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

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DAkkS calibration laboratory
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Discover the vast world of scales and measuring technology from KERN online:
kern-sohn.com

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KERN®

BALANCES &
TEST SERVICE
for laboratory, industry and food industry

OUT NOW:
THE NEW KERN EASYTOUCH APP

2022
PROFESSIONAL MEASURING

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

The tried and tested quick search system – "Quick-Finder" ahead of each product group allows you to base the search for a certain target group on weighing data you need such as readout, weighing capacity and main features for each model.

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

1. Go to the product group index on page 3

2. Pick the appropriate 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:

Quick-Finder

KERN Models A – Z

KERN Pictograms

Internal adjusting:
CAL INT
Quick setting up of the balance's accuracy with internal adjusting weight (motordriven)

Adjusting program CAL:
CAL EXT
For quick setting up of the balance's accuracy. External adjusting weight required

Easy Touch:
ET
Suitable for the connection, data transmission and control through PC or tablet. For details see page 123

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

Alibi memory:
ALIBI
Secure, electronic archiving of weighing results, complying with the 2014/31/EU standard. For details see page 215

Data interface RS-232:
RS 232
To connect the balance to a printer, PC or network

RS-485 data interface:
RS 485
To connect the balance to a printer, PC or other peripherals. Suitable for data transfer over large distances. Network in bus topology is possible

USB data interface:
USB
To connect the balance to a printer, PC or other peripherals

Bluetooth* data interface:
BT
To transfer data from the balance to a printer, PC or other peripherals

WiFi data interface:
WIFI
To transfer data from the balance to a printer, PC or other peripherals

Control outputs (optocoupler, digital I/O):
SWITCH
To connect relays, signal lamps, valves, etc.

Analogue interface:
ANALOG
to connect a suitable peripheral device for analogue processing of the measurements

Interface for second balance:
DUAL
For direct connection of a second balance

Network interface:
LAN
For connecting the scale to an Ethernet network

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

GLP/ISO log:
GLP INTERN
The balance displays serial number, user ID, weight, date and time, regardless of a printer connection

GLP/ISO log:
GLP PRINTER
With weight, date and time. Only with KERN printers, see page 163–165

Piece counting:
PCS
Reference quantities selectable. Display can be switched from piece to weight

Recipe level A:
RECIPE A
The weights of the recipe ingredients can be added together and the total weight of the recipe can be printed out

Recipe level B:
RECIPE B
Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display

Totalising level A:
SUM
The weights of similar items can be added together and the total can be printed out

Percentage determination:
PERCENT
Determining the deviation in % from the target value (100 %)

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

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

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

Protection against dust and water splashes IPxx:
IP
The type of protection is shown in the pictogram. For details see page 53

Suspended weighing:
UNDER
Load support with hook on the underside of the balance

Battery operation:
BATT
Ready for battery operation. The battery type is specified for each device

Rechargeable battery pack:
ACCU
Rechargeable set

Universal plug-in power supply:
MULTI
with universal input and optional input socket adapters for
A) EU, CH, GB
B) EU, CH, GB, USA
C) EU, CH, GB, USA, AUS

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

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

Weighing principle: Strain gauges
DMS
Electrical resistor on an elastic deforming body

Weighing principle: Tuning fork
T-FORK
A resonating body is electromagnetically excited, causing it to oscillate

Weighing principle: Electromagnetic force compensation
FORCE
Coil inside a permanent magnet. For the most accurate weighings

Weighing principle: Single cell technology:
SC TECH
Advanced version of the force compensation principle with the highest level of precision

Verification possible:
+3 DAYS
The time required for verification is specified in the pictogram

DAkkS calibration possible (DKD):
DAkkS +3 DAYS
The time required for DAkkS calibration is shown in days in the pictogram

Factory calibration (ISO):
ISO +4 DAYS
The time required for Factory calibration is shown in days in the pictogram

Package shipment:
1 DAY
The time required for internal shipping preparations is shown in days in the pictogram

Pallet shipment:
2 DAYS
The time required for internal shipping preparations is shown in days in the pictogram

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KERN − Measuring technology and testing services from a single source

Balances & Test service catalogue

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

Medical scales catalogue

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

Microscopes & refractometers catalogue

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

SAUTER measuring equipment catalogue

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

DAkkS calibration service brochure

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

Your advantages

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

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

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

versatile
- One-stop shopping: from pocket balances through to 12 t crane balance – everything from one supplier
- Find the product you want at lightning speed with the "Balance Quick-Finder" at www.kern-sohn.com

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+49 7433 9933-0

Service hotline
+49 7433 9933-199

Calibration hotline
+49 7433 9933-196

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

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www.kern-sohn.com

E-mail order
info@kern-sohn.com

Fax order
+49 7433 9933-149

www.kern-sohn.com
Information on current product availability, product data sheets, user instructions, useful knowledge, technical glossary, images and much for you to download, practical topic areas, which will guide you to the right product in your industry as well as a clever test weight and balance search engine.

Keyword index

Product group index 2022

NEWS 2022

In 2022 we have many new models for you in our program

Analytical balances KERN ADB

The price leader in analytical balances with internal or external adjustment – now as version with [Max] 220 g!

Further details > P. 34

Analytical balances KERN ALS-A · ALJ-A

Analytical balance with high weighing capacity, graphic display and convenient recipe function — now also available as single-range semi-microbalance with incredibly high resolution

Further details > P. 35/36

Analytical balances KERN ABP

Premium analytical balance with the latest Single-Cell Generation for extremely rapid, stable weighing results – now also available as single-range semi-microbalance with incredibly high resolution

Further details > P. 40/41

Stainless steel platform scale KERN SXS

High-quality stainless steel platform scale with stainless steel IP68 display device – now also as high resolution version with high-resolu-tion display

Further details > P. 64/65

Price computing scale KERN RPB

Retail scale with memories for item prices – now with Checkout-Dialogue 06

Further details > P. 68

Price computing scale KERN RFE

Compact portion scale with 2 XXL displays – weight, unit price, total price and TARE value at a glance

Further details > P. 69

Counting system KERN CCA

High-resolution counting system with EC type approval to count the smallest parts in large quantities, maximum number of parts which can be displayed is 999,999 – many new models now

Further details > P. 80/81

Industrial platform scale KERN IOC

Allround platform scale with a wide range of communication options and EC type approval [M] – now also available as high-resolution version with fine display

Further details > P. 95/96

Floor scales KERN BID/BID-D

Floor scale with EC type approval [M] and the best price-to-performance ratio – now also as high-resolution dual-range balance
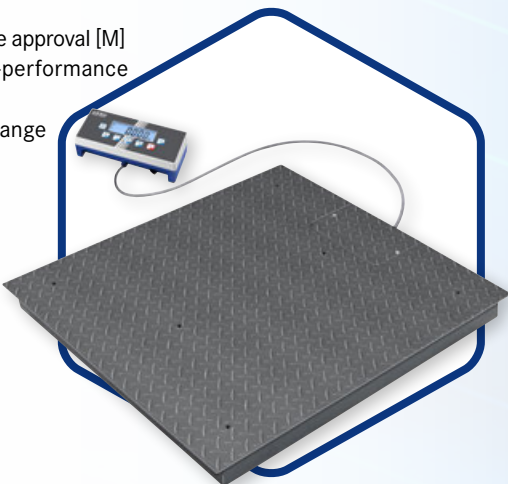
Further details > P. 105/106

Anti-vibration plates KERN YPS-04, -05, -06

Anti-vibration plates for absorbing shocks and vibrations. Ideal for vibration-free installation of precision balances, analytical balances or microscopes
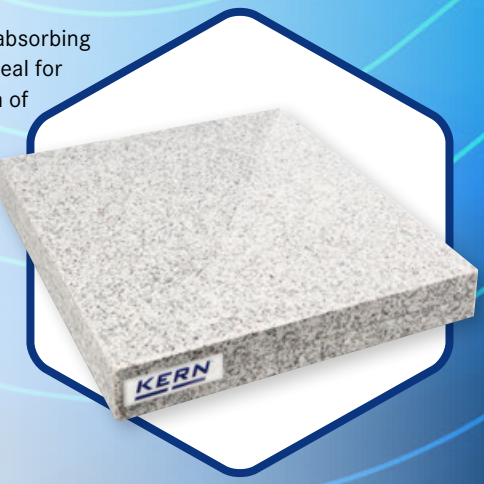
Further details > P. 173

EasyTouch by KERN

Compatible models are now marked in the catalogue with the EasyTouch symbol.
Detailed information > Page 123 – 127

Do you have questions about our products?
Our customer consultants will be pleased to assist you:

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KERN Hotlines

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Service hotline	**199**	for general technical questions about your KERN or SAUTER product
System solutions Industry 4.0	**200**	for all technical questions concerning the interlocking of the latest information and communication technology with our scales, measuring cells and measuring devices as well as questions about KERN software
Industrial scales	**333**	for all technical questions concerning our basic scales (laboratory & industry), pocket balances, school balances, bench scales, price-computing scales, platform scales, counting scales, counting systems, floor scales, pallet truck scales, crane scales
Laboratory and analytical balances	**444**	for all technical questions concerning our high quality precision balances, analytical balances (especially with electromagnetic force-compensated measuring systems, tuning fork and high application density)
Medical scales	**499**	for all technical questions concerning our baby scales, personal scales, handrail scales, chair scales, wheelchair scales, dynamometers
SAUTER measuring instruments	**555**	for all technical questions concerning our SAUTER measuring instruments, test benches, force measuring accessories (clamps etc.), SAUTER software
Moisture analysers	**599**	for all technical questions concerning our moisture analysers
Optical devices	**777**	for all technical questions concerning our microscopes, microscope cameras, refractometers, etc.

> High-resolution pocket balance

> Fast response and settling time

> Particularly flat design

> Stainless steel weighing plate

Pocket balances

Pocket size precision

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

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

Quick-Finder Pocket balances

Readability [d] g	Weighing capacity [Max] g	Model	Page		DAYS	CAL EXT	BATT
		KERN			For an explanation on the pictos, see front flap		
0,001	50	**TGD 50-3CS05** ◈	10	1		●	○
0,002	10	**CM 50-C2N** ◈	10	1		●	○
0,01	60	**CM 60-2N**	9	1		●	○
0,01	150	**TGC 150-2S05**	9	1		●	○
0,1	150	**TEE 150-1**	9	1		●	○
0,1	150	**CM 150-1N**	9	1		●	○
0,1	320	**CM 320-1N**	9	1		●	○
0,1	500	**TGC 500-1S05**	9	1		●	○
1	1000	**CM 1K1N**	9	1		●	○
1	1000	**TGC 1K-3S05**	9	1		●	○

◈ = Carat balances   ● = standard   ○ = option

Pocket balances KERN TEE · CM · TGC

KERN TEE

Designer pocket balance at a bargain price

STANDARD

CAL EXT | BATT | 1 DAY

OPTION

DAkkS +3 DAYS

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

KERN CM

Pocket balance with integrated pocket calculator

STANDARD

CAL EXT | UNIT | BATT | 1 DAY

OPTION

DAkkS +3 DAYS

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

KERN TGC

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

STANDARD

CAL EXT | UNIT | BATT | 1 DAY

OPTION

DAkkS +3 DAYS

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

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

KERN	TEE 150-1*	CM 60-2N	CM 150-1N	CM 320-1N	CM 1K1N	TGC 150-2S05	TGC 500-1S05	TGC 1K-3S05
Weighing capacity [Max] g	150 g	60 g	150 g	320 g	1000 g	150 g	500 g	1000 g
Readability [d]	0,1 g	0,01 g	0,1 g	0,1 g	1 g	0,01 g	0,1 g	1 g
LCD display	backlit, digit height 9 mm	backlit, digit height 12 mm				backlit, digit height 12 mm		
Dimensions of weighing plate	W×D 60×64 mm	W×D 70×80 mm				ø 81 mm		
Overall dimensions	W×D×H 67×100×22 mm	W×D×H 85×130×25 mm				W×D×H 100×130×18 mm		
Power supply	Batteries included, 2×1,5 V AAA, operating time up to 50 h	Batteries included, 2×1,5 V AAA, AUTO-OFF function to preserve battery life, operating time up to 33 h				Batteries included, 2× CR2032, operating time up to 33 h		
Net weight	100 g	180 g				200 g		
Permissible ambient temperature	5 °C/35 °C					0 °C/40 °C		
Option DAkkS Calibr. Certificate	963-127							

! * ONLY WHILE STOCKS LAST!

KERN CM-C

Pocket balance with carat display – ideal for jewellers

KERN TGD

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

STANDARD

| CAL EXT | UNIT | BATT | 1 DAY |

STANDARD

| CAL EXT | UNIT | BATT | 1 DAY |

OPTION

DAkkS +3 DAYS

OPTION

DAkkS +3 DAYS

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

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

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

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

! * ONLY WHILE STOCKS LAST!

KERN EHA Page 16

> Large, shock-resistant stainless steel weighing plate

> Particularly flat design

> Large, bright LCD display

> Simple operation, suitable for school and teaching use

School balances

As entry-level models, KERN school balances cover the most important basic applications of laboratory balances and offer simple operation, easy readability and an optimal price-performance ratio. The KERN School balances can be used flexibly and independent of location thanks to battery operation and are therefore the ideal choice for school or teaching purposes.

Our recommendation: Brand new in our product range is the school balance EHA, a real and affordable all-rounder for laboratory, industry and teaching purposes.

Quick-Finder School balances

Readability [d] g	Weighing capacity [Max] g	Model KERN	Page	DAYS	CAL EXT	RS 232	PCS	RECIPE	BATT
					For an explanation on the pictos, see front flap				
0,001	100	EMB 100-3	13	1	●				○
0,001	200	EMB 200-3	13	1	●				○
0,001	200	EMB 200-3V	14	1	●	●			○
0,001	300	EMS 300-3	15	1	●		●	●	○
0,01	200	EMB 200-2	13	1	●				○
0,01	500	EMB 500-2S	12	1	●				○
0,01	500	EHA 500-2	16	1	●		●		○
0,01	600	EMB 600-2	13	1	●				○
0,01	1000	EMB 1000-2	13	1	●				○
0,01	2000	EMB 2000-2	13	1	●				○
0,01	2000	EMB 2000-2V	14	1	●	●			○
0,01	3000	EMS 3000-2	15	1	●		●	●	○
0,1	200	EMB 200-1SS05	12	1	●				○
0,1	500	EMB 500-1SS05	12	1	●				○
0,1	500	EMB 500-1	13	1	●				○
0,1	500	EMB 500-1BE	13	1	●				○
0,1	500	EHA 500-1	16	1	●		●		○
0,1	1000	EHA 1000-1	16	1	●		●		○
0,1	1200	EMB 1200-1	13	1	●				○
0,1	3000	EMB 3000-1	13	1	●				○
0,1	3000	EMB 3000-1S	12	1	●				○
0,1	3000	EHA 3000-1	16	1	●		●		○
0,1	6000	EMB 6000-1	13	1	●				○
0,1	6000	EMS 6K0.1	15	1	●		●	●	○
0,1	12000	EMS 12K0.1	15	1	●		●	●	○
1	2000	EMB 2000-0SS05	12	1	●				○
1	2200	EMB 2200-0	13	1	●				○
1	3000	EHA 3000-0	16	1	●		●		○
1	5000	EMB 5000-0SS05	12	1	●				○
1	5200	EMB 5.2K1	13	1	●				○
1	6000	EMS 6K1	15	1	●		●	●	○
1	12000	EMS 12K1	15	1	●		●	●	○
5	5200	EMB 5.2K5	13	1	●				○

● = standard   ○ = option

02

SCHOOL ★

5×
Models with
addition
–S05

The price breaker!
Most economical School balance in
the KERN assortment

The space miracle – stackable school balance for experiment-based teaching

Features

- Simple and convenient 2-key operation
- Tare function facilitates formulation work
- Particularly flat design
- Secure and non-slip positioning through rubber feet
- ▫1 Stackable for space-saving storage
- ▫2 A practical transport safety lock prevents the weighing technology from being overloaded when stacked, stored or during transportation

Technical data

- Large LCD display, digit height 15 mm
- Dimensions of weighing surface, plastic, Ø 120 mm
- Overall dimensions W×D×H 145×205×45 mm
- Optional battery operation, 2×1.5 V AA, standard, operating time up to 35 h, AUTO-OFF function to preserve the battery
- Net weight 2,0 kg
- Permissible ambient temperature 5 °C/35 °C
- **Note:** The models are only delivered in a set of 5 units. i.e. the price given in the table refers to a delivery of 5 items. Cannot be delivered individually. The calibration prices given here refer to calibration of a single balance

Accessories

- External universal mains adapter, with universal input and optional input socket adapters for EU, GB, USA, KERN YKA-03N

STANDARD

| CAL EXT | UNIT | BATT | DMS | 1 DAY |

OPTION

| B MULTI | DAkkS +3 DAYS |

| Model | Weighing capacity [Max] | Readability [d] | Reproducibility | Linearity | Quantity delivered (balance) | | Option | Quantity delivered (DAkkS Calibr. Certificate) |
| | | | | | | | DAkkS Calibr. Certificate | |
KERN	g	g	g	g			DAkkS KERN	
EMB 500-2S	500	0,01	0,02	± 0,03	1		963-127	1
EMB 200-1SS05	200	0,1	0,2	± 0,3	5		963-127	1
EMB 500-1SS05	500	0,1	0,2	± 0,3	5		963-127	1
EMB 3000-1S	3000	0,1	0,2	± 0,3	1		963-127	1
EMB 2000-0SS05	2000	1	2	± 3	5		963-127	1
EMB 5000-0SS05	5000	1	2	± 3	5		963-127	1

⚠ ONLY WHILE STOCKS LAST!

School balance KERN EMB

SCHOOL ★★

Entry level laboratory balance with tremendous weighing performance

Features

- Simple and convenient 2-key operation
- Tare function facilitates formulation work
- Particularly flat design
- Ready for use: Batteries included
- ① Ring-shaped draught shield standard, only for models with weighing plate size Ⓐ, weighing space ∅×H 96×35 mm
- Hook for underfloor weighing standard
- ② Also available as KERN EMB 500-1BE Black Edition
- Note: With the optional auxiliary set for density determination KERN YDB-04 also well suited for school and teaching operation.

Technical data

- Large LCD display, digit height 15 mm
- Dimensions weighing surface
    - Ⓐ ∅ 82 mm
    - Ⓑ ∅ 105 mm
    - Ⓒ ∅ 150 mm, see larger picture
- Weighing plate material
    - Ⓐ plastic, with conductive lacquer
    - Ⓑ, Ⓒ plastic
- Net weight approx. 0,85 kg
- Batteries included, 9 V block, respectively 2×1.5 V AA
- Permissible ambient temperature 5 °C/35 °C

Accessories

- Stainless steel weighing plate, only for models with weighing plate size Ⓑ, KERN EMB-A02
- External universal mains adapter, with universal input and optional input socket adapters for EU, GB, USA, KERN YKA-03N
- ③ Ancillary kit for density determination of liquids and solids with density > 1. Scope of supplies: Bridge for holding the beaker (∅ 102 mm), hook (H 139 mm), suitable for models with weighing plate size Ⓐ, KERN YDB-04

STANDARD

CAL EXT | UNIT | UNDER | BATT | DMS | 1 DAY

OPTION

MULTI | DAkkS +3 DAYS

Model KERN	Weighing capacity [Max] g	Readability [d] g	Reproducibility g	Linearity g	Housing dimensions W×D×H mm	Weighing plate	Option DAkkS Calibr. Certificate DAkkS KERN	
EMB 100-3	100	0,001	0,001	± 0,005	170×244×54	A	963-127	
EMB 200-3	200	0,001	0,001	± 0,005	170×244×54	A	963-127	
EMB 200-2	200	0,01	0,01	± 0,02	170×244×39	B	963-127	
EMB 600-2	600	0,01	0,01	± 0,03	170×244×39	B	963-127	
EMB 1000-2	1000	0,01	0,01	± 0,05	170×244×54	C	963-127	
EMB 2000-2	2000	0,01	0,01	± 0,05	170×244×54	C	963-127	
EMB 500-1	500	0,1	0,1	± 0,2	170×244×39	C	963-127	
EMB 500-1BE	500	0,1	0,1	± 0,2	170×244×39	C	963-127	
EMB 1200-1	1200	0,1	0,1	± 0,3	170×244×39	C	963-127	
EMB 3000-1	3000	0,1	0,1	± 0,3	170×244×39	C	963-127	
EMB 6000-1	6000	0,1	0,1	± 0,3	170×244×39	C	963-128	
EMB 2200-0	2200	1	1	± 2	170×244×39	C	963-127	
EMB 5.2K1	5200	1	1	± 3	170×244×39	C	963-128	
EMB 5.2K5	5200	5	5	± 10	170×244×39	C	963-128	

School balance KERN EMB-V

SCHOOL ★★★

School balance with integrated density determination function

Features

- Easy 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
- Self-explanatory graphic control panel, the workings steps can be understood immediately, even without operating instructions
  - no learning time = reduces costs
  - ideal for untrained users
  - visualised process avoids operating errors
- 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 of samples/plummets in air
  4 Weighing of samples/plummets in liquid. The density will be shown on the display right away
- Particularly flat design
- Hook for underfloor weighing standard
- Ready for use: Batteries included, 9 V block, operating time up to 12 h, AUTO-OFF function preserves the battery
- **Note:** Balance and appropriate set for density determination should be ordered at the same time, see accessories

Technical data

- Large LCD display, digit height 15 mm
- Dimensions weighing surface, plastic
  A Ø 82 mm
  B Ø 150 mm, see larger picture
- Overall dimensions W×D×H 175×245×54 mm
- Net weight approx. 0,85 kg
- Permissible ambient temperature 5 °C/35 °C
- Now also with carat weighing unit: EMB 200-3V: 1000 ct/0,005 ct

Accessories

KERN EMB 200-3V:

- 5 Ancillary kit for density determination of liquids and solids with density > 1. Scope of supplies: Bridge for holding the beaker (Ø 102 mm), hook (H 139 mm), suitable for models with weighing plate size A, KERN YDB-04
- 6 Set for density determination of liquids and solids with density ≤/≥ 1. Scope of delivery: Weighing plate, beaker (H×Ø 71×51 mm), sample holder, plummet, KERN YDB-01
- DAkkS-Calibration certificate for the plummet (20 g), KERN 962-335V

KERN EMB 2000-2V:

- 7 Set for density determination of liquids and solids with density ≤/≥ 1. Scope of delivery: Weighing plate, beaker (H×Ø 135×100 mm), sample holder, plummet KERN YDB-02
- DAkkS-Calibration certificate for the plummet (200 g), KERN 962-338V

STANDARD

CAL EXT | RS 232 | UNIT | UNDER | BATT | MULTI | DMS | 1 DAY

OPTION

DAkkS +3 DAYS

Model	Weighing capacity	Readability	Reproducibility	Linearity	Weighing plate		Option
							DAkkS Calibr. Certificate
KERN	[Max] g	[d] g	g	g			DAkkS KERN
EMB 200-3V	200	0,001	0,002	± 0,005	A		963-127
EMB 2000-2V	2000	0,01	0,02	± 0,05	B		963-127

School balance KERN EMS

SCHOOL ★★★

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 weighing plate made of plastic, with conductive lacquer
- Particularly flat design
- Ergonomically optimised key pad with large keys and a high-contrast LCD display
- Secure and non-slip positioning through rubber feet
- Adjusting program CAL for quick setting of the balance accuracy, external test weights at an additional price, see *Test weights*
- 1 Draught shield standard for models with weighing plate size A, weighing space W×D×H 145×145×65 mm
- Suitable for common school LIMS systems

Technical data

- LCD display, digit height 25 mm
- Dimensions of weighing surface,
  A Ø 105 mm
  B W×D 175×190 mm, see larger picture
- Weighing plate material
  A plastic, with conductive lacquer
  B plastic
- Overall dimensions W×D×H 200×280×63 mm (without draught shield)
- Optional battery operation, 9 V block not included in scope of delivery, operating time up to 40 h
- External mains adapter standard
- Net weight approx. 1,4 kg
- Permissible ambient temperature 5 °C/35 °C

Accessories

- 2 Stainless steel weighing plate, only for models with weighing plate size B, KERN EMS-A01

STANDARD

| CAL EXT | PCS | RECIPE | PERCENT | UNIT | BATT | MULTI | DMS | 1 DAY |

OPTION

| DAkkS +3 DAYS |

Model	Weighing capacity [Max]	Readability [d]	Reproducibility	Linearity	Weighing plate		Option
							DAkkS Calibr. Certificate
KERN	g	g	g	g			DAkkS KERN
EMS 300-3	300	0,001	0,002	± 0,005	A		963-127
EMS 3000-2	3000	0,01	0,02	± 0,05	B		963-127
EMS 6K0.1	6000	0,1	0,1	± 0,3	B		963-128
EMS 12K0.1	12000	0,1	0,1	± 0,3	B		963-128
EMS 6K1	6000	1	1	± 3	B		963-128
EMS 12K1	12000	1	1	± 3	B		963-128

School balance KERN EHA

SCHOOL
★★★

The compact all-round model with robust stainless steel weighing plate for us in laboratories, industries and for teaching

Features

- Thanks to its compact, robust design, its bright display and high precision, this range is ideal for use in laboratories, quality control, production as well in schools and universities for teaching e.g. biology, chemistry and physics
- Large, shock proof weighing plate made from stainless steel, can be removed and therefore is hygienic and easy to clean
- 1 Particularly flat design
- Ergonomically-optimised key pad with large keys and a high-contrast LCD screen
- 2 Secure and non-slip positioning through rubber feet
- Level indicator and levelling feet for precise levelling of the scale, fitted as standard, to give the most accurate weighing result
- Adjusting program CAL for quick setting of the balance accuracy using an external test weight at an additional price, see *test weights*

Technical data

- Backlit LCD display, digit height 22 mm
- Dimensions of weighing surface, stainless steel
  A Ø 105 mm
  B W×D 120×120 mm, see larger picture
- Overall dimensions W×D×H 225×160×50 mm (without draught shield)
- Optional battery operation, 2×1.5 V AA not included in scope of delivery, operating time up to 70 h
- External mains adapter standard
- Net weight 0,50 kg
- Permissible ambient temperature 5 °C/40 °C

STANDARD

| CAL EXT | PCS | UNIT | BATT | MULTI | DMS | 1 DAY |

OPTION

| DAkkS +3 DAYS |

| Model | Weighing capacity | Readability | Reproducibility | Linearity | Weighing plate | | Option |
| | | | | | | | DAkkS Calibr. Certificate |
KERN	[Max] g	[d] g	g	g			DAkkS KERN
EHA 500-2	500	0,01	0,03	± 0,02	A		963-127
EHA 500-1	500	0,1	0,3	± 0,2	A		963-127
EHA 1000-1	1000	0,1	0,3	± 0,2	B		963-127
EHA 3000-1	3000	0,1	0,3	± 0,3	B		963-127
EHA 3000-0	3000	1	3	± 2	B		963-127

> Excellent tuning fork weighing system

> Easy to use

> Automatic external and internal adjustment

> Capacity display

Precision balances

Here you'll find a complete summary of the KERN laboratory scales series and their positioning within the precision scales segment on the basis of application, price-performance ratio and functional volume

PREMIUM LABORATORY BALANCES

★★★
★★
★

PBS/PBJ   PES/PEJ

STANDARD LABORATORY BALANCES

★★★
★★
★

PLS/PLJ   PNS/PNJ   EW-/EG-N

572

BASIC LABORATORY BALANCES

EWJ

★★★
★★
★

440   KB

PCD   PCB   PFB

03
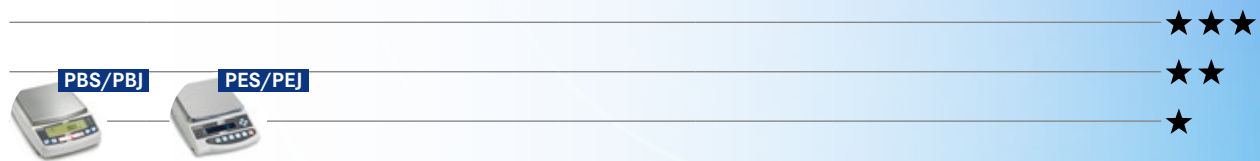
Precision balances

KERN school balances

are entry-level devices in the field of laboratory balances, and they cover basic applications. They feature simple operation and the very best price/performance ratio. In addition they usually can be stacked and can also be operated by battery, as an alternative to mains power, which means that they have the flexibility to be used in different locations.
See *school balances*

KERN Basic laboratory balances

are used in laboratory applications mostly as single-user balances for sample preparation, etc. They are fitted with all useful laboratory functions which will support the user in a helpful way. With their strain gauge measuring principle, they are used anywhere where individual weighings are carried out, such as, for example, checkweighing. These devices are often connected to printers or local Pcs using the standard, integrated RS-232 data interface.

KERN Basic standard laboratory balances

offer you all the tools you would need for effective and accurate work in your laboratory environment. All important laboratory functions such as a recipe weighing function or data interfaces are on board at all times. But above all, the high-quality measuring principles of these balances such as force compensation or tuning fork measuring principle, allow them to be used in dosing procedures with very small weight changes and rapid display. In addition these balances are often fitted with automatic internal adjustment, which permits calibrated operation and means the balance can be used in any location.

KERN premium laboratory balances

are right at the top of the precision balance segment. The numerous equipment features of the standard balances are complemented by high-quality materials with robust, sturdy construction, high-quality, high-performance weighing systems, optimised operating sequences, speed benefits Tip: Together with the innovative KERN EasyTouch app, a premium laboratory balance supports its users in their typical workflows and increases the range of functions of the balance. In this way these scales can be operated more efficiently and quickly than devices from other quality classes. In particular these balances are used in demanding laboratory applications and anywhere where the environmental conditions are not ideal because of vibrations or other interference, but where, naturally, the balance is expected to provide accurate weighing results. Another field of application for these balances is the pharmaceutical industry, which is subject to particularly demanding requirements and authorities such as, for example, the FDA (Food and Drug Administration).

⚠ Tip

Transform your weighing system into a powerful weighing system! Using the KERN EasyTouch App even a simple scale can be made into a powerful weighing system, which offers a wide range of functions. You simply have to install the KERN EasyTouch App on your PC or tablet (Windows® or Android®), connect the balance (either with cable or wireless), activate the App and straightaway you will be able to control your balance using your PC or tablet. All details on page 127

If you have further questions on the subject of "Which balance will be best for my application?", then please ask your personal KERN segment specialists who will be happy to help you.

