

## Tradition and innovation – 169 years of KERN

Independent and family-run, KERN is already in its 6th generation and is synonymous with quality and reliability in customer service.

### fast

- 24 hours delivery service – order today, on its way tomorrow
- Sales & service hotline from 8:00 am to 6:00 pm

### reliable

- 2+ years warranty
- Precision in weighing technology for the last 169 years

### diverse

- One-stop shopping: from pocket balances through to floor scales – everything from one supplier
- Quick as a flash, find the product you want with the „Balance Quick-Finder“ at the internet

### competent

- DKD accreditation (DIN EN ISO/IEC 17025)
- QM system (DIN EN ISO 9001:2000)
- Initial verification by the manufacturer (2009/23/ECC)
- Medical (DIN EN ISO 13485 & 93/42/EEC)

Printed in Germany  
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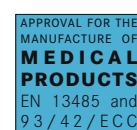
## BALANCES & TEST SERVICE

GB for laboratory, industry and food



BALANCES & TEST SERVICE – for laboratory, industry and food

## KERN – Professional measuring.



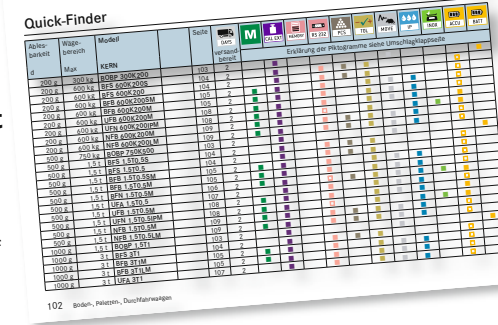
2013

GB

2013

### How do I find the product I am looking for?

The tried and tested quick search system – „Quick-Finder“ ahead of each product group means that you can search against a target group using the weighing data you need, such as readout, weighing range and main features for each model.



And it's this simple – find the product you want in 2 steps:































1. Go to the product group list on page 3
2. Go to the product group and find the product you want using the Quick-Finder.

... or use the model name and find the product quickly and efficiently using the A-Z model list:

### KERN Models A – Z

	Page		Page
440	21	HFB	125
572/573	26	HFM	128
911-013	130	HUM	127
ABS-N/ABJ-NM	42	HUS	126
ABT	46	IFB	97
AES-N/AEJ-N	44	IFS	85/96
ALS-A/ALJ-A	43	IKT	100/101
ALT-B	45	ILS/ILJ	99
BFB	105	KB/KB-NM	23
BFN	106	MLB-N	50
BFS	104	MLS-N	51
BOBP	103	NFB	109
CCS	87	PBS/PBJ	38/39
CDS	86	PCB	18/19
CFS	83	PCD	20
CH	123	PES/PEJ	36
CM/CM-C	08	PFB	17
CKE	84	PKP/PKS	24/25
CPB/CPB-M	82	PKT	30/31
CXB/CXB-M	81	PLE-N	22
DE-D	94/95	PLJ-N	29
DBS	48	PLS/PLJ	32/33
DLB	49	PLT	37
DLT	52/53	RFB	76
DS/DS-M	98	RFS	78
ECB/ECE	57	RPB	77
EG-N/EW-N	34/35	RXB	75
EMB	14	SFB-H/SFB	72/73
EMB-V	15	SFE	71
EMS	16	TAB/TCB/TEB/TEE	08
EOB/EOS	92	UFA	107
EOS-F	93	UFB/UFN	108
EOE/EOL	91	VHB	118
EW	28	VHE	117
EWB	27	VFS	119
FCB	60	VHS	120
FCB-B	62	VHT	121
FCE	58	VHM	121
FFN-N	70	WTB-N	68
FKB-A	61	YKB-01N, YKS-01	130
FKB/FKB-M	63	YBI-01, YPS-01	132
FKT	64/65	YKI-01	131
FOB/-S	69		
GAB-N	59		
HCB/HCN	124		
HDB	123		

## KERN Pictograms

-  **Internal adjusting (CAL):** Quick setting of the balance's accuracy with internal adjusting weight (motordriven).
-  **Adjusting program (CAL):** For quick setting of the balance's accuracy. External adjusting weight required.
-  **Memory:** Balance contains memories, e.g. for item data, weighing data, tare weights etc. PLU
-  **Data interface RS-232:** To connect the balance to a printer, PC or network
-  **Control outputs (optocoupler, digital I/O)** to connect relays, signal lamps, valves, etc.
-  **Interface for second balance:** for direct connection of a second balance
-  **Network interface:** For connecting the scale to an Ethernet network. With KERN products you can also use a universal RS-232/LAN converter.
-  **GLP/ISO record keeping:** of weighing data with date, time and identification-no. Only with printers from KERN.
-  **Piece counting:** Reference quantities selectable. Display can be switched from piece to weight
-  **Net-total weighing:** weight of tare cup and weight of components memorized in two separate stores.
-  **Percentage determination:** Determining the deviation in % from the target value (100%).
-  **Weighing units:** Can be switched to e. g. nonmetric units at the touch of a key. See balance model. Please refer to KERN's website for more details.
-  **Weighing with tolerance range:** Upper and lower limiting can be programmed individually, e.g. dosing/sorting and portioning.
-  **Vibration-free weighing:** (Animal weighing program) Vibrations are filtered out so that a stable weight is obtained.
-  **Spray and dust protection IPxx:** The type of protection is shown by the pictogram. For details see the glossary.
-  **Stainless steel:** the balance is protected against corrosion.
-  **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.
-  **Mains adapter:** 230V/50Hz in standard version for Germany. On request GB, AUS or USA version.
-  **Power supply:** integrated in balance. 230V/50Hz in Germany. More standards e. g. GB, AUS, USA on request.
-  **Strain gauges:** Electrical resistor on an elastic deforming body.
-  **Tuning fork principle:** A resonating body is electromagnetically excited, causing it to oscillate.
-  **Electromagnetic force compensation:** Coil in a permanent magnet. For the most accurate weighings.
-  **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.
-  **DKD calibration possible:** The time required for DKD calibration is shown in days in the pictogram.
-  **Package shipment:** The time required to manufacture the product internally is shown in days in the pictogram.
-  **Pallet shipment:** The time required to manufacture the product internally is shown in days in the pictogram.
-  **Warranty:** The warranty period is shown in the pictogram.

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



### Balances & Test service catalogue

Provides a complete overview of the KERN line of balances, test weights, and services.



### Medical scales catalogue

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



### KERN DKD calibration service brochure

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



### SAUTER measuring equipment catalogue

Test instruments for industry and commerce, such as force, coating thickness, material thickness, and hardness measuring systems.

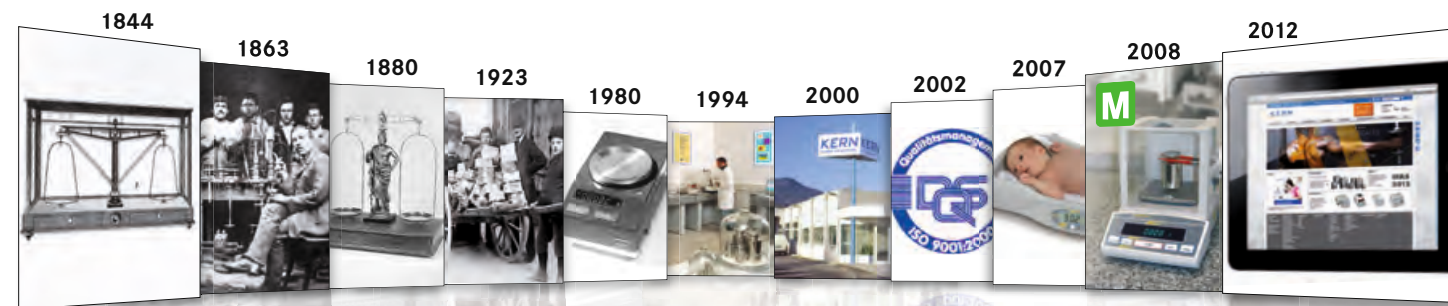


### KERN branch prospectuses

Compact overview of the bestsellers for many different lines of business – just the balances your customers need!





## Tradition and innovation for more than 169 years

Independent and family-run, KERN is already in its 6th generation and 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 for weights DKD laboratory (ISO 17025)
- **2000** New premises in Balingen
- **2002** Existing QM system certification in accordance to DIN EN ISO 9001:2000 standards
- **2007** Approval for the Manufacture of Medical Products (DIN EN13485 and 93/42/EEC)
- **2008** Approval for manufacturer's initial calibration (2009/23/ECC)
- **2009** Approval for the manufacture and sale of height rods (DIN EN 13485 and 93/42/ECC)
- **2012** Verification point for non-automatic balances and test weights
- **2012** New customer portal KERN goes live

## Your advantages

-  **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).
-  **Price performance ratio**  
KERN scales are always an inexpensive alternative. They are durable, uncomplicated and easy to place into operation.
-  **2+ years warranty**
-  **Sale or return**  
within 14 days of purchase

## Keyword index

	Page		Page		Page
Accessories .....	129-132, 151, 152	Glossary A-Z.....	151/152	Printer .....	130
Adiposity scales .....	see website	Grain balance .....	see website	Price computing scales .....	74-78
Analytical balances .....	41-46	Hand grip dynamometer .....	see website	Recalibration .....	153-157
Animal scales.....	18/19, 21, 23-26, 29-31, .....	Handrail scales .....	see website	Retail scales .....	74-78
.....	37-39, 60-65, 71, 91-95, 97, 98, .....	Hanging scales .....	122-128	Sample plates .....	48-53
.....	100/101, 103, 105-109, 123, 124	Hardness tester .....	see website	Semi-micro balances .....	44, 46
Baby scales .....	see website	Height rods .....	see website	Software .....	132
Bench scales .....	55-65	History KERN .....	2	Specialized trade .....	153
Body fat scales.....	see website	Hydrostatic balances .....	15,22,29-33, .....	Spring balances .....	see website
Calibration .....	153-157	.....	37-39, 42-44, 46, 98, 100/101	Stainless steel scales.....	69-73
Calibration service .....	153-157	Industrial scales .....	55-128	Tare pan .....	74-78
Carat balances.....	8	Information .....	2-7,158-163	Temperature calibration set .....	48-53
Case, for transport .....	132	Interface cable .....	131	Terminals .....	110-115
Catalogues, brochures, prospectuses .....	2	loniser/Ionisation blower .....	132	Test service .....	153-157
Certification, DKD/DAkS .....	153-157	IP65...68 scales .....	68, 70-73, .....	Test stands .....	see website
Chair scales .....	see website	.....	94/95, 108, 109, 117-121, 124	Test weights.....	133-152
Coating thickness gauges .....	see website	ISO calibration .....	153-157	Touchscreen scales .....	30/31, 52/53, .....
Control of checking equipment .....	153	Laboratory balances .....	9-46	.....	64/65, 100/101
Counting scales .....	79-87	Lifter scales .....	see website	Transport case .....	132
Counting systems .....	87	Mechanical balances (spring balances).....	see website	Tweezers .....	151
Crane scales .....	125-128	.....	116-121	Underfloor weighing, accessories... 14, 15, .....	18/19, 21, 22, 23, 24-27, .....
Density determination .....	15, 22, 29-33, .....	Mobile pallet weigher .....	116-121	.....	29-39, 42-44, 46, 98, 100/101, 131
.....	37-39, 42-44, 46, 100/101	Moisture analyzers .....	47-53	Verification .....	111, 157, 158
Direct dispatch to customer .....	2	Pallet scales .....	107,108	Warranty .....	2
Display devices .....	110-113	Pallet truck scale.....	116-121	Weighing beams.....	107
DKD/DAkS .....	153-157	Payments .....	162	Weighing bridges .....	110-115
Drive-through scale .....	109	Personal scales .....	see website	Weighing scoops .....	see website
Drying scales .....	47-53	Pictograms .....	2	Weighing table .....	132
Explosion hazard .....	162	Platform scales .....	88-101	Weights .....	133-152
Fiberglass filter .....	48-53	Plattformen .....	110-151	Wheelchair platform scales.....	see website
Floor scales .....	102-109	Plummet .....	131		
Force gauges .....	see website	Pocket balances .....	8		
		Precision balances .....	9-40		

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## Our Tip:

Our tip – give us a visit sometime in the **Museum of scale and weight...**



How a scale learns to weigh! Come and experience Kern history in the Zollenschloss at Balingen ... [www.balingen.de](http://www.balingen.de) → Culture

## Product group index

Pocket balances		7-8	01
Precision balances		9-40	02
Analytical balances		41-46	03
Moisture analyzers		47-53	04
Bench scales		55-65	05
Stainless steel   Protection IP65...68 (Bench scales   Plattform scales)		66-73	06
Price computing scales		74-78	07
Counting scales   Counting systems		79-87	08
Platform scales		88-101	09
Floor scales   Pallet scales   Drive-through scales		102-109	10
Display devices   weighing bridges		110-115	11
Pallet truck scales		116-121	12
Hanging scales   Crane scales		122-128	13
Accessories		129-132	14
Test weights		133-152	15
DKD Calibration service		153-157	16

## Finding your way through the KERN range:

### How do I find the product I am looking for?

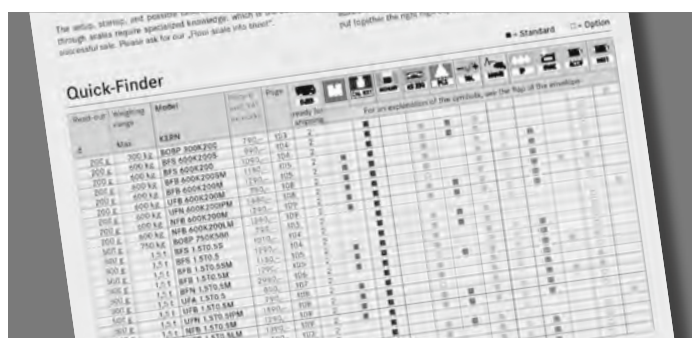


#### Product group index

► Page 3

#### Search by product group

Subject-related chapters offering a quick overview of the range of balances, weights and services.



#### Balance Quick-Finder

#### Search by weighing data

The tried and tested quick-find system prior each product group (compare product group index page 3) means that you can carry out a targeted search using the weighing data that you require, such as readout, weighing range, etc and offers a short description for each model.



#### Models A-Z

► Flap of the envelope

#### Search by model reference

Targeted search using the model reference.



#### Keyword index

► Page 163

#### Search by keyword

Easy search using an extensive KERN and industry-specific keyword index.



#### For more information ...

► Website

... please visit our website.

On our website you will find all the important information about KERN products, accessories, DKD calibration service, verification, special offers, background information, ... and much more..

# „Get in touch with the future“



Come and discover all the features of the innovative KERN touchscreen models

- The highest level of transparency

All the function keys on the touch-sensitive display are labelled with plain text and with the menu languages available, this helps to ensure the highest level of transparency and ease of operation.

- Simply start writing

Thanks to the large keypad you can easily enter recipe ingredients, batch or item descriptions, user ID, tare values, etc. in plain text – saving time and avoiding misunderstandings. At any time, all values can be printed out or transferred to a connected PC in accordance with GLP.

- Save costs

With the efficient touchscreen models, all common weighing applications are covered with one balance, such as, for example, counting, dispensing, mixing, percentage determination, totalising, animal weighing, etc. So you just need one balance, which can be used in more than several locations, thanks to its compact dimensions.

- Process reliability

A generous memory allows you to store recipes with a large number of ingredients, which can be easily recalled and processed, time and time again.

- Several models

Compact for high-tech laboratories, with extra large weighing plate for larger units or with removable display for use under hoods or in glove bags – at KERN you will always find just the right product.

**KERN – Weighing can be this simple.**

You will find a detailed description of our new touchscreen models on the following pages:

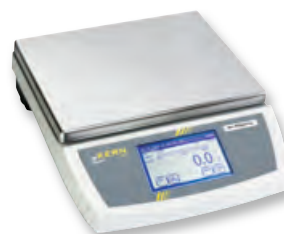
- Page 30: PKT precision balance
- Page 52: DLT moisture analyser
- Page 64: FKT bench scale
- Page 100: IKT platform scale



KERN DLT



KERN PKT



KERN FKT



KERN IKT

# News • News • News

We also have lots of new models in our range for 2013.  
Innovative products with the KERN quality you are used to – why not have a look for yourself ...

## Precision balance EMB-V

Entry level laboratory balance with integrated density determination function



Further details → see page 15

## Precision balance PCD

High resolution precision balance with removable display device for maximum flexibility



Further details → see page 20

## Precision balance KBJ

Convenient laboratory model at a basic price and completely new: with internal automatic adjustment!



**Coming soon...**

## Analytical balance ABS-N/ABJ-NM

Entry level analytical balance with high-quality single cell weighing system



Further details → see page 42

## Moisture analyser DLT

High-end moisture analyser with touch-sensitive screen and innovative Windows CE touch® operating system



Further details → see page 52

## IP protected bench scales WTB-N

Ideal in the food industry, protected by IP65, easy to clean



Further details → see page 68

## Stainless steel bench scale FOB-S

Compact stainless steel scale – now particularly high resolution



Further details → see page 69

## Stainless steel platform scale SFB

Stainless steel platform scale with IP67, XL platform and with EC-type approval



Further details → see page 73

## Counting scale CFS

Professional, high resolution counting scale with 100 item memories and second balance interface, counting resolution up to 75,000 points



Further details → see page 83

## Industrial counting scale IFS

Industrial counting scale with convenient keypad for easy data entry, now with counting resolution 60,000 points



Further details → see page 85

## Platform scale ILS/ILJ

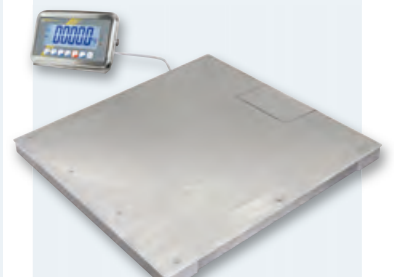
High-resolution industrial scale with robust weighing technology for the most precise results from 0,1 g up to 50 kg, also with EC type approval



Further details → see page 99

## Stainless steel floor scale BFN

Stainless steel floor scale in XL size with IP68 platform



Further details → see page 106

# 1 Pocket balances

KERN Model		Page
TEE	Designer pocket balance at a bargain price	08
TCB	This is where the fun starts with pocket format weighing	08
CM TEB	Small, practical and protected in a hard case cover	08
TAB	High-precision pocket carat balance for jewellers and travelling salesmen	08
CM-C	Compact pocket balance with carat display - ideal for jewellers	08



## Precision in pocket format:

Pocket balances are the ideal helper whenever mobility and high precision are required. Since they have fewer keys, operation is simple and fast. Different weight units stored in the pocket balance, such as g, oz, ct, gn, etc., make them universally usable. An integrated calculator lets you use the weight measured immediately in calculations, e.g. a price, unit count, average values and many 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, for inspection of production weights; during picking of small parts
- In quality control for quick testing of small parts like plastic parts from injection moulding machines, milled parts, screws, etc.
- In quality control for quick testing of small parts like plastic parts from injection moulding machines, milled parts, screws, etc.
- For mobile weighing, in on-site sampling, for fast analysis anywhere there's no power outlet.
- For hobbies and sports, for example for the loading of black powder, to weigh parts from construction sets, etc.

- In commerce, for the fast determination of the weights of coins, jewellery, precious stones, etc.
- In veterinary medicine for the weighing of small animals, the mixing of feed, etc.
- In the food area for the preparation of spice or tea mixes, for the weighing of food for dieting.

Of course, all KERN pocket balances can also be calibrated and delivered with a DKD calibration certificate (optional). This ensures the high level of accuracy of your balance.



Your KERN product specialist will be happy to help:

**Inna Wandler**  
Product specialist  
Pocket balances, Analytical balances

## Quick-Finder

◆ = Carat balances   ■ = Standard   □ = Option

Read-out	Weighing range	Model		Page	DAYS ready for shipping	CAL EXT	MEMORY	BATT
d	Max	KERN				For an explanation of the symbols, see the flap of the envelope		
0,001 g	20 g	TAB 20-3 ◆		8	1	■		■
0,01 ct	50 ct	CM 50-C2N ◆		8	1	■		■
0,01 g	60 g	CM 60-2N		8	1	■		■
0,1 g	150 g	TEE 150-1		8	1	■		■
0,1 g	150 g	CM 150-1N		8	1	■		■
0,1 g	200 g	TCB 200-1		8	1	■		■
0,1 g	200 g	TEB 200-1		8	1	■		■
0,1 g	320 g	CM 320-1N		8	1	■		■
1 g	1000 g	CM 1K1N		8	1	■		■

# Pocket balances KERN TEE · TCB · TEB · CM · CM-C · TAB

01



**KERN TEE**

STANDARD

CAL EXT BATT TARE UNIT

STANDARD OPTION

1 DAY WARRANTY +3 DAYS DKD



**KERN TCB**

STANDARD

CAL EXT BATT TARE UNIT

STANDARD OPTION

1 DAY WARRANTY +3 DAYS DKD



**KERN TEB · CM · CM-C**

STANDARD

CAL EXT BATT TARE UNIT

STANDARD OPTION

1 DAY WARRANTY +3 DAYS DKD



**KERN TAB**

STANDARD

CAL EXT BATT TARE UNIT

STANDARD OPTION

1 DAY WARRANTY +3 DAYS DKD

Designer pocket balance at a bargain price

- **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

This is where the fun starts with pocket format weighing

- **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**

Small, practical and protected in a hard case cover

- TEB:**
- **Hard case cover as protection against pressure and dust**
- 1 CM:**  
Functions as with TEB, in addition however with:
- **Integrated calculator**
- 2 CM-C:**  
Functions as with TEB, in addition however with:
- **Adjusting weight standard**
  - **Draft shield** against air movements standard
  - **weighing pan standard**

High-precision pocket carat balance for jewellers and travelling salesmen

- **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**



Model	KERN	TEE 150-1	TCB 200-1	TEB 200-1	CM				CM 50-C2N	TAB 20-3
					CM 60-2N	CM 150-1N	CM 320-1N	CM 1K 1N		
Weighing ranges [Max] g		150	200	200	60	150	320	1000	10 g   50 ct	20 g   100 ct
Readout [d] g		0,1	0,1	0,1	0,01	0,1	0,1	1	0,002 g   0,01 ct	0,001 g   0,005 ct
LCD display		backlit, digit height 9 mm	digit height 9 mm	digit height 11 mm	digit height 12 mm				digit height 9 mm	backlit, digit height 9 mm
Dimensions of weighing plate WxD		60x64 mm	Ø 80 mm	70x80 mm				50x40 mm	36x42 mm	
Overall dimensions WxDxH		67x100x22 mm	ØxH 80 mm	85x130x25 mm					95x133x33 mm	
Power supply		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, 2 x 1,5 V AAA, Operating time approx. 150 h	
Net weight		approx. 0,1 kg	approx. 0,05 kg	approx. 0,17 kg				approx. 0,2 kg		
Permissible ambient temperature		5°C/35°C							10°C/30°C	
Option DKD Calibr. Certificate		963-127								



# 2 Precision balances

KERN Model		Page
EMB	Entry level laboratory balance with tremendous weighing performance	14
EMB-V	Entry level laboratory balance with integrated density determination function	15
EMS	Entry level model in the low cost range with large weighing plate	16
PFB	Low-cost model based on a concept of easy use	17
PCB	The economical solution for the bargain hunter	18/19
PCD	High resolution precision balance with removable display device for maximum flexibility	20
440	The bestseller in basic laboratory balances	21
PLE-N	Low-cost precision balance with wide range of functions	22
KB-N KB-NM	Convenient model at a basic price, also with EC type approval [M]	23
PKS PKP	Two laboratory specialists with clear graphics display for the most simple user guidance	24/25
572 573	All-rounder e.g. as laboratory, counting or checking balance, also with EC type approval [M]	26
EWB	Verifiable entry level model in the upper laboratory class with EC type approval [M]	27
EW	Gold and laboratory balance with EC type approval [M]	28
PLJ-N	Excellent performance, excellent price - also with EC type approval [M]	29
PKT	Touchscreen laboratory balance with extensive range of functions	30/31
PLS PLJ	Excellent performance, excellent price - also with internal adjustment	32/33
EW-N EG-N	Top of the range cost-effectiveness, with EC type approval [M]	34/35
PES PEJ	Robust laboratory and industrial precision balance, with EC type approval [M]	36
PLT	High-quality precision balance with convenient graphics display	37
PBS PBJ	Multifunctional laboratory balance with single-cell weighing system and EC type approval [M]	38/39
	High resolution model with large weighing range and large weighing plate for special laboratory applications	40



## KERN Analytical balances with Single-cell cutting edge technology



To satisfy stricter requirements for precision, speed, and → **reproducibility** of weight values, monolithic balance cells are increasingly the standard. These are measurement sensors for determination of weight that are fabricated from an aluminium. These systems distinguish themselves from conventional balance cells in terms of both quality and performance:

- Higher measurement speed
- Better measurement precision
- Stable temperature behaviour
- Improved mechanical sturdiness
- Higher corner load reliability

KERN analytical balances on this measurement principle are designated as using „Single Cell Technology“ (→ **SC TECH**).

→ See the glossary on page 158/159



### Interesting facts about the determination of density

One of the main areas of application for laboratory balances is determining densities, i.e. determining the specific weight of liquids and solids. To do this you will need a highly accurate precision balance and a density set. It is particularly convenient if the balance can calculate and display the density immediately. It has become apparent that using weighing when determining the density of liquids and solids in accordance with the buoyancy method gives particularly accurate results (Archimedes' principle).

#### Density determination of liquids:

By means of measuring the buoyancy with a glass plummet

#### Density determination of solid matter:

The density is the ratio of weight [g]: Volume [cm<sup>3</sup>]. The weight is derived by weighing the sample in air.

The volume is determined from the buoyancy [g] of a sample, which is submerged in a liquid. The density [g/cm<sup>3</sup>] of this liquid is known.

#### Applications:

- Materials analysis
- Density of porous materials
- Pre-packaged goods check, whenever the merchandise is sold according to volume [cm<sup>3</sup>]. This volume is calculated from the weight [g] : density [g/cm<sup>3</sup>].

#### Plummet

for density determination of liquids. Made of glass, hanging on a platinum wire.

Volume 10 cm<sup>3</sup>, weight 30 g, length 169 mm, verifiable, KERN 152-532

Verification, KERN 950-272

You can find examples of balances for density determination on pages 15, 22, 29-33, 37-39, 42-44, 46, 100/101.



KERN EMB-V

KERN ACS-N/ACJ-NM













Your KERN product specialist will be happy to help:

**Bettina Hampe**  
Product specialist  
Precision balances

## Quick-Finder

■ = Standard □ = Option

Read-out	Weighing range	Model	Page	 DAYS ready for shipping										For an explanation of the symbols, see the flap of the envelope									
														Max	KERN								
0,001 g	60 g	440-21A	21	1			■		■	■		□	□										
0,001 g	100 g	EMB 100-3	14	1			■					□	□										
0,001 g	100 g	PCB 100-3	18	1			■		■	■		□	□										
0,001 g	120 g	PFB 120-3	17	1			■		■	■													
0,001 g	120 g	KB 120-3N	23	1			■		■	■		□											
0,001 g	150 g	EW 150-3M	28	1			■		□			□											
0,001 g	200 g	EMB 200-3	14	1			■					□	□										
0,001 g	200 g	EMB 200-3V	15	1			■		■			□	□										
0,001 g	200 g	PFB 200-3	17	1			■		■	■													
0,001 g	200 g	PKS 200-3	24	1			■	■	■	■	■	□											
0,001 g	220 g	EW 220-3NM	35	1			■		■	■		□											
0,001 g	220 g	EG 220-3NM	35	1	■	■			■	■	■	□											
0,001 g	240 g	KB 240-3N	23	1			■		■	■		□											
0,001 g	240 g	572-30	26	1			■		■	■		□											
0,001 g	250 g	PCB 250-3	18	1			■		■	■		□	□										
0,001 g	250 g	PCD 250-3	20	1			■		■	■		□	□										
0,001 g	300 g	EMS 300-3	16	1			■			■			□										
0,001 g	300 g	PFB 300-3	17	1			■		■	■													
0,001 g	300 g	PKP 300-3	24	1			■	■	■	■	■	□											
0,001 g	300 g	572-31	26	1			■		■	■		□											
0,001 g	300 g	PKT 300-3	30	1			■	■	■	■	■	□											
0,001 g	350 g	PCB 350-3	18	1			■		■	■		□	□										
0,001 g	360 g	KB 360-3N	23	1			■		■	■		□											
0,001 g	360 g	PKS 360-3	25	1			■	■	■	■	■	□											
0,001 g	360 g	PLJ 360-3NM	29	1	■	■			■	■	■	□											
0,001 g	420 g	PLE 420-3N	22	1			■		■	■	■	□											
0,001 g	420 g	PKP 420-3	24	1			■	■	■	■	■	□											
0,001 g	420 g	572-32	26	1			■		■	■		□											
0,001 g	420 g	PKT 420-3	30	1			■	■	■	■	■	□											
0,001 g	420 g	PLS 420-3F	32	1			■		■	■	■												
0,001 g	420 g	PLJ 420-3F	32	1		■			■	■	■												
0,001 g	420 g	EW 420-3NM	35	1			■		■	■	■	□											
0,001 g	420 g	EG 420-3NM	35	1	■	■			■	■	■	□											
0,001 g	420 g	PLT 420-3F	37	1		■			■	■	■												
0,001 g	420 g	PBS 420-3M	38	1			■		■	■	■												
0,001 g	420 g	PBJ 420-3M	38	1	■	■			■	■	■												
0,001 g	600 g	PLJ 600-3NM	29	1	■	■			■	■	■												
0,001 g	620 g	EW 620-3NM	35	1			■		■	■	■	□											
0,001 g	620 g	EG 620-3NM	35	1	■	■			■	■	■	□											
0,001 g	620 g	PEJ 620-3M	36	1	■	■			■	■	■												
0,001 g	620 g	PBS 620-3M	38	1			■		■	■	■												
0,001 g	620 g	PBJ 620-3M	38	1	■	■			■	■	■												
0,001 g	720 g	PLS 720-3A	32	1			■		■	■	■												
0,001 g	720 g	PLJ 720-3A	32	1	o.r.	■			■	■	■												
0,001 g	720 g	PLT 720-3A	37	1	o.r.	■	■	■	■	■	■												
0,001 g	750 g	PLJ 750-3N	29	1		■			■	■	■												
0,001 g	1200 g	PLS 1200-3A	32	1			■		■	■	■												
0,001 g	1200 g	PLJ 1200-3A	32	1		■			■	■	■												
0,001 g	1200 g	PLT 1200-3A	37	1		■	■	■	■	■	■												
0,01 g	200 g	EMB 200-2	14	1			■					□	□										
0,01 g	200 g	PCB 200-2	18	1			■		■	■		□	□										
0,01 g	200 g	440-33N	21	1			■		■	■		□	□										
0,01 g	220 g	EWB 220-2M	27	1			■			■	■	□											
0,01 g	400 g	440-35N	21	1			■		■	■		□	□										
0,01 g	600 g	EMB 600-2	14	1			■					□	□										

02





# Precision balance KERN EMB

02



## Entry level laboratory balance with tremendous weighing performance

### Features

- **Simple and convenient 2-key operation**, making them ideal for use in schools and universities
- **Tare function** facilitates formulation work
- **Particularly flat design**
- **Secure and non-slip positioning** with rubber feet
- **Ready for use:** Batteries included. AUTO-OFF function to preserve the batteries, can be switched off

### Technical data

- Large LCD display, digit height 15 mm
- Dimensions of weighing plate (plastic)
  - ▲ 82 mm
  - 105 mm
  - 150 mm, see larger picture
- Dimensions housing WxDxH 170x240x39 mm
- Net weight approx. 0,5 kg
- Permissible ambient temperature 5 °C / 35 °C

### Accessories

- **1 Ring-shaped draft shield**, plastic, only for models with weighing plate sizes ▲, KERN EMB-A01
- **2 Stainless steel-weighing plate**, only for models with weighing plate sizes ■, KERN EMB-A02
- **Mains adapter external** not included, can be reordered, KERN 440-902

### STANDARD



### OPTION



Model	Weighing range [Max] g	Readout [d] g	Reproducibility g	Linearity g	Weighing plate	Option	
						DKD KERN	DKD Calibr. Certificate
KERN EMB 100-3	100	0,001	0,001	± 0,003	▲	963-127	
KERN EMB 200-3	200	0,001	0,001	± 0,003	▲	963-127	
KERN EMB 200-2	200	0,01	0,01	± 0,02	■	963-127	
KERN EMB 600-2	600	0,01	0,01	± 0,03	■	963-127	
KERN EMB 1000-2	1000	0,01	0,01	± 0,03	■	963-127	
KERN EMB 2000-2	2000	0,01	0,01	± 0,03	■	963-127	
KERN EMB 500-1	500	0,1	0,1	± 0,2	■	963-127	
KERN EMB 1200-1	1200	0,1	0,1	± 0,3	■	963-127	
KERN EMB 3000-1	3000	0,1	0,1	± 0,3	■	963-127	
KERN EMB 6000-1	6000	0,1	0,1	± 0,3	■	963-128	
KERN EMB 2200-0	2200	1	1	± 2	■	963-127	
KERN EMB 5.2K1	5200	1	1	± 3	■	963-128	
KERN EMB 5.2K5	5200	5	5	± 10	■	963-128	

# Precision balance KERN EMB-V



02

## Entry level laboratory balance with integrated density determination function and simple operation

### Features

- **Density determination made easy!** Thanks to the self-explanatory, graphic-assisted control panel, the density of solids and liquids can be determined in seconds, making them ideal for use in schools and universities. Interesting facts about density determination see page 10
- Visualised process means that operating errors are avoided
  - No learning time = reduces costs
  - Ideal for untrained users
- The 4 steps are carried out from left to right:
  - 1 Tare the balance by pressing the [TARE] key
  - 2 Select density determination mode (solids/liquids)
  - 3 Weighing samples/plummetts in air
  - 4 Weighing samples/plummetts in liquid. The density will be shown on the display immediately

- **Hook for underfloor weighing** standard
- **Particularly flat design**
- **Ready for use:** battery (9 V Block) standard. AUTO-OFF function to preserve the batteries, can be switched off
- **Tare function** facilitates formulation work

### Technical data

- Large LCD display, digit height 15 mm
- Dimensions of weighing plate, plastic
  - A 82 mm, see larger picture. The illustration shows the EMB 200-3V model with optional density set YDB-01
  - B 150 mm
- Dimensions housing WxDxH 170x240x39 mm
- Net weight approx. 0,5 kg
- Permissible ambient temperature 5 °C / 35 °C

### Accessories

- for KERN EMB 200-3V:
- **5 Set for density determination** of liquids and solids with density  $\leq 1 \geq$ . Scope of supply: Weighing plate, beaker, sample holder, plummet. KERN YDB-01
  - **Calibration certificate for the volume plummet** (20 g), KERN 962-335V
- for KERN EMB 2000-2V:
- **6 Set for density determination** of liquids and solids with density  $\leq 1 \geq$ . Scope of supply: Weighing plate, beaker, sample holder, plummet. KERN YDB-02
  - **Calibration certificate for the volume plummet** (200 g), KERN 962-338V

### STANDARD



### OPTION



Model	Weighing range [Max] g	Readout [d] g	Reproducibility g	Linearity g	Weighing plate	Option	
						DKD Calibr. Certificate	
KERN						DKD KERN	
EMB 200-3V	200	0,001	0,002	$\pm 0,003$	A	963-127	
EMB 2000-2V	2000	0,01	0,02	$\pm 0,03$	B	963-127	

# Precision balance KERN EMS

02



## Entry level model in the low-cost range with large weighing plate

### Features

- Especially suitable for use in schools and universities, for example for biology, chemistry, physics
- **Large, shock proof plastic weighing plate**
- **Particularly flat design**
- **Ergonomically optimised key pad** with large keys and a high-contrast LCD display
- **Secure and non-slip positioning** with rubber feet
- **Adjusting program CAL**, external test weights at an additional price, see page 133 ff.
- **Draft shield** standard, only for models with weighing plate sizes **A**. Removable metal cover with pipette opening. Weighing space WxDxH 145x145x65 mm

### Technical data

- LCD display, digit height 15 mm
- Dimensions of weighing plate (plastic)
  - A** Ø 105 mm
  - B** WxD 160x160 mm, see larger picture
- Dimensions housing WxDxH 200x280x63 mm
- Optional battery operation, battery (9 V Block) not standard, operating time approx. 40 h, AUTO-OFF function to preserve the battery
- Mains adapter external standard
- Net weight approx. 1,4 kg
- Permissible ambient temperature 5 °C / 35 °C

### STANDARD



### OPTION



Model	Weighing range [Max] g	Readout [d] g	Reproducibility g	Linearity g	Min. piece weight [PW min] g/piece	Weighing plate	Option	
							DKD Calibr. Certificate	DKD KERN
<b>EMS 300-3</b>	300	0,001	0,002	± 0,005	0,002	<b>A</b>	963-127	
<b>EMS 3000-2</b>	3000	0,01	0,02	± 0,05	0,02	<b>B</b>	963-127	
<b>EMS 6K0.1</b>	6000	0,1	0,1	± 0,3	0,2	<b>B</b>	963-128	
<b>EMS 12K0.1</b>	12000	0,1	0,1	± 0,3	0,2	<b>B</b>	963-128	
<b>EMS 6K1</b>	6000	1	1	± 3	2	<b>B</b>	963-128	
<b>EMS 12K1</b>	12000	1	1	± 3	2	<b>B</b>	963-128	

New model



# Precision balance KERN PFB



02

## Low-cost model based on a concept of easy use

### Features

- **Concept of easy use:** All primary functions have their own key on the keypad
- **Compact size,** practical for small spaces
- **Capacity display:** A bar lights up to show how much of the weighing range is still available
- **Level indicator and foot screws** to level the balance precisely, fitted as standard, to give the most accurate weighing results

- **Draft shield** standard for models with weighing plate sizes **A** and **B**. Removable metal cover with pipette opening. weighing space WxDxH 158x143x64 mm
- **Separate second display** standard for models PFB 600-1M and PFB 6000-0M. Suitable for direct sales to the public. The verification value is the same as the readout. Large backlit LCDdisplay, Digit height 16 mm. Interface cable to the balance, Cable length approx. 1 m, and Mains adapter external standard. Dimensions WxDxH 250x180x105 mm

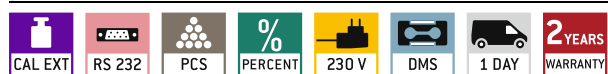
### Technical data

- Backlit LCDdisplay, digit height 15 mm
- Dimensions of weighing plate (stainless steel)
  - A** Ø 80 mm, **B** Ø 120 mm
  - C** WxD 155x145 mm, see larger picture
- Overall dimensions (without draft shield) WxDxH 200x260x87 mm
- Net weight approx. 2 kg
- Permissible ambient temperature 5 °C / 35 °C

### Accessories

- **Separate second display**, ideal for training and demonstration purposes in laboratories or in industry, not permitted for direct sales to the public, KERN PFB-A08
- **Suitable printers** see page 130

### STANDARD



### OPTION



### FACTORY



Model	Weighing range [Max] g	Readout [d] g	Verific. value [e] g	Reproducibility g	Linearity g	Weighing plate	Option		
							Verification		DKD Calibr. Certificate
							M II KERN		DKD KERN
PFB 120-3	120	0,001	-	0,001	± 0,003	A	-	-	963-127
PFB 200-3	200	0,001	-	0,001	± 0,003	A	-	-	963-127
PFB 300-3	300	0,001	-	0,001	± 0,003	A	-	-	963-127
PFB 1200-2	1200	0,01	-	0,01	± 0,03	B	-	-	963-127
PFB 2000-2	2000	0,01	-	0,01	± 0,03	B	-	-	963-127
PFB 3000-2	3000	0,01	-	0,01	± 0,03	B	-	-	963-127
PFB 6K0.05	6000	0,05	-	0,05	± 0,15	C	-	-	963-128
PFB 6000-1	6000	0,1	-	0,1	± 0,3	C	-	-	963-128

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.

PFB 600-2M	600	0,01	0,1	0,01	± 0,02	B		965-216	963-127
PFB 600-1M	600	0,1	0,1	0,1	± 0,1	B		965-216	963-127
PFB 6000-1M	6000	0,1	1	0,1	± 0,3	C		965-217	963-128
PFB 6000-0M	6000	1	1	1	± 1	C		965-217	963-128

■ New model

## Precision balance KERN PCB

02



The economical solution for the bargain hunter



**GLP/ISO record keeping** of weighing data, balance adjustment, etc. with date, time and identification no... Ideal for monitoring and documenting your processes in accordance with your quality management system



**Piece counting**  
Thanks to its high level of accuracy, it is ideal for counting the smallest parts



With the **recipe function** you can weigh the different ingredients of a mixture. As a check, you can also recall the total weight of all the ingredients

## Precision balance KERN PCB



### Features

- **PRE-TARE function** for manual subtraction of a known container weight, useful for checking fill-levels
- **Freely programmable weighing unit**, e.g. display directly in special units such as length of thread g/m, paper weight g/m<sup>2</sup>, or similar
- **Percentage determination**: makes it possible to store a given weight value (100%) and to determine deviations from this target value
- **Ring-shaped draft shield** standard, only for models with weighing plate sizes **A**, weighing space ØxH 90x40 mm

### Technical data

- Backlit LCDdisplay, digit height 15 mm
- Dimensions of weighing plate (stainless steel\*)
  - A** Ø 81 mm
  - B** Ø 105 mm\*
  - C** WxD 130x130 mm\*
  - D** WxD 150x170 mm\*, see larger picture
- Optional battery operation, battery (9 V Block) not standard. AUTO-OFF function to preserve the battery, can be switched off
- Overall dimensions (without draft shield) WxDxH 163x245x79 mm
- Net weight approx. 1,1 kg
- Permissible ambient temperature 5 °C / 35 °C

### Accessories

- **Protective working cover** over keyboard and housing, standard, can be reordered, for models with weighing plate sizes
  - A** KERN PCB-A02
  - B** KERN PCB-A03
  - C** KERN PCB-A04
  - D** KERN PCB-A05
- **Hook for underfloor weighing** to weigh hanging loads, standard, can be reordered, KERN 440-A01
- **Rechargeable battery pack internal**, can be reordered, operating time up to 48 h without backlight, charging time approx. 8 h. AUTO-OFF function to preserve the battery, can be switched off, KERN PCB-A01
- **Software Balance Connection**, details see page 131, KERN SCD-4.0
- **Individual header data**: the free software KERN SHM-01 can be used to print 4 header lines on the printout for printers 911-013 and YKB-01N
- **Suitable printers** see page 130

### STANDARD



only with printer

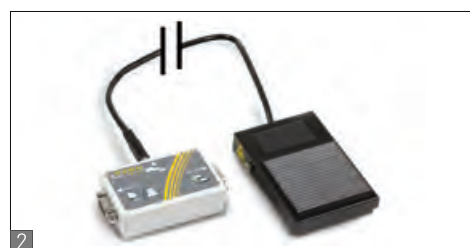
### OPTION



Model	Weighing range [Max] g	Readout [d] g	Reproducibility g	Linearity g	Min. piece weight [PW min] g/piece	Net weight approx. kg	Weighing plate	Option	
								DKD Calibr. Certificate	
<b>KERN</b>								<b>DKD</b>	
<b>PCB 100-3</b>	100	0,001	0,001	± 0,003	0,002	1,1	<b>A</b>	963-127	
<b>PCB 250-3</b>	250	0,001	0,001	± 0,003	0,002	1,1	<b>A</b>	963-127	
<b>PCB 350-3</b>	350	0,001	0,002	± 0,004	0,002	1,1	<b>A</b>	963-127	
<b>PCB 200-2</b>	200	0,01	0,01	± 0,02	0,02	1,1	<b>B</b>	963-127	
<b>PCB 1000-2</b>	1000	0,01	0,01	± 0,03	0,02	1,4	<b>C</b>	963-127	
<b>PCB 2500-2</b>	2500	0,01	0,01	± 0,03	0,02	1,4	<b>C</b>	963-127	
<b>PCB 3500-2</b>	3500	0,01	0,02	± 0,04	0,02	1,4	<b>C</b>	963-127	
<b>PCB 1000-1</b>	1000	0,1	0,1	± 0,2	0,2	1,4	<b>C</b>	963-127	
<b>PCB 2000-1</b>	2000	0,1	0,1	± 0,2	0,2	1,4	<b>C</b>	963-127	
<b>PCB 6000-1</b>	6000	0,1	0,1	± 0,3	0,2	2	<b>D</b>	963-128	
<b>PCB 10000-1</b>	10000	0,1	0,1	± 0,3	0,2	2	<b>D</b>	963-128	
<b>PCB 6000-0</b>	6000	1	1	± 2	2	2	<b>D</b>	963-128	

# Precision balance KERN PCD

02



## High resolution precision balance with removable display device for maximum flexibility

### Features

- **Laboratory balance with separate platform:** Ideal when working in the glove bag or fume cupboard. Particularly practical for weighing toxic, volatile or contaminated substances
- **PRE-TARE function** for manual subtraction of a known container weight, useful for checking fill-levels
- **Freely programmable weighing unit,** e.g. display directly in special units such as length of thread g/m, paper weight g/m<sup>2</sup>, or similar
- **Level indicator and foot screws** to level the balance precisely, fitted as standard, to give the most accurate weighing results

- **Draft shield** standard for models with weighing plate sizes **A**, weighing space WxDxH 146x146x70 mm

### Technical data

- Backlit LCDdisplay, digit height 21 mm
- Dimensions of weighing plate  
**A** Ø 105 mm  
**B** WxD 160x160 mm, see larger picture
- Optional battery operation, 9 V Block, not included, operating time approx. 12 h. AUTO-OFF function to preserve the battery
- Overall dimensions WxDxH 165x280x73 mm
- Cable length of display device approx. 1,5 m
- Net weight approx. 1,1 kg
- Permissible ambient temperature 5 °C / 35 °C

### Accessories

- **1 Stand** to elevate display device, height of stand approx. 250 mm, KERN PCD-A03
- **2 Foot switch,** ideal, when the application requires two free hands. TARE or PRINT function can be selected. Scope of supply: junction box, Connection cable. For the PRINT function you will need the RS-232 interface cable, see page 131, KERN YKF-01
- **Rechargeable battery pack internal,** operating time up to 48 h without backlight, charging time approx. 8 h. AUTO-OFF function to preserve the battery, can be switched off, KERN PCD-A04
- **Suitable printers** see page 130

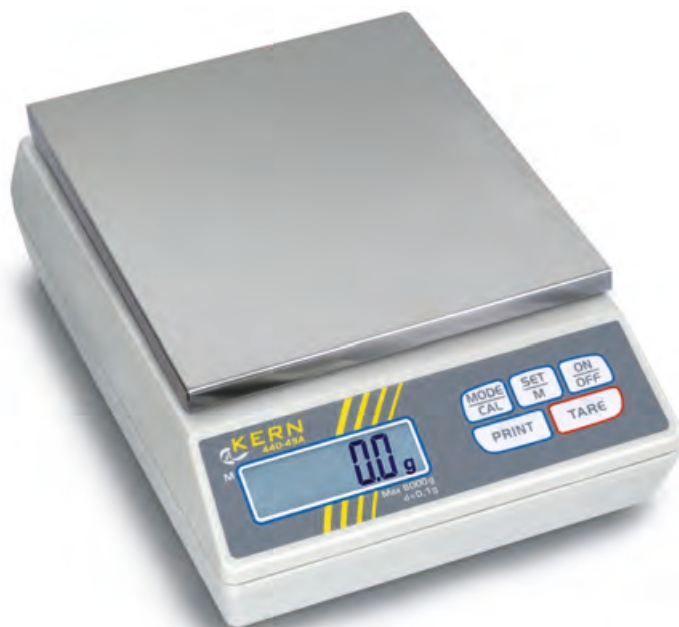
### STANDARD

only with printer

### OPTION

Model	Weighing range [Max] g	Readout [d] g	Reproducibility g	Linearity g	Min. piece weight [PW min] g/piece	Weighing plate	Option	
							DKD	KERN
PCD 250-3	250	0,001	0,002	± 0,005	0,002	A	963-127	
PCD 2500-2	2500	0,01	0,02	± 0,05	0,02	B	963-127	
PCD 10K0.1	10000	0,1	0,1	± 0,3	0,2	B	963-128	

# Precision balance KERN 440



02

## The classic balance in the laboratory

### Features

- **Compact size**, practical for small spaces
- **Percentage determination**: makes it possible to store a given weight value (100%) and to determine deviations from this target value
- **Ring-shaped draft shield** standard, only for models with weighing plate sizes **A**, weighing space ØxH 90x40 mm

### Technical data

- Backlit LCD display, digit height 15 mm
- Dimensions of weighing plate (stainless steel\*)
  - A** 81 mm
  - B** 105 mm\*
  - C** 130x130 mm\*
  - D** 150x170 mm\*, see larger picture
- Optional battery operation, 9 V Block, not included. AUTO-OFF function to preserve the battery
- Overall dimensions (without draft shield) WxDxH 165x230x80 mm
- Net weight approx. 1 kg
- Permissible ambient temperature 5 °C / 35 °C

### Accessories

- **Protective working cover** over keyboard and housing, standard, can be reordered for models with weighing plate sizes
  - A** KERN 440-210-002
  - B** KERN 440-330-002
  - C** KERN 440-450-002
  - D** KERN 440-530-002
- **Rechargeable battery pack internal**, operating time up to 20 h, charging time approx. 10 h, KERN FCB-A01
- **Second display**, KERN YKD-A01
- **Individual header data**: the free software KERN SHM-01 can be used to print 4 header lines on the printout for printers 911-013 and YKB-01N
- **Hook for underfloor weighing** to weigh hanging loads, standard, can be reordered, KERN 440-A01
- **Suitable printers** see page 130

### STANDARD



only with printer

### OPTION



Model	Weighing range [Max] g	Readout [d] g	Reproducibility g	Linearity g	Min. piece weight [PW min] g/piece	Weighing plate	Option	
							DKD Calibr. Certificate	DKD KERN
440-21A	60	0,001	0,001	± 0,003	0,002	<b>A</b>	963-127	
440-33N	200	0,01	0,01	± 0,02	0,02	<b>B</b>	963-127	
440-35N	400	0,01	0,01	± 0,03	0,02	<b>B</b>	963-127	
440-35A	600	0,01	0,01	± 0,03	0,02	<b>B</b>	963-127	
440-43N	400	0,1	0,1	± 0,2	0,2	<b>C</b>	963-127	
440-45N	1000	0,1	0,1	± 0,2	0,2	<b>C</b>	963-127	
440-47N	2000	0,1	0,1	± 0,2	0,2	<b>C</b>	963-127	
440-49N	4000	0,1	0,1	± 0,3	0,2	<b>D</b>	963-127	
440-49A	6000	0,1	0,1	± 0,3	0,2	<b>D</b>	963-128	
440-51N	4000	1	1	± 2	2	<b>D</b>	963-127	
440-53N	6000	1	1	± 2	2	<b>D</b>	963-128	

# Precision balance KERN PLE-N

02



## Low-cost precision balance with wide range of functions

### Features

- **Compact size**, practical for small spaces
- **Piece counting**: Reference quantities selectable. Display can be switched from piece to weight.
- **Weighing sum memory** adds individual weighing results
- **Glass draught guard**, standard for models with weighing plate sizes **A**. Removable metal cover with pipette opening. weighing space ØxH 125x70 mm
- **Suspended weighing**: load support with hook on the underside of the balance (only KERN PLE 4200-2N)

### Technical data

- Backlit LCD display, digit height 15 mm
- Dimensions of weighing plate (stainless steel)
  - A** Ø 80 mm
  - B** Ø 135 mm, see larger picture
- Dimensions housing WxDxH 185x250x80 mm
- Net weight approx. 2,5 kg
- Permissible ambient temperature 10 °C / 30 °C

### Accessories

- **Rechargeable battery pack internal**, operating time approx. 30 h without backlight, charging time approx. 10 h. Charge condition indicator on display, KERN PLE-A06
- **Set for density determination** of liquids and solids with density  $\leq 1 \geq$ , similar to illustration. on all models with readout  $d = 0,001 \text{ g}$ , KERN ALT-A02
- **Suitable printers** see page 130

#### STANDARD

CAL EXT  
 RS 232  
 GLP  
 PCS  
 PERCENT  
 UNIT  
 TOL  
 UNDER  
 230 V  
 DMS  
 1 DAY  
 2 YEARS WARRANTY

only with printer

#### OPTION

ACCU  
 DKD +3 DAYS

Model	Weighing range [Max] g	Readout [d] g	Reproducibility g	Linearity g	Min. piece weight [PW min] g/piece	Weighing plate	Option	
							DKD Calibr. Certificate	
KERN							DKD KERN	
PLE 420-3N	420	0,001	0,002	± 0,004	0,005	<b>A</b>	963-127	
PLE 4200-2N	4200	0,01	0,02	± 0,04	0,05	<b>B</b>	963-127	

# Precision balance KERN KB



02

Convenient model at a basic price, also with EC type approval [M]

### Features

- **User guidance step by step** through Yes/No dialogue on the display
- **Percentage determination:** parts taken out of a container which is on the weighplate can be displayed as a percentage. Convenient when carrying out drying processes, during which the evaporated moisture or the remaining weight can be displayed as a percentage
- **Freely programmable weighing unit,** e.g. display directly in special units such as length of thread g/m, paper weight g/m<sup>2</sup>, or similar
- **Ring-shaped draft shield** standard, only for models with weighing plate sizes **A**, weighing space ØxH 90x40 mm

### Technical data

- Backlit LCDdisplay, digit height 9 mm
- Dimensions of weighing plate (stainless steel\*)
  - A** Ø 81 mm
  - B** Ø 130x130 mm\*
  - C** WxD 150x170 mm\*, see larger picture
- Overall dimensions without draft shield WxDxH 167x250x85 mm
- Net weight approx. 1,1 kg
- Permissible ambient temperature  
KERN KB-N: 10°C / 40 °C  
KERN KB-NM: 10°C / 30 °C

### Accessories

- **Protective working cover** over keyboard and housing, standard, can be reordered, for models with weighing plate sizes
  - A** KERN PCB-A02
  - B** KERN PCB-A04
  - C** KERN PCB-A05
- **Rechargeable battery pack internal,** operating time approx. 15 h, charging time approx. 10 h, KERN KB-A01N
- **Rechargeable battery pack external,** operating time up to 15 h without backlight, charging time approx. 10 h, KERN KS-A01
- **Suitable printers** see page 130

