	●	●			○						
50	150	1.500.000	IFS 300K-2M	720,-	85	1	○	●	●	●	●		○						
10 20	30 60	60.000	IFS 60K-2M	460,-	85	1	○	●	●	●			○						
10 20	30 60	60.000	IFS 60K-2LM	550,-	85	1	○	●	●	●	●		○						
20 50	60 150	60.000	IFS 100K-2M	550,-	85	1	○	●	●	●	●		○						
20 50	60 150	60.000	IFS 100K-2LM	720,-	85	1	○	●	●	●	●		○						

News 2021

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

● = standard ○ = option

NEW



Robust counting scale with large article memory, convenient operating philosophy and checkweighing display, counting resolution up to 30,000 points

Features

- Innovative counting with tolerance range (Checkweighing):
The counting process can be supported visually and/or audibly and this therefore makes portion division, dispensing and grading easier
 - visual signal: the colour of the display changes depending on the counting result (not enough/ok/too much)
 - audible signal: the frequency of the audible signal changes depending on the counting result (not enough/ok/too much) Ideal for workshops for people with disabilities, particularly loud or quiet environments, where operators change frequently, etc.
- Three displays for weight display, reference weight, total pieces
- 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

- Counting results memory: adds up all individual piece counts, result is shown in total weight and total pieces
- PRE-TARE function for manual subtraction of a known container weight, useful for checking fill-levels
- 20 direct price keys for frequently recurring reference weights and PRE-Tare values
- Memory (PLU) for 50 reference weights and PRE-Tare values
- High mobility: thanks to battery operation, compact, lightweight construction, it is suitable for the use in several locations
- Two balances in one: Changes from counting mode to weighing mode at the touch of a key
- Energy management: Backlight turns off after 5 sec, can be switched off
- Protective working cover included with delivery

Technical data

- Large backlit LCD displays, digit height 18 mm
- Dimensions weighing surface, Stainless Steel, WxD 350x215 mm Overall dimensions WxDxH, 350x330x120 mm
- Net weight approx. 4,0 kg
- Permissible ambient temperature, Permissible ambient temperature -10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN RIB-A01S05, € 40,-
- Internal rechargeable battery pack, operating time up to 160 h without backlight, charging time approx. 14 h, KERN GAB-A04, € 40,-

STANDARD

CAL EXT PCS SUM TOL ACCU MULTI DMS 1 DAY

OPTION

DAKKS +3 DAYS

Model	Weighing capacity [Max] kg	Readability [d] g	Smallest part weight [Normal] g/piece	Counting resolution Points	Price excl. of VAT ex works €	Option	
						DAKKS KERN	DAKKS Calibr. Certificate €
KERN CIB 3K-4	3	0,2	1	30.000	240,-	963-127	78,-
KERN CIB 6K-4	6	0,5	2	30.000	240,-	963-128	94,-
KERN CIB 10K-3	15	1	5	30.000	240,-	963-128	94,-
KERN CIB 30K-3	30	2	10	30.000	240,-	963-128	94,-



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, reference weight, total pieces
- Audible Fill-to-target: target quantity or target weight can be programmed, e. g. for checkweighing. When the target value is reached, a signal will sound
- 10 memories for reference weights
- Counting results memory: adds up all individual piece counts, result is shown in total weight and total pieces
- Energy management: Backlight turns off after 5 sec

- 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 delivery
- Internal rechargeable battery pack included with the delivery

Technical data

- Large backlit LCD displays, digit height 18 mm
- Dimensions weighing surface, Stainless Steel, WxD 300x225 mm
- Dimensions housing WxDxH, 300x330x110 mm
- Internal rechargeable battery pack, operating time up to 200 h without backlight, charging time approx. 8 h
- Net weight approx. 4,0 kg
- Permissible ambient temperature -10 °C/40 °C