03

Quick-Finder Precision balances

Readability [d] g	Weighing capacity [Max] g	Model KERN	Page	DAYS	M	CAL INT	CAL EXT	RS 232	GLP INTERN	GLP PRINTER	PCS	TOL	BATT	ACCU
								For an explanation on the pictos, see front flap						
0,001	60	440-21A	24	1			●	○		●	●		●	○
0,001	100	PCB 100-3	22	1			●	○		●	●		●	○
0,001	120	PFB 120-3	23	1			●	○		●	●			
0,001	120	KB 120-3N	25	1			●	○		●	●			○
0,001	200	PFB 200-3	23	1			●	○		●	●			
0,001	220	EW 220-3NM	30	1			●	○		●	●	●		○
0,001	220	EG 220-3NM	30	1	○		●		○		●	●	●		○
0,001	240	KB 240-3N	25	1			●	○		●	●			○
0,001	240	572-30	27	1			●	○		●	●			○
0,001	250	PCD 250-3	21	1			●	○		●	●		●	○
0,001	250	PCB 250-3	22	1			●	○		●	●		●	○
0,001	300	PFB 300-3	23	1			●	○		●	●			
0,001	300	EWJ 300-3	26	1		●		○		●	●			○
0,001	300	EWJ 300-3H	26	1		●		○		●	●			○
0,001	300	572-31	27	1			●	○		●	●			○
0,001	350	PCD 300-3	21	1			●	○		●	●		●	○
0,001	350	PCB 350-3	22	1			●	○		●	●		●	○
0,001	360	KB 360-3N	25	1			●	○		●	●			○
0,001	420	572-32	27	1			●	○		●	●			○
0,001	420	PLS 420-3F	28	1			●	○	●		●	●		
0,001	420	PLJ 420-3F	28	1		●		○	●		●	●		
0,001	420	EW 420-3NM	30	1			●	○		●	●	●		○
0,001	420	EG 420-3NM	30	1	○		●		○		●	●	●		○
0,001	620	PNS 600-3	29	1			●	○		●	●			
0,001	620	PNJ 600-3M	29	1	○		●		○	●		●			
0,001	620	EW 620-3NM	30	1			●	○		●	●	●		○
0,001	620	EG 620-3NM	30	1	○		●		○		●	●	●		○
0,001	620	PBS 620-3M	31	1			●	○	●		●	●		
0,001	620	PBJ 620-3M	31	1	○		●		○	●		●	●		
0,001	620	PES 620-3M	32	1			●	○		●	●	●		○
0,001	620	PEJ 620-3M	32	1	○		●		○		●	●	●		○
0,001	720	PLS 720-3A	28	1			●	○	●		●	●		
0,001	720	PLJ 720-3A	28	1		●		○	●		●	●		
0,001	720	PLJ 720-3AM	28	1	○		●		○	●		●	●		
0,001	1200	PLS 1200-3A	28	1			●	○	●		●	●		
0,001	1200	PLJ 1200-3A	28	1		●		○	●		●	●		
0,001	2100	PLJ 2000-3A	28	1		●		○	●		●	●		
0,01	200	PCB 200-2	22	1			●	○		●	●		●	○
0,01	200	440-33N	24	1			●	○		●	●		●	○
0,01	400	440-35N	24	1			●	○		●	●		●	○
0,01	600	440-35A	24	1			●	○		●	●		●	○
0,01	600	PFB 600-2	23	1			●	○		●	●			
0,01	600	EWJ 600-2SM	26	1	○		●				●	●			○
0,01	600	EWJ 600-2M	26	1	○		●		○		●	●			○
0,01	650	KB 650-2N	25	1			●	○		●	●			○
0,01	650	573-34	27	1			●	○		●	●			○
0,01	820	EW 820-2NM	30	1			●	○		●	●	●		○
0,01	1000	PCB 1000-2	22	1			●	○		●	●		●	○
0,01	1200	PFB 1200-2	23	1			●	○		●	●			
0,01	1200	KB 1200-2N	25	1			●	○		●	●			○
0,01	1600	572-33	27	1			●	○		●	●			○
0,01	2000	PFB 2000-2	23	1			●	○		●	●			
0,01	2000	KB 2000-2N	25	1			●	○		●	●			○
0,01	2200	EW 2200-2NM	30	1			●	○		●	●	●		○
0,01	2200	EG 2200-2NM	30	1	○		●		○		●	●	●		○
0,01	2200	PES 2200-2M	32	1			●	○		●	●	●		○
0,01	2200	PEJ 2200-2M	32	1	○		●		○		●	●	●		○
0,01	2400	KB 2400-2N	25	1			●	○		●	●			○
0,01	2400	572-35	27	1			●	○		●	●			○
0,01	2500	PCD 2500-2	21	1			●	○		●	●		●	○
0,01	2500	PCB 2500-2	22	1			●	○		●	●		●	○
0,01	3000	PFB 3000-2	23	1			●	○		●	●			
0,01	3000	EWJ 3000-2	26	1		●		○		●	●			○
0,01	3000	572-37	27	1			●	○		●	●			○
0,01	3200	PNS 3000-2	29	1			●	○		●	●			
0,01	3200	PNJ 3000-2M	29	1	○		●		○	●		●			
0,01	3500	PCD 3000-2	21	1			●	○		●	●		●	○
0,01	3500	PCB 3500-2	22	1			●	○		●	●		●	○
0,01	3600	KB 3600-2N	25	1			●	○		●	●			○
0,01	4200	572-39	27	1			●	○		●	●			○
0,01	4200	PLS 4200-2F	28	1			●	○	●		●	●		

● = standard   ○ = option

Quick-Finder Precision balances

Readability [d] g	Weighing capacity [Max] g	Model KERN	Page	DAYS	M	CAL INT	CAL EXT	RS 232	GLP INTERN	GLP PRINTER	PCS	TOL	BATT	ACCU
								For an explanation on the pictos, see front flap						
0,01	4200	PLJ 4200-2F	28	1		●		●		●	●	●		
0,01	4200	EW 4200-2NM	30	1			●	●		●	●	●		○
0,01	4200	EG 4200-2NM	30	1	○	●		●		●	●	●		○
0,01	4200	PBS 4200-2M	31	1			●	●		●	●	●		
0,01	4200	PBJ 4200-2M	31	1	○	●		●		●	●	●		
0,01	4200	PES 4200-2M	32	1			●	●		●	●	●		○
0,01	4200	PEJ 4200-2M	32	1	○	●		●		●	●	●		○
0,01	6200	PLS 6200-2A	28	1			●	●	●	●	●	●		
0,01	6200	PLJ 6200-2A	28	1		●		●	●	●	●	●		
0,01	6200	PLJ 6200-2AM	28	1	○	●		●	●	●	●	●		
0,01	6200	EW 6200-2NM	30	1		●		●		●	●	●		○
0,01	6200	PBS 6200-2M	31	1			●	●	●	●	●	●		
0,01	6200	PBJ 6200-2M	31	1	○	●		●	●	●	●	●		
0,01	6200	PES 6200-2M	32	1			●	●		●	●	●		○
0,01	8200	PLS 8000-2A	28	1			●	●	●	●	●	●		
0,05	6000	PFB 6000-2	23	1			●	●		●	●			
0,05	10000	KB 10K0.05N	25	1			●	●		●	●			○
0,05	12000	572-45	27	1			●	●		●	●			○
0,05	20000	572-55	27	1			●	●		●	●			○
0,1	400	440-43N	24	1			●	●		●	●		●	○
0,1	1000	PCB 1000-1	22	1			●	●		●	●		●	○
0,1	1000	440-45N	24	1			●	●		●	●		●	○
0,1	2000	PCB 2000-1	22	1			●	●		●	●		●	○
0,1	2000	440-47N	24	1			●	●		●	●		●	○
0,1	4000	440-49N	24	1			●	●		●	●		●	○
0,1	6000	PCD 6K-4	21	1			●	●		●	●		●	○
0,1	6000	PCB 6000-1	22	1			●	●		●	●		●	○
0,1	6000	440-49A	24	1			●	●		●	●		●	○
0,1	6000	PFB 6000-1	23	1			●	●		●	●			
0,1	6000	EWJ 6000-1SM	26	1	○	●				●	●			○
0,1	6000	EWJ 6000-1M	26	1	○	●		●		●	●			○
0,1	6500	KB 6500-1N	25	1			●	●		●	●			○
0,1	6500	573-46	27	1			●	●		●	●			○
0,1	8200	PBJ 8200-1M	31	1	○	●		●	●		●	●		
0,1	10000	PCD 10K0.1	21	1			●	●		●	●		●	○
0,1	10000	PCB 10000-1	22	1			●	●		●	●		●	○
0,1	10000	KB 10000-1N	25	1			●	●		●	●			○
0,1	10000	572-43	27	1			●	●		●	●			○
0,1	12000	PNS 12000-1	29	1			●	●		●	●			
0,1	12000	PNJ 12000-1M	29	1	○	●		●	●		●			
0,1	12000	EW 12000-1NM	30	1			●	●		●	●	●		○
0,1	15000	PES 15000-1M	32	1			●	●		●	●	●		○
0,1	16000	572-49	27	1			●	●		●	●			○
0,1	20000	PLS 20000-1F	28	1			●	●	●	●	●	●		
0,1	24000	572-57	27	1			●	●		●	●			○
0,1	31000	PES 31000-1M	32	1			●	●		●	●	●		○
1	4000	440-51N	24	1			●	●		●	●		●	○
1	6000	PCB 6000-0	22	1			●	●		●	●		●	○
1	6000	440-53N	24	1			●	●		●	●		●	○
1	10000	PCD 10K-3	21	1			●	●		●	●		●	○

● = standard   ○ = option

Compact laboratory balance KERN PCD

BASIC ★

EasyTouch

High-resolution precision balance with removable display for maximum flexibility

Features

- Laboratory balance with separate platform: Ideal when working in a 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 direct in special units such as length of thread g/m, paper weight g/m^2, or similar
- Level indicator and levelling feet for precise levelling of the scale, fitted as standard, to give the most accurate weighing result
- 1 Draught shield standard for models with weighing plate size A, weighing space W×D×H 146×146×80 mm
- Protective working cover included with delivery

Technical data

- Large backlit LCD display, digit height 21 mm
- Dimensions weighing surface
  A Ø 105 mm
  B W×D , see larger picture
- Weighing plate material
  A plastic, with conductive lacquer
  B Stainless Steel
- Dimensions of display device W×D×H 165×280×141 mm
- Optional battery operation, 9 V block not included in scope of delivery, operating time up to 12 h, AUTO-OFF function to preserve the battery
- Overall dimensions W×D×H, without draught shield 165×280×75 mm
- Cable length of display device approx. 1,2 m
- Net weight approx. 1,2 kg
- Permissible ambient temperature 5 °C/35 °C

Accessories

- Protective working cover over the display device, scope of delivery: 5 items, KERN PCD-A05S05
- 2 Stand to elevate display device, height of stand approx. 250 mm, KERN PCD-A03
- Internal rechargeable battery pack, operating time up to 24 h without backlight, charging time approx. 10 h, KERN PCD-A04
- 3 Foot switch, ideal when the application requires two free hands. TARE or PRINT function can be selected. Scope of delivery: foot switch, junction box, connection cable. For the PRINT function you will need the RS-232 interface cable, KERN YKF-01
- RS-232/Ethernet adapter for connection to an IP-based Ethernet network, KERN YKI-01
- Individual header data: the free software can be used to print 4 header lines on the printout when using printers 911-013, YKN-01, YKB-01N and YKE-01 (in combination with YKI-02)
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD

| CAL EXT | RS 232 | GLP PRINTER | PCS | A RECIPE | PERCENT | UNIT | MOVE | BATT | B MULTI | DMS | 1 DAY |

OPTION

| ET | ACCU | DAkkS +3 DAYS |

Model KERN	Weighing capacity [Max] g	Readability [d] g	Reproducibility g	Linearity g	Weighing plate		Option DAkkS Calibr. Certificate DAkkS KERN	
PCD 250-3	250	0,001	0,002	± 0,005	A		963-127	
PCD 300-3	350	0,001	0,002	± 0,005	A		963-127	
PCD 2500-2	2500	0,01	0,02	± 0,05	B		963-127	
PCD 3000-2	3500	0,01	0,02	± 0,05	B		963-127	
PCD 6K-4	6000	0,1	0,1	± 0,3	B		963-128	
PCD 10K0.1	10000	0,1	0,1	± 0,3	B		963-128	
PCD 10K-3	10000	1	1	± 3	B		963-128	

Compact laboratory balance KERN PCB

BASIC ★

EasyTouch

The standard in laboratory

Features

- PRE-TARE function for manual subtraction of a known container weight, useful for checking fill-levels
- Freely programmable weighing unit, e.g. display direct in special units such as length of thread g/m, paper weight g/m^2, or similar
- With the recipe function you can weigh the different ingredients of a mixture. As a check, you can also call up the total weight of all the ingredients
- Plus/minus weighing procedures
- Ring-shaped draught shield standard, only for models with weighing plate size Ⓐ, weighing space ∅×H 90×40 mm
- Protective working cover included with delivery

Technical data

- Backlit LCD display, digit height 15 mm
- Dimensions of weighing surface
  Ⓐ ∅ 81 mm
  Ⓑ ∅ 105 mm
  Ⓒ W×D 130×130 mm
  Ⓓ W×D 150×170 mm, see larger picture
- Weighing plate material
  Ⓐ plastic, with conductive lacquer
  Ⓑ, Ⓒ, Ⓓ Stainless Steel
- Overall dimensions W×D×H 163×245×79 mm (without draught shield)
- Optional battery operation, 9 V block not included in scope of delivery, operating time up to 20 h, AUTO-OFF function to preserve the battery
- Permissible ambient temperature 5 °C/35 °C

Accessories

- Protective working cover, scope of delivery: 5 items, for models with weighing plate size
  Ⓐ KERN PCB-A02S05
  Ⓑ KERN PCB-A03S05
  Ⓒ KERN PCB-A04S05
  Ⓓ KERN PCB-A05S05
- Internal rechargeable battery pack, operating time up to 48 h without backlight, charging time approx. 8 h, KERN PCB-A01
- RS-232/Ethernet adapter for connection to an IP-based Ethernet network, KERN YKI-01
- Balance Connection Software, KERN SCD-4.0
- Individual header data: the free software SHM-01 can be used to print 4 header lines on the printout when using printers 911-013, YKN-01, YKB-01N, YKE-01 and YKC-01 (in combination with YKI-02)
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD

| CAL EXT | RS 232 | GLP PRINTER | PCS | RECIPE | PERCENT | UNIT | MOVE | UNDER | BATT | MULTI | DMS | 1 DAY |

OPTION

| ET | ACCU | DAkkS +3 DAYS |
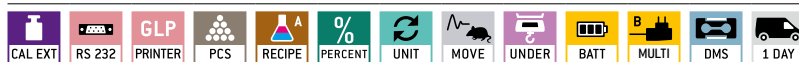
Model KERN	Weighing capacity [Max] g	Readability [d] g	Reproducibility g	Linearity g	Weighing plate		Option DAkkS Calibr. Certificate DAkkS KERN
PCB 100-3	100	0,001	0,001	± 0,003	Ⓐ		963-127
PCB 250-3	250	0,001	0,001	± 0,005	Ⓐ		963-127
PCB 350-3	350	0,001	0,002	± 0,005	Ⓐ		963-127
PCB 200-2	200	0,01	0,01	± 0,02	Ⓑ		963-127
PCB 1000-2	1000	0,01	0,01	± 0,03	Ⓒ		963-127
PCB 2500-2	2500	0,01	0,01	± 0,05	Ⓒ		963-127
PCB 3500-2	3500	0,01	0,02	± 0,05	Ⓒ		963-127
PCB 1000-1	1000	0,1	0,1	± 0,2	Ⓒ		963-127
PCB 2000-1	2000	0,1	0,1	± 0,2	Ⓒ		963-127
PCB 6000-1	6000	0,1	0,1	± 0,3	Ⓓ		963-128
PCB 10000-1	10000	0,1	0,1	± 0,3	Ⓓ		963-128
PCB 6000-0	6000	1	1	± 2	Ⓓ		963-128

Compact laboratory balance KERN PFB

BASIC ★
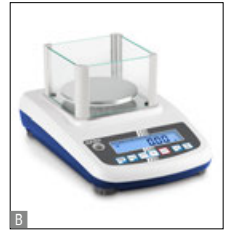
Quick-display precision balance with user-friendly concept of operation mode – now with larger housing for more stability

Features

- Easy to use: All primary functions have their own key on the keypad
- Compact size, practical for small spaces
- Capacity display: A bargraph display lights up to show how much of the weighing range is still available
- Level indicator and levelling feet for precise levelling of the scale, fitted as standard, to give the most accurate weighing result
- Draught shield standard for models with weighing plate size Ⓐ and Ⓑ, weighing space W×D×H 158×143×64 mm

Technical data

- Backlit LCD display, digit height 15 mm
- Dimensions weighing surface, Stainless Steel
  - Ⓐ Ø 80 mm
  - Ⓑ Ø 120 mm
  - Ⓒ W×D 155×145 mm, see larger picture
- Overall dimensions W×D×H 210×315×90 mm (without draught shield)
- Net weight approx. 2,0 kg
- Permissible ambient temperature 15 °C/30 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN PFB-A12S05
- ❶ Separate second display, ideal for training and demonstration purposes in laboratories or industry, not permitted for direct sales to the public, KERN PFB-A08
- Bluetooth data interface for wireless data transfer to PC or tablets, must be ordered at purchase
  Bluetooth 2.0: KERN PFB-A10
  Bluetooth 4.0: KERN PFB-A11
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD

| CAL EXT | RS 232 | KCP PROTOCOL | GLP PRINTER | PCS | RECIPE | % PERCENT | MULTI | DMS | 1 DAY |

OPTION

| DAkkS +3 DAYS |

FACTORY

| BT 2.0 PFB-A10 | BT 4.0 PFB-A11 |

Model	Weighing capacity	Readability	Reproducibility	Linearity	Weighing plate		Option	
							DAkkS Calibr. Certificate	
	[Max]	[d]					DAkkS	
KERN	g	g	g	g			KERN	
PFB 120-3	120	0,001	0,001	± 0,003	Ⓐ		963-127	
PFB 200-3	200	0,001	0,002	± 0,005	Ⓐ		963-127	
PFB 300-3	300	0,001	0,002	± 0,005	Ⓐ		963-127	
PFB 600-2	600	0,01	0,01	± 0,03	Ⓑ		963-127	
PFB 1200-2	1200	0,01	0,01	± 0,03	Ⓑ		963-127	
PFB 2000-2	2000	0,01	0,02	± 0,05	Ⓑ		963-127	
PFB 3000-2	3000	0,01	0,02	± 0,05	Ⓑ		963-127	
PFB 6000-2	6000	0,05	0,05	± 0,15	Ⓒ		963-128	
PFB 6000-1	6000	0,1	0,1	± 0,3	Ⓒ		963-128	

Compact laboratory balance KERN 440

BASIC ★★

EasyTouch

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 draught shield standard, only for models with weighing plate size A, weighing space ∅×H 90×40 mm
- Protective working cover included with delivery

Technical data

- Backlit LCD display, digit height 15 mm
- Dimensions weighing surface
  A ∅ 81 mm
  B ∅ 105 mm
  C W×D 130×130 mm
  D W×D 150×170 mm, see larger picture
- Weighing plate material
  A plastic, with conductive lacquer
  B, C, D Stainless Steel
- Overall dimensions (without draught shield) W×D×H 165×230×80 mm
- Optional battery operation, 9 V block, standard, operating time up to 20 h, AUTO-OFF function to preserve the battery
- Net weight approx. 0,95 kg
- Permissible ambient temperature 5 °C/35 °C

Accessories

- Protective working cover, scope of delivery: 5 items, for models with weighing plate size
  A KERN 440-210-002S05
  B KERN 440-330-002S05
  C KERN 440-450-002S05
  D KERN 440-530-002S05
- Internal rechargable battery pack, operating time up to 20 h, without backlight, charging time approx. 10 h, KERN FCB-A01
- Hook for underfloor weighing, KERN 440-A01
- RS-232/Ethernet adapter for connection to an IP-based Ethernet network, KERN YKI-01
- Individual header data: the free software SHM-01 can be used to print 4 header lines on the printout when using printers 911-013, YKN-01, YKB-01N, YKE-01 and YKC-01 (in combination with YKI-02)
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD

CAL EXT | RS 232 | PRINTER | PCS | RECIPE | PERCENT | UNIT | MOVE | UNDER | BATT | MULTI | DMS | 1 DAY

OPTION

ET | ACCU | DAkkS +3 DAYS

Model KERN	Weighing capacity [Max] g	Readability [d] g	Reproducibility g	Linearity g	Weighing plate	Option DAkkS Calibr. Certificate DAkkS KERN	
440-21A	60	0,001	0,001	± 0,003	A	963-127	
440-33N	200	0,01	0,01	± 0,02	B	963-127	
440-35N	400	0,01	0,01	± 0,03	B	963-127	
440-35A	600	0,01	0,01	± 0,03	B	963-127	
440-43N	400	0,1	0,1	± 0,2	C	963-127	
440-45N	1000	0,1	0,1	± 0,2	C	963-127	
440-47N	2000	0,1	0,1	± 0,2	C	963-127	
440-49N	4000	0,1	0,1	± 0,3	D	963-127	
440-49A	6000	0,1	0,1	± 0,3	D	963-128	
440-51N	4000	1	1	± 2	D	963-127	
440-53N	6000	1	1	± 2	D	963-128	

www.kern-sohn.com · Order hotline +49 7433 9933-0

Precision balance KERN KB-N

BASIC ★★

Compact precision balance with large weighing capacity

Features

- Thanks to the many typical laboratory functions, such as, for example, recipe function, percentage determination, combined with the high level of precision, the KERN KB-N is a reliable partner for day-to-day work in the laboratory
- User guidance step by step on display by Yes/No dialogue
- Freely programmable weighing unit, e.g. display direct in special units such as length of thread g/m, paper weight g/m^2, or similar
- Ring-shaped draught shield standard, only for models with weighing plate size Ⓐ, weighing space ⌀×H 90×40 mm
- Model with resolution > 240,000 Pt.: Level indicator to level the balance precisely
- Protective working cover included with delivery

Technical data

- Backlit LCD display, digit height 9 mm
- Dimensions of weighing surface
  Ⓐ ⌀ 81 mm, plastic, with conductive lacquer
  Ⓑ W×D 130×130 mm, stainless steel
  Ⓒ W×D 150×170 mm, stainless steel, see larger picture
- Overall dimensions W×D×H 167×250×85 mm (without draught shield)
- Net weight 1,00 kg
- Permissible ambient temperature 10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, for models with weighing plate size
  Ⓐ KERN PCB-A02S05
  Ⓑ KERN PCB-A04S05
  Ⓒ KERN PCB-A05S05
- Internal rechargeable battery pack, operating time up to 30 h without backlight, charging time approx. 10 h, KERN KB-A01N
- ❶ Rechargeable battery pack external, operating time up to 30 h without backlight, charging time approx. 10 h, KERN KS-A01
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD | OPTION

CAL EXT | RS 232 | PRINTER | PCS | RECIPE | PERCENT | UNIT | MOVE | UNDER | MULTI | DMS | 1 DAY | ACCU | DAkkS +3 DAYS

Model KERN	Weighing capacity [Max] g	Readability [d] g	Reproducibility g	Linearity g	Weighing plate	Resolution	Option DAkkS Calibr. Certificate DAkkS KERN	
KB 120-3N	120	0,001	0,001	± 0,003	Ⓐ	120.000	963-127	
KB 240-3N	240	0,001	0,001	± 0,003	Ⓐ	240.000	963-127	
KB 360-3N	360	0,001	0,002	± 0,005	Ⓐ	360.000	963-127	
KB 650-2N	650	0,01	0,01	± 0,03	Ⓑ	65.000	963-127	
KB 1200-2N	1200	0,01	0,01	± 0,03	Ⓑ	120.000	963-127	
KB 2000-2N	2000	0,01	0,01	± 0,03	Ⓑ	200.000	963-127	
KB 2400-2N	2400	0,01	0,01	± 0,03	Ⓑ	240.000	963-127	
KB 3600-2N	3600	0,01	0,02	± 0,05	Ⓑ	360.000	963-127	
KB 10K0.05N	10000	0,05	0,05	± 0,15	Ⓒ	200.000	963-128	
KB 6500-1N	6500	0,1	0,1	± 0,3	Ⓒ	65.000	963-128	
KB 10000-1N	10000	0,1	0,1	± 0,3	Ⓒ	100.000	963-128	

⚠ ONLY WHILE STOCKS LAST!

Compact laboratory balance KERN EWJ

BASIC
★★★

High-quality precision balance with automatic internal adjustment, also with EC type approval [M]

Features

- Easy to use: All primary functions have their own key on the keypad
- Automatic internal adjustment, time-controlled every 2 h, guarantees high degree of accuracy and makes the balance independent of its location
- Capacity display: A bargraph display lights up to show how much of the weighing range is still available
- KERN EWJ-H/-M: USB data interface for transferring weighing data to the PC
- KERN EWJ-SM: Cost-effective variant without data interfaces
- 1 KERN EWJ 300-3, 600-2M, 600-2M: Draught shield standard, weighing space W×D×H 134×128×80 mm
- 2 KERN EWJ 300-3H: Large glass draught shield with 3 sliding doors for easy access to the items being weighed. Weighing space W×D×H 155×175×217 mm
- Protective working cover included with delivery

Technical data

- Large backlit LCD display, digit height 16,5 mm
- Dimensions weighing surface
  - A Ø 80 mm
  - B Ø 120 mm, see larger picture
  - C W×D 155×145 mm
- Overall dimensions W×D×H
  220×315×90 mm (without draught shield)*
  220×340×180 mm (incl. draught shield)**
  220×340×321 mm (incl. draught shield)***
- Permissible ambient temperature
  KERN EWJ: 15 °C/35 °C
  KERN EWJ-M: 15 °C/30 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN EWJ-A04S05
- Internal rechargeable battery pack, operating time up to 20 h without backlight, charging time approx. 12 h, KERN KFB-A01
- KERN EWJ-H/-M: Software BalanceConnection, for flexible recording or transmission of measured values, in particular also to Microsoft® Excel or Access
- RS-232/WiFi adapter for wireless connection to networks and WiFi capable devices, such as tablets, laptops or smartphones, KERN YKI-03
- RS-232/Ethernet adapter for connection to an IP-based Ethernet network, KERN YKI-01
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD

CAL INT	RS 232	USB	KCP PROTOCOL	GLP PRINTER	PCS	RECIPE	PERCENT	UNIT	MULTI	DMS	1 DAY
	not EWJ-SM	not EWJ-SM	only EWJ -M/-SM								

OPTION

ACCU	DAkkS +3 DAYS

FACTORY

M +3 DAYS EWJ-M

Model KERN	Weighing capacity [Max] g	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Linearity g	Weighing plate		Option	
								Verification	DAkkS Calibr. Certificate
								M□ KERN	DAkkS KERN
EWJ 300-3**	300	0,001	-	-	± 0,005	A		-	963-127
EWJ 300-3H***	300	0,001	-	-	± 0,005	A		-	963-127
EWJ 3000-2*	3000	0,01	-	-	± 0,05	B		-	963-127
Note: For applications that require verification, please order verificati on 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.									
EWJ 600-2SM**	600	0,01	0,1	0,5	± 0,03	B		965-216	963-127
EWJ 600-2M**	600	0,01	0,1	0,5	± 0,03	B		965-216	963-127
EWJ 6000-1SM*	6000	0,1	1	5	± 0,3	C		965-217	963-128
EWJ 6000-1M*	6000	0,1	1	5	± 0,3	C		965-217	963-128

Precision balance KERN 572 · 573

STANDARD
★

EasyTouch

All-rounder e.g. as precision balance in the laboratory or in harsh industrial applications

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, typical industrial functions, such as piece-counting, vibrationfree weighing and the large weighing ranges also make these balances ideal for all industrial applications, where a high level of precision is required
- Freely programmable weighing unit, e.g. display direct in special units such as length of thread g/m, paper weight g/m², or similar

- The robust aluminium diecast housing maintains the stability, protects the weighing technology elements and is robust enough to cope with everyday use
- Ring-shaped draught shield standard, only for models with weighing plate size Ⓐ, weighing space ∅×H 157×43 mm
- Model with resolution > 240,000 Pt.: Level indicator to level the balance precisely
- Loop for underfloor weighing, standard for models with [d] < 0,01 g
- Protective working cover included with delivery

Technical data

- Large backlit LCD display, digit height 18 mm
- Dimensions weighing surface, Stainless Steel
  Ⓐ ∅ 106 mm
  Ⓑ ∅ 150 mm
  Ⓒ W×D 160×200 mm, see larger picture
- Net weight Ⓐ, Ⓑ approx. 2,4 kg Ⓒ approx. 2,8 kg
- Overall dimensions W×D×H 180×310×85 mm
- Permissible ambient temperature 10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN 572-A02S05
- Rechargeable battery pack external, operating time up to 30 h without backlight, charging time approx. 10 h, KERN KS-A01
- Loop and hook for underfloor weighing, for models with [d] ≥ {0,01 g, KERN 572-A03
- ① Large glass draught shield with 3 sliding doors for easy access to the items being weighed. Weighing space W×D×H 150×140×130 mm, for models with weighing plate size Ⓐ, KERN 572-A05

STANDARD

| CAL EXT | RS 232 | PRINTER | PCS | RECIPE | PERCENT | UNIT | MOVE | UNDER | MULTI | DMS | 1 DAY |

OPTION

| ET | ACCU | DAkkS +3 DAYS |
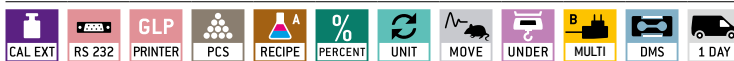
Model KERN	Weighing capacity [Max] g	Readability [d] g	Reproducibility g	Linearity g	Resolution Points	Weighing plate		Option DAkkS Calibr. Certificate DAkkS KERN	
572-30	240	0,001	0,001	± 0,003	240.000	A		963-127	
572-31	300	0,001	0,002	± 0,005	300.000	A		963-127	
572-32	420	0,001	0,002	± 0,005	420.000	A		963-127	
573-34	650	0,01	0,01	± 0,03	65.000	B		963-127	
572-33	1600	0,01	0,01	± 0,03	160.000	B		963-127	
572-35	2400	0,01	0,01	± 0,03	240.000	B		963-127	
572-37	3000	0,01	0,02	± 0,05	300.000	B		963-127	
572-39	4200	0,01	0,02	± 0,05	420.000	B		963-127	
572-45	12000	0,05	0,05	± 0,15	240.000	C		963-128	
572-55	20000	0,05	0,1	± 0,25	400.000	C		963-128	
573-46	6500	0,1	0,1	± 0,3	65.000	C		963-128	
572-43	10000	0,1	0,1	± 0,3	100.000	C		963-128	
572-49	16000	0,1	0,1	± 0,3	160.000	C		963-128	
572-57	24000	0,1	0,1	± 0,3	240.000	C		963-128	