### STANDARD



only with printer

### OPTION



### FACTORY



Model	Weighing range [Max] g	Readout [d] g	Verific. value [e] g	Reproducibility g	Linearity g	Weighing plate	Option		
							Verification		DKD Calibr. Certificate
							M II	KERN	DKD KERN
<b>KB 120-3N</b>	120	0,001	-	0,001	± 0,003	<b>A</b>	-	-	963-127
<b>KB 240-3N</b>	240	0,001	-	0,001	± 0,003	<b>A</b>	-	-	963-127
<b>KB 360-3N</b>	360	0,001	-	0,001	± 0,005	<b>A</b>	-	-	963-127
<b>KB 1200-2N</b>	1200	0,01	-	0,01	± 0,03	<b>B</b>	-	-	963-127
<b>KB 2000-2N</b>	2000	0,01	-	0,01	± 0,03	<b>B</b>	-	-	963-127
<b>KB 2400-2N</b>	2400	0,01	-	0,01	± 0,03	<b>B</b>	-	-	963-127
<b>KB 3600-2N</b>	3600	0,01	-	0,01	± 0,05	<b>B</b>	-	-	963-127
<b>KB 10K0.05N</b>	10000	0,05	-	0,05	± 0,15	<b>C</b>	-	-	963-128
<b>KB 10000-1N</b>	10000	0,1	-	0,1	± 0,3	<b>C</b>	-	-	963-128
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.									
<b>KB 650-2NM</b>	650	0,01	0,1	0,01	± 0,03	<b>B</b>	950-116	-	963-127
<b>KB 6500-1NM</b>	6500	0,1	1	0,1	± 0,2	<b>C</b>	950-117	-	963-128

## Precision balances KERN PKS · PKP

02



KERN PKS



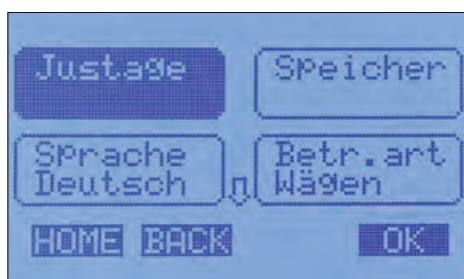
KERN PKP

Two laboratory specialists with clear graphics display for the most simple user guidance



### Large backlit graphic display

All relevant information for the mode you are using is displayed clearly, at a glance and assigned to the keys are assigned on the keyboard overlay

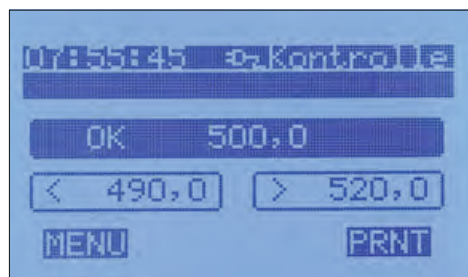


### Clear menu structure with plain text labels on the display

The menu and processes are self-explanatory. This reduces the training times, avoids operating errors and in this way, ensures more efficient, rapid operation

### Functions:

- Capacity display
- Dispensing assistance (subtractive, additive)
- Piece counting with reference
- Automatic reference optimisation
- Tare deduction from the memory unit
- Input of item or batch description, operator etc. from the memory unit
- Freely programmable weighing unit, e.g. display directly in special units such as length of thread g/m, paper weight g/m<sup>2</sup>, or similar
- Date/time in the display
- Individual printout configuration



### Weighing with tolerance range

**(checkweighing):** Input of an upper/lower limit value. A visual signal assists with portion division, dispensing or grading



### Convenient recipe weighing

you can save up to 5 complete recipes in the memory with up to 7 components of a mixture. The individual components of a mixture can be printed out clearly with the name, weight and grand total



**GLP/ISO record keeping** of weighing data, balance adjustment, etc. with date, time and identification no... Ideal for monitoring and documenting your processes in accordance with your quality management system



## Precision balances KERN PKS · PKP



02

### General features

- On the basis of the KERN KB and KERN 572 bestsellers, many of your typical laboratory functions have been expanded to include a clear graphics screen, which processes the relevant information visually and makes it significantly easier to operate and read the weights off the display
- **1 Navigation pad** for super quick navigation through the menus
- **40 memories for each mode**

### Features PKS

- **High mobility:** (laboratory, production, quality testing, commissioning,...)
- **Ring-shaped draft shield** standard for models with weighing plate sizes **A**, weighing space ØxH 90x53 mm

### Technical data PKS

- Back-lit LCD graphic display, screen diagonal 3,2" (approx. 81 mm)
- Dimensions of weighing plate:
  - A** Ø 81 mm
  - B** WxD 130x130 mm

- **C** WxD 150x170 mm, see larger picture
- Dimensions housing WxDxH 167x250x85 mm
- Permissible ambient temperature 10 °C / 40 °C

### Features PKP

- **Robust metal housing**, ensures stability, protects the weighing technology elements and is robust enough to cope with everyday use
- **Ring-shaped draft shield** standard for models with weighing plate sizes **D**, weighing space ØxH 157x57 mm

### Technical data PKP

- Back-lit LCD graphic display, screen diagonal 3,2" (approx. 81 mm)
- Dimensions of weighing plate:
  - D** Ø 106 mm
  - E** Ø 150 mm
  - F** WxD 160x200 mm, see larger picture
- Dimensions housing WxDxH 180x310x85 mm
- Permissible ambient temperature 10 °C / 40 °C

### Accessories

- **Protective working cover** over keyboard and housing, standard, can be reordered, for KERN PKS with weighing plate sizes
  - A** KERN PCB-A02
  - B** KERN PCB-A04
  - C** KERN PCB-A05 for KERN PKP: **D** - **F** KERN 572-A02
- **2 Rechargeable battery pack internal**, only for KERN PKS, operating time up to 10 h, charging time approx. 10 h, KERN KB-A01N
- **Rechargeable battery pack external** operating time up to 40 h, charging time approx. 10 h, KERN KS-A01
- **3 Large glass draught shield** with 3 sliding doors for easy access to the items being weighed, only for KERN PKP with weighing plate sizes **D**. Weighing space WxDxH 150x140x130 mm, KERN 572-A05
- **Suitable printers** see page 130

STANDARD



OPTION

Model	Weighing range [Max] g	Readout [d] g	Reproducibility g	Linearity g	Min. piece weight [PW min] g/piece	Net weight approx. kg	Weighing plate	Option	
								DKD Calibr. Certificate	
<b>KERN</b>								<b>DKD KERN</b>	
<b>PKS 200-3</b>	200	0,001	0,001	± 0,003	0,001	1,1	<b>A</b>	963-127	
<b>PKS 360-3</b>	360	0,001	0,002	± 0,005	0,001	1,1	<b>A</b>	963-127	
<b>PKS 2000-2</b>	2000	0,01	0,01	± 0,03	0,01	1,5	<b>B</b>	963-127	
<b>PKS 3600-2</b>	3600	0,01	0,02	± 0,05	0,01	1,5	<b>B</b>	963-127	
<b>PKS 10K0.1</b>	10000	0,1	0,1	± 0,3	0,1	1,7	<b>C</b>	963-128	
<b>PKP 300-3</b>	300	0,001	0,002	± 0,005	0,001	2,3	<b>D</b>	963-127	
<b>PKP 420-3</b>	420	0,001	0,002	± 0,005	0,001	2,3	<b>D</b>	963-127	
<b>PKP 3000-2</b>	3000	0,01	0,02	± 0,05	0,01	2,3	<b>E</b>	963-127	
<b>PKP 4200-2</b>	4200	0,01	0,02	± 0,05	0,01	2,3	<b>E</b>	963-127	
<b>PKP 12K0.05</b>	12000	0,05	0,05	± 0,15	0,05	2,7	<b>F</b>	963-128	
<b>PKP 16K0.1</b>	16000	0,1	0,1	± 0,3	0,1	2,7	<b>F</b>	963-128	
<b>PKP 24K0.1</b>	24000	0,1	0,1	± 0,3	0,1	2,7	<b>F</b>	963-128	

## Precision balances KERN 572 · 573



02

All-rounder e.g. as laboratory, counting or checking balance, also with EC type approval [M]

### Features

- Thanks to the many typical laboratory functions, such as, for example, recipe function, percentage determination, GLP record keeping, combined with the high level of precision, the KERN 572 is a reliable partner for day-to-day work in the laboratory. The robust version with an aluminium diecast housing, typical industrial functions, such as piece-counting, vibration-free weighing and the large weighing ranges also make these balances ideal for all industrial applications, where a high level of precision is required

- The robust metal housing maintains the stability, protects the weighing technology elements and is robust enough to cope with everyday use
- Only 572: **Ring-shaped draft shield** standard (Weighing plate **A**), weighing space ØxH 157x43 mm
- **1 UNITS:** Further weighing units see the internet (only 572)

### Technical data

- Large backlit LCDdisplay, digit height 18 mm
- Dimensions of weighing plate (stainless steel)
  - A** Ø 106 mm
  - B** Ø 150 mm
  - C** WxD 160x200 mm, see larger picture
- Overall dimensions WxDxH 180x310x130 mm
- Permissible ambient temperature
  - KERN 572: 10 °C / 40 °C
  - KERN 573: 10 °C / 30 °C

### Accessories

- **Protective working cover** standard, can be reordered, KERN 572-A02
- **2 Only 572: Rechargeable battery pack external**, operating time up to 25 h, charging time approx. 10 h, KERN KS-A01
- **3 Large glass draught shield** with 3 sliding doors for easy access to the items being weighed. Weighing space WxDxH 150x140x130 mm (only for models with weighing plate sizes **A**), KERN 572-A05
- **Suitable printers** see page 130

### STANDARD



only with printer

### OPTION



### FACTORY



only 573

Model	Weighing range [Max] g	Readout [d] g	Verific. value [e] g	Linearity g	Reproducibility g	Net weight approx. kg	Weighing plate	Option			
								Verification		DKD Calibr. Certificate	
								M II	KERN	DKD	KERN
572-30	240	0,001	-	± 0,003	0,001	2,3	A	-	-	963-127	
572-31	300	0,001	-	± 0,005	0,001	2,3	A	-	-	963-127	
572-32	420	0,001	-	± 0,005	0,002	2,3	A	-	-	963-127	
572-33	1600	0,01	-	± 0,03	0,01	2,3	B	-	-	963-127	
572-35	2400	0,01	-	± 0,03	0,01	2,3	B	-	-	963-127	
572-37	3000	0,01	-	± 0,05	0,01	2,3	B	-	-	963-127	
572-39	4200	0,01	-	± 0,05	0,02	2,3	B	-	-	963-127	
572-45	12000	0,05	-	± 0,15	0,05	2,7	C	-	-	963-128	
572-55	20000	0,05	-	± 0,15	0,1	2,7	C	-	-	963-128	
572-43	10000	0,1	-	± 0,3	0,1	2,3	C	-	-	963-128	
572-49	16000	0,1	-	± 0,3	0,1	2,7	C	-	-	963-128	
572-57	24000	0,1	-	± 0,3	0,1	2,7	C	-	-	963-128	
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.											
573-34NM	650	0,01	0,1	± 0,02	0,01	2,3	B	950-116		963-127	
573-46NM	6500	0,1	1	± 0,2	0,1	2,7	C	950-117		963-128	

## Precision balance KERN EWB



02

Verifiable entry level model in the upper laboratory class with EC type approval [M]

### Features

- **Very fast display:** steady weight values within 2 sec
- **Capacity display:** A bar lights up to show how much of the weighing range is still available
- **Precise counting:** The automatic optimisation of reference weight gradually improves the average value of the piece weight, counting resolution up to 62.000 points
- **Weighing with tolerance range (checkweighing):** Input of an upper/lower limit value. A visual signal assists with portion division, dispensing or grading

### Technical data

- Large LCD display, digit height 17 mm
- Dimensions of weighing plate (stainless steel)
  - A** Ø 140 mm, see larger picture
  - B** WxD 180x160 mm
- Dimensions housing WxDxH 182x235x75 mm
- Net weight approx. 1,1 kg
- Permissible ambient temperature 10 °C / 30 °C

### Accessories

- **Protective working cover** over keyboard and housing standard, can be reordered, KERN EG-A05
- **Rechargeable battery pack internal,** operating time up to 32 h, charging time approx. 10 h, can be reordered, KERN EWB-A01
- **Loop for underfloor weighing,** KERN EG-A07

#### STANDARD



#### OPTION



#### FACTORY



Model	Weighing range [Max] g	Readout [d] g	Verific. value [e] g	Reproducibility g	Linearity g	Weighing plate	Option		
							Verification		DKD Calibr. Certificate
							M II KERN		DKD KERN
EWB 220-2M	220	0,01	0,01	0,01	0,01	A	-	-	963-127
EWB 620-2M	620	0,01	0,1	0,01	0,01	A	965-216	-	963-127
EWB 1200-1M	1200	0,1	0,1	0,1	0,1	B	-	-	963-127

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.

**ONLY WHILE STOCKS LAST**

# Precision balance KERN EW

02



## Verifiable gold and laboratory balance with EC type approval [M]

### Features

- **Short stabilisation time:** Steady weight values within approx. 2 sec
- **Capacity display:** A bar lights up to show how much of the weighing range is still available
- **Ring-shaped draft shield** standard, only for models with weighing plate sizes **A**, weighing space ØxH 155x57 mm

### Technical data

- Large LCD display, digit height 17 mm
- Dimensions of weighing plate (stainless steel)
  - A** Ø 110 mm
  - B** Ø 140 mm
  - C** WxD 172x142 mm, see larger picture
- Overall dimensions (without draft shield) WxDxH 177x230x88 mm
- Net weight approx. 1,7 kg
- Permissible ambient temperature 10 °C / 30 °C

### Accessories

- **Protective working cover** over keyboard and housing standard, can be reordered, KERN EG-A02
- **1 Large glass draught shield** with 3 sliding doors for easy access to the items being weighed. Weighing space WxDxH 150x140x130 mm (only KERN EW 150-3M), KERN EG-A01
- **2 Rechargeable battery pack internal**, operating time up to 32 h, charging time approx. 12 h, AUTO-OFF function to preserve the battery, KERN EW-A02
- **3 Data interface**, KERN EW-A01
- **2 3** only one option possible
- **Suitable printers** see page 130

#### STANDARD



#### OPTION



#### FACTORY

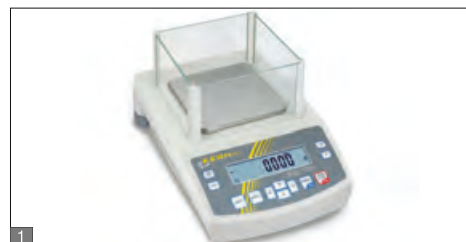


Model	Weighing range [Max] g	Readout [d] g	Verific. value [e] g	Reproducibility g	Linearity g	Weighing plate	Option		
							Verification		DKD Calibr. Certificate
							M II KERN		DKD KERN
EW 150-3M	150	0,001	0,01	0,002	± 0,003	A	-	-	963-127
EW 600-2M	600	0,01	0,1	0,01	± 0,02	B	965-216	-	963-127
EW 1500-2M	1500	0,01	0,1	0,01	± 0,02	B	-	-	963-127
EW 3000-2M	3000	0,01	0,1	0,01	± 0,02	B	-	-	963-127
EW 6000-1M	6000	0,1	1	0,1	± 0,2	C	965-217	-	963-128

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.

**ONLY WHILE STOCKS LAST**

# Precision balance KERN PLJ-N



Excellent performance at a very reasonable price, with EC type approval [M]

## Features

- **Automatic internal adjustment** in the case of a change in temperature  $\geq 3$  °C or time-controlled every 3 hours
- **Draft shield** standard (on all models with readout  $d = 0,001$  g). weighing space  $W \times D \times H$  140x140x65 mm

- **Rechargeable battery pack internal**, standard, operating time approx. 35 h, charging time approx. 12 h
- **Weighing with tolerance range (checkweighing)**: Input of an upper/lower limit value. A visual signal assists with portion division, dispensing or grading

- Overall dimensions  $W \times D \times H$  without draft shield 206x335x85 mm incl. draft shield 206x335x157 mm
- Net weight approx. 3,6 kg (incl. draft shield approx. 4 kg)
- Permissible ambient temperature 15 °C / 30 °C

## Characteristics KERN PLJ-NM:

- **Weighing principle**: Force compensation

## Characteristics KERN PLJ-GM:

- **Weighing principle**: Strain gauge
- **Ergonomically optimised keypad** for left and righthanded users

## Technical data

- Backlit LCDdisplay  
PLJ-N, -NM: digit height 17 mm  
PLJ-GM: digit height 19 mm
- Dimensions of weighing plate (stainless steel)  $W \times D$   
A 128x128 mm  
B 195x195 mm, see larger picture

## Accessories

- **Protective working cover** standard, can be reordered, KERN ALS-A02
- **Set for density determination** of liquids and solids with density  $\leq 1$ , only suitable for models with readout  $d = 0,001$  g (PLJ-N). The density is indicated directly on the display, sim. to illustration, KERN PLS-A01
- **Suitable printers** see page 130

### STANDARD

CAL INT	RS 232	GLP only with printer	PCS	UNIT	TOL	MOVE	UNDER	ACCU	230 V	FORCE	DMS	1 DAY	3 YEARS WARRANTY
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### OPTION

DKD +3 DAYS
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### FACTORY

M +3 DAYS only PLJ-M
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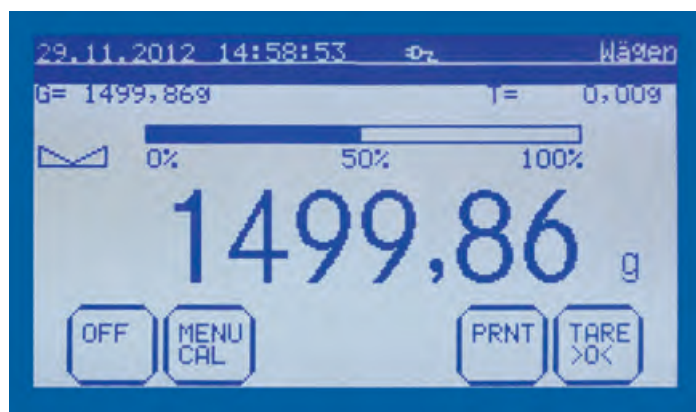
Model	Weighing range [Max] g	Readout [d] g	Verific. value [e] g	Reproducibility g	Linearity g	Min. piece weight [PW min] g/piece	Weighing plate	Option		
								Verification		DKD Calibr. Certificate
								MII	KERN	DKD KERN
PLJ 750-3N	750	0,001	-	0,002	$\pm 0,003$	0,005	A	-	-	963-127
Note: For applications 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.										
PLJ 360-3NM	360	0,001	0,01	0,001	$\pm 0,004$	0,005	A	965-216		963-127
PLJ 600-3NM	600	0,001	0,01	0,002	$\pm 0,004$	0,005	A	965-216		963-127
PLJ 600-2GM	600	0,01	0,1	0,02	$\pm 0,02$	0,05	A	965-216		963-127
PLJ 3500-2NM	3500	0,01	0,1	0,01	$\pm 0,04$	0,05	B	965-216		963-127
PLJ 6000-1GM	6000	0,1	1	0,2	$\pm 0,2$	0,5	B	965-217		963-128

## Precision balance KERN PKT

02



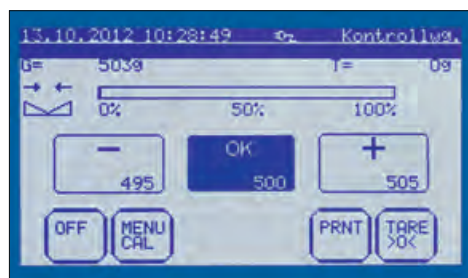
Touchscreen laboratory balance with extensive range of functions



Display at full size, operating mode weighing



**Clear menu structure with the keys labelled with plain text and touch-sensitive display**  
The menu and processes are self-explanatory. This reduces the training times, avoids operating errors and in this way, ensures more efficient functionality



### Weighing with tolerance range

(checkweighing), ideal for portion division, dispensing, grading



### Convenient recipe weighing

you can save up to 5 complete recipes in the memory with up to 7 components of a mixture. The individual components of a mixture can be printed out clearly with the name, weight and grand total



### Easy input of text and values

e.g. item descriptions, user name, weights for tare containers, etc. using large keypad

# Precision balance KERN PKT



02

## Features

- Innovative touchscreen:** Large touch-sensitive, backlit screen with very good contrast for easy operation and convenient reading
- Maximum transparency:** All function keys are labelled with plain text which ensures that they are easily understood. The menu tree overlay in the info bar allows you to see at a glance which function is currently in use
- Advantages:**
  - 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
  - Clearly structured menu - to guide you intuitively through the large number of operating modes and functions
- Robust metal housing,** ensures stability, protects the weighing technology elements and is robust enough to cope with everyday use
- Ring-shaped draft shield** standard for models with weighing plate sizes **A**, weighing space  $\varnothing \times H$  157x57 mm

## Technical data

- Large backlit LCD touch display, digit height 15 mm, screen diagonal 4,3" (approx. 109 mm), WxH 91x54 mm

- Dimensions of weighing plate (stainless steel)
  - A**  $\varnothing$  106 mm
  - B**  $\varnothing$  150 mm
  - C** WxD 160x200 mm, see larger picture
- Overall dimensions WxDxH 180x310x90 mm
- Permissible ambient temperature 10 °C / 40 °C

## Accessories

- Protective working cover** standard, can be reordered, KERN 572-A02
- Rechargeable battery pack external,** operating time approx. 15 h, charging time approx. 10 h, KERN KS-A01
- Large glass draught shield** with 3 sliding doors for easy access to the items being weighed. Weighing space WxDxH 150x140x130 mm (only for models with weighing plate sizes **A**), KERN 572-A05
- Set for density determination** of liquids and solids with density  $\leq 1 \geq$ ,
  - 2** for models with weighing plate sizes **A**, KERN YDK-01
  - 3** for models with weighing plate sizes **B**, KERN YDK-02
- RS-232/Ethernet adapter,** to connect balances with an RS 232 interface to a network, using Ethernet, details see page 131, KERN YKI-01
- Suitable printers** see page 130

## Modes

- ① Weighing
- ② Counting
- ③ Dispensing
- ④ Recipe weighing
- ⑤ Checkweighing
- ⑥ Totalizing with daily total
- ⑦ Percentage determination
- ⑧ Animal weighing
- ⑨ Surface weight
- ⑩ Density determination, only with **A**, **B**
- ⑪ Rapid mode

## Functions

- Capacity display, with ① - ②, ⑦, ⑨ - ⑪
- Dispensing assistance (subtractive, additive), with ①, ④
- Net/Gross display, permanently on, with ① - ⑩
- Variable reference quantity, with ②
- Automatic reference optimisation, with ②
- Tare deduction numerical or from the memory unit, with ① - ⑩
- Input of item or batch description, operator etc., with ① - ⑩
- Freely programmable weighing unit, e.g. display directly in special units such as length of thread g/m, paper weight g/m<sup>2</sup>, or similar, with ①, ⑨
- Date/time, with ① - ⑩
- Statistical function, with ①, ③, ⑤
- GLP printout, with ① - ⑩
- Individual printout configuration, with ① - ⑩

## STANDARD



## OPTION



Model	Weighing range [Max] g	Readout [d] g	Reproducibility g	Linearity g	Min. piece weight [PW min] g/piece	Net weight approx. kg	Weighing plate	Option	
								DKD Calibr. Certificate	
KERN								DKD KERN	
PKT 300-3	300	0,001	0,002	± 0,005	0,001	2,3	<b>A</b>	963-127	
PKT 420-3	420	0,001	0,002	± 0,005	0,001	2,3	<b>A</b>	963-127	
PKT 3000-2	3000	0,01	0,02	± 0,05	0,01	2,3	<b>B</b>	963-127	
PKT 4200-2	4200	0,01	0,02	± 0,05	0,01	2,3	<b>B</b>	963-127	
PKT 12K0.05	12000	0,05	0,05	± 0,15	0,05	2,7	<b>C</b>	963-128	
PKT 16K0.1	16000	0,1	0,1	± 0,3	0,1	2,7	<b>C</b>	963-128	
PKT 24K0.1	24000	0,1	0,1	± 0,3	0,1	2,7	<b>C</b>	963-128	



Excellent performance, excellent price - also with internal adjustment



**GLP/ISO record keeping** of weighing data, balance adjustment, etc. with date, time and identification no... Ideal for monitoring and documenting your processes in accordance with your quality management system



**Piece counting**  
Thanks to its high level of accuracy, it is ideal for counting the smallest parts



**Percentage determination:** parts taken out of a container which is on the weighplate can be displayed as a percentage. Convenient when carrying out drying processes, during which the evaporated moisture or the remaining weight can be displayed as a percentage



# Precision balance KERN PLS · PLJ



02

## Features

## Technical data

## Accessories

- **1 Ergonomically optimised keypad** for left and righthanded users
- **Glass draught guard**, standard for models with weighing plate sizes **A**. Removable metal cover with pipette opening. weighing space ØxH 150x60 mm
- **2 KERN PLJ: Automatic internal adjustment**
- **3 KERN PLS: Adjusting program CAL** for quick setting of the balance accuracy, external test weights at an additional price, see page 133 ff.

- Backlit LCDdisplay, digit height 17 mm
- Dimensions of weighing plate (stainless steel)
  - A** Ø 110 mm
  - B** Ø 160 mm, see larger picture
  - C** WxD 200x175 mm
- Overall dimensions WxDxH
  - without draft shield: 210x340x100 mm
  - with draft shield: 210x340x160 mm
- **4** KERN PLS/PLJ-F: Strain gauge
- **5** KERN PLS/PLJ-A: Force compensation
- Net weight approx. 4,5 kg
- Permissible ambient temperature 5 °C / 35 °C

- **Protective working cover** standard, can be reordered, KERN PLJ-A01
- **Hook for underfloor weighing** to weigh hanging loads, only for PLS-F and PLJ-A, KERN PLJ-A02
- **Set for density determination** of liquids and solids with density  $\leq 1 \geq$ 
  - on all models with readout d = 0,001 g, KERN ALT-A02
  - on all models with readout d = 0,01 g, KERN PLT-A01
- **Suitable printers** see page 130

## STANDARD



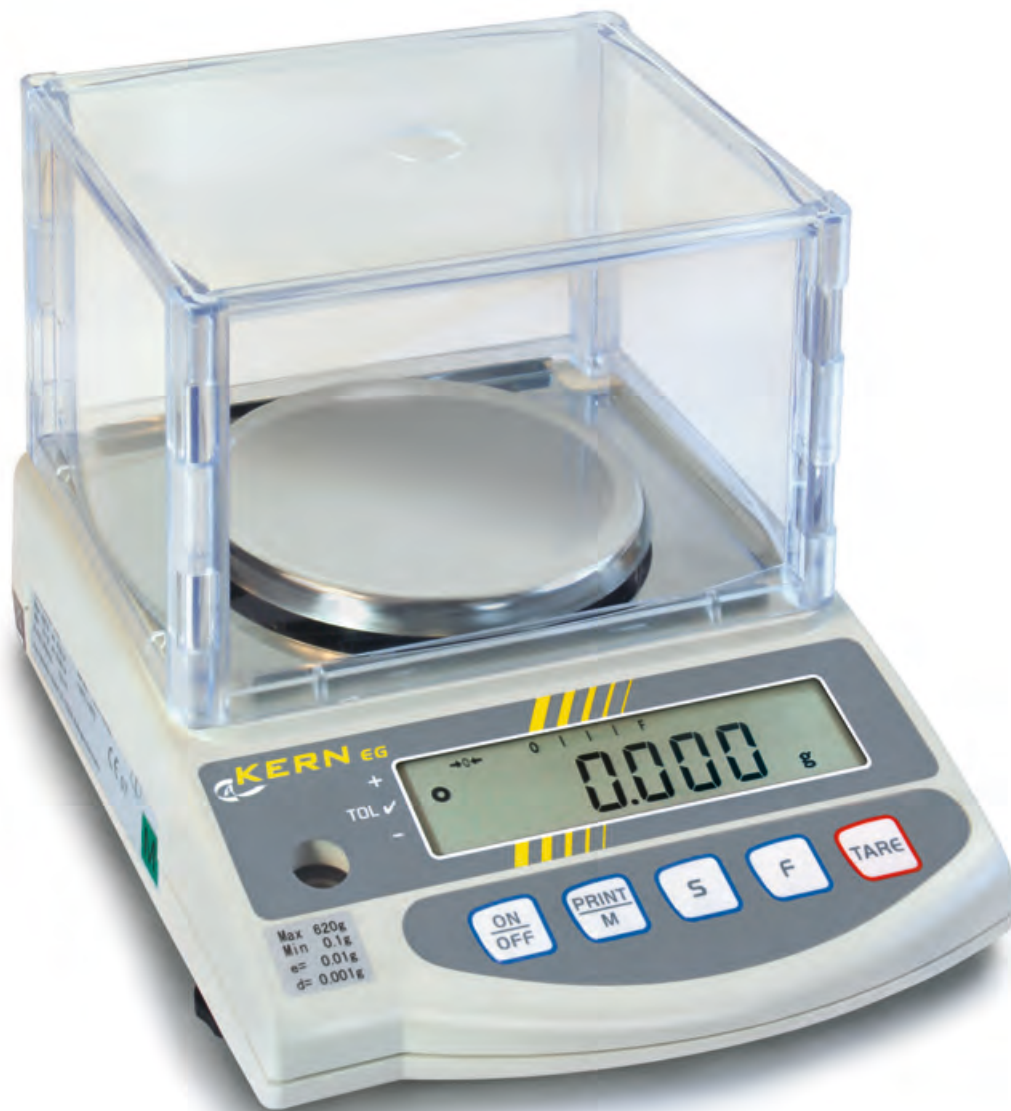
## OPTION



Model	Weighing range [Max] g	Readout [d] g	Verific. value [e] g	Reproducibility g	Linearity g	Min. piece weight [PW min] g/piece	Weighing plate	Net weight approx. kg	Option		
									Verification		DKD Calibr. Certificate
									M II KERN		DKD KERN
<b>PLS 420-3F</b>	420	0,001	-	0,001	± 0,004	0,005	<b>A</b>	4	-	-	963-127
<b>PLS 720-3A</b>	720	0,001	-	0,001	± 0,002	0,005	<b>A</b>	4,5	-	-	963-127
<b>PLS 1200-3A</b>	1200	0,001	-	0,001	± 0,003	0,005	<b>A</b>	4,5	-	-	963-127
<b>PLS 4200-2F</b>	4200	0,01	-	0,01	± 0,04	0,05	<b>B</b>	4	-	-	963-127
<b>PLS 6200-2A</b>	6200	0,01	-	0,01	± 0,03	0,05	<b>B</b>	4,5	-	-	963-128
<b>PLS 20000-1F</b>	20000	0,1	-	0,1	± 0,4	0,5	<b>C</b>	4	-	-	963-128
<b>PLJ 420-3F</b>	420	0,001	-	0,001	± 0,003	0,005	<b>A</b>	4	-	-	963-127
<b>PLJ 1200-3A</b>	1200	0,001	-	0,001	± 0,003	0,005	<b>A</b>	4,5	-	-	963-127
<b>PLJ 4200-2F</b>	4200	0,01	-	0,02	± 0,04	0,05	<b>B</b>	4	-	-	963-127
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.											
<b>PLJ 720-3A</b>	720	0,001	0,01	0,001	± 0,002	0,05	<b>A</b>	4,5			963-127
<b>PLJ 6200-2A</b>	6200	0,01	0,1	0,01	± 0,02	0,05	<b>B</b>	4,5			963-128

## Precision balance KERN EG-N · EG-N

02



Top of the range cost-effectiveness,  
with EC type approval [M]



**GLP/ISO record keeping** of weighing data, balance adjustment, etc. with date, time and identification no... Ideal for monitoring and documenting your processes in accordance with your quality management system



**Percentage determination:** makes it possible to store a given weight value (100%) and to determine deviations from this target value



**Weighing with tolerance range (checkweighing):** a visual signal helps with portion division, dispensing or grading

# Precision balance KERN EW-N · EG-N



## Features

## Technical data

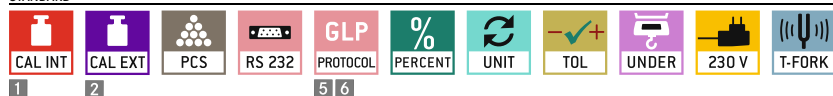
## Accessories

- **1** only EG-NM: **Internal adjustment (CAL) by rotary knob** on the side. Guarantees high degree of accuracy and makes the location irrelevant
- **2** only EW-NM: **Adjusting program CAL** for quick setting of the balance accuracy, external test weights at an additional price, see page 133 ff.
- **Capacity display:** A bar lights up to show how much of the weighing range is still available
- **Precise counting:** The automatic optimisation of reference weight gradually improves the average value of the piece weight
- **Draft shield** standard for models with weighing plate sizes **A**. Removable metal cover with pipette opening, weighing space WxDxH 158x130x78 mm

- Large LCD display, digit height 17 mm
- Dimensions of weighing plate (stainless steel)
  - A** 118 mm, see larger picture
  - B** 170x142 mm
  - C** 180x160 mm
- Overall dimensions (without draft shield) WxDxH
  - A, B** 182x235x75 mm
  - C** 192x265x87 mm
- Net weight approx. 1,3 kg
- Permissible ambient temperature 10 °C / 30 °C

- **Protective working cover** over keyboard and housing, standard, can be reordered. For models with weighing plate sizes **A, B** KERN EG-A05 **C** KERN EG-A09
- **Rechargeable battery pack internal**, operating time up to 32 h, charging time approx. 12 h. Charge condition indicator on display. AUTO-OFF function to preserve the battery, can be switched off. For models with weighing plate sizes **A, B** KERN EG-A04 **C** KERN EG-A06
- **B Large glass draught shield** with 3 sliding doors for easy access to the items being weighed, Weighing space WxDxH 150x140x130 mm, can be reordered for models with weighing plate sizes **A**, KERN EG-A03
- **Loop for underfloor weighing**, for models with weighing plate sizes **A, B** KERN EG-A07 **C** KERN EG-A08
- **Suitable printers** see page 130

### STANDARD



### OPTION



### STANDARD



### OPTION



### FACTORY



Model	Weighing range [Max] g	Readout [d] g	Verific. value [e] g	Reproducibility g	Linearity g	Weighing plate	Option			
							Verification		DKD Calibr. Certificate	
							M	KERN	DKD	KERN
EW 220-3NM	220	0,001	0,01	0,001	± 0,002	A	-	-	963-127	-
EW 420-3NM	420	0,001	0,01	0,001	± 0,003	A	-	-	963-127	-
EW 620-3NM	620	0,001	-	0,001	± 0,003	A	-	-	963-127	-
EW 820-2NM	820	0,01	-	0,01	± 0,01	B	-	-	963-127	-
EW 2200-2NM	2200	0,01	0,1	0,01	± 0,01	C	-	-	963-127	-
EW 4200-2NM	4200	0,01	0,1	0,01	± 0,02	C	-	-	963-127	-
EW 6200-2NM	6200	0,01	-	0,01	± 0,03	C	-	-	963-128	-
EW 12000-1NM	12000	0,1	1	0,1	± 0,2	C	-	-	963-128	-
EG 220-3NM	220	0,001	0,01	0,001	± 0,002	A	965-216	U	-	963-127
EG 420-3NM	420	0,001	0,01	0,001	± 0,003	A	965-216	U	-	963-127
EG 620-3NM	620	0,001	0,01	0,001	± 0,004	A	965-201	U	-	963-127
EG 2200-2NM	2200	0,01	0,1	0,01	± 0,01	C	965-216	U	-	963-127
EG 4200-2NM	4200	0,01	0,1	0,01	± 0,02	C	965-216	U	-	963-127

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.

# Precision balance KERN PES · PEJ

02



## Robust laboratory and industrial precision balance, with EC type approval [M]

### Features

- **2** only PEJ: **Automatic internal adjustment**
- **3** only PES: **Adjusting program CAL** for quick setting of the balance accuracy, external test weights at an additional price, see page 133 ff.
- **Metal housing:** robust and sturdy
- **Weighing with tolerance range (checkweighing):** Input of 2 upper and 2 lower limit values through 4 arrow keys. An audible signal assists with the portion division, dispensing or grading
- **1 Draft shield** standard on all models with readout d = 0,001 g. weighing space WxDxH 170x150x100 mm. Removable metal cover with pipette opening

### Technical data

- Fluorescent display bright with high contrast, digit height 13 mm
- Dimensions of weighing plate (stainless steel) WxD
  - A** 140x120 mm
  - B** 200x200 mm, see larger picture
  - C** 250x220 mm
- Overall dimensions (without draft shield) WxDxH for models with weighing plate sizes
  - A** 220x333x93 mm
  - B** 220x333x93 mm
  - C** 260x333x110 mm
- Permissible ambient temperature 10 °C / 30 °C

### Accessories

- **Protective working cover** standard, can be reordered (not for KERN PES 31000-1M), KERN PES-A04
- **4** Only PES: **Rechargeable battery pack internal**, operating time up to 6 h, charging time approx. 15 h (internal charging with mains adapter), must be ordered at purchase, KERN PES-A01
- **Relay output** with 5 outputs for weighing result in 3 tolerance ranges, must be ordered at purchase, KERN PES-A02
- **Suitable printers** see page 130

STANDARD

CAL INT CAL EXT RS 232 GLP PROTOCOL PCS RECIPE PERCENT UNIT TOL UNDER 230 V T-FORK 1 DAY 3 YEARS WARRANTY

OPTION

DKD +3 DAYS

FACTORY

M +3 DAYS

Model	Weighing range [Max] g	Readout [d] g	Verific. value [e] g	Reproducibility g	Linearity g	Net weight approx. kg	Weighing plate	Options		
								Verification		DKD Calibr. Certificate
								KERN	KERN	KERN
<b>PES 2200-2M</b>	2200	0,01	0,1	0,01	± 0,02	4	<b>B</b>	-	-	963-127
<b>PES 4200-2M</b>	4200	0,01	0,1	0,01	± 0,02	4	<b>B</b>	-	-	963-127
<b>PES 6200-2M</b>	6200	0,01	-	0,01	± 0,03	4	<b>B</b>	-	-	963-128
<b>PES 15000-1M</b>	15000	0,1	1	0,1	± 0,2	4	<b>B</b>	-	-	963-128
<b>PES 31000-1M</b>	31000	0,1	1	0,1	± 0,4	8,9	<b>C</b>	-	-	963-128
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.										
<b>PEJ 620-3M</b>	620	0,001	0,01	0,001	± 0,003	6	<b>A</b>	965-201		963-127
<b>PEJ 2200-2M</b>	2200	0,01	0,1	0,01	± 0,02	6	<b>B</b>	965-216		963-127
<b>PEJ 4200-2M</b>	4200	0,01	0,1	0,01	± 0,02	6	<b>B</b>	965-216		963-127

# Precision balance KERN PLT



## High-quality precision balance with convenient graphics display, now also with EC type approval [M]

### Features

- **Convenient recipe-weighing:** with the recipe database, in which up to 99 recipes can be stored, each with up to 20 recipe ingredients with name and target value
- **Rapid and efficient operation** thanks to the graphics display
- **Simple plain text user guidance in the display** in the following languages: D, GB, F, I, E, PT
- **Automatic internal adjustment** in the case of a change in temperature > 1,5 °C or time-controlled every 20 minutes
- **Percentage determination:** makes it possible to store a given weight value (100%) and to determine deviations from this target value

- **Weighing with tolerance range,** ideal for portion division, dispensing, grading
- **GLP/ISO record keeping** of weight values with date, time and serial number
- **Glass draught guard,** standard for models with weighing plate sizes **A**. Removable metal cover with pipette opening. weighing space ØxH 150x60 mm

### Technical data

- Large backlit LCDdisplay, digit height 15 mm
- Dimensions of weighing plate  
**A** Ø 110 mm  
**B** Ø 160 mm
- Overall dimensions (incl. draft shield)  
WxDxH 210x340x160 mm
- Net weight approx. 4 kg

- Permissible ambient temperature  
5 °C / 35 °C

### Accessories

- **Protective working cover,** KERN PLJ-A01
- **Set for density determination** of liquids and solids with density ≤ 1 ≥  
On all models with readout d = 0,001 g, KERN ALT-A02  
On all models with readout d = 0,01 g, KERN PLT-A01
- **Suitable printers** see page 130

### STANDARD

only YKB / YKS

### OPTION

### FACTORY

on request

Model	Weighing range [Max] g	Readout [d] g	Verific. value [e] g	Reproducibility g	Linearity g	Min. piece weight [PW min] g/piece	Weighing plate	Options			
								Verification		DKD Calibr. Certificate	
PLT 420-3F	420	0,001	-	0,001	± 0,004	0,005	<b>A</b>	-	-	963-127	
PLT 1200-3A	1200	0,001	-	0,001	± 0,003	0,005	<b>A</b>	-	-	963-127	
PLT 4200-2F	4200	0,01	-	0,01	± 0,04	0,05	<b>B</b>	-	-	963-127	
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.											
PLT 720-3A	720	0,001	0,01	0,001	± 0,002	0,005	<b>A</b>	on request		963-127	
PLT 6200-2A	6200	0,01	0,1	0,01	± 0,03	0,05	<b>B</b>	on request		963-128	

New model

## Precision balance KERN PBS · PBJ

02



Multifunctional laboratory balance with single-cell weighing system and EC type approval [M]



**2** only PBS: **Adjusting program CAL** for quick setting of the balance accuracy, external test weights at an additional price



**Simple recipeweighting and documenting** with a combined tare/print function. In addition, the mixing ingredients for the recipe are numbered automatically and printed out with their corresponding number and weight value



**Percentage determination:** makes it possible to store a given weight value (100%) and to determine deviations from this target value

# Precision balance KERN PBS · PBJ



02

## Features

- **1** only PBJ: **Automatic internal adjustment** in the case of a change in temperature or time-controlled at defined intervals
- **Metal housing:** robust and sturdy
- **Dosage aid:** High-stability mode and other filter settings can be selected
- **Weighing with tolerance range (checkweighing):** Input of an upper/lower limit value. A visual signal assists with portion division, dispensing or grading
- **Totalizing** of individual weighing results
- **Identification number:** 4 numeric positions, printed on calibration protocol
- **Automatic data output to the PC/printer** every time the balance is steady
- **3 Draft shield** standard, on all models with readout d = 0,001 g, weighing space WxDxH 180x193x87 mm

## Technical data

- Large backlit LCDdisplay, digit height 14 mm
- Dimensions of weighing plate (stainless steel)
  - A** 108x105 mm
  - B** 170x180 mm, see larger picture
- Overall dimensions (without draft shield) WxDxH 209x322x78 mm
- Net weight approx. 3 kg
- Permissible ambient temperature 10 °C / 30 °C

## 5 Single-cell advanced technology:

- **Fully automatic manufactured weighing cell from one piece of material**
- **Stable temperature behaviour**
- **Short stabilisation time: 3 sec**
- **Shock proof construction**
- **High corner load performance**

## Accessories

- **Protective working cover** over keyboard and housing, standard, can be reordered, for models with weighing plate sizes
  - A** KERN PBS-A01
  - B** KERN PBS-A02
- **4 Set for density determination** for models with weighing plate sizes
  - A** KERN PBS-A04
  - B** KERN PBS-A03
- **Suitable printers** see page 130

## STANDARD



## OPTION



Model	Weighing range [Max] g	Readout [d] g	Verific. value [e] g	Mindest-last [Min] g	Repro-ducibility g	Linearity g	Weighing plate	Options					
								Verification		DKD Calibr. Certificate			
								M KERN		DKD KERN			
<b>PBS 420-3M *</b>	420	0,001	0,01	0,02	0,001	± 0,002	A						
<b>PBS 620-3M</b>	620	0,001	-	-	0,001	± 0,002	A						
<b>PBS 4200-2M</b>	4200	0,01	0,1	0,5	0,01	± 0,02	B						
<b>PBS 6200-2M</b>	6200	0,01	-	-	0,01	± 0,02	B						
<b>PBS 8200-1M *</b>	8200	0,1	1	5	0,1	± 0,2	B						
<b>PBJ 420-3M *</b>	420	0,001	0,01	0,02	0,001	± 0,002	A		965-216	II		963-127	
<b>PBJ 620-3M</b>	620	0,001	0,01	0,1	0,001	± 0,002	A		965-201	I		963-127	
<b>PBJ 4200-2M</b>	4200	0,01	0,1	0,5	0,01	± 0,02	B		965-216	II		963-127	
<b>PBJ 6200-2M</b>	6200	0,01	0,1	1	0,01	± 0,02	B		965-202	I		963-128	
<b>PBJ 8200-1M</b>	8200	0,1	1	5	0,1	± 0,2	B		965-217	II		963-128	

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.

**!** \* ONLY WHILE STOCKS LAST

**■** Price reduction



## High-precision balances for heavy loads

High-capacity precision balances can be used when the weighing ranges of classic laboratory balances are not sufficient or the items to be weighed are relatively bulky.

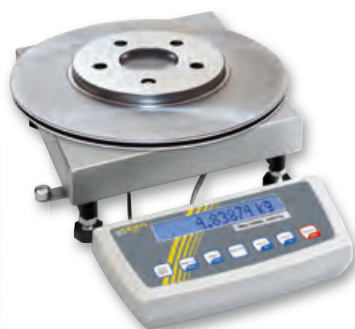


### **KERN DS 5K0.05S** Affordable platform balance with laboratory accuracy

Best for bulky or heavy samples, thanks to the robust platform with stainless steel weighing plate and display device which can be positioned to suit you. Of course it has all the features related to laboratory work, which will make your processes more efficient and reliable.

Weighing range: 5 kg  
Read-out: 0,05 g  
Weighing plate: 228x228 mm

For additional information see page 98



KERN DS

### **KERN ILS 50K-4** High-resolution laboratory platform scale for the most precise results up to 50 kg

The high-quality finish, exceptional weighing data and extensive configuration package all go to make this range particularly suitable for demanding requirements.

Weighing range: 50 kg  
Read-out: 0,1 g  
Weighing plate: 365x258 mm

For additional information see page 99



KERN ILS/ILJ

### **KERN IKT 3K0.01S** High-resolution platform scale with stainless steel weighing plate and separate touchscreen display device

Particularly practical when working with toxic, volatile or contaminated substances in glove bags or fume cupboards.

Weighing range: 3 kg  
Read-out: 0,01 g  
Weighing plate: 228x228 mm

For additional information see page 100/101



KERN IKT

### **KERN PES 31000-1M** Robust laboratory and industrial precision balance

Ideally suited for compact, very dense samples, such as those which might be found in road building or the construction industry, for example.

Weighing range: 31 kg  
Read-out: 0,1 g  
Weighing plate: 250x220 mm

For additional information see page 36



KERN PES



# 3 Analytical balances

KERN Model		Page
ABS-N ABJ-NM	The bestseller in analytical balances, now also with high-quality single-cell weighing system and verification [M]	42
ALS-A ALJ-A	Precision and price down to a point – now also with internal adjustment	43
AES-N AEJ-NM	Compact high-end analytical balance with useful pipette calibration program	44
ALT-B	Analytical balance with extensive recipe database	45
ABT	The premium model with single-cell weighing system	46



## KERN Analytical balances with Single-cell cutting edge technology



To satisfy stricter requirements for precision, speed, and → **reproducibility** of weight values, monolithic balance cells are increasingly the standard. These are measurement sensors for determination

of weight that are fabricated from an aluminium. These systems distinguish themselves from conventional balance cells in terms of both quality and performance:

- Higher measurement speed
- Stable temperature behaviour
- Higher corner load reliability
- Better measurement precision
- Improved mechanical sturdiness

KERN analytical balances on this measurement principle are designated as using „Single Cell Technology“ (→ **SC TECH**).

To avoid relevant result variations when weighing with high-precision analytical balances, we recommend noting a few basic things:

- Daily → **adjustment**, particularly if there are temperature variations, etc.
- Use of the internal automatic adjustment feature is strongly recommended
- Avoidance of air movement, e.g. open doors, windows, wind protection
- Use of a special weighing table, e.g. **KERN YPS-01**, p. 132
- Use of an ioniser to neutralise electrostatic charges on the items being weighed, e.g. **KERN YBI-01**, p. 132

→ See the glossary on page 158/159

## Quick-Finder

o.r. = on request    ■ = Standard    □ = Option

Read-out	Weighing range	Model	Page	DAYS ready for shipping						
d	Max	KERN			For an explanation of the symbols, see the flap of the envelope					
0,01 mg	101 g	ABT 100-5M	46	1	■	■			□	■
0,01/0,1 mg	42/120 g	ABT 120-5DM	46	1	■	■			□	■
0,01/0,1 mg	80/220 g	AEJ 200-5NM	44	1	■	■			□	■
0,01/0,1 mg	82/220 g	ABT 220-5DM	46	1	■	■			□	■
0,1 mg	80 g	ABS 80-4N	42	1			■		□	■
0,1 mg	80 g	ABJ 80-4NM	42	1	■	■			□	■
0,1 mg	120 g	ABS 120-4N	42	1			■		□	■
0,1 mg	120 g	ABJ 120-4NM	42	1	■	■			□	■
0,1 mg	120 g	ABT 120-4M	46	1	■	■			□	■
0,1 mg	160 g	ALS 160-4A	43	1			■		□	■
0,1 mg	160 g	ALJ 160-4A	43	1	o.r.	■			□	■
0,1 mg	160 g	AES 100-4N	44	1			■		□	■
0,1 mg	160 g	AEJ 100-4NM	44	1	■	■			□	■
0,1 mg	160 g	ALT 160-4B	45	1	o.r.	■		■	□	■
0,1 mg	220 g	ABS 220-4N	42	1			■		□	■
0,1 mg	220 g	ABJ 220-4NM	42	1	■	■			□	■
0,1 mg	220 g	AES 200-4N	44	1			■		□	■
0,1 mg	220 g	AEJ 200-4NM	44	1	■	■			□	■
0,1 mg	220 g	ABT 220-4M	46	1	■	■			□	■
0,1 mg	250 g	ALS 250-4A	43	1			■		□	■
0,1 mg	250 g	ALJ 250-4A	43	1	o.r.	■			□	■
0,1 mg	250 g	ALT 250-4B	45	1	o.r.	■		■	□	■
0,1 mg	310 g	ALJ 310-4A	43	1	o.r.	■			□	■
0,1 mg	320 g	ABS 320-4N	42	1			■		□	■
0,1 mg	320 g	ABJ 320-4NM	42	1	■	■			□	■
0,1 mg	320 g	ABT 320-4M	46	1	■	■			□	■

# Analytical balance KERN ABS-N · ABJ-NM



- 5** Single-cell advanced technology:
- **Fully automatic manufactured weighing cell from one piece of material**
  - **Stable temperature behaviour**
  - **Short stabilisation time:**  
Steady weight values within approx. 3 sec under laboratory conditions
  - **Shock proof construction**
  - **High corner load performance**

The bestseller in analytical balances, now with high-quality single-cell weighing system and EC type approval [M]

## Features

- **1** Only ABJ-N: **Automatic internal adjustment** in the case of a change in temperature > 2 °C or time-controlled every 4 hours
- **2** Only ABS-N: **Adjusting program CAL**, external test weights at an additional price, see page 133 ff.
- **Dosage aid:** High-stability mode and other filter settings can be selected
- **Simple recipeweighting and documenting** with a combined tare/print function. In addition, the mixing ingredients for the recipe are numbered automatically and printed out with their corresponding number and weight value

- **Identification number:** 4 numeric positions, printed on calibration protocol
- **Automatic data output** to the PC/printer each time the balance reaches a steady state

## Technical data

- Large LCD display, digit height 14 mm
- Dimensions of weighing plate Ø 91 mm
- Overall dimensions  
WxDxH 210x340x325 mm
- weighing space WxDxH 174x162x227 mm
- Permissible ambient temperature  
10 °C / 30 °C
- Net weight approx. 6 kg

## Accessories

- **3** **Data interface RS-232** interface cable included, KERN ACS-A01
- **Protective working cover** standard, can be reordered, KERN ACS-A02
- **Set for density determination** of liquids and solids, KERN ACS-A03
- **Ioniser** to neutralise electrostatic charge, see page 132, KERN YBI-01
- **4** **Weighing table** to absorb vibrations and oscillations, which would otherwise distort the weighing result, see page 132, KERN YPS-01
- **Suitable printers** see page 130

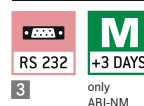
### STANDARD



### OPTION



### FACTORY



Model	Weighing range [Max] g	Read-out [d] g	Verific. value [e] g	Minimum load [Min] mg	Reproducibility g	Linearity mg	Options		
							Verification		DKD Calibr. Certificate
							MI KERN		DKD KERN
ABS 80-4N	80	0,1	-	-	0,2	± 0,3	-	-	963-101
ABS 120-4N	120	0,1	-	-	0,2	± 0,3	-	-	963-101
ABS 220-4N	220	0,1	-	-	0,2	± 0,3	-	-	963-101
ABS 320-4N	320	0,1	-	-	0,2	± 0,3	-	-	963-101
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.									
ABJ 80-4NM	80	0,1	1	10	0,2	± 0,3	965-201		963-101
ABJ 120-4NM	120	0,1	1	10	0,2	± 0,3	965-201		963-101
ABJ 220-4NM	220	0,1	1	10	0,2	± 0,3	965-201		963-101
ABJ 320-4NM	320	0,1	1	10	0,2	± 0,3	965-201		963-101

# Analytical balance KERN ALS-A · ALJ-A



03



## Precision and price down to a point, with external and internal adjustment

### Features

- 1 only ALJ-A: **Automatic internal adjustment** in the case of a change in temperature > 1,5 °C
- 2 only ALS-A: **Adjusting program CAL** for quick setting of the balance accuracy, external test weights at an additional price, see page 133
- Ergonomically optimised keypad** for left and righthanded users
- Large glass draught shield** with 3 sliding doors for easy access to the items being weighed
- Compact size**, practical for small spaces
- Percentage determination**: makes it possible to store a given weight value (100%) and to determine deviations from this target value

- **Weighing with tolerance range**, ideal for portion division, dispensing, grading

### Technical data

- Backlit LCDdisplay, digit height 17 mm
- Dimensions of weighing plate Ø 80 mm
- Overall dimensions (incl. draft shield): 210x340x330 mm
- Weighing space WxDxH 160x140x205 mm
- Net weight approx. 5,7 kg
- Permissible ambient temperature 5 °C / 35 °C

### Accessories

- **Protective working cover**, KERN ALJ-A01
- 3 **Ioniser** to neutralise electrostatic charge, see page 132, KERN YBI-01
- 4 **Weighing table** to absorb vibrations and oscillations, which would otherwise distort the weighing result, see page 132, KERN YPS-01
- **Set for density determination** of liquids and solids, KERN ALT-A02
- **Suitable printers** see page 130

### STANDARD

CAL INT	CAL EXT	RS 232	GLP PROTOCOL	PCS	PERCENT	UNIT	TOL	MOVE	230 V	FORCE	1 DAY	3 YEARS WARRANTY
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### OPTION

DKD +3 DAYS
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Model	Weighing range [Max] g	Read-out [d] g	Reproducibility g	Linearity mg	Option	
					DKD	DKD Calibr. Certificate
KERN						
ALS 160-4A	160	0,1	0,1	± 0,3	963-101	
ALS 250-4A	250	0,1	0,1	± 0,3	963-101	
ALJ 160-4A	160	0,1	0,1	± 0,3	963-101	
ALJ 250-4A	250	0,1	0,1	± 0,3	963-101	
ALJ 310-4A	310	0,1	0,1	± 0,3	963-101	

# Analytical balance KERN AES-N · AEJ-NM



## Compact high-end analytical balance with useful pipette calibration program

### Features

- 1 only AEJ-NM: **Automatic internal adjustment** in the case of a change in temperature > 0,8 °C or time-controlled every 3 hours
- Intuitive pipette calibration function** to ensure data integrity and to minimise the risks in the daily work with your pipettes
- 2 Vmin: 10% of the volume  
Va: Arithmetic mean  
Es: Systematic error  
Vmax: 100 of the volume  
Sr: Standard deviation
- GLP/ISO record keeping** of weight values with date, time and serial number
- Higher weighing speed by switching off the last digit

- **Totalizing** of weights (manual/automatic)
- **Modern all glass draft wind shield** for optimal visibility of the weighing object
- **Dispensing mode:** By pressing one key you can set all relevant parameters for this dispensing process

### Technical data

- Large backlit LCDdisplay, digit height 17 mm
- Dimensions of weighing plate Ø 85 mm
- Overall dimensions WxDxH 206x335x335 mm
- Weighing space WxDxH 168x160x225 mm
- Net weight approx. 5,4 kg
- Permissible ambient temperature 18 °C / 30 °C

### Accessories

- Protective working cover, standard, can be reordered, KERN ALS-A02
- 3 **Set for density determination** of liquids and solids. Step-by-step user guidance, as well as the calculated density shown immediately on the display, similar to illustration, KERN AES-A01N
- **Ioniser** to neutralise electrostatic charge, see page 132, KERN YBI-01
- **Weighing table** to absorb vibrations and oscillations, which would otherwise distort the weighing result, see page 132, KERN YPS-01
- **Suitable printers** see page 130

### STANDARD



### OPTION



### FACTORY

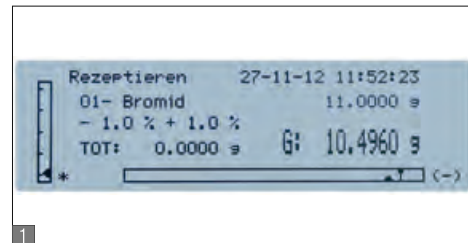


1 only with printer

only AEJ-NM

Model	Weighing range [Max] g	Read-out [d] g	Verific. value [e] g	Minimum load [Min] mg	Reproducibility g	Linearity mg	Options			
							Verification		DKD Calibr. Certificate	
							MT	KERN	DKD	KERN
KERN										
AES 100-4N	160	0,1	-	-	0,2	± 0,2	-	-	963-101	
AES 200-4N	220	0,1	-	-	0,2	± 0,2	-	-	963-101	
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.										
AEJ 100-4NM	160	0,1	1	10	0,2	± 0,3	965-201		963-101	
AEJ 200-4NM	220	0,1	1	10	0,2	± 0,3	965-201		963-101	
AEJ 200-5NM	80   220	0,01   0,1	1	1	0,04   0,1	± 0,1   ± 0,2	965-201		963-101	

# Analytical balance KERN ALT-B



03

## Analytical balance with extensive recipe database

### Features

- **Convenient recipe-weighing:** with the recipe database, in which up to 99 recipes can be stored, each with up to 20 recipe ingredients with name and target value
- **Rapid and efficient operation** thanks to the graphics display
- **Simple plain text user guidance in the display** in the following languages: D, GB, F, I, E, PT
- **Automatic internal adjustment** in the case of a change in temperature > 1,5 °C or time-controlled every 20 minutes
- **Percentage determination:** makes it possible to store a given weight value (100%) and to determine deviations from this target value
- **Weighing with tolerance range (checkweighing):** Input of an upper/lower limit value. A visual signal assists with portion division, dispensing or grading

- **Vibration-free weighing:** at the push of a button, a stable average weight is given when the environmental conditions are unstable
- **GLP/ISO record keeping** of weight values with date, time and serial number
- **Modern all glass draft wind shield** for optimal visibility of the weighing object

### Technical data

- Large backlit LCDdisplay, digit height 15 mm
- Dimensions weighing surface Ø 80 mm
- Dimensions housing WxDxH 210x340x330 mm
- Weighing space WxDxH 160x140x205 mm
- Net weight approx. 5,7 kg
- Permissible ambient temperature 5 °C / 35 °C

### Accessories

- **Protective working cover,** KERN ALJ-A01
- **Ioniser** to neutralise electrostatic charge, see page 132, KERN YBI-01
- **Weighing table** to absorb vibrations and oscillations, which would otherwise distort the weighing result, see page 132, KERN YPS-01
- **Set for density determination** of liquids and solids. Step-by-step user guidance, as well as the calculated density shown immediately on the display, KERN ALT-A02
- **Suitable printers,** see page 130

STANDARD



OPTION



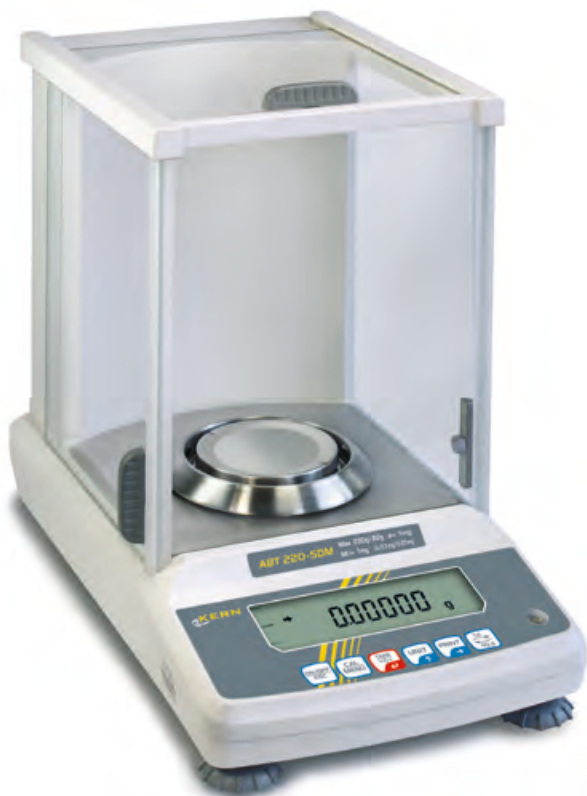
FACTORY



Model	Weighing range [Max] g	Read-out [d] g	Verific. value [e] g	Minimum load [Min] mg	Reproducibility g	Linearity mg	Options			
							Verification		DKD Calibr. Certificate	
							MI KERN	on request	DKD KERN	on request
ALT 160-4B	160	0,1	-	-	0,1	± 0,3	on request	963-101	on request	963-101
ALT 250-4B	250	0,1	-	-	0,1	± 0,3	on request	963-101	on request	963-101

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.

