















# POCKET BALANCES

PROFESSIONAL  
MEASURING



**2020**

# KERN Pictograms

 <b>Internal adjusting:</b> Quick setting up of the balance's accuracy with internal adjusting weight (motordriven)	 <b>KERN Communication Protocol (KCP):</b> 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	 <b>Protection against dust and water splashes IPxx:</b> The type of protection is shown in the pictogram. For details see page 62
 <b>Adjusting program CAL:</b> For quick setting up of the balance's accuracy. External adjusting weight required	 <b>GLP/ISO log:</b> The balance displays serial number, user ID, weight, date and time, regardless of a printer connection	 <b>Stainless steel:</b> The balance is protected against corrosion
 <b>Easy Touch:</b> Suitable for the connection, data transmission and control through PC, tablet or smartphone	 <b>GLP/ISO log:</b> With weight, date and time. Only with KERN printers, see page 171-173	 <b>Suspended weighing:</b> Load support with hook on the underside of the balance
 <b>Memory:</b> Balance memory capacity, e.g. for article data, weighing data, tare weights, PLU etc.	 <b>Piece counting:</b> Reference quantities selectable. Display can be switched from piece to weight	 <b>Battery operation:</b> Ready for battery operation. The battery type is specified for each device
 <b>Alibi memory:</b> Secure, electronic archiving of weighing results, complying with the 2014/31/EU standard. For details see page 223	 <b>Recipe level A:</b> The weights of the recipe ingredients can be added together and the total weight of the recipe can be printed out	 <b>Rechargeable battery pack:</b> Rechargeable set
 <b>Data interface RS-232:</b> To connect the balance to a printer, PC or network	 <b>Recipe level B:</b> Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display	 <b>Universal mains adapter:</b> with universal input and optional input socket adapters for A) EU, CH, GB B) EU, CH, GB, USA C) EU, CH, GB, USA, AUS
 <b>RS-485 data interface:</b> To connect the balance to a printer, PC or other peripherals. Suitable for data transfer over large distances. Network in bus topology is possible	 <b>Recipe level C:</b> 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	 <b>Mains adapter:</b> 230V/50Hz in standard version for EU, CH. On request GB, USA or AUS version available
 <b>USB data interface:</b> To connect the balance to a printer, PC or other peripherals	 <b>Totalising level A:</b> The weights of similar items can be added together and the total can be printed out	 <b>Power supply:</b> Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, USA or AUS on request
 <b>Bluetooth* data interface:</b> To transfer data from the balance to a printer, PC or other peripherals	 <b>Percentage determination:</b> Determining the deviation in % from the target value (100 %)	 <b>Weighing principle: Strain gauges</b> Electrical resistor on an elastic deforming body
 <b>WLAN data interface:</b> To transfer data from the balance to a printer, PC or other peripherals	 <b>Weighing units:</b> 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	 <b>Weighing principle: Tuning fork</b> A resonating body is electromagnetically excited, causing it to oscillate
 <b>Control outputs (optocoupler, digital I/O):</b> To connect relays, signal lamps, valves, etc.	 <b>Weighing with tolerance range:</b> (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	 <b>Weighing principle: Electromagnetic force compensation</b> Coil inside a permanent magnet. For the most accurate weighings
 <b>Analogue interface:</b> to connect a suitable peripheral device for analogue processing of the measurements	 <b>Hold function:</b> (Animal weighing program) When the weighing conditions are unstable, a stable weight is calculated as an average value	 <b>Weighing principle: Single cell technology:</b> Advanced version of the force compensation principle with the highest level of precision
 <b>Interface for second balance:</b> For direct connection of a second balance	 <b>Package shipment:</b> The time required for internal shipping preparations is shown in days in the pictogram	 <b>Verification possible:</b> The time required for verification is specified in the pictogram
 <b>Network interface:</b> For connecting the scale to an Ethernet network	 <b>Pallet shipment:</b> The time required for internal shipping preparations is shown in days in the pictogram	 <b>DAkkS calibration possible (DKD):</b> The time required for DAkkS calibration is shown in days in the pictogram
 <b>Wireless data transfer:</b> between the weighing unit and the evaluation unit using an integrated radio module		

# KERN – measuring technology and testing services from a single source



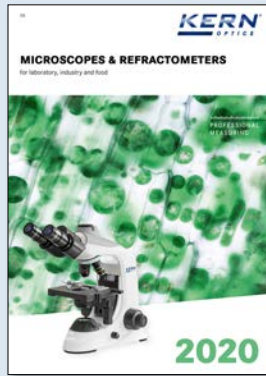
**Balances & Test service catalogue**

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



**Medical scales catalogue**

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



**Microscopes & refractometers catalogue**

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



**SAUTER measuring equipment catalogue**

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



**DAkkS calibration service brochure**

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

## Your advantages

### fast

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

### reliable

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

### competent

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

### versatile

- One-stop shopping: from pocket balances through to 15 t crane balance – everything from one supplier
- Find the product you want at lightning speed with the “Balance Quick-Finder” at [www.kern-sohn.com](http://www.kern-sohn.com)