03

STANDARD
★★

EasyTouch

High-quality precision scale with comfortable graphic display and enormous weighing range

Features

- Rapid and efficient operation thanks to the graphics display
- 1 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
- Simple, clear user interface on the display in the following languages: German, English, French, Italian, Spanish, Portuguese
- 2 KERN PLJ 2000-3A: High-quality milligram balance with enormous weighing range up to 2100 g – ideal for large samples or heavy tare containers

- KERN PLJ: Automatic internal adjustment, guarantees high degree of accuracy and makes the balance independent of its location of use. Ideal for mobile applications which require verification, such as ambulatory gold and jewellery purchasing
- Dosage aid: high stability mode and other filter settings can be selected
- Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display
- Draught shield standard for models with weighing plate size A, weighing space ∅×H 150×60 mm
- Protective working cover included with delivery

Technical data

- Backlit LCD display, digit height 15 mm
- Dimensions weighing surface, stainless steel
  - A ∅ 110 mm
  - B ∅ 160 mm, see larger picture
  - C W×D 200×175 mm
- Permissible ambient temperature
  KERN PLS, PLJ: 5 °C/35 °C,35 °C
  KERN PLJ-M: 15 °C/30 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN PLJ-A01S05
- 3 Hook for underfloor weighing, KERN PLJ-A02
- Set for density determination of liquids and solids with density > 1 for models with [d] = 0,001 g, KERN ALT-A02
- Minimum weight of sample, smallest weight to be weighed, depending on the required process accuracy, only in combination with a DAkkS calibration certificate, KERN 969-103
- Equipment qualification: compliant qualification concept which includes the following validation services: Installation Qualification (IQ), Operating Qualification (OQ), Further details see 208

STANDARD
OPTION
FACTORY

CAL INT	CAL EXT	RS 232	GLP INTERN	PCS	RECIPE	PERCENT	TOL	UNDER	MULTI	DMS	FORCE	1 DAY	ET	DAkkS +3 DAYS	M +3 DAYS
PLJ	PLS							3		PLS-F/ PLJ-F	PLS-A/ PLJ-A				PLJ-M

Model KERN	Weighing capacity [Max] g	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Linearity g	Weighing plate		Option	
								Verification MⅡ KERN	DAkkS Calibr. Certificate DAkkS KERN
PLS 420-3F	420	0,001	-	-	± 0,004	A		-	963-127
PLS 720-3A	720	0,001	-	-	± 0,002	A		-	963-103
PLS 1200-3A	1200	0,001	-	-	± 0,003	A		-	963-103
PLS 4200-2F	4200	0,01	-	-	± 0,04	B		-	963-127
PLS 6200-2A	6200	0,01	-	-	± 0,03	B		-	963-104
PLS 8000-2A	8200	0,01	-	-	± 0,04	B		-	963-104
PLS 20000-1F	20000	0,1	-	-	± 0,4	C		–	963-128
PLJ 420-3F	420	0,001	-	-	± 0,003	A		-	963-127
PLJ 720-3A	720	0,001	-	-	± 0,002	A		-	963-103
PLJ 1200-3A	1200	0,001	-	-	± 0,003	A		-	963-103
PLJ 2000-3A	2100	0,001	-	-	± 0,004	A		-	963-103
PLJ 4200-2F	4200	0,01	-	-	± 0,04	B		-	963-127
PLJ 6200-2A	6200	0,01	-	-	± 0,03	B		-	963-104
Note: For applications that require verification, please order verificati on 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 720-3AM	720	0,001	0,01	0,02	± 0,002	A		965-216	963-103
PLJ 6200-2AM	6200	0,01	0,1	0,5	± 0,03	B		965-217	963-104

Precision balances KERN PNS · PNJ

STANDARD ★★

EasyTouch

03

The new standard in the laboratory with robust tuning fork weighing system

Features

- KERN PNJ: Automatic internal adjustment, guarantees high degree of accuracy and makes the balance independent of its location of use. Ideal for mobile applications which require verification, such as ambulatory gold and jewellery purchasing
- KERN PNS: Adjusting program CAL for quick setting of the balance accuracy using an external test weight
- High-quality tuning fork measuring system for steady weight values and continuous weighing
- Capacity display: A bargraph display lights up to show how much of the weighing range is still available
- Precise counting: The automatic reference weight optimisation of reference weight gradually improves the average piece weight value
- Compact size, practical for small spaces

- Large, shock proof weighing plate made of Stainless Steel
- Large glass draught shield with 3 sliding doors for easy access to the items being weighed. Weighing space W×D×H 172×171×160 mm, for models with weighing plate size Ⓐ
- Protective working cover included with delivery

Technical data

- Large LCD display, digit height 16,5 mm
- Dimensions weighing surface, Stainless Steel
  Ⓐ Ø 140 mm
  Ⓑ W×D 190×190 mm, see larger picture
- Overall dimensions W×D×H
  Ⓐ 196×293×266 mm
  Ⓑ 196×293×89 mm
- Net weight
  Ⓐ approx. 2,2 kg
  Ⓑ approx. 2,8 kg
- Permissible ambient temperature 5 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN PNJ-A01S05
- RS-232/Bluetooth adapter to connect to Bluetooth capable devices, such as Bluetooth printers, tablets, laptops, smartphones, etc., KERN YKI-02
- RS-232/WiFi adapter for wireless connection to networks and WiFi capable devices, such as tablets, laptops or smartphones, KERN YKI-03
- RS-232/Ethernet adapter for connection to an IP-based Ethernet network, KERN YKI-01
- ① Gemstones plate, aluminium with practical spout, W×D×H 123×72×15 mm, KERN AEJ-A05
- Minimum weight of sample, smallest weight to be weighed, depending on the required process accuracy, only in combination with a DAkkS calibration certificate, KERN 969-103
- Equipment qualification: compliant qualification concept which includes the following validation services: Installation Qualification (IQ), Operating Qualification (OQ), Further details see 208
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD										OPTION		FACTORY
CAL INT	CAL EXT	RS 232	GLP INTERN	PCS	PERCENT	UNIT	TOL	MULTI	T-FORK	1 DAY	ET	DAkkS +3 DAYS	M +3 DAYS
PNJ	PNS		PNJ										PNJ

Model	Weighing capacity [Max]	Readability [d]	Verification value [e]	Minimal load [Min]	Linearity	Weighing plate	Option	
							Verification	DAkkS Calibr. Certificate
KERN	g	g	g	g	g		M KERN	DAkkS KERN
PNS 600-3	620	0,001	-	-	± 0,004	Ⓐ	-	963-103
PNS 3000-2	3200	0,01	-	-	± 0,02	Ⓑ	-	963-127
PNS 12000-1	12000	0,1	-	-	± 0,2	Ⓑ	-	963-128
Note: For applications that require verification, please order verificati on 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.								
PNJ 600-3M	620	0,001	0,01	0,02	± 0,004	Ⓐ	965-216	963-103
PNJ 3000-2M	3200	0,01	0,1	0,5	± 0,02	Ⓑ	965-216	963-127
PNJ 12000-1M	12000	0,1	1	5	± 0,2	Ⓑ	965-217	963-128

03

STANDARD
★★

EasyTouch

The classic balance with robust tuning fork measuring system

Features

- **1** KERN EG-N: Internal adjustment in the case of a change in temperature and time-controlled at defined intervals, guarantees high degree of accuracy and makes the balance independent of its location of use
- KERN EW-N: Adjusting program CAL for quick setting of the balance accuracy using an external test weight
- Stable temperature behaviour
- Short stabilisation time
- Shock proof construction
- High corner load performance
- GLP/ISO record keeping of weight values
- Totalising of pieces when counting

- Draught shield standard for models with weighing plate size A, weighing space W×D×H 158×130×78 mm
- Protective working cover included with delivery
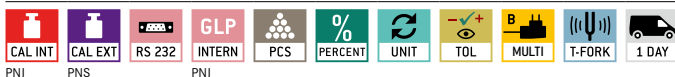
Technical data

- Large LCD display, digit height 17 mm
- Dimensions weighing surface, Stainless Steel A Ø 118 mm, see larger picture B W×D 170×140 mm, C W×D 180×160 mm
- Overall dimensions W×D×H, without draught shield A, B 182×235×75 mm, C 192×275×87 mm
- Net weight approx. 1,4 kg
- Permissible ambient temperature 10 °C/30 °C

Accessories

- Protective working cover, scope of delivery: 5 items, for models with weighing plate size A, B KERN EG-A05S05 C KERN EG-A09S05
- Internal rechargeable battery pack, operating time up to 32 h without backlight, charging time approx. 12 h, for models with weighing plate size A, B KERN EG-A04 C KERN EG-A06 Note: If the rechargable battery pack is retrofitted to a verified balance, it must be recalibrated
- **2** Large glass draught shield with 3 sliding doors for easy access to the items being weighed. Weighing space W×D×H 158×130×78 mm, for models with weighing plate size A, KERN EG-A03
- Loop for underfloor weighing, for models with weighing plate size A, B KERN EG-A07 C KERN EG-A08
- Minimum weight of sample, Further details see 207, KERN 969-103
- Equipment qualification, Further details see 208
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD

| CAL INT | CAL EXT | RS 232 | GLP PRINTER | PCS | % PERCENT | UNIT | TOL | UNDER | 230 V | T-FORK | 1 DAY |
EG-N · EW-N

OPTION

| ET | ACCU | MULTI | DAkkS +3 DAYS |

FACTORY

| M +3 DAYS | EG-N

Model KERN	Weighing capacity [Max] g	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Linearity g	Weighing plate	Option Verification M KERN	DAkkS Calibr. Certificate DAkkS KERN
EW 220-3NM	220	0,001	-	-	± 0,002	A	-	963-127
EW 420-3NM	420	0,001	-	-	± 0,003	A	-	963-127
EW 620-3NM	620	0,001	-	-	± 0,003	A	-	963-103
EW 820-2NM	820	0,01	-	-	± 0,01	B	-	963-127
EW 2200-2NM	2200	0,01	-	-	± 0,01	C	-	963-127
EW 4200-2NM	4200	0,01	-	-	± 0,02	C	-	963-127
EW 6200-2NM	6200	0,01	-	-	± 0,03	C	-	963-104
EW 12000-1NM	12000	0,1	-	-	± 0,2	C	-	963-128
Note: For applications that require verification, please order verificati on 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.								
EG 220-3NM	220	0,001	0,01	0,02	± 0,002	A	965-216	963-127
EG 420-3NM	420	0,001	0,01	0,02	± 0,003	A	965-216	963-127
EG 620-3NM	620	0,001	0,01	0,1	± 0,004	A	965-201	963-103
EG 2200-2NM	2200	0,01	0,1	0,5	± 0,01	C	965-216	963-127
EG 4200-2NM	4200	0,01	0,1	0,5	± 0,02	C	965-216	963-127

PREMIUM
★
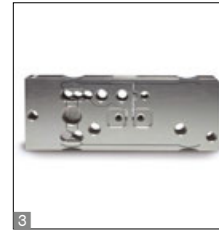
Multifunctional laboratory balance with single-cell weighing system, also with EC type approval [M]

Features

- KERN PBJ: Internal adjustment in the case of a change in temperature and time-controlled at defined intervals, guarantees high degree of accuracy and makes the balance independent of its location of use
- KERN PBS: Adjusting program CAL for quick setting of the balance accuracy using an external test weight
- Metal housing: robust and sturdy
- Dosage aid
- Weighing with tolerance range (checkweighing): a visual signal helps with portioning, dispensing or grading
- Totalising of weights
- Identification number: 4 digits, printed on calibration protocol freely programmable
- Automatic data output to the PC/printer each time the balance is steady

- 1 Draught shield standard for models with [d] = 0,001 g, weighing space W×D×H 180×193×87 mm
- Protective working cover included with delivery

Technical data

- Large backlit LCD display, digit height 14 mm
- Dimensions weighing surface, Stainless Steel
  A W×D 108×105 mm
  B W×D 170×180 mm, see larger picture
- Overall dimensions W×D×H 209×322×78 mm (without draught shield)
- Net weight approx. 3,2 kg
- Permissible ambient temperature 10 °C/30 °C
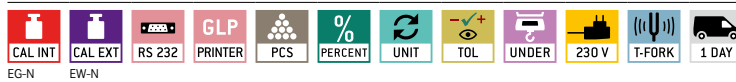
Accessories

- Protective working cover, scope of delivery: 5 items, for models with weighing plate size
  A KERN PBS-A01S05
  B KERN PBS-A02S05
- 2 Set for density determination of liquids and solids with density ≥ 1, for models with weighing plate size
  A KERN PBS-A04
  B KERN PBS-A03
- RS-232/Ethernet adapter for connection to an IP-based Ethernet network, KERN YKI-01
- Minimum weight of sample, smallest weight to be weighed, depending on the required process accuracy, only in combination with a DAkkS calibration certificate, KERN 969-103
- Equipment qualification: compliant qualification concept which includes the following validation services: Installation Qualification (IQ), Operating Qualification (OQ), Further details see 208
- Further details, plenty of further accessories and suitable printers see *Accessories*

3 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 s under laboratory conditions
- **Shock proof construction**
- **High corner load performance**

STANDARD													OPTION	FACTORY
CAL INT	CAL EXT	RS 232	GLP INTERN	PCS	RECIPE	PERCENT	UNIT	TOL	MOVE	UNDER	MULTI	SC TECH	1 DAY	DAkkS +3 DAYS	M +3 DAYS
PBJ	PBS											3			PBJ

Model KERN	Weighing capacity [Max] g	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Linearity g	Weighing plate		Option	
								Verification M KERN	DAkkS Calibr. Certificate DAkkS KERN
PBS 620-3M	620	0,001	-	-	± 0,002	A		-	963-103
PBS 4200-2M	4200	0,01	-	-	± 0,02	B		-	963-127
PBS 6200-2M	6200	0,01	-	-	± 0,02	B		-	963-104
Note: For applications that require verification, please order verificati on 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.									
PBJ 620-3M	620	0,001	0,01	0,1	± 0,002	A		965-201 I	963-103
PBJ 4200-2M	4200	0,01	0,1	0,5	± 0,02	B		965-216 II	963-127
PBJ 6200-2M	6200	0,01	0,1	1	± 0,02	B		965-202 I	963-104
PBJ 8200-1M	8200	0,1	1	5	± 0,2	B		965-217 II	963-128

03

PREMIUM
★

EasyTouch

- Net weight approx. Ⓐ 4,0 kg, Ⓑ 4,4 kg,
  Ⓒ 10 kg
- Permissible ambient temperature 10 °C/30 °C

Robust laboratory and industrial precision scale for heavy items, also with EC type approval [M]

Features

- KERN PEJ: Automatic internal adjustment, guarantees high degree of accuracy and makes the balance independent of its location of use
- KERN PES: Adjusting program CAL for quick setting of the balance accuracy using an external test weight
- Metal housing: robust and sturdy
- Weighing with tolerance range (checkweighing): Input of two upper and two lower limit values through four arrow keys. An audible and visual signal assists with the portioing, dispensing or grading
- Ⓘ Draught shield standard for models with [d] = 0,001 g, weighing space W×D×H 170×150×100 mm

- Underfloor weighing: load support with hook on the underside of the balance, standard for models with [d] = 0,001 g, hook not included with the delivery
- Ⓐ, Ⓑ Protective working cover included with delivery

Technical data

- Fluorescent display, bright with high contrast, digit height 14 mm
- Dimensions weighing surface, Stainless Steel
  Ⓐ W×D 140×120 mm
  Ⓑ W×D 200×200 mm, see larger picture
  Ⓒ W×D 250×220
- Overall dimensions W×D×H, without draught shield
  Ⓐ 220×330×90 mm
  Ⓑ 220×339×80 mm
  Ⓒ 260×330×113 mm

Accessories

- Protective working cover, scope of delivery: 5 items, KERN PES-A04S05
- KERN PES: Internal rechargeable battery pack, operating time up to 32 h, without backlight, charging time approx. 15 h, KERN PES-A01
- Loop for underfloor weighing, for models with weighing plate size Ⓑ, KERN PES-A03
- Relay output to connect relays, signal lamps, valves etc., 5 outputs for weighing in 3 tolerance ranges, must be ordered at purchase, KERN PES-A02
- RS-232/Ethernet adapter for connection to an IP-based Ethernet network, KERN YKI-01
- Minimum weight of sample, smallest weight to be weighed, depending on the required process accuracy, only in combination with a DAkkS calibration certificate, KERN 969-103
- Equipment qualification: compliant qualification concept which includes the following validation services: Installation Qualification (IQ), Operating Qualification (OQ), Further details see 208
- Further details, plenty of further accessories and suitable printers see *Accessories*

| STANDARD											OPTION			FACTORY		
CAL INT	CAL EXT	RS 232	GLP PRINTER	PCS	RECIPE	PERCENT	UNIT	TOL	UNDER	230 V	T-FORK	1 DAY	ET	MULTI	DAkkS +3 DAYS	SWITCH	ACCU	+3 DAYS M
PEJ	PES	2x							Ⓐ Ⓑ							PES	PEJ

Model KERN	Weighing capacity [Max] g	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Linearity g	Weighing plate	Option Verification M KERN	Option DAkkS Calibr. Certificate DAkkS KERN
PES 620-3M	620	0,001	-	-	± 0,003	Ⓐ	-	963-103
PES 2200-2M	2200	0,01	-	-	± 0,02	Ⓑ	-	963-127
PES 4200-2M	4200	0,01	-	-	± 0,02	Ⓑ	-	963-127
PES 6200-2M	6200	0,01	-	-	± 0,03	Ⓑ	-	963-104
PES 15000-1M	15000	0,1	-	-	± 0,2	Ⓑ	-	963-128
PES 31000-1M	31000	0,1	-	-	± 0,4	Ⓒ	-	963-128
Note: For applications that require verification, please order verificati on 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.								
PEJ 620-3M	620	0,001	0,01	0,1	± 0,003	Ⓐ	965-201 Ⅰ	963-103
PEJ 2200-2M	2200	0,01	0,1	0,5	± 0,02	Ⓑ	965-216 Ⅱ	963-127
PEJ 4200-2M	4200	0,01	0,1	0,5	± 0,02	Ⓑ	965-216 Ⅱ	963-127

⚠ ONLY WHILE STOCKS LAST !

KERN ADB 200-4 Page 34
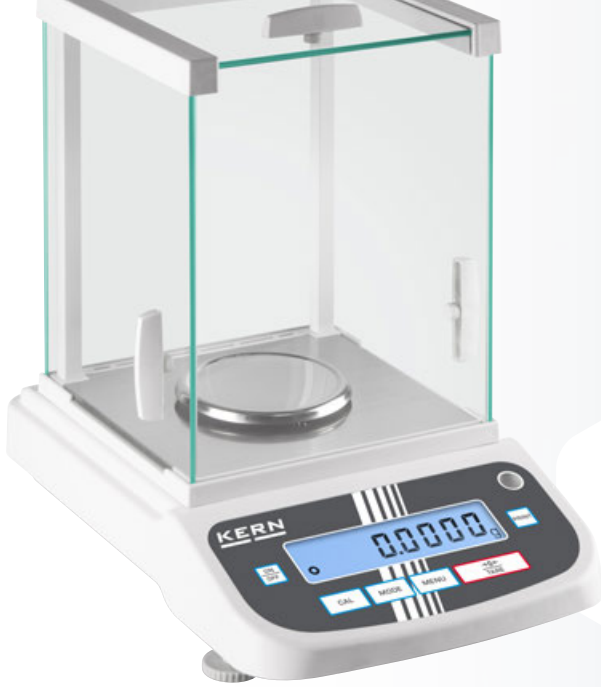
> Now with higher weighing range 220 g!

> External adjustment

> Large glass draught shield with 3 sliding doors

> Large weighing capacity at a top price

Analytical balances

Quick-Finder Analytical balances

Readability [d] mg	Weighing capacity [Max] g	Model KERN	Page	DAYS	M	CAL INT	CAL EXT	RS 232	GLP INTERN	GLP PRINTER	RECIPE
						For an explanation on the pictos, see front flap					
0,01	101	ABT 100-5NM	39	1	○	●		●	●		●
0,01	135	ABP 100-5M	41	1	○	●		●	●		●
0,01	210	ALJ 210-5A	36	1		●		●	●		●
0,01	220	ABP 200-5M	41	1	○	●		●	●		●
0,01 | 0,1	42 | 120	ABT 120-5DNM	39	1	○	●		●	●		●
0,01 | 0,1	52 | 120	ABP 100-5DM	40	1	○	●		●	●		●
0,01 | 0,1	82 | 220	ALJ 200-5DA	35	1		●		●		●	●
0,01 | 0,1	82 | 220	ABT 220-5DNM	39	1	○	●		●			●
0,01 | 0,1	102 | 220	ABP 200-5DM	40	1	○	●		●			●
0,1	82	ABS 80-4N	37	1			●	○		●	●
0,1	82	ABJ 80-4NM	37	1		●		○		●	●
0,1	82	ACS 80-4	37	1			●		●	●	●
0,1	82	ACJ 80-4M	37	1	○	●		●	●	●	
0,1	120	ADB 600-C3 ◈	34	1			●		●	●	
0,1	120	ADB 100-4	34	1			●		●	●	
0,1	120	ADJ 600-C3 ◈	34	1		●		●	●		
0,1	120	ADJ 100-4	34	1		●		●	●		
0,1	120	ABS 120-4N	37	1			●	○		●	●
0,1	120	ABJ 120-4NM	37	1		●		○		●	●
0,1	120	ACS 100-4	37	1			●		●	●	
0,1	120	ACJ 100-4M	37	1	○	●		●		●	●
0,1	120	ABT 120-4NM	39	1	○	●		●	●		●
0,1	120	ABP 100-4M	40	1	○	●		●	●		●
0,1	160	ALS 160-4A	35	1			●		●	●	
0,1	160	ALJ 160-4A	35	1		●		●	●		
0,1	160	ALJ 160-4AM	35	1	○	●		●	●		
0,1	210	ADJ 200-4	34	1		●		●	●		
0,1	220	ADB 200-4	34	1			●		●	●	
0,1	220	ABS 220-4N	37	1			●	○		●	●
0,1	220	ABJ 220-4NM	37	1		●		○		●	●
0,1	220	ACS 200-4	37	1			●		●	●	
0,1	220	ACJ 200-4M	37	1	○	●		●	●		
0,1	220	ABT 220-4NM	39	1	○	●		●	●		●
0,1	220	ABP 200-4M	40	1	○	●		●	●		●
0,1	250	ALS 250-4A	35	1			●		●	●	
0,1	250	ALJ 250-4A	35	1		●		●	●		
0,1	250	ALJ 250-4AM	35	1	○	●		●	●		
0,1	310	ALJ 310-4A	35	1		●		●	●		●
0,1	320	ABS 320-4N	37	1			●	○		●	●
0,1	320	ABJ 320-4NM	37	1		●		○		●	●
0,1	320	ACS 300-4	37	1			●		●	●	
0,1	320	ACJ 300-4M	37	1	○	●		●	●		
0,1	320	ABT 320-4NM	39	1	○	●		●	●		●
0,1	320	ABP 300-4M	40	1	○	●		●	●		●
0,1	510	ALJ 500-4A	35	1		●	●	●	●		●

■ News 2022   ◈ = Carat balances   ● = standard   ○ = option

Analytical balances KERN ADB · ADJ

EasyTouch

The price leader in analytical balances with internal or external calibration – now as version with [Max] 220 g!

Features

- New model with incredibly high resolution. Ideal if extremely precise weighing is required
- KERN ADJ: Automatic internal adjustment in the case of a change in temperature ≥ 2 °C or timecontrolled every 3 h, guarantees high degree of accuracy and makes the balance independent of its location of use
- KERN ADB: Adjusting program CAL for quick setting of the balance accuracy using an external *test weight*
- ① ADB 600-C3: Compact, space-saving carat balance with a readout of 0.001 ct and a weighing range of 600 ct. The high level of accuracy saves hard cash wherever you are weighing valuable precious stones
- Level indicator and levelling feet for precise levelling of the scale, fitted as standard, to give the most accurate weighing result
- Large glass draught shield with 3 sliding doors for easy access to the items being weighed
- Compact size, practical for small spaces
- Simple and convenient 6-key operation

Technical data

- Large backlit LCD display, digit height 16 mm
- Dimensions weighing surface, stainless steel, ⌀ 90 mm
- Overall dimensions (incl. draught shield) W×D×H
  KERN ADB/ADJ: 230×310×330 mm
  KERN ADB-C/ADJ-C: 230×310×210 mm
- Weighing space W×D×H
  KERN ADB/ADJ: 170×160×205 mm
  KERN ADB-C/ADJ-C: 170×160×110 mm
- Permissible ambient temperature 10 °C/30 °C

Accessories

- ② Set for density determination of liquids and solids with density ≤/≥ 1, the density is indicated directly on the display, KERN YDB-03
- ③ Ioniser to neutralise electrostatic charge, KERN YBI-01A
- ④ Gemstones plate, aluminium with practical spout, W×D×H 83×66×23 mm, KERN AEJ-A05
- ⑤ Weighing table to absorb vibrations and oscillations, which would otherwise distort the weighing result, KERN YPS-03
- Minimum weight of sample, smallest weight to be weighed, depending on the required process accuracy, only in combination with a DAkkS calibration certificate, KERN 969-103
- Equipment qualification: compliant qualification concept which includes the following validation services: Installation Qualification (IQ), Operating Qualification (OQ), Further details see 208
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD

CAL INT	CAL EXT	RS 232	GLP PRINTER	PCS	PERCENT	UNIT	MULTI	FORCE	1 DAY
ADJ	ADB								

OPTION

ET	DAkkS +3 DAYS

Model KERN	Weighing capacity [Max] g	Readability [d] mg	Reproducibility mg	Linearity mg	Net weight approx. kg	Option	
						DAkkS Calibr. Certificate	
						DAkkS KERN	
ADB 100-4	120	0,1	0,2	± 0,4	4,4	963-101	
ADB 200-4 🆕	220	0,1	0,2	± 0,4	4,4	963-101	
ADB 600-C3 ◈	600 ct	0,001 ct	0,002 ct	± 0,004 ct	3,8	963-101	
ADJ 100-4	120	0,1	0,2	± 0,4	5	963-101	
ADJ 200-4	210	0,1	0,2	± 0,4	5	963-101	
ADJ 600-C3 ◈	600 ct	0,001 ct	0,002 ct	± 0,004 ct	4,5	963-101	

🆕 New model   ◈ = Carat balances

04

EasyTouch

KERN ALJ 200-5DA with optional ionisor [1], see Accessories. High-precison semi-microbalance. Thanks to its precison, this model is suitalbe to calibrate pipettes.
Tip: To avoid evaporation, we recommend affordable capillary tubes. (cf. standard 8655)

Analytical balance with high weighing capacity, graphic display and convenient recipe function — now also available as single-range semi-microbalance with incredibly high resolution
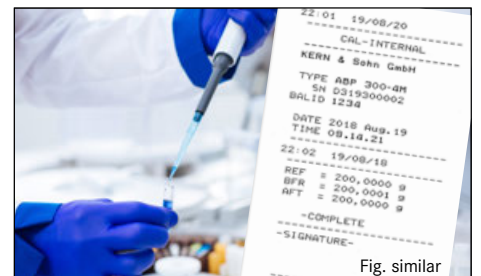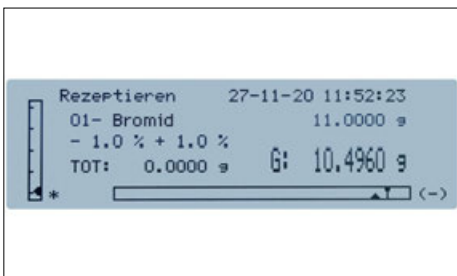
Convenient recipe-weighing: with the recipe database, in which up to 99 recipes can be stored, each with up to 20 recipe ingredients with name and target value

Clear printout with date and time. In addition, the components of the mixture are numbered automatically and printed out with the name and weight

• GLP/ISO record keeping professional, detailed GLP Protocol, so that the balance is completely compliant with the relevant standard requirements in accordance with ISO, GLP and GMP

04

Features

- NEW: KERN ALJ 210-5A ! Semi-micro model with only one weighing range and incredibly high resolution. Ideal when weighing heavy loads over the entire weighing range with the finest readability. Particularly advantageous: an ioniser for neutralising electrostatic charge is already fitted as standard
- Rapid and efficient operation thanks to the graphics display. Simple, clear user interface on the display in the following languages: DE, EN, FR, IT, ES, PT
- KERN ALJ-A03: Ionizer to neutralise electrostatic charge for fixed installation in the analytical balance. Particularly convenient handling as you no longer need a separate device. Simply enable the ionizer fan at the push of a button. Suitable for all models, see *Accessories* on the right. Already fitted as standard in the KERN ALJ 210-5A model Adjusting program CAL for quick setting of the balance accuracy using an external *test weight*
- Short stabilisation time: steady weight values within approx. 4 s (models with [d] = 0,1 mg), 6 | 10 s (models with [d] = 0,01 | 0,1 mg) under laboratory conditions
- Weighing with tolerance range (checkweighing): Input of an upper/lower limit value. A visual signal assists with portioning, dispensing or grading
- Dosage aid: high stability mode and other filter settings can be selected

- Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through Display.
- 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
- Protective working cover included with delivery

Technical data

- Backlit LCD display, digit height 15 mm
- Dimensions weighing surface, stainless steel, ∅ 80 mm
- Overall dimensions (incl. draught shield) W×D×H 210×340×330 mm
- Weighing space W×D×H 160×140×205 mm
- Net weight 7 kg
- Permissible ambient temperature 5 °C/35 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN ALJ-A01S05
- Protective dust cover, KERN ABS-A08
- **1** Draft shield rear panel with integrated ionizer to neutralise electrostatic charge. Is fitted in place of the existing glass rear panel of the draft shield. Suitable for all models in the range, please order at the time you order your balance (not necessary with model ALJ 210-5A, as it is already installed as standard), the scope of delivery is the rear panel, ionizer, Universal plug-in power supply. Factory Option, KERN ALJ-A03
- **2** Set for density determination of liquids and solids with density ≤/≥ 1, the density is indicated directly on the display, KERN YDB-03
- **3** Weighing table to absorb vibrations and oscillations, which would otherwise distort the weighing result, KERN YPS-03
- Minimum weight of sample, smallest weight to be weighed, depending on the required process accuracy, only in combination with a DAkkS calibration certificate, KERN 969-103
- Equipment qualification: compliant qualification concept which includes the following validation services: Installation Qualification (IQ), Operating Qualification (OQ), Further details see 208
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD

CAL INT	CAL EXT	RS 232	GLP INTERN	PCS	RECIPE	PERCENT	UNIT	TOL	MOVE	MULTI	FORCE	1 DAY
ALJ-A	ALS-A											

OPTION

ET	DAkkS +3 DAYS

FACTORY

M +3 DAYS
ALJ-AM

Model KERN	Weighing capacity [Max] g	Readability [d] mg	Verification value [e] mg	Minimal load [Min] mg	Reproduci-bility mg	Linearity mg		Option	
								Verification M KERN	DAkkS Calibr. Certificate DAkkS 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
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.									
ALJ 210-5A NEW	210	0,01	–	–	0,05	± 0,1		–	963-101
ALJ 200-5DA	82 | 220	0,01 | 0,1	-	-	0,04 | 0,1	± 0,1 | 0,2		-	963-101
ALJ 160-4A	160	0,1	-	-	0,1	± 0,3		-	963-101
ALJ 160-4AM	160	0,1	1	10	0,2	± 0,3		965-201	963-101
ALJ 250-4A	250	0,1	-	-	0,1	± 0,3		-	963-101
ALJ 250-4AM	250	0,1	1	10	0,2	± 0,3		965-201	963-101
ALJ 310-4A	310	0,1	-	-	0,1	± 0,3		-	963-101
ALJ 500-4A	510	0,1	-	-	0,2	± 0,4		-	963-101

NEW New model

Analytical balance KERN ABS-N · ABJ-NM · ACS · ACJ

KERN ACS/ACJ with standard data interface RS-232 and USB

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

Features

- KERN ABJ-NM, ACJ: Automatic internal adjustment in the case of a change in temperature ≥ 2 °C or timecontrolled every 4 h, guarantees high degree of accuracy and makes the balance independent of its location of use
- KERN ABS-N, ACS: Adjusting program CAL for quick setting of the balance accuracy using an external test weight
- Dosage aid

- Simple recipe weighing and documenting with a combined tare/print function. In addition, the ingredients for the recipe are numbered automatically and printed out with their corresponding number and nominal weight
- Automatic data output to the PC/printer each time the balance is steady
- Identification number: 4 digits, printed on calibration protocol freely programmable
- Protective working cover included with delivery

Analytical balance KERN ABS-N · ABJ-NM · ACS · ACJ

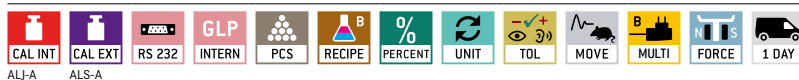## Technical data

- Large LCD display, digit height 14 mm
- Dimensions of weighing surface, stainless steel, ∅ 91 mm
- Overall dimensions (incl. draught shield) W×D×H 210×340×325 mm
- Weighing space W×D×H 174×162×227 mm
- Net weight 6 kg
- Permissible ambient temperature 10 °C/30 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN ACS-A02S05
- 1 Set for density determination of liquids and solids with density ≤/≥ 1, the density is indicated directly on the display, KERN YDB-03
- 2 Ioniser to neutralise electrostatic charge, KERN YBI-01A
- KERN ABS-N/ABJ-NM: Data interface RS-232, interface cable included, approx. 1,5 m KERN ACS-A01
- 3 Weighing table to absorb vibrations and oscillations, which would otherwise distort the weighing result, KERN YPS-03
- Minimum weight of sample, smallest weight to be weighed, depending on the required process accuracy, only in combination with a DAkkS calibration certificate, KERN 969-103
- Equipment qualification: compliant qualification concept which includes the following validation services: Installation Qualification (IQ), Operating Qualification (OQ), Further details see 208
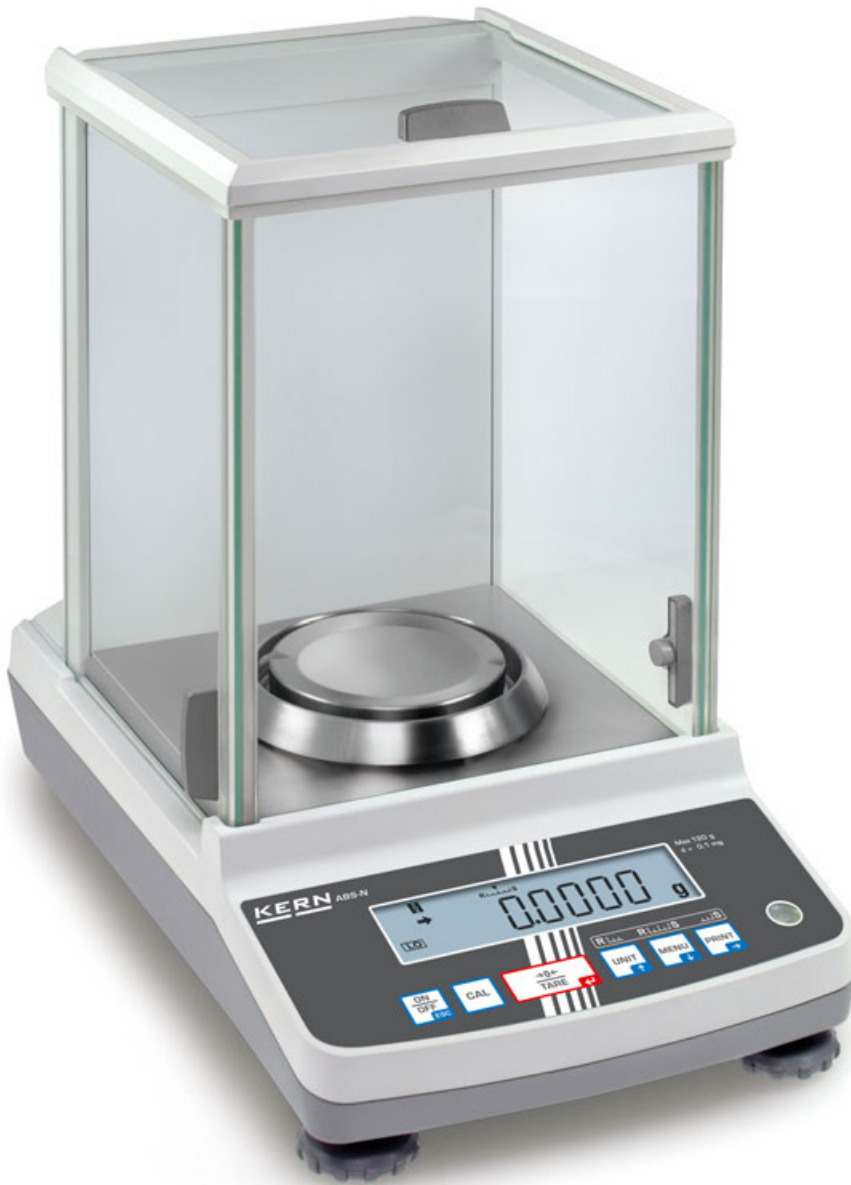- Further details, plenty of further accessories and suitable printers see *Accessories*

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 s under laboratory conditions
- **Shock proof construction**
- **High corner load performance**

STANDARD												OPTION		FACTORY
CAL INT	CAL EXT	RS 232	USB	GLP PRINTER	PCS	RECIPE	PERCENT	UNIT	TOL	MULTI	SC TECH	1 DAY	RS 232	DAkkS +3 DAYS	M +3 DAYS
ABJ-NM ACJ	ABS-N ACS	ACS/ACJ	ACS/ACJ										ABS-N/ ABJ-NM		ACJ

Model KERN	Weighing capacity [Max] g	Readability [d] mg	Verification value [e] mg	Minimal load [Min] mg	Reproducibility mg	Linearity mg		Option	
								Verification 〽 KERN	DAkkS Calibr. Certificate DAkkS KERN
ABS 80-4N	82	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
ACS 80-4	82	0,1	–	–	0,2	± 0,3		–	963-101
ACS 100-4	120	0,1	–	–	0,2	± 0,3		–	963-101
ACS 200-4	220	0,1	–	–	0,2	± 0,3		–	963-101
ACS 300-4	320	0,1	–	–	0,2	± 0,3		–	963-101
ABJ 80-4NM	82	0,1	–	–	0,2	± 0,3		–	963-101
ABJ 120-4NM	120	0,1	–	–	0,2	± 0,3		–	963-101
ABJ 220-4NM	220	0,1	–	–	0,2	± 0,3		–	963-101
ABJ 320-4NM	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.									
ACJ 80-4M	82	0,1	1	10	0,2	± 0,3		965-201	963-101
ACJ 100-4M	120	0,1	1	10	0,2	± 0,3		965-201	963-101
ACJ 200-4M	220	0,1	1	10	0,2	± 0,3		965-201	963-101
ACJ 300-4M	320	0,1	1	10	0,2	± 0,3		965-201	963-101

Analytical balance KERN ABT-NM

The premium model with single-cell weighing system

Features

- Automatic internal adjustment in the case of a change in temperature ≥ 0,5 °C or timecontrolled every 4 h, guarantees high degree of accuracy and makes the balance independent of its location of use
- Dosage aid: High-stability mode and other filter settings can be selected
- Simple recipe weighing and documenting with a combined tare/print function. In addition, the ingredients for the recipe are numbered automatically and printed out with their corresponding number and nominal weight
- Identification number: 4 digits, printed on calibration protocol freely programmable
- Printout of a GLP-compliant calibration report conveniently at the touch of a button
- Automatic data output to the PC/printer each time the balance is steady
- Large glass draught shield with 3 sliding doors for easy access to the items being weighed.
- Protective working cover included with delivery

Technical data

- Large LCD display, digit height 14 mm
- Dimensions weighing surface, stainless steel, Ø 80 mm
- Overall dimensions (incl. draught shield) W×D×H 217×356×338 mm
- Weighing space W×D×H 168×172×223 mm
- Net weight approx. 7 kg
- Permissible ambient temperature 10 °C/30 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN ABT-A02S05
- 1 Set for density determination of liquids and solids with density ≤/≥ 1, the density is indicated directly on the display, KERN YDB-03
- 2 Ioniser to neutralise electrostatic charge, KERN YBI-01A

- 3 Weighing table to absorb vibrations and oscillations, which would otherwise distort the weighing result, KERN YPS-03
- Minimum weight of sample, smallest weight to be weighed, depending on the required process accuracy, only in combination with a DAkkS calibration certificate, KERN 969-103
- Equipment qualification: compliant qualification concept which includes the following validation services: Installation Qualification (IQ), Operating Qualification (OQ), Further details see 208
- Further details, plenty of further accessories and suitable printers see *Accessories*
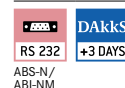
4 Single-cell advanced technology:

- **Fully automatic manufactured weighing cell from one piece of material**
- **Stable temperature behaviour**
- **Short stabilisation time:** steady weight values within approx. 4 s (models with [d] = 0,1 mg), approx. 10 s (models with [d] = 0,01 mg) under laboratory conditions
- **Shock proof construction**
- **High corner load performance**

STANDARD | OPTION | FACTORY

| CAL INT | RS 232 | GLP INTERN | PCS | RECIPE A | PERCENT % | UNIT | UNDER | MULTI B | SC TECH | 1 DAY | DAkkS +3 DAYS | M +3 DAYS |

Model KERN	Weighing capacity [Max] g	Readability [d] mg	Verification value [e] mg	Minimal load [Min] mg	Reproduci-bility mg	Linearity mg		Option	
								Verification	DAkkS Calibr. Certificate
								M KERN	DAkkS KERN
ABT 100-5NM	101	0,01	1	1	0,05	± 0,15		965-201	963-101
ABT 120-4NM	120	0,1	1	10	0,1	± 0,2		965-201	963-101
ABT 220-4NM	220	0,1	1	10	0,1	± 0,2		965-201	963-101
ABT 320-4NM	320	0,1	1	10	0,1	± 0,3		965-201	963-101
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readibility [d]									
ABT 120-5DNM	42 | 120	0,01 | 0,1	1	1	0,02 | 0,1	± 0,05 | 0,2		965-201	963-101
ABT 220-5DNM	82 | 220	0,01 | 0,1	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.									

www.kern-sohn.com · Order hotline +49 7433 9933-0   Analytical balances   39

Analytical balance KERN ABP

2 **KERN ABP 100-5DM** with optional ionizer

1 **NEW:** Extremely fast ionization process, thanks to the latest generation of KERN ionization technology to neutralise electrostatic charge for fixed installation in the analytical balance. Particularly convenient handling as you no longer need a separate device. Simply enable the ionizer fan at the push of a button. Suitable for all models

Premium analytical balance with the latest Single-Cell Generation for extremely rapid, stable weighing results – now also available as single-range semi-microbalance with incredibly high resolution

Bright OLED display with large viewing angle for the very best readout from a wide range of lines of sight or poor lighting conditions

USB data interfaces and RS-232 for transferring weighing data to the PC, tablet, printer, USB as well as connecting external devices, such as barcode scanner (option), numeric keypad (option) etc.

GLP/ISO record keeping professional and detailed GLP protocol, so that the scale is fully compliant with the relevant standard requirements according to ISO, GLP and GMP

Analytical balance KERN ABP

Features

- This new generation of analytical balances combines the highest level of precision with large weighing ranges. Thanks to the new Single-Cell Generation, the weighing result is displayed in a fraction of the time with comparable models. Together with the intuitively structured menu, this means that you can work efficiently and rapidly
- Navigation pad for super quick navigating through the menus
- Automatic internal adjustment in the case of a change in temperature ≥ 1 °C or timecontrolled every 4 h, guarantees high degree of accuracy and makes the balance independent of its location of use
- The Minimum weight of sample can be manually stored in the device or automatically calculated. For weighings below this value, the balance issues a warning message
- Dosage aid: High-stability mode and other filter settings can be selected
- Simple recipe weighing and documenting with a combined tare/print function. In addition, the ingredients for the recipe are numbered automatically and printed out with their corresponding number and nominal weight
- Individual user settings can be stored for up to 10 users: user name/number (can be printed out or added to the record for each process), password, menu language, user profiles, accessing user settings via barcode, additional guest mode for users who are not logged in, authorizations, eg. B. balance adjustment, changing settings or conditioning or modification of a recipe only by the authorized person & performing the formulation by the user
- USB data interface, e.g. for connecting a USB keyboard for easy capture of item numbers, item texts, for easier navigation within the menu etc.

- U.S. FDA 21 Part 11: assists you in data integrity in accordance with U.S. FDA 21 Part 11 (for example weighing result, sample ID, user name, scales ID, ...)
- Menu languages DE, EN
- Automatic data output to the PC/printer each time the balance is steady
- Large glass draught shield with 3 sliding doors for easy access to the items being weighed.
- ▪1 KERN ABP-DM: Multi-function weighing plate included with delivery, minimises the effect of currents of air in the weighing chamber and therefore significantly improves the stabilisation time and repeatability. In addition samples, sample paper, PCR containers, micro centrifuge tubes and many other items which protrude can be easily fixed in place and weighed easily
- Protective working cover included with delivery

Technical data

- Luminescent OLED display, digit height 14 mm, bright with high contrast, for easy reading of the weight, even in poor lightingconditions
- Dimensions weighing surface ∅ 91 mm
- Overall dimensions (incl. draught shield) W×D×H, 213×433×344 mm
- Weighing space W×D×H 166×156×220 mm
- Net weight approx. 8 kg
- Permissible ambient temperature 10 °C/30 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN YBA-A06S05
- Set for density determination of liquids and solids with density ≤/≥ 1, the density is indicated directly on the display, KERN YDB-03

- ▪2 Draft shield rear panel with integrated ioniser to neutralise electrostatic charge. Is fitted in place of the existing glass rear panel of the draft shield. Suitable for all models in the KERN ABP range, please order at the time you order your balance, the scope of delivery is the rear panel, ioniser, power supply. KERN ABP-A01
- USB barcode scanner, hand-held version, dimensions W×D×H 152×84×63 mm, KERN PET-A09
- ▪3 Weighing table to absorb vibrations and oscillations, which would otherwise distort the weighing result, KERN YPS-03
- Minimum weight of sample, smallest weight to be weighed, depending on the required process accuracy, only in combination with a DAkkS calibration certificate, KERN 969-103
- Equipment qualification: compliant qualification concept which includes the following validation services, Installation Qualification (IQ), Operating Qualification (OQ), Further details see 208
- Further details, plenty of further accessories and suitable printers see *Accessories*

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. 2 s (models with [d] = 0,1 mg), approx. 8 s (models with [d] = 0,01 mg, 0,01 | 0,1 mg) under laboratory conditions
- **Shock proof construction**
- **High corner load performance**

04

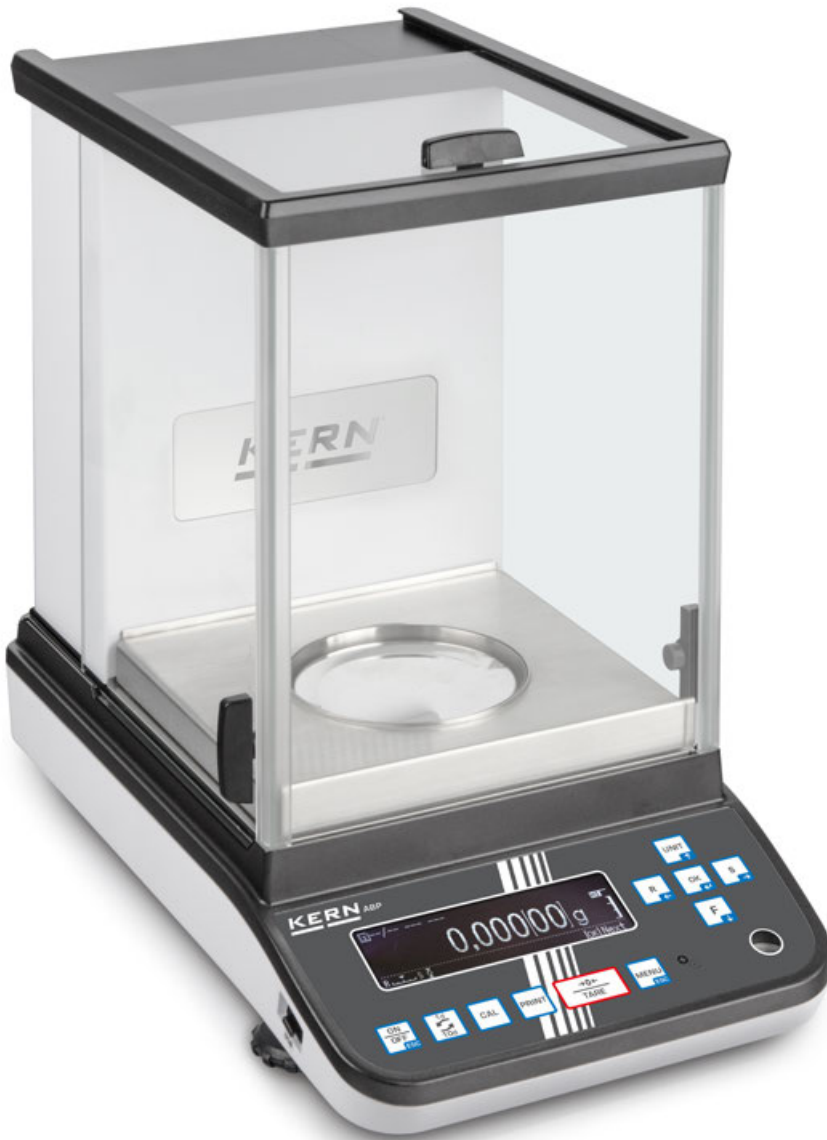| STANDARD													OPTION	FACTORY
CAL INT	RS 232	USB 1x Host 1x Device	GLP INTERN	PCS	RECIPE	PERCENT	UNIT	TOL	MOVE	UNDER	MULTI	SC TECH	1 DAY	DAkkS +3 DAYS	M +3 DAYS

Model KERN	Weighing capacity [Max] g	Readability [d] mg	Verification value [e] mg	Minimal load [Min] mg	Reproduci-bility mg	Linearity mg		Option	
								Verification M KERN	**DAkkS Calibr. Certificate** DAkkS KERN
ABP 100-5M NEW	135	0,01	1	1	0,05	± 0,2		965-201	963-101
ABP 200-5M NEW	220	0,01	1	1	0,05	± 0,2		965-201	963-101
ABP 100-4M	120	0,1	1	10	0,1	± 0,2		965-201	963-101
ABP 200-4M	220	0,1	1	10	0,1	± 0,2		965-201	963-101
ABP 300-4M	320	0,1	1	10	0,2	± 0,3		965-201	963-101
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readibility [d]									
ABP 100-5DM	52 | 120	0,01 | 0,1	1	1	0,02 | 0,1	± 0,05 | 0,2		965-201	963-101
ABP 200-5DM	102 | 220	0,01 | 0,1	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.									

NEW New model

Moisture analysers

They have a number of memories, network connectivity, different heating modes and are easy to use due to the intuitive operation and easy-to-read displays. Our high-quality moisture analysers are ideal for use in the food processing industry, water resource management, plastics industry, the energy industry or agriculture.

Halogen moisture analysers for rapid, reliable measuring results

Our models work on the thermogravimetric principle which means the sample is weighed and warmed with a halogen lamp. During this procedure, the weight loss is recorded continuously while it is drying until it reaches the defined value. The current moisture content for the sample can then be automatically calculated from the measured weight difference.

All benefits of our moisture analysers with halogen and infra-red drying:

· Even heating of the sample without risk of burning
· Rapid amortisation through low purchase costs
· Temperature ranges from 35 to 200 degrees
· High level of measurement accuracy to 0.01 %
· Spare capacity, weighing range up to 200 g
· You can select between different heating profiles
· You can select between different switch-off criteria, automatic or time-controlled

The drying programs
Depending on the model, our moisture analysers within the laboratory balance category have different heating profiles, so the procedure can be adapted to best suit the sample in question.
· The standard drying setting is suitable for most types of sample. As an option you can choose between these two types of switch-off criteria: Automatic drying (AUTO) or time-controlled (TIME).
· Rapid drying is suitable for samples with a high moisture content.
· Smooth heating through gentle drying prevents disintegration and formation of a skin
· As an alternative to rapid drying, you can also use stage drying as well. The temperature and the time period for the increase in temperature can be freely selected. Equally, the moisture can be determined selectively for different temperatures.

Our recommendation: The high-performance DBS moisture analyser with excellent stability, reliability and reaction speed, 10 drying programs can be stored and memory for 100 drying processes carried out as well as a USB and RS 232 data interface.

Simple data transfer

For easy, convenient communication between the moisture analyser and printer, or PC there are interfaces available, for example to connect a USB or Ethernet. The devices themselves have several internal memories, where you can store drying programs with drying parameters, such as, for example, drying period, drying temperature, display settings, switch-off criteria etc. This saves time and guarantees repeatable results. Compatible printers to print out weights, calibration and interface kits are available in our extensive range of accessories, suitable for each moisture analyser.

For communication between the balance and the printer, the moisture analyser must be disconnected from the power supply and connected to the printer. We guarantee fault-free operation with the KERN interface cable. To transfer the values to the PC we recommend our "Balance Connection KERN SCD 4.0" transfer software. Programs such as Excel or other spreadsheet applications are ideal for displaying graphics.

Our recommendation: DLB moisture analyser with intuitive graphics display, multi-lingual user guidance, convenient Auto-Tare when closing the lid and RS 232 data interface

Our service options

In order for the comparability of the results of moisture analyses to be guaranteed, the correct temperatures must be maintained in the heating chamber or sample. We offer our customers regular calibration of the temperature for genuine and reliable measuring results KERN 964-305
If requested, we can carry out sample analysis for you and support you in adjusting the parameters of your moisture analyser KERN 965-243
Please contact your personal customer advisor if you would like us to help!

Quick-Finder Moisture analysers

Readability [d] g	Weighing capacity [Max] g	Model	Page	DAYS	CAL EXT	MEMORY	RS 232
		KERN			For an explanation on the pictos, see front flap		
0,001	60	**DBS 60-3**	44	1	●	●	●
0,001	110	**DAB 100-3**	43	1	●	●	●
0,001	160	**DLB 160-3A**	45	1	●		●
0,01	200	**DAB 200-2**	43	1	●	●	●

● = standard   O = option

05

Moisture analyser KERN DAB
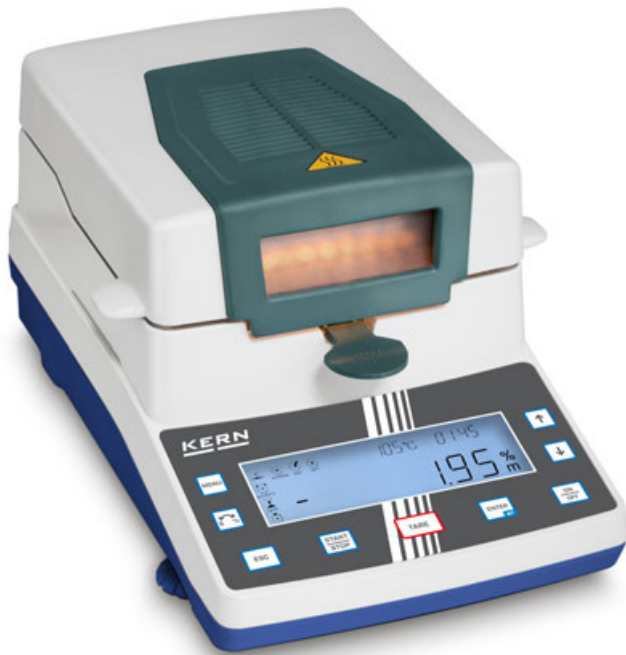
Particularly user-friendly moisture analyser with high-quality halogen quartz glass heater- also available as version with [d] = 10 mg, ideal for recurring rapid tests

Features

- KERN DAB 200-2: Version with lower resolution, whereby the switch-off criterion is reached faster, which saves time. Ideal for quick tests and spot checks
- Backlit graphic display, digit height 14 mm
  1 Drying process active
  2 Active heating profile
  3 Active switch-off criteria
  4 Previous drying time
  5 Current temperature
  6 Current moisture content in %

- Halogen quartz glass heater 400 W
- Observation window above the sample, useful during initial setting
- Internal memory for automatic sequence of 15 complete drying processes and 5 drying processes carried out
- The last value measured remains on the display until it is replaced by a new measurement
- 50 sample plates included

- Application handbook: On the internet, you will find a practical application handbook containing many examples, field reports, settings and tips for each KERN moisture analyser

Accessories

- Sample plates aluminium, ⌀ 90 mm, unit of 80 pieces, KERN MLB-A01A
- Round fiberglass filter high mechanical stability, with organic binder, box of 100 pieces, KERN RH-A02
- Round fiberglass filter, medium mechanical stability, without organic binder, box of 100 pieces, KERN YMF-A01
- 7 Temperature calibration set consists of measuring sensor and display device, KERN DAB-A01.
- 8 Infrared quartz glass heater, temperature range 40 °C-160 °C, Factory Option, KERN DAB-A02
- RS-232/Ethernet adapter for connection to an IP-based Ethernet network, KERN YKI-01
- RS-232/Bluetooth adapter to connect to Bluetooth capable devices, such as Bluetooth printers, tablets, laptops, smartphones, etc.,KERN YKI-02
- RS-232/WiFi adapter for wireless connection to networks and WiFi capable devices, such as tablets, laptops or smartphones, KERN YKI-03
- 9 Display of the drying process in conjunction with BalanceConnection, KERN SCD-4.0
- Thermal printer, KERN YKB-01N
- Matrix needle printer, to print the weights on normal paper, ideal for long-term archiving, KERN 911-013

STANDARD | OPTION

CAL EXT | MEMORY | RS 232 | GLP PRINTER | UNIT | 230 V | DMS | 1 DAY | DAkkS +3 DAYS

Model KERN	DAB 200-2	DAB 100-3
Readability [d]	0,01 g/0,05 %	0,001 g/0,01 %
Weighing capacity [Max]	200 g	110 g
Reproducibility weight of sample 2 g*	1,5 %	0,15 %
Reproducibility, weight of sample 10 g*	0,3 %	0,03 %
Display after drying (Display can be switched over at any time)		
Moisture [%] = Moisture content (M) from wet weight (W)	0-100 %	
Dry content [%] = Dry weight (D) from W	100-0 %	
Moisture content (M)	Absolute value in [g]	
Temperature range	40 °C-199 °C in steps up to 1 °C	
Drying modes	⌐ Standard drying / Gentle drying ⌐ Rapid drying	
Switch-off criteria	• Automatic switch-off (2 mg loss in weight in 45 s) • Time controlled switch-off (3 min – 99 min 59 s, 10 s increments) • Manual switch-off at the press of a button	
Recall of measurement/ Log output	Interval can be set from 1 s – 10 min (Only when used with printer or PC)	
Overall dimensions W×D×H	240×365×180 mm	
Net weight	4,82 kg	
Option DAkkS Calibr. Certificate	Mass: KERN 963-127	
Option Factory Calibr. Certificate	Temperature: KERN 964-305	

* application-dependent

Moisture analyser KERN DBS

Moisture analyser with high-quality single-cell weighing system for outstanding stability, reliability and response speed

Features

- Tip: Suitable for samples with low moisture content, e.g. plastics
- Backlit graphic display, digit height 15 mm
  - [1] Drying process active
  - [2] Previous drying time
  - [3] Current temperature
  - [4] Unit for displaying the results
  - [5] Current moisture content in %
  - [6] Active heating profile

- Halogen quartz glass heater 400 W
- Excellent temperature control thanks to halogen technology, suitable for temperature-sensitive samples
- Internal memory for automatic sequence of 10 complete drying processes and 100 drying processes carried out
- The last value measured remains on the display until it is replaced by a new measurement

- Password protection to prevent manipulation of stored settings, data, etc.
- Sample description for up to 99 samples, 2 digits, freely programmable, and is printed in the measuring protocol
- Date and time display as standard
- USB data interface for transferring weighing data to the PC, printer etc. *Can only be used in combination with KERN DBS-A02
- 10 sample plates included
- Protective working cover included with delivery
- Application handbook: On the internet, you will find a practical application handbook containing many examples, field reports, settings and tips for each KERN moisture analyser