# Analytical balance KERN ABT



03

## The premium model with single-cell weighing system

### Features

- **Automatic internal adjustment** in the case of a change in temperature > 0,5 °C or time-controlled every 4 hours
- **Dosage aid:** High-stability mode and other filter settings can be selected
- **Simple recipeweighing and documenting** with a combined tare/print function. In addition, the mixing ingredients for the recipe are numbered automatically and printed out with their corresponding number and weight value
- **Identification number:** 4 numeric positions, printed on calibration protocol
- **Automatic data output to the PC/printer** every time the balance is steady

### Technical data

- Large LCD display, digit height 14 mm
- Dimensions of weighing plate Ø 80 mm
- Overall dimensions WxDxH 217x356x338 mm
- weighing space WxDxH 168x172x223 mm
- Net weight approx. 7 kg
- Permissible ambient temperature 10 °C / 30 °C

### Accessories

- **Protective working cover**, standard, can be reordered, KERN ABT-A02
- **Set for density determination** of liquids and solids. The density is indicated directly

Single-cell advanced technology:

- **Fully automatic manufactured weighing cell from one piece of material**
- **Stable temperature behaviour**
- **Short stabilisation time:** Steady weight values within approx. 5 sec under laboratory conditions
- **Shock proof construction**
- **High corner load performance**

on the display, KERN ABT-A01

- **Ioniser** to neutralise electrostatic charge, KERN YBI-01
- **Weighing table** to absorb vibrations and oscillations, which would otherwise distort the weighing result, KERN YPS-01
- **Suitable printers** see page 130

### STANDARD



only with printer

### OPTION



### FACTORY

Model	Weighing range [Max] g	Read-out [d] g	Verific. value [e] g	Minimum load [Min] mg	Reproducibility g	Linearity mg	Options			
							Verification		DKD Calibr. Certificate	
							MI	KERN	DKD	KERN
ABT 120-4M	120	0,1	1	10	0,1	± 0,2	965-201		963-101	
ABT 220-4M	220	0,1	1	10	0,1	± 0,2	965-201		963-101	
ABT 320-4M	320	0,1	1	10	0,1	± 0,3	965-201		963-101	
ABT 100-5M	101	0,01	1	1	0,05	± 0,15	965-201		963-101	
<b>Dual-range balance (D = Dual):</b> switches automatically to the next largest weighing range [Max.] and readout [d].										
ABT 120-5DM	42   120	0,01   0,1	1   1	1	0,02   0,1	± 0,05   ± 0,2	965-201		963-101	
ABT 220-5DM	82   220	0,01   0,1	1   1	1	0,05   0,1	± 0,1   ± 0,2	965-201		963-101	

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.

# 4 Moisture analysers

KERN Model		Page
DBS	Modern moisture analyser with 10 memories and graphic display	48
DLB	Robust moisture analyser for samples up to 160 g	49
MLB-N	High standard in moisture analysis with graphic-assisted display	50
MLS-N	Moisture analyser with 99 memory possibilities and graphic display	51
DLT	High-end moisture analyser with innovative Windows CE touch® operating system	52/53



Moisture analysing is an integral part of many raw and finished products and has a crucial influence on the quality of the product.

Moisture analysers are used particularly in the food industry, water resource management (sewage plants, etc.), plastics industry, agriculture and the energy industry (bio-energy plants, etc.).

Determining moisture requires a great deal of experience. Depending on the type of sample and the task involved, various drying processes are used.

KERN has concentrated on the most widely-used drying method: halogen drying, which brings many advantages:

- Even warming of the sample from above, without any risk of burning the surface of the sample
- Affordable purchase costs ensure rapid amortisation of the device
- Established temperature ranges from 35 - 200°C

- High measuring precision, up to 0.01 %
- Sufficient spare capacity, weighing range up to 160 g
- Various drying programs (gradual drying, standard drying, stage drying, preheating stage (Boost))

The numerous memories of the KERN moisture analyser are particularly useful, as they hold information on the complete drying processes with drying parameters such as, for example, drying period, drying temperature, display settings, switch off criteria, etc... This saves an enormous amount of time and helps to achieve repeatable results.

On the internet, you will find a practical application handbook containing many examples, field reports, adjustments and tips for each KERN moisture analyser.



Your KERN product specialist will be happy to help:

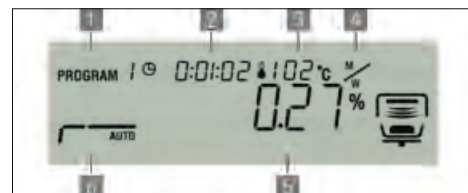
**Ulrich Ulmer**  
Product specialist Moisture analysers

## Quick-Finder

■ = Standard □ = Option

Read-out	Weighing range	Model	Page	DAYS	M	CAL EXT	MEMORY	RS 232
d	Max	KERN		ready for shipping	For an explanation of the symbols, see the flap of the envelope			
0,001 g	60 g	DBS 60-3	48	1		■	■	■
0,001 g	160 g	DLB 160-3A	49	1		■	■	■
0,001 g	50 g	MLB 50-3N	50	1		■	■	■
0,001 g	50 g	MLS 50-3HA160N	51	1		■	■	■
0,001 g	100 g	DLT 100-3	52	1		■	■	■

# Moisture analyser KERN DBS



04

## Modern moisture analyser with 10 memories and graphic display

STANDARD										OPTION	
only with printer											

KERN	DBS 60-3
Readout [d]	0,001 g / 0,01 %
Weighing range [Max]	60 g
Reproducibility, weight of sample 2 g	0,15 %
Reproducibility, weight of sample 10 g	0,02 %
Display after drying (Display can be switched over at any time)	
Moisture [%] = Weight loss (WL) from SW (startweight)	0 - 100 %
Dry mass [%] = Residual weight (RW) from SW	100 - 0 %
ATRO [%] [(SG-RG) : RG] · 100%	100 - 999 %
ATRO [%] (SG : RG) · 100%	0 - 999 %
Weight loss [g] (WL)	Absolute value in [g]
Temperature range	50 - 200 °C in steps up to 1 °C
Drying modes	<ul style="list-style-type: none"> <li>Standard drying</li> <li>Drying in levels</li> <li>Gentle drying</li> <li>Pre-heat level, can be switched on</li> </ul>
Switch off criteria	<ul style="list-style-type: none"> <li>When the set time has expired (1 min - 4 h)</li> <li>When the weight loss per unit of time falls below the target value (30 sec)</li> </ul>
Recall of measurement	Interval adjustable from 1 sec - 10 min (only in connection with KERN YKB-01N printer or PC)
Overall dimensions WxDxH	202x336x157 mm
Net weight	approx. 4,2 kg
Option DKD Calibr. Certificate	963-127

### Features

- Drying program
  - Previous drying time
  - Current temperature
  - Unit for displaying the results
  - Current moisture content in %
  - Drying mode/Status display drying
- Halogen quartz glass heater** 400 W
  - Observation window over the sample**, useful during initial adjustment
  - Internal memory** for automatic sequence of 10 drying programs and 100 drying processes carried out
  - The last value measured remains on the display until it is replaced by a new measurement
  - Sample description** for up to 99 samples, 2 digits, freely programmable, and is printed in the measuring protocol
  - Date and time display** as standard
  - 10 sample plates included**
  - Application handbook:** On the internet, you will find a practical application handbook containing many examples, field reports, adjustments and tips for each KERN moisture analyser

### Accessories

- Sample plates aluminium**, Ø 92 mm. Unit of 80 pieces, KERN MLB-A01
- Round fiberglass filter** e.g. for samples that splash or become encrusted. Unit of 80 pieces, KERN RH-A02
- Temperature calibration set** consists of measuring sensor and display device, KERN DBS-A01
- USB interface kit** for bi-directional data exchange between moisture analyser and computer. Scope of supply: USB cable, driver, Software Balance Connection, KERN DBS-A02
- Suitable printers** see page 130



# Moisture analyser KERN DLB



04

## Robust moisture analyser for samples up to 160 g

STANDARD

CAL EXT MEMORY RS 232 GLP PROTOCOL UNIT 230 V DMS 1 DAY 3 YEARS WARRANTY DKD +3 DAYS

OPTION

only with printer

KERN	DLB 160-3A
Readout [d]	0,001 g / 0,01 %
Weighing range [Max]	160 g
Reproducibility, weight of sample 10 g	0,05 %
Display after drying (Display can be switched over at any time)	
Moisture [%] = Weight loss (WL) from SW (startweight)	0 - 100 %
Dry mass [%] = Residual weight (RW) from SW	100 - 0 %
ATRO [%] (SG : RG) · 100%	100 - 999 %
Weight loss [g] (WL)	Absolute value in [g]
Temperature range	35 °C - 160 °C in steps up to 1 °C
Drying modes	<ul style="list-style-type: none"> <li>Standard drying</li> <li>Pre-heat level, can be switched on</li> </ul>
Switch off criteria	<ul style="list-style-type: none"> <li>When the set time has expired (1 - 99 min)</li> <li>When the weight loss per unit of time falls below the target value (60 sec)</li> </ul>
Recall of measurement	<ul style="list-style-type: none"> <li>Continuous output (residual weight)</li> <li>At the end of the drying process, manual or automatic (only in connection with KERN YKB-01N printer or PC)</li> </ul>
Overall dimensions WxDxH	210x340x225 mm
Net weight	approx. 4,2 kg
Option DKD Calibr. Certificate	963-127

### Features

- Backlit LCDdisplay, digit height 17 mm
  - Current moisture content in %
  - Unit for displaying the results, e.g. % moisture
  - Drying process active
- Halogen quartz glass heater** 400 W
- Internal memory** for automatic sequence of 5 complete drying processes
- The last value measured remains on the display until it is replaced by a new measurement
- 10 sample plates included**
- Application handbook:** On the internet, you will find a practical application handbook containing many examples, field reports, adjustments and tips for each KERN moisture analyser

### Accessories

- Sample plates aluminium**, Ø 92 mm. Unit of 80 pieces, KERN MLB-A01
- Round fiberglass filter** e.g. for samples that splash or become encrusted. Unit of 80 pieces, KERN RH-A02
- Temperature calibration set** consists of measuring sensor and display device, KERN DLB-A01
- Protective working cover** standard, can be reordered, KERN PLJ-A01
- Suitable printers** see page 130

# Moisture analyser KERN MLB-N



04

## High standard in moisture analysis with graphics display

STANDARD						OPTION	

KERN	MLB 50-3N
Readout [d]	0,001 g / 0,01 %
Weighing range [Max]	50 g
Reproducibility, weight of sample 2 g	0,5 %
Reproducibility, weight of sample 10 g	0,02 %
Display after drying (Display can be switched over at any time)	
Moisture [%] = Weight loss (WL) from SW (startweight)	0 - 100 %
Dry mass [%] = Residual weight (RW) from SW	100 - 0 %
ATRO [%] $[(SG-RG) : RG] \cdot 100\%$	0 - 999 %
Temperature range	50° - 160°C in steps up to 1°C
Drying modes	<ul style="list-style-type: none"> <li>•  Standard drying</li> <li>•  Gentle drying</li> <li>• Pre-heat level, can be switched on</li> </ul>
Switch off criteria	<ul style="list-style-type: none"> <li>• When the set time has expired (1 - 9 h 59 min)</li> <li>• When a constant weight per adjustable time unit has been reached (1 - 59 sec)</li> </ul>
Recall of measurement	Interval adjustable from 1 - 180 sec (only in connection with KERN YKB-01N printer or PC)
Overall dimensions WxDxH	210x335x156 mm
Net weight	approx. 6 kg
Option DKD Calibr. Certificate	963-127

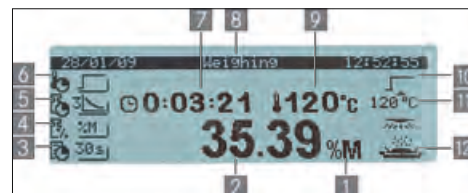
### Features

- Backlit LCD display, digit height 14 mm
- 1 Moisture display in %
- 2 Current moisture content in %
- 3 Printout in moisture %
- 4 Type of drying *Standard*
- 5 Switch off mode
- 6 Previous drying time
- 7 Current temperature
- 8 Drying process active
- **Halogen quartz glass heater** 400 W
- The last value measured remains on the display until it is replaced by a new measurement
- **10 sample plates included**
- **Application handbook:** On the internet, you will find a practical application handbook containing many examples, field reports, adjustments and tips for each KERN moisture analyser

### Accessories

- **9 Sample plates aluminium**, Ø 92 mm. Unit of 80 pieces, KERN MLB-A01
- **Round fiberglass filter** e.g. for samples that splash or become encrusted. Unit of 80 pieces, KERN RH-A02
- **Temperature calibration set** consists of measuring sensor and display device, KERN MLB-A11
- **Protective working cover** standard, can be reordered, KERN ALS-A02
- **Suitable printers** see page 130

# Moisture analyser KERN MLS-N



04

## Features

- Backlit Grafik display, digit height 14 mm
  - 1 Moisture display in %
  - 2 Current moisture content in %
  - 3 Printer interval 30 sec
  - 4 Printout in moisture %
  - 5 Switch off mode
  - 6 Type of drying *Standard*
  - 7 Previous drying time
  - 8 Status bar
  - 9 Current temperature
  - 10 Type of drying *Standard*
  - 11 Target temperature
  - 12 Drying process active
- 13 **Halogen quartz glass heater** 400 W
- **Internal memory** for automatic sequence of 10 drying programs (12 free digits for each memory) and 100 drying processes carried out, which can be recalled individually
- **Practical net weighing assistance** to a defined target value [g] with adjustable tolerance range 1 - 25 % of the target value
- The last value measured remains on the display until it is replaced by a new measurement
- **Simple „step-by-step“ user guidance in the display** in the following languages D, GB, F, I, E, PL
- 14 **10 sample plates included**
- **Can be connected to PC keyboard**
- **Application handbook:** On the internet, you will find a practical application handbook containing many examples, field reports, adjustments and tips for each KERN moisture analyser

## Moisture analyser with 10 memory possibilities and graphic display

STANDARD      OPTION

CAL EXT	MEMORY	RS 232	GLP	230 V	FORCE	1 DAY	3 YEARS WARRANTY	DKD +3 DAYS

KERN	MLS 50-3HA 160N
Readout [d]	0,001 g / 0,01 %
Weighing range [Max]	50 g
Reproducibility, weight of sample 2 g	0,5 %
Reproducibility, weight of sample 10 g	0,02 %
Display after drying (Display can be switched over at any time)	
Moisture [%] = Weight loss (WL) from SW (startweight)	0 - 100 %
Dry mass [%] = Residual weight (RW) from SW	100 - 0 %
ATRO [%] [(SG-RG) : RG] · 100%	0 - 999 %
Restgewicht [g]	Absolute value in [g]
Temperature range	50° - 160°C in steps up to 1°C
Drying modes	<ul style="list-style-type: none"> <li>•  Standard drying</li> <li>•  Drying in levels</li> <li>•  Gentle drying</li> <li>•  Pre-heat level, can be switched on</li> </ul>
Switch off criteria	<ul style="list-style-type: none"> <li>• When the set time has expired (1 - 9 h 59 min)</li> <li>• When the weight loss per unit of time falls below the target value (both values freely adjustable mg/sec)</li> </ul>
Recall of measurement	Interval adjustable from 1 sec - 5 min (only in connection with KERN YKB-01N printer or PC)
Overall dimensions WxDxH	210x335x156 mm
Net weight	approx. 6,3 kg
Option DKD Calibr. Certificate	963-127

## Accessories

- 14 **Sample plates aluminium**, Ø 92 mm. Unit of 80 pieces, KERN MLB-A01
- **Round fiberglass filter** e.g. for samples that splash or become encrusted. Unit of 80 pieces, KERN RH-A02
- **Temperature calibration set** consists of measuring sensor and display device, KERN MLB-A11
- **Protective working cover** standard, can be reordered, KERN ALS-A02
- **Suitable printers** see page 130

## Moisture analyser KERN DLT

04



### High-end moisture analyser with innovative Windows CE touch® operating system



Particularly in the pharmaceutical, food, chemical and construction industries, being able to analyse the moisture content of materials at Goods Inwards and production is an important tool to ensure product quality and robust production processes.

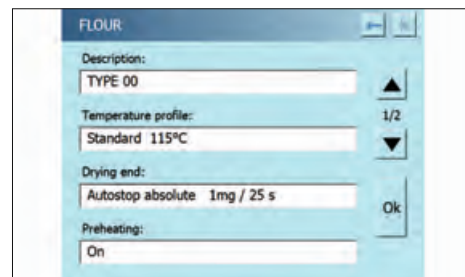
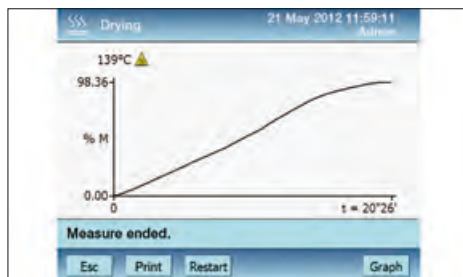


In biogas plants, sewage treatment plants or landfill sites, the drying of biomass has always been extremely important. Controlling the moisture content precisely helps, for example, to reduce transport weights or increase heating values



In the timber industry, statements which can be validated relating to the moisture content and the resulting mechanical and technological characteristics of the wood or the fuel and heating values of wood chips, pellets, etc. are of economic importance

# Moisture analyser KERN DLT



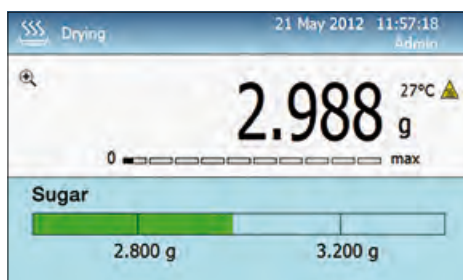
Innovative touchscreen: Large touch-sensitive, backlit screen with very good contrast for easy operation and convenient reading

Clear menu structure with plain text labels on the display. The menu and processes are self-explanatory. This reduces the training times, avoids operating errors and in this way, ensures more efficient, rapid operation.

Colour LCD Display with digit height 18 mm, screen diagonal 5.8" (approx. 147 mm), WxH 11,8x8.8 mm

- 1 Drying process active
- 2 Status bar
- 3 Current temperature
- 4 Current moisture content in % / Display and print-out of moisture-%
- 5 Residual weight in % (progress bar)
- 6 Switch off mode
- 7 Target temperature
- 8 Type of drying Standard
- 9 Drying rate
- 10 Drying process active

Graphic display of the drying curve shows the progress of the drying process in real time and can be used by the operator to check and evaluate the result



Net weighing assistance to a defined target value [g] with adjustable tolerance range 1% - 25% of the target value

- Halogen quartz glass heater 400 W
- Simple „step-by-step“ user guidance in the display in the following languages D, GB, F, I, E, PT

Balance contains memories for automatic sequence of 300 drying programs (12 free characters for each memory) as well as a further 100 memories for drying processes which have been carried out, which can be recalled individually



Touchless tare function: just give it a wave. 2 freely-assignable movement sensors for TARE/Print/OFF

- The last value measured remains on the display until it is replaced by a new measurement
- 10 sample plates included
- Application manual: On the website there is a practical application handbook for each KERN moisture analyser, which contains many examples, field reports, settings and tips

STANDARD										OPTION	
CAL EXT	MEMORY	RS 232	USB	GLP PROTOCOL	UNIT	230 V	230 V	DMS	1 DAY	3 YEARS WARRANTY	DKD +3 DAYS

KERN	DLT 100-3
Readout [d]	0,001 g   0,01 %
Weighing range [Max]	160 g
Reproducibility, weight of sample 10 g	0,001 g
Display after drying (Display can be switched over at any time)	
Moisture [%] = Weight loss (WL) from SW (startweight)	0 - 100 %
Dry mass [%] = Residual weight (RW) from SW	100 - 0 %
ATRO [%] (SG : RG) · 100%	100 - 999 %
Weight loss [g] (WL)	Absolute value in [g]
Temperature range	35 °C - 160 °C in steps up to 1 °C
Drying modes	<ul style="list-style-type: none"> <li>•  Standard drying</li> <li>•  Drying in levels</li> <li>•  Gentle drying</li> <li>•  Pre-heat level, can be switched on</li> </ul>
Switch off criteria	<ul style="list-style-type: none"> <li>• When the set time has expired (1 - 99 min)</li> <li>• When the weight loss per unit of time falls below the target value (60 sec)</li> </ul>
Recall of measurement	<ul style="list-style-type: none"> <li>• Continuous output (residual weight)</li> <li>• At the end of the drying process, manual or automatic (only in connection with KERN YKB-01N printer or PC)</li> </ul>
Overall dimensions WxDxH	210x340x225 mm
Dimensions of display device WxDxH	200x150x63 mm
Net weight	5,5 kg
Option DKD Calibr. Certificate	963-127

## Accessories

- **Sample plates aluminium**, Ø 92 mm. Unit of 80 pieces, KERN MLB-A01
- **Temperature calibration set** consists of measuring sensor and display device, KERN MLB-A11, KERN RH-A02
- **Round fibre glass filter** e. g. for samples that splash or become encrusted. Unit of 80 pieces, KERN RH-A02
- **Protective working cover** standard, can be reordered, KERN PLJ-A01
- **Suitable printers** see page 130



"Whether it's in the office or on the production line, the practical and uncomplicated bench scales from KERN increase efficiency and thereby also protect your wallet – how clever is that!"

# 5 Bench scales

KERN Model		Page
ECE ECB	Easy, mobile and economical	57
FCE	Affordable bench scale – mobile, practical, lightweight	58
GAB-N	Price-performance-winner with EC type approval [M]	59
FCB	Bench scale with second display on the back of the scale	60
FKB-A	Bench scale up to 65 kg with large weighing plate	61
FCB-B	Bench scale with laboratory accuracy	62
FKB FKB-M	Large, high resolution bench scale – also with EC type approval [M]	63
FKT	The future begins here – touchscreen industrial scale with enormous range of functions, also with EC type approval [M]	64/65



## Compact industrial weighing technology

Thanks to its compact dimensions, low weight, robust internal mechanism and the fact that it 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 - 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, manual tare - subtraction of a known container weight, or → **interfaces** to PC and printer, all these support the user in their daily work.

→ **Dual range** and triple range scales have a particularly wide range of applications. With these scales, the total weighing range is subdivided into 2 or 3 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, from page 133.

## Touchscreen balances

The newest development for an even greater level of ease of use is intuitive touchscreen operation, which is being integrated into new KERN models, see page 30, 52, 64, 100.

→ see the glossary on page 158/159



Your KERN product specialist will be happy to help:

**Stephan Ade**  
Product specialist bench scales





## Bench scales KERN ECE · ECB



### Easy, mobile and economical

#### Features

- **High mobility:** Battery operation, compact, flat construction and low weight make this balance ideal for use in several locations
- **Particularly large weighing plate**
- **Very fast display:** steady weight values within 2 sec
- **Simple and convenient 2-key operation**
- **Adjusting program CAL,** external test weights at an additional price, see page 133 ff.

#### Technical data

- Overall dimensions WxDxH 320x300x60 mm
- Optional battery operation, 6 x 1.5 V AA not included, operating time approx. 100 h. AUTO-OFF function to preserve the batteries
- Permissible ambient temperature 5 °C / 35 °C

#### ECB:

- Backlit LCDdisplay, digit height 14 mm
- Dimensions of weighing plate (stainless steel) WxD 320x260 mm
- Net weight approx. 1,7 kg

#### ECE:

- Large backlit LCDdisplay, digit height 14 mm

- Dimensions of weighing plate (plastic) WxD 320x260 mm
- Net weight approx. 1,5 kg

#### Accessories

- **Rechargeable battery pack internal,** operating time approx. 30 h, charging time approx. 10 h. AUTO-OFF function to preserve the battery, can be reordered, KERN PCB-A01
- **Rechargeable battery pack external,** operating time up to 270 h, charging time approx. 10 h, can be reordered, KERN KS-A01
- **Tare pan made from stainless steel,** details see page 132, KERN RFS-A02

#### STANDARD



#### OPTION



Model	Weighing range [Max] kg	Read-out [d] g	Reproducibility g	Linearity g	Option DKD Calibr. Certificate	
					DKD KERN	
ECE 10K5	10	5	5	± 20	963-128	
ECE 20K10	20	10	10	± 40	963-128	
ECE 50K20	50	20	20	± 80	963-128	
ECB 10K5	10	5	5	± 20	963-128	
ECB 20K10	20	10	10	± 40	963-128	
ECB 50K20	50	20	20	± 60	963-128	

# Bench scale KERN FCE



05

## Affordable bench scale - mobile, practical, lightweight

### Features

- **Simple and convenient 2-key operation**
- **Very fast display:** steady weight values within 2 sec
- **1** Ideal as a compact letter and parcel scale, especially where space is at a premium
- **2** Ideal as a grading or commissioning balance or simple checkweigher in production or dispatch

### Technical data

- Large LCD display, digit height 25 mm
- Dimensions of weighing plate (plastic)
  - A** 252x228 mm, see larger picture
  - B** 340x240 mm
- Overall dimensions WxDxH for models with weighing plate sizes
  - A** 270x345x106 mm
  - B** 350x390x120 mm
- Optional battery operation, 9 V Block not included, operating time approx. 12 h. AUTO-OFF function to preserve the battery.
- Permissible ambient temperature 5 °C / 35 °C

### Accessories

- **Protective working cover** over keyboard and housing, standard, can be reordered, for weighing plate size
  - A** KERN FCB-A02
  - B** KERN FKB-A02
- **Stainless steel-weighing plate**, only for models with weighing plate sizes **A**, KERN FCE-A01
- **Rechargeable battery pack internal, AUTO-OFF function** to preserve the battery, can be switched off, for models with weighing plate sizes
  - A** operating time approx. 20 h, charging time approx. 10 h, KERN FCB-A01
  - B** operating time approx. 8 h, charging time approx. 10 h, KERN PCB-A01

#### STANDARD



#### OPTION



Model	Weighing range [Max] kg	Read-out [d] g	Reproducibility g	Linearity g	Net weight approx. kg	Weighing plate	Option	
							DKD Calibr. Certificate	
<b>KERN</b>							<b>DKD</b>	
<b>FCE 3K1</b>	3	1	1	± 2	2,5	<b>A</b>	KERN	963-127
<b>FCE 6K2</b>	6	2	2	± 4	2,5	<b>A</b>		963-128
<b>FCE 15K5</b>	15	5	5	± 10	2,5	<b>A</b>		963-128
<b>FCE 30K10</b>	30	10	10	± 20	2,5	<b>A</b>		963-128
<b>FCE 30K10L *</b>	30	10	20	± 20	5,5	<b>B</b>		963-128
<b>FCE 60K20 *</b>	60	20	20	± 40	5,5	<b>B</b>		963-129

**!** \* ONLY WHILE STOCKS LAST

# Bench scale KERN GAB-N



05

### Application examples:

- Small industrial scale for pharmacies
- Hand mixtures of tea, coffee, chocolates
- Portion division of dough, meat, fish, poultry, mixed salads in cafeterias etc.
- Weighing of fruits on site
- High-precision industrial applications

**Note:** In commercial trade, official verification duties exist

## Price-performance-winner with EC type approval [M]

### Features

- **Compact size**, practical for small spaces
- **High mobility:** thanks to battery operation (optional)
- **Weighing with tolerance range (checkweighing):** Input of an upper/lower limit value. A visual signal assists with portion division, dispensing or grading
- **Totalizing** of counting operations

### Technical data

- Large backlit LCDdisplay, digit height 24 mm
- Dimensions of weighing plate (stainless steel) WxD 294x225 mm
- Overall dimensions WxDxH 320x330x125 mm
- Net weight approx. 3 kg
- Permissible ambient temperature 0 °C / 40 °C

### Accessories

- **Protective working cover**, KERN CFS-A02

- **Signal lamp** for visual support of weighing with tolerance range, KERN CFS-A03
- **Rechargeable battery pack internal**, operating time approx. 40 h, charging time approx. 12 h, charge condition indicator using three-colour LED, KERN GAB-A04
- **2nd data interface**, Y cable for parallel connection of two terminal devices to the RS 232 interface of the balance, e.g. of a printer, signal lamp etc. KERN CFS-A04
- **Suitable printers** see page 130

### STANDARD



only with printer

### OPTION



### FACTORY



Model	Weighing range [Max] kg	Read-out [d] g	Verific. value [e] g	Minimum load [Min] g	Reproducibility g	Linearity g	Options			
							Verification		DKD Calibr. Certificate	
							M III	KERN	DKD	KERN
KERN										
GAB 6K0.05N	6	0,05	-	-	0,05	± 0,15	-	-	963-128	
GAB 12K0.1N	12	0,1	-	-	0,1	± 0,3	-	-	963-128	
GAB 30K0.2N	30	0,2	-	-	0,2	± 0,6	-	-	963-128	

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.

**Dual-range balance (D = Dual):** switches automatically to the next largest weighing range [Max] and readout [d].

GAB 6K1DNM	3   6	1   2	1   2	20	1   2	± 1   ± 2		965-228		963-128
GAB 15K2DNM	6   15	2   5	2   5	40	2   5	± 2   ± 5		965-228		963-128
GAB 30K5DNM	15   30	5   10	5   10	100	5   10	± 5   ± 10		965-228		963-128

# Bench scale KERN FCB



05

## Bench scale with second display on the back of the scale

- |  |   |   |
|--|---|---|
| <p><b>Features</b></p> <ul style="list-style-type: none"> <li>• <b>Second display</b> on the rear of the balance</li> <li>• <b>PRE-TARE function</b> for manual subtraction of a known container weight, useful for checking fill-levels</li> <li>• <b>High mobility:</b> Battery operation, compact construction and low weight make this balance ideal for use in several locations (production, warehouse, dispatch department, ...)</li> </ul> | <p><b>Technical data</b></p> <ul style="list-style-type: none"> <li>• Backlit LCDdisplay, digit height 25 mm</li> <li>• Dimensions of weighing plate (stainless steel) WxD 252x228 mm</li> <li>• Overall dimensions WxDxH 270x345x106 mm</li> <li>• Optional battery operation, battery (9 V Block) not standard, operating time approx. 12 h</li> <li>• Net weight approx. 3 kg</li> <li>• Permissible ambient temperature 5 °C / 35 °C</li> </ul> | <p><b>Accessories</b></p> <ul style="list-style-type: none"> <li>• <b>Protective working cover</b> over keyboard and housing, standard, can be reordered, KERN FCB-A02</li> <li>• <b>Rechargeable battery pack internal</b>, operating time approx. 5 h, charging time approx. 10 h, KERN FCB-A01</li> <li>• <b>Suitable printers</b> see page 130</li> </ul> |
|--|---|---|

STANDARD

--	--	--	--	--	--	--	--	--	--	--	--	--

only with printer

OPTION

--	--

+3 DAYS

Model	Weighing range [Max] kg	Read-out [d] g	Reproducibility g	Linearity g	Min. piece weight [PW min] g/piece	Option DKD Calibr. Certificate	
						DKD KERN	
FCB 3K0.1	3	0,1	0,1	0,3	0,2	963-127	
FCB 8K0.1	8	0,1	0,1	0,3	0,2	963-128	
FCB 6K0.5	6	0,5	0,5	1,5	1	963-128	
FCB 12K1	12	1	1	3	2	963-128	
FCB 30K1	30	1	1	3	2	963-128	
FCB 24K2	24	2	2	6	4	963-128	
FCB 24K10 *	24	10	10	20	20	963-128	

! \* ONLY WHILE STOCKS LAST

## Bench scale KERN FKB-A



05

## Large 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
- **Particularly practical:** thanks to the large weighing ranges and compact dimensions, you can weigh heavy loads in the most restricted of spaces
- Freely programmable weighing unit, e.g. display directly in special units such as length of wire g/m, paper weight g/m<sup>2</sup>, or similar

## Technical data

- Large backlit LCDdisplay, digit height 25 mm
- Dimensions of weighing plate (stainless steel) WxD 340x240 mm
- Overall dimensions WxDxH 350x390x120 mm
- Optional battery operation, 9 V Block, not included, operating time approx. 12 h
- Net weight approx. 6,5 kg
- Permissible ambient temperature 5 °C / 35 °C

## Accessories

- **Protective working cover** over keyboard and housing standard, can be reordered, KERN FKB-A02
- **Rechargeable battery pack internal**, operating time approx. 8 h, charging time approx. 10 h, KERN PCB-A01
- **Suitable printers** see page 130

## STANDARD



## OPTION



Model	Weighing range [Max] kg	Read-out [d] g	Reproducibility g	Linearity g	Min. piece weight [PW min] g/piece	Option DKD Calibr. Certificate	
						DKD KERN	
FKB 8K0.1A	8	0,1	0,1	± 0,3	0,2	963-128	
FKB 15K0.5A	15	0,5	0,5	± 1,5	1	963-128	
FKB 15K1A	15	1	1	± 2	2	963-128	
FKB 30K1A	30	1	1	± 3	2	963-128	
FKB 65K1A	65	1	1	± 3	2	963-129	
FKB 60K5A *	60	5	5	± 15	10	963-129	
<b>Dual-range balance (D = Dual):</b> switches automatically to the next largest weighing range [Max] and readout [d].							
FKB 30K5DA *	15   30	5   10	5   10	± 15   ± 30	10	963-128	
FKB 60K10DA *	30   60	10   20	10   20	± 30   ± 60	20	963-129	

! \* ONLY WHILE STOCKS LAST

## Bench scale KERN FCB-B



05

## Bench scale with laboratory accuracy

### Features

- **PRE-TARE function** for manual subtraction of a known container weight, useful for checking fill-levels
- **Precise counting:** The automatic optimisation of reference weight gradually improves the average value of the piece weight, details see page 79
- **Percentage determination:** makes it possible to store a given weight value (100%) and to determine deviations from this target value

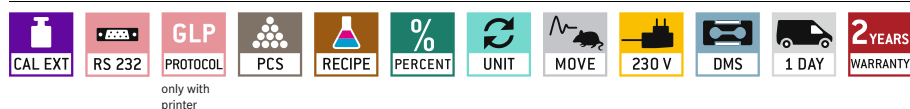
### Technical data

- Backlit LCDdisplay, digit height 18 mm
- Dimensions of weighing plate (stainless steel) WxD 253x228 mm
- Overall dimensions WxDxH 270x345x106 mm
- Net weight approx. 3,3 kg
- Permissible ambient temperature 10 °C / 40 °C

### Accessories

- **Protective working cover** over keyboard and housing standard, can be reordered, KERN FCB-A02
- **Rechargeable battery pack internal**, operating time up to 5 h, charging time approx. 10 h, KERN FCB-A03B
- **Rechargeable battery pack external**, operating time approx. 15 h without back-light, charging time approx. 10 h, KERN KS-A01
- **Suitable printers** see page 130

### STANDARD



only with printer

### OPTION



Model	Weighing range [Max] kg	Read-out [d] g	Min. piece weight [PW min] g/piece	Option	
				DKD Calibr. Certificate	
KERN				DKD	
FCB 6K0.02B	6	0,02	0,02	KERN	
FCB 12K0.05B	12	0,05	0,05		963-128
FCB 12K0.1B	12	0,1	0,1		963-128
FCB 24K0.1B	24	0,1	0,1		963-128
FCB 24K0.2B	24	0,2	0,2		963-128

# Bench scale KERN FKB · FKB-M



05

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

### Features

- **PRE-TARE function** for manual subtraction of a known container weight, useful for checking fill-levels
- **Precise counting:** The automatic optimisation of reference weight gradually improves the average value of the piece weight
- not for FKB-M: **Freely programmable weighing unit**, e.g. display directly in special units such as length of thread g/m, paper weight g/m<sup>2</sup>, or similar
- **Particularly practical:** thanks to the large weighing ranges and compact dimensions, you can weigh heavy loads in the most restricted of spaces

### Technical data

- Backlit LCDdisplay, digit height 18 mm
- Dimensions of weighing plate (stainless steel) WxD 340x240 mm
- Dimensions housing WxDxH 350x390x120 mm
- Optional battery operation, batteries (6 x 1.5 V Size C) not standard, operating time approx. 70 h
- Net weight approx. 6,5 kg
- Permissible ambient temperature KERN FKB: 10 °C / 40 °C KERN FKB-M: 10 °C / 30 °C

### Accessories

- **Protective working cover** over keyboard and housing, standard, can be reordered, KERN FKB-A02
- only FKB: **Rechargeable battery pack external**, operating time up to 25 h, charging time approx. 10 h, KERN KS-A01
- **Tare pan made from stainless steel**, details see page 132, KERN RFS-A02
- **Suitable printers** see page 130

### STANDARD



only with printer

### OPTION



### FACTORY



only FKB-M

Model	Weighing range [Max] kg	Read-out [d] g	Verific. value [e] g	Reproducibility g	Linearity g	Min. piece weight [PW min] g/piece	Options				
							Verification		DKD Calibr. Certificate		
							M II	KERN	DKD	KERN	
FKB 6K0.02	6	0,02	-	0,02	± 0,1	0,02	-	-	-	963-128	
FKB 8K0.05	8	0,05	-	0,05	± 0,15	0,05	-	-	-	963-128	
FKB 16K0.05	16	0,05	-	0,05	± 0,15	0,05	-	-	-	963-128	
FKB 16K0.1	16	0,1	-	0,1	± 0,3	0,1	-	-	-	963-128	
FKB 36K0.1	36	0,1	-	0,1	± 0,5	0,1	-	-	-	963-128	
FKB 36K0.2	36	0,2	-	0,2	± 0,6	0,2	-	-	-	963-128	
FKB 65K0.2	65	0,2	-	0,2	± 1	0,2	-	-	-	963-129	
FKB 65K0.5	65	0,5	-	0,5	± 1,5	0,5	-	-	-	963-129	
<b>Dual-range balance (D = Dual):</b> switches automatically to the next largest weighing range [Max] and readout [d]. Verification at the factory, we need to know the full address of the location of use.											
FKB 8K0.1M	8	0,1	1	0,1	± 0,3	0,1	■	950-117		963-128	
FKB 65K1M	65	1	10	1	± 2	1	■	950-118		963-129	

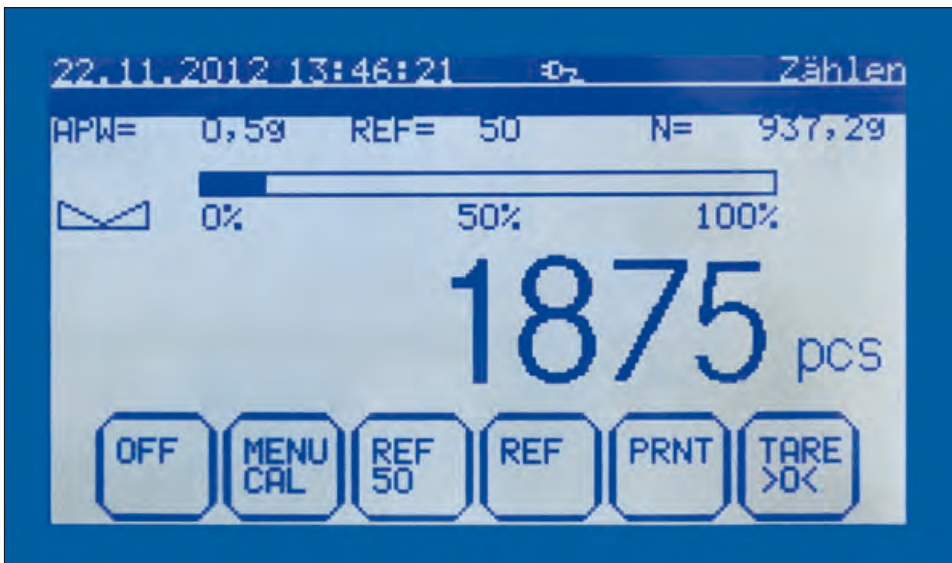
■ Price reduction

# Bench scale KERN FKT



05

Touchscreen industrial scale with enormous range of functions



Display at full size, operating mode Counting



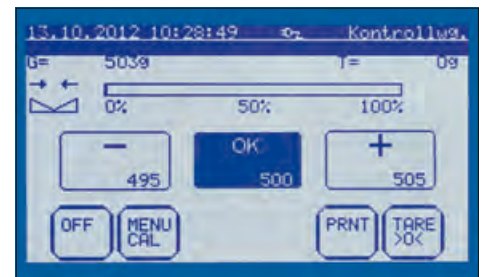
**Clear menu structure with the keys labelled with plain text and touch-sensitive display**  
The menu and processes are self-explanatory. This reduces the training times, avoids operating errors and in this way, ensures more efficient functionality



**Easy input of text and values**  
e.g. item descriptions, user name, weights for tare containers, etc. using large keypad



**40 memories for each mode, for checkweighing, pre-tare, reference weight, target weight when dispensing etc.**



**Weighing with tolerance range (checkweighing):** a visual and audible signal helps with portion division, dispensing or grading



# Bench scale KERN FKT

## Features

- **Innovative touchscreen:** Large touch-sensitive, backlit screen with very good contrast for easy operation and convenient reading
- **Maximum transparency:** All function keys are labelled with plain text which ensures that they are easily understood. The menu tree overlay in the info bar allows you to see at a glance which function is currently in use
- **Advantages:**
  - 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
- **Convenient recipe weighing:** 5 recipes each with 7 components can be stored in plain text
- **Hook for underfloor weighing** to weigh hanging loads standard for models with weighing plate sizes **B**



Standard  
Data interfaces

- **Data interface RS-232**  
To connect the balance to a printer, PC or network
- **Control outputs (optocoupler, digital I/O)**  
to connect relays, signal lamps, valves etc. (35V / 80 mA)

## Technical data

- Back-lit LCD graphic display with digit height 18 mm, screen diagonal 5.8" (approx. 147 mm)
- Dimensions of weighing plate WxD
  - A** 253x228 mm
  - B** 340x240 mm, see larger picture
- Overall dimensions WxDxH
  - A** 270x345x106 mm
  - B** 350x390x120 mm
- Optional battery operation, only for models with weighing plate sizes **B**, 6 x 1.5 V Size C not included, operating time approx. 20 h
- Permissible ambient temperature 10 °C / 40 °C

## Accessories

- **Protective working cover** over keyboard and housing, standard, can be reordered, for models with weighing plate sizes
  - A** KERN FCB-A02
  - B** KERN FKB-A02
- **Rechargeable battery pack external**, operating time up to 10 h, charging time approx. 10 h, KERN KS-A01
- **Signal lamp** for visual support of weighing with tolerance range, KERN IKT-A04
- **RS-232/Ethernet adapter**, to connect balances with an RS 232 interface to a network, using Ethernet, details see page 131, KERN YKI-01
- **Suitable printers** see page 130

## Modes

- ① Weighing
- ② Counting
- ③ Dispensing
- ④ Recipe weighing
- ⑤ Checkweighing
- ⑥ Totalizing with daily total
- ⑦ Percentage determination
- ⑧ Animal weighing
- ⑨ Surface weight
- ⑩ Density determination, only with **B**, not for **M**
- ⑪ Rapid mode, not for **M**

## Functions

- Capacity display, with ① - ②, ⑦, ⑨ - ⑩
- Dispensing assistance (subtractive, additive), with ①, ④
- Net/Gross display, permanently on, with ① - ⑩
- Variable reference quantity, with ②
- Automatic reference optimisation, with ②
- Tare deduction numerical or from the memory unit, with ① - ⑩
- Input of item or batch description, operator etc., with ① - ⑩
- Freely programmable weighing unit, e.g. display directly in special units such as length of thread g/m, paper weight g/m<sup>2</sup>, or similar, with ①, ⑨
- Date/time, with ① - ⑩
- Statistical function, with ①, ③, ⑤
- GLP printout, with ① - ⑩
- Individual printout configuration, with ① - ⑩

## STANDARD



## OPTION



## FACTORY



Model	Weighing range [Max] kg	Read-out [d] g	Verific. value [e] g	Minimum load [Min] g	Reproducibility g	Linearity g	Min. piece weight [PW min] g/piece	Weighing plate	Options			
									Verification		DKD Calibr. Certificate	
									MIII KERN		DKD KERN	
<b>KERN</b>												
<b>FKT 6K0.1</b>	6	0,1	-	-	0,1	± 0,2	0,1	<b>A</b>	-	-	963-128	
<b>FKT 12K0.2</b>	12	0,2	-	-	0,2	± 0,4	0,2	<b>A</b>	-	-	963-128	
<b>FKT 30K0.5L</b>	30	0,5	-	-	0,5	± 1	0,5	<b>B</b>	-	-	963-128	
<b>FKT 60K1L</b>	60	1	-	-	1	± 2	1	<b>B</b>	-	-	963-129	
High-resolution display												
<b>FKT 6K0.02</b>	6	0,02	-	-	0,04	± 0,1	0,02	<b>A</b>	-	-	963-128	
<b>FKT 6K0.02L</b>	6	0,02	-	-	0,04	± 0,1	0,02	<b>B</b>	-	-	963-128	
<b>FKT 6K0.05</b>	6	0,05	-	-	0,1	± 0,15	0,05	<b>A</b>	-	-	963-128	
<b>FKT 12K0.05</b>	12	0,05	-	-	0,05	± 0,15	0,05	<b>A</b>	-	-	963-128	
<b>FKT 16K0.05L</b>	16	0,05	-	-	0,1	± 0,25	0,05	<b>B</b>	-	-	963-128	
<b>FKT 12K0.1</b>	12	0,1	-	-	0,1	± 0,3	0,1	<b>A</b>	-	-	963-128	
<b>FKT 16K0.1L</b>	16	0,1	-	-	0,1	± 0,3	0,1	<b>B</b>	-	-	963-128	
<b>FKT 24K0.1</b>	24	0,1	-	-	0,1	± 0,3	0,1	<b>A</b>	-	-	963-128	
<b>FKT 36K0.1L</b>	36	0,1	-	-	0,2	± 0,5	0,1	<b>B</b>	-	-	963-128	
<b>FKT 24K0.2</b>	24	0,2	-	-	0,2	± 0,6	0,2	<b>A</b>	-	-	963-128	
<b>FKT 36K0.2L</b>	36	0,2	-	-	0,2	± 0,6	0,2	<b>B</b>	-	-	963-128	
<b>FKT 65K0.2L</b>	65	0,2	-	-	0,4	± 1	0,2	<b>B</b>	-	-	963-129	
<b>FKT 65K0.5L</b>	65	0,5	-	-	0,5	± 1,5	0,5	<b>B</b>	-	-	963-129	
<b>Dual-range balance (D = Dual):</b> switches automatically to the next largest weighing range [Max] and readout [d]. Verification at the factory, we need to know the full address of the location of use.												
<b>FKT 6K1LM</b>	6	1	1	20	0,5	± 0,5	1	<b>B</b>	950-128		963-128	
<b>FKT 12K2LM</b>	12	2	2	40	1	± 1	1	<b>B</b>	950-128		963-128	
<b>FKT 30K5LM</b>	30	5	5	100	2,5	± 2,5	5	<b>B</b>	950-128		963-128	
<b>FKT 60K10LM</b>	60	10	10	200	5	± 5	10	<b>B</b>	950-129		963-129	

# 6 Stainless steel / IP65...68 Protection

KERN Model	Page
WTB-N	Ideal in the food industry, protected by IP65, easy to clean 68
FOB FOB-S	Compact stainless steel scale, also with EC type approval [M] 69
FFN-N	Robust, space-saving bench scale, protected by stainless steel and IP65 protection 70
SFE	Platform scale with dust and spray protection IP65 and EC type approval [M] 71
SFB-H	Stainless steel platform scale with dust and spray protection IP65 and EC type approval [M] 72
SFB	Stainless steel platform scale with IP65, XL platform and EC type approval [M] 73
BFN	Stainless steel floor scale in XL size with IP68 platform 106



## KERN balances - not scared of water at all!

Balances used in industrial situations are often subject to extreme stresses and strains. Water, oils, fats, varnish, dust, dirt, flour, small parts, etc. are all natural enemies of a balance. In industries such as the chemical, pharmaceutical, food, manufacturing industries, etc. balances must be able to cope with these stresses without this affecting their performance.

For use in such harsh environmental conditions, levels of protection are defined, which specify which environmental stresses a system can be exposed to in regards to the level of contact, foreign body and moisture protection, without causing damage to the unit. These levels of protection are described in the following standard: „DIN EN 60529: types of protection, housing“. The IP code usually consists of a two-digit combination, which gives the relevant level of protection, e.g. IP68. The first digit specifies the protection level for contact and protection against foreign bodies (protection against dust), the second digit is for the water and moisture protection (protection against splashes of water).