Accessories

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

STANDARD

CAL EXT PCS SUM ACCU 230 V DMS 1 DAY

OPTION FACTORY

DAKKS +3 DAYS M +3 DAYS CXB-NM

Model	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Smallest part weight [Normal] g/piece	Counting resolution Points	Net weight approx. kg	Price excl. of VAT ex works €	Option			
									Verification		DAKKS Calibr. Certificate	
KERN								M KERN	€	DAKKS KERN	€	
CXB 3K0.2	3	0,2	-	-	1	30.000	4,0	230,-	-	-	963-127	78,-
CXB 6K0.5	6	0,5	-	-	2	30.000	4,0	230,-	-	-	963-128	94,-
CXB 15K1	15	1	-	-	5	30.000	4,0	230,-	-	-	963-128	94,-
CXB 30K2	30	2	-	-	10	30.000	4,2	230,-	-	-	963-128	94,-
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.												
CXB 3K1NM	3	1	1	20	1	30.000	4,0	245,-	965-227	55,-	963-127	78,-
CXB 6K2NM	6	2	2	40	2	30.000	4,2	245,-	965-228	70,-	963-128	94,-
CXB 15K5NM	15	5	5	100	5	30.000	4,0	245,-	965-228	70,-	963-128	94,-
CXB 30K10NM	30	10	10	200	10	30.000	4,2	245,-	965-228	70,-	963-128	94,-



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, 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. When the target weight is reached there is an audible and visual signal
- 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, WxD 295x225 mm Overall dimensions WxDxH 315x350x105 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,-
- Internal rechargeable battery pack, 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, only in combination with, 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										OPTION		FACTORY	
CAL EXT	RS 232	KCP	PCS	SUM	TOL	MULTI	DMS	1 DAY	ACCU	DAkks	M	+3 DAYS	
											CPB-DM		

Model	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Smallest part weight [Normal] g/piece	Counting resolution Points	Price excl. of VAT ex works €	Option			
								Verification		DAkKS Calibr. Certificate	
KERN									€	DAkKS KERN	€
CPB 6K0.1N	6	0,1	-	-	1	60.000	225,-	-	-	963-128	94,-
CPB 15K0.2N	15	0,2	-	-	2,5	60.000	225,-	-	-	963-128	94,-
CPB 30K0.5N	30	0,5	-	-	5	60.000	225,-	-	-	963-128	94,-
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readability [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	94,-
CPB 15K2DM	6 15	2 5	2 5	40	2,5	60.000	225,-	965-228	70,-	963-128	94,-
CPB 30K5DM	15 30	5 10	5 10	100	5	60.000	225,-	965-228	70,-	963-128	94,-



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
 - A** Ø 80 mm
 - B** W×D 295×225 mm
 - C** W×D 370×240 mm
- Overall dimensions W×D×H
 - A** 315×350×180 mm (incl. draught shield)
 - B** 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, **€ 40,-**
- Internal rechargeable battery pack, 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, only in combination with, 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 OPTION

CAL EXT	MEMORY	RS 232	KCP	DUAL	SUM	TOL	MULTI	DMS	1 DAY	ACCU	DAKKS

Model	Weighing capacity [Max] kg	Readability [d] g	Smallest part weight [Normal] g/piece	Counting resolution Points	Net weight approx. kg	Weighing plate	Price excl. of VAT ex works €	Option	
								DAKKS KERN	Calibr. Certificate €
KERN CFS 300-3	0,3	0,001	0,05	60.000	2,6	A	365,-	963-127	78,-
CFS 3K-5	3	0,01	0,5	60.000	3,4	B	310,-	963-127	78,-
CFS 6K0.1	6	0,1	1	60.000	3,2	B	270,-	963-128	94,-
CFS 15K0.2	15	0,2	2	75.000	3,4	B	270,-	963-128	94,-
CFS 30K0.5	30	0,5	5	60.000	3,4	B	270,-	963-128	94,-
CFS 50K-3	50	1	10	50.000	4,4	C	295,-	963-128	94,-



