

# **BENCH SCALES**



## **KERN Pictograms**



#### Internal adjusting:

Quick setting up of the balance's accuracy with internal adjusting weight (motordriven).



#### Piece counting:

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



#### Rechargeable battery pack:

Rechargeable set.



#### Adjusting program CAL:

For quick setting up of the balance's accuracy. External adjusting weight required.



#### Recipe level A:

Separate memory for the weight of the tare container and the recipe ingredients (net total).



Universal mains adapter: with universal input and optional input socket adapters

for A) EU, GB

B) EU, GB, CH, USA

C) EU, GB, CH, USA, AUS



#### Memory:

Balance memory capacity, e.g. for article data, weighing data, tare weights, PLU etc.



#### Recipe level B:

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



#### Mains adapter:

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



#### Alibi memory:

PC or network.

Electronic archiving of weighing results, complying with the 2009/23/EC standard. For details see page 199



#### Recipe level C:

Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display, multiplier function, adjustment of recipe when dosages are exceeded or barcode recognition.



#### 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.



- 4444

RS 232

#### RS-485 data interface:

Data interface RS-232:

To connect the balance to a printer, PC or other peripherals. High tolerance against electromagnetic disturbance.

To connect the balance to a printer,



#### Totalising level A:

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



#### Weighing principle: Tuning fork

A resonating body is electromagnetically excited, causing it to oscillate.



#### **USB** data interface:

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



#### Percentage determination:

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



#### Weighing principle: Electromagnetic force compensation

Coil inside a permanent magnet. For the most accurate weighings.



## Bluetooth\* 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



#### Weighing principle: Single cell technology

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



#### WLAN data interface:

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



## Weighing with tolerance range:

Upper and lower limiting values can be programmed individually for e.g. dosing, sorting and portioning



#### 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.



#### Hold function:

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



#### DAkkS calibration possible (DKD):

The time required for DAkkS calibration is shown in days in the pictogram.



#### Interface for second balance:

For direct connection of a second balance.



ΙP

#### Protection against dust and water splashes IPxx:

The type of protection is shown in the pictogram. For details see page 56.



## 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. With KERN products you can use a universal RS-232/LAN converter. See page 166



#### ATEX explosion protection:

Suitable for use in hazardous industrial environments, in which there is explosion 2 DAYS danger. The ATEX marking is specified for each device.



#### Pallet shipment:

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



#### Wireless data transfer:

between the weighing unit and the evaluation unit using an integrated radio module.



#### Stainless steel:

The balance is protected against corrosion.



#### Warranty:

The warranty period is shown in the pictogram.



## GLP/ISO log:

The balance displays the weight, date and time, regardless of a printer connection.



#### Suspended weighing:

Load support with hook on the underside of the balance.



#### GLP/ISO log:

With weight, date and time. Only with KERN printers, see "Accessories", see page 163.



## **Battery operation:**

Ready for battery operation. The battery type is specified for each device.



## 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 ordered today, on its way tomorrow
- Sales & service hotline available from 8:00 am to 6:00 pm

## reliable

- 3 years warranty for balances over € 400,-
- Precision in weighing technology for more than 170 years

## competent

- DAkkS accreditation DIN EN ISO/IEC 17025
- Certified QM system DIN EN ISO 9001:2008
- Authorisation for initial verification by the manufacturer 2014/31/EU
- Medical certifications DIN EN ISO 13485 and 93/42/EEC

#### versatile

- One-stop shopping: from pocket balances through to floor scales – 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[0]7433 9933-0



## Service hotline

+49[0]7433 9933-199



## Calibration hotline

+49[0]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



### Fax order

+49[0]7433 9933-146



#### 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.

KERN FCF

## **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, see page 171.

Fax +49[0]7433 9933-29140

semma-hauser@kern-sohn.com

#### Touchscreen balances

The newest development for an even greater level of user-friendliness is the intuitive touchscreen operation, which is being integrated into new KERN models, see page 30 (PET), 37 (AET), 52/53 (FKT), 158 (FKTF), 77 (FKA), 78 (FKC), 104/105 (IKT), 108 (ILT)

**NEW FOR 2017:** a high-quality touchscreen bench scale range (KERN GAT, page 54/55) and touchscreen platform scale range (KERN IFT, page 106/107). Thanks to the intuitive touchscreen concept and multi-lingual operation (DE, GB, IT, ES, PT, NL, FI, PL, RUS, SE, CZ) the balances can be used easily by inexperienced users, straightaway. For the professional user, the balances also provide convenient functions which permit a high level of individualisation and which thereby make operation significantly easier and quicker. Through a large memory, e.g. for item master data, weighing data etc. the balances are the ideal solution when working with a large range of goods or where there are high requirements for record keeping and documentation. Thanks to the high level of connectivity it is easy to connect barcode readers for item recognition, USB sticks for data storage or data transfer to PCs and networks using RS 232 or USB and this means that this range can be used for many different functions in Industry 4.0 applications.