KERN stainless steel balances and balances with special IP protection will impress you with their sophisticated design coupled with high-quality material, robust construction and perfect finish. They have been specially

developed for use in hygienically sensitive applications, amongst other applications. Cleaning is easy and hygienic because of the smooth upper surfaces and the materials used.

The weighing ranges for the models available with the special level of protection range from 0.5 kg – 1.5 t and thereby cover the majority of industrial applications, such as for example, portioning of food, weighing ingredients, filling cans, bottles, ... in the food sector, weighing and checking of oily or greasy parts in production or weighing and mixing of paints, lacquers and solvents in decorating companies and paint shops.



**Your KERN product specialist will be happy to help:**

**Danielle Bergfeld**  
Product specialist stainless steel scales

## Extract from the standard: „DIN EN 60529: types of protection, housing“:

KERN-Pictogram	1. Number	Specification	2. Number	Specification
	6	Dustproof	5	Designed for temporary contact with liquids. Use a damp cloth for cleaning.
	6	Dustproof	7	Designed for temporary use in wet areas. Temporary submersion is possible.
	6	Dustproof	8	Designed for continuous use in wet areas. Submersion is possible.



# IP protected bench scale KERN WTB-N



06

Ideal in the food industry, protected by IP65, easy to clean

### Features

- **Suitable for the ever-increasing hygienic requirements in the food industry**
- **IP65:** Protected against dust and water splashes (only when using rechargeable battery pack)
- **1 Second display** on the rear of the balance
- **Carrying grips on the underside** of the scale for easy transportation
- **Innovative weighing with tolerance range** (Checkweighing): The colour of the display changes depending on the weight (too light/ok/too heavy) and is aid to help with portion division, dosing and grading
- **High mobility** thanks to its rechargeable batteries (optional) and low weight
- **Compact size**, practical for small spaces

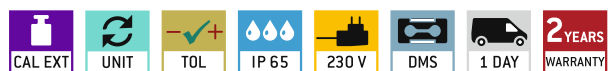
### Technical data

- Large backlit LCDdisplay, digit height 25 mm
- Dimensions of weighing plate WxD 260x200 mm
- Overall dimensions WxDxH 286x316x126.5 mm
- Net weight approx. 3,2 kg
- Permissible ambient temperature -10 °C / 40 °C

### Accessories

- **Rechargeable battery pack internal**, operating time up to 50 h without backlight, charging time approx. 12 h, charge condition indicator on display, can be reordered, KERN WTB-A01N
- **2 Tare pan made from stainless steel**, ideal for weighing loose fruit and vegetables, WxDxH 370x240x20 mm, KERN RFS-A02

#### STANDARD

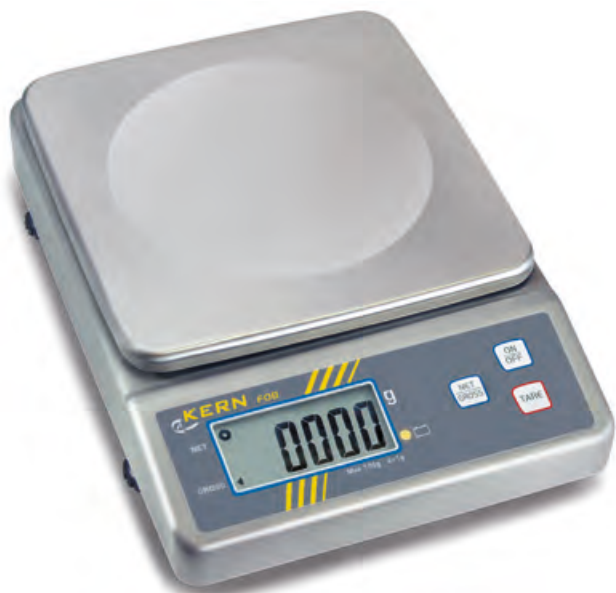


#### OPTION



Model	Weighing range [Max] g	Read-out [d] mg	Reproducibility g	Linearity g	Option	
					DKD Calibr. Certificate	DKD KERN
<b>KERN</b>						
WTB 1K-4N	1,5	0,2	0,2	± 0,4	963-127	
WTB 3K-4N	3	0,5	0,5	± 1	963-127	
WTB 6K-3N	6	1	1	± 2	963-128	
WTB 10K-3N	15	2	2	± 4	963-128	
WTB 30K-3N	30	5	5	± 10	963-128	

# Stainless steel bench scales KERN FOB · FOB-S



## KERN FOB

## KERN FOB-S

### Compact stainless steel scale, also with EC type approval [M]

#### Features

- **Stainless steel design** of the housing and weighing plate. Its smooth surfaces make it simple to clean
- only FOB, -L, -M: **Increased protection against humidity** by means of waterproof silicone sealing of the load cell, electronics and soldering joints
- **High mobility:** thanks to compact, flat construction, it is suitable for use in several locations (kitchen, sales office, market stall, ...)
- only FOB, -L: **Net/Gross weight:** to control the consumed weighing range at the touch of a key
- only FOB-S: Ready for use: batteries (9 V Block) standard, operating time approx. 20 h. AUTO-OFF function to preserve the batteries, can be switched off

#### Technical data

- Large backlit LCDdisplay, digit height 25 mm
- Dimensions of weighing plate, stainless steel WxD
  - A** 120x150 mm, **B** 175x160 mm
  - C** 215x215 mm, see larger picture left
- Overall dimensions WxDxH
  - A** 170x150x40 mm, **B** 175x235x60 mm
  - C** 220x305x80 mm
- Net weight
  - A** approx. 0,65 kg, **B** approx. 1,95 kg, **C** approx. 3,3 kg
- Permissible ambient temperature
  - A** 10 °C / 40 °C; **B, C** -10 °C / 40 °C

#### Accessories

for FOB, -L, -M:

- **Protective working cover** over keyboard and housing, standard (not for FOB-S), can be reordered, for models with weighing plate sizes
  - B** KERN FOB-A05
  - C** KERN FOB-A06
- **Rechargeable battery pack internal,** charge condition indicator using three-colour LED, for weighing plate size
  - B** operating time approx. 24 h, charging time approx. 8 h, KERN FOB-A07
  - C** operating time approx. 30 h, charging time approx. 14 h, KERN FOB-A08

for FOB-S:

- **Mains adapter external** not included, can be reordered, KERN FOB-A09

#### STANDARD

CAL EXT  
 INOX  
 BATT  
 230 V  
 DMS  
 1 DAY  
 2 YEARS WARRANTY

only FOB-S      not FOB-S

#### OPTION

ACCU  
 DKD +3 DAYS

not FOB-S

#### FACTORY

M +3 DAYS

only FOB-M

Model	Weighing range [Max] g	Read-out [d] mg	Verific. value [e] mg	Minimum load [Min] mg	Weighing plate	Options			
						Verification		DKD Calibr. Certificate	
						M III	KERN	DKD	KERN
FOB 500-1S	0,5	0,1	-	-	A	-	-	963-127	
FOB 1.5K0.5	1,5	0,5	-	-	B	-	-	963-127	
FOB 7.5K0.5L	7,5	0,5	-	-	C	-	-	963-128	
FOB 3K1	3	1	-	-	B	-	-	963-127	
FOB 5K1S	5	1	-	-	A	-	-	963-127	
FOB 15K1L	15	1	-	-	C	-	-	963-128	
FOB 6K2	6	2	-	-	B	-	-	963-128	
FOB 30K2L	30	2	-	-	C	-	-	963-128	
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.									
FOB 1K1M	1	1	1	20	B	965-227		963-127	
FOB 2K2M	2	2	2	40	B	965-227		963-127	
FOB 6K2LM	6	2	2	40	C	965-228		963-128	
FOB 5K5M	5	5	5	100	B	965-227		963-127	
FOB 15K5LM	15	5	5	100	C	965-228		963-128	
FOB 30K10LM	30	10	10	200	C	965-228		963-128	

New model

# IP protected bench scale KERN FFN-N



Robust, space-saving bench scale, protected by stainless steel and IP65, also with EC type approval [M]

### Features

- **1 Ideal for the food industry**
- **2 Ideal for the robust industry**
- **High mobility:** thanks to battery operation, compact construction and low weight, it is suitable for use in several locations (production, warehouse, dispatch department, ...)
- **Stainless steel housing,** rust-proof and easy to clean
- **Level indicator and foot screws** to level the balance precisely, fitted as standard, to give the most accurate weighing results
- **Carrying grips on the underside** of the scale for easy transportation

- **3 IP65:** Protected against dust and water splashes (only when using rechargeable battery pack)

### Technical data

- Large LCD display, digit height 25 mm
- Dimensions of weighing plate (stainless steel) WxD 230x190 mm
- Overall dimensions 230x300x130 mm
- Rechargeable battery pack internal, standard, operating time up to 50 h, charging time approx. 12 h
- Net weight approx. 3,2 kg
- Permissible ambient temperature 0 °C / 40 °C

### Accessories

- **Tare pan made from stainless steel,** ideal for weighing loose small parts, fruit, vegetables etc., WxDxH 370x240x20 mm, KERN RFS-A02

#### STANDARD



#### OPTION



#### FACTORY



Model	Weighing range [Max] g	Read-out [d] mg	Verific. value [e] mg	Minimum load [Min] mg	Options			
					Verification		DKD Calibr. Certificate	
					M	KERN	DKD	KERN
FFN 3K0.5IPN	3	0,5	-	-	-	-	963-127	
FFN 6K1IPN	6	1	-	-	-	-	963-128	
FFN 15K2IPN	15	2	-	-	-	-	963-128	
FFN 25K5IPN	25	5	-	-	-	-	963-128	

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.

FFN 3K1IPM	3	1	1	20	965-227		963-127	
FFN 6K2IPM	6	2	2	40	965-228		963-128	
FFN 15K5IPM	15	5	5	100	965-228		963-128	
FFN 25K10IPM	25	10	10	200	965-228		963-128	

# IP protected platform scale KERN SFE



## Platform balance with dust and spray protection IP65 and with EC type approval [M]

### Features

- Robust stainless steel display device, ideal for industrial applications, for easy and hygienic cleaning
- **Load cells aluminium, silicone-coated.**  
**IP65:** Protected against dust and water splashes
- **Stainless steel-weighing plate,** painted steel base
- **Display device KERN KFE-TM,** details see page 113
- **Flexible positioning of display device:** eg. free-standing or mounted to the wall
- **Weighing with tolerance range (check-weighing):** Input of an upper/lower limit value. A visual and audible signal assists with portion division, dispensing or grading

- **Vibration-free weighing:** at the push of a button, a stable average weight is given when the environmental conditions are unstable or when weighing animals
- **PRE-TARE function** for manual subtraction of a known container weight, useful for checking fill-levels (only for non-verified models)

### Technical data

- Large backlit LCDdisplay, digit height 22 mm
- Dimensions of weighing plate WxDxH  
**A** 300x240x100 mm  
**B** 400x300x128 mm
- Dimensions of display device WxDxH 195x118x83 mm
- Cable length of display device approx. 1,5 m

- Rechargeable battery pack internal, standard, operating time approx. 35 h without backlight, charging time approx. 12 h. Charge condition indicator on display
- Permissible ambient temperature -10 °C / 40 °C

### Accessories

- **Tare pan made from stainless steel,** ideal for weighing loose screws, small parts etc., WxDxH 370x240x20 mm, KERN RFS-A02
- **Stand** to elevate display device, height of stand approx. 200 mm, KERN SFE-A01

### STANDARD



### OPTION



### FACTORY



Model	Weighing range [Max] g	Read-out [d] mg	Verific. value [e] mg	Minimum load [Min] mg	Net weight approx. kg	Weighing plate	Options			
							Verification		DKD Calibr. Certificate	
							M III	KERN	DKD	KERN
SFE 15K5IPM	15	5	5	100	6,5	A	965-228		963-128	
SFE 30K10IPM	30	10	10	200	6,5	A	965-228		963-128	
SFE 60K20IPM	60	20	20	400	8	B	965-229		963-129	

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.

# Stainless steel platform scale KERN SFB-H



## Stainless steel platform balance with dust and spray protection to IP65 and EC type approval [M]

### Features

- **1 Ideal for the robust industry**
- **2** Scale entirely out of stainless steel
- **Load cell stainless steel**, silicone-coated.  
Note: Silicone is not suitable for contact with aggressive substances such as acids etc. or for continuous use in wet areas.
- **Stand** to elevate display device, standard, for models with weighing plate sizes  
**A** height of stand approx. 200 mm  
**B** height of stand approx. 400 mm

- **Level indicator and foot screws** to level the balance precisely, fitted as standard, to give the most accurate weighing results

### Technical data

- Large backlit LCD display, digit height 52 mm
- Dimensions of weighing plate (stainless steel) WxDxH  
**A** 300x240 mm  
**B** 400x300 mm, see larger picture
- Dimensions of display device WxDxH 266x165x96 mm

- Cable length of display device approx. 2 m
- Rechargeable battery pack internal, standard, operating time approx. 80 h, charging time approx. 12 h
- Permissible ambient temperature -10 °C / 40 °C

### Accessories

- **Data interface RS-232**, interface cable included, approx. 1.5 m, must be ordered at purchase, KERN KFN-A01
- **Suitable printers** see page 130

### STANDARD

CAL EXT  
 GLP  
 TOL  
 IP 65  
 INOX  
 ACCU  
 230 V  
 DMS  
 1 DAY  
 3 YEARS WARRANTY  
only with printer

### OPTION

DKD  
 +3 DAYS

### FACTORY

RS 232  
 M  
 +3 DAYS  
only SFB-HM

Model	Weighing range [Max] g	Read-out [d] mg	Verific. value [e] mg	Minimum load [Min] mg	Net weight approx. kg	Weighing plate	Options			
							Verification		DKD Calibr. Certificate	
							M III KERN		DKD KERN	
SFB 10K1HIP	10	1	-	-	9	A	-	-	963-128	
SFB 20K2HIP	20	2	-	-	9	A	-	-	963-128	
SFB 50K5HIP	50	5	-	-	9	A	-	-	963-128	
SFB 50K5LHIP	50	5	-	-	14	B	-	-	963-128	
SFB 100K10HIP	100	10	-	-	14	B	-	-	963-129	
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.										
SFB 15K5HIPM	15	5	5	100	9	A	965-228		963-128	
SFB 30K10HIPM	30	10	10	200	9	A	965-228		963-128	
SFB 60K20HIPM	60	20	20	400	9	A	965-229		963-129	
SFB 60K20LHIPM	60	20	20	400	14	B	965-229		963-129	
SFB 120K50HIPM	120	50	50	1000	14	B	965-229		963-129	



# Stainless steel platform scale KERN SFB



06

## Stainless steel platform balance with IP65, XL platform and EC type approval [M]

### Features

- **Ideal for the robust industry. Industrial quality:** robust version, easy to clean. Suitable for the everincreasing hygienic requirements in the food industry
- **Scale** entirely out of stainless steel
- **Load cell stainless steel**, silicone-coated. Note: Silicone is not suitable for contact with aggressive substances such as acids etc. or for continuous use in wet areas.
- **Flexible positioning of display device:** eg. free-standing or mounted to the wall
- Superior display size: digit height 52 mm. Bright backlight for easy reading of weight, even in poor lighting conditions

- **Level indicator and foot screws** to level the balance precisely, fitted as standard, to give the most accurate weighing results

### Technical data

- Large backlit LCDdisplay, digit height 52 mm
- Dimensions of weighing plate (stainless steel) WxDxH
  - A** 500x400 mm, see larger picture
  - B** 650x500 mm
- Dimensions of display device WxDxH 266x165x96 mm
- Cable length of display device approx. 2,5 m

- Rechargeable battery pack internal, standard, operating time approx. 80 h, charging time approx. 12 h
- Permissible ambient temperature 0 °C / 40 °C

### Accessories

- **Data interface RS-232**, interface cable included, approx. 1.5 m, must be ordered at purchase, KERN KFN-A01
- **Stand** to elevate display device, height of stand approx. 600 mm, KERN SFB-A01
- **Suitable printers** see page 130

### STANDARD

only with printer

### OPTION

### FACTORY

only SFB-M

Model	Weighing range [Max] g	Read-out [d] mg	Verific. value [e] mg	Minimum load [Min] mg	Net weight approx. kg	Weighing plate	Options			
							Verification		DKD Calibr. Certificate	
							M III KERN		DKD KERN	
SFB 50K-3XL	50	5	-	-	15	A	-	-	963-128	
SFB 100K-2L	100	10	-	-	15	A	-	-	963-129	
SFB 100K-2XL	100	10	-	-	24,5	B	-	-	963-129	
SFB 200K-2XL	200	20	-	-	24,5	B	-	-	963-129	
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.										
SFB 60K-2XLM	60	20	20	400	15	A	965-229		963-129	
SFB 100K-2LM	150	50	50	1000	15	A	965-229		963-129	
SFB 100K-2XLM	150	50	50	1000	24,5	B	965-229		963-129	
SFB 300K-1LM	300	100	100	2000	24,5	B	965-229		963-129	

# 7 Price computing scales

KERN Model	Page
<b>RXB</b> Entry level model for your retail business, with EC type approval [M]	75
<b>RFB</b> Compact entry level retail scale with dust and spray protection IP65 and EC type approval [M]	76
<b>RPB</b> Retail scale with EC type approval [M] and memories for article prices	77
<b>RFS</b> Retail scale with integrated receipt printer, with EC type approval [M]	78



Price computing scales are used anywhere where the price of goods is calculated dependent on the weight of the goods. These scales must be → **verified** in accordance with European Directive 2009/23/EEC. Usually, these scales are in verification class **M III**.

KERN mobile retail scales are compact in size and therefore save space on the sales counter. Thanks to the simple menu structure they are easy to use – saving time and money.

Fitted with mains, battery or rechargeable batteries as standard, price computing scales can be used in retail shops as well as on mobile sales stalls. All price computing scales from KERN have three displays giving you all the important information at a glance:

- Weight displayed in kg (verifiable)
- Unit price in €/kg or €/100 g
- Total price in €

KERN entry level retail scales have direct access keys (PLU). The sales item with the relevant price can be stored against this PLU. In this way, frequently used sales items can be recalled as quick as a flash. This speeds up customer service and reduces waiting times.

→ See the glossary on page 158/159



**Your KERN product specialist will be happy to help:**

**Danielle Bergfeld**  
Product specialist  
Price computing scales

## Quick-Finder

■ = Standard □ = Option

Read-out	Weighing range	Model	Page	DAYS ready for shipping		MEMORY	RS 232	IP	ACCU
1 g	3 kg	RXB 3K1M	75	1	■				■
1 g	3 kg	RXB 3K1HM	75	1	■			■	■
1 g	3 kg	RFB 3K1IPM	76	1	■				■
1/2 g	3/6 kg	RPB 6K1DM	77	1	■	■			□
1/2 g	3/6 kg	RPB 6K1DHM	77	1	■	■			□
2 g	6 kg	RXB 6K2M	75	1	■				■
2 g	6 kg	RXB 6K2HM	75	1	■			■	■
2 g	6 kg	RFB 6K2IPM	76	1	■				■
2 g	6 kg	RFS 6K2HM	78	1	■	■	■		■
2/5 g	6/15 kg	RPB 15K2DM	77	1	■	■			□
2/5 g	6/15 kg	RPB 15K2DHM	77	1	■	■			□
5 g	15 kg	RXB 15K5M	75	1	■				■
5 g	15 kg	RXB 15K5HM	75	1	■			■	■
5 g	15 kg	RFB 15K5IPM	76	1	■				■
5 g	15 kg	RFS 15K5HM	78	1	■	■	■		■
5/10 g	15/30 kg	RPB 30K5DM	77	1	■	■			□
5/10 g	15/30 kg	RPB 30K5DHM	77	1	■	■			□
10 g	30 kg	RXB 30K10M	75	1	■				■
10 g	30 kg	RXB 30K10HM	75	1	■				■
10 g	30 kg	RFS 30K10HM	78	1	■	■	■		■

# Price computing scale KERN RXB



### Application examples:

- retail shops
- market places
- farm shops
- pick your own fruit and vegetable sales

**Note:** In commercial trade, official verification duties exist

## Entry level model for your retail business, with EC type approval [M]

### Features

- **Elevated display** backlit, revolving on column, height of stand approx. 540 mm, only RXB-HM, must be ordered at purchase
- **Second display** on the rear of the balance (only with models without the elevated display)
- **Three displays** for weight (verifiable), unit price, total price
- **Unit price can be switched** from €/kg to €/100 g
- **FIX key:** Unit price can be stored for further weighings of the same article
- **Energy management:** Backlight turns off after 5 sec, can be switched off

- **Soil-resistant construction** with water channels at the edge of the housing and sealing rings over the upper housing inlets

### Technical data

- Large backlit LCD displays, digit height 18 mm
- Dimensions of weighing plate, stainless steel WxD 300x225 mm
- Overall dimensions WxDxH 300x330x110 mm
- Rechargeable battery pack internal, standard, operating time approx. 200 h, charging time approx. 8 h, Charge condition indicator using three-colour LED
- Net weight approx. 4,4 kg

- Permissible ambient temperature -10 °C / 40 °C

### Accessories

- **Protective working cover** over keyboard and housing standard, can be reordered, KERN CXB-A01
- **Tare pan made from stainless steel**, ideal for weighing loose fruit and vegetables, WxDxH 370x240x20 mm, KERN RFS-A02

### STANDARD



### OPTION



### FACTORY



Model	Weighing range [Max] kg	Read-out [d] g	Verific. value [e] g	Minimum load [Min] g	Options				
					Verification		DKD Calibr. Certificate		
					M	KERN	DKD	KERN	
RXB 3K1M	3	1	1	20	965-227		963-127		
RXB 6K2M	6	2	2	40	965-228		963-128		
RXB 15K5M	15	5	5	100	965-228		963-128		
RXB 30K10M	30	10	10	200	965-228		963-128		
with elevated display									
RXB 3K1HM	3	1	1	20	965-227		963-127		
RXB 6K2HM	6	2	2	40	965-228		963-128		
RXB 15K5HM	15	5	5	100	965-228		963-128		
RXB 30K10HM	30	10	10	200	965-228		963-128		

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.

# Price computing scale KERN RFB



**Note:** In commercial trade, official verification duties exist

07

## Compact entry level retail scale, with dust and spray protection IP65 and EC type approval [M]

### Features

- **Soil-resistant construction** with water channels at the edge of the housing and sealing rings over the upper housing inlets
- **IP65:** Protected against dust and water splashes (only when using rechargeable battery pack and without RS-232 usage)
- **Second display** on the rear of the balance
- **Three displays** for: weight (verifiable), unit price, total price
- **Unit price can be switched** from €/kg to €/100 g
- **4 direct price keys (PLU)** for frequently recurring article prices
- **High mobility** thanks to its rechargeable batteries and low weight
- **Compact size**, practical for small spaces

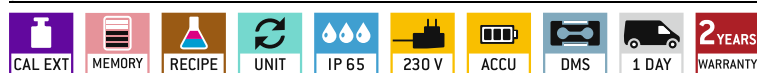
### Technical data

- Large backlit LCD displays, digit height 24 mm
- Dimensions of weighing plate WxD 260x200 mm
- Overall dimensions WxDxH 286x316x126 mm
- Rechargeable battery pack internal, standard, operating time approx. 60 h, charging time approx. 12 h. Charge condition indicator using three-colour LED
- Net weight approx. 4,2 kg
- Permissible ambient temperature -10 °C / 40 °C

### Accessories

- **Tare pan made from stainless steel**, ideal for weighing loose fruit and vegetables, WxDxH 370x240x20 mm, KERN RFS-A02
- **Protective working cover** over keyboard and housing, standard, can be reordered, KERN RFB-A01

### STANDARD



### OPTION



### FACTORY



Model	Weighing range [Max] kg	Read-out [d] g	Verific. value [e] g	Minimum load [Min] g	Reproducibility g	Options			
						Verification		DKD Calibr. Certificate	
						M	KERN	DKD	KERN
KERN RFB 3K11PM	3	1	1	20	1	965-227		963-127	
KERN RFB 6K21PM	6	2	2	40	2	965-228		963-128	
KERN RFB 15K51PM	15	5	5	100	5	965-228		963-128	

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.

# Price computing scale KERN RPB



## Retail scale with EC type approval [M] and memory for article prices

### Features

- **1 Elevated display** backlit, revolving on column, height of stand approx. 530 mm, only RPB-HM, must be ordered at purchase
- **2 Second display** on the rear of the balance, standard (only with models without the elevated display)
- **Three displays** for: weight (verifiable), unit price, total price
- **Unit price can be switched** from €/kg to €/100 g
- **Memory (PLU) for 10 article prices**
- **Auto-clear-key:** Unit price entry is automatically set to zero when scale is unloaded

- **3 High mobility** thanks to its rechargeable batteries (optional) and low weight

### Technical data

- Large backlit LCD displays, digit height 20 mm
- Dimensions of weighing plate (stainless steel) WxD 294x225 mm
- Overall dimensions WxDxH 320x350x125 mm
- Net weight approx. 3,9 kg
- Permissible ambient temperature -10 °C / 40 °C

### Application examples:

- retail shops
- market places
- farm shops
- pick your own fruit and vegetable sales

**Note:** In commercial trade, official verification duties exist

07

### Accessories

- **Protective working cover** standard, can be reordered, KERN CFS-A02
- **Rechargeable battery pack internal**, operating time approx. 80 h without back-light, charging time approx. 14 h (internal charging with mains adapter). AUTO-OFF function to preserve the battery, can be switched off. Charge condition indicator using three-colour LED, KERN GAB-A04
- **Tare pan made from stainless steel**, ideal for weighing loose fruit and vegetables, WxDxH 370x240x20 mm, KERN RFS-A02

### STANDARD



### OPTION



### FACTORY



Model	Weighing range [Max] kg	Read-out [d] g	Verific. value [e] g	Minimum load [Min] g	Reproducibility g	Linearity g	Options		
							Verification		DKD Calibr. Certificate
							MIII KERN		DKD KERN
<b>Dual-range balance (D=Dual):</b> switches automatically to the next largest weighing range [Max] and readout [d]									
RPB 6K1DM	3   6	1   2	1   2	20	1   2	± 1   ± 2		965-228	963-128
RPB 15K2DM	6   15	2   5	2   5	40	2   5	± 2   ± 5		965-228	963-128
RPB 30K5DM	15   30	5   10	5   10	100	5   10	± 5   ± 10		965-228	963-128
with elevated display									
RPB 6K1DHM	3   6	1   2	1   2	20	1   2	± 1   ± 2		965-228	963-128
RPB 15K2DHM	6   15	2   5	2   5	40	2   5	± 2   ± 5		965-228	963-128
RPB 30K5DHM	15   30	5   10	5   10	100	5   10	± 5   ± 10		965-228	963-128

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.

## Price computing scale KERN RFS



07

### Retail scale with integrated receipt printer, with EC type approval [M]

#### Features

- **Easy to use:** user-friendly processing of PLU, price entry, price change etc. using the alphanumeric keyboard
- **High mobility:** thanks to high battery operating time (up to 50 h, without print function), compact, flat construction and low weight, it is ideally suited for use on weekly markets, for independent market traders etc.
- **Internal printer:** Robust high-speed printer. Fast and easy change of paper rolls thanks to innovative paper compartment construction
- Print out of all weighing data in all languages in the Euro-zone (except GR, CZ)
- **Unit price can be switched** from €/kg to €/100 g
- **Auto-clear-key:** Unit price entry is automatically set to zero when scale is unloaded
- **28 PLU** for frequently recurring article prices, as well as 99 additional memories (PLU)
- **Elevated display** backlit, on column, height approx. 470 mm
- **Three displays** for weight (verifiable), unit price, total price
- **Note:** This model does not have VAT calculation and -output, daily or weekly totals memory, label printing function, print out of PLU lists, multi-operator function, print out of headers/footers

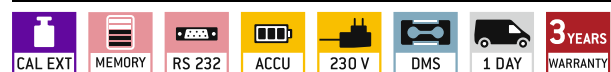
#### Technical data

- Dimensions of weighing plate (stainless steel) WxD 370x240 mm
- Overall dimensions WxDxH 370x410x470 mm
- Net weight approx. 7 kg
- Permissible ambient temperature -10 °C / 40 °C

#### Accessories

- **Thermal receipt rolls** (pack of 10), width 56 mm, Ø 51 mm, KERN RFS-A10
- **Tare pan made from stainless steel**, ideal for weighing loose fruit and vegetables, WxDxH 370x240x20 mm, KERN RFS-A02

#### STANDARD



#### OPTION



#### FACTORY



Model	Weighing range [Max] kg	Read-out [d] g	Verific. value [e] g	Minimum load [Min] g	Reproducibility g	Linearity g	Option Verification	
							M III	KERN
KERN RFS 6K2HM	6	2	2	40	2	± 2	965-228	
RFS 15K5HM	15	5	5	100	5	± 5	965-228	
RFS 30K10HM	30	10	10	200	10	± 10	965-228	

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.

# 8 Counting scales / Counting systems

KERN Model	Page
CXB	Entry level model in professional counting, also with EC type approval [M], counting resolution of 30,000 points 81
CPB	The economical model, also with EC type approval [M], counting resolution of 60,000 points 82
CFS	Professional counting scale with 100 item memories and second balance interface, counting resolution up to 75,000 points 83
CKE	Easy to use, self-explanatory counting balance with laboratory accuracy, counting resolution up to 361,000 points 84
IFS-N	Industrial counting scale with convenient keypad for easy data entry, counting resolution up to 60,000 points 85
CDS	Easy to use industrial counting scale for heavy loads, counting resolution up to 300,000 points 86
CCS	Counting the smallest parts in the largest quantities, counting resolution up to 6 Mio. points 87



## Counting, doing it right!

In order to be able to count correctly, you must take a few parameters into account when you first start to consider selecting a counting scale.

### Smallest part weight „PW min“

This is the smallest piece weight the scale will accept for piece counting and displaying piece count. In practice, however, depending on the required accuracy, using higher numbers of parts is recommended for the smallest counted parts, see „Smallest reference weight“.

### → Counting resolution

Describes the maximum quantity which can be counted with a counting accuracy of 1%, with the minimum variation of item weights and a sufficiently large reference quantity (20 pieces with counting resolution  $\leq 60,000$  points, 50 pieces from 60,000 - 150,000 points, 100 pieces  $\geq 150,000$  points). This is therefore a measure of the quality of the counting scale.

### Recommended → reference quantity

The weight tolerances of the pieces to be counted are the largest sources of error when counting. Therefore, at the start of every counting procedure, establish an average weight, the so-called reference weight, by placing several pieces on the scale, the so-called reference quantity.

Usually this would be:

- 5 pieces >> often sufficient
- 10 pieces >> common practise
- 20+ pieces >> with large range of piece weights

The „automatic reference optimisation“ function increases the reference quantity in levels, whereby the average piece weight is optimised step by step. This contributes considerably to the accuracy of the subsequent counting processes.

### Smallest → reference weight

Without automatic reference optimisation:

- 5 x PW min >> for low level requirements
- 10 x PW min >> common practise
- 20+ x PW min >> recommended value with large range of piece weights

With automatic reference optimisation:  
2 x PW min >> generally sufficient

## Which counting scale for which application?

### Simple counting scale

with self-explanatory user guidance on the keyboard. The graphics control panel enables you to start working immediately, without having to study the user manual. Easy handling, value for money.

### Professional counting scale

with 3 separate displays for reference weight (average weight of the pieces), total weight of all pieces and total piece count of all pieces. Integrated memories are very useful, e.g. for container weight, item number, reference weight as well as audible and visual counting assistance and an alphanumeric key pad for easy data entry.

### A special tip for counting large quantities: Counting systems

The weighing ranges of bench counting scales are often not sufficient to count large quantities, units, items on pallets, etc. This is where high-performance counting systems come into their own, as these combine a high-precision reference balance with a high-capacity bulk scale.

→ See the glossary on page 158/159













Your KERN product specialist will be happy to help:

Tanja Jetter  
Product specialist counting scales

## Quick-Finder

■ = Standard □ = Option

Read-out	Weighing range	Model		Page	 DAYS ready for shipping	 M	 CAL EXT	 MEMORY	 RS 232	 DUAL	 PCS	 TOL	 ACCU	 BATT
d	Max	KERN				For an explanation of the symbols, see the flap of the envelope								
0,01 g	2 kg	CKE 2000-2		84	1		■		■		■		□	
00,1 g	3 kg	CFS 3K-5		83	1		■	■	■	■	■	■	□	
0,01 g	3,6 kg	CKE 3600-2		84	1		■		■		■		□	
0,02 g	6 kg	CKE 6K0.02		84	1		■		■		■		□	■
0,05 g	8 kg	CKE 8K0.05		84	1		■		■		■		□	■
0,05 g	8 kg	CDS 8K0.05		86	1		■		■		■		□	
0,05 g	15 kg	CDS 15K0.05		86	1		■		■		■		□	
0,05 g	16 kg	CKE 16K0.05		84	1		■		■		■		□	■
0,1 g	6 kg	CPB 6K0.1N		82	1		■		■		■	■	□	
0,1 g	6 kg	CFS 6K0.1		83	1		■	■	■	■	■	■	□	
0,1 g	16 kg	CKE 16K0.1		84	1		■		■		■		□	■
0,1 g	16 kg	CDS 16K0.1		86	1		■		■		■		□	
0,1 g	30 kg	CDS 30K0.1		86	1		■		■		■		□	
0,1 g	30 kg	CDS 30K0.1L		86	1		■		■		■		□	
0,1 g	30 kg	CCS 30K0.1		87	2 *		■	■	■	■	■	■	□	
0,1 g	36 kg	CKE 36K0.1		84	1		■		■		■		□	■
0,1 g	60 kg	CCS 60K0.1		87	2 *		■	■	■	■	■	■	□	
0,1 g	60 kg	CCS 60K0.1L		87	2 *		■	■	■	■	■	■	□	
0,1 g	150 kg	CCS 150K0.1		87	2 *		■	■	■	■	■	■	□	
0,1 g	150 kg	CCS 150K0.1L		87	2 *		■	■	■	■	■	■	□	
0,1 g	300 kg	CCS 300K0.1		87	2 *		■	■	■	■	■	■	□	
0,2 g	3 kg	CXB 3K0.2		81	1		■				■		■	
0,2 g	15 kg	CPB 15K0.2N		82	1		■		■		■	■	□	
0,2 g	15 kg	CFS 15K0.2		83	1		■	■	■	■	■	■	□	
0,2 g	36 kg	CDS 36K0.2L		86	1		■		■		■		□	
0,2 g	60 kg	CDS 60K0.2		86	1		■		■		■		□	
0,2 g	65 kg	CKE 65K0.2		84	1		■		■		■		□	■
0,5 g	6 kg	CXB 6K0.5		81	1		■				■		■	
0,5 g	30 kg	CPB 30K0.5N		82	1		■		■		■	■	□	
0,5 g	30 kg	CFS 30K0.5		83	1		■	■	■	■	■	■	□	
0,5 g	65 kg	CKE 65K0.5		84	1		■		■		■		□	■
0,5 g	100 kg	CDS 100K0.5		86	1		■		■		■		□	
1 g	3 kg	CXB 3K1M		81	1	■	■		■		■		■	
1 g	15 kg	CXB 15K1		81	1		■				■		■	
1 g	50 kg	CFS 50K-3		83	1		■	■	■	■	■	■	□	
1/2 g	3/6 kg	CPB 6K1DM		82	1	■	■		■		■	■	□	
2 g	6 kg	CXB 6K2M		81	1	■	■				■		■	
2 g	30 kg	CXB 30K2		81	1		■				■		■	
2/5 g	6/15 kg	CPB 15K2DM		82	1	■	■		■		■	■	□	
5 g	15 kg	CXB 15K5M		81	1	■	■				■		■	
5/10 g	15/30 kg	CPB 30K5DM		82	1	■	■		■		■	■	□	
10 g	30 kg	CXB 30K10M		81	1	■	■				■		■	



# Counting scale KERN CXB



Entry level model in professional counting, also with EC type approval [M], counting resolution of 30,000 points

## Features

- **Precise counting:** The automatic optimisation of reference weight gradually improves the average value of the piece weight
- **Programmable using numerical key pad:**
  - known reference weight
  - required reference quantity
- **Three displays** for
  - Weight (verifiable)
  - Reference weight
  - Total weight
- **Audible Fill-to-target:** target quantity or target weight can be programmed. When the target value is reached, a signal will sound

- **Counting results memory:** adds up all individual counting operations, result is shown in total weight and total pieces
- **Energy management:** Backlight turns off after 5 sec
- **Soil-resistant construction** with water channels at the edge of the housing and sealing rings over the upper housing inlets
- **PRE-TARE function** for manual subtraction of a known container weight, which can be saved

## Technical data

- Large backlit LCD displays, digit height 18 mm
- Dimensions of weighing plate (stainless steel) WxD 300x225 mm
- Dimensions housing WxDxH 300x330x110 mm
- Rechargeable battery pack internal, standard, operating time approx. 200 h without backlight, charging time approx. 8 h, charge condition indicator on display
- Net weight approx. 4 kg
- Permissible ambient temperature -10 °C / 40 °C

## Accessories

- **Protective working cover** over keyboard and housing, standard, can be reordered, KERN CXB-A01

### STANDARD



### OPTION



### FACTORY



Model	Weighing range [Max] kg	Read-out [d] g	Verific. value [e] g	Minimum load [Min] g	Min. piece weight [PW min] g/piece	Counting resolution Points	Options		
							Verification		DKD Calibr. Certificate
							MIII KERN		DKD KERN
KERN									
CXB 3K0.2	3	0,2	-	-	0,1	30.000	-	-	963-127
CXB 6K0.5	6	0,5	-	-	0,2	30.000	-	-	963-128
CXB 15K1	15	1	-	-	0,5	30.000	-	-	963-128
CXB 30K2	30	2	-	-	1	30.000	-	-	963-128
Note: For applications that require verification, please order verification at the same time, initial verification at a later date is not possible. Verification at the factory, we need to know the full address of the location of use.									
CXB 3K1M	3	1	1	20	0,1	30.000	965-227		963-127
CXB 6K2M	6	2	2	40	0,2	30.000	965-228		963-128
CXB 15K5M	15	5	5	100	0,5	30.000	965-228		963-128
CXB 30K10M	30	10	10	200	1	30.000	965-228		963-128

# Counting scale KERN CPB



The economical model, also with EC type approval [M], counting resolution up to 60,000 points

## Features

- **Precise counting:** The automatic optimisation of reference weight gradually improves the average value of the piece weight
- **Programmable using numerical key pad:**
  - required reference quantity
  - known reference weight
- **Target piece input** check-weighing with an audible signal
- **Counting results memory:** adds up all individual counting operations, result is shown in total weight and total pieces
- **Audible Fill-to-target:** target quantity or target weight can be programmed. When the target value is reached, a signal will sound

- **High mobility:** thanks to battery operation (optional), compact, flat construction and low weight, it is suitable for use in several locations (production, warehouse, dispatch department,...)

## Technical data

- Large backlit LCD displays, digit height 20 mm
- Dimensions of weighing plate (stainless steel) WxDxH 294x225 mm
- Overall dimensions WxDxH 320x350x125 mm
- Net weight approx. 3,9 kg
- Permissible ambient temperature 0 °C / 40 °C

## Accessories

- **Protective working cover,** KERN CFS-A02
- **Rechargeable battery pack internal,** operating time up to 90 h without backlight, charging time approx. 14 h, can be reordered, KERN GAB-A04
- **Signal lamp** for visual support of weighing with tolerance range, KERN CFS-A03
- **2nd data interface,** Y cable for parallel connection of two terminal devices to the RS 232 interface of the balance, e.g. of a printer, signal lamp etc. KERN CFS-A04
- **Suitable printers** see page 130

### STANDARD



### OPTION



### FACTORY



only CPB-DM

Model	Weighing range [Max] kg	Read-out [d] g	Verific. value [e] g	Minimum load [Min] g	Min. piece weight [PW min] g/piece	Options				
						Verification		DKD Calibr. Certificate		
						M	KERN	DKD	KERN	
KERN										
CPB 6K0.1N	6	0,1	-	-	0,1	-	-	963-128		
CPB 15K0.2N	15	0,2	-	-	0,25	-	-	963-128		
CPB 30K0.5N	30	0,5	-	-	0,5	-	-	963-128		
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.										
Dual-range balance (D=Dual): switches from readout d1 to readout d2 automatically										
CPB 6K1DM	3   6	1   2	1   2	20	0,1		965-228		963-128	
CPB 15K2DM	6   15	2   5	2   5	40	0,25		965-228		963-128	
CPB 30K5DM	15   30	5   10	5   10	100	0,5		965-228		963-128	

# Counting scale KERN CFS



## Professional counting scale with 100 item memories and optional second balance interface, counting resolution up to 75,000 points

### Features

- **Memory (PLU) for 100 items** with additional text, reference weight and tare weight, e.g. of a container
- **Weighing with tolerance range** (checkweighing), ideal for portion division, dispensing, grading, only in weighing and counting mode
- **Programmable using numerical key pad:**
  - required reference quantity
  - known reference weight
- **Fill-to-target function:** Programmable target quantity or target weight. An acoustic and visual signal will be displayed when the target value is reached
- **Precise counting:** The automatic optimisation of reference weight gradually improves the average value of the piece weight

- **Interface for second balance** to construct a high-resolution counting system, e.g. with weighing bridges KFP V20 (see page 114)

### Technical data

- Large backlit LCD displays, digit height 20 mm
- Dimensions of weighing plate WxD
  - A** 294x225 mm
  - B** 240x370 mm
- Dimensions housing WxDxH
  - A** 320x350x125 mm
  - B** 370x360x125 mm
- Net weight approx. 3,8 kg
- Permissible ambient temperature 0 °C / 40 °C

### Accessories

- **Signal lamp** for visual support of weighing with tolerance range, WxDxH 100x180x300 mm, KERN CFS-A03
- **2nd data interface**, Y cable for parallel connection of two terminal devices to the RS 232 interface of the balance, e.g. of a printer, signal lamp etc. KERN CFS-A04
- **Rechargeable battery pack internal**, operating time up to 70 h without backlight, charging time approx. 14 h, can be reordered, only for models with weighing plate sizes **A**, KERN GAB-A04
- **Protective working cover** over keyboard and housing standard, can be reordered, only for models with weighing plate sizes **A**, KERN CFS-A02
- **Suitable printers** see page 130

### STANDARD



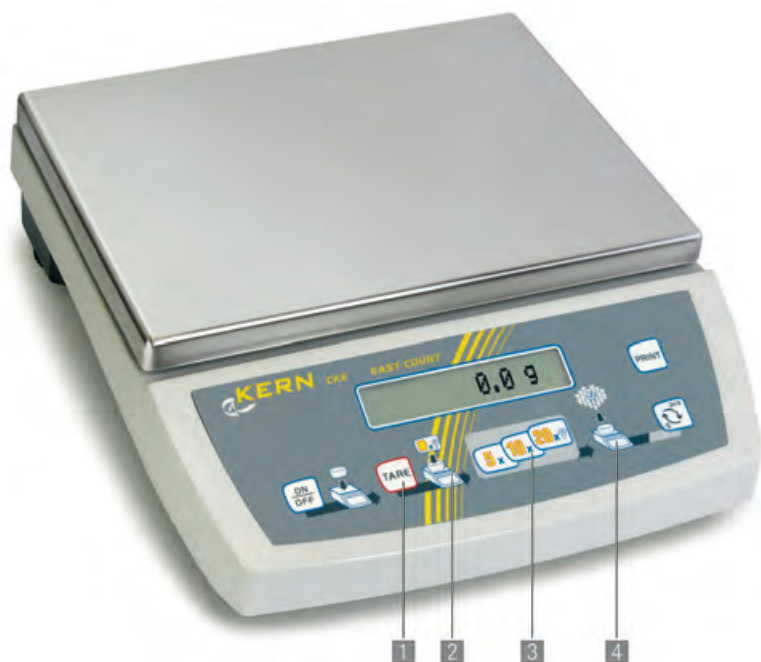
### OPTION



Model	Weighing range [Max] kg	Read-out [d] g	Reproduzierbarkeit g	Linearity g	Min. piece weight [PW min] g/piece	Weighing plate	Option	
							DKD	Kern Certificate
<b>KERN</b>								
<b>CFS 3K-5</b>	3	0,01	0,02	± 0,04	0,05	<b>A</b>		963-127
<b>CFS 6K0.1</b>	6	0,1	0,1	± 0,2	0,1	<b>A</b>		963-128
<b>CFS 15K0.2</b>	15	0,2	0,2	± 0,4	0,2	<b>A</b>		963-128
<b>CFS 30K0.5</b>	30	0,5	0,5	± 1	0,5	<b>A</b>		963-128
<b>CFS 50K-3</b>	50	1	1	± 2	1	<b>B</b>		963-128

New model

# Counting scale KERN CKE



Easy to use, self-explanatory counting balance with laboratory accuracy, counting resolution up to 361,000 points

## Features

- **Self-explanatory graphic control panel**, even without operating instructions, the counting process can be understood immediately.
  - no learning time = reduces costs
  - ideal for untrained users
  - visualised process means that operating errors are avoided
- The 4 steps are carried out from left to right:
  - 1 Place the empty container onto the weighing plate and tare by pressing the TARE key
  - 2 Place the reference quantity for the goods to be counted into the container (5, 10, or 20 pieces)
  - 3 Confirm the selected reference quantity by pressing the key (5, 10 or 20)
  - 4 Pour in the goods to be counted.

The number of pieces will immediately be shown on the display

- **Precise counting:** The automatic optimisation of reference weight gradually improves the average value of the piece weight
- **Two balances in one:** Switching from counting mode to weighing mode at the touch of a button

## Technical data

- Large backlit LCD display
  - A digit height 9 mm
  - B digit height 18 mm
- Dimensions of weighing plate (stainless steel) WxD
  - A 150x170 mm
  - B 340x240 mm, see larger picture
- Overall dimensions WxDxH
  - A 167x250x85 mm
  - B 350x390x120 mm

- Optional battery operation for models with weighing plate sizes B, batteries (6 x 1.5 V Size C) not standard, operating time approx. 70 h
- Net weight for models with weighing plate sizes
  - A approx. 1,4 kg
  - B approx. 6,5 kg
- Permissible ambient temperature 10 °C / 40 °C

## Accessories

- **Protective working cover** over keyboard and housing standard, can be reordered, for models with weighing plate sizes
  - A KERN PCB-A05
  - B KERN FKB-A02
- **Rechargeable battery pack external**, operating time up to 25 h, charging time approx. 10 h, KERN KS-A01
- **Rechargeable battery pack internal** only for models with weighing plate sizes A, operating time approx. 25 h, charging time approx. 10 h, can be reordered, KERN KB-A01N
- **Suitable printers** see page 130

### STANDARD

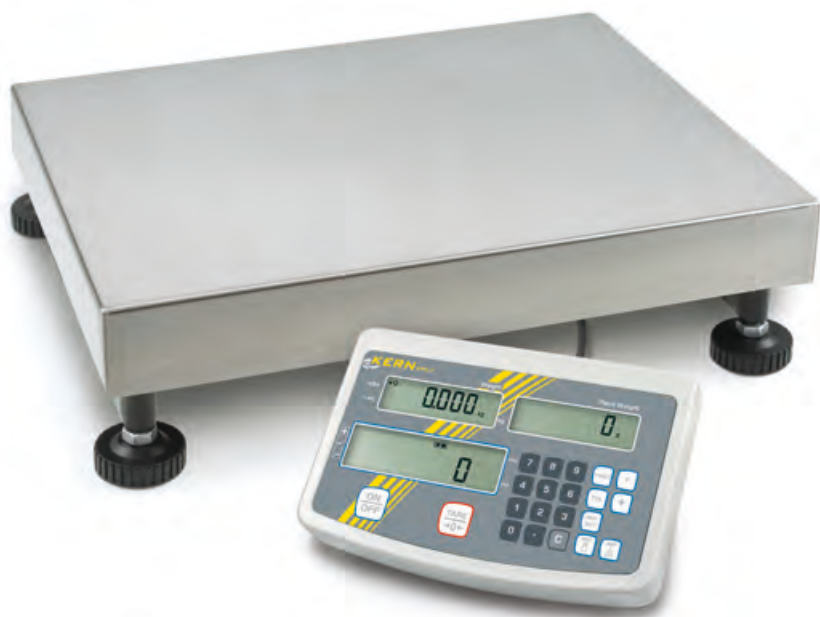


### OPTION



Model	Weighing range [Max] kg	Read-out [d] g	Min. piece weight [PW min] g/piece	Counting resolution Points	Weighing plate	Option DKD Calibr. Certificate	
						DKD KERN	
<b>CKE 2000-2</b>	2	0,01	0,01	201.000	A	963-127	
<b>CKE 3600-2</b>	3,6	0,01	0,01	361.000	A	963-127	
<b>CKE 6K0.02</b>	6	0,02	0,02	305.000	B	963-128	
<b>CKE 8K0.05</b>	8	0,05	0,05	162.000	B	963-128	
<b>CKE 16K0.05</b>	16	0,05	0,05	322.000	B	963-128	
<b>CKE 16K0.1</b>	16	0,1	0,1	161.000	B	963-128	
<b>CKE 36K0.1</b>	36	0,1	0,1	361.000	B	963-128	
<b>CKE 65K0.2</b>	65	0,2	0,2	325.500	B	963-129	
<b>CKE 65K0.5</b>	65	0,5	0,5	130.000	B	963-129	

# Counting scale KERN IFS



Industrial counting scale with convenient keypad for easy data entry, now with counting resolution to 60,000 points

### Features

- **Industrial quality:** because of its stable construction and robust design, it is ideal for continuous use in industrial applications
- **Benchtop stand incl. wall mount** for display device as standard
- **Precise counting:** The manual optimisation of reference weight gradually improves the average value of the piece weight
- **Level indicator and foot screws** to level the balance precisely, fitted as standard, to give the most accurate weighing results
- **Totalizing** of counting operations

### Technical data

- Backlit LCD displays, digit height 16,5 mm
- Dimensions of weighing plate (stainless steel) WxDxH
  - A** 300x240x128 mm
  - B** 500x400x137 mm
  - C** 650x500x142 mm, see larger picture
- Dimensions of display device WxDxH 260x150x65 mm
- Cable length of display device approx. 2,5 m
- Permissible ambient temperature 0 °C / 40 °C

### Accessories

- **1 Stand** to elevate display device, height of stand approx. 330 mm, KERN IFB-A01
- height of stand approx. 600 mm, for models with weighing plate sizes **B** and **C**, KERN IFB-A02
- **Protective working cover** standard, can be reordered, KERN KFB-A02
- **Rechargeable battery pack internal**, operating time up to 30 h, charging time approx. 12 h, can be reordered, KERN KFS-A01
- **Suitable printers** see page 130

#### STANDARD



only with printer

#### OPTION



Model	Weighing range [Max] kg	Read-out [d] g	Min. piece weight [PW min] g/piece	Counting resolution Points	Net weight approx. kg	Weighing plate	Option	
							DKD Calibr. Certificate	
<b>KERN</b>							<b>DKD</b>	
							KERN	
<b>IFS 10K-4</b>	6   15	0,1   0,2	0,25	60.000	6,5	<b>A</b>	963-128	
<b>IFS 100K-3</b>	75   150	1   2	2,5	60.000	14	<b>B</b>	963-129	
<b>IFS 100K-3L</b>	75   150	1   2	2,5	60.000	24	<b>C</b>	963-129	
<b>IFS 300K-3</b>	150   300	2   5	5	60.000	24	<b>C</b>	963-129	

# Counting scale KERN CDS



Easy to use industrial counting scale for heavy loads, counting resolution up to 300,000 points

## Features

- **Self-explanatory graphic control panel,** Even without operating instructions, the counting process can be understood immediately
  - No learning time = reduces costs
  - Ideal for untrained users
  - Visualised process means that operating errors are avoided
- **Precise counting:** The automatic optimisation of reference weight gradually improves the average value of the piece weight

## Technical data

- Backlit LCDdisplay, digit height 18 mm
- Dimensions of weighing plate (stainless steel) WxDxH
  - A** 308x318x75 mm
  - B** 450x350x115 mm
- Dimensions of display device WxDxH 225x115x60 mm
- Permissible ambient temperature 10 °C / 40 °C

## Accessories

- **Protective working cover** over the display device, standard, can be reordered, KERN DE-A12

- **Wall mount** for display device, KERN DS-A02
- **Mount** to fasten the display device to the platform, KERN DE-A11N
- **Stand** to elevate display device, height of stand approx. 450 mm, KERN DE-A10
- **Rechargeable battery pack external,** operating time up to 15 h, charging time approx. 10 h, KERN KS-A01
- **Rechargeable battery pack internal,** operating time up to 15 h, charging time approx. 10 h, can be reordered, KERN KB-A01N
- **Suitable printers** see page 130

## STANDARD



## OPTION



only **A**

Model	Weighing range [Max] kg	Read-out [d] g	Min. piece weight [PW min] g/piece	Counting resolution Points	Net weight approx. kg	Cable Length approx. m	Weighing plate	Option DKD Calibr. Certificate	
								DKD KERN	
<b>KERN CDS 8K0.05</b>	8	0,05	0,05	162.000	7,5	2	<b>A</b>	963-128	
<b>CDS 15K0.05</b>	15	0,05	0,05	302.000	7,5	2	<b>A</b>	963-128	
<b>CDS 16K0.1</b>	16	0,1	0,1	161.000	7,5	2	<b>A</b>	963-128	
<b>CDS 30K0.1</b>	30	0,1	0,1	301.000	7,5	2	<b>A</b>	963-128	
<b>CDS 30K0.1L</b>	30	0,1	0,1	301.000	9,5	0,6	<b>B</b>	963-128	
<b>CDS 36K0.2L</b>	36	0,2	0,2	180.500	9,5	0,6	<b>B</b>	963-128	
<b>CDS 60K0.2</b>	60	0,2	0,2	300.500	9,5	0,6	<b>B</b>	963-129	
<b>CDS 100K0.5</b>	100	0,5	0,5	202.000	9,5	0,6	<b>B</b>	963-129	

# Counting system KERN CCS



Information on other high-capacity bulk balances, such as, for example, pallet scales, drive-through scales or floor scales is available on request, for information on other counting systems with the KERN CFS reference balance (d = 0.1 g), please refer to the website.

