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Please note:
New prices - valid from
July 1, 2022
see: www.kern-sohn.com

KERN[®]

Bench scales



2022



PROFESSIONAL MEASURING

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 or tablet. For details see page 123



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 215



Data interface RS-232:

To connect the balance to a printer, PC or network



RS-485 data interface:

To connect the balance to a printer, PC or other peripherals. Suitable for data transfer over large distances. Network in bus topology is possible



USB data interface:

To connect the balance to a printer, PC or other peripherals



Bluetooth* data interface:

To transfer data from the balance to a printer, PC or other peripherals



WiFi data interface:

To transfer data from the balance to a printer, PC or other peripherals



Control outputs (optocoupler, digital I/O):

To connect relays, signal lamps, valves, etc.



Analogue interface:

to connect a suitable peripheral device for analogue processing of the measurements



Interface for second balance:

For direct connection of a second balance



Network interface:

For connecting the scale to an Ethernet network



KERN Communication Protocol (KCP):

It is a standardized interface command set for KERN balances and other instruments, which allows retrieving and controlling all relevant parameters and functions of the device. KERN devices featuring KCP are thus easily integrated with computers, industrial controllers and other digital systems



GLP/ISO log:

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



GLP/ISO log:

With weight, date and time. Only with KERN printers, see page 163–165



Piece counting:

Reference quantities selectable. Display can be switched from piece to weight



Recipe level A:

The weights of the recipe ingredients can be added together and the total weight of the recipe can be printed out



Recipe level B:

Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display



Totalising level A:

The weights of similar items can be added together and the total can be printed out



Percentage determination:

Determining the deviation in % from the target value (100 %)



Weighing units:

Can be switched to e.g. nonmetric units. See balance model. Please refer to KERN's website for more details



Weighing with tolerance range:

(Checkweighing) Upper and lower limiting can be programmed individually, e.g. for sorting and dosing. The process is supported by an audible or visual signal, see the relevant model



Hold function:

(Animal weighing program) When the weighing conditions are unstable, a stable weight is calculated as an average value



Protection against dust and water splashes IPxx:

The type of protection is shown in the pictogram. For details see page 53



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 plug-in power supply:

with universal input and optional input socket adapters for
A) EU, CH, GB
B) EU, CH, GB, USA
C) EU, CH, GB, USA, AUS



Plug-in power supply:

230V/50Hz in standard version for EU, CH. On request GB, USA or AUS version available



Integrated power supply unit:

Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, USA or AUS on request



Weighing principle: Strain gauges

Electrical resistor on an elastic deforming body



Weighing principle: Tuning fork

A resonating body is electromagnetically excited, causing it to oscillate



Weighing principle: Electromagnetic force compensation

Coil inside a permanent magnet. For the most accurate weighings



Weighing principle: Single cell technology:

Advanced version of the force compensation principle with the highest level of precision



Verification possible:

The time required for verification is specified in the pictogram



DAKkS calibration possible (DKD):

The time required for DAKkS calibration is shown in days in the pictogram



Factory calibration (ISO):

The time required for Factory calibration is shown in days in the pictogram



Package shipment:

The time required for internal shipping preparations is shown in days in the pictogram



Pallet shipment:

The time required for internal shipping preparations is shown in days in the pictogram

- > Simple and convenient 5-key operation
- > Very fast display
- > High mobility



Bench scales

Compact industrial weighing technology

Thanks to their compact dimensions, low weight, robust internal mechanism and the fact that they can be operated independent of mains power, bench scales can be used not only in a stationary situation, but also as mobile scales.

With weighing ranges between 3 kg and 65 kg, bench scales can cover a wide range of applications. Whether as a commissioning scale in the warehouse, for inventory purposes, on a production work station, in quality control, in small workshops, in service cars or in sales offices, bench scales are the first choice.










Durable stainless steel weighing plates, easy to read backlit displays, useful functions such as piece counting, PRE-TARE – subtraction of a known container weight, or ► **interfaces** to PC and printer, all these support the users in their daily work.

► **Dual range** scales cover a particularly wide range of applications. With these scales, the total weighing range is divided into 2 subranges and begins with a high resolution read-out in the fine weighing range. If this range is exceeded the balance automatically switches to the higher weighing range with the lower resolution read-out.

All KERN bench scales have an adjustment program (CAL) to adjust the accuracy. In this way, the high level of accuracy is guaranteed at all times, even during harsh everyday use. Find the right test weights for you, on page 176.