► See the glossary on page 199-201

# Your product specialist's recommendation: Suitable for a wide variety of uses, e.g. dispatch, catering trade, cafeterias, etc. Designed for mobile use Rapid and steady weighing results Edeltraud Semma-Hauser Product specialist Bench scales Tel. +49 [0] 7433 9933-140

#### **Quick-Finder Bench scales ^**→ Weighing Weighing Model Read-**Price** Page M · ARRA · out range plate excl. of VAT RS 232 BATT ACCU W×D ex works For an explanation on the pictos, see the front flap [d] [Max] mm **KERN** € 0,02 g 340×240 FKB 6K0.02 6 kg 520. 51 1 • 0,02 g 6 kg 340×240 FKT 6K0.02L 890,-52 • 1 • 0,05 g 294×225 **GAB 6K0.05N** 300,-50 1 • • • 6 kg FKB 8K0.05 51 0,05 g 8 kg 340×240 480.-• • • 1 0,05 g 340×240 FKB 16K0.05 580,-51 • • 16 kg 1 16 kg 0,05 g 52 340×240 FKT 16K0.05L 890.-1 • • • . 12 kg 294×225 **GAB 12K0.1N** 300, 50 1 • • 0,1 g 16 kg 340×240 FKB 16K0.1 480.-51 • • 0,1 g 1 • 3000 g 253×229 FCB 3K0.1 220,-48 • 0,1 g 1 3000 g 47 253×228 FCF 3K-4 • 195. • 0,1 g 1 0,1 g 36 kg 340×240 **FKT 36K0.1L** 890,-52 • • 51 • • • 0,1 g 36 kg 340×240 FKB 36K0.1 550.-1 • 0,1 g 8 kg • 252×228 FCB 8K0.1 240,-48 1 0,1 g 300,-49 8 kg 340×240 **FKB 8K0.1A** 1 • . . 0,1 g 8 kg 340×240 **FKB 8K0.1M** 560, 51 1 0 • • 0,2 g 6 kg 300×225 GAT 6K-4 1150, 54 1 • • 0,2 g 30 kg 294×225 **GAB 30K0.2N** 300,-50 1 • • 0,2 g 36 kg 340×240 FKB 36K0.2 510,-51 1 • • 0,2 g 65 kg 340×240 FKB 65K0.2 550,-51 • • 1 0,2 g 65 kg 340×240 FKT 65K0.2L 890,-52 1 • • 15 kg 300×225 **GAT 10K-4** 54 • • 0,5 g 1150. 1 340×240 FKB 15K0.5A 290,-49 1 • • 0,5 g 15 kg • 30 kg 0,5 g 340×240 FKT 30K0.5L 790.-52 1 • • 252×228 195,-48 • 0,5 g 6 kg FCB 6K0.5 1 • 340×240 FKB 65K0.5 510. 51 1 • • • 0,5 g 65 kg 1 g 3 kg 252×228 FCE 3K1N 110,-46 1 • 1 g 53 6 kg 340×240 FKT 6K1LM 890, 1 • . • 1 g 12 kg 252×228 **FCB 12K1** 185,-48 1 • 1 g 15 kg 340×240 FKB 15K1A 260,-49 1 • • • • 30 kg 1 g 253×228 FCF 30K-3 195,-47 1 • • 1 g 30 kg 253×227 **FCB 30K1** 220,-48 1 • 1 g 30 kg 340×240 FKB 30K1A 290,-49 • 1 • 30 kg 300×225 **GAT 30K-3** 1150, 54 1 • • 1 g 60 kg 1 g 340×240 FKT 60K1L 790,-52 1 • • • • • • 340×240 FKB 65K1A 300,-49 1 • • • • 1 g 65 kg 65 kg 340×240 580,-51 • 1 g FKB 65K1M • 1 1 | 2 g 3 | 6 kg 294×225 **GAB 6K1DNM** 230,-50 0 • • 6 kg 252×228 46 FCE 6K2N 110.-1 • 2 g 2 g 340×240 FKT 12K2LM 890,-53 0 • • 12 kg 1 2 g 24 kg 48 252×228 **FCB 24K2** 185.-1 • 294×225 GAB 15K2DNM 50 2 | 5 g 6 | 15 kg 230,-1 **ECE 10K-3N** 99, 45 5 g 10 kg 320×260 1 • • 5 g 10 kg 320×260 **ECB 10K-3N** 120,-45 1 • 5 g 15 kg 252×228 FCE 15K5N 110,-46 1 • • 5 g 30 kg 340×240 FKT 30K5LM 890,-53 • 1 0 15 | 30 kg 5 | 10 g 294×225 **GAB 30K5DNM** 230,-50 1 • 20 kg 320×260 **ECE 20K-2N** 99,-45 10 g 1 • • 10 g 20 kg 320×260 ECB 20K-2N 120,-45 1 • 10 g 30 kg 252×228 FCE 30K10N 110,-46 1 • 10 g 60 kg 340×240 FKT 60K10LM 890, 53 1 0 • • 99.-45 20 g 50 kg 320×260 **ECE 50K-2N** 1 • •