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:
 - 1 Place the empty container onto the weighing plate and tare by pressing the TARE key
 - 2 Place the reference quantity for the goods to be counted into the container (5, 10 or 20 pieces)
 - 3 Confirm the selected reference quantity by pressing the key (5, 10 or 20)
 - 4 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

- Two balances in one: Changes from counting mode to weighing mode at the touch of a key
- Draught shield standard for models with weighing plate size \varnothing 81 mm, weighing space \varnothing 90x40 mm
- Protective working cover included with delivery

Technical data

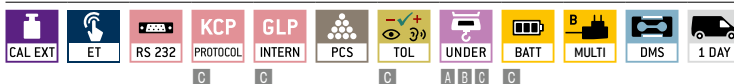
- Large backlit display
 - A, B digit height 9 mm
 - C digit height 18 mm
- Dimensions weighing surface
 - A \varnothing 81 mm, plastic
 - B WxD 150x170 mm, stainless steel
 - C WxD 340x240 mm, stainless steel
- Overall dimensions WxDxH
 - A, B 167x250x85 mm
 - C 350x390x120 mm

- Optional battery operation, 6x1.5 V Size C not included, operating time up to 40 h, for models with weighing plate size C
- Permissible ambient temperature 10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, for models with weighing plate size
 - A KERN PCB-A02S05, € 40,-
 - B KERN PCB-A05S05, € 40,-
 - C 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 rechargeable 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,-
- USB data interface, for transferring weighing to the PC, printer etc., for models with weighing plate size C, KERN CKE-A02, € 65,-
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD



OPTION



FACTORY



Model	Weighing capacity [Max] kg	Readability [d] g	Smallest part weight [Normal] g/piece	Counting resolution Points	Net weight approx. kg	Weighing plate	Price excl. of VAT ex works €	Option	
								DAkKS KERN	Calibr. Certificate €
KERN CKE 360-3	0,36	0,001	0,01	360.000	1	A	290,-	963-127	78,-
KERN CKE 2000-2	2	0,01	0,1	200.000	1,8	B	330,-	963-127	78,-
KERN CKE 3600-2	3,6	0,01	0,1	360.000	1,8	B	350,-	963-127	78,-
KERN CKE 6K0.02	6	0,02	0,2	300.000	7	C	490,-	963-128	94,-
KERN CKE 8K0.05	8	0,05	0,5	160.000	7	C	470,-	963-128	94,-
KERN CKE 16K0.05	16	0,05	0,5	320.000	7	C	570,-	963-128	94,-
KERN CKE 16K0.1	16	0,1	1	160.000	7	C	460,-	963-128	94,-
KERN CKE 36K0.1	36	0,1	1	360.000	7	C	520,-	963-128	94,-
KERN CKE 65K0.2	65	0,2	2	325.000	7	C	520,-	963-129	116,-



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, 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
 - C 400×300×120 mm
 - D 500×400×140 mm
 - E 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

Accessories

- Protective working cover, scope of delivery: 5 items, KERN KFB-A02S05, **€ 40,-**
- **I** Stand to elevate display device
 - Height of stand approx. 330 mm, KERN IFB-A01, **€ 50,-**
 - Height of stand approx. 600 mm, for models with weighing plate size **D**, **E**, KERN IFB-A02, **€ 60,-**
- Internal rechargeable battery pack, 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*