STANDARD

CAL EXT	MEMORY	RS 232	USB	GLP INTERN	UNIT	230 V	FORCE	SC TECH	1 DAY

OPTION

DAkkS +3 DAYS

*

Modell KERN	DBS 60-3
Readability [d]	0,001 g/0,01 %
Weighing capacity [Max]	60 g
Reproducibility weight of sample 2 g*	0,15 %
Reproducibility, weight of sample 10 g*	0,02 %
Display after drying	
Moisture [%] = Moisture content (M) from wet weight (W)	0–100 %
Dry content [%] = Dry weight (D) from W	100–0 %
ATRO [%] [(W-D) : D] · 100%	0–999 %
Moisture content (M)	Absolute value in [g]
Temperature range	50 °C–200 °C in steps up to 1 °C
Drying modes	Standard drying Drying in levels Gentle drying Rapid drying
Switch-off criteria	• Automatic unrestricted switch-off (Selectable loss in weight 0,01%–0,1% in 30 s) • Time controlled switch-off (1 min – 12 h) • Manual switch-off at the press of a button
Recall of measurement/ Log output	Interval can be set from 1 s – 10 min (Only when used with printer or PC)
Overall dimensions W×D×H	204×336×167 mm
Net weight	approx. 4,6 kg
Option DAkkS Calibr. Certificate	Mass: KERN 963-127
Option Factory Calibr. Certificate	Temperature: KERN 964-305

* application-dependent

Accessories

- Protective working cover, scope of delivery: 5 items, KERN DBS-A03S05
- Sample plates aluminium, ⌀ 90 mm, unit of 80 pieces, KERN MLB-A01A
- Round fiberglass filter high mechanical stability, with organic binder, box of 100 pieces, KERN RH-A02
- [7] Temperature calibration set consists of measuring sensor and display device, KERN DBS-A01.
- [8] Display of the drying process in conjunction with BalanceConnection, KERN SCD-4.0
- USB cable, KERN DBS-A04
- Software BalanceConnection, flexible recording or transfer of measurements, particularly to Microsoft® Excel or Access as well as transfer of this data to other Apps and programs. For details see page 167, scope of supplies: Download link for 1 license, KERN SCD-4.0-DL
- Thermal printer, KERN YKB-01N
- Matrix needle printer, to print the weights on normal paper, ideal for long-term archiving, KERN 911-013
- Label printer, KERN YKE-01

Moisture analyser KERN DLB

19
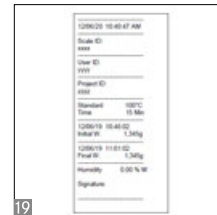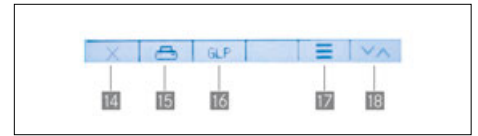
Moisture analyser with intuitive graphic display and step-by-step user guidance in 6 languages

Features

- Rapid and efficient operation thanks to the graphics display
- Backlit graphics display, digit height 11 mm
- Home screen:
  - 1 Main menu
  - 2 Start drying process
  - 3 Select drying temperature
  - 4 Select shut-off criteria
  - 5 Setting to zero/taring
  - 6 Stand-by

- During measurement:
  - 7 Current temperature
  - 8 Current heating profile
  - 9 Active shut-off criteria
  - 10 Abort drying process
  - 11 Stop drying process
  - 12 Display current drying parameters
  - 13 Toggle the unit for displaying the results
- At the end of the measurement:
  - 14 Exit drying program:
  - 15 Print measurement report
  - 16 (De)activate, edit GLP parameters
  - 17 Display detailed result
  - 18 Toggle the unit for displaying the results

- 400 W halogen-quartz glass heater
- User guidance in 6 languages (DE, EN, FR, IT, ES, PT)
- Automatic taring when starting a measurement by closing the lid
- The last value measured remains on the display until it is replaced by a new measurement
- 19 Internal GLP; printout of balance ID, project ID, user ID, values determined by the drying process etc.
- 10 sample plates included
- Protective working cover included with delivery
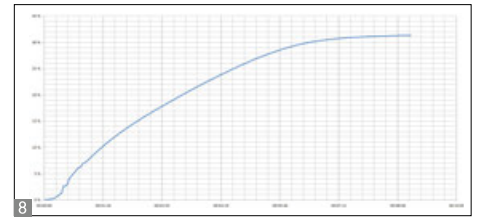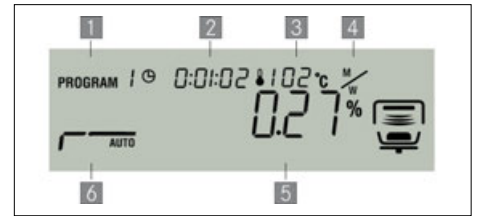- Application handbook: On the internet, you will find a practical application handbook containing many examples, field reports, settings and tips for each KERN moisture analyser

STANDARD

| CAL EXT | RS 232 | GLP INTERN | UNIT | 230 V | DMS | 1 DAY |

OPTION

| DAkkS +3 DAYS |

Modell KERN	DLB 160-3A
Readability [d]	0,001 g/0,01 %
Weighing capacity [Max]	160 g
Reproducibility weight of sample 2 g*	0,15 %
Reproducibility, weight of sample 10 g*	0,05 %
Display after drying (Display can be switched over at any time)	
Moisture [%] = Moisture content (M) from wet weight (W)	0–100 %
Dry content [%] = Dry weight (D) from W	100–0 %
ATRO [%] [(W-D) : D] · 100%	0–999 %
Moisture content (M)	Absolute value in [g]
Temperature range	35 °C–160 °C in steps up to 1 °C
Drying modes	⌐ Standard drying ⌐ Rapid drying, preheating can be switched on
Switch-off criteria	• Automatic unrestricted switch-off (Selectable loss in weight 1 mg/30 s–10 mg/30 s) • Time controlled switch-off (1 min–99 min) • Manual switch-off at the press of a button
Log output	• Interval adjustable (5 s–250 s)
Overall dimensions W×D×H	215×345×235 mm
Net weight	approx. 4,7 kg
Option DAkkS Calibr. Certificate	Mass: KERN 963-127
Option Factory Calibr. Certificate	Temperature: KERN 964–305

* application-dependent

Accessories

- Protective working cover, scope of delivery: 5 items, KERN ALJ-A01S05
- Sample plates aluminium, ∅ 90 mm, unit of 80 pieces, KERN MLB-A01A
- Round fiberglass filter high mechanical stability, with organic binder, box of 100 pieces, KERN RH-A02
- Round fiberglass filter medium mechanical stability, without organic binder, box of 100 pieces, KERN YMF-A01
- Temperature calibration set consists of measuring sensor and display device, KERN DLB-A01N.
- Thermal printer, KERN YKB-01N
- Matrix needle printer, to print the weights on normal paper, ideal for long-term archiving, KERN 911-013

> Simple and convenient 5-key operation

> Very fast display

> High mobility

Bench scales

Compact industrial weighing technology

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

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

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

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

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

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Quick-Finder Bench scales

Readability [d] g	Weighing capacity [Max] kg	Weighing plate W×D mm	Model KERN	Page	DAYS	M	CAL EXT	RS 232	PCS	TOL	MOVE	BATT	ACCU
0,02	6	340×240	**FKB 6K0.02**	52	1		●	●	●		●	●	○
0,05	6	294×225	**GAB 6K0.05N**	51	1		●	●	●	●			○
0,05	8	340×240	**FKB 8K0.05**	52	1		●	●	●		●	●	○
0,05	16	340×240	**FKB 16K0.05**	52	1		●	●	●		●	●	○
0,1	3	253×227	**FCB 3K0.1**	50	1		●	●	●		●	●	○
0,1	8	253×227	**FCB 8K0.1**	50	1		●	●	●		●	●	○
0,1	12	294×225	**GAB 12K0.1N**	51	1		●	●	●	●			○
0,1	16	340×240	**FKB 16K0.1**	52	1		●	●	●		●	●	○
0,1	36	340×240	**FKB 36K0.1**	52	1		●	●	●		●	●	○
0,2	30	294×225	**GAB 30K0.2N**	51	1		●	●	●	●			○
0,2	36	340×240	**FKB 36K0.2**	52	1		●	●	●		●	●	○
0,2	65	340×240	**FKB 65K0.2**	52	1		●	●	●		●	●	○
0,5	6	253×227	**FCB 6K0.5**	50	1		●	●	●		●	●	○
1	3	252×228	**FCE 3K1N**	49	1		●					●	○
1	12	253×227	**FCB 12K1**	50	1		●	●	●		●	●	○
1	30	340×240	**FKB 30K1**	52	1		●	●	●		●	●	○
1	30	253×227	**FCB 30K1**	50	1		●	●	●		●	●	○
1	65	340×240	**FKB 65K1**	52	1		●	●	●		●	●	○
1 | 2	3 | 6	295×225	**GAB 6K1DNM**	51	1	○	●	●	●	●			○
2	6	252×228	**FCE 6K2N**	49	1		●					●	○
2	24	253×227	**FCB 24K2**	50	1		●	●	●		●	●	○
2 | 5	6 | 15	300×230	**GAB 15K2DNM**	51	1	○	●	●	●	●			○
5	10	320×260	**ECE 10K-3N**	48	1		●					●	○
5	10	320×260	**ECB 10K-3N**	48	1		●					●	○
5	15	252×228	**FCE 15K5N**	49	1		●					●	○
5 | 10	15 | 30	294×225	**GAB 30K5DNM**	51	1	○	●	●	●	●			○
10	20	320×260	**ECE 20K-2N**	48	1		●					●	○
10	20	320×260	**ECB 20K-2N**	48	1		●					●	○
10	30	252×228	**FCE 30K10N**	49	1		●					●	○
20	50	320×260	**ECE 50K-2N**	48	1		●					●	○
20	50	320×260	**ECB 50K-2N**	48	1		●					●	○

For an explanation on the pictos, see front flap

● = standard   ○ = option

06

Bench scales KERN ECE-N · ECB-N

Plain, mobile, uncomplicated

Features

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

Technical data

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

Accessories

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

STANDARD

| CAL EXT | BATT | DMS | 1 DAY |

OPTION

| ACCU | B MULTI | DAkkS +3 DAYS |

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

Bench scale KERN FCE-N

Entry-level bench scale – mobile, practical, lightweight

Features

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

Technical data

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

Accessories

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

STANDARD

| CAL EXT | BATT | MULTI | DMS | 1 DAY |

OPTION

| ACCU | DAkkS +3 DAYS |

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

Bench scale KERN FCB

EasyTouch

06

Bench scale with second display on the backside of the scale

Features

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

Technical data

- Backlit LCD display, digit height 25 mm
- Dimensions of weighing surface, stainless steel, W×D 253×227 mm
- Overall dimensions W×D×H 270×323×110 mm
- Optional battery operation, 9 V block not included in scope of delivery, operating time up to 12 h
- Net weight approx. 2,6 kg
- Permissible ambient temperature 5 °C/35 °C

Accessories

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

STANDARD | OPTION

| CAL EXT | RS 232 | PCS | RECIPE | % PERCENT | UNIT | MOVE | BATT | B MULTI | DMS | 1 DAY | | ET | ACCU | DAkkS +3 DAYS |

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

Bench scale KERN GAB-N

EasyTouch

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

Features

- Compact size, practical for small spaces
- High mobility: thanks to rechargeable battery operation (optional), compact, lightweight construction, it is suitable for the use in several locations (production, warehouse, dispatch department etc.)
- Weighing with tolerance range (checkweighing): a visual and audible signal helps with portioning, dispensing or grading
- Totalising of weights
- Protective working cover included with delivery

Technical data

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

Accessories

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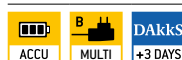- Internal rechargeable battery pack, operating time up to 90 h without backlight, charging time approx. 12 h, KERN GAB-A04
- ▯ Signal lamp for visual support of weighing with tolerance range, only in combination with, KERN CFS-A03

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

Application examples

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

Note: Official verification is mandatory for commerical trade.

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

Model	Weighing capacity [Max]	Readability [d]	Verification value [e]	Minimal load [Min]	Smallest part weight [Normal]		Option	
							Verification	DAkkS Calibr. Certificate
KERN	kg	g	g	g	g/piece		Ⓜ KERN	DAkkS KERN
GAB 6K0.05N	6	0,05	-	-	0,5		-	963-128
GAB 12K0.1N	12	0,1	-	-	1		-	963-128
GAB 30K0.2N	30	0,2	-	-	2		-	963-128
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readibility [d]								
Note: For applications that require verification, please order verification at the same time, initial verification at a later date is not possible. Verification at the factory, we need to know the full address of the location of use.								
GAB 6K1DNM	3 | 6	1 | 2	1 | 2	20	2		965-228	963-128
GAB 15K2DNM	6 | 15	2 | 5	2 | 5	40	5		965-228	963-128
GAB 30K5DNM	15 | 30	5 | 10	5 | 10	100	10		965-228	963-128

06

Bench scale KERN FKB

PREMIUM
★★★

EasyTouch

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

Features

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

- Freely programmable weighing unit, e.g. display direct in special units such as length of wire g/m, surface weight g/m^2, or else
- Model with resolution > 240,000 Pt.: Level indicator and levelling feet for precise levelling of the scale, fitted as standard
- Protective working cover included with delivery

Technical data

- Backlit LCD display, digit height 25 mm
- Dimensions weighing surface, stainless steel, W×D 340×240 mm
- Dimensions housing W×D×H, 350×390×120 mm
- Optional battery operation, 6×1.5 V Size C not included in scope of delivery, operating time up to 80 h
- Permissible ambient temperature 10 °C/40 °C

Accessories

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

STANDARD: CAL EXT | RS 232 | PCS | RECIPE | PERCENT | UNIT | MOVE | UNDER | BATT | MULTI | DMS | 1 DAY

OPTION: ET | ACCU | DAkkS +3 DAYS

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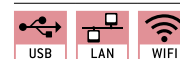
Model KERN	Weighing capacity [Max] kg	Readability [d] g	Reproducibility g	Linearity g	Smallest part weight [Normal] g/piece	Net weight approx. kg	Option DAkkS Calibr. Certificate DAkkS KERN	
FKB 6K0.02	6	0,02	0,04	± 0,1	0,2	7	963-128	
FKB 8K0.05	8	0,05	0,05	± 0,15	0,5	7	963-128	
FKB 8K0.1	8	0,1	0,1	±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

> Weighing plate made of safety glass

> For easy and hygienic cleaning

> Low overall height for secure footing and space-saving storage

Food (kitchen/stainless steel/IP65...68 protection)

KERN scales – not scared of water at all!

Scales used in industrial situations or the food industry are often exposed to extreme stresses and strains. Water, oils, fats, varnish, dust, dirt, flour, small parts etc. are all natural enemies of a scale. In industries such as the chemical, pharmaceutical, food, manufacturing industries, etc. scales 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 with respect to the level of contact, foreign object and moisture protection, without damage being caused to the unit. These levels of protection are described in the following standard: "DIN EN 60529: protection types through 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 protection and protection against foreign bodies (dust protection), the second digit is for the water and moisture protection (protection against splashes of water).

All stainless steel components of the IP65...68 protected KERN stainless steel scales are made of corrosion-resistant steel of quality class 1.4301 (DIN X5CrNi18-10). The material properties support you in your ▸ *HACCP*-compliant quality system.

▸ *See the glossary on page 215–217*

Extract from the standard: "DIN EN 60529: protection types through housing":

KERN-Pictogram	1. digit	Specification	2. digit	Specification
IP 65	6	Dustproof	5	Protection against jets of water (nozzle) from any angle (cleaning with a damp cloth)
IP 66	6	Dustproof	6	Protection against powerful jets of water
IP 67	6	Dustproof	7	Protection against temporary immersion
IP 68	6	Dustproof	8	Protection against continuous immersion (designed for continuous use in wet areas, submersion is possible depending on the pressure (water depth))

Quick-Finder Food (kitchen/stainless steel/IP65…68 protection)

Readability [d] g	Weighing capacity [Max] kg	Model KERN	Page	DAYS	M	CAL EXT	RS 232	TOL	IP 65	IP 67	IP 68	ACCU
0,1	0,5	FOB 500-1S	58	1		●						
0,1	0,5	FOB 0.5K-4NS	58	1		●				●		
0,1	3	FCF 3K-4	56	1		●						○
0,2	1,5	WTB 1K-4N	60	1		●		○	●			○
0,2	1,5	FFN 1K-4N	61	1		●			●			●
0,2	3	FOB 3K-4NL	59	1		●				●		
0,5	1,5	FOB 1K-4LM	57	1	○	●		●		●		
0,5	1,5	FOB 1.5K0.5	59	1		●		●				○
0,5	1,5	WTB 1K-4NM	60	1	○	●		●	●			○
0,5	1,5	FFN 1K-4NM	61	1	○	●			●			●
0,5	3	WTB 3K-4N	60	1		●		●	●			○
0,5	3	FFN 3K0.5IPN	61	1		●			●			●
0,5	3	FXN 3K-4N	62	1		●		●			●	
0,5 | 1	5 | 7,5	FOB 7K-4NL	59	1		●				●		
0,5	6	SXS 6K-3	64	1		●	○	●			●	○
1	3	FOB 3K-3LM	57	1	○	●		●		●		
1	3	FOB 3K1	59	1		●		●				○
1	3	WTB 3K-3NM	60	1	○	●		●	●			○
1	3	FFN 3K1IPM	61	1	○	●			●			●
1	3	FXN 3K-3M	62	1	○	●		●			●	
1	5	FGE 5K-3S05	55	1		●						
1	5	FOB 5K1S	58	1		●						
1	5	FOB 5K-3NS	58	1		●				●		
1	6	WTB 6K-3N	60	1		●		●	●			○
1	6	FFN 6K1IPN	61	1		●			●			●
1	6	FXN 6K-3N	62	1		●		●			●	
1	10	SFB 10K1HIP	63	1		●	○	●	●	●		●
1	15	FGE 10K-3S05	55	1		●						
1	15	SXS 10K-3	64	1		●	○	●			●	○
1	15	SXS 10K-3L	64	1		●	○	●			●	○
1	30	FCF 30K-3	56	1		●						○
1 | 2	3 | 6	SXS 6K-3M	64	1	○	●	○	●			●	○
1 | 2	8 | 15	FOB 10K-3NL	59	1		●				●		
2	6	FOB 6K-3LM	57	1	○	●		●		●		
2	6	FOB 6K2	59	1		●		●				○
2	6	WTB 6K-3NM	60	1	○	●		●	●			○
2	6	FFN 6K2IPM	61	1	○	●			●			●
2	6	FXN 6K-3M	62	1	○	●		●			●	
2	15	WTB 10K-3N	60	1		●		●	●			○
2	15	FFN 15K2IPN	61	1		●			●			●
2	15	FXN 10K-3N	62	1		●		●			●	
2	20	SFB 20K2HIP	63	1		●	○	●	●	●		●
2	30	SXS 30K-2	64	1		●	○	●			●	○
2	30	SXS 30K-2L	64	1		●	○	●			●	○
2 | 5	6 | 15	SXS 10K-3M	64	1	○	●	○	●			●	○
2 | 5	6 | 15	SXS 10K-3LM	64	1	○	●	○	●			●	○
2 | 5	16 | 30	FOB 30K-3NL	59	1		●				●		
5	15	FOB 10K-3LM	57	1	○	●		●		●		
5	15	WTB 10K-3NM	60	1	○	●		●	●			○
5	15	FFN 15K5IPM	61	1	○	●			●			●
5	15	FXN 10K-3M	62	1	○	●		●			●	
5	15	SFB 15K5HIPM	63	1	○	●	○	●	●	●		●
5	25	FFN 25K5IPN	61	1		●			●			●
5	30	WTB 30K-3N	60	1		●		●	●			○
5	30	FXN 30K-3N	62	1		●		●			●	
5	50	SFB 50K-3XL	63	1		●	○	●	●	●		●
5	50	SFB 50K5HIP	63	1		●	○	●	●	●		●
5	50	SFB 50K5LHIP	63	1		●	○	●	●	●		●
5	60	SXS 60K-2	64	1		●	○	●			●	○
5	60	SXS 60K-2L	64	1		●	○	●			●	○
5 | 10	15 | 30	SXS 30K-2M	64	1	○	●	○	●			●	○
5 | 10	15 | 30	SXS 30K-2LM	64	1	○	●	○	●			●	○
10	25	FFN 25K10IPM	61	1	○	●			●			●
10	30	WTB 30K-2NM	60	1	○	●		●	●			○
10	30	FXN 30K-2M	62	1	○	●		●			●	
10	30	SFB 30K10HIPM	63	1	○	●	○	●	●	●		●
10	100	SFB 100K10HIP	63	1		●	○	●	●	●		●
10	100	SFB 100K-2XL	63	1		●	○	●	●	●		●
10	150	SXS 100K-2	64	1		●	○	●			●	○
10	150	SXS 100K-2L	64	2**		●	○	●			●	○
10 | 20	30 | 60	SXS 60K-2M	64	1	○	●	○	●			●	○
10 | 20	30 | 60	SXS 60K-2LM	64	1	○	●	○	●			●	○
20	60	SFB 60K20XLM	63	1	○	●	○	●	●	●		●
20	60	SFB 60K20LHIPM	63	1	○	●	○	●	●	●		●
20	300	SXS 300K-2	64	2**		●	○	●			●	○
20 | 50	60 | 150	SXS 100K-2M	64	1	○	●	○	●			●	○
20 | 50	60 | 150	SXS 100K-2LM	64	2**	○	●	○	●			●	○
50	150	SFB 100K-2HM	63	1	○	●	○	●	●	●		●
50	150	SFB 100K-2LM	63	1	○	●	○	●	●	●		●
50	150	SFB 100K-2XLM	63	1	○	●	○	●	●	●		●
50 | 100	150 | 300	SXS 300K-2M	64	2**	○	●	○	●			●	○

For an explanation on the pictos, see front flap

News 2021

** Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs   ● = standard   ○ = option

Design kitchen scale KERN FGE

5×

1 **FGE 5K-3S05**

2 **FGE 10K-3S05**

The price breaker!
Most economical kitchen scale in the KERN assortment

Precise design kitchen scale for kitchen, cafeteria, gastronomy

Features

- FGE 10K-3S05: Weighing plate made out of safety glass
- hygienic and easy to clean
- Low overall height for secure footing and space-saving storage
- Secure and non-slip positioning through rubber feet
- Very easy to use
  FGE 5K-3S05: 2 Buttons
  FGE 10K-3S05: 1 Button
- Comfortable taring with just one keystroke. For example, you can tare a bowl before starting a formulation. In addition, you can tare each time you weigh in a formulation ingredient, so that you can weigh in the next formulation ingredient with the weight indicated in the formula without having to do any calculations
- Integrated AUTO-OFF function to preserve the batteries
- 3 Large high-contrast display that is easy to read

Technical data

1 **FGE 5K-3S05**
- Large backlit LCD display, digit height 18 mm
- Overall dimensions W×D×H 152×230×15 mm
- Dimensions of glass weighing plate W×D 152×230 mm
- Ready for use: Batteries included, 2×CR2032

2 **FGE 10K-3S05**
- Large backlit LED display, digit height 22 mm
- Overall dimensions W×D×H 272×250×22 mm
- Dimensions of glass weighing plate W×D 272×205 mm
- Ready for use: Batteries included, 3×1,5 V AAA

- **Note:** The models are delivered in a set of 5 units. i.e. the price given in the table refers to 5 items. Cannot be delivered individually. The calibration price refers to one single balance

STANDARD | OPTION

| CAL EXT | UNIT | BATT | DMS | 1 DAY | DAkkS +3 DAYS |

Model	Weighing capacity		Readability			Option	
						DAkkS Calibr. Certificate	
	[Max]		[d]			**DAkkS**	
KERN	kg		g			KERN	
FGE 5K-3S05	5		1			963-127	
FGE 10K-3S05	15		1			963-128	

Bench scale KERN FCF

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

Features

- Simple and convenient 5-key operation
- Very fast display: steady weight values within 3 s
- Ideal as a
  - compact letter and parcel scale, especially in constricted spaces
  - grading or commissioning balance or simple checkweigher in production or dispatch
  - Checkweigher in the catering trade, cafeterias, school kitchens
- High mobility: thanks to battery operation/ rechargeable battery operation (optional), compact, lightweight construction, it is suitable for the use in several locations (production, warehouse, dispatch department etc.)
- Protective working cover included with delivery

Technical data

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

Accessories

- Protective working cover, scope of delivery: 5 items, KERN FCF-A01S05
- Internal rechargeable battery pack, operating time up to 120 h without backlight, charging time approx. 16 h, KERN GAB-A04

STANDARD

| CAL EXT | PCS | RECIPE | PERCENT | UNIT | MOVE | BATT | MULTI | DMS | 1 DAY |

OPTION

| ACCU | DAkkS +3 DAYS |

Model	Weighing capacity	Readability	Reproducibility	Linearity	Smallest part weight		Option
							DAkkS Calibr. Certificate
	[Max]	[d]			[Normal]		DAkkS
KERN	kg	g	g	g	g/piece		KERN
FCF 3K-4	3	0,1	0,1	± 0,3	2		963-127
FCF 30K-3	30	1	1	± 3	20		963-128

Stainless steel bench scale KERN FOB-LM

Compact stainless steel bench scale with EC type approval [M] and special checkweighing display for even more efficient working

Features

- **1** Innovative weighing with tolerance range (Checkweighing): The colour of the display changes depending on the weight (too light/ ok/too heavy) and is an aid to help with portioning, dosing and grading
- Stainless steel design of the housing and weighing plate. Its smooth surfaces make it simple to clean
- **2** Suitable for the ever-increasing hygienic requirements in the food industry
- High mobility: thanks to battery operation, compact, lightweight construction, it is suitable for the use in several locations (kitchen, sales office, cafeteria, Food industry-Laboratory etc.)
- Your support in a HACCP-compliant quality system
- Protection against dust and water splashes IP67 (only when using battery)

- Secure and non-slip positioning through rubber feet
- Increased protection against humidity through waterproof silicone sealing of the load cell, electronics and soldering joints
- Mains adapter included with the delivery
- Protective working cover included with delivery

Technical data

- Large backlit LCD display, digit height 25 mm
- Overall dimensions W×D×H 256×285×100 mm
- KERN FOB-LM: Optional battery operation, 4×1.5 V AA, standard, operating time up to 48 h, AUTO-OFF function to preserve the battery
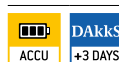- Net weight 3,8 kg
- Permissible ambient temperature 5 °C/35 °C

Accessories

- **3** Protective working cover, scope of delivery: 5 items, KERN FOB-A13S05
- Mains adapter external, not included, can be reordered, KERN FOB-A01
- **4** Tare pan made from stainless steel, ideal for weighing loose small parts as well as fruit, vegetables, etc., KERN RFS-A02

Note: Official verification is mandatory for commerical trade.

STANDARD						OPTION	FACTORY
CAL EXT	TOL	IP 67	BATT	230 V	DMS	1 DAY	DAkkS +3 DAYS	M +3 DAYS

Model	Weighing capacity [Max]	Readability [d]	Verification value [e]	Minimal load [Min]	Weighing plate		Option	
							Verification	DAkkS Calibr. Certificate
KERN	kg	g	g	g	mm		M KERN	DAkkS KERN
FOB 1K-4LM	1,5	0,5	0,5	10	248×198		965-227	963-127
FOB 3K-3LM	3	1	1	20	248×198		965-227	963-127
FOB 6K-3LM	6	2	2	40	248×198		965-228	963-128
FOB 10K-3LM	15	5	5	100	248×198		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.								