## Counting the smallest parts in the largest quantities, counting resolution up to 6 Mio. points

### Features

- With this highly-accurate KERN CCS counting system you can replace a large spectrum of individual counting scales

### Reference scale KERN CFS:

This professional KERN CFS counting scale, which can also be used as a stand-alone scale, meets even the highest demands for accuracy, weighing range and volume of items, by connecting it to a high-capacity weighing bridge

- **Programmable using numerical key pad:**
  - required reference quantity
  - known reference weight
- **Memory (PLU) for 100 items** with additional text
- **Fill-to-target function:** Programmable target weight. An acoustic and visual signal will be displayed when the target value is reached

- **Precise counting:** The automatic optimisation of reference weight gradually improves the average value of the piece weight
- Details page 83

**Quantity scale KERN KFP:** The high-accuracy quantity counting takes place on the weighing platform (= weighing bridge) KERN KFP

- **Stainless steel platform,** Steel substructure lacquered
- **Aluminium singlepoint load cell** (1 x 3000 e), IP65 protection
- Details page 114

### Technical data

#### KFP:

- Dimensions of weighing plate (stainless steel) WxDxH
  - A 400x300x128 mm B 500x400x137 mm
  - C 650x500x142 mm
- Connection cable approx. 1,5 m

#### CFS:

- Large backlit LCD displays, digit height 20 mm
- Overall dimensions WxDxH 320x350x125 mm
- Dimensions of weighing plate (stainless steel) WxD 294x225 mm
- Net weight approx. 3,8 kg

### Accessories

- **Reference scale** also available separately, details see page 80, KERN CFS 6K0.1
- **Rechargeable battery pack internal,** operating time approx. 60 h, charging time approx. 14 h, KERN GAB-A04, € 40,-
- **Signal lamp** for visual support of weighing with tolerance range, WxDxH 100x180x300 mm, KERN CFS-A03
- **2nd data interface,** Y cable for parallel connection of two terminal devices to the RS 232 interface of the balance, e.g. of a printer, signal lamp etc. KERN CFS-A04
- **Suitable printers** see page 130

#### STANDARD



#### OPTION



Model	Quantity scale	Weighing range [Max] kg	Read-out [d] g	Weighing plate	Reference scale	Weighing range [Max] kg	Read-out [d] g	Min. piece weight [PW min] g/piece	Option	
									DKD Calibr.	Certificate
KERN CCS 30K0.01	KFP 30V20M	30	10	A	CFS 3K-5	3	0,01	0,05	962-128-128	
CCS 30K0.1	KFP 30V20M	30	10	A	CFS 6K0.1	6	0,1	0,1	962-129-128	
CCS 60K0.01	KFP 60V20M	60	20	A	CFS 3K-5	3	0,01	0,05	962-129-128	
CCS 60K0.01L	KFP 60V20LM	60	20	B	CFS 3K-5	3	0,01	0,05	962-129-128	
CCS 60K0.1L	KFP 60V20LM	60	20	B	CFS 6K0.1	6	0,1	0,1	962-129-128	
CCS 150K0.01	KFP 150V20M	150	50	B	CFS 3K-5	3	0,01	0,05	962-129-128	
CCS 150K0.01L	KFP 150V20LM	150	50	C	CFS 3K-5	3	0,01	0,05	962-129-128	
CCS 150K0.1	KFP 150V20M	150	50	B	CFS 6K0.1	6	0,1	0,1	962-129-128	
CCS 300K0.01	KFP 300V20M	300	100	C	CFS 3K-5	3	0,01	0,05	962-129-128	

# 9 Platform scales

KERN Model		Page
EOL	All-round platform scale with the best price performance ratio	91
EOB	The bestseller in parcel- and veterinary scales, also with XL platform, now with higher resolution	92
EOS-F	No need for a cable with KERN! Wireless communication between the platform and display device for maximum flexibility	93
DE-D	Multi functional scale with IP65 display device	94/95
IFS-D	The industrial scale for professionals	96
IFB	Robust platform scale with EC Type approval [M]	97
DS	Industrial scale with laboratory accuracy, also with EC Type approval [M]	98
ILS	High-resolution industrial scale for the most precise results up to 50 kg, also with EC type approval [M]	99
IKT	Touchscreen platform scale with enormous range of functions, also with EC Type approval [M]	100/101



## Platform scales - the all-rounder in industrial scales

In the KERN range there are portable, affordable entry level models for weighing post or parcels, high-quality models with a high → *IP protection* and → *verification* for trade applications, up to top level models with touchscreen technology for complex recipe or checkweighing applications with relay control - for each application we have the right platform scale.

### The benefits of platform scales are clear for all to see:

- Weighing range from 3 kg - 300 kg
- Robust platform construction for the harshest industrial use
- Versatile, available with column
- High overload protection
- Stainless steel weighing plate, shock proof and easy to clean
- Display device can be positioned separately, e.g. wall-mounted, on a column or next to the platform. This guarantees that you always have a clear view of the display even with bulky items on the scale
- Large selection of platform sizes.

In order to fulfil the diverse requirements of our industrial customers, KERN platform scales have a large number of practical functions. From counting and recipe functions via → *data interfaces* to connecting balances in a network or connecting with a PC or printer through right to useful battery operation for mobile use. The „Dynamic Weighing“ function is particularly useful for industrial weighing and guarantees stable results even when the location is unstable or when weighing animals – a true all-rounder.

The newest development for an even greater level of ease of use is the wireless communication between the platform and display device, giving the highest level of flexibility – you can weigh at the location of installation and read the weight up to 20 m away.

**Particularly practical:** the touchless tare function means that, by using movement sensors, you can tare without having to touch the balance which is useful when working with gloves or dirty hands, see page 93.

→ See the glossary on page 158/159















**Your KERN product specialist will be happy to help:**

**Stephan Ade**  
Product specialist platform scales, floor, pallet and drive-through scales



## Quick-Finder

■ = Standard □ = Option

Read-out	Weighing range	Model	Page	 DAYS ready for shipping											
d	Max	KERN			For an explanation of the symbols, see the flap of the envelope										
0,01 g	3 kg	DS 3K0.01S	98	1			■		■	■				□	
0,01 g	3 kg	IKT 3K0.01S	100	1			■	■	■	■	■			□	
0,05 g	5 kg	DS 5K0.05S	98	1			■		■	■				□	
0,05 g	8 kg	DS 8K0.05	98	1			■		■	■				□	
0,05 g	8 kg	IKT 8K0.05	100	1			■	■	■	■	■			□	
0,1 g	6 kg	IKT 6K0.1	100	1			■	■	■	■	■			□	
0,1 g	10 kg	DS 10K0.1S	98	1			■		■	■				□	
0,1 g	10 kg	IKT 10K0.1S	100	1			■	■	■	■	■			□	
0,1 g	16 kg	DS 16K0.1	98	1			■		■	■				□	
0,1 g	16 kg	IKT 16K0.1	100	1			■	■	■	■	■			□	
0,1 g	20 kg	DS 20K0.1	98	1			■		■	■				□	
0,1 g	25 kg	ILJ 25K-4M	99	1	■	■				■	■				
0,1 g	30 kg	DS 30K0.1	98	1			■		■	■				□	
0,1 g	30 kg	DS 30K0.1L	98	1			■		■	■				□	
0,1 g	30 kg	ILS 30K-4	99	1			■			■	■				
0,1 g	30 kg	IKT 30K0.1	100	1			■	■	■	■	■			□	
0,1 g	30 kg	IKT 30K0.1L	100	1			■	■	■	■	■			□	
0,1 g	50 kg	ILS 50K-4	99	1			■			■	■				
0,2 g	12 kg	IKT 12K0.2	100	1			■	■	■	■	■			□	
0,2 g	36 kg	DS 36K0.2	98	1			■		■	■				□	
0,2 g	36 kg	DS 36K0.2L	98	1			■		■	■				□	
0,2 g	36 kg	IKT 36K0.2	100	1			■	■	■	■	■			□	
0,2 g	36 kg	IKT 36K0.2L	100	1			■	■	■	■	■			□	
0,2 g	60 kg	DS 60K0.2	98	1			■		■	■				□	
0,2 g	60 kg	IKT 60K0.2L	100	1			■	■	■	■	■			□	
0,2/0,5 g	6/15 kg	DE 15K0.2D	94	1			■		■	■		■	□	□	
0,2/0,5 g	6/15 kg	IFS 15K0.2D	96	1			■		■	■	■			□	
0,2/0,5 g	15/30 kg	IFS 30K0.2DL	96	1			■		■	■	■			□	
0,5 g	6 kg	DE 6K0.5A	94	1			■		■	■		■	□	□	
0,5 g	30 kg	IKT 30K0.5	100	1			■	■	■	■	■			□	
0,5 g	65 kg	DS 65K0.5	98	1			■		■	■				□	
0,5 g	65 kg	IKT 65K0.5L	101	1			■	■	■	■	■			□	
0,5 g	100 kg	DS 100K0.5	98	1			■		■	■				□	
0,5 g	100 kg	IKT 100K0.5L	100	1			■	■	■	■	■			□	
0,5/1 g	15/30 kg	IFS 60K0.5D	96	1			■		■	■	■			□	
0,5/1 g	15/35 kg	DE 35K0.5D	94	1			■		■	■		■	□	□	
0,5/1 g	30/60 kg	IFS 60K0.5DL	96	1			■		■	■	■			□	
1 g	6 kg	IKT 6K1M	100	1	■		■	■	■	■	■			□	
1 g	12 kg	DE 12K1A	94	1			■		■	■		■	□	□	
1 g	60 kg	IKT 60K1L	100	1			■	■	■	■	■			□	
1 g	65 kg	DS 65K1M	98	1	■		■		■	■				□	
1 g	150 kg	DS 150K1	98	1			■		■	■				□	
1 g	150 kg	IKT 150K1L	100	1			■	■	■	■	■			□	
1/2 g	3/6 kg	DE 6K1D	94	1			■		■	■		■	□	□	
1/2 g	3/6 kg	IFB 6K1DM	97	1	■		■		■	■	■			□	
1/2 g	30/60 kg	DE 60K1D	94	1			■		■	■		■	□	□	
1/2 g	30/60 kg	DE 60K1DL	94	1			■		■	■		■	□	□	
1/2 g	60/120 kg	IFS 120K1D	96	1			■		■	■	■			□	
2 g	12 kg	IKT 12K2M	100	1	■		■	■	■	■	■			□	
2 g	24 kg	DE 24K2A	94	1			■		■	■		■	□	□	
2 g	120 kg	IKT 120K2L	100	1			■	■	■	■	■			□	
2 g	150 kg	IKT 150K2XL	100	1			■	■	■	■	■			□	
2/5 g	6/15 kg	DE 15K2D	94	1			■		■	■		■	□	□	



## Platform scales KERN EOL · EOE



### KERN EOL

### KERN EOE

Entry level platform scales with the best price-performance ratio

#### Features

#### Technical data

#### Accessories

- Simple and convenient 4-key operation

- Large LCD display, digit height 25 mm
- Weighing plate steel lacquered
- Optional battery operation

#### EOL:

- **Mains adapter external** not included, can be reordered, KERN 440-902

#### EOL:

- Particularly flat design

#### EOL:

- Dimensions of display device WxDxH 160x90x32 mm
- Ready for use: 9 V Block included, operating time approx. 60 h
- Permissible ambient temperature 5 °C / 35 °C

#### EOE:

- **Ascending ramp** incl. pair of base plates for models with weighing plate sizes WxD 505x505 mm, not included. WxDxH 505x507x87 mm, KERN EOE-A02
- **Non-slip rubber mat**, WxD 945x505 mm, KERN EOE-A01
- **Sturdy transport case**, for models with weighing plate sizes ≤ 315x305x65 mm, details see page 132, KERN MPS-A07

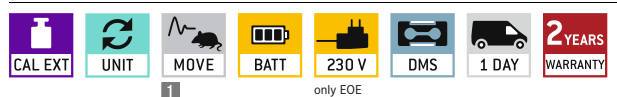
#### EOE:

- **Wall mount** for display device standard
- **Vibration-free weighing:** at the push of a button, a stable average weight is given when the environmental conditions are unstable or when weighing animals

#### EOE:

- Dimensions of display device WxDxH 210x110x45 mm
- Permissible ambient temperature 10 °C / 35 °C

#### STANDARD



#### OPTION



Model	Weighing range [Max] kg	Read-out [d] g	Reproducibility g	Linearity g	Net weight approx. kg	Cable length approx. m	Weighing plate mm	Option	
								DKD Calibr. Certificate	
<b>KERN</b>								DKD KERN	
EOL 60K100 *	60	100	100	± 200	1,4	2,6	293x270x35	963-129	
EOL 120K200 *	120	200	200	± 400	1,4	2,6	293x270x35	963-129	
<b>EOE</b>									
EOE 15K10	15	10	10	± 20	4	1,8	315x305x65	963-128	
EOE 35K20	35	20	20	± 40	4	1,8	315x305x65	963-128	
EOE 60K50	60	50	50	± 100	4	1,8	315x305x65	963-129	
EOE 150K100	150	100	100	± 200	4	1,8	315x305x65	963-129	
EOE 150K50L	150	50	50	± 100	12,5	2,7	505x505x65	963-129	
EOE 150K50XL	150	50	50	± 100	19,5	2,7	945x505x65	963-129	
EOE 300K100L	300	100	100	± 200	12,5	2,7	505x505x65	963-129	
EOE 300K100XL	300	100	100	± 200	19,5	2,7	945x505x65	963-129	

! \* ONLY WHILE STOCKS LAST

## Platform scales KERN EOB · EOS



**KERN EOB**

**KERN EOS**

The bestseller in parcel- and veterinary scales, also with XL platform, now with higher resolution

### Features

- **Simple and convenient 4-key operation**
- **Wall mount** for display device, standard
- **Vibration-free weighing:** at the push of a button, a stable average weight is given when the environmental conditions are unstable or when weighing animals

- Cable length of display device approx. 1,8 m
- Optional battery operation, 6 x 1.5 V AA not included, operating time approx. 60 h
- Permissible ambient temperature 10 °C / 35 °C

### Accessories

- **1 Stand** to elevate display device, height of stand approx. 950 mm, KERN MWS-A01

### EOS:

- The scale can be easily transported using 2 rollers and a handle and does not require much storage space

### EOB:

- Dimensions of weighing plate WxDxH
- **A** 315x305x65 mm
  - **B** 550x550x65 mm, see larger picture
  - **C** 945x505x65 mm

### EOB:

- **Non-slip rubber mat**, only for models with weighing plate sizes **C**, KERN EOE-A01

### EOS:

- Dimensions of weighing plate (stainless steel) WxDxH
- **D** 900x550x60 mm

- **2 Stand** to elevate display device, height of stand approx. 450 mm, only for models with weighing plate sizes **A**, KERN EOB-A01N

### Technical data

- Large LCD display, digit height 25 mm
- Dimensions of display device WxDxH 210x110x45 mm

### EOS:

- **Non-slip rubber mat** standard, can be reordered, KERN EOS-A01

### STANDARD



### STANDARD

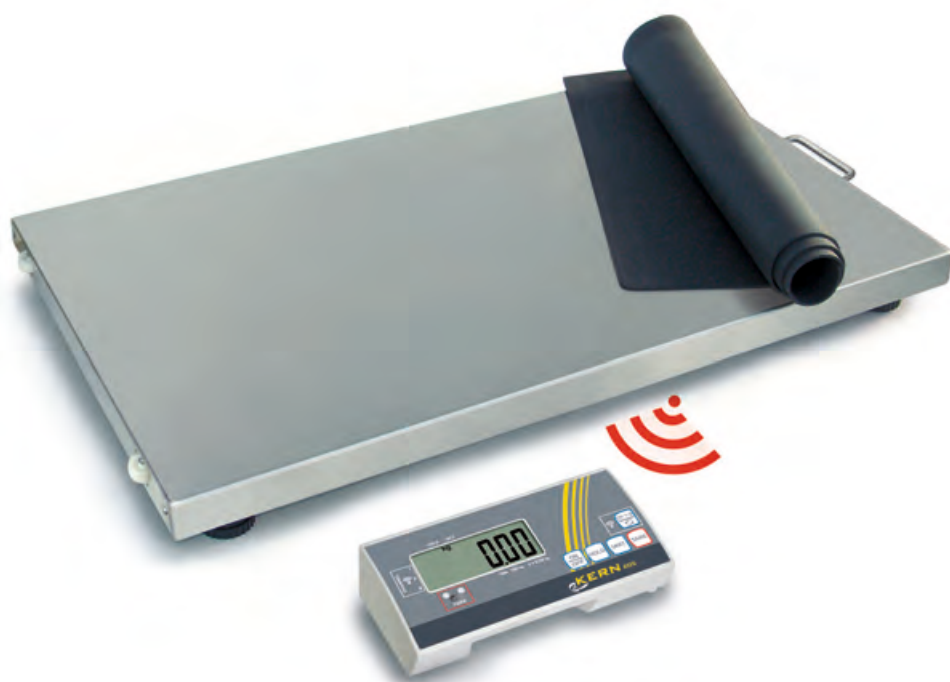


### OPTION



Model	Weighing range [Max] kg	Read-out [d] g	Reproducibility g	Linearity g	Net weight approx. kg	Weighing plate	Option	
							DKD	Kern Certificate
<b>KERN</b>								
EOB 15K5	15	5	5	± 10	4	A	963-128	
EOB 35K10	35	10	10	± 20	4	A	963-128	
EOB 60K20	60	20	20	± 40	4	A	963-129	
EOB 60K20L	60	20	20	± 40	13,5	B	963-129	
EOB 150K50	150	50	50	± 100	4	A	963-129	
EOB 150K50L	150	50	50	± 100	13,5	B	963-129	
EOB 150K50XL	150	50	50	± 100	19,5	C	963-129	
EOB 300K100A	300	100	100	± 200	4	A	963-129	
EOB 300K100L	300	100	100	± 200	13,5	B	963-129	
EOB 300K100XL	300	100	100	± 200	19,5	C	963-129	
EOS 150K50XL	150	50	50	± 100	18,8	D	963-129	
EOS 300K100XL	300	100	100	± 200	18,8	D	963-129	

## Platform scale KERN EOS-F



No need for a cable with KERN! Wireless communication between the platform and display device for maximum flexibility

### Features

- **Display device with integrated radio module** for wireless communication with the weighing platform: ideal for weighing contaminated items, weighing in loud environments or where physical separation is necessary
- **Touchless tare function:** just give it a wave. No need to operate the scale with dirty gloves any more
- **For networked operation:** 3 frequencies for parallel use of several weighing platforms with a single display device
- **High mobility** thanks to battery operation for display device and platform, operating time approx. 70 h

- **2 rollers and handle** for easy transport of the scale
- **Simple and convenient 4-key operation**
- **Vibration-free weighing:** at the push of a button, a stable average weight is given when the environmental conditions are unstable or when weighing animals
- **Wall mount** for display device standard

### Technical data

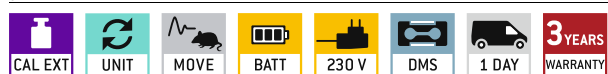
- Large LCD display, digit height 25 mm
- Dimensions of weighing plate (stainless steel) WxDxH 900x550x60 mm
- Optional battery operation, each 6 x 1.5 V AA (Display device and Platform), batteries not standard

- 2 mains adapters (external) for display device and platform included
- Net weight approx. 22 kg
- Permissible ambient temperature 10 °C / 35 °C

### Accessories

- **Non-slip rubber mat** standard, can be reordered, KERN EOS-A01
- **Stand** to elevate display device, height of stand approx. 950 mm, KERN MWS-A01

#### STANDARD

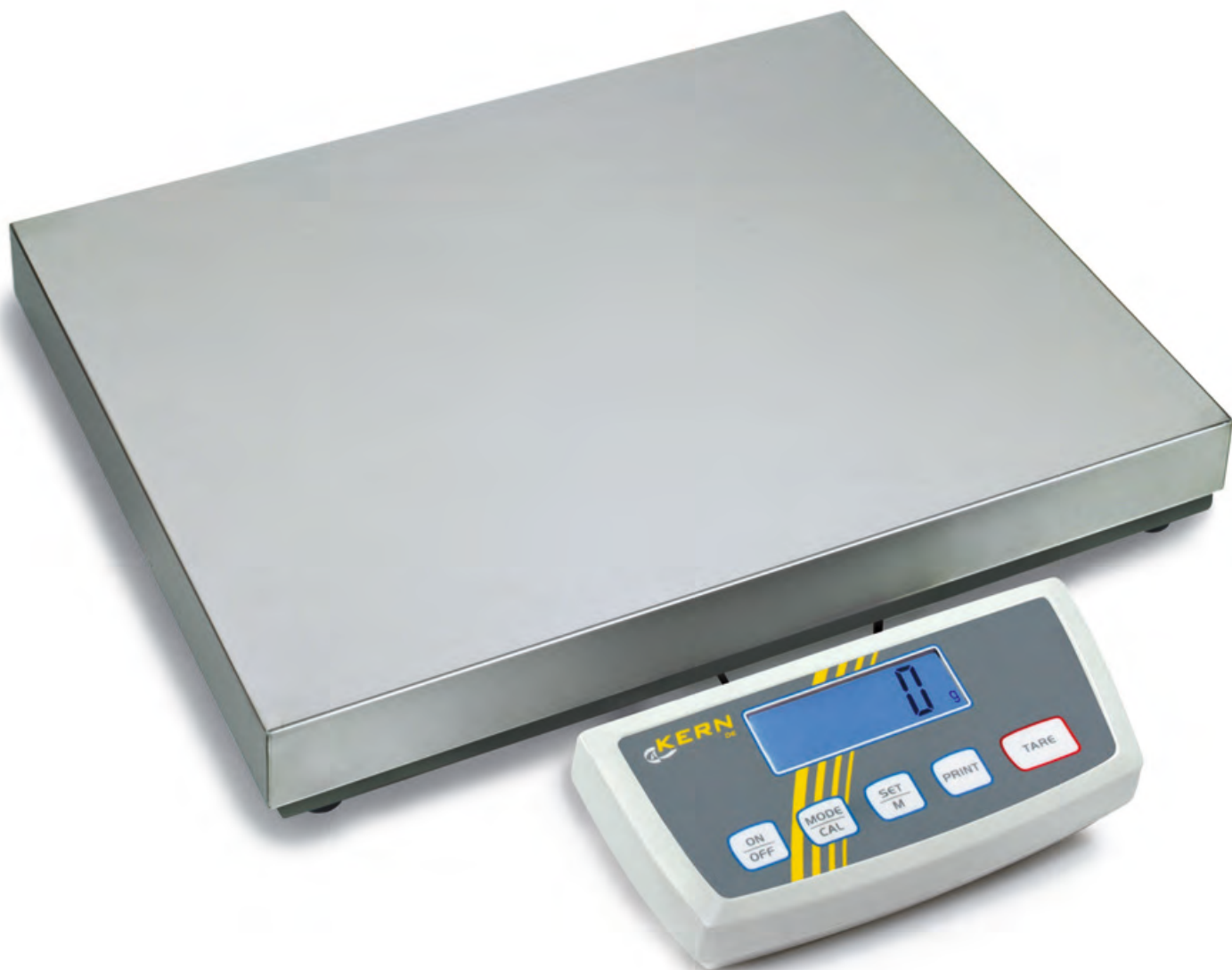


#### OPTION



Model	Weighing range [Max] kg	Read-out [d] g	Reproducibility g	Linearity g	Option DKD Calibr. Certificate	
					DKD KERN	
<b>KERN</b>						
<b>EOS 150K50XLF</b>	150	50	50	± 100	963-129	
<b>EOS 300K100XLF</b>	300	100	100	± 200	963-129	

## Platform scale KERN DE-D



## The success story with IP65 display device

---

*Features*

- **High mobility:** Battery operation/rechargeable battery pack (optional), compact, flat construction and low weight make this balance ideal for use in several locations (production, warehouse, dispatch department, ...)
- **Flexible positioning of display device:** eg. free-standing or mounted to the wall (optional)
- **Display device IP65.** Protected against dust and water splashes (only when using battery or rechargeable battery pack)
- **PRE-TARE function** for manual subtraction of a known container weight, useful for checking fill-levels
- With the **recipe function** you can weigh the different ingredients of a mixture. As a check, you can also recall the total weight of all the ingredients
- **Freely programmable weighing unit,** e.g. display directly in special units such as length of thread g/m, paper weight g/m<sup>2</sup>, or similar

## Platform scale KERN DE-D



### Technical data

- Large backlit LCDdisplay, digit height 25 mm
- Dimensions of weighing plate stainless steel WxDxH
  - A** 318x308x75 mm
  - B** 318x308x85 mm
  - C** 522x406x100 mm
  - D** 522x403x90 mm, see larger picture
  - E** 650x500x105 mm
- Dimensions of display device WxDxH 225x110x45 mm
- Optional battery operation, 9 V Block, not included
- Permissible ambient temperature 5 °C / 35 °C

### Accessories

- **Protective working cover** over the display device, standard, can be reordered, KERN DE-A12
- **Rechargeable battery pack internal**, operating time approx. 15 h, charging time approx. 10 h, KERN NDE-A02
- **Mount** to fasten the display device to the platform, KERN DE-A11N
- **Wall mount** for display device, KERN DE-A13
- **Stand** to elevate display device, height of stand approx. 450 mm, KERN DE-A10

- **Individual header data:** the free software KERN SHM-01 can be used to print 4 header lines on the printout for printers 911-013 and YKB-01N
- **Suitable printers** see page 130

### STANDARD



### OPTION



Model	Weighing range [Max] kg	Read-out [d] g	Reproducibility g	Linearity g	Min. piece weight [PW min] g/piece	Cable length approx. m	Net weight approx. kg	Weighing plate	Option	
									DKD	Kern Certificate
<b>Dual-range balance (D=Dual):</b> switches automatically to the next largest weighing range [Max] and readout [d].										
DE 6K1D	3   6	1   2	1   2	± 3   ± 6	4	1,4	4	A		963-128
DE 15K2D	6   15	2   5	2   5	± 6   ± 15	10	1,4	4	A		963-128
DE 35K5D	15   35	5   10	5   10	± 15   ± 30	10	1,4	4	A		963-128
DE 35K5DL	15   35	5   10	5   10	± 15   ± 30	10	1,4	16	D		963-128
DE 60K10D	30   60	10   20	10   20	± 30   ± 60	20	1,4	4	A		963-129
DE 60K10DL	30   60	10   20	10   20	± 30   ± 60	20	1,4	16	D		963-129
DE 150K20D	60   150	20   50	20   50	± 60   ± 150	40	1,4	4	A		963-129
DE 150K20DL	60   150	20   50	20   50	± 60   ± 150	40	1,4	16	D		963-129
DE 150K20DXL	60   150	20   50	20   50	± 60   ± 150	40	1,4	28	E		963-129
DE 300K50D	150   300	50   100	50   100	± 150   ± 300	100	1,4	16	D		963-129
DE 300K50DL	150   300	50   100	50   100	± 150   ± 300	200	1,4	28	E		963-129
DE 6K0.5A	6	0,5	0,5	± 1,5	1	1,4	4	A		963-128
DE 12K1A	12	1	1	± 3	2	1,4	4	A		963-128
DE 24K2A	24	2	2	± 6	4	1,4	4	A		963-128
DE 60K5A	60	5	5	± 15	10	1,4	4	A		963-129
DE 120K10A	120	10	10	± 30	20	1,4	4	A		963-129
<b>Dual range balance (D=Dual) with high-resolution display</b>										
DE 15K0.2D	6   15	0,2   0,5	0,2   0,5	± 0,8   ± 2	0,4	1	4	B		963-128
DE 35K0.5D	15   35	0,5   1	0,5   1	± 2   ± 4	1	1	4	B		963-128
DE 60K1D	30   60	1   2	1   2	± 4   ± 8	2	1	4	B		963-129
DE 60K1DL	30   60	1   2	1   2	± 4   ± 8	2	1,4	16	C		963-129
DE 150K2D	60   150	2   5	2   5	± 8   ± 20	4	1	4	B		963-129
DE 150K2DL	60   150	2   5	2   5	± 8   ± 20	4	1,4	16	C		963-129
DE 300K5DL	150   300	5   10	5   10	± 20   ± 40	10	1,4	16	C		963-129

# Platform scale KERN IFS-D



**Note:** Special IFS models with increased counting resolution, see page 85

## The industrial scale for professionals

### Features

- **Industrial quality:** because of its stable construction and robust design, it is ideal for continuous use in industrial applications
- **Benchtop stand incl. wall mount** for display device as standard
- **Precise counting:** The manual optimisation of reference weight gradually improves the average value of the piece weight
- **Level indicator and foot screws** to level the balance precisely, fitted as standard, to give the most accurate weighing results
- **Totalizing** of counting operations

### Technical data

- Backlit LCD displays, digit height 16,5 mm
- Dimensions of weighing plate (stainless steel) WxDxH
  - A 300x240x100 mm
  - B 400x300x128 mm
  - C 500x400x137 mm, see larger picture
  - D 650x500x142 mm
- Dimensions of display device WxDxH 260x150x65 mm
- Cable length of display device approx. 2,5 m
- Permissible ambient temperature 0 °C / 40 °C

### Accessories

- **Stand** to elevate display device, height of stand approx. 330 mm, KERN IFB-A01  
height of stand approx. 600 mm, for models with weighing plate sizes **C** and **D**, KERN IFB-A02
- **Protective working cover** standard, can be reordered, KERN KFB-A02
- **Rechargeable battery pack internal**, operating time up to 40 h without backlight, charging time approx. 12 h, can be reordered, KERN KFS-A01
- **Signal lamp** for visual support of weighing with tolerance range, must be ordered at purchase, WxDxH 100x180x300 mm, KERN CFS-A03
- **Suitable printers** see page 130

### STANDARD



### OPTION



### FACTORY



Model	Weighing range [Max]	Read-out [d]	Reproducibility	Linearity	Min. piece weight [PW min]	Net weight approx.	Weighing plate	Option	
								DKD	DKD Calibr. Certificate
KERN	kg	g	g	g	g/piece	kg		DKD KERN	
<b>Dual-range balance (D=Dual):</b> switches automatically to the next largest weighing range [Max] and readout [d].									
IFS 15K0.2D *	6   15	0,2   0,5	0,2   0,5	± 0,8   ± 2	1	6	A	963-128	
IFS 30K0.2DL	12   30	0,2   0,5	0,2   0,5	± 0,8   ± 2	0,5	10	B	963-128	
IFS 60K0.5D	30   60	0,5   1	0,5   1	± 2   ± 4	1	10	B	963-129	
IFS 60K0.5DL	30   60	0,5   1	0,5   1	± 2   ± 4	1	16	C	963-129	
IFS 120K1D *	60   120	1   2	1   2	± 4   ± 8	8	16	C	963-129	
IFS 150K2DL *	60   150	2   5	2   0	± 2   ± 5	10	22	D	963-129	
IFS 300K5D *	150   300	5   10	5   10	± 20   ± 40	20	22	D	963-129	

**!** \*ONLY WHILE STOCKS LAST



# Platform scale KERN IFB



Accessories

## Platform scale with EC type approval [M]

### Features

- **Industrial quality:** because of its stable construction and robust design, it is ideal for continuous use in industrial applications
- **Benchtop stand incl. wall mount** for display device as standard
- **Level indicator and foot screws** to level the balance precisely, fitted as standard, to give the most accurate weighing results
- **Totalizing** of weights and counting operations

### Technical data

- Large backlit LCDdisplay, digit height 52 mm
- Dimensions of weighing plate (stainless steel) WxDxH
  - A 300x240x100 mm
  - B 400x300x128 mm
  - C 500x400x137 mm, see larger picture
  - D 650x500x142 mm
- Cable length of display device approx. 2,5 m
- Permissible ambient temperature -10 °C / 40 °C

- **Protective working cover** over the display device standard, can be reordered, KERN KFB-A02
- **1 Signal lamp** for visual support of weighing with tolerance range, must be ordered at purchase, WxDxH 100x180x300 mm, KERN CFS-A03
- **2 Stand** to elevate display device, height of stand approx. 330 mm, KERN IFB-A01 height of stand approx. 600 mm, for models with weighing plate sizes C and D, KERN IFB-A02
- **Y cable**, RS-232, KERN CFS-A04
- **Rechargeable battery pack internal**, operating time approx. 35 h, charging time approx. 12 h, must be ordered at purchase, KERN KFB-A01
- **Suitable printers** see page 130

### STANDARD

only with printer

### OPTION

### FACTORY

Model	Weighing range [Max] kg	Read-out [d] g	Verific. value [e] g	Minimum load [Min] g	Net weight approx. kg	Weighing plate	Options			
							Verification		DKD Calibr. Certificate	
							KERN		KERN	
<b>Dual-range balance (D=Dual):</b> switches automatically to the next largest weighing range [Max] and readout [d].										
IFB 6K1DM	3   6	1   2	1   2	20	6	A		965-228		963-128
IFB 15K2DM	6   15	2   5	2   5	40	6	A		965-228		963-128
IFB 15K2DLM	6   15	2   5	2   5	40	10	B		965-228		963-128
IFB 30K5DM	15   30	5   10	5   10	100	10	B		965-228		963-128
IFB 60K10DM	30   60	10   20	10   20	200	10	B		965-229		963-129
IFB 60K10DLM	30   60	10   20	10   20	200	16	C		965-229		963-129
IFB 150K20DM	60   150	20   50	20   50	400	16	C		965-229		963-129
IFB 150K20DLM	60   150	20   50	20   50	400	22	D		965-229		963-129
IFB 300K50DM	150   300	50   100	50   100	1000	22	D		965-229		963-129

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.

# Platform scales KERN DS · DS-M



## Industrial scale with laboratory accuracy, also with EC type approval [M]

### Features

- **User guidance step by step** through Yes/No dialogue on the display
- **Numerical subtraction of tare weight** for known container weight. Useful for checking fill-levels
- **Precise counting:** The automatic optimisation of reference weight gradually improves the average value of the piece weight

### Technical data

- Large backlit LCDdisplay, digit height 18 mm
- Dimensions of weighing plate stainless steel WxDxH
  - A** 228x228x70 mm
  - B** 308x318x75 mm, see larger picture
  - C** 450x350x115 mm
- Dimensions of display device WxDxH 225x115x60 mm
- Permissible ambient temperature KERN DS: 10 °C / 40 °C KERN DS-M: 10 °C / 30 °C

### Accessories

- **Protective working cover** over the display device, standard, can be reordered, KERN DE-A12
- **Stand** to elevate display device, height of stand approx. 480 mm, KERN DE-A10
- **Mount** to fasten the display device to the platform, KERN DE-A11
- **Wall mount** for display device, can be reordered, KERN DS-A02
- **Set for underfloor weighing**, for models with weighing plate sizes **B**, KERN DS-A01
- **Rechargeable battery pack external**, operating time approx. 25 h, charging time approx. 10 h, KERN KS-A01
- **Rechargeable battery pack internal**, operating time up to 10 h, charging time approx. 10 h, can be reordered, KERN KB-A01N
- **Suitable printers** see page 130

### STANDARD



### OPTION



### FACTORY



Model	Weighing range [Max] kg	Read-out [d] g	Verific. value [e] g	Reproducibility g	Min. piece weight [PW min] g/piece	Cable length approx. m	Net weight approx. kg	Weighing plate	Options			
									Verification		DKD Calibr. Certificate	
									M II KERN		DKD KERN	
DS 3K0.01S	3	0,01	-	0,02	0,01	2	5,1	A	-	-	963-127	
DS 5K0.05S	5	0,05	-	0,05	0,05	2	5,1	A	-	-	963-127	
DS 8K0.05	8	0,05	-	0,05	0,05	2	7,5	B	-	-	963-128	
DS 10K0.1S	10	0,1	-	0,1	0,1	2	4,5	A	-	-	963-128	
DS 16K0.1	16	0,1	-	0,1	0,1	2	7,5	B	-	-	963-128	
DS 20K0.1	20	0,1	-	0,1	0,1	2	7,5	B	-	-	963-128	
DS 30K0.1	30	0,1	-	0,1	0,1	2	7,5	B	-	-	963-128	
DS 30K0.1L	30	0,1	-	0,1	0,1	0,6	9,5	C	-	-	963-128	
DS 36K0.2	36	0,2	-	0,2	0,2	2	7,5	B	-	-	963-128	
DS 36K0.2L	36	0,2	-	0,2	0,2	0,6	9,5	C	-	-	963-128	
DS 60K0.2	60	0,2	-	0,2	0,2	0,6	9,5	C	-	-	963-129	
DS 65K0.5	65	0,5	-	0,5	0,5	0,6	9,5	C	-	-	963-129	
DS 100K0.5	100	0,5	-	0,5	0,5	0,6	9,5	C	-	-	963-129	
DS 150K1	150	1	-	1	1	0,6	9,5	C	-	-	963-129	
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.												
DS 65K1M	65	1	10	1	1	0,6	9,5	C		950-118		963-129

# Platform scales KERN ILS · ILJ



## High-resolution industrial scale for the most precise results up to 50 kg, also with EC type approval [M]

### Features

- **Laboratory balance with separate platform:** Ideal when working in a glove-bag or under laboratory fume hoods. Particularly practical for weighing toxic, volatile or contaminated substances
- **1** Particularly suitable for compact, very dense samples, such as for example those encountered in road construction or the construction industry
- **Robust construction of the platform** ensures stability, protects the weighing technology elements and is robust enough to cope with everyday use
- **2** only KERN ILJ: **Automatic internal adjustment** in the case of a change in temperature  $\geq 3$  °C or time-controlled every 3 hours

- **PRE-TARE function** for manual subtraction of a known container weight, useful for checking fill-levels
- **Weighing with tolerance range (checkweighing):** a visual signal helps with portion division, dispensing or grading
- **Totalizing of weights** (manual/automatic)
- Higher weighing speed by switching off the last digit
- **GLP/ISO record keeping of weight values** with date, time, user ID, project and serial number in combination with an appropriate KERN printer
- **Density determination** of liquids and solids. User guidance step by step on the display. The density is indicated directly on the display.  
Note: Interesting facts about density determination see page 10

### Technical data

- Large backlit LCDdisplay, digit height 18 mm
- Dimensions of weighing plate WxD 347x259 mm
- Dimensions of display device WxDxH 270x165x115 mm
- Cable length of display device approx. 1 m
- Permissible ambient temperature 10 °C / 40 °C

### Accessories

- **Protective working cover** over the display device, standard, can be reordered, KERN ILS-A02
- **Suitable printers** see page 130

### STANDARD

CAL EXT <small>only ILS</small>	CAL INT	RS 232	GLP <small>only with printer</small>	PCS	PERCENT	UNIT	TOL	UNDER	230 V	FORCE	1 DAY	3 YEARS WARRANTY
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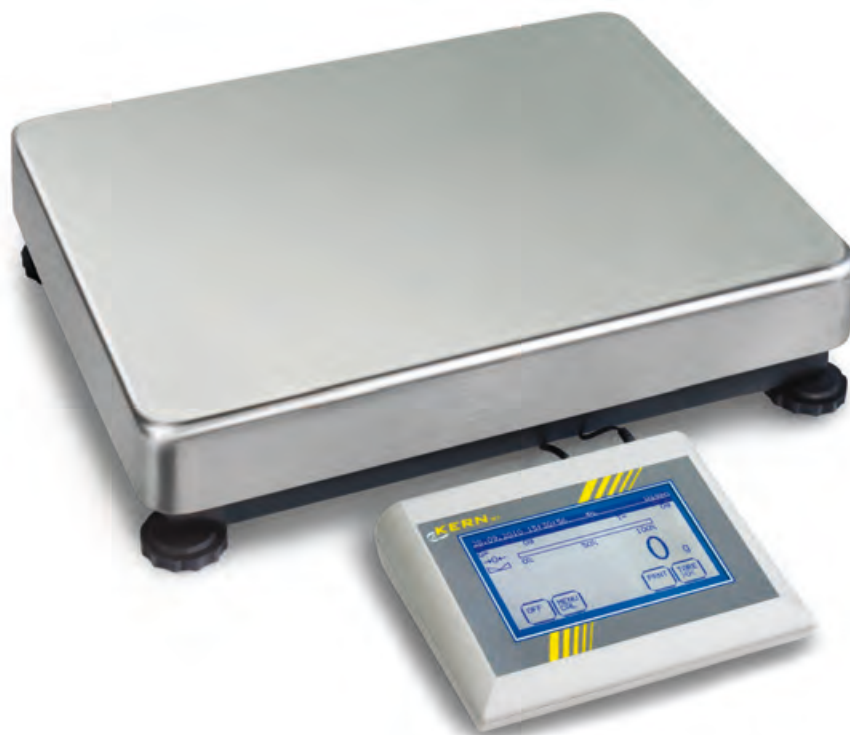
### OPTION

### FACTORY

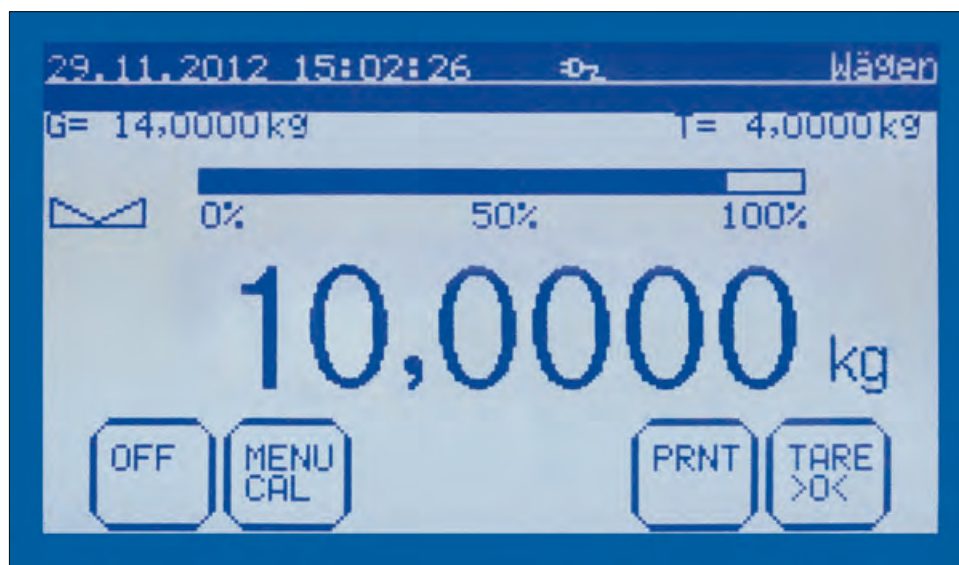
only ILJ

Model	Weighing range [Max] kg	Read-out [d] g	Verific. value [e] g	Minimum load [Min] g	Net weight approx. kg	Options				
						Verification		DKD Calibr. Certificate		
						KERN		KERN		
<b>ILS 30K-4</b>	30	0,1	-	-	13,5	-	-	963-128		
<b>ILS 50K-4</b>	50	0,1	-	-	13,5	-	-	963-128		
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.										
<b>ILJ 25K-4M</b>	25	0,1	1	5	19,9	965-228		963-128		

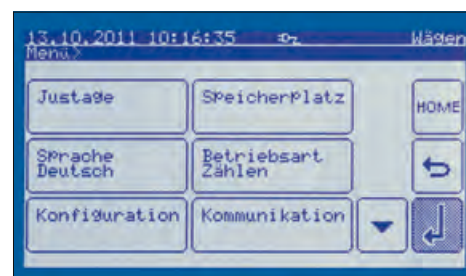
## Platform scale KERN IKT



Touchscreen platform scale with enormous range of functions, now with EC type approval [M]



Display at full size, operating mode weighing



**Clear menu structure with the keys labelled with plain text and touch-sensitive display**  
The menu and processes are self-explanatory. This reduces the training times, avoids operating errors and in this way, ensures more efficient, rapid operation



**Easy input of text and values** using large keypad



**40 memories for each mode**, for checkweighing, pre-tare, reference weight, target weight when dispensing etc.



**Professional counting function**  
All relevant counting information at a glance, such as, for example, reference weight, reference quantity, total count, total weight, tare container weight, available weighing range and much more  
Order Hotline: Go to back page of catalogue

# Platform scale KERN IKT

## Features

- **Innovative touchscreen:** Large touch-sensitive, backlit screen with very good contrast for easy operation and convenient reading
- **Maximum transparency:** All function keys are labelled with plain text which ensures that they are easily understood. The menu tree overlay in the info bar allows you to see at a glance which function is currently in use
- **Advantages:**
  - 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
- **Convenient recipe weighing:** 5 recipes each with 7 components can be stored in plain text

## Technical data

- Back-lit LCD graphic display with digit height 18 mm, screen diagonal 5.8" (approx. 147 mm, WxH 108x74 mm)
- Dimensions of weighing plate stainless steel WxDxH
  - A** 228x228x70 mm
  - B** 315x305x75 mm
  - C** 450x350x115 mm, see larger picture
  - D** 650x500x142 mm
- Dimensions of display device WxDxH 200x155x68 mm

- Cable length of display device for weighing plate size
  - A, C, D** approx. 0,6 m
  - B** approx. 1 m
- Permissible ambient temperature 10 °C / 40 °C

## Accessories

- **Protective working cover** over the display device standard, KERN IKT-A01
- **Rechargeable battery pack external,** operating time up to 10 h, charging time approx. 10 h, can be reordered, KERN KS-A01
- **Set for underfloor weighing,** consisting of platform, handle and hook, only for models with weighing plate sizes **B,** KERN DS-A01
- **Signal lamp** for visual support of weighing with tolerance range, KERN IKT-A04
- **RS-232/Ethernet adapter,** to connect balances with an RS 232 interface to a network, using Ethernet, details see page 131, KERN YKI-01
- **Stand** to elevate display device, only for models with weighing plate sizes **B, C,** KERN IKT-A06
- **Wall mount** for display device, KERN IKT-A03
- **Suitable printers** see page 130

## Modes

- ① Weighing
- ② Counting
- ③ Dispensing
- ④ Recipe weighing
- ⑤ Checkweighing
- ⑥ Totalizing with daily total
- ⑦ Percentage determination
- ⑧ Animal weighing
- ⑨ Surface weight
- ⑩ Density determination, only with **B,** not for **M**
- ⑪ Rapid mode, not for **M**

## Functions

- Capacity display, with ① - ②, ⑦, ⑨ - ⑩
- Dispensing assistance (subtractive, additive), with ①, ④
- Net/Gross display, permanently on, with ①-⑩
- Variable reference quantity, with ②
- Automatic reference optimisation, with ②
- Tare deduction numerical or from the memory unit, with ① - ⑩
- Input of item or batch description, operator etc., with ① - ⑩
- Freely programmable weighing unit, e.g. display directly in special units such as length of thread g/m, paper weight g/m<sup>2</sup>, or similar, with ①, ⑨
- Date/time, with ① - ⑩
- Statistical function, with ①, ③, ⑤
- GLP printout, with ① - ⑩
- Individual printout configuration, with ① - ⑩

## STANDARD



## OPTION



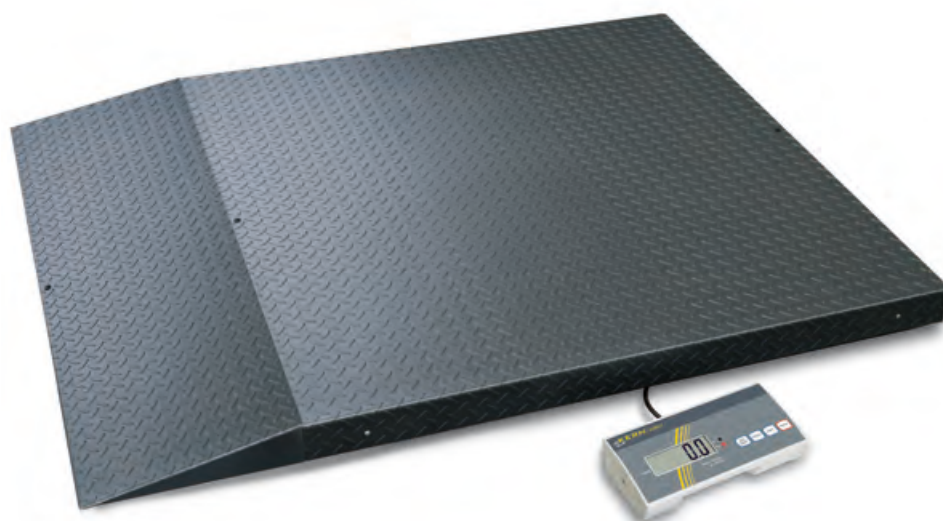
## FACTORY



Model	Weighing range [Max] kg	Read-out [d] g	Verific. value [e] g	Minimum load [Min] g	Min. piece weight [PW min] g/piece	Net weight approx. kg	Weighing plate	Options			
								Verification		DKD Calibr. Certificate	
								M III	KERN		DKD KERN
<b>IKT 6K0.1</b>	6	0,1	-	-	0,1	7,5	<b>B</b>	-	-	963-128	
<b>IKT 12K0.2</b>	12	0,2	-	-	0,2	7,5	<b>B</b>	-	-	963-128	
<b>IKT 30K0.5</b>	30	0,5	-	-	0,5	7,5	<b>B</b>	-	-	963-128	
<b>IKT 60K1L</b>	60	1	-	-	1	9,5	<b>C</b>	-	-	963-129	
<b>IKT 120K2L</b>	120	2	-	-	2	9,5	<b>C</b>	-	-	963-129	
<b>IKT 150K2XL</b>	150	2	-	-	2	20	<b>D</b>	-	-	963-129	
<b>IKT 300K5XL</b>	300	5	-	-	5	20	<b>D</b>	-	-	963-129	
High-resolution display											
<b>IKT 3K0.01S</b>	3	0,01	-	-	0,01	5,1	<b>A</b>	-	-	963-127	
<b>IKT 8K0.05</b>	8	0,05	-	-	0,05	7,5	<b>B</b>	-	-	963-128	
<b>IKT 10K0.1S</b>	10	0,1	-	-	0,1	5,1	<b>A</b>	-	-	963-128	
<b>IKT 16K0.1</b>	16	0,1	-	-	0,1	7,5	<b>B</b>	-	-	963-128	
<b>IKT 30K0.1</b>	30	0,1	-	-	0,1	7,5	<b>B</b>	-	-	963-128	
<b>IKT 30K0.1L</b>	30	0,1	-	-	0,1	9,5	<b>C</b>	-	-	963-128	
<b>IKT 36K0.2</b>	36	0,2	-	-	0,2	7,5	<b>B</b>	-	-	963-128	
<b>IKT 36K0.2L</b>	36	0,2	-	-	0,2	9,5	<b>C</b>	-	-	963-128	
<b>IKT 60K0.2L</b>	60	0,2	-	-	0,2	9,5	<b>C</b>	-	-	963-129	
<b>IKT 65K0.5L</b>	65	0,5	-	-	0,5	9,5	<b>C</b>	-	-	963-129	
<b>IKT 100K0.5L</b>	100	0,5	-	-	0,5	9,5	<b>C</b>	-	-	963-129	
<b>IKT 150K1L</b>	150	1	-	-	1	9,5	<b>C</b>	-	-	963-129	
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.											
<b>IKT 6K1M</b>	6	1	1	20	1	7,5	<b>B</b>	950-128		963-128	
<b>IKT 12K2M</b>	12	2	2	40	2	7,5	<b>B</b>	950-128		963-128	
<b>IKT 30K5M</b>	30	5	5	100	5	7,5	<b>B</b>	950-128		963-128	
<b>IKT 60K10LM</b>	60	10	10	200	10	9,5	<b>C</b>	950-129		963-129	
<b>IKT 120K20LM</b>	120	20	20	400	20	9,5	<b>C</b>	950-129		963-129	



## Floor scale KERN BOBP



### Floor scale with the best price performance ratio

1 Dispatch complete on pallet. Please ask for dimensions, gross weight, shipping costs

#### Features

#### Technical data

#### Accessories

- **Simple and convenient 4-key operation**
- **Weighing bridge with non-slip steel chequer plate, lacquered.** Overall height of weighing bridge 90 mm, height-adjustable screw feet to level the platform
- **Wall mount** for display device standard
- **Vibration-free weighing:** at the push of a button, a stable average weight is given when the environmental conditions are unstable or when weighing animals

- Large LCD display, digit height 25 mm
- Dimensions of weighing plate WxDxH 1006x996x90 mm
- Dimensions of display device WxDxH 210x110x45 mm
- Cable length of display device approx. 6 m
- Optional battery operation, 6 x 1.5 V AA not included. AUTO-OFF function to preserve the batteries. Operating time approx. 60 h
- Net weight approx. 50,5 kg
- Permissible ambient temperature 10 °C / 35 °C

- **1 Stand** to elevate display device, height of stand approx. 950 mm, KERN MWS-A01
- **Ascending ramp** including fixing board between weighing bridge and ascending ramp, WxDxH 996x507x87 mm, see larger picture, not included, KERN BOBP-A01

#### STANDARD



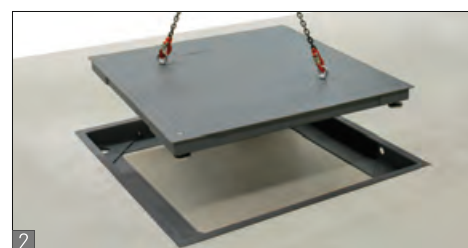
#### OPTION



Model	Weighing range [Max] kg	Read-out [d] g	Reproducibility g	Linearity g	Option	
					DKD Calibr. Certificate	
KERN					DKD KERN	
BOBP 300K200	300	200	200	± 400	963-129	
BOBP 750K500	750	500	500	± 1000	963-130	
BOBP 1.5T1	1500	1000	1000	± 2000	963-130	

1 ONLY WHILE STOCKS LAST

## Floor scale KERN BFS



## Floor scale with piece-counting function

### Features

- **Weighing bridge with non-slip steel chequer plate, lacquered**, overall height 80 mm
- **Easy access to the junction box** from the top
- **Comfortable adjustment of the weighing bridge** from above
- **Display device KERN KFS-T**, details see page 112
- **Benchtop stand incl. wall mount** for display device as standard
- **Precise counting**: The manual optimisation of reference weight gradually improves the average value of the piece weight, see page 79
- **Totalizing** of counting operations
- **Weighing with tolerance range (checkweighing)**: Input of an upper/lower limit value. A visual and audible signal assists with portion division, dispensing or grading

### Technical data

- Large backlit LCD display, digit height 16,5 mm
- Dimensions of weighing plate WxDxH
  - A 1000x1000x80 mm
  - B 1500x1250x80 mm
- Dimensions of display device WxDxH 260x150x65 mm
- Permissible ambient temperature 0 °C / 40 °C

### Accessories

- **Protective working cover** over the display device standard, can be reordered, KERN KFB-A02
- **Stand** to elevate display device, height of stand approx. 750 mm, similar to illustration, KERN BFS-A07

1 Dispatch complete on pallet. Please ask for dimensions, gross weight, shipping costs

- **Ascending ramp**, not included, or models with weighing plate sizes
  - A WxD 1000x840 mm, KERN BFS-A01
  - B WxD 1250x840 mm, KERN BFS-A02
- **Pair of base plates** to fix the weighing bridge to the floor, KERN BFS-A06
- **Stable pit frame** to install the weighing bridge so you can drive straight on, for models with weighing plate sizes
  - A WxDxH 1090x1090x86 mm, KERN BFS-A03
  - B WxDxH 1590x1340x86 mm, KERN BFS-A04
- **Rechargeable battery pack internal**, operating time up to 40 h without backlight, charging time approx. 12 h, must be ordered at purchase, KERN KFS-A01
- **Suitable printers** see page 130

### STANDARD



### OPTION



### FACTORY



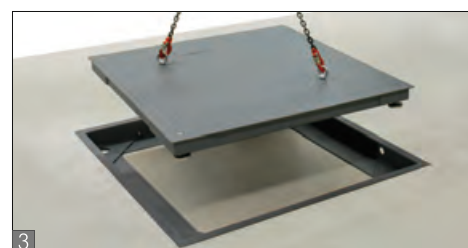
only with printer

Model	Weighing range [Max] kg	Read-out [d] g	Min. piece weight [PW min] g/piece	Net weight approx. kg	Cable length approx. m	Weighing plate	Option	
							DKD	Kern Calibr. Certificate
<b>KERN</b>								
<b>BFS 600K200S</b>	600	200	200	85	5	A	963-130	
<b>BFS 600K200</b>	600	200	200	135	5	B	963-130	
<b>BFS 1.5T0.5S</b>	1500	500	500	85	5	A	963-130	
<b>BFS 1.5T0.5</b>	1500	500	500	135	5	B	963-130	
<b>BFS 3T1</b>	3000	1000	1000	135	5	B	963-132	

1 ONLY WHILE STOCKS LAST



# Floor scale KERN BFB



## Floor scale with EC type approval [M]

### Features

- **Weighing bridge with non-slip steel chequer plate, lacquered**, overall height 80 mm
- **5 Load cell steel, silicone-coated**, IP67 protection
- **Easy access to the junction box** from the top
- **Comfortable adjustment of the weighing bridge** from above
- **Display device KERN KFB-TM**, details see page 113
- **Benchtop stand incl. wall mount** for display device as standard
- **Totalizing** of weights and counting operations

- Dimensions of display device WxDxH 250x160x58 mm
- Permissible ambient temperature -10 °C / 40 °C

### Accessories

- **Protective working cover** over the display device standard, can be reordered, KERN KFB-A02
- **1 Signal lamp** for visual support of weighing with tolerance range, must be ordered at purchase, WxDxH 100x180x300 mm, KERN CFS-A03
- **2 Stand** to elevate display device, height of stand approx. 750 mm, similar to illustration, KERN BFS-A07
- **Pair of base plates** to fix the weighing bridge to the floor, KERN BFS-A06
- **3 Stable pit frame** to install the weighing bridge so you can drive straight on, for models with weighing plate sizes
  - A** WxD 1085x1085 mm, KERN BFS-A03
  - B** WxD 1335x1585 mm, KERN BFS-A04
  - C** WxD 1585x1585 mm, KERN BFS-A08

### Technical data

- Large backlit LCDdisplay, digit height 52 mm
- Dimensions of weighing plate WxDxH
  - A** 1000x1000x80 mm
  - B** 1500x1250x80 mm
  - C** 1500x1500x80 mm

**Note: Note:** For verified scales the weighing bridge must be fixed to the floor. Optionally, with a access ramp or a footplate pair or a pit frame.