## 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**

- · Large backlit LCD display, digit height 21 mm
- Dimensions weighing surface W×D 320×260 mm
- Weighing plate material
   ECE-N: plastic
   ECB-N: stainless steel, see larger picture
- Overall dimensions W×D×H 320×300×60 mm
- Optional battery operation, 6×1.5 V AA not included, operating time up to 100 h, AUTO-OFF function to preserve the battery
- Net weight
   ECE-N: approx. 1,6 kg
   ECB-N: approx. 2,6 kg
- Permissible ambient temperature 5  $^{\circ}\text{C}/35$   $^{\circ}\text{C}$

#### Accessories

- Rechargeable battery pack internal, operating time up to 30 h without backlight, charging time approx. 10 h, KERN PCB-A01, € 75,-
- Rechargeable battery pack external, operating time up to 30 h without backlight, charging time approx. 10 h, KERN KS-A01, € 180,-
- Tare pan made of stainless steel, ideal for weighing loose small parts, fruit, vegetables etc., W×D×H 370×240×20 mm, KERN RFS-A02, € 55,-
- External universal mains adapter, with universal input and optional input socket adapters for EU, GB, USA, not included, KERN YKA-03, € 31,-
- Further details, plenty of further accessories and suitable printers see *Accessories*

















Model	Weighing range	Readout	Reproducibility	Linearity	Price	Option	
					excl. of VAT	DAkkS Calibr. Ce	rtificate
	[Max]	[d]			ex works	DKD	
KERN	kg	g	g	g	€	KERN	€
ECE 10K-3N	10	5	5	± 20	99,-	963-128	88,-
ECE 20K-2N	20	10	10	± 40	99,-	963-128	88,-
ECE 50K-2N	50	20	20	± 80	99,-	963-128	88,-
ECB 10K-3N	10	5	5	± 20	120,-	963-128	88,-
ECB 20K-2N	20	10	10	± 40	120,-	963-128	88,-
ECB 50K-2N	50	20	20	± 80	120,-	963-128	88,-









Entry-level bench scale - mobile, practical, lightweight

#### **Features**

- · Simple and convenient 2-key operation
- Very fast display: steady weight values within 3 s
- II Ideal as a compact letter and parcel scale, especially where space is limited
- 2 Ideal as a grading, comissioning or simple checkweighing scale in production or dispatch

#### **Technical data**

- · Large LCD display, digit height 25 mm
- Dimensions weighing surface, plastic, W×D 252×228 mm
- Overall dimensions W×D×H 270×345×106 mm
- Optional battery operation, 9 V Block not included, operating time up to 12 h, AUTO-OFF function to preserve the battery
- Net weight approx. 2,2 kg
- · Permissible ambient temperature 5 °C/35 °C

#### **Accessories**

- Protective working cover, standard, can be re-ordered, scope of delivery: 5 items, KERN FCB-A02S05, € 35,-
- B Stainless steel weighing plate, robust, removable, for easy cleaning, KERN FCE-A01, € 35,-
- Rechargeable battery pack internal, operating time up to 20 h without backlight, charging time approx. 10 h, KERN FCB-A01, € 50,-

