STANDARD



OPTION



FACTORY



Model KERN	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Smallest part weight [Normal] g/piece	Counting resolution Points	Net weight approx. kg	Weighing plate	Price excl. of VAT ex works €	Option					
									Verification		DAkkS Calibr. Certificate			
									M IFS-M	€	DAkkS KERN	€		
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readability [d]														
IFS 6K-4S	3 6	0,1 0,2	-	1	60.000	4,6	A	390,-	-	-	963-128	94,-		
IFS 10K-4	6 15	0,1 0,2	-	2	75.000	6	B	405,-	-	-	963-128	94,-		
IFS 30K0.2DL	12 30	0,2 0,5	-	5	60.000	11	C	450,-	-	-	963-128	94,-		
IFS 60K0.5D	30 60	0,5 1	-	10	60.000	10	C	450,-	-	-	963-129	116,-		
IFS 60K0.5DL	30 60	0,5 1	-	10	60.000	12	D	550,-	-	-	963-129	116,-		
IFS 100K-3	75 150	1 2	-	25	60.000	12	D	630,-	-	-	963-129	116,-		
IFS 100K-3L	75 150	1 2	-	25	60.000	20	E	790,-	-	-	963-129	116,-		
IFS 300K-3	150 300	2 5	-	50	60.000	22	E	790,-	-	-	963-129	116,-		

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.

IFS 6K-3SM	3 6	1 2	1 2	1	60.000	6	A	350,-	965-228	70,-	963-128	94,-
IFS 6K-3M	3 6	1 2	1 2	1	60.000	6	B	410,-	965-228	70,-	963-128	94,-
IFS 10K-3M	6 15	2 5	2 5	2	75.000	6	B	410,-	965-228	70,-	963-128	94,-
IFS 10K-3LM	6 15	2 5	2 5	2	75.000	10	C	460,-	965-228	70,-	963-128	94,-
IFS 30K-3M	15 30	5 10	5 10	5	60.000	10	C	460,-	965-228	70,-	963-128	94,-
IFS 60K-2M	30 60	10 20	10 20	10	60.000	11	C	460,-	965-229	93,-	963-129	116,-
IFS 60K-2LM	30 60	10 20	10 20	10	60.000	13	D	550,-	965-229	93,-	963-129	116,-
IFS 100K-2M	60 150	20 50	20 50	25	60.000	12	D	550,-	965-229	93,-	963-129	116,-
IFS 100K-2LM	60 150	20 50	20 50	25	60.000	22	E	720,-	965-229	93,-	963-129	116,-
IFS 300K-2M	150 300	50 100	50 100	50	60.000	22	E	720,-	965-229	93,-	963-129	116,-



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:
 - 1 Place the empty container onto the weighing plate and tare by pressing the TARE key
 - 2 Place the reference quantity for the goods to be counted into the container (5, 10 or 20 pieces)
 - 3 Confirm the selected reference quantity by pressing the key (5, 10 or 20)
 - 4 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

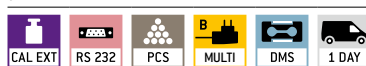
Technical data

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

Accessories

- 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, for models with weighing plate size B, C, can be reordered, 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,-**
- Internal rechargeable battery pack, 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 B, KERN DS-A01, **€ 200,-**
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD



OPTION



Model	Weighing capacity [Max] kg	Readability [d] g	Smallest part weight [Normal] g/piece	Counting resolution Points	Net weight approx. kg	Cable length approx. m	Weighing plate	Price excl. of VAT ex works €	Option	
									DAkkS KERN	DAkkS Calibr. Certificate €
KERN CDS 4K0.02	4	0,02	0,2	200.000	6	2	A	560,-	963-127	78,-
CDS 15K0.05	15	0,05	0,5	300.000	8	2	B	490,-	963-128	94,-
CDS 16K0.1	16	0,1	1	160.000	8	2	B	470,-	963-128	94,-
CDS 30K0.1	30	0,1	1	300.000	8	2	B	560,-	963-128	94,-
CDS 30K0.1L	30	0,1	1	300.000	10	0,6	C	720,-	963-128	94,-
CDS 36K0.2L	36	0,2	2	180.000	10	0,6	C	710,-	963-128	94,-
CDS 60K0.2	60	0,2	2	300.000	10	0,6	C	720,-	963-129	116,-



High-resolution counting system with EC type approval to count the smallest parts in large quantities, maximum number of parts which can be displayed is 999,999