► **See the glossary on page 215–217**

Quick-Finder Bench scales

Readability [d] g	Weighing capacity [Max] kg	Weighing plate W×D mm	Model	Page									
For an explanation on the pictos, see front flap													
0,02	6	340×240	FKB 6K0.02	52	1	●	●	●				●	○
0,05	6	294×225	GAB 6K0.05N	51	1	●	●	●	●				○
0,05	8	340×240	FKB 8K0.05	52	1	●	●	●				●	○
0,05	16	340×240	FKB 16K0.05	52	1	●	●	●				●	○
0,1	3	253×227	FCB 3K0.1	50	1	●	●	●				●	○
0,1	8	253×227	FCB 8K0.1	50	1	●	●	●				●	○
0,1	12	294×225	GAB 12K0.1N	51	1	●	●	●	●				○
0,1	16	340×240	FKB 16K0.1	52	1	●	●	●				●	○
0,1	36	340×240	FKB 36K0.1	52	1	●	●	●				●	○
0,2	30	294×225	GAB 30K0.2N	51	1	●	●	●	●				○
0,2	36	340×240	FKB 36K0.2	52	1	●	●	●				●	○
0,2	65	340×240	FKB 65K0.2	52	1	●	●	●				●	○
0,5	6	253×227	FCB 6K0.5	50	1	●	●	●				●	○
1	3	252×228	FCE 3K1N	49	1	●	●	●				●	○
1	12	253×227	FCB 12K1	50	1	●	●	●				●	○
1	30	340×240	FKB 30K1	52	1	●	●	●				●	○
1	30	253×227	FCB 30K1	50	1	●	●	●				●	○
1	65	340×240	FKB 65K1	52	1	●	●	●				●	○
1 2	3 6	295×225	GAB 6K1DNM	51	1	○	●	●	●	●			○
2	6	252×228	FCE 6K2N	49	1	●	●	●				●	○
2	24	253×227	FCB 24K2	50	1	●	●	●				●	○
2 5	6 15	300×230	GAB 15K2DNM	51	1	○	●	●	●	●			○
5	10	320×260	ECE 10K-3N	48	1	●	●	●				●	○
5	10	320×260	ECB 10K-3N	48	1	●	●	●				●	○
5	15	252×228	FCE 15K5N	49	1	●	●	●				●	○
5 10	15 30	294×225	GAB 30K5DNM	51	1	○	●	●	●	●			○
10	20	320×260	ECE 20K-2N	48	1	●	●	●				●	○
10	20	320×260	ECB 20K-2N	48	1	●	●	●				●	○
10	30	252×228	FCE 30K10N	49	1	●	●	●				●	○
20	50	320×260	ECE 50K-2N	48	1	●	●	●				●	○
20	50	320×260	ECB 50K-2N	48	1	●	●	●				●	○

● = standard ○ = option



06

Plain, mobile, uncomplicated

Features

- **2** High mobility: Battery operation, compact, lightweight construction, recessed grips on the underside and low weight make this balance ideal for use in several locations
- Particularly large weighing plate
- Very fast display: steady weight values within 2 s
- Simple and convenient 2-key operation

Technical data

- KERN ECB-N: Large backlit LCD display, digit height 21 mm
- KERN ECE-N: Large LCD display, digit height 21 mm
- Dimensions weighing surface W×D 320×260 mm
- Weighing plate material
 - KERN ECE-N: plastic
 - KERN ECB-N: stainless steel, see larger picture
- Overall dimensions W×D×H 320×300×60 mm
- Optional battery operation, 6×1.5 V AA, standard, operating time up to 100 h, AUTO-OFF function to preserve the battery
- Net weight
 - KERN ECE-N: approx. 1,6 kg
 - KERN ECB-N: approx. 2,6 kg
- Permissible ambient temperature 5 °C/35 °C

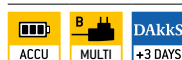
Accessories

- Internal rechargeable battery pack, operating time up to 30 h without backlight, charging time approx. 10 h, KERN PCB-A01
- Rechargeable battery pack external, operating time up to 30 h without backlight, charging time approx. 10 h, KERN KS-A01
- Tare pan made from stainless steel. Ideal for weighing loose small parts as well as fruit, vegetables, etc., KERN RFS-A02
- External universal mains adapter, with universal input and optional input socket adapters for EU, GB, USA, KERN YKA-03
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD



OPTION



Model	Weighing capacity [Max] kg	Readability [d] g	Reproducibility g	Linearity g	Option	
					DAkkS KERN	DAkkS Certificate
KERN						
ECE 10K-3N	10	5	5	± 20	963-128	
ECE 20K-2N	20	10	10	± 40	963-128	
ECE 50K-2N	50	20	20	± 80	963-128	
ECB						
ECB 10K-3N	10	5	5	± 20	963-128	
ECB 20K-2N	20	10	10	± 40	963-128	
ECB 50K-2N	50	20	20	± 80	963-128	



