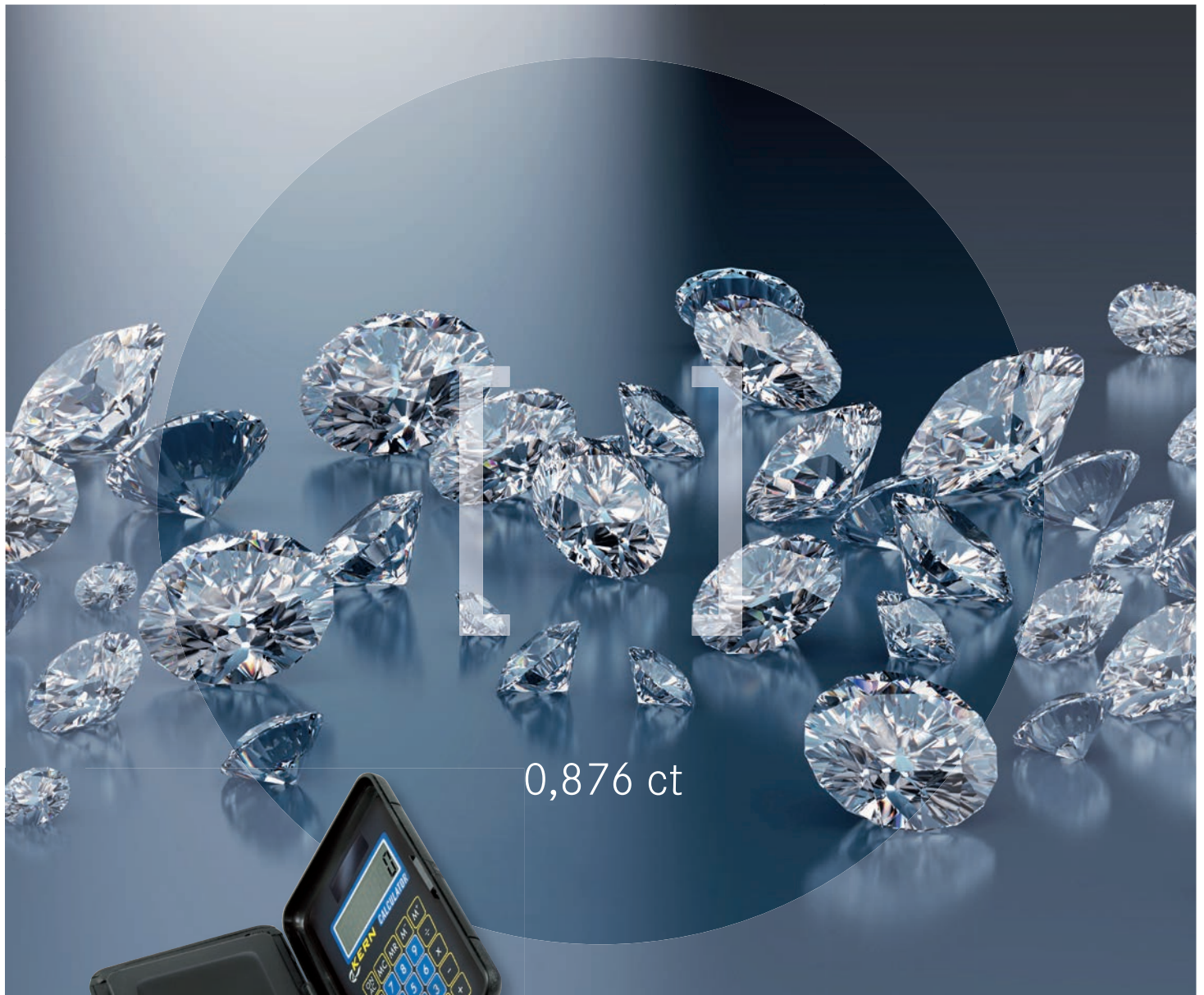


## POCKET BALANCES



0,876 ct



PROFESSIONAL MEASURING

# 2016

# KERN Pictograms

 <p><b>Internal adjusting:</b> Quick setting up of the balance's accuracy with internal adjusting weight (motordriven).</p>	 <p><b>Piece counting:</b> Reference quantities selectable. Display can be switched from piece to weight.</p>	 <p><b>Suspended weighing:</b> Load support with hook on the underside of the balance.</p>
 <p><b>Adjusting program CAL:</b> For quick setting up of the balance's accuracy. External adjusting weight required.</p>	 <p><b>Recipe level A:</b> Separate memory for the weight of the tare container and the recipe ingredients (net total).</p>	 <p><b>Battery operation:</b> Ready for battery operation. The battery type is specified for each device.</p>
 <p><b>Memory:</b> Balance memory capacity, e.g. for article data, weighing data, tare weights, PLU etc.</p>	 <p><b>Recipe level B:</b> Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display.</p>	 <p><b>Rechargeable battery pack:</b> Rechargeable set.</p>
 <p><b>Alibi memory:</b> Electronic archiving of weighing results, complying with the 2009/23/EC standard. For details see page 214</p>	 <p><b>Recipe level C:</b> Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display, adjustment of recipe when dosages are exceeded, multiplier function, barcode.</p>	 <p><b>Universal mains adapter:</b> with universal input and optional input socket adapters for A) EU, GB B) EU, GB, CH, USA C) EU, GB, CH, USA, AUS</p>
 <p><b>Data interface RS-232:</b> To connect the balance to a printer, PC or network.</p>		 <p><b>Mains adapter:</b> 230V/50Hz in standard version for EU. On request GB, USA or AUS version available.</p>
 <p><b>RS-485 data interface:</b> To connect the balance to a printer, PC or other peripherals. High tolerance against electromagnetic disturbance.</p>	 <p><b>Totalising level A:</b> The weights of similar items can be added together and the total can be printed out.</p>	 <p><b>Power supply:</b> Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, USA or AUS on request.</p>
 <p><b>USB data interface:</b> To connect the balance to a printer, PC or other peripherals.</p>	 <p><b>Totalising level C:</b> Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display, adjustment of recipe when dosages are exceeded, multiplier function, barcode recognition.</p>	 <p><b>Weighing principle: Strain gauges</b> Electrical resistor on an elastic deforming body.</p>
 <p><b>Bluetooth* data interface:</b> To transfer data from the balance to a printer, PC or other peripherals.</p>		 <p><b>Weighing principle: Tuning fork</b> A resonating body is electromagnetically excited, causing it to oscillate.</p>