**Order hotline**  
+49 7433 9933-0



**Online Shop**  
[www.kern-sohn.com](http://www.kern-sohn.com)



**Service hotline**  
+49 7433 9933-199



**E-mail order**  
[info@kern-sohn.com](mailto:info@kern-sohn.com)



**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](http://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.































## Pocket balances

### Pocket size precision

Pocket balances are the ideal helpers whenever mobility and high precision are required. Since they have fewer keys, operation is simple and fast. Different weighing units stored in the pocket balance, such as g, oz, ct, gn, etc., make them universally usable. An integrated calculator allows you to use the measured weight immediately in calculations, to e.g. determine a price, quantity, average value and much more. Compact in size and well protected with a flap or protective cover, which can be used as a convenient taring container, the pocket balance is always a useful tool for mobile weighing.


- In production, to control of production weights or during the picking of small parts
- In quality control for the quick testing of small parts like plastic parts from injection moulding machines, milled parts, screws, etc.
- For mobile weighing, on-site sampling, and fast analysis wherever there's no power outlet
- In hobbies and sports, e.g. when filling black powder, weighing parts from modelling kits etc.
- In commerce, for the fast determination of the weights of coins, jewellery, precious stones, etc.
- In veterinary sector for the weighing of small animals, the mixing of food, etc.
- In the food sector for the preparation of spice or tea mixes, for the weighing of food in line with a diet sheet.

### Quick-Finder Pocket balances

Readability [d] g	Weighing capacity [Max] g	Model  KERN	Price excl. of VAT ex works €	Page			
0,001	20	TAB 20-3 	75,-	12	1		
0,001	50	TGD 50-3CS05 	260,-*	12	1		
0,002	10	CM 50-C2N 	90,-	12	1		
0,01	60	CM 60-2N	79,-	11	1		
0,01	150	TGC 150-2S05	99,-*	11	1		
0,1	150	TEE 150-1	40,-	11	1		
0,1	150	CM 150-1N	50,-	11	1		
0,1	200	TCB 200-1	52,-	11	1		
0,1	320	CM 320-1N	55,-	11	1		
0,1	500	TGC 500-1S05	99,-*	11	1		
1	1000	CM 1K1N	52,-	11	1		
1	1000	TGC 1K-3S05	99,-*	11	1		

News 2020

\*Price set of 5 units

 = Carat balances

● = standard

○ = option

**Sally Kreidler**

Product specialist Pocket balances

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Fax +49 7433 9933-29305

sally.kreidler@kern-sohn.com



only €

# 52,-

\* Price set of 5 units  
excl. of VAT ex works

- ▷ Simple and convenient 4-key operation
- ▷ Innovative touchscreen
- ▷ Weighing pan standard
- ▷ Also ideal as a gift for your customers

# HIGHLIGHT





**KERN TEE**

Designer pocket balance at a bargain price

**KERN TCB**

This is where the fun starts with pocket format weighing

**KERN CM**

Pocket balance with integrated pocket calculator

**KERN TGC**

Slim pocket balance with large stainless steel weighing plate and practical tare pan

STANDARD

CAL EXT BATT 1 DAY

STANDARD

CAL EXT BATT 1 DAY

STANDARD

CAL EXT UNIT BATT 1 DAY

STANDARD

CAL EXT UNIT BATT 1 DAY

OPTION

DAkKS +3 DAYS

OPTION

DAkKS +3 DAYS

OPTION

DAkKS +3 DAYS

OPTION

DAkKS +3 DAYS

- **Simple and convenient 2-key operation**
- **Cover made of shock proof plastic** as protection against pressure and dust. Can also be used as a tare cup

- **Simple and convenient 2-key operation**
- **Small and handy**
- **Transport box and weighing pan included**
- **Revolving weighing plate** (as overload protection)

- **Simple and convenient 4-key operation**
- **Hard case cover** as protection against pressure and dust
- Robust, handy, well protected
- **Integrated calculator**

- High-resolution pocket balance with particularly rapid reaction and stabilisation time, which means that you can work extremely efficiently
- **Particularly flat design**
- **Cover made of shock proof plastic** as protection against pressure and dust. Can also be used as a tare cup
- **Stainless steel weighing plate**, which makes cleaning easy and hygienic
- **Note:** The models are only delivered in a set of 5 units. i.e. the prices given in the table refer to a delivery of 5 items. Cannot be delivered individually. The calibration prices given here refer to calibration of a single balance

**Tip:** KERN pocket scales are also ideal as a customer gift or for personalized marketing and sales campaigns. We are happy to print your logo on the cover, the lid or the packaging, from 100 pieces. Please inquire details