Entry-level bench scale – mobile, practical, lightweight

Features

- Simple and convenient 2-key operation
- Very fast display: steady weight values within 3 s
- **1** Ideal as a compact letter and parcel scale, especially where space is limited
- **2** Ideal as a grading, commissioning or simple checkweighing scale in production or dispatch
- Protective working cover included with delivery

Technical data

- Large LCD display, digit height 25 mm
- Dimensions weighing surface, plastic, W×D 252×228 mm
- Overall dimensions W×D×H 270×323×110 mm
- Optional battery operation, 9 V block not included in scope of delivery, operating time up to 12 h, AUTO-OFF function to preserve the battery
- Net weight approx. 2,4 kg
- Permissible ambient temperature 5 °C/35 °C

Accessories

- Protective working cover, scope of delivery: 5 pieces, KERN FCB-A02S05
- **3** Stainless steel weighing plate, robust, removable, for easy cleaning, KERN FCE-A01
- Internal rechargeable battery pack, operating time up to 20 h, without backlight, charging time approx. 10 h, KERN FCB-A01

STANDARD OPTION

CAL EXT	BATT	MULTI	DMS	1 DAY	ACCU	DAKKS +3 DAYS

Model	Weighing capacity [Max] kg	Readability [d] g	Reproducibility g	Linearity g	Option	
					DAKKS Calibr. Certificate	DAKKS KERN
FCE 3K1N	3	1	2	± 3	963-127	
FCE 6K2N	6	2	2	± 4	963-128	
FCE 15K5N	15	5	10	± 15	963-128	
FCE 30K10N	30	10	10	± 30	963-128	



Bench scale with second display on the backside of the scale

Features

- PRE-TARE function for manual subtraction of a known container weight, useful for checking fill-levels
- High mobility: thanks to battery operation/ rechargeable battery operation (optional), compact, lightweight construction, it is suitable for the use in several locations (production, warehouse, dispatch department etc.)
- Data interface RS-232 standard
- Protective working cover included with delivery

Technical data

- Backlit LCD display, digit height 25 mm
- Dimensions of weighing surface, stainless steel, WxD 253x227 mm
- Overall dimensions WxDxH 270x323x110 mm
- Optional battery operation, 9 V block not included in scope of delivery, operating time up to 12 h
- Net weight approx. 2,6 kg
- Permissible ambient temperature 5 °C/35 °C

Accessories

- Protective working cover, scope of delivery: 5 pieces, KERN FCB-A02S05
- Internal rechargeable battery pack, operating time up to 10 h, without backlight, charging time approx. 10 h,, KERN FCB-A01
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD



OPTION



Model	Weighing capacity [Max] kg	Readability [d] g	Reproducibility g	Linearity g	Smallest part weight [Normal] g/piece	Option	
						DAkkS KERN	DAkkS Calibr. Certificate
FCB 3K0.1	3	0,1	0,1	± 0,3	2	963-127	
FCB 8K0.1	8	0,1	0,1	± 0,3	2	963-128	
FCB 6K0.5	6	0,5	0,5	± 1,5	10	963-128	
FCB 12K1	12	1	1	± 3	20	963-128	
FCB 30K1	30	1	1	± 3	20	963-128	
FCB 24K2	24	2	2	± 6	40	963-128	



Checkweighing and portioning scale, also with EC type approval [M]

Features

- Compact size, practical for small spaces
- 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.)
- Weighing with tolerance range (checkweighing): a visual and audible signal helps with portioning, dispensing or grading
- Totalising of weights
- Protective working cover included with delivery

Technical data

- Large backlit LCD display, digit height 24 mm
- Dimensions weighing surface W×D 295×225 mm
- Overall dimensions W×D×H, 320×345×125 mm
- Net weight approx. 3,0 kg
- Permissible ambient temperature
GAB-N: 0 °C/40 °C
GAB-DNM: -10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN CFS-A02S05
- Internal rechargeable battery pack, operating time up to 90 h without backlight, charging time approx. 12 h, KERN GAB-A04
- Signal lamp for visual support of weighing with tolerance range, only in combination with, KERN CFS-A03

- Y-cable for parallel connection of two terminal devices to the RS-232 interface on the scale, e.g. signal lamp and printer, KERN CFS-A04
- Tare pan made from stainless steel. Ideal for weighing loose small parts as well as fruit, vegetables, etc., KERN RFS-A02
- Further details, plenty of further accessories and suitable printers see *Accessories*

Application examples

- Small industrial scale for pharmacies
- Hand mixtures of tea, coffee, chocolates
- Portioning of dough, meat, fish, poultry, mixed salads in cafeterias etc.
- Mobile weighing of freshly picked fruit on site
- Checkweigher in supermarkets
- High-precision industrial applications, piece counting or stock-taking

Note: Official verification is mandatory for commercial trade.