Model	Weighing range	Readout	Reproducibility	Linearity	Price	Option	
					excl. of VAT	DAkkS Calibr. Ce	rtificate
	[Max]	[d]			ex works	DKD	
KERN	kg	g	g	g	€	KERN	€
FCE 3K1N	3	1	2	± 3	110,-	963-127	72,-
FCE 6K2N	6	2	2	± 4	110,-	963-128	88,-
FCE 15K5N	15	5	10	± 15	110,-	963-128	88,-
FCE 30K10N	30	10	10	± 30	110,-	963-128	88,-





Compact bench scale with multi-purpose functionality and a high level of accuracy for use in industry and gastronomy

#### **Features**

- · Simple and convenient 5-key operation
- · Very fast display: steady weight values within 3 s
- · Ideal as a
- compact letter and parcel scale, especially in constricted spaces
- grading or commissioning balance or simple checkweigher in production or dispatch
- Checkweigher in the catering trade, cafeterias, school kitchens
- 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.)

#### **Technical data**

- · Large backlit LCD display, digit height 25 mm
- · Dimensions weighing surface, stainless steel, W×D 253×228 mm
- · Overall dimensions W×D×H 270×345×106 mm
- Optional battery operation, 9 V Block not included, operating time up to 20 h, AUTO-OFF function to preserve the battery
- · Net weight approx. 2,8 kg
- · Permissible ambient temperature 5 °C/35 °C

#### **Accessories**

- · Protective working cover, standard, can be re-ordered, scope of delivery: 5 items, KERN FCF-A01S05, € 35,-
- · Rechargeable battery pack external, operating time up to 120 h without backlight, charging time approx. 16 h, KERN GAB-A04, € 40,-

























Model	Weighing range	Readout	Reproducibility	Linearity	Smallest part	Price	Option	
					weight	excl. of VAT	DAkkS Calibr. Ce	rtificate
	[Max]	[d]			[counting]	ex works	DKD	
KERN	kg	g	g	g	g/piece	€	KERN	€
FCF 3K-4	3	0,1	0,1	± 0,3	0,2	195,-	963-127	72,-
FCF 30K-3	30	1	1	± 3	2	195,-	963-128	88,-





Bench scale with second display on the backside of the scale

#### **Features**

- II Second display on the rear of the balance
- 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.)

#### **Technical data**

- · Backlit LCD display, digit height 25 mm
- Dimensions weighing surface, stainless steel, W×D 252×228 mm
- Overall dimensions W×D×H 270×345×106 mm
- Optional battery operation, 9 V Block not included, operating time up to 12 h
- Net weight approx. 2,8 kg
- · Permissible ambient temperature 5 °C/35 °C

#### **Accessories**

- · Protective working cover, standard, can be re-ordered, scope of delivery: 5 items, KERN FCB-A02S05, € 35,-
- · Rechargeable battery pack internal, operating time up to 10 h without backlight, charging time approx. 10 h, KERN FCB-A01, € 50,-
- Suitable printers see Accessories



























Model	Weighing range	Readout	Reproducibility	Linearity	Smallest part weight	<b>Price</b> excl. of VAT	Option  DAkkS Calibr. Ce	ertificate
KERN	[Max] kg	[d] g	g	g	[counting] g/piece	ex works €	DKD KERN	€
FCB 3K0.1	3	0,1	0,1	± 0,3	0.2	220,-	963-127	72,-
FCB 8K0.1	8	0,1	0,1	± 0,3	0.2	240,-	963-128	88,-
FCB 6K0.5	6	0,5	0,5	± 1,5	1	195,-	963-128	88,-
FCB 12K1	12	1	1	± 3	2	185,-	963-128	88,-
FCB 30K1	30	1	1	± 3	2	220,-	963-128	88,-
FCB 24K2	24	2	2	± 6	4	185,-	963-128	88,-







Bench scale up to 65 kg with large weighing plate

#### **Features**

- PRE-TARE function for manual subtraction of a known container weight, useful for checking fill-levels
- II Particularly practical: thanks to the large weighing ranges and compact dimensions, you can accurately weigh heavy loads in the most restricted spaces. Useful for determining very small weight differences, such as, for example, gas wastage, abrasion of mechanical parts, rock samples, minerals, druses, silver etc.
- Freely programmable weighing unit, e.g. display direct in special units such as length of wire g/m, surface weight g/m<sup>2</sup>, or else

#### **Technical data**

- · Large backlit LCD display, digit height 25 mm
- · Dimensions weighing surface, stainless steel, W×D 340×240 mm
- Overall dimensions W×D×H 350×390×120 mm
- Optional battery operation, 9 V Block not included, operating time up to 12 h
- · Net weight approx. 6 kg
- · Permissible ambient temperature 5 °C/35 °C