Features

- The highly accurate KERN CCA counting system can replace a whole range of individual balances, efficiently and at a reasonable price
- Thanks to EC type approval, it is also suitable for use in verified applications
- The balances are connected to one another with an RS-232 Y-cable, which also allows you to connect an end unit, such as, for example, signal lamps, barcode scanners or printers

Reference scale KERN

- This precision balance, which can be used as an individual balance, also fulfils the highest demands through connection with a high-capacity weighing bridge
- Programmable using numerical keypad:
 - required reference quantity
 - known reference weight
- 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 accuracy and makes the balance independent of its location
- Capacity display: A bargraph display lights up to show how much of the weighing range is still available
- USB data interface for transferring weighing data to the PC, printer etc. Can only be used in combination with KERN DBS-A02 accessories
- Draught shield standard, Weighing space W×D×H 134×128×80 mm, 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
- 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, reference weight, total pieces
- 100 item memories for master data such as reference weight, reference quantity, container weight (PRE-TARE) etc.
- Precise counting: The manual reference weight optimisation gradually improves the average value of the piece weight
- Totalising of pieces when counting
- Printout with date and time
- Aluminium singlepoint 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 of weighing surface, stainless steel, Ø 120 mm
- Net weight 3,2 kg
- Connection cable approx. 1,5 m

Quantity scale KERN IFS

- Dimensions of weighing plate
 - A 300×240×110 mm
 - B 400×300×120 mm
 - C 500×400×140 mm
 - D 650×500×140 mm

Accessories

- Signal lamp for visual support of weighing with tolerance range, only in combination with CCA-A02, KERN CFS-A03, € 250,-
- Y-cable, RS-232, KERN CCA-A02, € 46,-

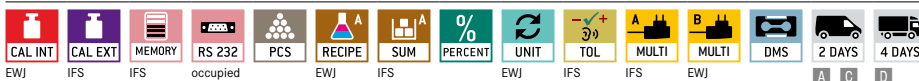
Reference scale KERN EWJ

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

Quantity scale KERN IFS

- Protective working cover, scope of delivery: 5 items, KERN KFB-A02S05, € 40,-
- Internal rechargeable battery pack, operating time up to 18 h without backlight, charging time approx. 12 h, Factory Option, KERN KFB-A01, € 35,-
- Further details, plenty of further accessories and suitable printers see *Accessories*

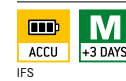
STANDARD



OPTION



FACTORY



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	Price excl. of VAT ex works €	Option	
									Verification	
KERN										€
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.										
CCA 6K-5M	3 6	1 2	A	600	0,01	30.000	0,2	890,-	965-228-216	121,-
CCA 10K-5M	6 15	2 5	A	600	0,01	75.000	0,2	890,-	965-228-216	121,-
CCA 30K-5M	15 30	5 10	B	600	0,01	150.000	0,2	960,-	965-228-216	121,-
CCA 60K-5M	30 60	10 20	B	600	0,01	300.000	0,2	960,-	965-229-216	159,-
CCA 100K-5M	60 150	20 50	C	600	0,01	750.000	0,2	1070,-	965-229-216	159,-
CCA 300K-5M	150 300	50 100	D	600	0,01	1.500.000	0,2	1250,-	965-229-216	159,-



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
 - I** CFS 300-3: \varnothing 80 mm
 - CFS 3K-5, CFS 6K0.1: W×D 300×225 mm
- Draught shield standard for models with weighing plate size \varnothing 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

Bulk pallet load handling, KERN KFU-V20

- Weighing plate dimensions W×D×H, steel, painted
 - 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

- Connection cable approx.