Stainless steel bench scale KERN FOB-S · FOB-NS

Super compact stainless steel balance for weighing, checking and portioning in the smallest of spaces

	KERN FOB-S	KERN FOB-NS
Features	• Stainless steel design of the housing and weighing plate. Its smooth surfaces make it simple to clean • High mobility: thanks to battery operation, compact, lightweight construction, it is suitable for the use in several locations (kitchen, sales office, cafeteria, Food industry-Laboratory etc.) • Secure and non-slip positioning through rubber feet • Your support in a HACCP-compliant quality system • Particularly flat design • Protective working cover included with delivery	
		• Protection against dust and water splashes IP65 (only when using battery)
Technical data	• Large LCD display, digit height 20 mm • Permissible ambient temperature 10 °C/40 °C	
	• Dimensions weighing surface, stainless steel, W×D 125×155 mm • Overall dimensions W×D×H 175×155×40 mm • Ready for use: Batteries included, 9 V block, operating time up to 20 h • Net weight approx. 0,70 kg	• Dimensions weighing surface, stainless steel, W×D 150×120 mm • Overall dimensions W×D×H 170×150×40 mm • Ready for use: Batteries included, 9 V block, operating time up to 24 h • Net weight 0,80 kg
Accessories	• Protective working cover, scope of delivery: 5 items, KERN FOB-A11S05	• Protective working cover, scope of delivery: 5 items, KERN FOB-A12S05
	• External mains adapter, KERN FOB-A09	

STANDARD

CAL EXT	UNIT	IP 65	BATT	DMS	1 DAY
		FOB-NS			

OPTION

230 V	DAkkS +3 DAYS

Model KERN	Weighing capacity [Max] kg	Readability [d] g	Weighing plate W×D mm		Options **DAkkS Calibr. Certificate** **DAkkS** KERN	
FOB 500-1S	0,5	0,1	155×125		963-127	
FOB 5K1S	5	1	155×125		963-127	
FOB 0.5K-4NS	0,5	0,1	150×120		963-127	
FOB 5K-3NS	5	1	150×120		963-127	

Stainless steel bench scale KERN FOB · FOB-NL

Compact stainless steel bench (FOB) scale with special checkweighing display for even more efficient working

	KERN FOB	**KERN FOB-NL**
Features	• Stainless steel design of the housing and weighing plate. Its smooth surfaces make it simple to clean • High mobility: thanks to battery operation, compact, lightweight construction, it is suitable for the use in several locations (kitchen, sales office, cafeteria, Food industry-Laboratory etc.) • Your support in a HACCP-compliant quality system • Protective working cover included with delivery	
	• Innovative weighing with tolerance range (Checkweighing): The colour of the display changes depending on the weight (too light/ok/too heavy) and is an aid to help with portioning, dosing and grading • Secure and non-slip positioning through rubber feet • Increased protection against humidity through waterproof silicone sealing of the load cell, electronics and soldering joints	• Ideal for the increased hygienic requirements in the food industries • Protection against dust and water spashes IP67 (only when using battery)
Technical data	• Large backlit LCD display, digit height 20 mm • Overall dimensions W×D×H 240×180×60 mm • Net weight approx. 2,0 kg	• Large backlit LCD display, digit height 25 mm • Overall dimensions W×D×H 285×255×90 mm • Ready for use: Batteries included, 4×1.5 V AA, operating time up to 48 h • Net weight approx. 3,8 kg
	• Permissible ambient temperature 5 °C/35 °C	
Accessories	• Protective working cover, scope of delivery: 5 items, KERN FOB-A05S05 • Internal rechargable battery pack, operating time up to 24 h without backlight, charging time approx. 8 h, KERN FOB-A07	• Protective working cover, scope of delivery: 5 items, KERN FOB-A13S05 • Mains adapter external, not included, KERN FOB-A01
	• Tare pan made from stainless steel, Ideal for weighing loose small parts as well as fruit, vegetables, etc., KERN RFS-A02	

STANDARD — CAL EXT | TOL | 230 V | DMS | 1 DAY   OPTION — ACCU | DAkkS +3 DAYS

STANDARD — CAL EXT | UNIT | IP 67 | BATT | DMS | 1 DAY   OPTION — 230 V | DAkkS +3 DAYS

Model	Weighing capacity	Readability	Weighing plate		Option	
					DAkkS Calibr. Certificate	
KERN	[Max] kg	[d] g	mm		**DAkkS** KERN	
FOB 1.5K0.5	1,5	0,5	175×165		963-127	
FOB 3K1	3	1	175×165		963-127	
FOB 6K2	6	2	175×165		963-128	
FOB 3K-4NL	3	0,2	252×200		963-127	
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readibility [d]						
FOB 7K-4NL	5 | 7,5	0,5 | 1	252×200		963-128	
FOB 10K-3NL	8 | 15	1 | 2	252×200		963-128	
FOB 30K-3NL	16 | 30	2 | 5	252×200		963-128	

IP protected bench scale KERN WTB

07 Ideal for food industry, thanks to its IP65 protection and special checkweighing display, now also with EC type approval [M]

Features

- Suitable for the ever-increasing hygienic requirements in the food industry
- Your support in a HACCP-compliant quality system
- ▮1 Protection against dust and water splashes IP65 (only when using rechargeable battery pack)
- Very fast display: steady weight values within 2 s
- ▮2 Second display on the rear of the balance
- Compact size, practical for small spaces
- ▮3 Innovative weighing with tolerance range (Checkweighing): The colour of the display changes depending on the weight (too light/ ok/too heavy) and is an aid to help with portioning, dosing and grading

- High mobility: thanks to rechargeable battery operation (optional), compact, lightweight construction, it is suitable for the use in several locations
- Recessed grips on the underside of the scale for easy transportation
- Protective working cover included with delivery

Technical data

- Large backlit LCD display, digit height 25 mm
- Weighing plate dimensions, stainless steel, W×D 260×200 mm
- Overall dimensions W×D×H 285×315×128 mm
- Net weight approx. 3,2 kg
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN RFB-A01S05
- Internal rechargeable battery pack, operating time up to 50 h without backlight, charging time approx. 12 h, KERN WTB-A01N
- ▮4 Tare pan made from stainless steel, ideal for weighing loose small parts as well as fruit, vegetables, etc 370×240×20 mm, KERN RFS-A02

STANDARD

| CAL EXT | TOL | IP 65 | MULTI | DMS | 1 DAY |

OPTION

| ACCU | DAkkS +3 DAYS |

FACTORY

| M +3 DAYS WTB-NM |

Model	Weighing capacity	Readability	Verification value	Minimal load		Option	
						Verification	**DAkkS Calibr. Certificate**
KERN	[Max] kg	[d] g	[e] g	[Min] g		M Ⅲ KERN	DAkkS KERN
WTB 1K-4N	1,5	0,2	-	-		-	963-127
WTB 3K-4N	3	0,5	-	-		-	963-127
WTB 6K-3N	6	1	-	-		-	963-128
WTB 10K-3N	15	2	-	-		-	963-128
WTB 30K-3N	30	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.							
WTB 1K-4NM	1,5	0,5	0,5	10		965-227	963-127
WTB 3K-3NM	3	1	1	20		965-227	963-127
WTB 6K-3NM	6	2	2	40		965-228	963-128
WTB 10K-3NM	15	5	5	100		965-228	963-128
WTB 30K-2NM	30	10	10	200		965-228	963-128

IP protected bench scale KERN FFN

All-round bench scale, protected by stainless steel and IP65 rating, also with EC type approval [M]

Features

- 1 Ideal for the ever-increasing hygienic requirements in the food, pharmaceutical and chemical industries
- Your support in a HACCP-compliant quality system
- 2 Ideal for the robust industrial applications
- 3 Protection against dust and water splashes IP65 (only when using rechargeable battery pack
- High mobility: thanks to rechargeable battery operation, compact, lightweight construction, it is suitable for the use in several locations (kitchen, sales office, cafeteria, Food industry-Laboratory etc.)
- Stainless steel design of the housing and weighing plate. Its smooth surfaces make it simple to clean
- Recessed grips on the underside of the scale for easy transportation

Technical data

- Large backlit LCD display, digit height 25 mm
- Dimensions weighing surface, stainless steel, W×D 230×190 mm
- Overall dimensions W×D×H 230×300×130 mm
- Internal rechargeable battery pack, operating time up to 50 h without backlight, charging time approx. 12 h
- Net weight approx. 4,0 kg
- Permissible ambient temperature
  KERN FFN-N: 0 °C/40 °C
  KERN FFN-NM: -10 °C/40 °C

Accessories

- Tare pan made from stainless steel. Ideal for weighing loose small parts as well as fruit, vegetables, etc., KERN RFS-A02

STANDARD						OPTION	FACTORY
CAL EXT	UNIT	IP 65	ACCU	B MULTI	DMS	1 DAY	DAkkS +3 DAYS	M +3 DAYS

Model	Weighing capacity	Readability	Verification value	Minimal load		Option	
						Verification	DAkkS Calibr. Certificate
KERN	[Max] kg	[d] g	[e] g	[Min] g		M KERN	DAkkS KERN
FFN 1K-4N	1,5	0,2	-	-		-	963-127
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 1K-4NM	1,5	0,5	0,5	10		965-227	963-127
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 bench scale KERN FXN · FXN-M

Robust, space-saving bench scale, protected by stainless steel and IP68 rating

Features

- Suitable for the ever-increasing hygienic requirements in the food industry
- Your support in a HACCP-compliant quality system
- Ideal for the robust industrial applications
- Very high class of protection against dust and water IP68, ideal for harsh ambient conditions. Submersion in water actually possible
- Particularly suitable to determine the specific weight of organs, tissues, etc. in Pathology or in the laboratory
- Stainless steel design of the housing and weighing plate. Its smooth surfaces make it simple to clean
- Very fast display: steady weight values within 2 s
- High mobility: thanks to battery operation, compact, lightweight construction, it is suitable for the use in several locations
- ◫ Recessed grips on the underside of the scale for easy transportation

- Weighing with tolerance range (checkweighing): a visual and audible signal helps with portioning, dispensing or grading

Technical data

- Large backlit LCD display, (FXN-M: green) digit height 25 mm
- Dimensions weighing surface, stainless steel, W×D 236×195 mm
- Overall dimensions W×D×H 240×280×120 mm
- Ready for use: Batteries included, 4×1.5 V Size D, Operating time without backlight FXN-N up to 200 h, FXN-M 500 h, AUTO-OFF function to preserve the battery
- Net weight 3,2 kg
- Permissible ambient temperature -10 °C/40 °C

Accessories

- ▣ Tare pan made from stainless steel. Ideal for weighing loose small parts as well as fruit, vegetables, etc. W×D×H 370×240×20 mm, KERN RFS-A02

Note: Official verification is mandatory for commerical trade.

STANDARD

| CAL EXT | PCS | UNIT | TOL | IP 68 | BATT | DMS | 1 DAY |

OPTION

| DAkkS +3 DAYS |

FACTORY

| M +3 DAYS |

Model KERN	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Smallest part weight [Normal] g/piece		Option	
							Verification MⅢ KERN	DAkkS Calibr. Certificate DAkkS KERN
FXN 3K-4N	3	0,5	–	–	5		–	963-127
FXN 6K-3N	6	1	–	–	10		–	963-128
FXN 10K-3N	15	2	–	–	20		–	963-128
FXN 30K-3N	30	5	–	–	50		–	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.								
FXN 3K-3M	3	1	1	20	5		965-227	963-127
FXN 6K-3M	6	2	2	40	10		965-228	963-128
FXN 10K-3M	15	5	5	100	20		965-228	963-128
FXN 30K-2M	30	10	10	200	50		965-228	963-128

Stainless steel platform scale KERN SFB-H · SFB

EasyTouch

Stainless steel platform scales with IP65/67 protection, also with XL platform or EC type approval [M]

Features

- Ideal for the robust industrial applications
- **1** Platform: made entirely of stainless steel, silicone-coated Stainless Steel load cell, protection against dust and water splashes IP67
- **2** Display device: Stainless steel, protection against dust and water splashes IP65, (only when using rechargeable battery pack)
- **3** SFB-H: Column, standard, for models with weighing plate size
  300×240 mm: Height of stand approx. 200 mm
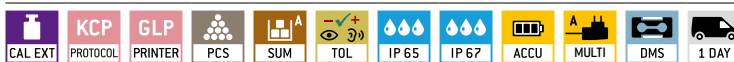 400×300 mm: Height of stand approx. 400 mm

Technical data

- Large backlit LCD display, digit height 52 mm
- Dimensions of display device W×D×H 266×165×96 mm
- Cable length of display device approx. 3 m
- Internal rechargeable battery pack, operating time up to 35 h without backlight, 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, RS 232 data interface including interface cable, KERN KFN-A01
- Stand to be screwed onto the platform, height of stand approx. 600 mm, KERN SFB-A01
- **4** Stand to elevate display device, height of stand approx. 800 mm, KERN BFS-A07
- Bluetooth data interface for wireless data transfer to PC or tablets, must be ordered at purchase, not possible in combination with RS 232 data interface or verification, KERN KFB-A03
- Further details, plenty of further accessories and suitable printers see Accessories
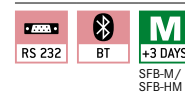
STANDARD

CAL EXT | KCP PROTOCOL | GLP PRINTER | PCS | SUM | TOL | IP 65 | IP 67 | ACCU | MULTI | DMS | 1 DAY

OPTION ET | DAkkS +3 DAYS

FACTORY RS 232 | BT | M +3 DAYS SFB-M/ SFB-HM

Model	Weighing capacity [Max]	Readability [d]	Verification value [e]	Minimal load [Min]	Net weight approx.	Weighing plate W×D	Option		
								Verification	DAkkS Calibr. Certificate
KERN	kg	g	g	g	kg			M⬛ KERN	DAkkS KERN
SFB 50K-3XL	50	5	–	–	14	500×400		–	963-128
SFB 100K-2XL	100	10	–	–	24	650×500		–	963-129
with elevated display									
SFB 10K1HIP	10	1	–	–	8	300×240		–	963-128
SFB 20K2HIP	20	2	–	–	8	300×240		–	963-128
SFB 50K5HIP	50	5	–	–	8	300×240		–	963-128
SFB 50K5LHIP	50	5	–	–	10	400×300		–	963-128
SFB 100K10HIP	100	10	–	–	10	400×300		–	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	14	500×400		965-229	963-129
SFB 100K-2LM	150	50	50	1000	14	500×400		965-229	963-129
SFB 100K-2XLM	150	50	50	1000	24	650×500		965-229	963-129
with elevated display									
SFB 15K5HIPM	15	5	5	100	8	300×240		965-228	963-128
SFB 30K10HIPM	30	10	10	200	8	300×240		965-228	963-128
SFB 60K20LHIPM	60	20	20	400	10	400×300		965-229	963-129
SFB 100K-2HM	150	50	50	1000	10	400×300		965-229	963-129

Stainless steel platform scale KERN SXS

High-quality stainless steel platform scale with stainless steel IP68 display device – now also as high resolution version with high-resolution display

Piece counting

Recipe-weighing

Thanks to the stainless steel design of the evaluation unit and platform with smooth surface – the scale is rust-free and easy to clean

Stainless steel platform scale KERN SXS

Features

- Ideal for the robust industrial applications
- ① Platform: made entirely of stainless steel, hermetically welded stainless steel load cell, dust and spray protection to IP68. Substruction in wing design, extremely resistant to bending. Earthed weighing plate, to reduce static charge
- Display device: Stainless steel, protection against dust and water splashes IP68, integrated power supply
- Suitable for the ever-increasing hygienic requirements in the food industry
- Wall mount for display device, standard
- Superior display size: digit height 55 mm, bright backlight for easy reading of weighing results, even in poor lighting conditions
- Easy-to use KERN menu structure with printout of weighing results which can be intuitively adapted
- Thanks to interfaces such as RS-232, RS-485 and Bluetooth (optional) the scale can easily be connected to existing networks and facilitates the data exchange between the scale and printer
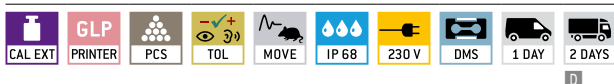
Technical data

- Large backlit LCD display, digit height 55 mm
- Weighing plate dimensions, stainless steel W×D×H
  - Ⓐ 300×240×86 mm, see larger picture
  - Ⓑ 400×300×89 mm
  - Ⓒ 500×400×123 mm
  - Ⓓ 650×500×133,5 mm
- Dimensions of display device W×D×H 232×170×80 mm
- Cable length of display device approx. 2,5 m

Accessories

- ② Stand to elevate display device, for models with weighing plate size
  Ⓐ–Ⓓ Height of stand approx. 200 mm, KERN IXS-A02
  Ⓑ–Ⓓ Height of stand approx. 400 mm, KERN IXS-A03
  Ⓒ–Ⓓ Height of stand approx. 600 mm, KERN IXS-A04
- ③ Internal rechargeable battery pack, operating time up to 80 h without backlight, charging time approx. 12 h, must be ordered at purchase, KERN GAB-A04
- Data interface RS-232, interface cable included, approx. 1,5 m, must be ordered at purchase, KERN KXS-A04
- Data interface RS-485, must be ordered at purchase, KERN KXS-A01
- Foot switch, must be ordered at purchase, KERN KXS-A03
- Bluetooth data interface for wireless data transfer to PC or tablets, must be ordered at purchase, not in combination with verification, KERN KXS-A02
- Further details, plenty of further accessories and suitable printers see *accessories*
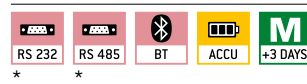
07

STANDARD | CAL EXT | GLP PRINTER | PCS | TOL | MOVE | IP 68 | 230 V | DMS | 1 DAY | 2 DAYS D · OPTION ET | DAkkS +3 DAYS · FACTORY RS 232 * | RS 485 * | BT | ACCU | M +3 DAYS

Model KERN	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Linearity g	Weighing plate	Option Verification M⦚ KERN	Option DAkkS Calibr. Certificate DAkkS KERN
High resolution readability								
SXS 6K-3 [NEW]	6	0,5	–	–	± 1,5	Ⓐ	–	963-128
SXS 10K-3 [NEW]	15	1	–	–	± 3	Ⓐ	–	963-128
SXS 10K-3L [NEW]	15	1	–	–	± 3	Ⓑ	–	963-128
SXS 30K-2 [NEW]	30	2	–	–	± 6	Ⓑ	–	963-128
SXS 30K-2L [NEW]	30	2	–	–	± 6	Ⓒ	–	963-128
SXS 60K-2 [NEW]	60	5	–	–	± 15	Ⓑ	–	963-129
SXS 60K-2L [NEW]	60	5	–	–	± 15	Ⓒ	–	963-129
SXS 100K-2 [NEW]	150	10	–	–	± 30	Ⓒ	–	963-129
SXS 100K-2L [NEW]	150	10	–	–	± 30	Ⓓ	–	963-129
SXS 300K-2 [NEW]	300	20	–	–	± 60	Ⓓ	–	963-129
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readibility [d]								
SXS 6K-3M	3 | 6	1 | 2	1 | 2	20 | 40	± 1 | 2	Ⓐ	965-228	963-128
SXS 10K-3M	6 | 15	2 | 5	2 | 5	40 | 100	± 2 | 5	Ⓐ	965-228	963-128
SXS 10K-3LM	6 | 15	2 | 5	2 | 5	40 | 100	± 2 | 5	Ⓑ	965-228	963-128
SXS 30K-2M	15 | 30	5 | 10	5 | 10	100 | 200	± 5 | 10	Ⓑ	965-228	963-128
SXS 30K-2LM	15 | 30	5 | 10	5 | 10	100 | 200	± 5 | 10	Ⓒ	965-228	963-128
SXS 60K-2M	30 | 60	10 | 20	10 | 20	200 | 400	± 10 | 20	Ⓑ	965-229	963-129
SXS 60K-2LM	30 | 60	10 | 20	10 | 20	200 | 400	± 10 | 20	Ⓒ	965-229	963-129
SXS 100K-2M	60 | 150	20 | 50	20 | 50	400 | 1000	± 20 | 50	Ⓒ	965-229	963-129
SXS 100K-2LM	60 | 150	20 | 50	20 | 50	400 | 1000	± 20 | 50	Ⓓ	965-229	963-129
SXS 300K-2M	150 | 300	50 | 100	50 | 100	1000 | 2000	± 50 | 100	Ⓓ	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.								

[NEW] New model

* Either RS-232 or RS-485 can be installed and used

> Large LCD display with four displays

> TARE value display

> Calculation of change

> Stand to elevate display device

> Mains operation and rechargeable battery pack (optional)

> Practical second display on the back of the balance

Price computing scales

Price computing scales are used wherever the price of goods is calculated dependent on the weight of the goods. These scales are subject to obligatory verification (▶ *Verification*) in accordance with European Directive 2014/31/EU. Usually, these are verification class M⦀ scales

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 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 showing you all important information at a glance:
· Weight display in kg (verifiable)
· Unit price in €/kg or €/100 g
· Total price in €

NOTE: The KERN RFE range also displays the TARE or PRE-TARE value, which enables this value to be stored in a legally binding way in accordance with the Weights and Measures Act.

Even the KERN entry level retail scales have direct access keys for memories (▶ **PLU**), The sales item with the relevant price can be stored against these PLU. In this way, frequently used sales items can called up at lightning speed. This accelerates customer service and reduces waiting times.

Quick-Finder Price computing scales

Readability [d] g	Weighing capacity [Max] kg	Model KERN	Page		DAYS	M	CAL EXT	RS 232	MEMORY	ACCU
							For an explanation on the pictos, see front flap			
0,5 | 1	1,5 | 3	RPB 3K3DM	68	1	○	●	●	●	●	○
0,5 | 1	1,5 | 3	RPB 3K3DHM	68	1	○	●	●	●	●	○
1 | 2	3 | 6	RIB 6K-3M	67	1	○	●	●		●	○
1 | 2	3 | 6	RIB 6K-3HM	67	1	○	●	●		●	○
1 | 2	3 | 6	RPB 6K1DM	68	1	○	●	●	●	●	○
1 | 2	3 | 6	RPB 6K1DHM	68	1	○	●	●	●	●	○
1 | 2	3 | 6	RFE 6K3M	69	1	○	●	●	●	●	○
2 | 5	6 | 15	RIB 10K-3M	67	1	○	●	●		●	○
2 | 5	6 | 15	RIB 10K-3HM	67	1	○	●	●		●	○
2 | 5	6 | 15	RPB 15K2DM	68	1	○	●	●	●	●	○
2 | 5	6 | 15	RPB 15K2DHM	68	1	○	●	●	●	●	○
2 | 5	6 | 15	RFE 15K3M	69	1	○	●	●	●	●	○
5 | 10	15 | 30	RIB 30K-2M	67	1	○	●	●		●	○
5 | 10	15 | 30	RIB 30K-2HM	67	1	○	●	●		●	○
5 | 10	15 | 30	RPB 30K5DM	68	1	○	●	●	●	●	○
5 | 10	15 | 30	RPB 30K5DHM	68	1	○	●	●	●	●	○
5 | 10	15 | 30	RFE 30K3M	69	1	○	●	●	●	●	○

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● = standard ○ = option

Price computing scale KERN RIB

Robust retail scale with large item memory, user-friendly handling and EC type approval [M]

Features

- 1 KERN RIB-HM: Elevated display backlit, height of stand approx. 530 mm, must be ordered at purchase
- 2 KERN RIB-M: Second display on the rear of the balance
- Three displays for weight display (verifiable), unit price, total price
- Soil-resistant construction through water channels at the frame of the housing and sealing rings over the upper housing inlets
- 10 Direct price keys for frequently recurring article prices
- Memory (PLU) for 20 article prices
- Energy management: Backlight turns off after 5 s, can be switched off
- Protective working cover included with delivery

Technical data

- Large backlit LCD displays, digit height 18 mm
- Dimensions weighing surface, stainless steel, W×D 294×225 mm
- Overall dimensions W×D×H
  KERN RIB-M: 325×400×115 mm
  KERN RIB-HM: 325×340×405 mm
- Net weight
  KERN RIB-M: approx. 3,2 kg
  KERN RIB-HM: approx. 3,8 kg
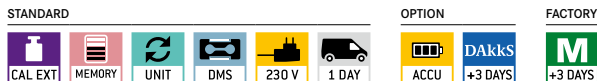- Permissible ambient temperature
  -10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN RIB-A01S05
- Internal rechargeable battery pack, operating time up to 80 h without backlight, charging time approx. 14 h, KERN GAB-A04
- 3 Tare pan made of stainless steel, ideal for weighing loose small parts as well as fruit, vegetables etc., W×D×H 370×240×20 mm, KERN RFS-A02

Application examples

- retail shops
- weekly markets
- farm shops
- pick your own fruit and vegetable sales

Note: Official verification is mandatory for commerical trade.

STANDARD

| CAL EXT | MEMORY | UNIT | DMS | 230 V | 1 DAY |

OPTION

| ACCU | DAkkS +3 DAYS |

FACTORY

| M +3 DAYS |

Model	Weighing capacity	Readability	Verification value	Minimal load		Option	
						Verification	DAkkS Calibr. Certificate
KERN	[Max] kg	[d] g	[e] g	[Min] g		M Ⅲ KERN	DAkkS KERN
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readibility [d]							
RIB 6K-3M	3 | 6	1 | 2	1 | 2	20 | 40		965-228	963-128
RIB 10K-3M	6 | 15	2 | 5	2 | 5	40 | 100		965-228	963-128
RIB 30K-2M	15 | 30	5 | 10	5 | 10	100 | 200		965-228	963-128
with elevated display							
RIB 6K-3HM	3 | 6	1 | 2	1 | 2	20 | 40		965-228	963-128
RIB 10K-3HM	6 | 15	2 | 5	2 | 5	40 | 100		965-228	963-128
RIB 30K-2HM	15 | 30	5 | 10	5 | 10	100 | 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 RPB

Retail scale with memories for item prices – now with Checkout-Dialogue 06

4 New: Checkout Dialog 06 – This dialog describes the communication procedure between a checkout scale in customer traffic and a freely programmable POS system, consisting of POS hardware and software. The aim of the Checkout Dialog 06 is to make manipulation of the data streams by third parties in principle impossible in freely programmable POS systems.
Note: Other protocols on request.

08

Features

- Modern, ergonomic design and a housing which is even more compact, supporting efficient operation and saving space
- 1 KERN RPB-HM: Elevated display backlit, revolving on column, height of stand approx. 480 mm, must be ordered at purchase
- 2 KERN RPB-M: Second display on the rear of the balance
- Three displays for weight display (verifiable), unit price, total price
- Memory (PLU) for 10 article prices
- 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

- 3 High mobility: thanks to rechargeable battery operation (optional), compact, lightweight construction, it is suitable for the use in several locations
- Protective working cover included with delivery

Technical data

- Large backlit LCD displays, digit height 15 mm
- Dimensions weighing surface, stainless steel, W×D 204×263 mm
- Overall dimensions W×D×H
  RPB-M: 263×313×108 mm
  RPB-HM: 263×313×480 mm
- Net weight
  KERN RPB-M: approx. 2,8 kg
  KERN RPB-HM: approx. 3,2 kg
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN RFC-A02S05
- Internal rechargeable battery pack, operating time up to 50 h without backlight, charging time approx. 12 h, KERN WTB-A01N
- Tare pan made of stainless steel, ideal for weighing loose small parts as well as fruit, vegetables etc., W×D×H 370×240×20 mm, KERN RFS-A02
- Further details, plenty of further accessories and suitable printers see *Accessories*

Application examples

- retail shops
- weekly markets
- farm shops
- pick your own fruit and vegetable sales

Note: Official verification is mandatory for commerical trade.

STANDARD | OPTION | FACTORY

CAL EXT | MEMORY | RS 232 | RECIPE | UNIT | MULTI | DMS | 1 DAY | ACCU | DAkkS +3 DAYS | M +3 DAYS

Model	Weighing capacity	Readability	Verification value	Minimal load		Option		
						Verification	DAkkS Calibr. Certificate	
KERN	[Max] kg	[d] g	[e] g	[Min] g		M Ⅲ KERN	DAkkS KERN	
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readibility [d]								
RPB 3K3DM ⬛NEW	1,5 | 3	0,5 | 1	0,5 | 1	10		965-227	963-127	
RPB 6K1DM	3 | 6	1 | 2	1 | 2	20		965-228	963-128	
RPB 15K2DM	6 | 15	2 | 5	2 | 5	40		965-228	963-128	
RPB 30K5DM	15 | 30	5 | 10	5 | 10	100		965-228	963-128	
with elevated display								
RPB 3K3DHM ⬛NEW	1,5 | 3	0,5 | 1	0,5 | 1	10		965-227	963-127	
RPB 6K1DHM	3 | 6	1 | 2	1 | 2	20		965-228	963-128	
RPB 15K2DHM	6 | 15	2 | 5	2 | 5	40		965-228	963-128	
RPB 30K5DHM	15 | 30	5 | 10	5 | 10	100		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.								

NEW New model

Price computing scale KERN RFE

NEW

PREMIUM ★★★

Compact portion scale with 2 XXL displays – weight, unit price, total price and TARE value at a glance

Features

- Ideal as a salad scale, sweet scale, check-weigher, portion scale or zero-waste scale: Shopping without plastic or packaging waste in packaging-free supermarkets
- Large LCD display with four displays for weight display (verifiable), unit price, total price and stored TARE or PRE-TARE value
- TARE value display: this shows a TARE or PRE-TARE value stored in a PLU, which enables this value to be stored in a legally binding way in accordance with the Weights and Measures Act
- 1 Second display on the rear of the balance
- 2 Column to elevate the display as standard, can be easily fitted or removed by the user. The power cable for the second display can be stored in the folding column which is hygienic and gives a tidy appearance. Column height approx. 395 mm
- 3 Thanks to easily-understandable, universal symbols e.g. for weight, piece weight, total price this balance can also be understood and operated easily all over the world

- 4 Direct price keys for frequently recurring article prices
- Memory (PLU) for 100 article prices
- Article description can be entered, displayed and printed in plain text
- Unit price can be switched from EUR/kg to EUR/100 g
- Auto-clear-key: Unit price entry is automatically set to zero when scale is unloaded
- 3 Headers and footers of the printout can be programmed directly on the balance
- High mobility: thanks to rechargeable battery operation (optional), compact, lightweight construction, it is suitable for the use in several locations
- Recessed grips on the underside of the scale for easy transportation

Technical data

- Large backlit LCD display, digit height 20 mm
- Dimensions weighing surface, stainless steel, W×D 230×300 mm
- Overall dimensions W×D×H 320×450×130 mm
- Net weight approx. 4,2 kg
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Label printer for printing weights on thermal labels, ASCII-capable, for further details, see Accessories, KERN YKE-01
- Rechargeable battery pack internal, operating time up to 60 h with backlight, charging time approx. 12 h, KERN GAB-A04

Application examples

- cafeterias, restaurants, Motorway service stations
- retail shops
- weekly markets
- farm shops
- pick your own fruit and vegetable sales

Note: Official verification is mandatory for commerical trade.

STANDARD						OPTION		FACTORY
CAL EXT	MEMORY	RS 232	UNIT	B MULTI	DMS	1 DAY	ACCU	DAkkS +3 DAYS	M +3 DAYS

Model	Weighing capacity	Readability	Verification value	Minimal load		Option	
						Verification	DAkkS Calibr. Certificate
	[Max]	[d]	[e]	[Min]		M KERN	DAkkS KERN
KERN	kg	g	g	g			
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readibility [d]							
RFE 6K3M	3 | 6	1 | 2	1 | 2	20		965-228	963-128
RFE 15K3M	6 | 15	2 | 5	2 | 5	40		965-228	963-128
RFE 30K3M	15 | 30	5 | 10	5 | 10	100		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.							

KERN CCA

> High-resolution counting system with EC type approval

> Maximum number of countable parts is 999,999

> High-precision reference scale

> Robust quantity scale

> Both scales can be used individually

Counting scales/Counting systems

Interesting facts about counting

Smallest part weight for piece counting
This is the smallest piece weight the scale will accept for piece counting and will display it piece by piece. In practice, depending on the required accuracy, we recommend to choose a counting scale with a minimum piece weight smaller than the weight of the item to be counted. To make it easier for you to select the right model, we specify the smallest part weight when counting under laboratory conditions and normal conditions, see the website.

▶ *Counting resolution*
Describes the maximum quantity which can be counted with a counting accuracy of 1 %, with a minimum variation of item weights and a sufficiently large ▶ *reference quantity* (20 pieces with counting resolution ≤ 60,000 points, 50 pieces from 60,000–150,000 points, 100 pieces ≥ 150,000 points). This therefore is an indication of the quality of the counting scale.

Recommended ▶ *reference quantity*
Weight tolerances of pieces to be counted are the most significant 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 balance, the so-called reference quantity. Usually this would be:

5	pieces	>> often sufficient
10	pieces	>> common practise
20–100	pieces	>> for large deviations among piece weights

The "automatic ▶ *reference optimisation"* function increases the reference quantity gradually, whereby the average piece weight is optimised step by step. This contributes considerably to the accuracy of the subsequent counting processes.

Which counting scale for which application?

Simple counting scale
with self-explanatory user guidance on the keyboard. The graphic control panel enables you to start working immediately, without having to consult 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 quantity of all pieces. Very useful integrated memories, e.g. for container weight, item number, reference weight as well as audible and visual counting aids and an alphanumeric key pad for easy data entry.

**Special tip for counting large quantities: Counting systems**
The weighing capacities of bench counting scales are often not sufficient to count large quantities, units, palletized items, etc. Here high-performance counting systems come into operation, as these combine a high-precision reference scale with a high-capacity bulk scale.