#### **Accessories**

- Protective working cover, standard, can be re-ordered, scope of delivery: 5 items, KERN FKB-A02S05, € 40,-
- · Rechargeable battery pack internal, operating time up to 10 h without backlight, charging time approx. 10 h, KERN PCB-A01, € 75,-
- · Further details, plenty of further accessories and suitable printers see Accessories

































Model	Weighing range	Readout	Reproducibility	Linearity	Smallest part	Price	Option	
	f	r.a			weight		DAkkS Calibr. Ce	ertificate
	[Max]	[d]			[counting]	ex works	DKD	
KERN	kg	g	g	g	g/piece	€	KERN	€
FKB 8K0.1A	8	0,1	0,1	± 0,3	0.2	300,-	963-128	88,-
FKB 15K0.5A	15	0,5	0,5	± 1,5	1	290,-	963-128	88,-
FKB 15K1A	15	1	1	± 2	2	260,-	963-128	88,-
FKB 30K1A	30	1	1	± 3	2	290,-	963-128	88,-
FKB 65K1A	65	1	1	± 3	2	300,-	963-129	105,-





#### **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

Official verification duty for commercial trade

## 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

#### **Technical data**

- · Large backlit LCD display, digit height 24 mm
- · Dimensions weighing surface, stainless steel, W×D 294×225 mm

- Overall dimensions W×D×H 320×330×125 mm
- Net weight approx. 3 kg
- · Permissible ambient temperature GAB-N: 0°C/40°C GAB-M: -10°C/40°C

#### **Accessories**

- · Protective working cover, standard, can be re-ordered, scope of delivery: 5 items, KERN CFS-A02S05, € 40,-
- Signal lamp for visual support of weighing with tolerance range, KERN CFS-A03, € 250,-
- Rechargeable battery pack internal, operating time up to 90 h without backlight, charging time approx. 12 h, KERN GAB-A04, € 40,-

- Y-cable for parallel connection of two terminal devices to the RS-232 interface on the scale, e.g. signal lamp or barcode reader and printer, KERN CFS-A04, € 35,-
- Tare pan made of stainless steel, ideal for weighing loose small parts, fruit, vegetables etc., W×D×H 370×240×20 mm, KERN RFS-A02, € 55,-
- WLAN interface for wireless connection of the balance to networks and WLAN capable devices, such as tablets, laptops or smartphones, KERN CFS-A05, € 120,-
- · Further details, plenty of further accessories and suitable printers see Accessories

STANDARD





































Model	Weighing range	Readout	Verification	Minimal	Smallest part	Price	Options			
			value	load	weight	excl. of VAT	Verifica	tion	DAkkS Calibr. Ce	rtificate
	[Max]	[d]	[e]	[Min]	[counting]	ex works	MIII		DKD	
KERN	kg	g	g	g	g/piece	. €	KERN	€	KERN	€
GAB 6K0.05N	6	0,05	-	-	0,05	300,-	-	-	963-128	88,-
GAB 12K0.1N	12	0,1	-	-	0,1	300,-	-	-	963-128	88,-
GAB 30K0.2N	30	0,2	-	-	0,2	300,-	-	-	963-128	88,-

Dual-range balance switches automatically to the next largest weighing range [Max] and readout [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	0,2	230,-	965-228	55,-	963-128	88,-
GAB 15K2DNM	6   15	2   5	2   5	40	0,5	230,-	965-228	55,-	963-128	88,-
GAB 30K5DNM	15   30	5   10	5   10	100	1	230,-	965-228	55,-	963-128	88,-







Large, high resolution bench scale, also with EC type approval [M]

#### **Features**

- Thanks to the high resolution of up to 360.000 points it is ideal for high-precision weighing in the industrial field
- 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/m<sup>2</sup>, or else
- In 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.

#### **Technical data**

- Backlit LCD display, digit height 18 mm
- · Dimensions weighing surface, stainless steel, W×D 340×240 mm
- · Dimensions housing W×D×H 350×390×120 mm
- Optional battery operation, 6×1.5 V Size C not included, operating time up to 40 h
- Net weight approx. 7 kg
- · Permissible ambient temperature KERN FKB: 10 °C/40 °C KERN FKB-M: 10 °C/30 °C