Limited range of tare with verifiable models (1/6 from [Max])

**1** Dispatch complete on pallet. Please ask for dimensions, gross weight, shipping costs

- **Rechargeable battery pack internal**, operating time approx. 35 h, charging time approx. 10 h, KERN KFB-A01
- **Ascending ramp**, not included, for models with weighing plate sizes
  - A** WxD 1000x50 mm, KERN BFS-A01
  - B** WxD 1250x50 mm, KERN BFS-A02
  - C** WxD 1500x750 mm, KERN BFS-A09
- **Suitable printers** see page 130

### STANDARD

CAL EXT  
 RS 232  
 GLP  
 PROTOCOL  
 PCS  
 TOL  
 IP 67  
 MOVE  
 230 V  
 DMS  
 2 DAYS  
 3 YEARS WARRANTY  
 4

only with printer

### OPTION

DKD  
+3 DAYS

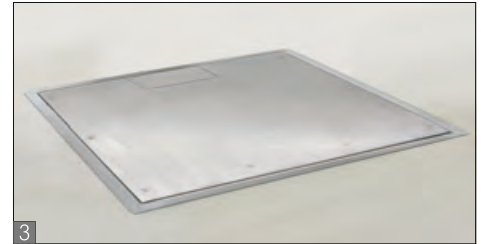
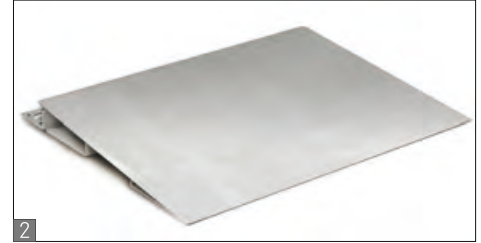
### FACTORY

ACCU  
 M  
+3 DAYS

Model	Weighing range [Max] kg	Read-out [d] g	Verific. value [e] g	Minimum load [Min] kg	Net weight approx. kg	Cable length approx. m	Weighing plate	Options			
								Verification		DKD Calibr. Certificate	
								KERN		KERN	
<b>BFB 600K200SM</b>	600	200	200	4000	85	5	<b>A</b>	965-230		963-130	
<b>BFB 600K200M</b>	600	200	200	4000	135	5	<b>B</b>	965-230		963-130	
<b>BFB 1.5T0.5SM</b>	1500	500	500	10000	85	5	<b>A</b>	965-230		963-130	
<b>BFB 1.5T0.5M</b>	1500	500	500	10000	135	5	<b>B</b>	965-230		963-130	
<b>BFB 3T1M</b>	3000	1000	1000	20000	135	5	<b>B</b>	965-232		963-132	
<b>BFB 3T1LM</b>	3000	1000	1000	20000	160	5	<b>C</b>	965-232		963-132	

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.

# Floor scale KERN BFN



## Stainless steel floor scale in XL size with IP68 platform

### Features

- **Weighing bridge entirely out of stainless steel**, extremely resistant to bending because of its high material thickness. Weighing plate fixed with stainless steel screws. Weighing bridge can also be delivered as components without the display device, KERN KFP-V40, details see page 114
- **Easy access to the junction box** from the top
- **Load cell stainless steel**, welded, IP68
- **Display device KERN KFN-TM**, stainless steel, IP67, details see page 113
- **Benchtop stand incl. wall mount** for display device as standard
- **Weighing with tolerance range (checkweighing)**: Input of an upper/lower limit value. A visual and audible signal assists with portion division, dispensing or grading
- **Totalizing** of weights and counting operations

### Technical data

- Large backlit LCDdisplay, digit height 52 mm
- Dimensions of weighing plate WxDxH 1500x1250x80 mm
- Dimensions of display device WxDxH 266x165x96 mm
- Rechargeable battery pack internal, standard, operating time approx. 35 h without backlight, charging time approx. 12 h
- Cable length of display device approx. 5 m
- Net weight approx. 135 kg
- Permissible ambient temperature -10 °C / 40 °C

### Accessories

- **Stand** to elevate display device, height of stand approx. 750 mm, KERN BFS-A07

**Note:** For verified scales the weighing bridge must be fixed to the floor. Optionally, with a access ramp or a footplate pair or a pit frame.

**1** Dispatch complete on pallet. Please ask for dimensions, gross weight, shipping costs.

- **2 Ascending ramp**, stainless steel, incl. attachment plate to fix it to the weighing bridge, dimensions WxDxH 1250x750x85 mm, KERN BFN-A01
- **Pair of base plates** to fix the weighing bridge to the floor, KERN BFN-A03, on request
- **3 Stable pit frame** to install the weighing bridge so you can drive straight on, stainless steel, dimensions WxDxH 1250x1500x86 mm, KERN BFN-A02
- **Data interface RS-232**, interface cable included, must be ordered at purchase, KERN KFN-A01
- **Suitable printers** see page 130

### STANDARD

CAL EXT	GLP PROTOCOL	PCS	RECIPE	TOL	MOVE	IP 68	IP 67	INOX	ACCU	230 V	DMS	2 DAYS	3 YEARS WARRANTY
---------	--------------	-----	--------	-----	------	-------	-------	------	------	-------	-----	--------	------------------

only with printer

### OPTION

DKD	+3 DAYS
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### FACTORY

RS 232	M	+3 DAYS
--------	---	---------

Model	Weighing range [Max] kg	Read-out [d] g	Verific. value [e] g	Minimum load [Min] kg	Options			
					Verification		DKD Calibr. Certificate	
					KERN	965-230	KERN	963-130
<b>KERN BFN 1.5T0.5M</b>	1500	500	500	10	KERN	965-230	KERN	963-130

## Weighing beams KERN UFA



## Weighing beams can be used for large loads in many applications

### Features

- Ideal for weighing large, bulky or long items
- **High mobility:** thanks to battery operation (optional) and compact, flat construction, it is suitable for use in several locations (production, warehouse, dispatch department, ...)
- **Sturdy handles** to transport the weighing beams
- **Weighing beams steel**, lacquered, solid steel construction, extremely resistant to bending
- **Load cells steel, silicone-coated**
- **Display device KERN KFB-TM**, details see page 113
- **Weighing with tolerance range (checkweighing):** Input of an upper/lower limit value. A visual and audible signal assists with portion division, dispensing or grading
- **Vibration-free weighing:** at the push of a button, a stable average weight is given when the environmental conditions are unstable or when weighing animals

- **Totalizing** of weights and counting operations
- **Benchtop stand incl. wall mount** for display device as standard
- Weighing beams can also be delivered as components without the display device, For additional information see page 115

### Technical data

- Large backlit LCDdisplay, digit height 52 mm
- Dimensions weighing beams WxDxH 1200x120x100 mm
- Dimensions of display device WxDxH 250x160x58 mm
- Cable length of display device approx. 5 m
- Cable length weighing beams approx. 2,5 m
- Net weight approx. 35 kg
- Permissible ambient temperature -10 °C / 40 °C

### Accessories

- **Protective working cover** over the display device standard, can be reordered, KERN KFB-A02
- **Stand** to elevate display device, height of stand approx. 750 mm, KERN BFS-A07
- **Rechargeable battery pack internal**, operating time approx. 35 h, charging time approx. 10 h, KERN KFB-A01
- **Signal lamp** for visual support of weighing with tolerance range, KERN CFS-A03
- **2nd data interface**, Y cable for parallel connection of two terminal devices to the RS 232 interface of the balance, e.g. of a printer, signal lamp etc. KERN CFS-A04
- **Suitable printers** see page 130

1 Dispatch complete on pallet. Please ask for dimensions, gross weight, shipping costs

### STANDARD



only with printer

### OPTION



Model	Weighing range [Max] kg	Read-out [d] g	Reproducibility g	Linearity g	Option	
					DKD Calibr. Certificate	DKD KERN
UFA 1.5T0.5	1500	500	500	± 1000	963-130	
UFA 3T1	3000	1000	1000	± 2000	963-132	

## Pallet scales KERN UFB · UFN



KERN UFB



KERN UFN

Pallet scale made from painted steel or stainless steel, suitable with EC type approval [M]

### Features

- **High mobility:** thanks to battery operation and compact, flat construction, it is suitable for use in several locations (production, warehouse, dispatch department,...)
- **2 rollers and handle** for easy transport of the scale
- **Dynamic weighing:** at the push of a button, a stable average weight is given when the environmental conditions are unstable or when weighing animals
- **Totalizing** of weights and counting operations
- **1 Load cell steel, silicone-coated, IP67**
- **Load support solid steel construction**, extremely resistant to bending

### UFB:

- **Display device KERN KFB-TM**, details see page 113
- **Load support, steel lacquered, IP67**

### UFN:

- **Display device KERN KFN-TM, stainless steel, IP67**, details see page 113
- **2 Load support, stainless steel, IP67**

### Technical data

- Large backlit LCDdisplay, digit height 52 mm
- Cable length of display device approx. 5 m
- Permissible ambient temperature -10 °C / 40 °C
- Dimensions of display device WxDxH  
UFB: 250x160x58 mm  
UFN: 266x165x96 mm

### UFN:

- **3 Rechargeable battery pack** internal standard, operating time approx. 80 h, charging time approx. 10 h

### Accessories

- **3 Stand** to elevate display device, height of stand approx. 750 mm, similar to illustration, KERN BFS-A07

- **Suitable printers** see page 130

### UFB:

- **Protective working cover** over the display device standard, can be reordered, KERN KFB-A02
- **5 Rechargeable battery pack internal**, operating time approx. 35 h, charging time approx. 12 h, must be ordered at purchase, KERN KFB-A01
- **Signal lamp** for visual support of weighing with tolerance range, WxDxH 100x180x300 mm, see page 131, KERN CFS-A03

### UFN:

- **6 Data interface RS-232**, interface cable included, must be ordered at purchase, KERN KFN-A01

- **1 Dispatch complete on pallet.** Please ask for dimensions, gross weight, shipping costs

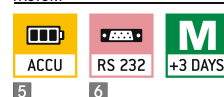
### STANDARD



### OPTION



### FACTORY



Model	Weighing range [Max] kg	Read-out [d] g	Verific. value [e] g	Minimum load [Min] kg	Net weight approx. kg	Options		
						Verification		DKD Calibr. Certificate
						M	KERN	DKD KERN
KERN UFB 600K200M	600	200	200	4	43	965-230	963-130	
KERN UFB 1.5T0.5M	1500	500	500	10	43	965-230	963-130	
stainless steel								
KERN UFN 600K200IPM	600	200	200	4	46	965-230	963-130	
KERN UFN 1.5T0.5IPM	1500	500	500	10	46	965-230	963-130	

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.

# Drive-through scale KERN NFB



## Industrial drive-through scale with two integrated access ramps, with EC type approval [M]

Features	Technical data	Accessories
<ul style="list-style-type: none"> <li>Robust drive-through scales for rapid weighing of e.g. wire cage trolleys, shelf trolleys, container trolleys, storage trolleys, sack trucks, truck scales, mobile cages, refuse bins etc.</li> <li><b>Weighing bridge with non-slip steel chequer plate, lacquered</b>, extremely resistant to bending</li> <li><b>4 Load cells steel, silicone-coated.</b> <b>IP67 protection:</b> Protection against dust and water, temporary use in wet areas is possible</li> <li><b>Display device KERN KFB-TM</b>, details see page 113</li> <li>Limited range of tare with verifiable models (1/6 from [Max])</li> </ul>	<ul style="list-style-type: none"> <li>Large backlit LCDdisplay, digit height 52 mm</li> <li>Overall dimensions WxDxH                             <ul style="list-style-type: none"> <li><b>A</b> 1600x1200x78 mm</li> <li><b>B</b> 1800x1400x78 mm</li> </ul> </li> <li>Drive-through width and depth WxD                             <ul style="list-style-type: none"> <li><b>A</b> 1000x1000 mm</li> <li><b>B</b> 1200x1200 mm</li> </ul> </li> <li>Dimensions of display device WxDxH 250x160x58 mm</li> <li>Cable length of display device approx. 5 m</li> <li>Net weight approx. 131 kg</li> <li>Permissible ambient temperature -10 °C / 40 °C</li> </ul>	<ul style="list-style-type: none"> <li><b>Protective working cover</b> over the display device standard, can be reordered, KERN KFB-A02</li> <li><b>Stand</b> to elevate display device, height of stand approx. 750 mm, KERN BFS-A07</li> <li><b>Signal lamp</b> for visual support of weighing with tolerance range, WxDxH 100x180x300 mm, see page 131, KERN CFS-A03</li> <li><b>Suitable printers</b> see page 130</li> </ul> <p><b>1</b> For verified scales the weighing bridge must be fixed to the floor. Optionally, with a access ramp or a footplate pair</p> <p><b>1</b> Dispatch complete on pallet. Please ask for dimensions, gross weight, shipping costs</p>

STANDARD: CAL EXT, RS 232, GLP PROTOCOL, PCS, RECIPE, TOL, MOVE, IP 67, ACCU, 230 V, DMS, 2 DAYS, 3 YEARS WARRANTY

OPTION: DKD +3 DAYS

FACTORY: M +3 DAYS

Model	Weighing range [Max] kg	Read-out [d] g	Net weight approx. kg	Verific. value [e] g	Minimum load [Min] kg	Weighing plate	Options			
							Verification		DKD Calibr. Certificate	
							M III KERN		DKD KERN	
NFB 600K200M	600	200	131	200	4	A	965-230		963-130	
NFB 600K200LM	600	200	175	200	4	B	965-230		963-130	
NFB 1.5T0.5M	1500	500	131	500	10	A	965-230		963-130	
NFB 1.5T0.5LM	1500	500	150	500	10	B	965-230		963-130	

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.

# 11 Display devices / Weighing bridges

## Individuality is the trump card

Do you have any special requests, which are not covered by our extensive balance range? Then why not configure your ideal model yourself, it's quick, individual and affordable.

### It's your choice:

- Choose one of the many KERN weighing bridges, pallet scales or drive-through scales and combine these with one of the many KERN display devices
- Combine **your** weighing bridge with a KERN display device
- Combine **your** display device with a KERN weighing bridge

### With KERN get your ideal balance verified too

To help you achieve a verified individual scale combination KERN offers you full support, such as for example

- Production of proof of compatibility, see page 111
- Support in preparing for verification, EC type approval, setup conditions
- Issue of declaration of conformity upon conformity evaluation (manufacturer's initial verification)



Of course we can also offer you the complete service and put the required scale combination together for you, including verification. All further details can be found on the following pages or ask your personal customer service agent, he will be pleased to advise you.

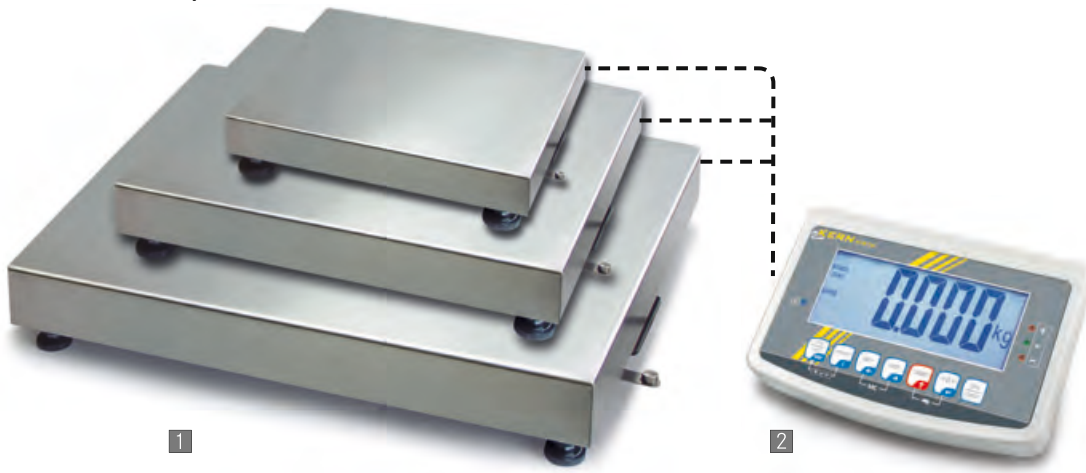
KERN Model	Page
<b>Individual scale combinations</b>	111
<b>Verification consultation</b>	111
<b>Display devices</b>	
KDE-T	112
KXE-TM	112
KFS-T	112
KFB-TM	113
KFE-TM	113
KFN-TM	113
<b>Platforms, Weighing bridges</b>	
Platform KFP V20	114
Weighing bridge KFP V20	114
Weighing bridge KFP V40	114
Weighing bridge KFD	115
U-Weighing bridge KFU V20/V30	115
Weighing beams KFA	115



Your KERN product specialist will be happy to help:

**Stephan Ade**  
Product specialist Industrial scales

## KERN Components



You select the KERN-components, KERN will look after the rest:

- 1 Platforms KERN KFP etc. (see page 114/115)
- 2 Display devices KFB-TM etc. (see page 112/113)
- 3 Assembly of a complete scale
- 4 Proof of compatibility for on-site verification
- 5 Verification at the factory KERN

## Components for individual scale combinations



Services	KERN	
(Installation of platform and display device. DKD calibration certificate for complete scales free of charge.)		
1 KERN Platform, see page 114/115		
2 KERN Display devices, see page 112/113		
<b>Assembly to complete scale</b>		
3 Weighing ranges max ≤ 150 kg	930-101	
3 Weighing ranges max > 150 - 600 kg	930-102	
3 Weighing ranges max > 600 - 1500 kg	930-103	
3 Weighing ranges max > 1500 kg	930-104	
<b>Additional price for verification ex works</b>		
4 Proof of compatibility	965-240	
5 Weighing ranges max ≤ 5 kg	965-227	
5 Weighing ranges max > 5 kg - 50 kg	965-228	
5 Weighing ranges max > 50 kg - 350 kg	965-229	
5 Weighing ranges max > 350 kg - 1500 kg	965-230	
5 Weighing ranges max > 1500 kg - 3000 kg	965-232	

Order example	KERN	
(Platform KFP 30V20M and display device KFB-TM)		
1 KERN Platform	KFP 30V20M	
2 KERN Display devices	KFB-TM	
<b>3 Assembly of a complete scale</b>		
Weighing ranges max ≤ 150 kg	930-101	
4 Proof of compatibility	965-240	
5 Verification ex works KERN	965-228	
<b>Complete scale (verified)</b>		



For further combinations in the KERN product range, please ask for details.

## Verification consultation service for individual scale combinations

### Information for specialist balance companies:

If display devices (terminals) with EC-Type approval and weighing bridges (e.g. pallet scales, floor scales or drive-through scales) with EC-Type approval are combined as a complete unit, then this weighing system can be verified as a class III commercial scale.

### For this procedure KERN offers the following support:

- 4 Proof of compatibility: We will confirm whether combinations of weighing modules such as display devices, load cells and connecting elements are appropriate for verification. We would be pleased to carry this out for you.
- Authorisation for initial verification by the manufacturer: We will support you in your preparations for verification, issuing the declaration of conformity and be involved with the manufacturer's initial verification.

## Display devices KERN KDE · KXE-TM · KFS-T



### 1 KERN KDE-T

STANDARD

- CAL EXT
- RS 232
- PCS
- RECIPE
- PERCENT
- IP 65

STANDARD

- MOVE
- BATT
- 230 V
- ACCU

OPTION

- M

### 2 KERN KXE-TM

STANDARD

- CAL EXT
- RECIPE
- MOVE
- 230 V

OPTION

- M

### 3 KERN KFS-T

STANDARD

- CAL EXT
- RS 232
- PCS
- TOL
- 230 V

STANDARD

- ACCU

OPTION

- M

KERN evaluation devices for many platforms – innovative technology, to construct your own weighing system. Can be used in any combination, e.g. with all platforms on page 114/115

Features	Models KERN		
	1 KDE-T	2 KXE-TM	3 KFS-T
Characteristics	Multi functional scale, protected by IP65	Affordable display device with EC-type Approval [M]	Professional display device with 3 displays
Display (segments)	6 digits	6 digits	6 digits
EC type approval	-	yes	-
Resolution verifiable	-	3.000 e	-
Resolution non verifiable	2 x 20.000 d	30.000 d	2 x 60.000 d
Weighing ranges	≤ 2	≤ 2	≤ 2
Weighing units	g, kg, lb, oz	kg	kg
Graduations	1, 2, 5, 10	1, 2, 5, 10, n	1, 2, 5, ... 10, n
Piece counting with reference	5, 10, 20, 25, 50	-	n
Display, digit height	backlit LCD display, 25 mm	backlit LCD display, 25 mm	backlit LCD display, 13/16,5 mm
Additional functions	PRE-TARE function	Data Hold function, PRE-TARE function	Totalizing
WSG load cells	87 - 1600 Ω		
Linearisation	4 points	-	5 points
Input voltage	100-240 V, 50/60 Hz	120-230 V, 50/60 Hz	12 V / 500 mA
Permissible ambient temperature	5 °C / 35 °C	0 °C / 40 °C	0 °C / 40 °C
Interface RS 232	yes	-	yes
Column	-	-	BFS-A07, see page 104
Benchtop stand for display device	DE-A13	yes / yes	yes / yes
Wall mount	DE-A12, see page 95	-	KFB-A02, see page 96
Rechargeable battery pack	NDE-A02, see page 95	-	KFS-A01, see page 96
Operating/charging time	ca. 15 h / 10 h	-	ca. 40 h / 12 h
Dimensions Housing WxDxH	225x110x45 mm	193x94x50 mm	260x150x65 mm
Net weight	1 kg	1 kg	1,5 kg

NOTE: If display devices and platforms (weighing bridges) with EC type approval [M] are combined into a complete unit, this weighing system can be verified in the EU as a class III commercial scale. For further details see page 111.

WARRANTY



READY FOR SHIPPING





## Display devices KERN KFB-TM · KFE-TM · KFN-TM



### 4 KERN KFB-TM

STANDARD



STANDARD



### 5 KERN KFE-TM

STANDARD



STANDARD



### 6 KERN KFN-TM

STANDARD



STANDARD



KERN evaluation devices for many platforms – innovative technology, to construct your own weighing system. Can be used in any combination, e.g. with all platforms on page 114/115

Features	Models KERN		
	4 KFB-TM	5 KFE-TM	6 KFN-TM
<b>Characteristics</b>	Display device with large digits - easy to read	Stainless steel, protected by IP65	Display device made from stainless steel with IP65 protection
<b>Display (segments)</b>	5 + ½ digts	6 digts	5 + ½ digts
<b>EC type approval</b>	yes	yes	-
Resolution verifiable	6.000 e	6.000 e	6.000 e
Resolution non verifiable	30.000 d	30.000 d	30.000 d
<b>Weighing ranges</b>	≤ 2	≤ 2	≤ 2
<b>Weighing units</b>	kg	-	kg
<b>Graduations</b>	1, 2, 5, 10, n	1, 2, 5, 10, n	1, 2, 5, 10, n
<b>Piece counting with reference</b>	-	-	-
<b>Display, digit height</b>	backlit LCD display, 52 mm	backlit LCD display, 22 mm	backlit LCD display, 52 mm
<b>Additional functions</b>	Totalizing, hold function		Totalizing, hold function
<b>WSG load cells</b>	87 - 1600 Ω	87 - 350 Ω	87 - 1600 Ω
<b>Linearisation</b>	2 points	2 points	2 points
<b>Input voltage</b>	12 V / 500 mA	200-240 V, 50 Hz	100-240 V, 50/60 Hz
<b>Permissible ambient temperature</b>	0° C / 40° C (not verified) -10° C / 40° C (verified)	- 10° C / 40° C	0° C / 40° C (not verified) -10° C / 40° C (verified)
<b>Interface RS 232</b>	yes	-	KFN-A01, see page 72
<b>Column</b>	BFS-A07, see page 104	-	BFS-A07, see page 104
<b>Benchtop stand for display device</b>	yes / yes	yes / yes	yes / yes
<b>Wall mount</b>	KFB-A02, see page 97	-	-
<b>Rechargeable battery pack</b>	KFB-A01, see page 97	included	included
<b>Operating/charging time</b>	ca. 35 h / 12 h	ca. 45 h / 12 h	ca. 50 h / 12 h
<b>Dimensions Housing WxDxH</b>	250x160x58 mm	195x118x83 mm	266x165x96 mm
<b>Net weight</b>	1,5 kg	1 kg	2 kg



NOTE: If display devices and platforms (weighing bridges) with EC type approval [M] are combined into a complete unit, this weighing system can be verified in the EU as a class III commercial scale. For further details see page 111.

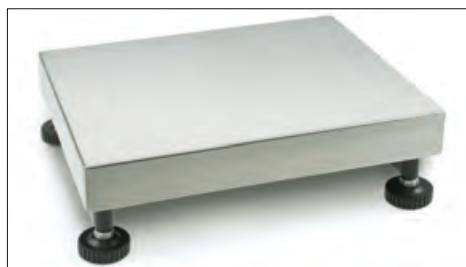
WARRANTY



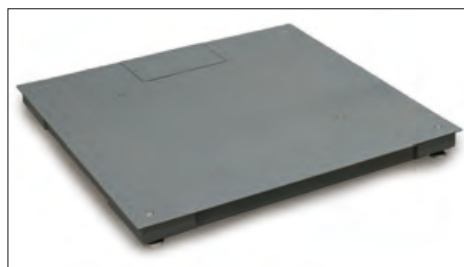
READY FOR SHIPPING



## Platforms KERN KFP



1 KERN KFP V20



2 KERN KFP V20



3 KERN KFP V40



- **Stainless steel-weighing plate**, **5** Painted steel base
- **1 load cell, aluminium, silicone-coated, IP65, OIML-approved, class III, 3000 e**
- **Level indicator and foot screws** to level the balance precisely, fitted as standard, to give the most accurate weighing results

- **Weighing bridge with non-slip steel chequer plate**, lacquered, extremely resistant to bending. Painted steel base
- **4 Load cells, steel, silicone-coated, IP67, OIML-R60-approval for verification, class III, 3000 e**
- Can be built in using pit frames (optional)
- **Level indicator and foot screws** to level the balance precisely, fitted as standard, to give the most accurate weighing results
- **Easy access to the junction box** from the top
- **Comfortable adjustment of the weighing bridge** from above
- Accessories page 104/105 (KERN BFS/BFB)

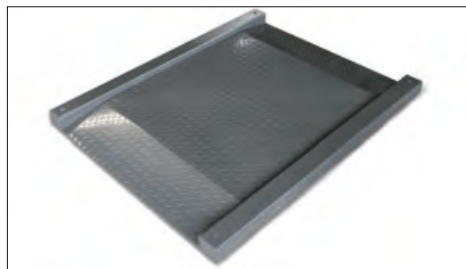
- **Weighing bridge entirely out of stainless steel**, extremely resistant to bending because of its high material thickness
- Weighing plate fixed with stainless steel screws, so that it is easier to access the loadcells from above
- **1 Load cell, stainless steel, welded, IP68, OIML-approved, class III, 3000 e**
- Can be built in using pit frames (optional)
- **Level indicator and foot screws** to level the balance precisely, fitted as standard, to give the most accurate weighing results
- **Easy access to the junction box** from the top
- **Comfortable adjustment of the weighing bridge** from above



Can be used in any combination, e.g. with all display devices on page 112 ff.

Modell	Weighing range [Max] kg	Read-out [d] g	Verific. value [e] g	Min. load [Min] g	Add. preload kg	Cabel length approx. m	Net weight approx. kg	Weighing plate mm	
<b>1 Platform KERN KFP V20</b>									
KFP 6V20M	6	2	2	40	1	2,5	3,7	230x230x100	
KFP 6V20LM	6	2	2	40	2	2,5	4,6	300x240x100	
KFP 15V20M	15	5	5	100	2	2,5	4,6	300x240x100	
KFP 30V20M	30	10	10	200	10	2,5	9,7	400x300x128	
KFP 60V20M	60	20	20	400	35	2,5	9,7	400x300x128	
KFP 60V20LM	60	20	20	400	30	2,5	14,25	500x400x137	
KFP 150V20M	150	50	50	1000	90	2,5	14,25	500x400x137	
KFP 150V20LM	150	50	50	1000	136	2,5	20,75	650x500x142	
KFP 300V20M	300	100	100	2000	186	2,5	20,75	650x500x142	
<b>2 Weighing bridge KERN KFP V20</b>									
KFP 600V20SM	600	200	200	4000	120	5	105	1000x1000 x80	
KFP 600V20M	600	200	200	4000	120	5	175	1500x1250 x80	
KFP 1500V20SM	1500	500	500	10000	300	5	105	1000x1000 x80	
KFP 1500V20M	1500	500	500	10000	300	5	175	1500x1250 x80	
KFP 3000V20M	3000	1000	1000	20000	500	5	175	1500x1250 x80	
KFP 3000V20LM	3000	1000	1000	20000	500	5	195	1500x1500 x80	
<b>3 Weighing bridge KFP V40</b>									
KFP 1500V40M	1500	500	500	10000	300	5	175	1500x1250 x80	

## Platforms KERN KFD · KFU · KFA



4 KERN KFD



5 KERN KFU V20/V30



6 KERN KFA V20



- Weighing bridge with non-slip steel chequer plate, lacquered, two access ramps integrated, extremely resistant to bending
- Extremely flat construction facilitate access: access height only 45 mm
- 4 Load cells, steel, silicone-coated, IP67, OIML-approved, class III, 3000 e

- Load area: painted steel (V20), stainless steel (V30)
- 4 load cells, steel, silicone-coated, IP67, OIML-R60-approval for verification, class III, 3000e
- 2 rollers and handle for easy transport of the scale
- Accessories see page (KERN UFA)

- Weighing beams and painted steel base
- 4 load cells, steel, silicone-coated, IP67
- Foot screws to level the weighing beams precisely
- Accessories page 107 (KERN UFA)

Can be used in any combination, e.g. with all display devices on page 112 ff.

Modell	Weighing range [Max] kg	Read-out [d] g	Verific value [e] g	Min. load [Min] g	Add. preload kg	Cabel length approx. m	Net weight approx. kg	Weighing plate mm
<b>4 Drive-through scale KERN KFD</b>								
KFD 600V20M	600	200	200	4000	120	5	131	1600x1200x45
KFD 600V20LM	600	200	200	4000	120	5	175	1600x1200x45
KFD 1500V20M	1500	500	500	10000	300	5	131	1600x1200x45
KFD 1500V20LM	1500	500	500	10000	300	5	175	1600x1200x45
<b>5 U-shaped weighing bridge KERN KFU</b>								
KFU 600V20M	600	200	200	4000	120	5	41	900x1300x90
KFU 1500V20M	1500	500	500	10000	300	5	41	900x1300x90
<b>Edelstahl</b>								
KFU 600V30M	600	200	200	4000	120	5	42	900x1300x90
KFU 1500V30M	1500	500	500	10000	300	5	42	900x1300x90
<b>6 Weighing beams KERN KFA</b>								
KFA 1500V20	1500	500	-	-	300	5	35	2x 1200x120x100
KFA 3000V20	3000	1000	-	-	500	5	35	2x 1200x120x100

# 12 Pallet truck scales

KERN Model		Page
VHE-N	This model is the ideal entry into the world of mobile weighing	117
VHB	Transportation and weighing in one operation	118
VFS	Pallet truck scale with large display, integrated printer and rechargeable battery pack	119
VHS	Robust pallet truck scale with integrated printer	120
VHT	Professional pallet truck scale with counting function, integrated printer and removable battery pack	121
VHM	Professional pallet truck scale with removable battery pack and EC type approval [M]	121



## Weighing and transportation in one operation

Speed up your warehouse and dispatch processes with the KERN pallet truck scales.

Get the exact weight of a load and at the same time, transport it to a specific location, all in one operation. This shortens commissioning times and also avoids the queues, which can occur when you use fixed floor scales.

These mobile weighing solutions are space-saving and deliver reliable weighing results in any location. So, for example in Goods Inwards and Outwards, you can quickly identify differences between given and actual weights. This uncovers any errors in quantities, saves you time and money and thus ensures a very short amortisation period for the original cost of the scale.

KERN offers a carefully coordinated range from affordable entry level models, via the easy-to-use model with counting function, printer or removable battery pack for uninterrupted functionality, right through to the top level model in verified version.

KERN pallet truck scales are made in robust industrial quality, with high level of protection against dust and water splashes, with high-contrast, easy-to-read displays as well as solid wheels and load rollers with foot brakes - all this helps to give you practical support in your work - day after day.

The KERN three-range pallet truck scale is particularly suitable for a wide range of applications, as it has three levels of accuracy. As the loading increases the scale automatically switches to the next largest range, in terms of both weighing range [Max] as well as readout [d]. In this way, you have a clever combination of a high level of accuracy and the ability to handle heavy loads.

KERN pallet truck scales in robust industrial quality, high level of protection against dust and water splashes, with high-contrast, easy-to-read displays as well as solid wheels and load rollers with foot brakes - all this helps to give you practical support in your work - day after day.

Of course, all KERN pallet truck scales can also be calibrated and delivered with a DKD calibration certificate (optional). This ensures the high level of accuracy of your pallet truck scale.



Your KERN product specialist will be happy to help:

**Katharina Queitsch**  
Product specialist pallet truck scales

## Quick-Finder

■ = Standard □ = Option

Read-out	Weighing range	Model	Page	DAYS ready for shipping	M	CAL EXT	MEMORY	PCS	IP	ACCU	BATT
d	Max	KERN			For an explanation of the symbols, see the flap of the envelope						
0,2/0,5/1 kg	0,2/0,5/2 t	VHT 2T0.2T	121	1		■		■	■	■	■
1 kg	2 t	VHB 2T1	118	1		■			■		■
1 kg	2 t	VFS 2T1	119	1		■			■	■	
1 kg	2 t	VHS 2T1	120	1		■			■		■
1 kg	2 t	VHM 2T2M	121	1	■	■			■	■	
5 kg	2,2 t	VHE 2T5N	117	1		■			■		■

# Pallet truck scale KERN VHE-N



This model is the ideal entry into the world of mobile weighing

## Features

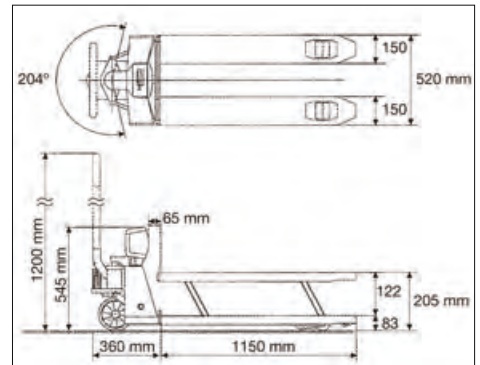
- **Very manoeuvrable** thanks to its compact construction and low weight
- **Particularly robust** because the sensitive components have been relocated from the load fork into the protected housing area. It is therefore also ideal for heavy applications in the production area and on board lorries
- **A Display device IP65.** Protected against dust and water splashes
- **B Load fork IP67.** Load cells are protected against dust and water, temporary use in wet areas is possible
- **Low height of the loading forks** making it easy to work with low pallets
- **Pivot range 204°**
- **Castors:** Solid rubber on aluminium rims
- **Load rollers:** Polyurethane
- **Specially constructed for general checkweighing**, e.g.: plausibility check at goods receiving, establishing shipping weights, avoiding overloads, safety checks

## Operation:

- 1 Switch on and then pump up the load fork to the reference height
  - 2 Tare off
  - 3 Release the load fork and position the goods to be weighed on it
  - 4 Weighing: Pump the load fork up to the reference height
- **Ready for use:** Batteries included (2 x 1.5 V AA). AUTO-OFF function to preserve the batteries. Operating time approx. 1 year / approx. 3000 weighings. Charge condition indicator on display

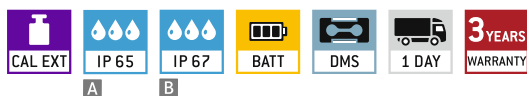
## Technical data

- Large LCD display, digit height 18 mm



**Note:** Dispatch complete on pallet. Please ask for dimensions, gross weight, shipping costs

## STANDARD



## OPTION



Model	Weighing range [Max] kg	Readout [d] kg	Net weight approx. kg	Permissible ambient temperature °C	Option DKD Calibr. Certificate	
					DKD KERN	
KERN VHE 2T5N	2200	5	60	-10 °C / 40 °C	963-131	

## Pallet truck scale KERN VHB



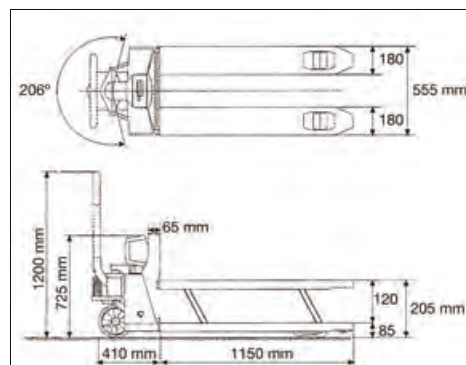
### Transportation and weighing, with a memory for a container weight

#### Features

- **PRE-TARE function** for manual subtraction of a known container weight, e. g. pallet cages, pallets etc., which can be saved
- **1 Display device IP65.** Protected against dust and water splashes
- **2 Load fork IP67.** Load cells are protected against dust and water, temporary use in wet areas is possible
- **Pivot range 206°**
- **Castors:** Solid rubber on aluminium rims
- **3 Load rollers:** Tandem tyres so that you can get over thresholds and obstacles more easily. Material: Polyurethane
- **Ready for use:** Batteries included (4 x 1.5 V AA). AUTO-OFF function to preserve the batteries. Operating time approx. 80 h / 1700 weighings. Charge condition indicator on display

#### Technical data

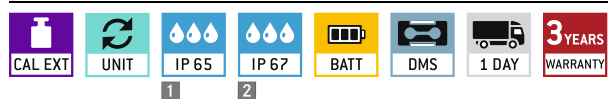
- Large LCD display, digit height 28 mm



**Note:** Dispatch complete on pallet. Please ask for dimensions, gross weight, shipping costs

12

#### STANDARD



#### OPTION



Model	Weighing range	Readout	Net weight approx.	Permissible ambient temperature	Option	
					DKD Calibr. Certificate	
KERN	[Max] kg	[d] kg	kg	°C	DKD KERN	
VHB 2T1	2000	1	120	-10 °C / 40 °C	963-131	

# Pallet truck scale KERN VFS



## Pallet truck scale with large display, integrated printer and rechargeable battery pack

### Features

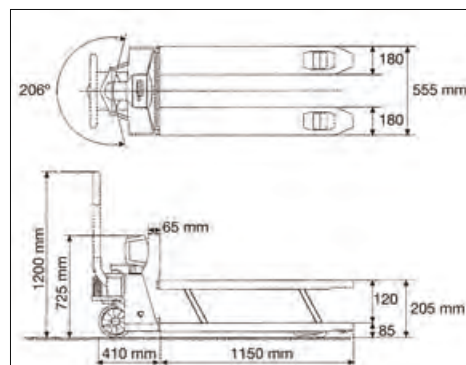
- **PRE-TARE function** for manual subtraction of a known container weight, e. g. pallet cages, pallets etc., which can be saved
- **1 Display device IP65:** Protected against dust and water splashes
- **2 Load fork IP67.** Load cells are protected against dust and water, temporary use in wet areas is possible
- **Pivot range 180°**
- **Castors:** Solid rubber on aluminium rims
- **Load rollers:** Tandem tyres so that you can get over thresholds and obstacles more easily. Material: Polyurethane
- **Rechargeable battery pack internal,** standard, operating time approx. 60 h, charging time approx. 12 h
- **1 Integrated thermal printer,** standard. Printout with date and time. Width of paper 58 mm, 20 characters/line, print-out speed up to 45 mm/sec, temperature range 0 °C / +40 °C

### Technical data

- Large backlit LCDdisplay, digit height 52 mm

### Accessories

- **Thermal receipt rolls** (10 pieces), width 56 mm, Ø 51 mm, KERN RFS-A10



**Note:** As standard, the unit is dispatched without the shaft and display fitted. The shaft and display can be fitted at our factory for an additional cost, delivery + 2 working days, KERN VFS-M01  
Please state when ordering

**1** Dispatch complete on pallet. Please ask for dimensions, gross weight, shipping costs

### STANDARD

### OPTION

only with VFS-M01

Model	Weighing range	Readout	Net weight approx.	Permissible ambient temperature °C	Option	
					DKD Calibr. Certificate	DKD KERN
KERN VFS 2T1	[Max] kg 2000	[d] kg 1	kg 126	-10 °C / 40 °C	963-131	

# Pallet truck scale KERN VHS



## Versatile pallet truck scale with large pivot range and printer

### Features

- **PRE-TARE function** for manual subtraction of a known container weight, which can be saved
- **1 Display device IP65.** Protected against dust and water splashes
- **2 Load fork IP67.** Load cells are protected against dust and water, temporary use in wet areas is possible
- **Pivot range 206°**
- **Castors:** Solid rubber on aluminium rims
- **Load rollers:** Tandem tyres so that you can get over thresholds and obstacles more easily. Material: Polyurethane
- **4 Integrated thermal printer,** standard. Width of paper 58 mm, 20 characters/line, print-out speed up to 45 mm/sec, temperature range 0 °C / +40 °C
- **Ready for use:** Batteries included (4 x 1.5 V AA). AUTO-OFF function to preserve the batteries. Operating time approx. 80 h / 1700 weighings. Charge condition indicator on display

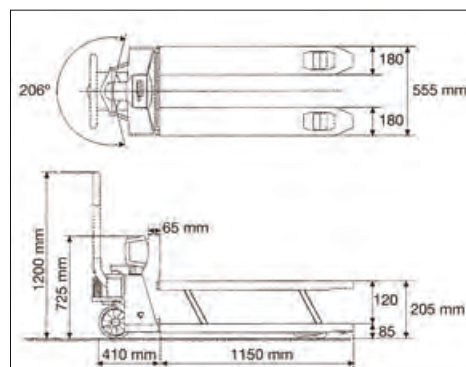
### Technical data

- Large LCD display, digit height 28 mm

### Accessories

- **Thermal receipt rolls** (10 pieces), KERN VHS-A10

**Note:** Dispatch complete on pallet. Please ask for dimensions, gross weight, shipping costs



### STANDARD

### OPTION

Model	Weighing range	Readout	Net weight approx.	Permissible ambient temperature °C	Option	
					DKD Calibr. Certificate	
KERN VHS 2T1	[Max] kg 2000	[d] kg 1	kg 125	-10 °C / 40 °C	DKD KERN	963-131



# Pallet truck scales KERN VHT · VHM



Illustration: KERN VHM

## Pallet truck scale with removable battery, alternatively with piece-counting function (VHT) or EC type approval (VHM)

### Features

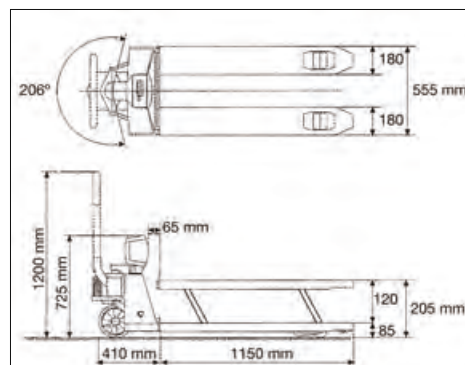
- **PRE-TARE function** for manual subtraction of a known container weight
- **1 Display device IP65.** Protected against dust and water splashes
- **2 Load fork IP67.** Load cells are protected against dust and water, temporary use in wet areas is possible
- **Pivot range 206°**
- **Castors:** Solid rubber on aluminium rims
- **3 Load rollers:** Tandem tyres so that you can get over thresholds and obstacles more easily. Material: Polyurethane
- **4 Rechargeable battery pack internal,** standard, with practical handle for quick replacement, operating time up to 35 h, charging time approx. 6 h, can be reordered, KERN VHT-A01

### KERN VHT

- **Piece-counting function:** Particularly practical, when large quantities of a weighed item must be quickly counted into and out of a container, see page 79
  - **Integrated thermal printer,** standard. Printed with date and time. Width of paper 58 mm, 20 characters/line, print-out speed up to 45 mm/sec, temperature range 0 °C / +40 °C
- Accessories: **Thermal receipt rolls** (10 pieces), KERN VHS-A10

### KERN VHM, see larger picture

- **Verified pallet truck scale,** so can be used in commercial trade situations. Please observe legal conditions and relevant recommendations for use



### Technical data

- Large LCD display, digit height 18 mm
- Net weight approx. 125 kg
- Permissible ambient temperature -10 °C / 40 °C

**Note:** Dispatch complete on pallet. Please ask for dimensions, gross weight, shipping costs

### STANDARD

CAL EXT only VHT  
 PCS only VHT  
 UNIT only VHT  
 IP 65  
 IP 67  
 ACCU  
 230 V  
 DMS  
 1 DAY  
 3 YEARS WARRANTY

### OPTION

DKD  
 +3 DAYS

### FACTORY

M  
 +3 DAYS  
 only VHM

Model	Weighing range [Max] kg	Readout [d] kg	Verific. value [e] g	Minimum load [Min] kg	Min. piece weight [PW min] g/piece	Options				
						Verification		DKD Calibr. Certificate		
KERN						KERN		KERN		
Triple-range balance (T=Triple) switches automatically to the next largest weighing range [Max.] and readout [d].										
VHT 2T0.2T *	200   500   2200	200   500   1000	-	-	500	-	-	-	963-131	
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.										
VHM 2T2M	2000	2000	2000	40	-	965-231		963-131		

**!** \* ONLY WHILE STOCKS LAST



## Hanging scales KERN HDB-N · CH



KERN HDB-N



KERN CH



## Convenient, economical and always handy

### Features

- Ideal for rapid checking in goods receiving and shipping
- Also essential in the private sector for determining the weight of fish, game, fruits, bicycle parts, cases etc.
- **Data hold function:** For easy reading of the weight, the display can be „frozen“ in different ways. Either automatically when the weighing value remains unchanged or manually by pressing the Hold key

### Technical data

#### HDB-N:

- **Hook (stainless steel)**, can be hinged
- **Ready for use:** Batteries included, 2 x 1.5 V AAA, operating time approx. 180 h, AUTO-OFF function to preserve the battery, Pallet truck scale with removable battery, alternatively with piece-counting function (VHT) or EC type approval (VHM) can be switched off
- Further weighing units: kg, lb, N
- Permissible ambient temperature 5 °C / 35 °C

#### CH:

- **Hook (stainless steel)**
- **Tape measure**, extractable, length approx. 100 cm
- **Peak load display** (peak hold), measuring frequency 5 Hz
- **Ready for use:** 9 V Block included, operating time approx. 20 h. AUTO-OFF function to preserve the batteries, can be switched off
- Further weighing units: kg, lb, N
- Permissible ambient temperature 5 °C / 35 °C

### STANDARD



### OPTION



Model	Weighing range [Max] kg	Read-out [d] g	LCD display, digit height mm	Dimensions housing WxDxH mm	Height with hook mm	Net weight approx. kg	Option	
							DKD Calibr. Certificate	
<b>KERN</b>							<b>DKD</b>	
<b>HDB 5K5N</b>	5	5	12	70x25x105	195	0,15	KERN	
<b>HDB 10K10N</b>	10	10	12	70x25x105	195	0,15	963-127	
<b>CH 15K20</b>	15	20	11	90x30x175	270	0,25	963-128	
<b>CH 50K50</b>	50	50	11	90x30x175	270	0,25	963-128	
<b>CH 50K100</b>	50	100	11	90x30x175	270	0,25	963-128	

## Hanging scales KERN HCB · HCN



KERN HCB



KERN HCN



### The handy scales for higher loads, also with IP65

#### Features

- Ideal for rapid checking in goods receiving and shipping
- Also essential in the private sector for determining the weight of fish, game, fruits, bicycle parts, cases etc.
- **Data hold function:** For easy reading of the weight, the display can be „frozen“ in different ways. Either automatically when the weighing value remains unchanged or manually by pressing the Hold key
- **Peak load display** (peak hold), measuring frequency 5 Hz

#### Technical data

- LCD display, digit height 12 mm
- HCB:**
- **Ready for use:** 3 x 1.5 V AA standard, operating time approx. 300 h
- HCN:**
- Housing stainless steel, IP65 protection
  - **Second display** on the rear of the balance
  - **Ready for use:** batteries (2 x 1.5 V AA) standard, operating time approx. 200 h

#### Accessories

- **Hook (stainless steel)** standard, aperture approx. 25 mm, can be reordered, KERN HCB-A02
- **Snap link (stainless steel) with safety catch** standard, aperture approx. 15 mm, can be reordered, KERN HCB-A01

#### STANDARD

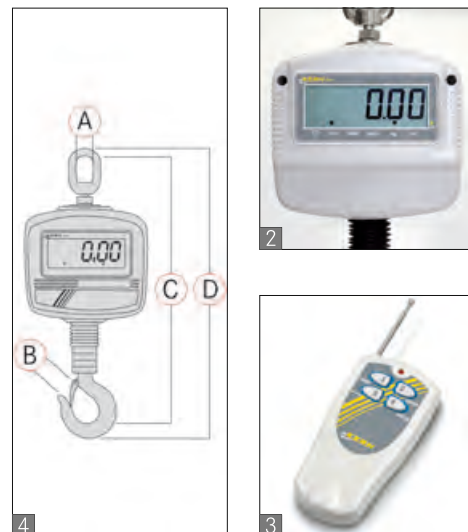


#### OPTION



Model	Weighing range [Max] kg	Read-out [d] g	Dimensions housing WxDxH mm	Height with snap link and hook mm	Net weight approx. kg	Option	
						DKD Calibr. Certificate	DKD KERN
<b>KERN</b>							
HCB 20K10	20	10	80x45x150	290	0,4	963-128	
HCB 50K20	50	20	80x45x150	290	0,4	963-128	
HCB 20K50	20	50	80x45x150	290	0,4	963-128	
HCB 99K50	99	50	80x45x150	290	0,4	963-129	
HCB 50K100	50	100	80x45x150	290	0,4	963-128	
HCB 100K200	100	200	80x45x150	290	0,4	963-129	
HCB 200K100	200	100	80x45x150	290	0,4	963-129	
HCB 200K500	200	500	80x45x150	290	0,4	963-129	
stainless steel							
HCB 20K50IP	20	50	95x55x175	315	0,8	963-128	
HCB 50K100IP	50	100	95x55x175	315	0,8	963-128	
HCB 100K200IP	100	200	95x55x175	315	0,8	963-129	
HCB 200K500IP	200	500	95x55x175	315	0,8	963-129	

## Crane scale KERN HFB



The professional alternative up to 600 kg with rear-facing second display

### Features

- **1** With the TÜV certification mark, the scale meets the requirements of the standard EN 13155 (Non-fixed load lifting attachments) and EN 61010-1 (Electrical safety)
- **3** **Radio remote control** standard. Range approx. 20 m. All functions can be selected (excl. ON/OFF). WxDxH 48x10x95 mm. Batteries included (2 x 1,5 V AAA)
- **High mobility:** thanks to battery operation, compact construction and low weight, it is suitable for use in several locations (production, warehouse, dispatch department, ...)
- **2** **Second display** on the rear of the balance
- **Hook with safety catch**, revolving

- Shackle and hook connection made of nickel-plated steel
- **Adjusting program CAL**, external test weights at an additional price, see page 133
- **Rechargeable battery pack internal**, standard, operating time approx. 40 h, charging time approx. 14 h with mains adapter, charge indicator visual using LED
- **Data hold function:** When the weighing value remains unchanged the weight indicated on the display is automatically „frozen“ until the HOLD key is pressed
- **Tare:** Resets the display to „0“ when there is a load on the scale. Now removed or added loads are directly displayed

### Technical data

- Superior display size: digit height 25 mm. Bright backlight for easy reading of weight, even from a distance
- Dimensions housing WxDxH 163x126x158.5 mm
- Precision: 0.2 % from [Max]
- Permissible ambient temperature 0 °C / 40 °C

#### STANDARD



#### OPTION



Model	Weighing range [Max] kg	Read-out [d] g	Net weight approx. kg	4 Dimensions				Option DKD Calibr. Certificate	
				A	B	C	D	DKD KERN	
KERN				mm	mm	mm	mm		
HFB 150K50	150	50	3,2	26	25	358	390	963-129	
HFB 300K100	300	100	3,2	26	25	358	390	963-129	
HFB 600K200	600	200	3,2	26	25	358	390	963-130	