▶ *See the glossary on page 215–217*

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Quick-Finder Counting scales/Counting systems

Readability [d] g	Weighing capacity [Max] kg	Counting resolution Points	Model KERN	Page	DAYS	M	CAL EXT	MEMORY	RS 232	DUAL	ACCU
								For an explanation on the pictos, see front flap			
0,001	0,3	60.000	CFS 300-3	76	1		●	●	●	●	○
0,001	0,36	360.000	CKE 360-3	77	1		●		●		○
0,001	6	1.200.000	CCS 6K-6	82	2		●	●	●	●	○
0,001	15	300.000	CCS 10K-6	82	2		●	●	●	●	○
0,01	3	60.000	CFS 3K-5	76	1		●	●	●	●	○
0,01	3,6	360.000	CKE 3600-2	77	1		●		●		○
0,01	3 | 6	6.000.000	CCA 6K-5M	80	2	○	●	●	●		○
0,01	6 | 15	15.000.000	CCA 10K-5M	80	2	○	●	●	●		○
0,01	30	600.000	CCS 30K0.01.	82	2		●	●	●		○
0,01	15 | 30	30.000.000	CCA 30K-5M	80	2	○	●	●	●		○
0,01	30 | 60	60.000.000	CCA 60K-5M	80	2	○	●	●	●		○
0,01	60	1.200.000	CCS 60K0.01.	82	2		●	●	●		○
0,01	60	1.200.000	CCS 60K0.01L.	82	2		●	●	●		○
0,01	60 | 150	150.000.000	CCA 100K-5M	80	2	○	●	●	●		○
0,01	150	3.000.000	CCS 150K0.1L	82	2		●	●	●	●	○
0,01	150 | 300	300.000.000	CCA 300K-5M	80	2*	○	●	●	●		○
0,01	300	6.000.000	CCS 300K0.01	82	2*		●	●	●	●	○
0,01	600	12.000.000	CCS 600K-2U	82	4*		●	●	●	●	○
0,02	4	200.000	CDS 4K0.02	79	1		●		●		○
0,02	6	300.000	CKE 6K0.02	77	1		●		●		○
0,05	8	160.000	CKE 8K0.05	77	1		●		●		○
0,05	15	300.000	CDS 15K0.05	79	1		●		●		○
0,05	16	320.000	CKE 16K0.05	77	1		●		●		○
0,1	6	60.000	CPB 6K0.1N	75	1		●		●		○
0,1	6	60.000	CFS 6K0.1	76	1		●	●	●	●	○
0,1	16	160.000	CKE 16K0.1	77	1		●		●		○
0,1	16	160.000	CDS 16K0.1	79	1		●		●		○
0,1	30	300.000	CCS 30K0.1.	82	2		●	●	●	●	○
0,1	30	300.000	CDS 30K0.1	79	1		●		●		○
0,1	30	300.000	CDS 30K0.1L	79	1		●		●		○
0,1	36	360.000	CKE 36K0.1	77	1		●		●		○
0,1	60	600.000	CCS 60K0.1.	82	2		●	●	●	●	○
0,1	60	600.000	CCS 60K0.1L.	82	2		●	●	●	●	○
0,1	150	1.500.000	CCS 150K0.1.	82	2		●	●	●	●	○
0,1	150	3.000.000	CCS 150K0.01L	82	2		●	●	●		○
0,1	300	3.000.000	CCS 300K0.1	82	2		●	●	●	●	○
0,1	300 | 600	6.000.000	CCS 600K-1S	82	4*		●	●	●	●	○
0,1	300 | 600	6.000.000	CCS 600K-1	82	4*		●	●	●	●	○
0,1	600 | 1500	15.000.000	CCS 1T-4S	82	4*		●	●	●	●	○
0,1	600 | 1500	15.000.000	CCS 1T-4	82	4*		●	●	●	●	○
0,1	1500	15.000.000	CCS 1T-1U	82	4*		●	●	●	●	○
0,1	1500	15.000.000	CCS 1T-1L	82	4*		●	●	●	●	○
0,1	1500 | 3000	30.000.000	CCS 3T-3	82	4*		●	●	●	●	○
0,1	1500 | 3000	30.000.000	CCS 3T-3L	82	4*		●	●	●	●	○
0,1 | 0,2	3 | 6	60.000	IFS 6K-4S	78	1		●	●	●		○
0,1 | 0,2	6 | 15	75.000	IFS 10K-4	78	1		●	●	●		○
0,2	3	30.000	CIB 3K-4	73	1		●				●
0,2	3	30.000	CXB 3K0.2	74	1		●				●
0,2	15	60.000	CPB 15K0.2N	75	1		●		●		○
0,2	15	75.000	CFS 15K0.2	76	1		●	●	●	●	○
0,2	36	180.000	CDS 36K0.2L	79	1		●		●		○
0,2	60	300.000	CDS 60K0.2	79	1		●		●		○
0,2	65	325.000	CKE 65K0.2	77	1		●		●		○
0,2 | 0,5	12 | 30	60.000	IFS 30K0.2DL	78	1		●	●	●		○
0,5	6	30.000	CIB 6K-4	73	1		●				●
0,5	6	30.000	CXB 6K0.5	74	1		●				●
0,5	30	60.000	CPB 30K0.5N	75	1		●		●		○
0,5	30	60.000	CFS 30K0.5	76	1		●	●	●	●	○
0,5 | 1	30 | 60	60.000	IFS 60K0.5D	78	1		●	●	●		○
0,5 | 1	30 | 60	60.000	IFS 60K0.5DL	78	1		●	●	●		○
1	3	30.000	CXB 3K1NM	74	1	○	●				●
1	15	30.000	CIB 10K-3	73	1		●				●
1	15	30.000	CXB 15K1	74	1		●				●
1	50	50.000	CFS 50K-3	76	1		●	●	●	●	○
1 | 2	3 | 6	30.000	CCA 6K-4M	80	1	○	●	●	●		○
1 | 2	3 | 6	60.000	IFS 6K-3SM	78	1	○	●	●	●		○
1 | 2	3 | 6	60.000	IFS 6K-3M	78	1	○	●	●	●		○
1 | 2	3 | 6	60.000	CPB 6K1DM	75	1	○	●		●		○
1 | 2	75 | 150	60.000	IFS 100K-3	78	1		●	●	●		○
1 | 2	75 | 150	60.000	IFS 100K-3L	78	1		●	●	●		○
2	6	30.000	CXB 6K2NM	74	1	○	●				●

News 2022 * Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs ● = standard ○ = option

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Quick-Finder Counting scales/Counting systems

Readability [d] g	Weighing capacity [Max] kg	Counting resolution Points	Model KERN	Page	DAYS	M	CAL EXT	MEMORY	RS 232	DUAL	ACCU
							For an explanation on the pictos, see front flap				
2	30	30.000	CIB 30K-3	73	1		●				●
2	30	30.000	CXB 30K2	74	1		●				●
2 | 5	6 | 15	60.000	CPB 15K2DM	75	1	○	●		●		○
2 | 5	6 | 15	75.000	IFS 10K-3M	78	1	○	●	●	●		○
2 | 5	6 | 15	75.000	IFS 10K-3LM	78	1	○	●	●	●		○
2 | 5	6 | 15	75.000	IFS 300K-3	78	1		●	●	●		○
2 | 5	6 | 15	75.000	CCA 10K-4M	80	1	○	●	●	●		○
5	15	30.000	CXB 15K5NM	74	1	○	●				●
5	150	3.000.000	CCS 150K0.01	82			●	●	●	●	○
5 | 10	15 | 30	1.500.000	CCA 30K-4M	80	1	○	●	●	●		○
10	30	30.000	CXB 30K10NM	74	1	○	●				●
10 | 20	30 | 60	60.000	IFS 60K-2M	78	1	○	●	●	●		○
10 | 20	30 | 60	60.000	IFS 60K-2LM	78	1	○	●	●	●	●	○
10 | 20	30 | 60	3.000.000	CCA 60K-4M	80	1	○	●	●	●		○
20 | 50	60 | 150	60.000	IFS 100K-2M	78	1	○	●	●	●	●	○
20 | 50	60 | 150	60.000	IFS 100K-2LM	78	1	○	●	●	●	●	○
20 | 50	60 | 150	7.500.000	CCA 100K-4M	80	1	○	●	●	●		○
50	15 | 30	60.000	CPB 30K5DM	75	1	○	●		●		○
50	15 | 30	60.000	IFS 30K-3M	78	1	○	●	●	●		○
50	150	1.500.000	IFS 300K-2M	78	1	○	●	●	●	●	○
50 | 100	150 | 300	15.000.000	CCA 300K-4M	80	1	○	●	●	●		○

◼ News 2022   * Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs   ● = standard   ○ = option

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Counting scale KERN CIB

Robust counting scale with large article memory, convenient operating philosophy and checkweighing display, counting resolution up to 30,000 points

Features

- Innovative counting with tolerance range (Checkweighing):
  The counting process can be supported visually and/or audibly and this therefore makes portion division, dispensing and grading easier
  - visual signal: the colour of the display changes depending on the counting result (not enough/ok/too much)
  - audible signal: the frequency of the audible signal changes depending on the counting result (not enough/ok/too much)
- Ideal for workshops for people with disabilities, particularly loud or quiet environments, where operators change frequently, etc.
- Three displays for weight display, reference weight, total pieces
- Precise counting: The automatic reference weight optimisation of reference weight gradually improves the average piece weight value
- Programmable using numerical key pad:
  - required reference quantity
  - known reference weight

- Counting results memory: adds up all individual piece counts, result is shown in total weight and total pieces
- PRE-TARE function for manual subtraction of a known container weight, useful for checking fill-levels
- 20 direct price keys for frequently recurring reference weights and PRE-Tare values
- Memory for 50 reference weights and PRE-Tare values
- High mobility: thanks to battery operation, compact, lightweight construction, it is suitable for the use in several locations
- Two balances in one: Changes from counting mode to weighing mode at the touch of a key
- Energy management: Backlight turns off after 5 sec, can be switched off
- Protective working cover included with delivery

Technical data

- Large backlit LCD displays, digit height 18 mm
- Dimensions weighing surface, Stainless Steel, W×D 350×215 mm Overall dimensions W×D×H, 350×330×120 mm
- Net weight approx. 4,0 kg
- Permissible ambient temperature, Permissible ambient temperature -10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN RIB-A01S05
- Internal rechargeable battery pack, operating time up to 160 h without backlight, charging time approx. 14 h, KERN GAB-A04

STANDARD
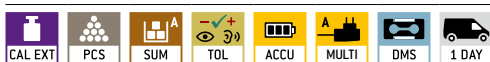
| CAL EXT | PCS | SUM | TOL | ACCU | MULTI | DMS | 1 DAY |

OPTION

| DAkkS +3 DAYS |

Model KERN	Weighing capacity [Max] kg	Readability [d] g	Smallest part weight [Normal] g/piece	Counting resolution Points	Option DAkkS Calibr. Certificate DAkkS KERN	
CIB 3K-4	3	0,2	1	30.000	963-127	
CIB 6K-4	6	0,5	2	30.000	963-128	
CIB 10K-3	15	1	5	30.000	963-128	
CIB 30K-3	30	2	10	30.000	963-128	

Counting scale KERN CXB · CXB-NM

Note: Official verification is mandatory for commerical trade.

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

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Features

- Precise counting: The automatic reference weight optimisation of reference weight gradually improves the average piece weight value
- Programmable using numerical key pad:
  - required reference quantity
  - known reference weight
- Three displays for weight display, reference weight, total pieces
- Audible Fill-to-target: target quantity or target weight can be programmed, e. g. for checkweighing. When the target value is reached, a signal will sound
- 10 memories for reference weights
- Counting results memory: adds up all individual piece counts, result is shown in total weight and total pieces
- Energy management: Backlight turns off after 5 sec

- PRE-TARE function for manual subtraction of a known container weight, useful for checking fill-levels
- Two balances in one: Changes from counting mode to weighing mode at the touch of a key
- Protective working cover included with delivery
- Internal rechargeable battery pack included with the delievery

Technical data

- Large backlit LCD displays, digit height 18 mm
- Dimensions weighing surface, Stainless Steel, W×D 300×225 mm
- Dimensions housing W×D×H, 300×330×110 mm
- Internal rechargeable battery pack, operating time up to 200 h without backlight, charging time approx. 8 h
- Net weight approx. 4,0 kg
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN CXB-A01S05
- Internal rechargable battery pack, operating time up to 200 h without backlight, charging time approx. 8 h, KERN GAB-A04

STANDARD
| CAL EXT | PCS | SUM | ACCU | 230 V | DMS | 1 DAY |

OPTION
| DAkkS +3 DAYS |

FACTORY
| M +3 DAYS CXB-NM |

Model KERN	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Smallest part weight [Normal] g/piece	Counting resolution Points	Net weight approx. kg	Option Verification M(III) KERN	DAkkS Calibr. Certificate DAkkS KERN
CXB 3K0.2	3	0,2	-	-	1	30.000	4,0	-	963-127
CXB 6K0.5	6	0,5	-	-	2	30.000	4,0	-	963-128
CXB 15K1	15	1	-	-	5	30.000	4,0	-	963-128
CXB 30K2	30	2	-	-	10	30.000	4,2	-	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 3K1NM	3	1	1	20	1	30.000	4,0	965-227	963-127
CXB 6K2NM	6	2	2	40	2	30.000	4,2	965-228	963-128
CXB 15K5NM	15	5	5	100	5	30.000	4,0	965-228	963-128
CXB 30K10NM	30	10	10	200	10	30.000	4,2	965-228	963-128

Counting scale KERN CPB

Note: Official verification is mandatory for commercial trade.

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

Features

- Precise counting: The automatic reference weight optimisation of reference weight gradually improves the average piece weight value
- Programmable using numerical key pad:
  - required reference quantity
  - known reference weight
- Three displays for weight display, reference weight, total pieces
- Counting results memory: adds up all individual piece counts, result is shown in total weight and total pieces
- Fill-to-target function: Target count or target weight can be programmed. When the target weight is reached there is an audible and visual signal
- PRE-TARE function for manual subtraction of a known container weight, useful for checking fill-levels

- High mobility: thanks to rechargeable battery operation (optional), compact, lightweight construction, it is suitable for the use in several locations (production, warehouse, dispatch department etc.)
- Two balances in one: Changes from counting mode to weighing mode at the touch of a key
- Protective working cover included with delivery

Technical data

- Large backlit LCD displays, digit height 20 mm
- Dimensions weighing surface, Stainless Steel, W×D 295×225 mm Overall dimensions W×D×H 315×350×105 mm
- Net weight approx. 3,2 kg
- Permissible ambient temperature 0 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN CFS-A02S05
- Internal rechargeable battery pack, operating time up to 90 h without backlight, charging time approx. 12 h, KERN GAB-A04
- 1 Signal lamp for visual support of weighing with tolerance range, only in combination with, KERN CFS-A03
- Y-cable for parallel connection of two terminal devices to the RS-232 interface on the scale, e.g. signal lamp and printer, KERN CFS-A04
- Further details, plenty of further accessories and suitable printers see *Accessories*

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STANDARD							OPTION	FACTORY

CAL EXT | RS 232 | PROTOCOL | PCS | SUM | TOL | MULTI | DMS | 1 DAY | ACCU | DAkkS +3 DAYS | M +3 DAYS (CPB-DM)

Model KERN	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Smallest part weight [Normal] g/piece	Counting resolution Points		Option Verification M KERN	DAkkS Calibr. Certificate DAkkS KERN
CPB 6K0.1N	6	0,1	-	-	1	60.000		-	963-128
CPB 15K0.2N	15	0,2	-	-	2,5	60.000		-	963-128
CPB 30K0.5N	30	0,5	-	-	5	60.000		-	963-128
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readibility [d]									
Note: For applications that require verification, please order verification at the same time, initial verification at a later date is not possible. Verification at the factory, we need to know the full address of the location of use.									
CPB 6K1DM	3 | 6	1 | 2	1 | 2	20	1	60.000		965-228	963-128
CPB 15K2DM	6 | 15	2 | 5	2 | 5	40	2,5	60.000		965-228	963-128
CPB 30K5DM	15 | 30	5 | 10	5 | 10	100	5	60.000		965-228	963-128

Counting scale KERN CFS

EasyTouch

Professional, high-resolution counting scale with 100 item memories and 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
- Precise counting: The automatic reference weight optimisation of reference weight gradually improves the average piece weight value
- Programmable using numerical key pad:
  - required reference quantity
  - known reference weight
- Three displays for weight display, reference weight, total pieces
- Weighing with tolerance range (checkweighing): a visual and audible signal helps with portioning, dispensing or grading
- Fill-to-target function Programmable target quantity or target weight. A signal will be displayed when the target value is reached
- PRE-TARE function for manual subtraction of a known container weight, useful for checking fill-levels

- Second balance interface to construct a high-resolution counting system, standard, e.g. with weighing bridges of KERN KFP V20
- Draught shield standard for models with weighing plate size Ⓐ, weighing space W×D×H 158×143×64 mm
- Protective working cover included with delivery, for models with weighing plate size Ⓐ, Ⓑ

Technical data

- Large backlit LCD displays, digit height 20 mm
- Dimensions weighing surface
  - Ⓐ Ø 80 mm
  - Ⓑ W×D 295×225 mm
  - Ⓒ W×D 370×240 mm
- Overall dimensions W×D×H
  - Ⓐ 315×350×180 mm (incl. draught shield)
  - Ⓑ 315×350×180 mm
  - Ⓒ 375×350×130 mm
- Permissible ambient temperature 0 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, for models with weighing plate size Ⓐ, Ⓑ, KERN CFS-A02S05
- Internal rechargeable battery pack, operating time up to 70 h without backlight, charging time approx. 14 h, KERN GAB-A04
- Signal lamp for visual support of weighing with tolerance range, only in combination with, KERN CFS-A03
- Y-cable for parallel connection of two terminal devices to the RS-232 interface on the scale, e.g. signal lamp and printer, KERN CFS-A04
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD

| CAL EXT | MEMORY | RS 232 | KCP PROTOCOL | DUAL | SUM | TOL | MULTI | DMS | 1 DAY |

OPTION

| ET | ACCU | DAkkS +3 DAYS |

Model	Weighing capacity [Max]	Readability [d]	Smallest part weight [Normal]	Counting resolution	Net weight approx.	Weighing plate	Option DAkkS Calibr. Certificate
KERN	kg	g	g/piece	Points	kg		**DAkkS** KERN
CFS 300-3	0,3	0,001	0,05	60.000	2,6	Ⓐ	963-127
CFS 3K-5	3	0,01	0,5	60.000	3,4	Ⓑ	963-127
CFS 6K0.1	6	0,1	1	60.000	3,2	Ⓑ	963-128
CFS 15K0.2	15	0,2	2	75.000	3,4	Ⓑ	963-128
CFS 30K0.5	30	0,5	5	60.000	3,4	Ⓑ	963-128
CFS 50K-3	50	1	10	50.000	4,4	Ⓒ	963-128

Counting scale KERN CKE

EasyTouch

A

B

Easy to use, self-explanatory counting scale with laboratory accuracy, counting resolution up to 360,000 points

Features

- Self-explanatory graphic control panel, the workings steps can be understood immediately, even without operating instructions
  - no learning time = reduces costs
  - ideal for untrained users
  - visualised process avoids operating errors
- 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, 20 or any number of pieces)
  3 Confirm the selected reference quantity by pressing the key (5, 10, 20 or any number of pieces)
  4 Pour in the goods to be counted. The number of pieces will immediately be shown in the display
- Precise counting: The automatic reference weight optimisation of reference weight gradually improves the average piece weight value

- Two balances in one: Changes from counting mode to weighing mode at the touch of a key
- Draught shield standard for models with weighing plate size ⌀ 81 mm, weighing space ⌀ 90×40 mm
- Protective working cover included with delivery

Technical data

- Large backlit display
  A, B digit height 9 mm
  C digit height 18 mm
- Dimensions weighing surface
  A ⌀ 81 mm, plastic
  B W×D 150×170 mm, stainless steel
  C W×D 340×240 mm, stainless steel
- Overall dimensions W×D×H
  A, B 167×250×85 mm
  C 350×390×120 mm
- Optional battery operation,6×1.5 V Size C not included, operating time up to 40 h, for models with weighing plate size C
- Permissible ambient temperature 10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, for models with weighing plate size
  A KERN PCB-A02S05
  B KERN PCB-A05S05
  C KERN FKB-A02S05
- Rechargeable battery pack external, operating time up to 30 h without backlight, charging time approx. 10 h, KERN KS-A01
- Internal rechargable battery pack, operating time up to A, B 30 h, C 90 h without backlight, charging time approx. 10 h, A, B KERN KB-01N
  C KERN PCB-A01
- USB data interface, for transferring weighing to the PC, printer etc., for models with weighing plate size C, KERN CKE-A02
- Further details, plenty of further accessories and suitable printers see *Accessories*

09

STANDARD · OPTION · FACTORY

CAL EXT	RS 232	KCP PROTOCOL	GLP PRINTER	PCS	UNIT	TOL	UNDER	BATT	B MULTI	DMS	1 DAY	ET	ACCU	DAkkS +3 DAYS	USB
		C	C			C	ABC	ABC	C						C

Model KERN	Weighing capacity [Max] kg	Readability [d] g	Smallest part weight [Normal] g/piece	Counting resolution Points	Net weight approx. kg	Weighing plate		Option DAkkS Calibr. Certificate DAkkS KERN	
CKE 360-3	0,36	0,001	0,01	360.000	1	A		963-127	
CKE 3600-2	3,6	0,01	0,1	360.000	1,8	B		963-127	
CKE 6K0.02	6	0,02	0,2	300.000	7	C		963-128	
CKE 8K0.05	8	0,05	0,5	160.000	7	C		963-128	
CKE 16K0.05	16	0,05	0,5	320.000	7	C		963-128	
CKE 16K0.1	16	0,1	1	160.000	7	C		963-128	
CKE 36K0.1	36	0,1	1	360.000	7	C		963-128	
CKE 65K0.2	65	0,2	2	325.000	7	C		963-129	

Counting scale KERN IFS

EasyTouch

- Dimensions of display device W×D×H
  260×150×65 mm
- Cable length of display device approx. 3 m
- Permissible ambient temperature -10 °C/40 °C

Industrial counting scale with convenient decimal keypad for easy data entry – now also with EC type approval [M], counting resolution up to 75000 points

Accessories

- Protective working cover, scope of delivery: 5 items, KERN KFB-A02S05
- 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 size D, E, KERN IFB-A02
- Internal rechargeable battery pack, operating time up to 40 h, without backlight, charging time approx. 12 h , must be ordered at purchase, KERN KFB-A01
- ESD drain to protect against electrostatic discharge e.g. for electrostatically-charged weighing objects or people who work with the scale, KERN YGR-01
- Further details, plenty of further accessories and suitable printers see *Accessories*

Features

- Tough industry standard suitable for use in harsh industrial applications
- Ergonomic display device with large keypad and high-contrast LCD display for easy entry and reading of, e.g., tare weights, reference weights, limit values etc.
- Three displays for weight display, reference weight, total pieces
- 100 item memories for master data such as reference weight, reference quantity, container weight (PRE-TARE) etc.
- Printout of date and time for GLP and GMP compliant data logging

- Precise counting: The manual reference weight optimisation gradually improves the average value of the piece weight
- Totalising of pieces when counting
- Protective working cover included with delivery

Technical data

- Large backlit LCD displays, digit height 16,5 mm
- Dimensions weighing surface, Stainless Steel
  A 230×230×110 mm
  B 300×240×110 mm
  C 400×300×120 mm
  D 500×400×140 mm
  E 650×500×140 mm

09

STANDARD												OPTION		FACTORY	
CAL EXT	MEMORY	RS 232	KCP PROTOCOL	GLP INTERN	PCS	SUM A	PERCENT %	TOL	MULTI A	DMS	1 DAY	ET	DAkkS +3 DAYS	ACCU	M +3 DAYS
															IFS-M

Model KERN	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Smallest part weight [Normal] g/piece	Counting resolution Points	Net weight approx. kg	Weighing plate		Option	
									Verification M III KERN	DAkkS Calibr. Certificate DAkkS KERN
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readibility [d]										
IFS 6K-4S	3 | 6	0,1 | 0,2	-	1	60.000	4,6	A		-	963-128
IFS 10K-4	6 | 15	0,1 | 0,2	-	2	75.000	6	B		-	963-128
IFS 30K0.2DL	12 | 30	0,2 | 0,5	-	5	60.000	11	C		-	963-128
IFS 60K0.5D	30 | 60	0,5 | 1	-	10	60.000	10	C		-	963-129
IFS 60K0.5DL	30 | 60	0,5 | 1	-	10	60.000	12	D		-	963-129
IFS 100K-3	75 | 150	1 | 2	-	25	60.000	12	D		-	963-129
IFS 100K-3L	75 | 150	1 | 2	-	25	60.000	20	E		-	963-129
IFS 300K-3	150 | 300	2 | 5	-	50	60.000	22	E		-	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.										
IFS 6K-3SM	3 | 6	1 | 2	1 | 2	1	60.000	6	A		965-228	963-128
IFS 6K-3M	3 | 6	1 | 2	1 | 2	1	60.000	6	B		965-228	963-128
IFS 10K-3M	6 | 15	2 | 5	2 | 5	2	75.000	6	B		965-228	963-128
IFS 10K-3LM	6 | 15	2 | 5	2 | 5	2	75.000	10	C		965-228	963-128
IFS 30K-3M	15 | 30	5 | 10	5 | 10	5	60.000	10	C		965-228	963-128
IFS 60K-2M	30 | 60	10 | 20	10 | 20	10	60.000	11	C		965-229	963-129
IFS 60K-2LM	30 | 60	10 | 20	10 | 20	10	60.000	13	D		965-229	963-129
IFS 100K-2M	60 | 150	20 | 50	20 | 50	25	60.000	12	D		965-229	963-129
IFS 100K-2LM	60 | 150	20 | 50	20 | 50	25	60.000	22	E		965-229	963-129
IFS 300K-2M	150 | 300	50 | 100	50 | 100	50	60.000	22	E		965-229	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, the workings steps can be understood immediately, even without operating instructions
  - no learning time = reduces costs
  - ideal for untrained users
  - visualised process avoids operating errors
- 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 in the display
- Precise counting: The automatic reference weight optimisation of reference weight gradually improves the average piece weight value
- Protective working cover included with delivery

Technical data

- Backlit LCD display, digit height 18 mm
- Dimensions weighing surface, Stainless Steel
  A W×D 228×228 mm
  B W×D 308×318 mm
  C W×D 450×350 mm
- Dimensions of display device W×D×H 225×115×60 mm
- Permissible ambient temperature 10 °C/40 °C

Accessories

- Protective working cover over the display device, scope of delivery: 5 items, KERN DE-A12S05
- Mount to fasten the display device to the platform, for models with weighing plate size B, C, can be reordered, KERN DE-A11N
- 5 Stand to elevate display device, height of stand approx. 480 mm, can be reordered, KERN DE-A10
- Rechargeable battery pack external, operating time up to 30 h without backlight, charging time approx. 10 h, KERN KS-A01
- Internal rechargeable battery pack, operating time up to 30 h without backlight, charging time approx. 10 h, KERN KB-A01N
- 6 Set for underfloor weighing, consists of platform, bow, hook, only for models with weighing plate B, KERN DS-A01
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD

| CAL EXT | RS 232 | PCS | MULTI | DMS | 1 DAY |

OPTION

| UNDER | ACCU | DAkkS +3 DAYS |
| B | | |

Model	Weighing capacity [Max]	Readability [d]	Smallest part weight [Normal]	Counting resolution	Net weight approx.	Cable length approx.	Weighing plate		Option
									DAkkS Calibr. Certificate
KERN	kg	g	g/piece	Points	kg	m			DAkkS KERN
CDS 4K0.02	4	0,02	0,2	200.000	6	2	A		963-127
CDS 15K0.05	15	0,05	0,5	300.000	8	2	B		963-128
CDS 16K0.1	16	0,1	1	160.000	8	2	B		963-128
CDS 30K0.1	30	0,1	1	300.000	8	2	B		963-128
CDS 30K0.1L	30	0,1	1	300.000	10	0,6	C		963-128
CDS 36K0.2L	36	0,2	2	180.000	10	0,6	C		963-128
CDS 60K0.2	60	0,2	2	300.000	10	0,6	C		963-129

09

High-resolution counting system with EC type approval to count the smallest parts in large quantities, maximum number of parts which can be displayed is 999,999 – many new models now

09

Features

- The highly accurate KERN CCA counting system can replace a whole range of individual balances, efficiently and at a reasonable price
- Thanks to EC type approval, it is also suitable for use in verified applications
- The balances are connected to one another with an RS-232 Y-cable, which also allows you to connect an end unit, such as, for example, signal lamps, barcode scanners or printers

Reference scale KERN

- This precision balance, which can be used as an individual balance, also fulfils the highest demands through connection with a high-capacity weighing bridge
- Programmable using numerical key pad:
  - required reference quantity
  - known reference weight
- Easy to use: All primary functions have their own key on the keypad
- Automatic internal adjustment, time-controlled every 2 h, guarantees high degree of accuracy and makes the balance independent of its location
- Capacity display: A bargraph display lights up to show how much of the weighing range is still available
- USB data interface for transferring weighing data to the PC, printer etc. Can only be used in combination with KERN DBS-A02 accessories
- Draught shield standard for models with [Max] 600 g, Weighing space W×D×H 134×128×80 mm
- Protective working cover included with delivery

Quantity scale KERN IFS

- The high-accuracy quantity counting takes place on the weighing platform (= weighing bridge) KERN CCA. In this way even the smallest of parts can be counted in large volumes
- Tough industry standard suitable for use in harsh industrial applications
- Ergonomic display device with large keypad and high-contrast LCD display for easy entry and reading of, e.g., tare weights, reference weights, limit values etc.
- Three displays for weight display, reference weight, total pieces
- 100 item memories for master data such as reference weight, reference quantity, container weight (PRE-TARE) etc.
- Precise counting: The manual reference weight optimisation gradually improves the average value of the piece weight
- Totalising of pieces when counting
- Printout with date and time
- Aluminium singlepoint load cell (1×3000 e), protection against dust and water splashes IP65
- Protective working cover included with delivery

Counting system KERN CCA

Technical data

Reference scale KERN EWJ
- Overall dimensions
  [Max] 600 g: 220×340×180 mm (incl. draught shield)
  [Max] 6000 g: 220×315×90 mm
- Dimensions of weighing surface, stainless steel,
  [Max] 600 g: ∅ 120 mm
  [Max] 6000 g: B×T 155×145 mm
- Net weight [Max] 600 g: 3,2 kg
  [Max] 6000 g: 3,4 kg
- Connection cable approx. 1,5 m

Quantity scale KERN IFS
- Dimensions of weighing plate
  A 300×240×110 mm
  B 400×300×120 mm
  C 500×400×140 mm
  D 650×500×140 mm

Accessories

Reference scale KERN EWJ
- **1** Protective working cover, scope of delivery:
  5 items, KERN EWJ-A04S05
- **2** Internal rechargable battery pack,
  operating time up to 15 h without backlight,
  charging time approx. 4h,
  KERN KFB-A01

Quantity scale KERN IFS
- **3** Protective working cover, scope of
  delivery: 5 items, KERN KFB-A02S05
- **4** 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 size C, D,
  KERN IFB-A02
- **2** Internal rechargable battery pack,
  operating time up to 18 h without backlight,
  charging time approx. 12 h, Factory Option,
  KERN KFB-A01
- **5** Signal lamp for visual support of weighing
  with tolerance range, only in combination
  with CCA-A02, KERN CFS-A03
- Y-cable, RS-232, KERN CCA-A01
- Further details, plenty of further accessories
  and suitable printers see *Accessories*