 <p><b>WLAN data interface:</b> To transfer data from the balance to a printer, PC or other peripherals.</p>	 <p><b>Percentage determination:</b> Determining the deviation in % from the target value (100 %).</p>	 <p><b>Weighing principle: Electromagnetic force compensation</b> Coil inside a permanent magnet. For the most accurate weighings.</p>
 <p><b>Control outputs (optocoupler, digital I/O):</b> To connect relays, signal lamps, valves, etc.</p>	 <p><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.</p>	 <p><b>Weighing principle: Single cell technology</b> Advanced version of the force compensation principle with the highest level of precision.</p>
 <p><b>Interface for second balance:</b> For direct connection of a second balance.</p>	 <p><b>Weighing with tolerance range:</b> Upper and lower limiting values can be programmed individually for e.g. dosing, sorting and portioning</p>	 <p><b>Verification possible:</b> The time required for verification is specified in the pictogram.</p>
 <p><b>Network interface:</b> For connecting the scale to an Ethernet network. With KERN products you can use a universal RS-232/LAN converter. See page 180</p>	 <p><b>Hold function:</b> (Animal weighing program) When the weighing conditions are unstable, a stable weight is calculated as an average value.</p>	 <p><b>DAKkS calibration possible (DKD):</b> The time required for DAKkS calibration is shown in days in the pictogram.</p>
 <p><b>Wireless data transfer:</b> between the weighing unit and the evaluation unit using an integrated radio module.</p>	 <p><b>Protection against dust and water splashes IPxx:</b> The type of protection is shown in the pictogram. For details see the glossary. See page 72.</p>	 <p><b>Package shipment:</b> The time required for internal shipping preparations is shown in days in the pictogram.</p>
 <p><b>GLP/ISO log:</b> The balance displays the weight, date and time, regardless of a printer connection.</p>	 <p><b>ATEX explosion protection:</b> Suitable for use in hazardous industrial environments, in which there is explosion danger. The ATEX marking is specified for each device.</p>	 <p><b>Pallet shipment:</b> The time required for internal shipping preparations is shown in days in the pictogram.</p>
 <p><b>GLP/ISO log:</b> With weight, date and time. Only with KERN printers, see "Accessories", see page 177.</p>	 <p><b>Stainless steel:</b> The balance is protected against corrosion.</p>	 <p><b>Warranty:</b> The warranty period is shown in the pictogram.</p>