#### **Accessories**

- · Protective working cover, standard, can be re-ordered, scope of delivery: 5 items, KERN FKB-A02S05, € 40,-
- KERN FKB: Rechargeable battery pack external, operating time up to 30 h without backlight, charging time approx. 10 h, KERN KS-A01, € 180,-
- Tare pan made of stainless steel, ideal for weighing loose small parts, fruit, vegetables etc., W×D×H 370×240×20 mm, KERN RFS-A02, € 55,-
- · Further details, plenty of further accessories and suitable printers see Accessories

#### STANDARD





































Model	Weighing range	Readout	Verification	Minimal	Smallest part	Price		Options			
			value	load	weight	excl. of VAT	Verifica	Verification DAkkS Calibr. (		ertificate	
	[Max]	[d]	[e]	[Min]	[counting]	ex works	MIII		DKD		
KERN	kg	g	g	g	g/piece	€	KERN	€	KERN	€	
FKB 6K0.02	6	0,02	-	-	0,02	520,-	-	-	963-128	88,-	
FKB 8K0.05	8	0,05	-	-	0,05	480,-	-	-	963-128	88,-	
FKB 16K0.05	16	0,05	-	-	0,05	580,-	-	-	963-128	88,-	
FKB 16K0.1	16	0,1	-	-	0,1	480,-	-	-	963-128	88,-	
FKB 36K0.1	36	0,1	-	-	0,1	550,-	-	-	963-128	88,-	
FKB 36K0.2	36	0,2	-	-	0,2	510,-	-	-	963-128	88,-	
FKB 65K0.2	65	0,2	-	-	0,2	550,-	-	-	963-129	105,-	
FKB 65K0.5	65	0,5	-	-	0,5	510,-	-	-	963-129	105,-	

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. FKB 8K0.1M 8 0,1 5 0,1 560,-965-217 77,-963-128

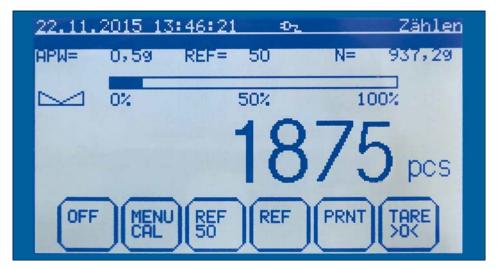




#### Alibi memory

- Ring memory for up to 49,152 measuring results (744 measuring results per day!)
- Saved measuring results cannot be changed or cleared. If the maximum memory capacity is reached, then the oldest value will be overwritten
- In addition to the measuring result, the date, time, tare value, a sequential number and the serial number of the balance are also saved
- Saved measuring results can be searched and recalled easily
- The alibi memory can also be used for applications which do not require verification
- Complies with WELMEC 2.5

Touchscreen industrial scale with enormous range of functions, also with EC type approval [M]



#### Innovative touchscreen:

Large touch-sensitive, backlit screen with very good contrast for easy operation and convenient reading

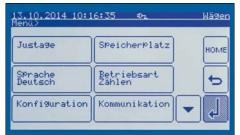
#### Advantages:

- The menu and processes are self-explanatory
- No more errors or lost time through keys which have several functions or unclear markings
- Large keys, which can also be operated while wearing gloves
- More efficient and faster working



## Easy input of text and values

Using large keypad, e.g. packaging weights, item descriptions, user name, etc.



## 80 memories for each mode

e.g. for Checkweighing, PRE-TARE, reference weight, target value when dispensing, item descriptions, user name, weights for tare containers, etc. Easy to enter using the large-scale keypad



Weighing with tolerance range (checkweighing): Input of an upper/lower limit value. A visual and audible signal assists with portioning, dispensing or grading

#### **Features**

- · Convenient recipe weighing: 99 In recipes with 10 components each can be stored in plain text. There is a function to adjust the other components if the initial weight was too high. The actual values and the desired values well as the proportionate percentages can be printed afterwards.. The recipes can be generated easily in an Excel list at the PC and transferred to the balance using the RS-232 interface. Alternatively, the recipes can also be entered directly using the keypad
- Multiplier function: recipes with the ingredient weights recorded as percentage values can easily be replicated by entering a new target weight. The ideal solution for the preparation of larger containers, bulk packs etc.
- Rapid function for shortened stabilisation time with reduced readout
- 16 print forms which can store up to 20 different information, such as, e.g., date, time, operator, item, net, tare, gross, PCS, target weight, PRE-TARE etc. The print forms can be generated easily in an Excel list at the PC and transferred to the balance using the RS-232 interface
- · Control outputs (optocoupler, digital I/O) to connect relays, signal lamps, valves etc. (35V / 80mA)
- · Hook for underfloor weighing standard