## Crane scale KERN HUS



## Compact up to 600 kg

### Features

- **1** With the TÜV certification mark, the scale meets the requirements of the standard EN 13155 (Non-fixed load lifting attachments) and EN 61010-1 (Electrical safety)
- **Hook with safety catch**, forged steel, nickel-plated, revolving
- **Loop forged steel**, nickel-plated
- **Adjusting program CAL**, external test weights at an additional price, see page 133
- **Rechargeable battery pack internal**, standard, operating time approx. 120 h, charging time approx. 8 h (internal charging with mains adapter). Selectable: AUTO-OFF function or permanent operation. Charge condition indicator using three-colour LED

- **2 Infrared remote control** standard. Range approx. 2,5 m. All functions can be selected. WxDxH 120x60x15 mm. Batteries included, 2 x 1,5 V AAA
- **Data hold function**: When the weighing value remains unchanged the weight indicated on the display is automatically „frozen“ until the HOLD key is pressed
- **Tare**: Resets the display to „0“ when there is a load on the scale. Now removed or added loads are directly displayed

### Technical data

- Backlit LCDdisplay, digit height 23 mm
- Dimensions housing WxDxH mm
- Total height from loop to hook 380 mm (KERN HUS 600K200: 400 mm)
- Precision: 0.2 % from [Max]
- Net weight approx. 4 kg
- Permissible ambient temperature 0 °C / 40 °C

13

#### STANDARD



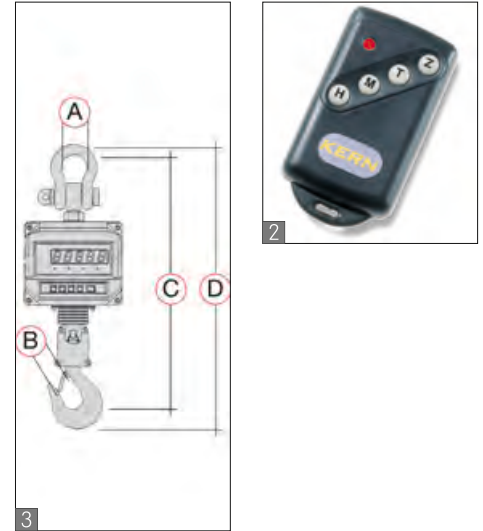
#### OPTION



Model	Weighing range [Max] kg	Read-out [d] g	3 Dimensions				Option DKD Calibr. Certificate	
			A	B	C	D	DKD KERN	
KERN			mm	mm	mm	mm		
HUS 150K50	150	50	24	14	330	380	963-129	
HUS 300K100	300	100	24	14	330	380	963-129	
HUS 600K200	600	200	24	14	350	400	963-130	

**1** ONLY WHILE STOCKS LAST

# Crane scale KERN HUM



Ideal for the industry, up to 3 t

### Features

- With the TÜV certification mark, the scale meets the requirements of the standard EN 13155 (Non-fixed load lifting attachments) and EN 61010-1 (Electrical safety)
- **Robust metal housing**
- **Hook with safety catch**, revolving
- **Adjusting program CAL**, external test weights at an additional price, see page 133
- **Rechargeable battery pack internal**, standard, operating time approx. 80 h, charging time approx. 8 h (internal charging with mains adapter). Selectable: AUTO-OFF function or permanent operation

- **Data hold function:** When the weighing value remains unchanged the weight indicated on the display is automatically „frozen“ until the HOLD key is pressed
- **Tare:** Resets the display to „0“ when there is a load on the scale. Now removed or added loads are directly displayed
- **Radio remote control** standard. Range approx. 25 m. All functions can be selected (excl. ON/OFF). WxDxH 65x40x15 mm. Batteries included (1x12 V 23 A)

### Technical data

- Luminescent LED Segmente display, digit height 25 mm
- Precision: 0.2 % from [Max]
- Permissible ambient temperature 0 °C / 40 °C

#### STANDARD



#### OPTION



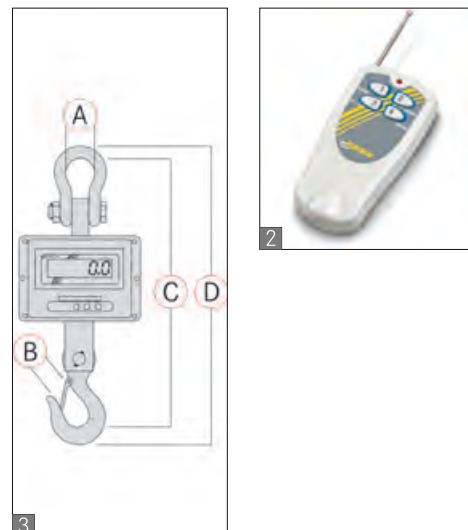
Model	Weighing range [Max] kg	Read-out [d] g	Net weight approx. kg	Dimensions housing WxDxH mm	3 Dimensions				Option DKD Calibr. Certificate	
					A	B	C	D	DKD KERN	
					mm	mm	mm	mm		
KERN HUM 1000K500	1000	500	16	210x228x180	56	42	550	620	963-130	-
KERN HUM 3000K1000	3000	1000	18	210x228x180	73	45	580	650	-	-

**ONLY WHILE STOCKS LAST**

Order Hotline: Go to back page of catalogue

Hanging scales / crane scales

## Crane scale KERN HFM



## High resolution industrial crane scale up to 10 t

### Features

- **1** With the TÜV certification mark, the scale meets the requirements of the standard EN 13155 (Non-fixed load lifting attachments) and EN 61010-1 (Electrical safety)
- **Professional device for robust applications** in production, quality control, logistics etc. Because of its stable construction and robust design, it is ideal for continuous use in industrial applications
- **High mobility:** thanks to battery operation, compact construction and low weight, it is suitable for use in several locations (production, warehouse, dispatch department, ...)
- **Adaptation to unstable environmental conditions** by changing the readout
- **Hook with safety catch**, revolving

- **Rechargeable battery pack internal**, standard, operating time approx. 50 h, charging time approx. 14 h with mains adapter, charge indicator visual using LED
- **Adjusting program CAL**, external test weights at an additional price, see page 133 ff.
- **Data hold function:** When the weighing value remains unchanged the weight indicated on the display is automatically „frozen“ until the HOLD key is pressed
- **Tare:** Resets the display to „0“ when there is a load on the scale. Now removed or added loads are directly displayed
- **2 Radio remote control** standard. Range up to 20 m. All functions can be selected (excl. ON/OFF). WxDxH 48x10x95 mm. Batteries included, 2 x 1,5 V AAA

### Technical data

- Superior display size: digit height 30 mm. Luminescent LED display for easy reading of the weight, even from a distance or in poor lighting conditions
- Precision: 0.2 % from [Max]
- Permissible ambient temperature 0 °C / 40 °C

13

#### STANDARD



#### OPTION



Model	Weighing range [Max] kg	Read-out [d] g	Net weight approx. kg	Dimensions housing WxDxH mm	3 Dimensions				Option DKD Calibr. Certificate	
					A	B	C	D		
					mm	mm	mm	mm	DKD KERN	
HFM 1T0.1	1000	100	15	270x175x200	80	40	540	610	963-130	
HFM 3T0.5	3000	500	16,5	270x175x200	75	50	540	610	on request	
HFM 5T0.5	5000	500	25	300x190x230	75	50	650	730	on request	
HFM 10T1	10000	1000	37	300x190x230	100	60	750	840	on request	



# 14 Accessories



KERN Model	Page
Second data interface RS-232 <b>CFS-A04</b>	132
Matrix needle printer <b>911-013</b>	130
Thermal printer <b>YKB-01N</b>	130
Thermal statistics printer <b>YKS-01</b>	130
Gloves for test weights <b>317-280, 317-290</b>	151
Ioniser to neutralise electrostatic charge <b>YBI-01</b>	132
Power supply adapter set	132
Tweezers <b>315-242, 315-243, 315-245, 335-240</b>	151

KERN Model	Page
RS-232 Ethernet adapter <b>YKI-01</b>	131
Plummet <b>152-532</b>	10
Interface cable	131
Signal lamp <b>CFS-A03</b>	131
Software Balance Connection <b>SCD-4.0</b>	131
Dust brush <b>318-270</b>	151
Tare pan <b>RFS-A02</b>	132
Universal carrying case for scales <b>MPS-A07</b>	132
Weighing table <b>YPS-01</b>	132

## Printer



KERN 911-013

STANDARD



### Matrix needle printer

To print the weights on normal paper, which is ideal for long-term archiving.

#### Technical data:

- Needle print
- Speed: 0,75 lines/sec
- max. 40 characters per line
- Paper stripes: 57 mm wide
- Operation via mains adapter 230V/50Hz (standard)
- Dimensions:  
WxDxH 105x180x90 mm

- Interface cable not included with delivery
- Please state your balance model when ordering, so that the printer can be preconfigured in the factory to suit your balance.

Price printer without interface cable, KERN 911-013

#### Accessories:

Paper rolls (10 pieces),  
KERN 911-013-010



KERN YKB-01N

STANDARD



### Thermal printer

For printing results, recipes, quantities etc. or for GLP record keeping of balance adjustment with date and time print. Language versions: D, GB, F.

#### Technical data:

- Thermal print
- Speed: 0,75 lines/sec
- max. 40 characters per line
- Paper stripes: 112 mm wide
- Operation via mains adapter: 230 V/50 Hz (standard)

- Dimensions:  
WxDxH 165x140x50 mm

• Interface cable not included with delivery

Please state your balance model when ordering, so that the printer can be preconfigured in the factory to suit your balance.

Price printer without interface cable, KERN YKB-01N

#### Accessories:

Paper rolls (10 pieces),  
YKB-A10



KERN YKS-01

STANDARD



### Statistics thermal printer

For printing results, recipes, etc. or for GLP record keeping of balance adjustment with date and time print. Numerator; with statistical functions such as count and total of all measurements, minimum and maximum values of the main unit, range (Max-Min). Average value, standard deviation, available units: mg, g, kg, pcs. Language versions: D, GB, F.

#### Technical data:

- Thermal print
- Speed: 0,75 lines/sec
- max. 40 characters per line
- Paper strip: 112 mm wide

- Operation via mains adapter: 230 V/50 Hz (standard)

- Dimensions:  
WxDxH 165x140x50 mm

• Interface cable not included with delivery

Please state your balance model when ordering, so that the printer can be preconfigured in the factory to suit your balance.

Price printer without interface cable, KERN YKS-01

#### Accessories:

Paper rolls (10 pieces),  
KERN YKB-A10

001:	0.366 g
002:	0.363 g
003:	0.357 g
004:	0.354 g
18/05/11	15:01
n	004
$\Sigma$	00001.44 g
x	00000.31 g
$\sigma^{n-1}$	00000.14
$\sigma^n$	00000.44
Min	00000.00 g
Max	00000.36 g
R	00000.36 g

- ← Measured value 001
- ← Measured value 002
- ← Measured value 003
- ← Measured value 004
- ← Date / Time
- ← Number of test results
- ← Sum of all test results
- ← Mean value of all test results
- ← Standard deviation of the basic totality
- ← Standard deviation of a random sample
- ← Minimum value of the basic totality
- ← Maximum value of the basic totality
- ← Span of the basic totality  
(maximum value – minimum value)

Printout sample KERN YKS-01: Statistics



**Individual header data:** If noted on the balance, for printers **KERN 911-013, YKB-01N** the free software **KERN SHM-01** (see internet) can be used to print 4 header lines on the printout. Compatible models: KERN 440, DE, FCB, FKB-A, PCB, PCD.

## Accessories

### Interface cable for RS-232

for direct connection to a printer or PC, cable length approx. 1.5 m.  
The interface parameters can be set using the balance keypad.

Printer →	YKB-01N + PC + 911-013 Order No.	YKS-01 Order No.
440, AL...-A, ALT-B, CDE, DBS, DLB, DE-D, DLT, EMB-V, FCB, FKB-A, KMB-TM, KMS-TM, KMT-TM, NDE, PCB, PCD, PKS, PKP, PKT, 572, 573, CDS, CKE, DS, FKB, FKT, KB, IKT, PL...-A, PL...-F, PLT		572-926
BFB, BFN, CFS, CPB-N, GAB-N, IFB, KFB-TM, KFN-TM, NFB, PFB, SFB, UF...		CFS-A01
EW, EW-N, EG-N, PE... Printer connection (unidirectional)		474-926
ABT, PBS, PBJ, ABS/ABJ (year of production 2000-2012)		770-926
AES-N, AEJ-NM, BTEP, ILJ, ILS KME, NTEP, PLJ-N, UTEP, UTEP		MLB-A05
BFS, IFS, KFS-T, MLB, MLS, ILS, ILJ	MLB-A05	-
ABJ-NM, ABS-N		ACS-A01



**Note:**  
The interface cable is **free of charge** if you purchase the balance and printer together.



1



KERN YKI-01

### Ethernet adapter KERN YKI-01

Adapter to connect balances, force measuring devices etc. with an RS 232 interface <sup>2</sup> to an IP-based Ethernet network <sup>1</sup>. The adapter allows direct integration of measuring devices into most company networks, with automatic configuration using DHCP or statistical IP allocation. You can access the current measuring data at any time over the whole network, without having to use additional cables. The adapter supports a wide range of configuration options using the enclosed administration software or through the web interface. The driver delivered with the goods allows you to access the measuring device with existing, non-network-compatible applications using a virtual COM port.

Compatible with **KERN BalanceConnection software**. Suitable for wall mounting <sup>3</sup>, DIN track mount <sup>3</sup> or free-standing. Scope of supplies: RS 232 Ethernet adapter with 1x Port RS 232 <sup>1</sup>, mains adapter <sup>4</sup>, CD (driver, software, operating instructions), adhesive feet.

Note: To connect to your network, you will need information from your network administrator. You should discuss connecting your device into your network with the administrator before you place your order.

KERN YKI-01

### Software Balance Connection



- Interface cable included. Please specify balance model when ordering (see interface cable table)

Benefits:

- Typing errors during manual transfer, for example, are avoided
- GLP-compliant lab software

KERN SCE-4.0

### 2<sup>nd</sup> RS-232 data interface,

separate Y cable, e.g. for simultaneous connection of a printer, signal lamp etc. Suitable for BFB, CPB-N, CFS, GAB-N, IFB, KFB-TM, NFB, UFA, UFB

KERN CFS-A04



KERN CFS-A03

### Signal lamp

for visual support of weighing with tolerance range. Three-colour LED, red, green, yellow. Suitable for series GAB-N, CPB-N, IFB, NFB, KFB-TM (on request: BFB, UFB). Total dimensions WxDxH 100x180x300 mm,

KERN CFS-A03

For the direct transmission of balance data to Windows applications (operating systems XP, Vista, Windows 7)

- Transfer via RS-232 to the PC, e.g. to MS Excel
- Transfer at the touch of a key or on a time-controlled basis
- Date and time can be given at any time
- The interface protocols for KERN balances are already predefined

## Accessories



KERN YBI-01



## Ioniser to neutralise electrostatic charge

Features:

Goods to be weighed which are non-conductive, such as plastic, china, glass, etc often carry electrostatic charge. The electromagnetic field which then occurs between the goods to be weighed and the balance can cause the weighing result to be distorted by up to a gramme.

Therefore, when weighing in milligrammes or even smaller increments, we recommend neutralising the electrostatic charge with the KERN AC-Korona discharge ioniser.

With the mount **1** supplied with the ioniser, it can be positioned conveniently next to the balance or you can manually direct it from all sides onto a particular item to be weighed **2**.

Technical data:

- **Neutralisation:**  $\pm 20V$
- **Discharge of ozone:** 0,04 ppm/h
- **Dimensions:** WxDxH 97x53x31 mm, WxDxH 150x150x90mm incl. mount
- **Net weight:** ca. 0,11 kg  
ca. 0,55 kg incl. mount
- **Mains connection:** 110-230V/50Hz, AC power supply, 12V DC output

KERN YBI-01

STANDARD



2 DAYS



KERN YPS-01

## Weighing table

Features:

Accurate measuring results require stable working conditions! The KERN YPS-01 weighing table has been constructed to absorb vibrations and oscillations, which would otherwise distort the weighing result.

The YPS-01 weighing table consists of:

- **1** Polished marble plate (36 kg) as integrated working surface, positioned on absorbing rubber components
- Work table with aluminium profile frame and height-adjustable feet

Technical data:

- **Dimensions:** WxDxH 800x600x782 mm
- **Dimensions marble plate:** WxD 400x450 mm
- **Net weight:** ca. 54 kg

**1** Dispatch complete on pallet. Please ask for dimensions, gross weight, shipping costs.

KERN YPS-01



KERN MPS-A07

## Sturdy transport case

for the safe transport and storage of series EOE, EOB scales with weighing plate size  $\leq 315 \times 305$  mm without stand; inner dimensions WxDxH 425x315x65 mm,

KERN MPS-A07



KERN RFS-A02

## Power supply adapter set

from standard EU to UK/US/AUS/CH etc. Four off. Ideal for devices with Class II protection (without earth). Ideal for Euro moulded plug,

KERN YKA-02

## Tare pan

made from stainless steel. Ideal for weighing loose screws, small parts, etc., fruit, vegetables, cheese, etc. BxTxH 370x240x20 mm, Net weight approx. 524 g,

KERN RFS-A02



KERN YKA-02

# 15 Test weights

## Weights yesterday and today

Weights have always been used to carry out weighing procedures. This original purpose has almost disappeared. Today, weights are used almost exclusively for adjusting and testing = calibration of electronic balances. We therefore call them „Test weights“ as this is their purpose of use.

## Adjustment or calibration?

→ **Adjusting** a balance means that you are intervening in the weighing system, to make sure that the display is set to show the correct nominal value. With → **calibration**, on the other hand, there is no intervention, you are testing whether the display is correct and documenting any deviation.

## Testing, doing it right!

The internationally valid OIML Directive R111-2004 classifies test weights hierarchically into accuracy classes, where E1 is the most accurate and M3 is the least accurate weight class. With KERN you get the whole test weight range in all OIML accuracy classes E1, E2, F1, F2, M1, M2, M3.

As the appropriate test weight is only classed as checking equipment to ISO 9000ff if it has the relevant proof of accuracy, all KERN test weights come with an appropriate DKD calibration certificate (optional). For further details, see the DKD calibration service section on page 153.

KERN offers you the appropriate test weight package for your balance, consisting of the test weight, box and → **DKD calibration** certificate, as proof of its accuracy ... the best pre-requisite for proper balance calibration.



## Test weights: classes of accuracy E, F, M and their general relation to the types of balances:

- E2** the most accurate test weights for high resolution analytical balances of verification class I  $\geq 100.000 e$
- F1** Test weights for analytical balances/ precision balances for verification class I/ II,  $\leq 100,000 e$
- F2** Test weights for precision balances of verification class II,  $\leq 30,000 e$
- M1** Test weights for industrial and commercial balances of verification class III,  $\leq 10,000 e$



Your KERN product specialist will be happy to help:

**Marietta Diener**  
Product specialist Test weights

→ See the glossary, page 158/159

## Information about your KERN test weights

	Page
Selection of the appropriate test weight for your balance	134
OIML Directive for weights	135
Denomination table for weight sets	135

## Test weights

<b>KERN E1</b>	Milligram weights, individual weights, weight sets	136
<b>KERN E2</b>	Milligram weights, individual weights, weight sets	137
<b>KERN F1</b>	Milligram weights, individual weights, weight sets	139
<b>KERN F2</b>	Milligram weights, individual weights, test weights, weight sets	143
<b>KERN M1</b>	Milligram weights, individual weights, test weights, weight sets	145
<b>KERN M1</b>	Hook weights, slotted weights, beam bars, rectangular weights, heavy duty weights	147
<b>KERN M2</b>	Individual weights, rectangular weights, weight sets	149
<b>KERN M3</b>	Individual weights, cylindrical weights, rectangular weights, weight sets	150
<b>Accessories</b>	Accessories, tweezers, custom-made special boxes, weight carrying cases, weight carriers	152

Information about your KERN test weight

## Selection of the appropriate test weight for your balance:

Correctly selected test weights with DKD calibration certificate are the pre-requisite for ensuring that your balances are not only correctly adjusted, but also correctly calibrated. Scheduled testing of your balances with such test weights helps to guarantee your quality requirements and to maintain your quality targets.

### Here's how you find the right test weight for your balance:

A balance can never be more accurate than the test weight used to adjust it, it depends on its tolerance.

**Accuracy of the test weight:** Should correspond to the readout *d* of the balance, rather than something better.

**Nominal weight value:** This is shown in adjust mode „CAL“ in the balance display. Given the choice, the heaviest weight is the most suitable for accurate measurement.

Once accuracy and nominal weight value are specified, the suitable test weight is selected according to the tolerances „Tol“ of the individual accuracy classes E2-M3, see column „Tol ± mg“ at the respective weight and table at page 135.

### Example:

Balance with weighing range **Max 2000 g = 2 kg** and readout **d = 0,01 g = 10 mg**

- The accuracy of the required test weight is determined by readout *d* with approx. ±10 mg.
- displayed weight size on „CAL“ mode: 1000 g or 2000 g. The required test weight has a 2 kg weight size.
- suitable test weights with ±10 mg tolerance and 2 kg weight size, stand in accuracy class F1. KERN-No 327-72, see page 140.

### Exception, analytical balances (readout *d* ≤ 0,1 mg):

E1 test weights are recommended. Depending on the safety requirements, E2 test weights with a DKD calibration certificate will also be sufficient.

## From brass to stainless steel - the right test weight for every situation



Test weight → Features ↓	Cylindrical shape with lifting knob, polished stainless steel	Compact shape with carrying grip, polished stainless steel	Cylindrical shape with lifting knob, polished stainless steel or nickel-plated and polished brass	Compact shape with carrying grip, finely turned stainless steel	Cylindrical shape with lifting knob, finely turned stainless steel	Cylindrical shape with lifting knob, finely turned brass
conforms to OIML R111	yes	yes	yes	no	yes	yes
Available classes	E1, E2	E2, F1	F1	adjusted to F1 error limit class	F2, M1	M1, M2, M3
Upper surface	polished	polished	polished	finely turned	finely turned	finely turned
Material	Stainless steel	Stainless steel	Stainless steel or nickel-plated brass	Stainless steel	Stainless steel	Brass
Adjusting cavity	no	no	yes	yes, from 20 g	yes, from 20 g	yes, from 20 g
Verification possible	yes	yes	yes	no	yes	yes, except M2
Checking equipment for verification purposes	approved	approved	approved	not approved	approved	approved
Ideal as checking equipment in QM systems (e.g. ISO 9000 ff)	yes	yes	yes	yes	yes	yes
Benefits	<ul style="list-style-type: none"> <li>• High-quality test weight for analytical and precision balances</li> <li>• Highly-refined upper surface</li> <li>• Optimum shape of the top for good grip</li> </ul>	<ul style="list-style-type: none"> <li>• Affordable test weight for analytical and precision balances</li> <li>• Highly-refined upper surface</li> </ul>	<ul style="list-style-type: none"> <li>• Optimum, high-quality test weight for precision balances</li> <li>• Optimum shape of the top for good grip</li> </ul>	<ul style="list-style-type: none"> <li>• Affordable test weight for in-house checking of precision balances</li> </ul>	<ul style="list-style-type: none"> <li>• Optimum test weight for commercial and industrial scales</li> <li>• Optimum shape of the top for good grip</li> </ul>	<ul style="list-style-type: none"> <li>• Affordable test weight for commercial and industrial scales</li> <li>• Optimum shape of the top for good grip</li> </ul>



## Test weights

## CLASS E1

## Milligram weights, wire shape, stainless steel

• Test weight material: Stainless steel

• Container material: Wood



Milligram weight			+	Box	+	DKD certificate	=	Package price
KERN		Tol ±mg		KERN		KERN		KERN
308-31	1 mg	0,003		338-090-200		962-251		308-311-600
308-32	2 mg	0,003		338-090-200		962-252		308-321-600
308-33	5 mg	0,003		338-090-200		962-253		308-331-600
308-34	10 mg	0,003		338-090-200		962-254		308-341-600
308-35	20 mg	0,003		338-090-200		962-255		308-351-600
308-36	50 mg	0,004		338-090-200		962-256		308-361-600
308-37	100 mg	0,005		338-090-200		962-257		308-371-600
308-38	200 mg	0,006		338-090-200		962-258		308-381-600
308-39	500 mg	0,008		338-090-200		962-259		308-391-600

## Individual weights, cylindrical, polished stainless steel

• Test weight material: Polished stainless steel

• Container material: Lined wood



Individual weight			+	Box	+	DKD certificate Initial calibration	=	Package price	DKD certificate Recalibration
KERN		Tol ±mg		KERN		KERN		KERN	KERN
307-01	1 g	0,010		317-010-100		963-231		307-011-610	962-231
307-02	2 g	0,012		317-020-100		963-232		307-021-610	962-232
307-03	5 g	0,016		317-030-100		963-233		307-031-610	962-233
307-04	10 g	0,020		317-040-100		963-234		307-041-610	962-234
307-05	20 g	0,025		317-050-100		963-235		307-051-610	962-235
307-06	50 g	0,030		317-060-100		963-236		307-061-610	962-236
307-07	100 g	0,05		317-070-100		963-237		307-071-610	962-237
307-08	200 g	0,10		317-080-100		963-238		307-081-610	962-238
307-09	500 g	0,25		317-090-100		963-239		307-091-610	962-239
307-11	1 kg	0,5		317-110-100		963-241		307-111-610	962-241
307-12	2 kg	1,0		317-120-100		963-242		307-121-610	962-242
307-13	5 kg	2,5		317-130-100		963-243		307-131-610	962-243
307-14	10 kg	5,0		317-140-100		963-244		307-141-610	962-244
307-15	20 kg	10,0		317-150-100		963-245		307-151-610	962-245
307-16	50 kg	25,0		317-160-100		963-246		307-161-610	962-246

For E1 weights >1g at the point of initial calibration, a volume determination will be carried out in accordance with OIML R111. When recalibrating, this is not required.

## Weight sets, cylindrical shape, polished stainless steel

• Test weight material: Polished stainless steel

• Container material: Lined wood



Weight set		+	DKD certificate Initial calibration	=	Package price	DKD certificate Recalibration
KERN			KERN		KERN	KERN
308-42	1 mg - 500 mg		962-250		308-421-600	962-250
303-02	1 mg - 50 g		963-201		303-021-610	962-201
303-03	1 mg - 100 g		963-202		303-031-610	962-202
303-04	1 mg - 200 g		963-203		303-041-610	962-203
303-05	1 mg - 500 g		963-204		303-051-610	962-204
303-06	1 mg - 1 kg		963-205		303-061-610	962-205
303-07	1 mg - 2 kg		963-206		303-071-610	962-206
303-08	1 mg - 5 kg		963-207		303-081-610	962-207
303-09	1 mg - 10 kg		963-208		303-091-610	962-208
304-02	1 g - 50 g		963-215		304-021-610	962-215
304-03	1 g - 100 g		963-216		304-031-610	962-216
304-04	1 g - 200 g		963-217		304-041-610	962-217
304-05	1 g - 500 g		963-218		304-051-610	962-218
304-06	1 g - 1 kg		963-219		304-061-610	962-219
304-07	1 g - 2 kg		963-220		304-071-610	962-220
304-08	1 g - 5 kg		963-221		304-081-610	962-221
304-09	1 g - 10 kg		963-222		304-091-610	962-222



## Test weights

## CLASS E2

## Milligram weights, flat polygonal sheet, aluminium/German silver

- Test weight material: Aluminium 1 mg - 5 mg / German silver 10 mg - 500 mg
- Container material: Lined plastic



Milligram weight			+	Container		+	DKD certificate		=	Package price	
KERN		Tol ±mg		KERN			KERN			KERN	
318-01	1 mg	0,006		347-009-400			962-351			318-014-600	
318-02	2 mg	0,006		347-009-400			962-352			318-024-600	
318-03	5 mg	0,006		347-009-400			962-353			318-034-600	
318-04	10 mg	0,008		347-009-400			962-354			318-044-600	
318-05	20 mg	0,010		347-009-400			962-355			318-054-600	
318-06	50 mg	0,012		347-009-400			962-356			318-064-600	
318-07	100 mg	0,016		347-009-400			962-357			318-074-600	
318-08	200 mg	0,020		347-009-400			962-358			318-084-600	
318-09	500 mg	0,025		347-009-400			962-359			318-094-600	

## Individual weights, compact shape, polished stainless steel

- Test weight material: Polished stainless steel
- Container material: Lined plastic



Individual weight			+	Container		+	DKD certificate		=	Package price	
KERN		Tol ±mg		KERN			KERN			KERN	
316-01	1 g	0,03		317-020-400			962-331			316-014-600	
316-02	2 g	0,04		317-020-400			962-332			316-024-600	
316-03	5 g	0,05		317-030-400			962-333			316-034-600	
316-04	10 g	0,06		317-040-400			962-334			316-044-600	
316-05	20 g	0,08		317-050-400			962-335			316-054-600	
316-06	50 g	0,10		317-060-400			962-336			316-064-600	
316-07	100 g	0,16		317-070-400			962-337			316-074-600	
316-08	200 g	0,30		317-080-400			962-338			316-084-600	
316-09	500 g	0,8		317-090-400			962-339			316-094-600	
316-11	1 kg	1,6		317-110-400			962-341			316-114-600	
316-12	2 kg	3,0		317-120-400			962-342			316-124-600	
316-13	5 kg	8,0		317-130-400			962-343			316-134-600	
316-14	10 kg	16,0		317-140-400			962-344			316-141-600	

## Individual weights, cylindrical shape, polished stainless steel

- Test weight material: Polished stainless steel
- Container material: Lined plastic or wooden box (317-150-100 and 317-160-100)



Individual weight			+	Container		+	DKD certificate		=	Package price	
KERN		Tol ±mg		KERN			KERN			KERN	
317-01	1 g	0,03		317-020-400			962-331			317-011-600	
317-02	2 g	0,04		317-020-400			962-332			317-024-600	
317-03	5 g	0,05		317-030-400			962-333			317-034-600	
317-04	10 g	0,06		317-040-400			962-334			317-044-600	
317-05	20 g	0,08		317-050-400			962-335			317-054-600	
317-06	50 g	0,10		317-060-400			962-336			317-064-600	
317-07	100 g	0,16		317-070-400			962-337			317-074-600	
317-08	200 g	0,30		317-080-400			962-338			317-084-600	
317-09	500 g	0,8		317-090-400			962-339			317-094-600	
317-11	1 kg	1,6		317-110-400			962-341			317-114-600	
317-12	2 kg	3,0		317-120-400			962-342			317-124-600	
317-13	5 kg	8,0		317-130-400			962-343			317-134-600	
317-14	10 kg	16,0		317-140-400			962-344			317-141-600	
317-15	20 kg	30,0		317-150-100			962-345			317-151-600	
317-16	50 kg	80,0		317-160-100			962-346			317-161-600	

For individual weights, wooden boxes are also available as an alternative to the plastic containers.

For more details on this, please see page 151.

Test weights

**CLASS E2**

Weight sets, compact shape, polished stainless steel



- Test weight material: Polished stainless steel
- Case material: Lined plastic

Weight set		+		DKD certificate		=		Package price	
KERN				KERN				KERN	
312-024	1 g - 50 g			962-315				312-024-600	
312-034	1 g - 100 g			962-316				312-034-600	
312-044	1 g - 200 g			962-317				312-044-600	
312-054	1 g - 500 g			962-318				312-054-600	
312-064	1 g - 1 kg			962-319				312-064-600	
312-074	1 g - 2 kg			962-320				312-074-600	
312-084	1 g - 5 kg			962-321				312-084-600	

Weight sets, cylindrical shape, polished stainless steel

- Test weight material: Individual weights - polished stainless steel, milligram weights - aluminium/German silver
- Case material: Lined plastic. Milligram weights 1 mg - 500 mg in removable plastic box



Weight set		+		DKD certificate		=		Package price	
KERN				KERN				KERN	
318-22	1 mg - 500 mg			962-350				318-221-600	
313-024	1 mg - 50 g			962-301				313-024-600	
313-034	1 mg - 100 g			962-302				313-034-600	
313-044	1 mg - 200 g			962-303				313-044-600	
313-054	1 mg - 500 g			962-304				313-054-600	
313-064	1 mg - 1 kg			962-305				313-064-600	
313-074	1 mg - 2 kg			962-306				313-074-600	
313-084	1 mg - 5 kg			962-307				313-084-600	
314-024	1 g - 50 g			962-315				314-024-600	
314-034	1 g - 100 g			962-316				314-034-600	
314-044	1 g - 200 g			962-317				314-044-600	
314-054	1 g - 500 g			962-318				314-054-600	
314-064	1 g - 1 kg			962-319				314-064-600	
314-074	1 g - 2 kg			962-320				314-074-600	
314-084	1 g - 5 kg			962-321				314-084-600	

Weight sets, cylindrical shape, polished stainless steel

- Test weight material: Individual weights - polished stainless steel, milligram weights - aluminium/German silver
- Box material: Lined wood. Milligram weights 1 mg - 500 mg in removable plastic box



Weight set		+		DKD certificate		=		Package price	
KERN				KERN				KERN	
318-22	1 mg - 500 mg			962-350				318-221-600	
313-02	1 mg - 50 g			962-301				313-021-600	
313-03	1 mg - 100 g			962-302				313-031-600	
313-04	1 mg - 200 g			962-303				313-041-600	
313-05	1 mg - 500 g			962-304				313-051-600	
313-06	1 mg - 1 kg			962-305				313-061-600	
313-07	1 mg - 2 kg			962-306				313-071-600	
313-08	1 mg - 5 kg			962-307				313-081-600	
313-09	1 mg - 10 kg			962-308				313-091-600	
314-02	1 g - 50 g			962-315				314-021-600	
314-03	1 g - 100 g			962-316				314-031-600	
314-04	1 g - 200 g			962-317				314-041-600	
314-05	1 g - 500 g			962-318				314-051-600	
314-06	1 g - 1 kg			962-319				314-061-600	
314-07	1 g - 2 kg			962-320				314-071-600	
314-08	1 g - 5 kg			962-321				314-081-600	
314-09	1 g - 10 kg			962-322				314-091-600	

## Test weights

## CLASS F1


## Milligram weights, flat polygonal sheet, aluminium/German silver

- Test weight material: Aluminium 1 mg - 5 mg / German silver 10 mg - 500 mg
- Container material: Lined plastic



Milligram weight			+		Container		+		DKD certificate		=		Package price	
KERN		Tol ±mg			KERN				KERN				KERN	
328-01	1 mg	0,020			347-009-400				962-451				328-014-600	
328-02	2 mg	0,020			347-009-400				962-452				328-024-600	
328-03	5 mg	0,020			347-009-400				962-453				328-034-600	
328-04	10 mg	0,025			347-009-400				962-454				328-044-600	
328-05	20 mg	0,030			347-009-400				962-455				328-054-600	
328-06	50 mg	0,040			347-009-400				962-456				328-064-600	
328-07	100 mg	0,050			347-009-400				962-457				328-074-600	
328-08	200 mg	0,060			347-009-400				962-458				328-084-600	
328-09	500 mg	0,080			347-009-400				962-459				328-094-600	

## Individual weights, compact shape, finely turned stainless steel

- Test weight material: Finely turned stainless steel
- Container material: Lined plastic
-  Build type: Not in accordance with OIML R111, adjusted to error limit class F1



Individual weight			+		Container		+		DKD certificate		=		Package price	
KERN		Tol ±mg			KERN				KERN				KERN	
329-01	1 g	0,10			347-030-400				962-431N				329-014-600	
329-02	2 g	0,12			347-030-400				962-432N				329-024-600	
329-03	5 g	0,16			347-030-400				962-433N				329-034-600	
329-04	10 g	0,20			347-050-400				962-434N				329-044-600	
329-05	20 g	0,25			347-050-400				962-435N				329-054-600	
329-06	50 g	0,30			347-070-400				962-436N				329-064-600	
329-07	100 g	0,50			347-070-400				962-437N				329-074-600	
329-08	200 g	1			347-080-400				962-438N				329-084-600	
329-09	500 g	2,50			347-090-400				962-439N				329-094-600	
329-11	1 kg	5			347-110-400				962-441N				329-114-600	
329-12	2 kg	10			347-120-400				962-442N				329-124-600	
329-13	5 kg	25			347-130-400				962-443N				329-134-600	
329-14	10 kg	50			347-140-400				962-444N				329-144-600	

## Individual weights, compact shape, polished stainless steel

- Test weight material: Polished stainless steel
- Container material: Lined plastic



Individual weight			+		Container		+		DKD certificate		=		Package price	
KERN		Tol ±mg			KERN				KERN				KERN	
326-01	1 g	0,10			347-030-400				962-431				326-014-600	
326-02	2 g	0,12			347-030-400				962-432				326-024-600	
326-03	5 g	0,16			347-030-400				962-433				326-034-600	
326-04	10 g	0,20			347-050-400				962-434				326-044-600	
326-05	20 g	0,25			347-050-400				962-435				326-054-600	
326-06	50 g	0,30			347-070-400				962-436				326-064-600	
326-07	100 g	0,50			347-070-400				962-437				326-074-600	
326-08	200 g	1			347-080-400				962-438				326-084-600	
326-09	500 g	2,50			347-090-400				962-439				326-094-600	
326-11	1 kg	5			347-110-400				962-441				326-114-600	
326-12	2 kg	10			347-120-400				962-442				326-124-600	
326-13	5 kg	25			347-130-400				962-443				326-134-600	
326-14	10 kg	50			347-140-400				962-444				326-144-600	

For individual weights, wooden boxes are also available as an alternative to the plastic containers.

For more details on this, please see page 151.

## Test weights

## CLASS F1

## Individual weights, cylindrical shape, nickel-plated and polished brass

- Test weight material: Nickel-plated and polished brass
- Container material: Lined plastic or lined wooden box (317-150-100 and 317-160-100)



Individual weight			+	Container		+	DKD certificate		=	Package price	
KERN		Tol ±mg		KERN			KERN			KERN	
327-61	1 g	0,10		347-030-400			962-431			327-614-600	
327-62	2 g	0,12		347-030-400			962-432			327-624-600	
327-63	5 g	0,16		347-030-400			962-433			327-634-600	
327-64	10 g	0,20		347-050-400			962-434			327-644-600	
327-65	20 g	0,25		347-050-400			962-435			327-654-600	
327-66	50 g	0,30		347-070-400			962-436			327-664-600	
327-67	100 g	0,50		347-070-400			962-437			327-674-600	
327-68	200 g	1		347-080-400			962-438			327-684-600	
327-69	500 g	2,50		347-090-400			962-439			327-694-600	
327-71	1 kg	5		347-110-400			962-441			327-714-600	
327-72	2 kg	10		347-120-400			962-442			327-724-600	
327-73	5 kg	25		347-130-400			962-443			327-734-600	
327-74	10 kg	50		347-140-400			962-444			327-744-600	
327-75	20 kg	100		317-150-100			962-445			327-751-600	
327-76	50 kg	250		317-160-100			962-446			327-761-600	

## Individual weights, cylindrical shape, polished stainless steel

- Test weight material: Polished stainless steel
- Container material: Lined plastic or wooden box (317-150-100 and 317-160-100)



Individual weight			+	Container		+	DKD certificate		=	Package price	
KERN		Tol ±mg		KERN			KERN			KERN	
327-01	1 g	0,10		347-030-400			962-431			327-014-600	
327-02	2 g	0,12		347-030-400			962-432			327-024-600	
327-03	5 g	0,16		347-030-400			962-433			327-034-600	
327-04	10 g	0,20		347-050-400			962-434			327-044-600	
327-05	20 g	0,25		347-050-400			962-435			327-054-600	
327-06	50 g	0,30		347-070-400			962-436			327-064-600	
327-07	100 g	0,50		347-070-400			962-437			327-074-600	
327-08	200 g	1		347-080-400			962-438			327-084-600	
327-09	500 g	2,50		347-090-400			962-439			327-094-600	
327-11	1 kg	5		347-110-400			962-441			327-114-600	
327-12	2 kg	10		347-120-400			962-442			327-124-600	
327-13	5 kg	25		347-130-400			962-443			327-134-600	
327-14	10 kg	50		347-140-400			962-444			327-144-600	
327-15	20 kg	100		317-150-100			962-445			327-151-600	
327-16	50 kg	250		317-160-100			962-446			327-161-600	

**Alternative to plastic container:**

Wooden boxes for individual weights. For more details on this, please see page 151.



Test weights

# CLASS F1

## Weight sets, compact shape, finely turned stainless steel



- Test weight material: Finely turned stainless steel
- Case material: Lined plastic

Weight set		DKD certificate		Package price	
Finely turned, Not in accordance with OIML R111, adjusted to error limit class F1		+		=	
KERN		KERN		KERN	
321-024	1 g - 50 g	962-415		321-024-600	
321-034	1 g - 100 g	962-416		321-034-600	
321-044	1 g - 200 g	962-417		321-044-600	
321-054	1 g - 500 g	962-418		321-054-600	
321-064	1 g - 1 kg	962-419		321-064-600	
321-074	1 g - 2 kg	962-420		321-074-600	
321-084	1 g - 5 kg	962-421		321-084-600	

## Weight sets, compact shape, polished stainless steel



- Test weight material: Polished stainless steel
- Case material: Lined plastic

Weight set		DKD certificate		Package price	
		+		=	
KERN		KERN		KERN	
322-024	1 g - 50 g	962-415		322-024-600	
322-034	1 g - 100 g	962-416		322-034-600	
322-044	1 g - 200 g	962-417		322-044-600	
322-054	1 g - 500 g	962-418		322-054-600	
322-064	1 g - 1 kg	962-419		322-064-600	
322-074	1 g - 2 kg	962-420		322-074-600	
322-084	1 g - 5 kg	962-421		322-084-600	

## Weight sets, cylindrical shape, polished and nickel-plated brass or polished stainless steel

- Test weight material: Individual weights - nickel-plated and polished brass or polished stainless steel, milligram weights - aluminium 1 mg - 5 mg/German silver 10 mg - 500 mg
- Case material: Lined plastic. Milligram weights 1 mg - 500 mg in removable plastic box



Weight set		DKD certificate		Package price	
		+		=	
KERN		KERN		KERN	
328-22	1 mg - 500 mg	962-450		328-221-600	
<b>Nickel-plated and polished brass</b>					
323-624	1 mg - 50 g	962-401		323-624-600	
323-634	1 mg - 100 g	962-402		323-634-600	
323-644	1 mg - 200 g	962-403		323-644-600	
323-654	1 mg - 500 g	962-404		323-654-600	
323-664	1 mg - 1 kg	962-405		323-664-600	
323-674	1 mg - 2 kg	962-406		323-674-600	
323-684	1 mg - 5 kg	962-407		323-684-600	
324-624	1 g - 50 g	962-415		324-624-600	
324-634	1 g - 100 g	962-416		324-634-600	
324-644	1 g - 200 g	962-417		324-644-600	
324-654	1 g - 500 g	962-418		324-654-600	
324-664	1 g - 1 kg	962-419		324-664-600	
324-674	1 g - 2 kg	962-420		324-674-600	
324-684	1 g - 5 kg	962-421		324-684-600	
<b>Polished stainless steel</b>					
323-024	1 mg - 50 g	962-401		323-024-600	
323-034	1 mg - 100 g	962-402		323-034-600	
323-044	1 mg - 200 g	962-403		323-044-600	
323-054	1 mg - 500 g	962-404		323-054-600	
323-064	1 mg - 1 kg	962-405		323-064-600	
323-074	1 mg - 2 kg	962-406		323-074-600	
323-084	1 mg - 5 kg	962-407		323-084-600	
324-024	1 g - 50 g	962-415		324-024-600	
324-034	1 g - 100 g	962-416		324-034-600	
324-044	1 g - 200 g	962-417		324-044-600	
324-054	1 g - 500 g	962-418		324-054-600	
324-064	1 g - 1 kg	962-419		324-064-600	
324-074	1 g - 2 kg	962-420		324-074-600	
324-084	1 g - 5 kg	962-421		324-084-600	

## Test weights

## CLASS F1

Weight sets, cylindrical shape, polished and nickel-plated brass or polished stainless steel

- **Test weight material:** Individual weights - polished and nickel-plated brass or polished stainless steel, milligram weights - aluminium 1 mg - 5 mg / German silver 10 mg - 500 mg
- **Box material:** Lined wood. Milligram weights 1 mg - 500 mg in removable plastic box



Weight set		DKD certificate		Package price	
KERN		KERN		KERN	
<b>Polished brass and nickel-plated</b>					
328-22	1 mg - 500 mg	962-450		328-221-600	
323-62	1 mg - 50 g	962-401		323-621-600	
323-63	1 mg - 100 g	962-402		323-631-600	
323-64	1 mg - 200 g	962-403		323-641-600	
323-65	1 mg - 500 g	962-404		323-651-600	
323-66	1 mg - 1 kg	962-405		323-661-600	
323-67	1 mg - 2 kg	962-406		323-671-600	
323-68	1 mg - 5 kg	962-407		323-681-600	
323-69	1 mg - 10 kg	962-408		323-691-600	
324-62	1 g - 50 g	962-415		324-621-600	
324-63	1 g - 100 g	962-416		324-631-600	
324-64	1 g - 200 g	962-417		324-641-600	
324-65	1 g - 500 g	962-418		324-651-600	
324-66	1 g - 1 kg	962-419		324-661-600	
324-67	1 g - 2 kg	962-420		324-671-600	
324-68	1 g - 5 kg	962-421		324-681-600	
324-69	1 g - 10 kg	962-422		324-691-600	
<b>Polished stainless steel</b>					
323-02	1 mg - 50 g	962-401		323-021-600	
323-03	1 mg - 100 g	962-402		323-031-600	
323-04	1 mg - 200 g	962-403		323-041-600	
323-05	1 mg - 500 g	962-404		323-051-600	
323-06	1 mg - 1 kg	962-405		323-061-600	
323-07	1 mg - 2 kg	962-406		323-071-600	
323-08	1 mg - 5 kg	962-407		323-081-600	
323-09	1 mg - 10 kg	962-408		323-091-600	
324-02	1 g - 50 g	962-415		324-021-600	
324-03	1 g - 100 g	962-416		324-031-600	
324-04	1 g - 200 g	962-417		324-041-600	
324-05	1 g - 500 g	962-418		324-051-600	
324-06	1 g - 1 kg	962-419		324-061-600	
324-07	1 g - 2 kg	962-420		324-071-600	
324-08	1 g - 5 kg	962-421		324-081-600	
324-09	1 g - 10 kg	962-422		324-091-600	

**You can make up your own individual weight set yourself:**

It contains only the weights which you need for testing purposes. KERN will make your own personal box out of plastic, wood or aluminium. For more details on this, please see page 152.



## Test weights

## CLASS F2

## Milligram weights, flat polygonal sheet, aluminium/German silver

- Test weight material: Aluminium 1 mg – 5 mg/German silver 10 mg – 500 mg
- Container material: Lined plastic



Milligram weight			+	Container		+	DKD certificate		=	Package price	
KERN		Tol ±mg		KERN			KERN			KERN	
338-01	1 mg	0,06		347-009-400			962-451			338-014-600	
338-02	2 mg	0,06		347-009-400			962-452			338-024-600	
338-03	5 mg	0,06		347-009-400			962-453			338-034-600	
338-04	10 mg	0,08		347-009-400			962-454			338-044-600	
338-05	20 mg	0,10		347-009-400			962-455			338-054-600	
338-06	50 mg	0,12		347-009-400			962-456			338-064-600	
338-07	100 mg	0,16		347-009-400			962-457			338-074-600	
338-08	200 mg	0,20		347-009-400			962-458			338-084-600	
338-09	500 mg	0,25		347-009-400			962-459			338-094-600	

## Individual weights, cylindrical shape, finely turned stainless steel

- Test weight material: Finely turned stainless steel
- Container material: Lined plastic or wooden box (337-150-200 and 337-160-200)



Individual weight			+	Container		+	DKD certificate		=	Package price	
KERN		Tol ±mg		KERN			KERN			KERN	
337-01	1 g	0,3		347-030-400			962-431			337-014-600	
337-02	2 g	0,4		347-030-400			962-432			337-024-600	
337-03	5 g	0,5		347-030-400			962-433			337-034-600	
337-04	10 g	0,6		347-050-400			962-434			337-044-600	
337-05	20 g	0,8		347-050-400			962-435			337-054-600	
337-06	50 g	1,0		347-070-400			962-436			337-064-600	
337-07	100 g	1,6		347-070-400			962-437			337-074-600	
337-08	200 g	3,0		347-080-400			962-438			337-084-600	
337-09	500 g	8,0		347-090-400			962-439			337-094-600	
337-11	1 kg	16		347-110-400			962-441			337-114-600	
337-12	2 kg	30		347-120-400			962-442			337-124-600	
337-13	5 kg	80		347-130-400			962-443			337-134-600	
337-14	10 kg	160		347-140-400			962-444			337-144-600	
337-15	20 kg	300		337-150-200			962-445			337-152-600	
337-16	50 kg	800		337-160-200			962-446			337-162-600	

**Alternative to plastic container:**

Wooden boxes for individual weights. For more details on this, please see page 151.

## Test weights, stainless steel, stackable



- Test weight material: Stainless steel, finely turned

Test weight				+	DKD certificate	
KERN		Tol ±mg	Dim. Ø x H		KERN	
337-141	10 kg	160	137 x 132 mm		962-444	
337-151	20 kg	300	137 x 217 mm		962-445	
337-161	50 kg	800	198 x 250 mm		962-446	

## Test weights

## CLASS F2

Weight sets, cylindrical shape, finely turned stainless steel

- **Test weight material:** Individual weights - finely turned stainless steel, milligram weights - aluminium 1 mg - 5 mg / German silver 10 mg - 500 mg
- **Case material:** Lined plastic. Milligram weights 1 mg - 500 mg in removable plastic box



Weight set		+ DKD certificate		= Package price	
KERN		KERN		KERN	
338-22	1 mg - 500 mg	962-450		338-224-600	
333-024	1 mg - 50 g	962-401		333-024-600	
333-034	1 mg - 100 g	962-402		333-034-600	
333-044	1 mg - 200 g	962-403		333-044-600	
333-054	1 mg - 500 g	962-404		333-054-600	
333-064	1 mg - 1 kg	962-405		333-064-600	
333-074	1 mg - 2 kg	962-406		333-074-600	
333-084	1 mg - 5 kg	962-407		333-084-600	
334-024	1 g - 50 g	962-415		334-024-600	
334-034	1 g - 100 g	962-416		334-034-600	
334-044	1 g - 200 g	962-417		334-044-600	
334-054	1 g - 500 g	962-418		334-054-600	
334-064	1 g - 1 kg	962-419		334-064-600	
334-074	1 g - 2 kg	962-420		334-074-600	
334-084	1 g - 5 kg	962-421		334-084-600	

Weight sets, cylindrical shape, finely turned stainless steel

- **Test weight material:** Individual weights - finely turned stainless steel, milligram weights - aluminium 1 mg - 5 mg / German silver 10 mg - 500 mg
- **Box material:** Wood



Weight set		+ DKD certificate		= Package price	
KERN		KERN		KERN	
338-22	1 mg - 500 mg	962-450		338-224-600	
333-02	1 mg - 50 g	962-401		333-022-600	
333-03	1 mg - 100 g	962-402		333-032-600	
333-04	1 mg - 200 g	962-403		333-042-600	
333-05	1 mg - 500 g	962-404		333-052-600	
333-06	1 mg - 1 kg	962-405		333-062-600	
333-07	1 mg - 2 kg	962-406		333-072-600	
333-08	1 mg - 5 kg	962-407		333-082-600	
333-09	1 mg - 10 kg	962-408		333-092-600	
334-02	1 g - 50 g	962-415		334-022-600	
334-03	1 g - 100 g	962-416		334-032-600	
334-04	1 g - 200 g	962-417		334-042-600	
334-05	1 g - 500 g	962-418		334-052-600	
334-06	1 g - 1 kg	962-419		334-062-600	
334-07	1 g - 2 kg	962-420		334-072-600	
334-08	1 g - 5 kg	962-421		334-082-600	
334-09	1 g - 10 kg	962-422		334-092-600	

**You can make up your own individual weight set yourself:**

It contains only the weights which you need for testing purposes. KERN will make your own personal box out of plastic, wood or aluminium. For more details on this, please see page 152.