# 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, 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.



## KERN DAkkS calibration service brochure

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



## KERN flyer Special offers

Compact overview of our bestselling products – just the balances/measuring instruments/microscopes your customers need! Can be customised to suit your requirements.



## The gnome guide

Travel report from KERN, the famous scientific gnome, who travelled all over the world, in order to illustrate the physical law of gravitational force. Ideal for use in school education – please request, it's free of charge.



## 170 years of KERN

Interesting and readable overview of the history of the origins of Southern German balance manufacturing, as well as the company history, which stretches right back to 1770 – please request, it's free of charge.

## Your advantages

- 1 Quick Delivery**  
Items in stock are sent the same day if orders are placed before 1:00 pm (valid for parcel service delivery within the EC).
- 2 Price performance ratio**  
KERN scales are always an inexpensive alternative. They are durable, uncomplicated and easy to place into operation.
- 3 Direct dispatch**  
of ordered goods to your customer is available, with personalised delivery note if desired (please ask), invoice will be issued to you (third party business).
- 4 3 years warranty**  
Items under € 400,- : 2 years
- 5 No stock-keeping necessary.**  
KERN does the warehousing for you.
- 6 Sale or return**  
within 14 days of purchase.

## 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 lets you 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 feed, 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

Read-out [d]	Weighing range [Max]	Model KERN	Price excl. of VAT ex works €	Page	DAYS ready for shipping		
0,001 g	20 g	TAB 20-3	70,-	10	1		
0,002 g	10 g	CM 50-C2N	90,-	10	1		
0,01 g	60 g	CM 60-2N	79,-	10	1		
0,1 g	150 g	TEE 150-1	38,-	10	1		
0,1 g	150 g	CM 150-1N	52,-	10	1		
0,1 g	200 g	TCB 200-1	52,-	10	1		
0,1 g	320 g	CM 320-1N	55,-	10	1		
1 g	1000 g	CM 1K1N	52,-	10	1		

= Carat balances

= Standard

= Option

## Your product specialist's recommendation:

- Simple and convenient 2-key operation**
- Backlit LCD display**
- Cover can also be used as a tare cup**
- Also ideal as a gift for your customers**



**Katharina Queitsch**  
Product specialist Pocket balances

Tel. +49 [0] 7433 9933-218  
Fax +49 [0] 7433 9933-29218  
katharina.queitsch@kern-sohn.com