#### **Technical data**

- · Backlit LCD touch display. digit height 18 mm
- · Dimensions weighing surface, stainless steel, W×D 340×240 mm
- Overall dimensions W×D×H 350×390×120 mm
- Optional battery operation, 6×1.5 V Size C not included, operating time up to 20 h
- · Permissible ambient temperature 10 °C/40 °C

#### **Accessories**

- · Protective working cover, standard, can be re-ordered, scope of delivery: 5 items, KERN FKB-A02S05, € 40,-
- Rechargeable battery pack external, operating time up to 20 h without backlight, charging time approx. 10 h, KERN KS-A01, € 180,-
- · Signal lamp for visual support of weighing with tolerance range, KERN IKT-A04, € 260,-
- · RS-232/Ethernet adapter for connection to an IP-based Ethernet network, KERN YKI-01, € 290,-
- · RS-232/USB adapter, to connect peripheral devices with USB connection, KERN AFH 12, € 85,-
- · Further details, plenty of further accessories and suitable printers see Accessories

#### Modes

- 1 Weighing
- ② Counting
- 3 Dispensing
- 4 Recipe weighing
- 5 Checkweighing
- 6 Totalising with daily total
- Percentage determination
- 8 Animal weighing
- 9 Surface weight
- 10 Density determination, not for [M]
- 11) Rapid function, not for [M]

#### **Functions**

- Capacity display with (1)-(2), (5)-(7), (9)-(1)
- Dispensing aid (-/+), with 3, 4
- Net/gross display, permanent, with ①, 3-5, 8-11
- Variable reference quantity, with ②
- Automatic reference optimisation, with ②
- PRE-TARE numerical or from the memory unit, with 1-7, 11
- · Entering of item or batch description, operator etc., with 1-7, 11
- · Freely programmable weighing unit, e.g. display direct in special units such as length of thread g/m, grammage g/m<sup>2</sup>, or similar, with (9)
- Date/time, with ①-①
- Statistical function, with 1
- GLP printout, with ①-①
- Individual formatting of up to 16 printer forms, recipes, operating mode master data in MS Excel, import via RS-232, for examples, see the internet, with 1)-11

M

+3 DAYS



Model	Weighing	Readout	Reproducibility	Linearity	Smallest part	Price		C	Options			
	range				weight	excl. of VAT	Verifica	tion	DAkkS Calibr. Co	ertificate		
	[Max]	[d]			[counting]	ex works	MIII		DKD			
KERN	kg	g	g	g	g/piece	€	KERN	€	KERN	€		
FKT 30K0.5L	30	0,5	0,5	± 1	0,5	790,-	-	-	963-128	88,-		
FKT 60K1L	60	1	1	± 2	1	790,-	-	-	963-129	105,-		
			ŀ	High resolution re	eadout							
FKT 6K0.02L	6	0,02	0,04	± 0,1	0,02	890,-	-	-	963-128	88,-		
FKT 16K0.05L	16	0,05	0,1	± 0,25	0,05	890,-	-	-	963-128	88,-		
FKT 36K0.1L	36	0,1	0,2	± 0,5	0,1	890,-	-	-	963-128	88,-		
FKT 65K0.2L	65	0,2	0,4	± 1	0,2	890,-	-	-	963-129	105,-		
Note: F	or applications th	nat require verific	ation, please ord	er verificati on at	the same time, i	initial verificat	ion at a later	date is ı	not possible.			
		Verification a	nt the factory, we	need to know th	e full address of	the location o	f use.					
FKT 6K1LM	6	1	0,5	± 0,5	1	890,-	965-228	55,-	963-128	88,-		
FKT 12K2LM	12	2	1	± 1	1	890,-	965-228	55,-	963-128	88,-		
FKT 30K5LM	30	5	2,5	± 2,5	5	890,-	965-228	55,-	963-128	88,-		
FKT 60K10LM	60	10	5	± 5	10	890,-	965-229	93,-	963-129	105,-		



## KERN Easy-Touch bench scale - the intuitive way to weigh







#### **Convenient piece-counting function**

Standard use: Direct input of the reference quantity or the reference weight.

Professional use: Recall of items to be counted from the database with all relevant additional data such as piece weight, name, reference quantity, tare container weight, tolerances. Which means a super-fast sequence when counting: Select item – Load – Count – done!

Fill-to-target function: Programmable target quantity or target weight. A signal will be displayed when the target value is reached. A colour bar graph shows whether the quantity removed is below the limit (blue), is within the specified tolerances (green) or is above the limit (red). This means that the same target value can always be counted and picked, efficiently and accurately.