## Test weights

## CLASS M1

## Milligram weights, flat polygonal sheet, aluminium/German silver

- Test weight material: Aluminium 1 mg – 5 mg/German silver 10 mg – 500 mg
- Container material: Lined plastic



Milligram weight			+	Container		+	DKD certificate		=	Package price	
KERN		Tol ±mg		KERN			KERN			KERN	
348-01	1 mg	0,20		347-009-400			962-651			348-014-600	
348-02	2 mg	0,20		347-009-400			962-652			348-024-600	
348-03	5 mg	0,20		347-009-400			962-653			348-034-600	
348-04	10 mg	0,25		347-009-400			962-654			348-044-600	
348-05	20 mg	0,30		347-009-400			962-655			348-054-600	
348-06	50 mg	0,40		347-009-400			962-656			348-064-600	
348-07	100 mg	0,50		347-009-400			962-657			348-074-600	
348-08	200 mg	0,60		347-009-400			962-658			348-084-600	
348-09	500 mg	0,80		347-009-400			962-659			348-094-600	

## Individual weights, cylindrical shape, finely turned brass or finely turned stainless steel

- Test weight material: Individual weights - finely turned brass or finely turned stainless steel
- Container material: Lined plastic



Individual weight			+	Container		+	DKD certificate		=	Package price	
KERN		Tol ±mg		KERN			KERN			KERN	
<b>Finely turned brass</b>											
347-41	1 g	1,0		347-030-400			962-631			347-414-600	
347-42	2 g	1,2		347-030-400			962-632			347-424-600	
347-43	5 g	1,6		347-030-400			962-633			347-434-600	
347-44	10 g	2,0		347-050-400			962-634			347-444-600	
347-45	20 g	2,5		347-050-400			962-635			347-454-600	
347-46	50 g	3,0		347-070-400			962-636			347-464-600	
347-47	100 g	5,0		347-070-400			962-637			347-474-600	
347-48	200 g	10		347-080-400			962-638			347-484-600	
347-49	500 g	25		347-090-400			962-639			347-494-600	
347-51	1 kg	50		347-110-400			962-641			347-514-600	
347-52	2 kg	100		347-120-400			962-642			347-524-600	
347-53	5 kg	250		347-130-400			962-643			347-534-600	
347-54	10 kg	500		347-140-400			962-644			347-544-600	
<b>Finely turned stainless steel</b>											
347-01	1 g	1,0		347-030-400			962-631			347-014-600	
347-02	2 g	1,2		347-030-400			962-632			347-024-600	
347-03	5 g	1,6		347-030-400			962-633			347-034-600	
347-04	10 g	2,0		347-050-400			962-634			347-044-600	
347-05	20 g	2,5		347-050-400			962-635			347-054-600	
347-06	50 g	3,0		347-070-400			962-636			347-064-600	
347-07	100 g	5,0		347-070-400			962-637			347-074-600	
347-08	200 g	10		347-080-400			962-638			347-084-600	
347-09	500 g	25		347-090-400			962-639			347-094-600	
347-11	1 kg	50		347-110-400			962-641			347-114-600	
347-12	2 kg	100		347-120-400			962-642			347-124-600	
347-13	5 kg	250		347-130-400			962-643			347-134-600	
347-14	10 kg	500		347-140-400			962-644			347-144-600	

## Test weights, stainless steel, stackable



- Test weight material: Stainless steel, finely turned

Test weight				+	DKD certificate	
KERN		Tol ±g	Dim. Ø x H		KERN	
347-141	10 kg	0,50	137 x 132 mm		962-644	
347-151	20 kg	1,00	137 x 217 mm		962-645	
347-161	50 kg	2,50	198 x 250 mm		962-646	

## Test weights

## CLASS M1

## Weight sets, cylindrical shape, finely turned brass or finely turned stainless steel

- **Test weight material:** Individual weights - finely turned brass or finely turned stainless steel, milligram weights - aluminium/German silver
- **Case material:** Lined plastic. Milligram weights 1 mg - 500 mg in a removable plastic box



Weight set			+ DKD certificate		= Package price	
KERN			KERN		KERN	
<b>Finely turned brass</b>						
348-22	1 mg - 500 mg		962-650		348-224-600	
343-424	1 mg - 50 g		962-601		343-424-600	
343-434	1 mg - 100 g		962-602		343-434-600	
343-444	1 mg - 200 g		962-603		343-444-600	
343-454	1 mg - 500 g		962-604		343-454-600	
343-464	1 mg - 1 kg		962-605		343-464-600	
343-474	1 mg - 2 kg		962-606		343-474-600	
343-484	1 mg - 5 kg		962-607		343-484-600	
344-424	1 g - 50 g		962-615		344-424-600	
344-434	1 g - 100 g		962-616		344-434-600	
344-444	1 g - 200 g		962-617		344-444-600	
344-454	1 g - 500 g		962-618		344-454-600	
344-464	1 g - 1 kg		962-619		344-464-600	
344-474	1 g - 2 kg		962-620		344-474-600	
344-484	1 g - 5 kg		962-621		344-484-600	
<b>Finely turned stainless steel</b>						
343-024	1 mg - 50 g		962-601		343-024-600	
343-034	1 mg - 100 g		962-602		343-034-600	
343-044	1 mg - 200 g		962-603		343-044-600	
343-054	1 mg - 500 g		962-604		343-054-600	
343-064	1 mg - 1 kg		962-605		343-064-600	
343-074	1 mg - 2 kg		962-606		343-074-600	
343-084	1 mg - 5 kg		962-607		343-084-600	
344-024	1 g - 50 g		962-615		344-024-600	
344-034	1 g - 100 g		962-616		344-034-600	
344-044	1 g - 200 g		962-617		344-044-600	
344-054	1 g - 500 g		962-618		344-054-600	
344-064	1 g - 1 kg		962-619		344-064-600	
344-074	1 g - 2 kg		962-620		344-074-600	
344-084	1 g - 5 kg		962-621		344-084-600	

## Weight sets, cylindrical shape, finely turned brass or finely turned stainless steel

- **Test weight material:** Individual weights - finely turned brass or finely turned stainless steel, milligram weights - aluminium 1 mg - 5 mg / German silver 10 mg - 500 mg
- **Box material:** Wood



Weight set			+ DKD certificate		= Package price	
KERN			KERN		KERN	
<b>Finely turned brass</b>						
348-22	1 mg - 500 mg		962-650		348-224-600	
343-42	1 mg - 50 g		962-601		343-422-600	
343-43	1 mg - 100 g		962-602		343-432-600	
343-44	1 mg - 200 g		962-603		343-442-600	
343-45	1 mg - 500 g		962-604		343-452-600	
343-46	1 mg - 1 kg		962-605		343-462-600	
343-47	1 mg - 2 kg		962-606		343-472-600	
343-48	1 mg - 5 kg		962-607		343-482-600	
343-49	1 mg - 10 kg		962-608		343-492-600	
344-42	1 g - 50 g		962-615		344-422-600	
344-43	1 g - 100 g		962-616		344-432-600	
344-44	1 g - 200 g		962-617		344-442-600	
344-45	1 g - 500 g		962-618		344-452-600	
344-46	1 g - 1 kg		962-619		344-462-600	
344-47	1 g - 2 kg		962-620		344-472-600	
344-48	1 g - 5 kg		962-621		344-482-600	
344-49	1 g - 10 kg		962-622		344-492-600	

## Test weights

## CLASS M1

Continuation of weight sets, cylindrical shape, finely turned brass or finely turned stainless steel



Weight set		+ DKD certificate		= Package price	
KERN		KERN		KERN	
343-02	1 mg - 50 g	962-601		343-022-600	
343-03	1 mg - 100g	962-602		343-032-600	
343-04	1 mg - 200 g	962-603		343-042-600	
343-05	1 mg - 500 g	962-604		343-052-600	
343-06	1 mg - 1 kg	962-605		343-062-600	
343-07	1 mg - 2 kg	962-606		343-072-600	
343-08	1 mg - 5 kg	962-607		343-082-600	
343-09	1 mg - 10 kg	962-608		343-092-600	
344-02	1 g - 50 g	962-615		344-022-600	
344-03	1 g - 100 g	962-616		344-032-600	
344-04	1 g - 200 g	962-617		344-042-600	
344-05	1 g - 500 g	962-618		344-052-600	
344-06	1 g - 1 kg	962-619		344-062-600	
344-07	1 g - 2 kg	962-620		344-072-600	
344-08	1 g - 5 kg	962-621		344-082-600	
344-09	1 g - 10 kg	962-622		344-092-600	

**You can make up your own individual weight set yourself:**

It contains only the weights which you need for testing purposes.

KERN will make your own personal box out of plastic, wood or aluminium For more details on this, please see page 152.

## Newton weights (N)

All hook and slotted weights as well as beam bars are available with N adjustment according to M1 tolerances.

We need to know the location of use and post code.

DKD-calibration certificate for N weights: identical to DKD prices for individual weights M1

## Hook weights, finely turned brass

- Test weight material: Finely turned brass
- Container material: Lined plastic



Hook weight			+ Container		+ DKD certificate		= Package price	
KERN	Tol	±mg	KERN		KERN		KERN	
347-416	1 g	1,0	347-030-400		962-631		347-4164-600	
347-426	2 g	1,2	347-030-400		962-632		347-4264-600	
347-436	5 g	1,6	347-030-400		962-633		347-4364-600	
347-446	10 g	2,0	347-050-400		962-634		347-4464-600	
347-456	20 g	2,5	347-050-400		962-635		347-4564-600	
347-466	50 g	3,0	347-070-400		962-636		347-4664-600	
347-476	100 g	5	347-090-400		962-637		347-4764-600	
347-486	200 g	10	347-090-400		962-638		347-4864-600	
347-496	500 g	25	347-110-400		962-639		347-4964-600	
347-516	1 kg	50	347-120-400		962-641		347-5164-600	
347-526	2 kg	100	347-130-400		962-642		347-5264-600	
347-536	5 kg	250	347-140-400		962-643		347-5364-600	
347-546	10 kg	500	-		962-644		-	

## Test weights

## CLASS M1

## Slotted weights, finely turned brass

- Test weight material: Finely turned brass
- Container material: Lined plastic



Slotted weight			+	Container		+	DKD certificate		=	Package price	
KERN		Tol ±mg		KERN			KERN			KERN	
347-415	1 g	1,0		347-030-400			962-631			347-4154-600	
347-425	2 g	1,2		347-030-400			962-632			347-4254-600	
347-435	5 g	1,6		347-030-400			962-633			347-4354-600	
347-445	10 g	2,0		347-030-400			962-634			347-4454-600	
347-455	20 g	2,5		347-080-400			962-635			347-4554-600	
347-465	50 g	3,0		347-080-400			962-636			347-4654-600	
347-475	100 g	5		347-090-400			962-637			347-4754-600	
347-485	200 g	10		347-090-400			962-638			347-4854-600	
347-495	500 g	25		347-110-400			962-639			347-4954-600	
347-515	1 kg	50		347-130-400			962-641			347-5154-600	
347-525	2 kg	100		347-130-400			962-642			347-5254-600	
347-535	5 kg	250		347-140-400			962-643			347-5354-600	
347-545	10 kg	500		347-140-400			962-644			347-5454-600	

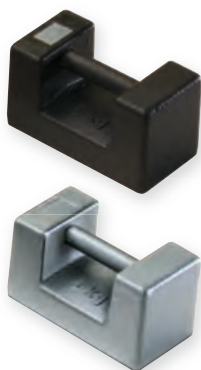
## Beam bars, finely turned brass, for fixing slotted weights



- Carrier bar material: Brass, aluminium (347-445-100)

Carrier bar				+	DKD certificate	
KERN	Size	Largest slotted weight possible	Maximum total load		KERN	
347-445-100	10 g	100 g	200 g		962-634	
347-475-100	100 g	1 kg	2 kg		962-637	
347-495-100	500 g	10 kg	20 kg		962-639	
347-515-100	1000 g	10 kg	40 kg		962-641	

## Rectangular weights, lacquered cast iron/stainless steel



- Test weight material: Lacquered cast iron/stainless steel (in OIML classes F1 and F2 on request)

Rectangular weight			+	DKD certificate		=	Package price	
KERN		Tol ±g		KERN			KERN	
Lacquered cast iron								
346-86	5 kg	0,25		962-643			346-860-600	
346-87	10 kg	0,50		962-644			346-870-600	
346-88	20 kg	1,00		962-645			346-880-600	
346-89	50 kg	2,50		962-646			346-890-600	
Stainless steel								
346-06	5 kg	0,25		962-643			346-060-600	
346-07	10 kg	0,50		962-644			346-070-600	
346-08	20 kg	1,00		962-645			346-080-600	
346-09	50 kg	2,50		962-646			346-090-600	

## Heavy duty weights, cast iron, stackable. Designed to be lifted with forklift trucks or cranes.

- Test weight material: Lacquered cast iron



Heavy duty weight				+	DKD certificate	
KERN		Tol ±g	Dim. W x D x H		KERN	
346-81	100 kg	5	340 x 225 x 280 mm		962-691	
346-82	200 kg	10	465 x 340 x 291 mm		962-692	
346-83	500 kg	25	750 x 500 x 314 mm		962-693	
346-84	1000 kg	50	750 x 500 x 500 mm		962-694	
346-85	2000 kg	100	1000 x 750 x 500 mm		962-695	

## Test weights

## CLASS M2

## Individual weights, cylindrical shape, finely turned brass

- Test weight material: Finely turned brass
- Container material: Lined plastic



Individual weight			+	Container		+	DKD certificate		=	Package price	
KERN		Tol ±mg		KERN			KERN			KERN	
357-41	1 g	3		347-030-400			962-631			357-414-600	
357-42	2 g	4		347-030-400			962-632			357-424-600	
357-43	5 g	5		347-030-400			962-633			357-434-600	
357-44	10 g	6		347-050-400			962-634			357-444-600	
357-45	20 g	8		347-050-400			962-635			357-454-600	
357-46	50 g	10		347-070-400			962-636			357-464-600	
357-47	100 g	16		347-070-400			962-637			357-474-600	
357-48	200 g	30		347-080-400			962-638			357-484-600	
357-49	500 g	80		347-090-400			962-639			357-494-600	
357-51	1 kg	160		347-110-400			962-641			357-514-600	
357-52	2 kg	300		347-120-400			962-642			357-524-600	
357-53	5 kg	800		347-130-400			962-643			357-534-600	
357-54	10 kg	1600		347-140-400			962-644			357-544-600	

**Alternative to plastic container:**

Wooden boxes for individual weights. For more details on this, please see page 151.

## Rectangular weights, lacquered cast iron



- Test weight material: Lacquered cast iron

Rectangular weight			+	DKD certificate		=	Package price	
KERN		Tol ±g		KERN			KERN	
356-86	5 kg	0,8		962-643			356-860-600	
356-87	10 kg	1,6		962-644			356-870-600	
356-88	20 kg	3,0		962-645			356-880-600	
356-89	50 kg	8,0		962-646			356-890-600	

## Weight sets, cylindrical shape, finely turned brass



- Test weight material: Finely turned brass
- Box material: Wooden box

Weight set			+	DKD certificate		=	Package price	
KERN				KERN			KERN	
354-42	1 g - 50 g			962-615			354-422-600	
354-43	1 g - 100 g			962-616			354-432-600	
354-44	1 g - 200 g			962-617			354-442-600	
354-45	1 g - 500 g			962-618			354-452-600	
354-46	1 g - 1 kg			962-619			354-462-600	
354-47	1 g - 2 kg			962-620			354-472-600	
354-48	1 g - 5 kg			962-621			354-482-600	
354-49	1 g - 10 kg			962-622			354-492-600	

Test weights

## CLASS M3

Individual weights, cylindrical shape, finely turned brass

- Test weight material: Finely turned brass
- Container material: Lined plastic



Individual weight			+	Container		+	DKD certificate		=	Package price	
KERN		Tol ±mg		KERN			KERN			KERN	
367-41	1 g	10		347-030-400			962-631			367-414-600	
367-42	2 g	12		347-030-400			962-632			367-424-600	
367-43	5 g	16		347-030-400			962-633			367-434-600	
367-44	10 g	20		347-050-400			962-634			367-444-600	
367-45	20 g	25		347-050-400			962-635			367-454-600	
367-46	50 g	30		347-070-400			962-636			367-464-600	
367-47	100 g	50		347-070-400			962-637			367-474-600	
367-48	200 g	100		347-080-400			962-638			367-484-600	
367-49	500 g	250		347-090-400			962-639			367-494-600	
367-51	1 kg	500		347-110-400			962-641			367-514-600	
367-52	2 kg	1000		347-120-400			962-642			367-524-600	

Individual weights, cylindrical, lacquered cast iron

- Test weight material: Lacquered cast iron. 20 kg and 50 kg with bracket



Individual weight			+	DKD certificate		=	Package price	
KERN		Tol ±g		KERN			KERN	
366-91	100 g	0,05		962-637			366-910-600	
366-92	200 g	0,10		962-638			366-920-600	
366-93	500 g	0,25		962-639			366-930-600	
366-94	1 kg	0,50		962-641			366-940-600	
366-95	2 kg	1,0		962-642			366-950-600	
366-96	5 kg	2,5		962-643			366-960-600	
366-97	10 kg	5		962-644			366-970-600	
366-98	20 kg	10		962-645			366-980-600	
366-99	50 kg	25		962-646			366-990-600	

Rectangular weights, lacquered cast iron



- Test weight material: Lacquered cast iron

Rectangular weight			+	DKD certificate		=	Package price	
KERN		Tol ±g		KERN			KERN	
366-86	5 kg	2,5		962-643			366-860-600	
366-87	10 kg	5		962-644			366-870-600	
366-88	20 kg	10		962-645			366-880-600	
366-89	50 kg	25		962-646			366-890-600	

Weight sets, cylindrical, lacquered brass and cast iron

- Test weight material: Brass lacquered and cast iron
- Container material: Wooden block



Weight set			+	DKD certificate		=	Package price	
KERN				KERN			KERN	
362-96	1 g - 1 kg			962-619			362-963-600	
362-97	1 g - 2 kg			962-620			362-973-600	
362-98	1 g - 5 kg			962-621			362-983-600	
362-99	1 g - 10 kg			962-622			362-993-600	

Test weights

# Test weights-accessories

## Tweezers, weight forks, weight grips, gloves, dusting brush

- Test weight material: Finely turned brass
- Container material: Lined plastic



**Tweezers** to be able to safely grip small test weights

For weights of the class	For weights	KERN	Length	Version
E1 - F1	1 mg - 200 g	315-243	105 mm	1 Stainless steel with silicone-coated tips
E1 - F1	500 g - 2 kg	315-245	250 mm	1 Stainless steel with silicone-coated tips
F2 - M3	1 mg - 200 g	335-240	100 mm	2 Stainless steel
E1 - M1	1 mg - 200 g	315-242	100 mm	3 Plastic



**Weight fork** to be able to better grip the individual, cylindrical weights

KERN	For weights
315-253	2 kg
315-254	5 kg



**Weight carrying handle** to be able to safely grip heavy, individual cylindrical weights

KERN	For weights
315-264	10 kg
315-265	20 kg
315-266	50 kg



**Gloves**, cotton, 1 pair. Help to protect the test weights when being used daily, from grease from fingers, damp etc.

KERN
317-280



**Gloves**, leather/cotton, 1 pair. Help to protect the test weights when being used daily, from grease from fingers, damp etc.

KERN
317-290



**Dusting brush** to clean the weights

KERN
318-270

## Wooden boxes for individual weights

- Box material: Lined wood.  
Suitable for individual weights  
KERN No. 307, 316, 317, 326, 327, 329

**Wooden box**  
for individual weights E1 - F1



For weights	KERN
mg	338-090-200
1 g	317-010-100
2 g	317-020-100
5 g	317-030-100
10 g	317-040-100
20 g	317-050-100
50 g	317-060-100
100 g	317-070-100
200 g	317-080-100
500 g	317-090-100
1 kg	317-110-100
2 kg	317-120-100
5 kg	317-130-100
10 kg	317-140-100
20 kg	317-150-100
50 kg	317-160-100

- Box material: Wood.  
Suitable for individual weights  
KERN No. 337, 347, 357, 367

**Wooden box**  
for individual weights F2 - M3



For weights	KERN
mg	338-090-200
1 g	337-010-200
2 g	337-020-200
5 g	337-030-200
10 g	337-040-200
20 g	337-050-200
50 g	337-060-200
100 g	337-070-200
200 g	337-080-200
500 g	337-090-200
1 kg	337-110-200
2 kg	337-120-200
5 kg	337-130-200
10 kg	337-140-200
20 kg	337-150-200
50 kg	337-160-200

## Made specially for you

### Cases/boxes for individual weight sets

#### Individual weight sets:

You can make up your own „tailor-made“ individual weight sets yourself.

KERN will make your own personal wooden box / plastic carrying case. The largest individual weight which will fit is given in the table.

#### Sample order:

Your individual weight set:

1 x 50 g, 2 x 100 g, 1 x 500 g, 2 x 1 kg, 1 x 2 kg.

The correct individual box is

**KERN No. 313-080-400** (plastic) or

**KERN No. 315-070-100** (wood).



**Plastic case**  
for weight classes **E1, E2, F, M**,  
not appropriate for cast iron weights

KERN	For weights
313-050-400	≤ 500 g
313-080-400	≤ 5 kg



**Wooden box**  
for weight classes **E1, E2 and F1**

KERN	For weights
315-040-100	≤ 200 g
315-060-100	≤ 1 kg
315-070-100	≤ 2 kg
315-080-100	≤ 5 kg
315-090-100	≤ 10 kg



**Wooden box**  
for weight classes **F2, M1, M2 and M3**

KERN	For weights
335-040-200	≤ 200 g
335-050-200	≤ 500 g
335-060-200	≤ 1 kg
335-070-200	≤ 2 kg
335-080-200	≤ 5 kg
335-090-200	≤ 10 kg

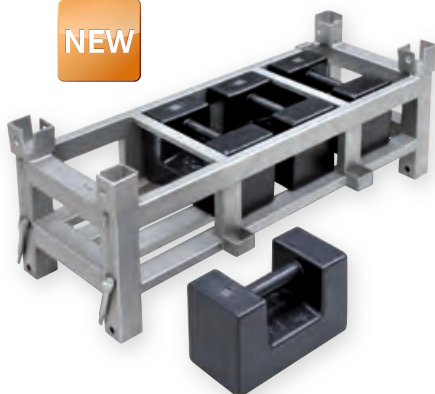


#### Aluminium case

for safe storage and transportation under harsh industrial conditions.  
Ideal for test weights of accuracy classes E2–M3. Please ask for details.

### Weight carriers for rectangular weights or other test weights

NEW



Individual weight carriers for testing high capacity floor scales, pallet scales, pallet truck scales, crane scales, etc. This can also be used for storing the weights. This means the weight container and the weights can be placed on the balance in one go, saving you time and money.

The weight container can be calibrated to OIML accuracy classes M1–M3.

On request, KERN will make you a „tailor-made“ weight carrier to your specifications.



# 16 DKD calibration service

	page
DKD calibration service	153
Range	153
DKD calibration	153
DKD calibration service for balances	154
DKD calibration service for test weights	155
Recalibration of test weights	156
Verification prices for test weights	157

The DKD = **Deutscher Kalibrierdienst** (German Calibration Service) is responsible for measuring „correctly“ in accordance with legally binding international standards. It is part of DAkkS = Deutsche Akkreditierungsstelle (German accreditation organisation) which was founded in Germany. The basis is the European range of standards DIN EN ISO/IEC 17 000 for conformity assessment, in particular the accreditation standard 17 025, which governs the organisation of a calibration laboratory, as well as basic metrological technical requirements.

Only an accredited calibration laboratory can issue DKD calibration certificates. This defines not only the measuring method, but also gives information on tracing the test means to a national standard and the relevant measuring uncertainty is given.



#### You are certified to ...

ISO 9001, QS 9000, GLP, GMP, TS16949



#### You need ...

to control your measuring equipment



#### Our solution ...

DKD calibration certificate (Traceability, Measuring uncertainty, Internationally recognised)

## KERN – Precision is our business

The KERN DKD calibration laboratory for electronic balances and weights has been accredited by DKD since 1994 and today is one of the most modern and best-equipped DKD calibration laboratories for balances, test weights and force-measurement in Europe.

Thanks to the high level of automation, we can carry out DKD calibration of balances, test weights and force-measuring devices 24 hours a day, 7 days a week.

Do you have any further requests or questions on this matter? We would be pleased to help you further, or why not visit us on the web.

#### Range of services:

- DKD calibration of balances with a maximum load of up to 6000 kg
- DKD calibration of weights in the range of 1 mg – 6000 kg

F2, M1, M2 and M3.

## DKD calibration

**Why?** DKD calibration is always necessary when checking equipment (balance or test weight) is to be used in a QM process (e.g. to ISO 9000ff, GS 9000, TS 16949, VDA 6.1, FDA, GLP, GMP, ...)

**What?** Any checking equipment in proper condition can be DKD calibrated.

**How?** Determination of accuracy throughout the world by a laboratory which is accredited to DIN EN ISO 17025. Traceability to internationally recognised standards.

- Database supported management of checking equipment and reminder
- In combination with periodic recalibration we can offer you a wide range of further services:
  - Reconditioning of weights, e.g. cast weights (sand blasting, painting, adjustment,..)
  - Collection service with special transport packaging, even for heavy weights
  - Volume determination for weights of accuracy class E1
  - Measuring of sensitivity (magnetic characteristics)
- Calibration of force-measuring devices
- DKD calibration certificates in the following languages D, GB, F, I, E, NL, PL

The DKD calibration certificate confirms both the measurement characteristics of the checking equipment and the general requirements for the control of checking equipment.

**Where?** Internationally recognised – this is monitored by ILAC (International Laboratory Accreditation Cooperation) and in Germany, for example the DKD (German calibration service)

**When?** The operator controls the use of checking equipment and periodic recalibration time intervals themselves

## DKD calibration certificate for balances (extract)

Further details on the internet

**DEUTSCHER KALIBRIERDIENST DKD**  
 Kalibrierlaboratorium / Calibration laboratory

Akkreditiert durch die / accredited by the  
 Akkreditierungsstelle des Deutschen Kalibrierdienstes

**KERN & Sohn GmbH**  
 DKD-K-11801

Älteste europäische Feinwaagen und Gewichtefabrik seit 1844  
 Oldest European Manufacturer of Precision Balances since 1844

Kalibrierschein Calibration Certificate	Kalibrierzeichen Calibration mark
B-60	
DKD-K-11801	
10-01	

---

Gegenstand / Object: Präzisionswaage / Precision Balance 2

Hersteller / Manufacturer: KERN & Sohn GmbH, Ziegelei 1, 72336 Balingen, GERMANY 3

Typ / Type: PBJ 620-3M

Fabrikat-/Serien-Nr. / Serial number: W1012345

Auftraggeber / Customer: Max Mustermann GmbH, Teststr. 1, 42446 Musterstadt 4

Dieser Kalibrierschein dokumentiert die Rückführung auf nationale Normale zur Darstellung der Einheiten in Übereinstimmung mit dem Internationalen Einheiten-system (SI).  
 Der DKD ist Unterzeichner der multilateralen Übereinkommen der European co-operation for Accreditation (EA) und der International Laboratory Accreditation Cooperation (ILAC) zur gegenseitigen Anerkennung der Kalibrierscheine. Für die Einhaltung einer angemessenen Frist zur Wiederholung der Kalibrierung ist der Benutzer verantwortlich.

This calibration certificate documents the

**Messergebnisse / Measurement results**

1. Wiederholbarkeit / Repeatability

Messung / Measurement	Prüflast / Load	Waagenanzeige / Indication
No. 1	500 g	499,999 g
No. 2	500 g	499,999 g
No. 3	500 g	500,000 g
No. 4	500 g	500,000 g
No. 5	500 g	500,000 g

Standardabweichung: s = 0,0006 g  
 Standard deviation:

2. Richtigkeit / Linearity

Prüflast / Load	Waagenanzeige / Indication
100 g	100,000 g
200 g	200,000 g
300 g	300,001 g
500 g	500,000 g
600 g	600,001 g

3. Außer mittige Belastung / Eccentricity

Position / Position	Prüflast / Load	Waagenanzeige / Indication
No. 1	500 g	500,000 g
No. 2	500 g	499,999 g
No. 3	500 g	500,001 g
No. 4	500 g	500,001 g
No. 5	500 g	500,001 g

**Messunsicherheit U / Measuring uncertainty U**

Last / Load	Abweichung / Error	Erweiterungsfaktor k / Coverage factor	Unsicherheit / Uncertainty	relative Unsicherheit / Rel. uncertainty
100 g	0,000 g	2,38	0,0016 g	0,00154 %
200 g	0,000 g	2,32	0,0016 g	0,00078 %
300 g	0,001 g	2,24	0,0017 g	0,00053 %
500 g	0,000 g	2,12	0,0018 g	0,00036 %
600 g	0,001 g	2,08	0,0020 g	0,00032 %

Darstellung im Diagramm / Representation as chart:

**Verwendungsgenauigkeit G / Usage accuracy G**

Diagramm der Verwendungsgenauigkeit / Graph of usage accuracy:

$$G = 0,0013 \text{ g} + 8,72 \cdot 10^{-6} \cdot m_w$$

$m_w =$  Nettoanzeige bei zunehmender Belastung / net display with increasing load

## The advantages of using KERN in-house calibration

### You send your balance to us.

To be recommended with new equipment and for balances which can be transported economically, as the travel costs for on-site calibration are then not applicable.

## The advantages of using KERN on-site calibration

### We visit you.

In Germany, KERN has access to a comprehensive network of employees at the KERN DKD calibration laboratory, who can carry out on-site calibration of scales up to 6000 kg.

The calibration service is **independent of the brand.**

Preliminary maintenance work by agreement.

Prices for on-site calibration on request.



## Recalibration

- The recalibration schedule depends on the frequency of use, the conditions of use and the safety requirements.
- We would recommend that you recalibrate your test weights every 6 months if they are used intensively, and every 12 months with normal use.

Initial calibration and recalibration of scales at the KERN factory	KERN
<b>Weighing range</b>	
<b>Analytical balances</b>	
Max ≤ 5 kg	963-101
Max ≤ 5 kg	963-102
<b>Precision balances/Industrial scales</b>	
Max ≤ 5 kg	963-127
Max > 5 kg - 50 kg	963-128
Max > 50 kg - 350 kg	963-129
Max > 350 kg - 1500 kg	963-130
Max > 1500 kg - 2900 kg*	963-131
Max > 2900 kg - 6000 kg*	963-132
<b>Preparation for recalibration</b> (cleaning, adjustment, function test)	969-003R
<b>Additional services:</b>	
Minimum weight of sample (for details see internet)	969-103
DKD Express service with delivery time 48 hours (only on initial purchase, details see p. 156)	962-116
Express shipping: Express supplement for guaranteed delivery on the next working day (if ready for shipment before 12:00 noon)	

\* floor scales only. Please ask for further details.

- 1 Official document
- 2 Item to be calibrated
- 3 Traceability, see page 159
- 4 Identification/Applicant
- 5 Metrological component
- 6 Measuring uncertainty, see page 159
- 7 Usage accuracy, see page 159
- 8 Minimum weight of sample

## DKD calibration certificate for test weights (extract)

Further details on the internet

**DEUTSCHER KALIBRIERDIENST DKD**

Kalibrierlaboratorium / Calibration laboratory

Akkreditiert durch die / accredited by the  
Akkreditierungsstelle des Deutschen Kalibrierdienstes

**KERN**  
KERN & Sohn GmbH  
Älteste europäische Feinwaagen und Gewichtefabrik seit 1844  
Oldest European Manufacturer of Precision Balances since 1844

DKD-K-11801

Gegenstand Object	Gewichtssatz, 1 mg - 500 g Klasse E2 Set of weights, 1 mg - 500 g Class E2	Dieser Kalibrierschein dokumentiert die Rückführung auf nationale Normale zur Darstellung der Einheiten in Übereinstimmung mit dem Internationalen Einheitensystem (SI). Der DKD ist Unterzeichner der multilateralen Übereinkommen der European cooperation for Accreditation (EA) und der International Laboratory Accreditation Cooperation (ILAC) zur gegenseitigen Anerkennung der Kalibrierscheine. Für die Einhaltung eines angemessenen Frist zur Wiederholung der Kalibrierung ist der Benutzer verantwortlich.
Hersteller Manufacturer	KERN & Sohn GmbH Ziegelei 1 D-72336 Balingen Germany	
Typ Type	313-054	This calibration certificate documents the traceability to national standards, which realize the units of measurement according to the
Fabrikate/Serien-Nr. Serial number	G123456789	
Auftraggeber Customer	Max Mustermann GmbH Teststr. 1 42446 Musterstadt Deutschland	

1  
2  
3  
4

Umgebungsbedingungen:  
Ambient conditions:

Die Kalibrierung wurde bei folgenden Umgebungsbedingungen durchgeführt:  
The calibration was carried out under the following ambient conditions:

	von from	bis to
Temperatur / °C temperature	24,0	24,9
rel. Luftfeuchte / % relative humidity	49,3	52,4
Luftdruck / mbar air pressure	952,3	953,7

5

Material / Angenommene Dichte:  
Material / Assumed density:

Nennwert nominal value	Dichte density	Unsicherheit uncertainty	Material material	Form shape
1 mg - 5 mg	2700 kg/m <sup>3</sup>	130 kg/m <sup>3</sup>	Aluminium Aluminium	Plättchen Flat sheet
10 mg - 500 mg	8600 kg/m <sup>3</sup>	170 kg/m <sup>3</sup>	Neusilber German silver	Plättchen Flat sheet
1 g - 500 g	8000 kg/m <sup>3</sup>	100 kg/m <sup>3</sup>	Edelstahl Stainless steel	Knopf Cylindrical form

**DEUTSCHER KALIBRIERDIENST DKD**

Kalibrierlaboratorium / Calibration laboratory

Akkreditiert durch die / accredited by the  
Akkreditierungsstelle des Deutschen Kalibrierdienstes

Seite 5 zum Kalibrierschein vom 19.01.2011  
Page 5 of the calibration certificate dated

6

G1-236
DKD-K-11801
10-02

Messergebnisse:  
Measurement results:

Nennwert nominal value	Kennzeichnung marking	konventioneller Wägewert conventional mass	Unsicherheit k=2 uncertainty	Fehlergrenze max. perm. error	Klasse* class*
1 mg		1 mg - 0,002 mg	0,002 mg	± 0,006 mg	E2 ✓
2 mg		2 mg + 0,001 mg	0,002 mg	± 0,006 mg	E2 ✓
2 mg	*	2 mg - 0,002 mg	0,002 mg	± 0,006 mg	E2 ✓
5 mg		5 mg - 0,001 mg	0,002 mg	± 0,006 mg	E2 ✓
10 mg		10 mg + 0,000 mg	0,003 mg	± 0,008 mg	E2 ✓
20 mg		20 mg - 0,002 mg	0,003 mg	± 0,010 mg	E2 ✓
20 mg	*	20 mg + 0,006 mg	0,003 mg	± 0,010 mg	E2 ✓
50 mg		50 mg - 0,007 mg	0,004 mg	± 0,012 mg	E2 ✓
100 mg		100 mg - 0,000 mg	0,005 mg	± 0,016 mg	E2 ✓
200 mg		200 mg + 0,003 mg	0,007 mg	± 0,020 mg	E2 ✓
200 mg	*	200 mg + 0,007 mg	0,007 mg	± 0,020 mg	E2 ✓
500 mg		500 mg + 0,007 mg	0,008 mg	± 0,025 mg	E2 ✓
1 g		1 g - 0,008 mg	0,010 mg	± 0,03 mg	E2 ✓
2 g		2 g + 0,015 mg	0,013 mg	± 0,04 mg	E2 ✓
2 g	*	2 g + 0,012 mg	0,013 mg	± 0,04 mg	E2 ✓
5 g		5 g + 0,005 mg	0,017 mg	± 0,05 mg	E2 ✓
10 g		10 g - 0,005 mg	0,020 mg	± 0,06 mg	E2 ✓
20 g		20 g - 0,043 mg	0,027 mg	± 0,08 mg	E2 ✓
20 g	*	20 g - 0,019 mg	0,027 mg	± 0,08 mg	E2 ✓
50 g		50 g - 0,00 mg	0,03 mg	± 0,10 mg	E2 ✓
100 g		100 g - 0,03 mg	0,05 mg	± 0,16 mg	E2 ✓
200 g		200 g - 0,03 mg	0,10 mg	± 0,3 mg	E2 ✓
200 g	*	200 g - 0,08 mg	0,10 mg	± 0,3 mg	E2 ✓
500 g		500 g - 0,39 mg	0,27 mg	± 0,8 mg	E2 ✓

7  
8

➔ For more information on this subject, please see our KERN DKD calibration service brochure - just request your free copy.



## Calibration of test weights

Calibrated measuring equipment requires calibrated checking equipment. For balances, these are calibrated test weights, also called "standard weights".

## We calibrate test weights...

- in all cases with permissible error limits E1-M according OIML R111-2004 (for tolerance tables, see page 135), in sizes 1 mg to 500 kg.
- with free nominal value
- Newtons (N)
- independent of design (special designs)

## The advantages of using KERN in-house calibration

### You send your test weights to us.

- Excellent price performance ratio
- The quickest process time
  - standard DKD service: 4 working days
  - DKD Express service: 48 hours (new weights)
- The most modern calibration methods with robot controlled comparators) allow the most accurate calibration results and fastest throughput time
- KERN DKD calibration certificates are internationally recognised
- **A calibration service which is independent of the brand**
- KERN also reconditions existing customer weights (e.g. cleaning or readjustment)
- On request, with our parcel service, we can also provide a pick-up and collection service

## The advantages of using KERN on-site calibration

We would be pleased to visit you within Germany and carry out the calibration of your reference standards to OIML classes M1 to M3, 10 to 50 kg with permissible error limits, using our mobile MACOS system. Minimized downtime of your checking equipment and direct contact with our expert are the major benefits of this service. Price on request.

## Recalibration

- The recalibration schedule depends on the frequency of use, the conditions of use and the safety requirements.
- In terms of standardisation, no particular recalibration interval is specified.
- We would recommend that you recalibrate your test weights every 6 months if they are used intensively, and every 12 months with normal use.
- We would be pleased to monitor your recalibration schedule

- 1 Official document
- 2 Item to be calibrated
- 3 Traceability, see page 159
- 4 Identification/Applicant
- 5 Environmental conditions
- 6 Metrological component
- 7 Conventional mass
- 8 Measuring uncertainty, see page 159

## Recalibration price of test weights

Class acc. → OIML R111-2004	E1 with volume determination		E1 without volume determination		E2		F1 / F2 * only F2		M1 / M2 / M3	
	Weight value: ↓	KERN	KERN	KERN	KERN	KERN	KERN	KERN	KERN	
1 mg	-		962-251R		962-351R		962-451R		962-651R	
2 mg	-		962-252R		962-352R		962-452R		962-652R	
5 mg	-		962-253R		962-353R		962-453R		962-653R	
10 mg	-		962-254R		962-354R		962-454R		962-654R	
20 mg	-		962-255R		962-355R		962-455R		962-655R	
50 mg	-		962-256R		962-356R		962-456R		962-656R	
100 mg	-		962-257R		962-357R		962-457R		962-657R	
200 mg	-		962-258R		962-358R		962-458R		962-658R	
500 mg	-		962-259R		962-359R		962-459R		962-659R	
1 g	963-231		962-231R		962-331R		962-431R		962-631R	
2 g	963-232		962-232R		962-332R		962-432R		962-632R	
5 g	963-233		962-233R		962-333R		962-433R		962-633R	
10 g	963-234		962-234R		962-334R		962-434R		962-634R	
20 g	963-235		962-235R		962-335R		962-435R		962-635R	
50 g	963-236		962-236R		962-336R		962-436R		962-636R	
100 g	963-237		962-237R		962-337R		962-437R		962-637R	
200 g	963-238		962-238R		962-338R		962-438R		962-638R	
500 g	963-239		962-239R		962-339R		962-439R		962-639R	
1 kg	963-241		962-241R		962-341R		962-441R		962-641R	
2 kg	963-242		962-242R		962-342R		962-442R		962-642R	
5 kg	963-243		962-243R		962-343R		962-443R		962-643R	
10 kg	963-244		962-244R		962-344R		962-444R		962-644R	
20 kg	963-245		962-245R		962-345R		962-445R		962-645R	
50 kg	963-246		962-246R		962-346R		962-446R		962-646R	
100 kg	-		-		-		962-591R*		962-691R	
200 kg	-		-		-		962-592R*		962-692R	
500 kg	-		-		-		962-593R*		962-693R	
1 mg - 500 mg	-		962-250R		962-350R		962-450R		962-650R	
1 mg - 50 g	963-201		962-201R		962-301R		962-401R		962-601R	
1 mg - 100 g	963-202		962-202R		962-302R		962-402R		962-602R	
1 mg - 200 g	963-203		962-203R		962-303R		962-403R		962-603R	
1 mg - 500 g	963-204		962-204R		962-304R		962-404R		962-604R	
1 mg - 1 kg	963-205		962-205R		962-305R		962-405R		962-605R	
1 mg - 2 kg	963-206		962-206R		962-306R		962-406R		962-606R	
1 mg - 5 kg	963-207		962-207R		962-307R		962-407R		962-607R	
1 mg - 10 kg	963-208		962-208R		962-308R		962-408R		962-608R	
1 g - 50 g	963-215		962-215R		962-315R		962-415R		962-615R	
1 g - 100 g	963-216		962-216R		962-316R		962-416R		962-616R	
1 g - 200 g	963-217		962-217R		962-317R		962-417R		962-617R	
1 g - 500 g	963-218		962-218R		962-318R		962-418R		962-618R	
1 g - 1 kg	963-219		962-219R		962-319R		962-419R		962-619R	
1 g - 2 kg	963-220		962-220R		962-320R		962-420R		962-620R	
1 g - 5 kg	963-221		962-221R		962-321R		962-421R		962-621R	
1 g - 10 kg	963-222R		962-222R		962-322R		962-422R		962-622R	

Additional costs	KERN
for preparation, overhaul and adjustment before the calibration	
<b>Preparation of weights (e.g. cleaning, etc.)</b>	
Single weight	969-001R
Weight set	969-002R
<b>Subsequent services are carried out after confirmation</b>	
Continued overhaul of weights (e.g. wet-cleaning, markings, repair, special packaging, adjustment E1, E2 ...)	969-005R
Adjustment, per weight (only available for weights with adjustment chamber (F1-M3))	969-010R
<b>Second calibration after adjustment or substitution, per weight</b>	
Class E1	969-210R
Class E1 incl. volume determination	969-211R
Class E2	969-310R
Class F1/F2	969-410R
Class M1-M3	969-610R
Testing of magnetic properties according to OIML R111-2004, per weight	972-000

KERN DKD-Express Service	
DKD standard service Class E2-M3	4 working days
DKD standard service Class E1, 1mg-500mg, and recalibration 1g-10kg with a known volume	15 working days
Class E1, 1g-1kg, incl. volume determination	25 working days
Class E1, ≥ 2kg, incl. volume determination	40 working days

#### DKD express service in 48 hours except for class E1

- Urgent order is received at KERN by 12:00 noon at the latest
- Ready for shipping at KERN on the next working day but on, at 12:00 noon
- Return by standard parcel service or express shipping
- Additional cost for DKD Express Service, for each KERN test weight KERN 962-115
- For Express shipping, see page 154

## Verification prices for test weights

Class acc. → OIML R111-2004	E2 with verification certificate	F1/ F2 with verification certificate	M1/ M3 with verification certificate * only M1
Weight value: ↓	KERN	KERN	KERN
1 mg	952-351	952-451	952-651*
2 mg	952-352	952-452	952-652*
5 mg	952-353	952-453	952-653*
10 mg	952-354	952-454	952-654*
20 mg	952-355	952-455	952-655*
50 mg	952-356	952-456	952-656*
100 mg	952-357	952-457	952-657*
200 mg	952-358	952-458	952-658*
500 mg	952-359	952-459	952-659*
1 g	952-331	952-431	952-631
2 g	952-332	952-432	952-632
5 g	952-333	952-433	952-633
10 g	952-334	952-434	952-634
20 g	952-335	952-435	952-635
50 g	952-336	952-436	952-636
100 g	952-337	952-437	952-637
200 g	952-338	952-438	952-638
500 g	952-339	952-439	952-639
1 kg	952-341	952-441	952-641
2 kg	952-342	952-442	952-642
5 kg	952-343	952-443	952-643
10 kg	952-344	952-444	952-644
20 kg	952-345	952-445	952-645
50 kg	952-346	952-446	952-646
100 kg	-	952-591	952-691
200 kg	-	952-592	952-692
500 kg	-	952-593	952-693
1 mg - 500 mg	952-350	952-450	952-650*
1 mg - 50 g	952-301	952-401	952-601*
1 mg - 100 g	952-302	952-402	952-602*
1 mg - 200 g	952-303	952-403	952-603*
1 mg - 500 g	952-304	952-404	952-604*
1 mg - 1 kg	952-305	952-405	952-605*
1 mg - 2 kg	952-306	952-406	952-606*
1 mg - 5 kg	952-307	952-407	952-607*
1 mg - 10 kg	952-308	952-408	952-608*
1 g - 50 g	952-315	952-415	952-615
1 g - 100 g	952-316	952-416	952-616
1 g - 200 g	952-317	952-417	952-617
1 g - 500 g	952-318	952-418	952-618
1 g - 1 kg	952-319	952-419	952-619
1 g - 2 kg	952-220	952-420	952-620
1 g - 5 kg	952-321	952-421	952-621
1 g - 10 kg	952-322	952-422	952-622

### KERN verification delivery times

Standard verification service Class E2-M3	6 working days
--	----------------

### Additional costs

for preparation, overhaul  
and adjustment before  
the calibration

KERN

### Preparation of weights (e.g. cleaning, etc.)

Single weight 969-008R

Weight set 969-009R

### Subsequent services are carried out after confirmation

Continued overhaul  
of weights  
(e.g. wet-cleaning,  
markings, repair,  
special packaging,  
adjustment E2 ...)

Adjustment, per weight 969-010R  
(only available for weights  
with adjustment chamber  
(F1-M3))

### Verification after adjustment or substitution, per weight

Class E2 969-310R

Class F1/F2 969-410R

Class M1/M3 969-610R

## Factory calibration certificates (ISO calibration), prices for initial calibration and recalibration

Checking equipment	DKD/ISO	KERN
Force Gauges 300 N, 400 N, 500 N	DKD	963-161R
force-measuring devices up to 500 N	ISO	961-161R
force-measuring devices up to 2 KN	ISO	961-162R
force-measuring devices up to 10 KN	ISO	961-163R
force-measuring devices up to 14,5 KN	ISO	961-164R
Hardness testing device in accordance with Leeb testing (Typ D)	ISO	961-131R
Measuring devices for layer thickness 0 µm - 2000 µm (ferrous or nonferrous)	ISO	961-110R
Measuring devices for layer thickness 0 µm - 2000 µm (ferrous or nonferrous)	ISO	961-112R
Ultrasonic material thickness testing device 25 mm - 300 mm	ISO	961-113R
Mechanical balances (spring balances, ...) Max. load 5 kg	ISO	961-100R
Mechanical balances Max. load > 5 kg - 50 kg	ISO	961-101R
Mechanical balances Max. load > 50 kg - 350 kg	ISO	961-102R
Mechanical balances Max. load > 350 kg - 1500 kg	ISO	961-103R

# KERN Glossary

## Accuracy classes for test weights

E, F, M → *Error limit classes.*

## Adjusting of measuring equipment

Precise setting of a measure value via a professional intervention in the measurement system.

## Adjusting the weighing range of a balance



Either with the external test weight via the **adjusting program (CAL)**, or with the **internal automatic adjustment resp. adjusting switch**. It is necessary with variations in temperature, a change of environmental conditions, change of location, etc. **Recommended as a daily check routine.**

## Animal weighing program

When the animal moves during the weighing process, a stable average value is obtained by using the HOLD key. This value remains „frozen“ until the HOLD key is pressed again.

→ *Vibration-free weighing*

## Application accuracy

Allowance for → *measuring uncertainty* during practical use of a balance. Is given in the appendix to the DKD calibration certificate.

## Balances which are verified / not approved for verification

Metrologically almost identical. For verified balances certain details are regulated by law, e.g. software changes and additional markings.

## Capacity display:

a bar lights up to show the currently selected and optionally available weighing range.

## Calibration Certificate DKD/DaAkkS



Documentation of measured characteristics of balances or test weights and of traceability to the national standard. Additional price.

## Calibration of measuring equipment:

determination of the precision of a measure value without intervention in the measurement system. Example: to check a balance you load a → *test weight upon it*. The term „Calibrating“ was formerly also used for → *Adjusting*.

## Calibration or verification



**DKD-Calibration** is possible for every balance in perfect condition. DKD calibration is a private service monitored by the state for ensuring high quality requirements according to ISO 9000ff and others, e.g. in production or research. **M** Verifying is only possible for → *type-approved balances* marked with the green **M** → *Verification*

## Conformity evaluation

Procedure for confirming warranted characteristics in accordance with recognised rules. For balances this relates to verification.

## Conformity declaration from the manufacturer

The manufacturer declares that the product fulfils the applicable EU directives. With electronic balances this is always in conjunction with the CE mark.

## Control of measuring equipment in the QM system in conjunction with quality standards

An organisation certified to a quality standard such as DIN/EN/ISO 9000 ff. e.g. a production plant is obliged to adhere to a defined quality standard within the framework of its quality management system. To do this, it is imperative that you have measuring equipment which is working accurately. DIN/EN/ISO 9001, December Edition 2008 states in section 7.6 „Guidance of monitoring and measuring equipment“, that measuring equipment must be calibrated at defined intervals and before use. The measuring devices and measuring standards needed to do this must:

- be traced back to international or → *national standards*.

- their measuring uncertainty must be known

- they must be marked with a clear identification

- the test must be documented

The → *DKD calibration* fulfils all these requirements.

## Counting resolution

The counting resolution is calculated in points from the ratio of the weighing range [Max] divided by the smallest part weight. It is a statement of counting accuracy.

## Data interface / parameters



For the most part RS 232C, bidirectional. For direct connection of a printer or PC to the balance. The interface parameters can be set on the balance keypad. Interface cable, see p. 126.

## Density determination

(previously „Specific weight“)

## DKD = German Calibration Service

See product group 16 „DKD-Calibration service“

## DMS = Strain gauge



An electrical resistor strip that is glued to an elastic deforming body made of aluminium. As the strain gauge is mechanically deformed its resistance value changes, allowing the measured value to be calculated.

## Draught shield

Required for balances with → *Readout d* ≤ 1 mg, to avoid disturbing air movements..

## Dual-range balance

As the load increases, the balance switches automatically to the next largest range, for both weighing range [Max] as well as readout [d].

## Dynamic weighing

→ *Filter*

## Error limit classes for test weights in accordance with R 111 OIML

For further details, see section 15 „Test weights“

## Factory

These options can only be carried out in the KERN factory.

## FORCE = Electromagnetic force compensation:



A counterforce is created by means of a coil in a permanent magnet. This counterforce is the same as the load of the weight being measured on the scale and therefore maintains the balance. The measured value is calculated via the change in the coil current.

## GLP = Good Laboratory Practice

→ *ISO/GLP*

## Gravitational acceleration

→ *Gravitational force*

## Gravitational force:

very important influence for precise electronic balances. Due to the varying influence balances have to be → *adjusted* at the location of use.

## IP65 to IP68 protection

See product group - 06 „Stainless steel | IP65...68 protection“.

## ISO 9000ff/DIN EN ISO 9000ff

Quality Management System in the form of a DIN Norm for quality assurance in a factory.

## ISO calibration/ISO certificate = factory calibration certificate

Testing measuring devices for accuracy in accordance with a procedure which is recognised, but not accredited.

## ISO/GLP record keeping



Quality Assurance Systems demand record keeping of weighing results and the correct adjusting of the balance giving details of date, time and balance identification. The easiest way of obtaining this documentation is by means of a connected printer.

## Linearity/precision

Greatest deviation of the weight display of a balance to the value of the respective test weight in terms of plus and minus over the whole weighing range.

## Memory

Balance contains memories, e.g. for item data, weighing data, tare weights etc. → *PLU*

## Minimum load Min

Lower limit of the verifiable weighing range. Is marked on the verification plate. The function of the balance is also given below the minimum load.

## Net total



= total weight of all components of a mixture without the weight of the tare cup.

## Optimisation of counting

→ *Optimisation of reference weight*

## Optimisation of reference weight when piece counting

The reference weight is generated automatically several times during the counting process. Increases the counting accuracy.

# KERN Glossary

## Percentage determination (example)



Reference weight prior to drying: 50g = balance display 100 %. After drying 40 g = balance display 80 % absolute (dry mass) or 20 % relative (humidity).

## Permissible ambient temperature

Measuring errors are possible with readings either side of the limits. With verified balances this is stated on the identification plate.



## Piece counting of single pieces

when weighing e.g. 10 identical pieces; the → *reference quantity* is 10. The balance automatically indicates the average weight per piece. As from now each loading of identical pieces to be counted will be directly indicated as the quantity of pieces. The following applies: **The higher the reference quantity, the higher the counting accuracy.**

## PRE-TARE

→ *Automatic taring*

## Proof of compatibility

This documents the verification compatibility for combinations of weighing modules such as display devices, load cells and connecting elements.

## Quality management system

→ *Control of measuring equipment*

## Readout d

Smallest readable weight increment on a digital display.

## Recalibration

periodic checking of the precision of measurement equipment/checking equipment (e.g. balances/ weights) to keep control over accuracy, → *Control of measuring equipment*

## Reference weight (when piece counting)

See product group 08 „counting balances | counting systems“.

## Reproducibility (standard deviation)

the measure of conformity in repeat weighing (e.g. balances) subject to the same conditions. Mostly 1 **d** or less. Quality feature.



## SC-TECH = Single-Cell Technology

→ *FORCE*. The load cell consists of a single aluminium block, which gives a very high measuring quality.

## Semi-micro balance

Analytical balance with a readout **d** = 0,01 mg.

## Smallest part weight when counting

The smallest piece weight, which a balance can accept for piece counting. For the relevant model, enter „g/piece“ in the product data table.

## Tare deduction

→ *Automatic taring*

## Taring, automatic (PRE-TARE)

When the tare pan is put in place the balance immediately displays zero. Saves time.

## Taring, subtractive

The available weighing range of a balance is reduced by the value of the tare load. Example: weighing range of a balance Max 6000 g, Tare (= container) 470 g, available weighing range 5530 g.

## Test weight, external (previously calibration weight)



for adjusting or checking the balance accuracy → *Adjusting the weighing range*. The external test weight can be DKD calibrated at any time, even afterwards, see product group 16 „DKD-Calibration service“.

## Test weight, internal



Like test weight external, but installed in the balance and powered.

## T-FORK = Tuning fork principle



A resonating body (like a tuning fork) is electromagnetically excited, causing it to oscillate. The measured value is calculated via the change in frequency corresponding to the load of the weight being measured on the scale.

## Traceability to the National Standard

ISO 9000 ff requires the correctness of all checking equipment (e.g. test weights) with the official standard in accordance to the defined tolerance. Thereby incorrect measurement is prevented.

## Totalising

Various individual weighings are added automatically to aggregate, e.g. all individual weighings of a batch.

## Uncertainty of measurement of a balance (= standard deviation)

Determined for each balance according to a precisely given test method and documented in the → *Calibration certificate*. It depends on various factors both internal and external. With increasing weight the uncertainty of measurement rises, see product group 16 „DKD-Calibration Service“

## Verification validity for balances

Generally 2 years for all verification categories, for control balances generally 1 year, after expiry the balance has to be reverified.

## Verification categories of balances

Class I – Analytical balance (precision balance),  
Class II – precision balance,  
Class III – industrial scale (commercial scale).

## Verification



Verification, in accordance with the new terminology „Conformity assessment“. Only balances with → EC type approval can be evaluated for conformity. These balances have an identification plate with the green → M. Verification is stipulated by the state and serves as consumer protection.

According to the EU directive 2009/23/EG, balances must be verified if they are used as follows:

- in commercial trade when the price of a commodity is determined by weighing.
- in the manufacture of pharmaceuticals in pharmacies and analysis in pharmaceutical and medical laboratories.
- for official purposes.
- in the production of prepackaging.
- in medical applications.

Every balance is tested by the metrological service and stamped with a verification mark. Its accuracy within the framework of permissible standard tolerances is thereby confirmed. EU verification applies to all member states of the EU.

## Verification of a balance with adjusting program CAL EXT:

the adjusting program is sealed with an official mark after the verification. Thus the verification is only valid for the specific location of use.

### → *Gravitational force*

For the preparation of verification it is therefore necessary to advise the location of use and post-code. See individual model details for the information as to whether verification can be carried out in the factory or at the location of use.

## Verification of a balance with automatic internal adjusting CAL INT:

the above restrictions in respect of the location of use do not apply, because the automatic internal adjusting works also after the verification, therefore it is not sealed. In this case the verification does not depend on the location.

## Verification value e:

measure of the verification tolerance, depending on balance, mostly between 1 **d** and 10 **d**  
→ *Readout*

## Weighing range [Max]

is the working range of the balance. The balance can be loaded up to the specified upper limit.

## Weighing with tolerance ranges



The lower and upper limiting values are programmed individually. Input is possible in grams, pieces or %. With tolerance checks such as dosing, portion division or grading, the balance displays the value over or under the limits.

## Wireless communication

For KERN balances between the platform and display device using the integrated radio module. Range within line of sight depending on the model, approx. 10-20 m.