- A-E** 2,5 m
- F-J** 5 m

Counting system KERN CCS



Accessories

- **2** Protective working cover, scope of delivery: 5 items, KERN CFS-A02S05, **€ 40,-**
- **3** Internal rechargeable battery pack, 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, only in combination with, 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*

I 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	Price excl. of VAT ex works €	Option	
									DAKKS KERN	Calibr. Certificate €
CCS 6K-6	6	0,2	A	300	0,001	1.200.000	0,05	630,-	962-128-127	172,-
CCS 10K-6.	15	0,5	B	300	0,001	3.000.000	0,05	660,-	962-128-127	172,-
CCS 30K0.01.	30	1	C	3000	0,01	600.000	0,5	540,-	962-128-127	172,-
CCS 30K0.1.	30	1	C	6000	0,1	300.000	1	490,-	962-128-128	188,-
CCS 60K0.01.	60	2	C	3000	0,01	1.200.000	0,5	540,-	962-129-127	194,-
CCS 60K0.01L.	60	2	D	3000	0,01	1.200.000	0,5	620,-	962-129-127	194,-
CCS 60K0.1.	60	2	C	6000	0,1	600.000	1	495,-	962-129-128	210,-
CCS 60K0.1L.	60	2	D	6000	0,1	600.000	1	570,-	962-129-128	210,-
CCS 150K0.01.	150	5	D	3000	0,01	3.000.000	0,5	650,-	962-129-127	194,-
CCS 150K0.01L	150	5	E	3000	0,01	3.000.000	0,5	860,-	962-129-127	194,-
CCS 150K0.1.	150	5	D	6000	0,1	1.500.000	1	540,-	962-129-128	210,-
CCS 150K0.1L	150	5	E	6000	0,1	1.500.000	1	820,-	962-129-128	210,-
CCS 300K0.01	300	10	E	3000	0,01	6.000.000	0,5	860,-	962-129-127	194,-
CCS 300K0.1	300	10	E	6000	0,1	3.000.000	1	790,-	962-129-128	210,-
CCS 600K-1S*	600	200	H	6000	0,1	6.000.000	1	1400,-	962-130-127	245,-
CCS 600K-1*	600	200	I	6000	0,1	6.000.000	1	1650,-	962-130-127	245,-
CCS 600K-2U*	600	200	G	3000	0,01	12.000.000	0,5	1490,-	962-130-127	245,-
CCS 1T-4S*	1500	500	H	6000	0,1	15.000.000	1	1400,-	962-130-128	260,-
CCS 1T-4*	1500	500	I	6000	0,1	15.000.000	1	1650,-	962-130-128	260,-
CCS 1T-1L*	1500	500	F	6000	0,1	15.000.000	1	1880,-	962-130-128	260,-
CCS 1T-1U*	1500	500	G	6000	0,1	15.000.000	1	1430,-	962-130-128	260,-
CCS 3T-3*	3000	1000	I	6000	0,1	30.000.000	1	1650,-	962-132-128	530,-
CCS 3T-3L*	3000	1000	J	6000	0,1	30.000.000	1	1850,-	962-132-128	530,-

KERN Service Portal

[www.kern-sohn.com/
serviceportal](http://www.kern-sohn.com/serviceportal)



Technical contact enquiries this is where you can ask us a technical question about your product or request technical support for your product



Fast service
We deliver needed spare parts usually within 48 hours plus transport



At any time **status inquiry** from your device with your repair number and your password for your repair process

The KERN Service Portal – We won't let you down!

With a device from KERN you can be sure of the highest quality. But if you have any complaints at all, you can register your repair at www.kern-sohn.com/serviceportal and download a consignment note for your service return.

Your advantages: Accelerated processing as well as online tracking of the repair status.

Our reliable KERN service personnel will do everything within their power to make sure your precision balances and measuring devices are back in operation as quickly as possible.

KERN & SOHN GmbH
Balances, Test weights, Microscopes,
DAkkS calibration laboratory

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1769
 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



1863
 A proud Gottlieb Kern with his staff



1880
 Pharmaceutical balance with Aesculap



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)




2008
 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)



2012
 Verification point for non-automatic balances and test weights.

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




2014
 Expansion of the product range to include optical instruments (microscopes and refractometers)



2015
 Inauguration of Ziegelei 2.0 with computer-controlled high-bay warehouse



2017
 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 DAkkS/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