# Convenient weighing with tolerance range (Checkweighing)

Standard use: Direct input of the tolerances in gramms or percent.

Professional use: Recall of items from the database with all relevant additional data such as piece weight, name, reference quantity, tare container weight, tolerances. Which means a super-fast sequence when portioning, dosing or sorting: Select item – Load – Check – done!





#### **Features**

- · Thanks to the intuitive touchscreen concept and multi-lingual operation (DE, GB, IT, ES, PT, NL, FI, PL, RUS, SE, CZ) the balance can be used easily by inexperienced users, straightaway. For the professional user, the balance provides convenient functions which permit a high level of individualisation and which thereby make operation significantly easier and quicker.
- Through a large memory, e.g. for item master data, weighing data etc. the balance is the ideal solution when working with a large range of goods or where there are high requirements for record keeping and documentation
- III Thanks to the high level of connectivity it is easy to connect barcode readers for item recognition, USB sticks for data storage or data transfer to PCs and networks using RS-232 or USB. This means that this range can be used for many different functions in Industry 4.0 applications
- Convenient recipe weighing Standard use: Direct input of the recipe ingredients in grams or percent Professional use: Recall of items from the database with all relevant additional data such as target value, tolerances, name, tare container weight. That leads to a super-fast sequence when recipe-weighing: Select recipe - Weigh - done!

- · A graphic signal helps when dosing individual recipe ingredients. An information column on the lefthand edge of the screen allows you to see at a glance which ingredients have already been weighed (proportionately).
- · Take-Off function: allows you to remove the same quantity every time, e.g. when portioning in cafeterias or when picking small parts. A colour bar graph shows whether the quantity removed is below the limit or within the specified tolerances (blue) or is above the limit (red)
- · Classifying: Similar objects are automatically classified according to their weight into predetermined classes.
- · AUTO-PRINT function: Automatic printing of the weighing result when the weighing value remains unchanged. The printing function as well as the content of the print-out can be adjusted individually depending on the operating mode
- · Remote control of the balance using external switches or computers through KCP (KERN Communication Protocol), compatible with the large SICS command set (Standard Interface Command Set, Level 0/1)
- 2 The battery compartment of the device can be opened easily, which means it is possible to change the rechargeable batteries without having to use any tool or break any verification seal labels etc.

#### Technical data

- · Large backlit LCD touch display, digit height 12 mm, screen diagonal 7" (155×85 mm)
- · Dimensions weighing surface, stainless steel, W×D 300×225 mm
- Overall dimensions W×D×H 315×350×120 mm

#### **Accessories**

- · Rechargeable battery pack internal, operating time up to 10 h with backlight, charging time approx. 12 h, KERN GAB-A04, € 40,-
- Y-cable for parallel connection of two terminal devices to the RS-232 interface on the scale, e.g. signal lamp or barcode reader and printer, KERN CFS-A04, € 35,-
- Software for rapid and easy processing of the database at the PC (exporting, processing, importing), KERN SET-1.0, € 150,-
- Further details, plenty of further accessories and suitable printers see Accessories



































Model	Weighing range	Readout	Reproducibility	Linearity	Smallest part	Price	Option	
					weight	excl. of VAT	DAkkS Calibr. Co	ertificate
	[Max]	[d]			[counting]	ex works	DKD	
KERN	kg	g	g	g	g/piece	€	KERN	€
GAT 6K-4	6	0,2	0,4	± 0,6	0,2	1150,-	963-128	88,-
GAT 10K-4	15	0,5	0,5	± 1,5	0,5	1150,-	963-128	88,-
GAT 30K-3	30	1	2	± 3	1	1150,-	963-128	88,-

## Tradition and innovation for more than 170 years

An independent family business, KERN since already 7 generations is synonymous with quality and reliability in customer service.



#### ▶ 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



#### 1004

Accredited DKD laboratory (ISO 17025)



#### > 2000

New premises in Balingen



### ▶ 2002

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



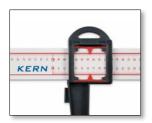
## ▶ 2007

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



#### ▶ 2008

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



#### ▶ 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

# KERN & SOHN GmbH Balances, Test weights, DAkkS Calibration laboratory

Ziegelei 1 72336 Balingen Germany

Tel. +49[0]7433 9933-0 Fax +49[0]7433 9933-149

info@kern-sohn.com www.kern-sohn.com