KERN	TEE 150-1*	TCB 200-1*	CM 60-2N	CM 150-1N	CM 320-1N	CM 1K 1N	TGC 150-2S05	TGC 500-1S05	TGC 1K-3S05	
<b>Weighing capacity [Max] g</b>	150 g	200 g	60 g	150 g	320 g	1000 g	150 g	500 g	1000 g	
<b>Readability [d]</b>	0,1 g	0,1 g	0,01 g	0,1 g	0,1 g	1 g	0,01 g	0,1 g	1 g	
<b>LCD display</b>	backlit, digit height 9 mm	digit height 9 mm	backlit, digit height 12 mm			backlit, digit height 12 mm				
<b>Dimensions of weighing plate</b>	W×D 60×64 mm	ø 80 mm	W×D 70×80 mm			ø 81 mm				
<b>Overall dimensions</b>	W×D×H 67×100×22 mm	ø×H 80×14 mm	W×D×H 85×130×25 mm			W×D×H 100×130×18 mm				
<b>Power supply</b>	Batteries included, 2×1,5 V AAA, operating time up to 50 h	Batteries included, 2×LR 44, AUTO-OFF function to preserve battery life	Batteries included, 2×1,5 V AAA, AUTO-OFF function to preserve battery life, operating time up to 33 h			Batteries included, 2× CR2032, operating time up to 33 h				
<b>Net weight</b>	100 g	50 g	180 g			200 g				
<b>Permissible ambient temperature</b>	5 °C/35 °C						0 °C/40 °C			
<b>Price €, excl. of VAT, ex works</b>	40,-	52,-	79,-	50,-	55,-	52,-	99,-*	99,-*	99,-*	
<b>Option DAkKS Calibr. Certificate</b>	963-127, 72,-									

! \* ONLY WHILE STOCKS LAST!

\*Price set of 5 units excl. of VAT exworks



**KERN CM-C**

Pocket balance with carat display – ideal for jewellers

**KERN TAB**

High-precision pocket carat balance for jewellers and travelling salesmen

**KERN TGD**

Compact pocket carat balance for precision weighing of jewellery and precious stones

STANDARD

- CAL EXT
- UNIT
- BATT
- 1 DAY

STANDARD

- CAL EXT
- UNIT
- BATT
- 1 DAY

STANDARD

- CAL EXT
- UNIT
- BATT
- 1 DAY

OPTION

- DAkKS +3 DAYS

OPTION

- DAkKS +3 DAYS

OPTION

- DAkKS +3 DAYS

- **Hard case cover** as protection against pressure and dust
- **Hard case cover as protection against pressure and dust**
- **Adjusting weight standard**
- **Draft shield** against air movements standard
- **Weighing pan standard**

- **Simple and convenient 4-key operation**
- **Can be switched over from g to ct, gn at the touch of a key**
- **Hard case cover** as protection against pressure and dust
- **Adjusting weight and weighing pan standard**
- **Powder scale with Grain division (gn)**, ideal for sport shooters, reloaders etc. for self-filling cartridge cases

- **Simple and convenient 4-key operation**
- **Can be switched over from g to ct, gn, dwt, ozt, oz at the touch of a key**
- **Innovative touchscreen:** Large touch-sensitive, backlit touch display with very good contrast for easy operation and convenient reading
- **Hard case cover** as protection against pressure and dust
- **Stainless steel weighing plate**, which makes cleaning easy and hygienic
- **Weighing pan standard**
- **Powder scale with Grain division (gn)**, ideal for sport shooters, reloaders etc. for self-filling cartridge cases
- USB cable for power supply as standard
- **1** Delivered in appealing packaging
- **Note:** The models are only delivered in a set of 5 units. i.e. the prices given in the table refer to a delivery of 5 items. Cannot be delivered individually. The calibration prices given here refer to calibration of a single balance

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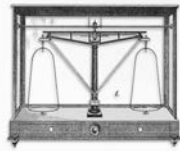
KERN	CM 50-C2N	TAB 20-3	TGD 50-3CS05
<b>Weighing capacity [Max] g</b>	10 g   50 ct	20 g   100 ct	50 g   250 ct
<b>Readability [d] [d]</b>	0,002 g   0,01 ct	0,001 g   0,005 ct	0,001 g   0,005 ct
<b>LCD display</b>	digit height 9 mm	backlit, digit height 9 mm	backlit, digit height 12 mm
<b>Dimensions of weighing plate</b>	W×D 50×40 mm	W×D 36×42 mm	ø 65 mm
<b>Overall dimensions</b>	W×D×H 85×130×25 mm	W×D×H 95×133×33 mm	W×D×H 96×149×36 mm
<b>Power supply</b>	Batteries included, 2×1,5 V AAA, AUTO-OFF function to preserve battery life, can be switched off, operating time up to 30 h	Batteries included, 4×1,5 V AAA, operating time up to 150 h without backlight	
<b>Net weight</b>	200 g		
<b>Permissible ambient temperature</b>	5 °C/35 °C	10 °C/30 °C	5 °C/35 °C
<b>Price €, excl. of VAT, ex works</b>	<b>90,-</b>	<b>75,-</b>	<b>260,-*</b>
<b>Option DAkKS Calibr. Certificate</b>	963-127, 72,-		

\*Price set of 5 units excl. of VAT exworks



**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](http://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 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