STANDARD										OPTION			FACTORY	
CAL EXT	RS 232	PCS	SUM	PERCENT	UNIT	TOL	MULTI	DMS	1 DAY	ET	ACCU	DAKKS	+3 DAYS	GAB-DNM

Model	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Smallest part weight [Normal] g/piece	Option			
						Verification	DAKKS	Calibr.	Certificate
KERN									
GAB 6K0.05N	6	0,05	-	-	0,5	-	-	963-128	
GAB 12K0.1N	12	0,1	-	-	1	-	-	963-128	
GAB 30K0.2N	30	0,2	-	-	2	-	-	963-128	
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.									
GAB 6K1DNM	3 6	1 2	1 2	20	2	965-228		963-128	
GAB 15K2DNM	6 15	2 5	2 5	40	5	965-228		963-128	
GAB 30K5DNM	15 30	5 10	5 10	100	10	965-228		963-128	



High-resolution bench scale with large weighing range and robust stainless steel weighing plate

Features

- Thanks to the high resolution of up to 360.000 points it is ideal for high-precision weighing in the industrial field
- Housing with robust aluminium diecast housing trough, maintains the stability, protects the weighing technology elements and is robust enough to cope with everyday use
- **1** Particularly practical: thanks to the large weighing ranges and compact dimensions, you can accurately weigh heavy loads in the most restricted of spaces. Useful for determining very small weight differences, such as, for example, gas wastage, abrasion of mechanical parts, rock samples, minerals, druses, silver etc.
- PRE-TARE function for manual subtraction of a known container weight, useful for checking fill-levels

- Freely programmable weighing unit, e.g. display direct in special units such as length of wire g/m, surface weight g/m², or else
- Model with resolution > 240,000 Pt.: Level indicator and levelling feet for precise levelling of the scale, fitted as standard
- Protective working cover included with delivery

Technical data

- Backlit LCD display, digit height 25 mm
- Dimensions weighing surface, stainless steel, WxD 340x240 mm
- Dimensions housing WxDxH, 350x390x120 mm
- Optional battery operation, 6x1.5 V Size C not included in scope of delivery, operating time up to 80 h
- Permissible ambient temperature 10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN FKB-A02S05
- Rechargeable battery pack external, operating time up to 48 h without backlight, charging time approx. 8 h, KERN PCB-A01
- USB data interface, for transferring weighing to the PC, printer etc., must be ordered at purchase, KERN CKE-A02
- WiFi data interface for wireless data transmission from balance to printer, PC or other peripheral devices, must be ordered at purchase, KERN YMI-A01
- Ethernet interface to connect to an IP-based Ethernet network, must be ordered at purchase, KERN FKB-A01
- Tare pan made from stainless steel. Ideal for weighing loose small parts as well as fruit, vegetables, etc., KERN RFS-A02
- Further details, plenty of further accessories and suitable printers see *Accessories*

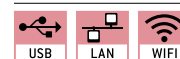
STANDARD



OPTION



FACTORY



Model	Weighing capacity [Max] kg	Readability [d] g	Reproducibility g	Linearity g	Smallest part weight [Normal] g/piece	Net weight approx. kg	Option	
							DAkKS	Calibr. Certificate
KERN FKB 6K0.02	6	0,02	0,04	± 0,1	0,2	7	963-128	
FKB 8K0.05	8	0,05	0,05	± 0,15	0,5	7	963-128	
FKB 8K0.1	8	0,1	0,1	± 0,3	2	6	963-128	
FKB 15K0.5	15	0,5	0,5	± 1,5	10	6	963-128	
FKB 16K0.05	16	0,05	0,1	± 0,25	0,5	7	963-128	
FKB 16K0.1	16	0,1	0,1	± 0,3	1	7	963-128	
FKB 30K1	30	1	1	± 3	20	6	963-128	
FKB 36K0.1	36	0,1	0,2	± 0,5	1	7	963-128	
FKB 36K0.2	36	0,2	0,2	± 0,6	2	7	963-128	
FKB 65K0.2	65	0,2	0,4	± 1	2	7	963-129	
FKB 65K1	65	1	1	± 3	20	6	963-129	

KERN & SOHN – The wide range of product champion that is situated in the Swabian Alb

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