**HIGH-LIGHT**



only €  
**38,-**  
▶ page 10

**KERN TEE**



**KERN TEE**

Designer pocket balance at a bargain price



**KERN TCB**

This is where the fun starts with pocket format weighing



**1 KERN CM**

Small, practical and protected in a hard case cover



**KERN TAB**

High-precision pocket carat balance for jewellers and travelling salesmen

STANDARD

CAL EXT UNIT BATT 1 DAY

STANDARD OPTION

2 YEARS WARRANTY DAKKS +3 DAYS

STANDARD

CAL EXT UNIT BATT 1 DAY

STANDARD OPTION

2 YEARS WARRANTY DAKKS +3 DAYS

STANDARD

CAL EXT UNIT BATT 1 DAY

STANDARD OPTION

2 YEARS WARRANTY DAKKS +3 DAYS

STANDARD

CAL EXT UNIT BATT 1 DAY

STANDARD OPTION

2 YEARS WARRANTY 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
- Note: Can be printed with your logo, from 100 pcs. Please ask for details

- Simple and convenient 2-key operation
- Small and handy
- Transport box and weighing pan included
- Revolving weighing plate (as overload protection)
- Note: Individual logo printing on request

- Hard case cover as protection against pressure and dust

- 1 CM:
  - Integrated calculator

- 2 CM-C:
  - 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

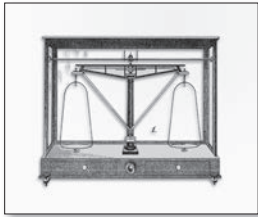


2

KERN	TEE 150-1	TCB 200-1	CM 60-2N	CM 150-1N	CM 320-1N	CM 1K1N	CM 50-C2N	TAB 20-3
<b>Weighing range [Max] g</b>	150 g	200 g	60 g	150 g	320 g	1000 g	10 g   50 ct	20 g   100 ct
<b>Readout [d] g</b>	0,1 g	0,1 g	0,01 g	0,1 g	0,1 g	1 g	0,002 g   0,01 ct	0,001 g   0,005 ct
<b>LCD display</b>	backlit, digit height 9 mm	Digit height 9 mm	Digit height 12 mm				Digit height 9 mm	backlit, digit height 9 mm
<b>Dimensions of weighing plate</b>	WxD 60x64 mm	Ø 80 mm	WxD 70x80 mm				WxD 50x40 mm	WxD 36x42 mm
<b>Overall dimensions</b>	WxDxH 67x100x22 mm	ØxH 80 mm	WxDxH 85x130x25 mm					WxDxH 95x133x33 mm
<b>Power supply</b>	Batteries included, 2 x 1,5 V AAA	Batteries included, 2 x LR 44 AUTO-OFF function to preserve battery life, can be switched off	Batteries included, 2 x 1,5 V AAA AUTO-OFF function to preserve battery life, can be switched off					Batteries included, 4 x 1,5 V AAA operating time approx. 150 h
			Operating time:					
<b>Net weight</b>	100 g	50 g	ca. 30 h	ca. 70 h	180 g	ca. 30 h		200 g
<b>Permissible ambient temperature</b>	5 °C / 35 °C							10 °C / 30 °C
<b>Price €, excl. of VAT, ex works</b>	38,-	52,-	79,-	52,-	55,-	52,-	90,-	70,-
<b>Option DAKKS Calibr. Certificate</b>	963-127, 72,-							

# 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



► 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

## Our Tip

Come to see the Museum of scale and weight ...



How a scale learned to weigh! Come and experience KERN history in the Zollernschloss at Balingen ...

[www.balingen.de](http://www.balingen.de)  
→ "Kultur"

## KERN – Tradition and Innovation for over 170 years

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

### 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  
2009/23/EC
- 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](http://www.kern-sohn.com)

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

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


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

 **Service hotline**  
+49 [0] 7433 9933-199

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

 **[www.kern-sohn.com](http://www.kern-sohn.com)**  
For product specification sheets, user manuals, useful information, technical glossary pictures and much more as well as a smart search engine for test weights and balances

 **Calibration hotline**  
+49 [0] 7433 9933-196

 **Fax Order**  
+49 [0] 7433 9933-146

**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](mailto:info@kern-sohn.com)  
[www.kern-sohn.com](http://www.kern-sohn.com)