09

STANDARD														OPTION		FACTORY	
CAL INT	CAL EXT	MEMORY	RS 232	PCS	RECIPE	SUM	PERCENT	UNIT	TOL	MULTI	MULTI	DMS	2 DAYS	4 DAYS	ACCU	DAkkS +3 DAYS	ACCU	M +3 DAYS
EWJ	IFS	IFS	occupied		EWJ	IFS		EWJ	IFS	IFS	EWJ		A-C	D	EWJ		IFS	

Model KERN	Weighing capacity Quantity scale [Max] kg	Readability Quantity scale [d] g	Weighing plate	Weighing capacity Reference scale [Max] g	Readability Reference scale [d] g	Counting resolution Points	Smallest part weight [Normal] g/piece		Option
									Verification
									M (KERN)
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.									
CCA 6K-5M	3 | 6	1 | 2	A	600	0,01	30.000	0,2		965-228-216
CCA 6K-4M	3 | 6	1 | 2	A	6000	0,1	30.000	0,2		965-228-217
CCA 10K-5M	6 | 15	2 | 5	A	600	0,01	75.000	0,2		965-228-216
CCA 10K-4M	6 | 15	2 | 5	A	6000	0,1	75.000	0,2		965-228-217
CCA 30K-5M	15 | 30	5 | 10	B	600	0,01	150.000	0,2		965-228-216
CCA 30K-4M	15 | 30	5 | 10	B	6000	0,1	1.500.000	0,2		965-228-217
CCA 60K-5M	30 | 60	10 | 20	B	600	0,01	300.000	0,2		965-229-216
CCA 60K-4M	30 | 60	10 | 20	B	6000	0,1	3.000.000	0,2		965-229-217
CCA 100K-5M	60 | 150	20 | 50	C	600	0,01	750.000	0,2		965-229-216
CCA 100K-4M	60 | 150	20 | 50	C	6000	0,1	7.500.000	0,2		965-229-217
CCA 300K-5M	150 | 300	50 | 100	D	600	0,01	1.500.000	0,2		965-229-216
CCA 300K-4M	150 | 300	50 | 100	D	6000	0,1	15.000.000	0,2		965-229-217

NEW New model

Counting system to count the smallest parts in large quantities, maximum number of parts which can be displayed is 999,999

Features

- The highly accurate KERN CCS counting system can replace a whole range of individual balances, efficiently and at a reasonable price

Reference scale KERN CFS

- This professional counting scale, which can also be used as a stand-alone scale, meets the highest demands for accuracy, weighing capacity and volume of items, by being connected to a high-capacity weighing bridge
- Programmable using numerical key pad:
  – required reference quantity
  – known reference weight
- Three displays for weight display, reference weight, total pieces
- Memory (PLU) for 100 items with additional text, reference weight and tare weight, e.g. of a container
- Fill-to-target function: Target count or target weight can be programmed. When the target weight is reached there is an audible and visual signal
- Precise counting: The automatic reference weight optimisation of reference weight gradually improves the average piece weight value
- Protective working cover included with delivery

Quantity scale KERN

- The high-accuracy quantity counting takes place on the weighing platform (= weighing bridge). In this way even the smallest of parts can be counted in large volumes

KFP-V20 IP67, KFU-V20

- Stainless steel weighing plate, painted steel base, for models with weighing plate size A – E
- Aluminium singlepoint load cell (1×3000 e), protection against dust and water splashes IP65

KFP-V20 IP67, KIP-V20M

- Weighing bridge made of non-slip corrugated steel plate, lacquered, for models with weighing plate size I - K
- 4 load cells, steel, silicone-coated, IP67

KFU-V20

- Load range: painted steel
- 4 load cells, alloy steel, silicone-coated, IP67

Counting system KERN CCS

Technical data

Reference scale KERN CFS
- Overall dimensions W×D×H 315×350×180 mm
- Dimensions weighing surface, stainless steel
  - ① CFS 300-3: ∅ 80 mm
  - CFS 3K-5, CFS 6K0.1: W×D 295×225 mm
- Draught shield standard for models with weighing plate size ∅ 80 mm, weighing space B×T×H 158×143×64 mm
- Net weight approx. 2,6 kg

Quantity platforms, KERN KFP-V20 IP65
- Weighing plate dimensions W×D×H, stainless steel
  - Ⓐ 230×230×110 mm
  - Ⓑ 300×240×110 mm
  - Ⓒ 400×300×125 mm
  - Ⓓ 500×400×137 mm
  - Ⓔ 650×500×135 mm

Bulk weighing bridges, KFP-V20 IP67
- Weighing plate dimensions W×D×H, steel, painted
  - Ⓕ 1500×1250×80 mm

Bulk pallet load handling, KERN KFU-V20
- Weighing plate dimensions W×D×H, steel, painted
  - Ⓖ 840×1300×90 mm

Quantity platforms KERN KIP-V20
- Weighing plate dimensions W×D×H, stainless steel
  - Ⓗ 1000×1000×108 mm
  - Ⓘ 1500×1200×108 mm
  - Ⓙ 1500×1500×108 mm

- Connection cable approx.
  - Ⓐ – Ⓔ 2,5 m
  - Ⓕ – Ⓙ 5 m

Accessories
- ② Protective working cover, scope of delivery: 5 items, KERN CFS-A02S05
- ③ Internal rechargeable battery pack, operating time up to 60 h without backlight, charging time approx. 12 h, KERN GAB-A04
- ④ Signal lamp for visual support of weighing with tolerance range, only in combination with, KERN CFS-A03
- ⑤ Y-cable for parallel connection of two terminal devices to the RS-232 interface on the scale, e.g. signal lamp and printer, KERN CFS-A04
- Further details, plenty of further accessories and suitable printers see *Accessories*

! 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

STANDARD

| CAL EXT | MEMORY | RS 232 | DUAL | KCP PROTOCOL | PCS | SUM | TOL | MULTI | DMS | 2 DAYS | 4 DAYS* |

OPTION

| ACCU | DAkkS +3 DAYS |

Model KERN	Weighing capacity Quantity scale [Max] kg	Readability Quantity scale [d] g	Weighing plate	Weighing capacity Reference scale [Max] g	Readability Reference scale [d] g	Counting resolution Points	Smallest part weight [Normal] g/piece		Option DAkkS Calibr. Certificate DAkkS KERN	
CCS 6K-6	6	0,2	Ⓐ	300	0,001	1.200.000	0,05	⬇	962-128-127	
CCS 10K-6.	15	0,5	Ⓑ	300	0,001	3.000.000	0,05		962-128-127	
CCS 30K0.01.	30	1	Ⓒ	3000	0,01	600.000	0,5		962-128-127	
CCS 30K0.1.	30	1	Ⓒ	6000	0,1	300.000	1		962-128-128	
CCS 60K0.01.	60	2	Ⓒ	3000	0,01	1.200.000	0,5		962-129-127	
CCS 60K0.01L.	60	2	Ⓓ	3000	0,01	1.200.000	0,5		962-129-127	
CCS 60K0.1.	60	2	Ⓒ	6000	0,1	600.000	1		962-129-128	
CCS 60K0.1L.	60	2	Ⓓ	6000	0,1	600.000	1		962-129-128	
CCS 150K0.01	150	5	Ⓓ	3000	0,01	3.000.000	0,5		962-129-127	
CCS 150K0.01L	150	5	Ⓔ	3000	0,01	3.000.000	0,5		962-129-127	
CCS 150K0.1.	150	5	Ⓓ	6000	0,1	1.500.000	1		962-129-128	
CCS 150K0.1L	150	5	Ⓔ	6000	0,1	1.500.000	1		962-129-128	
CCS 300K0.01	300	10	Ⓔ	3000	0,01	6.000.000	0,5		962-129-127	
CCS 300K0.1	300	10	Ⓔ	6000	0,1	3.000.000	1		962-129-128	
CCS 600K-1S*	600	200	Ⓗ	6000	0,1	6.000.000	1		962-130-127	
CCS 600K-1*	600	200	Ⓘ	6000	0,1	6.000.000	1		962-130-127	
CCS 600K-2U*	600	200	Ⓖ	3000	0,01	12.000.000	0,5		962-130-127	
CCS 1T-4S*	1500	500	Ⓗ	6000	0,1	15.000.000	1		962-130-128	
CCS 1T-4*	1500	500	Ⓘ	6000	0,1	15.000.000	1		962-130-128	
CCS 1T-1L*	1500	500	Ⓕ	6000	0,1	15.000.000	1		962-130-128	
CCS 1T-1U*	1500	500	Ⓖ	6000	0,1	15.000.000	1		962-130-128	
CCS 3T-3*	3000	1000	Ⓘ	6000	0,1	30.000.000	1		962-132-128	
CCS 3T-3L*	3000	1000	Ⓙ	6000	0,1	30.000.000	1		962-132-128	

⬇

09

KERN IOC

> Industry 4.0: A wide range of (optional) data interfaces allows easy transfer of weighing data

> Integrated KERN Communication Protocol (KCP), ideal for connecting an Merchandise Management or ERP system

> Compatible with KERN EasyTouch App
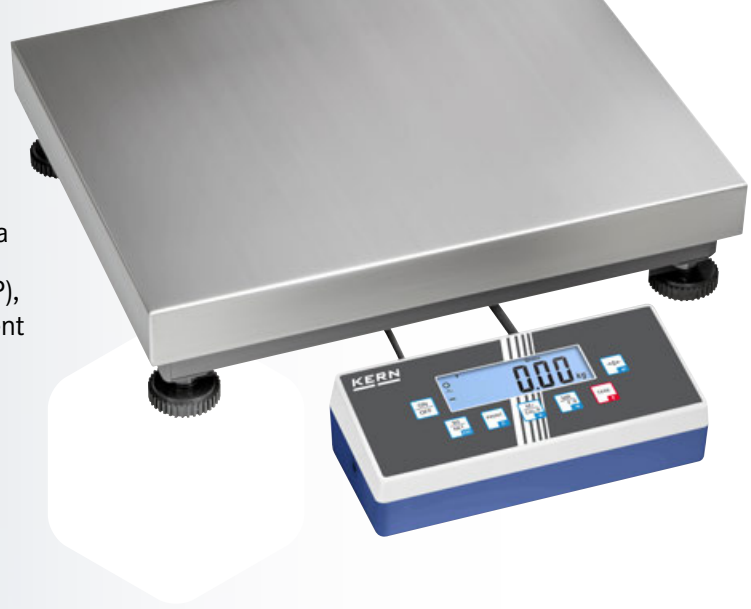
Parcel scales/Platform scales

Here you'll find a complete summary of the KERN platform scales series and their positioning within the platform scales segment on the basis of application, price-performance ratio and functional volume

Precision platform scales

★★★
DS ★★
★

STAINLESS STEEL PLATFORM SCALES

SXS ★★★
   ★★
SFB ★

PLATFORM SCALES WITH STAINLESS STEEL DISPLAY

IXS ★★★
SFE ★★
★

INDUSTRIAL PLATFORM SCALES
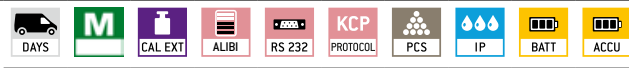
IOC   **IFS** ★★★
EOC   **IFB** ★★
★

PARCEL SCALES

DE ★★★
EOB   **EOS** ★★
EOE ★

10

Quick-Finder Parcel scales/Platform scales

Readability [d] g	Weighing capacity [Max] kg	Weighing plate W×D×H mm	Model KERN	Page	DAYS	M	CAL EXT	ALIBI	RS 232	KCP PROTOCOL	PCS	IP	BATT	ACCU
0,01	3	228×228×95	DS 3K0.01S	98	1		●		●		●			○
0,05	5	228×228×95	DS 5K0.05S	98	1		●		●		●			○
0,05	8	308×318×75	DS 8K0.05	98	1		●		●		●			○
0,1	3	230×230×110	IFB 3K-4	97	1		●		●		●	●		○
0,1	10	228×228×95	DS 10K0.1S	98	1		●		●		●			○
0,1	16	315×308×75	DS 16K0.1	98	1		●		●		●			○
0,1	20	308×318×75	DS 20K0.1	98	1		●		●		●			○
0,1	30	308×318×75	DS 30K0.1	98	1		●		●		●			○
0,1	30	450×350×115	DS 30K0.1L	98	1		●		●		●			○
0,1 | 0,2	3 | 6	300×300×110	IOC 6K-4	95	1		●	○	●	●	●	●		○
0,2	6	230×230×110	IFB 6K-4S	97	1		●		●	●	●	●		○
0,2	6	300×240×110	IFB 6K-4	97	1		●		●	●	●	●		○
0,2	6	300×240×86	IXS 6K-4	100	1		●		○		●	●		○
0,2	36	308×318×75	DS 36K0.2	98	1		●		●		●			○
0,2	36	450×350×115	DS 36K0.2L	98	1		●		●		●			○
0,2	60	450×350×115	DS 60K0.2	98	1		●		●		●			○
0,2 | 0,5	6 | 15	300×240×110	IOC 10K-4	95	1		●	○	●	●	●	●		○
0,2 | 0,5	6 | 15	318×308×88	DE 15K0.2D	91	1		●		●		●	●	●	○
0,2 | 0,5	6 | 15	300×300×110	EOC 10K-4	93	1		●		●		●	●		○
0,2 | 0,5	6 | 15	400×300×110	IOC 10K-4L	95	1		●	○	●	●	●	●		○
0,5	6	318×308×75	DE 6K0.5A	91	1		●		●		●	●	●	○
0,5	6	300×300×110	EOC 6K-4A	93	1		●		●		●	●		○
0,5	15	300×240×110	IFB 10K-4	97	1		●		●	●	●	●		○
0,5	15	400×300×128	IFB 10K-4L	97	1		●		●	●	●	●		○
0,5	15	300×240×86	IXS 10K-4	100	1		●		○		●	●		○
0,5	15	400×300×89	IXS 10K-4L	100	1		●		○		●	●		○
0,5	65	450×350×115	DS 65K0.5	98	1		●		●		●			○
0,5	100	450×350×115	DS 100K0.5	98	1		●		●		●			○
0,5 | 1	15 | 30	400×300×110	IOC 30K-4	95	1		●	○	●	●	●	●		○
0,5 | 1	15 | 35	318×308×88	DE 35K0.5D	91	1		●		●		●	●	●	○
0,5 | 1	15 | 35	300×300×110	EOC 30K-4S	93	1		●		●	●	●	●		○
0,5 | 1	15 | 35	500×400×120	EOC 30K-4	93	1		●		●	●	●	●		○
1	12	318×308×75	DE 12K1A	91	1		●		●		●	●	●	○
1	12	300×300×110	EOC 10K-3A	93	1		●		●	●	●	●		○
1	30	400×300×128	IFB 30K-3	97	1		●		●	●	●	●		○
1	30	400×300×89	IXS 30K-3	100	1		●		○		●	●		○
1	30	500×400×123	IXS 30K-3L	100	1		●		○		●	●		○
1	150	450×350×115	DS 150K1	98	1		●		●		●			○
1 | 2	3 | 6	318×308×75	DE 6K1D	91	1		●		●		●	●	●	○
1 | 2	3 | 6	300×300×110	EOC 6K-3	93	1		●		●		●	●		○
1 | 2	3 | 6	300×300×110	IOC 6K-3M	95	1	○	●	○	●	●	●	●		○
1 | 2	3 | 6	300×240×110	IFB 6K1DM	97	1	○	●		●	●	●	●		○
1 | 2	3 | 6	230×230×110	IFB 6K-3SM	97	1	○	●		●	●	●	●		○
1 | 2	3 | 6	300×240×86	IXS 6K-3M	100	1	○	●		○		●	●		○
1 | 2	30 | 60	318×308×88	DE 60K1D	91	1		●		●		●	●	●	○
1 | 2	30 | 60	400×300×110	IOC 60K-3	95	1		●	○	●	●	●	●		○
1 | 2	30 | 60	500×400×120	IOC 60K-3L	95	1		●	○	●	●	●	●		○
1 | 2	30 | 60	522×406×98	DE 60K1DL	91	1		●		●		●	●	●	○
1 | 2	30 | 60	300×300×110	EOC 60K-3	93	1		●		●	●	●	●		○
1 | 2	30 | 60	500×400×120	EOC 60K-3L	93	1		●		●	●	●	●		○
2	6	300×240×110	SFE 6K-3NM	99	1	○	●					●		●
2	24	318×308×75	DE 24K2A	91	1		●		●		●	●	●	○
2	24	300×300×110	EOC 20K-3A	93	1		●		●	●	●	●		○
2	60	400×300×128	IFB 60K-3	97	1		●		●	●	●	●		○
2	60	500×400×130	IFB 60K-3L	97	1		●		●	●	●	●		○
2	60	400×300×89	IXS 60K-3	100	1		●		○		●	●		○
2	60	500×400×123	IXS 60K-3L	100	1		●		○		●	●		○
2 | 5	6 | 15	318×308×75	DE 15K2D	91	1		●		●		●	●	●	○
2 | 5	6 | 12	300×300×110	EOC 10K-3	93	1		●		●	●	●	●		○
2 | 5	6 | 15	300×240×110	IOC 10K-3M	95	1	○	●	○	●	●	●	●		○
2 | 5	6 | 15	400×300×110	IOC 10K-3LM	95	1	○	●	○	●	●	●	●		○
2 | 5	6 | 15	300×240×110	IFB 15K2DM	97	1	○	●		●	●	●	●		○
2 | 5	6 | 15	400×300×128	IFB 15K2DLM	97	1	○	●		●	●	●	●		○
2 | 5	6 | 15	300×240×86	IXS 10K-3M	100	1	○	●		○		●	●		○
2 | 5	6 | 15	400×300×89	IXS 10K-3LM	100	1	○	●		○		●	●		○
2 | 5	60 | 150	318×308×88	DE 150K2D	91	1		●		●		●	●	●	○
2 | 5	60 | 150	300×300×110	EOC 100K-3	93	1		●		●	●	●	●		○
2 | 5	60 | 150	500×400×120	IOC 100K-3	95	1		●	○	●	●	●	●		○
2 | 5	60 | 150	522×406×98	DE 150K2DL	91	1		●		●		●	●	●	○
2 | 5	60 | 150	500×400×120	EOC 100K-3L	93	1		●		●	●	●	●		○

For an explanation on the pictos, see front flap

■ News 2022   * Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs   ● = standard   ○ = option

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Quick-Finder Parcel scales/Platform scales

Readability [d] g	Weighing capacity [Max] kg	Weighing plate W×D×H mm	Model KERN	Page	DAYS	M	CAL EXT	ALIBI	RS 232	KCP PROTOCOL	PCS	IP	BATT	ACCU
2 | 5	60 | 150	650×500×150	IOC 100K-3L	95	1		●	○	●	●	●	●		○
5	15	315×305×57	EOE 10K-3	88	1		●						●	
5	15	315×305×57	EOB 15K5	89	1		●						●	
5	15	300×240×110	SFE 10K-3NM	99	1	○	●					●		●
5	15	400×300×130	SFE 10K-3LNM	99	1	○	●					●		●
5	60	318×308×75	DE 60K5A	91	1		●		●		●	●	●	○
5	60	300×300×110	EOC 60K-3A	93	1		●		●	●	●	●		○
5	150	500×400×130	IFB 100K-3	97	1		●		●	●	●	●		○
5	150	650×500×142	IFB 100K-3L	97	1		●		●	●	●	●		○
5	150	500×400×123	IXS 100K-3	100	1		●		○		●	●		○
5	150	650×500×133,5	IXS 100K-3L	100	2*		●		○		●	●		○
5 | 10	15 | 35	318×308×75	DE 35K5D	91	1		●		●		●	●	●	○
5 | 10	15 | 35	522×403×83	DE 35K5DL	91	1		●		●		●	●	●	○
5 | 10	15 | 35	300×300×110	EOC 30K-3	93	1		●		●	●	●	●		○
5 | 10	15 | 35	500×400×120	EOC 30K-3L	93	1		●		●	●	●	●		○
5 | 10	15 | 30	400×300×110	IOC 30K-3M	95	1	○	●	○	●	●	●	●		○
5 | 10	15 | 30	400×300×128	IFB 30K5DM	97	1	○	●		●	●	●	●		○
5 | 10	15 | 30	400×300×89	IXS 30K-2M	100	1	○	●		○		●	●		○
5 | 10	15 | 30	500×400×123	IXS 30K-2LM	100	1	○	●		○		●	●		○
5 | 10	150 | 300	522×406×98	DE 300K5DL	91	1		●		●		●	●	●	○
5 | 10	150 | 300	500×400×120	EOC 300K-3	93	1		●		●	●	●	●		○
5 | 10	150 | 300	650×500×150	IOC 300K-3	95	1		●	○	●	●	●	●		○
10	30	300×240×110	SFE 30K-2NM	99	1	○	●					●		●
10	35	315×305×57	EOE 30K-2	88	1		●						●	
10	35	315×305×57	EOB 35K10	89	1		●						●	
10	120	318×308×75	DE 120K10A	91	1		●		●		●	●	●	○
10	120	500×400×120	EOC 100K-2A	93	1		●		●	●	●	●		○
10	300	650×500×142	IFB 300K-2	97	1		●		●	●	●	●		○
10	300	650×500×133,5	IXS 300K-2	100	2*		●		○		●	●		○
10 | 20	30 | 60	318×308×75	DE 60K10D	91	1		●		●		●	●	●	○
10 | 20	30 | 60	522×403×83	DE 60K10DL	91	1		●		●		●	●	●	○
10 | 20	30 | 60	300×300×110	EOC 60K-2	93	1		●		●	●	●	●		○
10 | 20	30 | 60	500×400×120	EOC 60K-2L	93	1		●		●	●	●	●		○
10 | 20	30 | 60	400×300×110	IOC 60K-2M	95	1	○	●	○	●	●	●	●		○
10 | 20	30 | 60	500×400×120	IOC 60K-2LM	95	1	○	●	○	●	●	●	●		○
10 | 20	30 | 60	400×300×128	IFB 60K10DM	97	1	○	●		●	●	●	●		○
10 | 20	30 | 60	500×400×130	IFB 60K10DLM	97	1	○	●		●	●	●	●		○
10 | 20	30 | 60	400×300×89	IXS 60K-2M	100	1	○	●		○		●	●		○
10 | 20	30 | 60	500×400×123	IXS 60K-2LM	100	1	○	●		○		●	●		○
10 | 20	300 | 600	800×600×200	IOC 600K-2	95	2*		●	○	●	●	●	●		○
20	60	315×305×57	EOE 60K-2	88	1		●						●	
20	60	550×550×58	EOE 60K-2L	88	1		●						●	
20	60	315×305×57	EOB 60K20	89	1		●						●	
20	60	550×550×58	EOB 60K20L	89	1		●						●	
20	60	400×300×130	SFE 60K-2NM	99	1	○	●					●		●
20	60	500×400×140	SFE 60K-2LNM	99	1	○	●					●		●
20	600	800×600×200	IFB 600K-2	97	2*		●		●	●	●	●		○
20 | 50	60 | 150	318×308×75	DE 150K20D	91	1		●		●		●	●	●	○
20 | 50	60 | 150	522×403×83	DE 150K20DL	91	1		●		●		●	●	●	○
20 | 50	60 | 150	650×500×89	DE 150K20DXL	91	1		●		●		●	●	●	○
20 | 50	60 | 150	300×300×110	EOC 100K-2	93	1		●		●	●	●	●		○
20 | 50	60 | 150	500×400×120	EOC 100K-2L	93	1		●		●	●	●	●		○
20 | 50	60 | 150	600×500×150	EOC 100K-2XL	93	1		●		●	●	●	●		○
20 | 50	60 | 150	950×500×60	EOC 100K-2XXL	93	1		●		●	●	●	●		○
20 | 50	60 | 150	500×400×120	IOC 100K-2M	95	1	○	●	○	●	●	●	●		○
20 | 50	60 | 150	650×500×150	IOC 100K-2LM	95	1	○	●	○	●	●	●	●		○
20 | 50	60 | 150	500×400×130	IFB 150K20DM	97	1	○	●		●	●	●	●		○
20 | 50	60 | 150	650×500×142	IFB 150K20DLM	97	1	○	●		●	●	●	●		○
20 | 50	60 | 150	500×400×123	IXS 100K-2M	100	1	○	●		○		●	●		○
20 | 50	60 | 150	650×500×133,5	IXS 100K-2LM	100	2*	○	●		○		●	●		○
50	150	315×305×57	EOE 100K-2	88	1		●						●	
50	150	550×550×58	EOE 150K50L	88	1		●						●	
50	150	950×500×58	EOE 150K50XL	88	1		●						●	
50	150	315×305×57	EOB 150K50	89	1		●						●	
50	150	550×550×58	EOB 150K50L	89	1		●						●	
50	150	950×500×58	EOB 150K50XL	89	1		●						●	
50	150	950×500×58	EOS 150K50XL	90	1		●						●	
50	150	400×300×130	SFE 100K-2NM	99	1	○	●					●		●
50	150	500×400×140	SFE 100K-2LNM	99	1	○	●					●		●
50	150	650×500×140	SFE 100K-2XLNM	99	1	○	●					●		●

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Quick-Finder Parcel scales/Platform scales

Readability [d] g	Weighing capacity [Max] kg	Weighing plate W×D×H mm	Model KERN	Page	DAYS	M	CAL EXT	ALIBI	RS 232	KCP PROTOCOL	PCS	IP	BATT	ACCU
50 | 100	150 | 300	522×403×83	**DE 300K50D**	91	1		●		●		●	●	●	○
50 | 100	150 | 300	650×500×95	**DE 300K50DL**	91	1		●		●		●	●	●	○
50 | 100	150 | 300	500×400×120	**EOC 300K-2**	93	1		●		●	●	●	●		○
50 | 100	150 | 300	600×500×150	**EOC 300K-2L**	93	1		●		●	●	●	●		○
50 | 100	150 | 300	650×500×150	**IOC 300K-2M**	95	1	○	●	○	●	●	●	●		○
50 | 100	150 | 300	650×500×142	**IFB 300K50DM**	97	1	○	●		●	●	●	●		○
50 | 100	150 | 300	650×500×133,5	**IXS 300K-2M**	100	2*	○	●			○	●	●		○
100	300	315×305×57	**EOE 300K100**	88	1		●						●	
100	300	550×550×58	**EOE 300K100L**	88	1		●						●	
100	300	950×500×58	**EOE 300K100XL**	88	1		●						●	
100	300	315×305×57	**EOB 300K100A**	89	1		●						●	
100	300	550×550×58	**EOB 300K100L**	89	1		●						●	
100	300	950×500×58	**EOB 300K100XL**	89	1		●						●	
100	300	950×500×58	**EOS 300K100XL**	90	1		●						●	
100	300	650×500×140	**SFE 300K-1LNM**	99	1	○	●					●		●
100 | 200	300 | 600	800×600×200	**IOC 600K-1M**	95	2*	○	●	○	●	●	●	●		○
100 | 200	300 | 600	800×600×200	**IFB 600K-1M**	97	2*	○	●		●	●	●	●		○

For an explanation on the pictos, see front flap

■ News 2022   * Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs   ● = standard   ○ = option

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Parcel scale KERN EOE

Parcel scales with big platform for fast and easy weighing in the office, production, dispatch etc.

Features

- High mobility: thanks to battery operation, compact, lightweight construction, it is suitable for the use in several locations
- Wall mount for display device, standard
- Hold function: When the weighing conditions are unstable, a stable weight is calculated determining an average value

Technical data

- Large LCD display, digit height 25 mm
- Weighing plate dimensions, steel, painted W×D×H
  - A 315×305×57 mm
  - B 550×550×58 mm, see larger picture
  - C 950×550×58 mm
- Dimensions of display device W×D×H 235×114×51 mm
- Cable length display device, spiral cable, approx. 0.7–2 m
- Optional battery operation, 4×1.5 V AA not included in scope of delivery, operating time up to 100 h
- Permissible ambient temperature 5 °C/35 °C

Accessories

- Protective working cover over the display device, scope of delivery: 5 items, KERN EOB-A04BS05
- Stand to elevate display device, for models with weighing plate size A, column height approx. 480 mm KERN EOB-A01N
- Stand to elevate display device, height of stand approx. 1000 mm, can be reordered, KERN EOB-A02B
- External universal mains adapter, with universal input and optional input socket adapters for EU, GB, USA, KERN YKA-16
- Non-slip rubber mat W×D×H 945×505×5 mm, KERN EOE-A01

STANDARD

CAL EXT | UNIT | MOVE | BATT | MULTI | DMS | 1 DAY

OPTION

DAkkS +3 DAYS

Model KERN	Weighing capacity [Max] kg	Readability [d] g	Reproducibility g	Weighing plate	Net weight approx. kg		Option DAkkS Calibr. Certificate DAkkS KERN	
EOE 10K-3	15	5	5	A	4,0		963-128	
EOE 30K-2	35	10	10	A	4,0		963-128	
EOE 60K-2	60	20	20	A	3,8		963-129	
EOE 60K-2L	60	20	20	B	14		963-129	
EOE 100K-2	150	50	50	A	4		963-129	
EOE 150K50L	150	50	50	B	14		963-129	
EOE 150K50XL	150	50	50	C	18		963-129	
EOE 300K100	300	100	100	A	3,6		963-129	
EOE 300K100L	300	100	100	B	14		963-129	
EOE 300K100XL	300	100	100	C	18		963-129	

Parcel scale KERN EOB
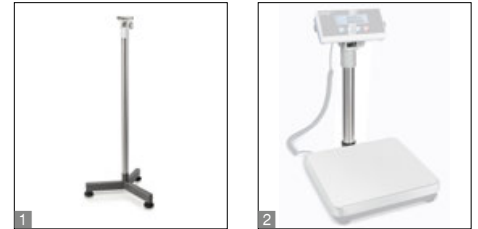
Allround parcel scale with robust stainless steel weighing plate – also with XL platform and large weighing ranges

Features

- Weighing plate stainless steel, painted steel base
- Simple and convenient 4-key operation
- Wall mount for display device, standard
- Hold function: When the weighing conditions are unstable, a stable weight is calculated determining an average value
- Protective working cover included with delivery
- Universal external mains adapter included with delivery

Technical data

- Large LCD display, digit height 25 mm
- Weighing plate dimensions, stainless steel W×D×H
  - Ⓐ 315×305×57 mm
  - Ⓑ 550×550×58 mm, see larger picture
  - Ⓒ 950×500×58 mm
- Dimensions of display device W×D×H 235×114×51 mm
- Cable length of display device approx. 1,8 m
- Optional battery operation, 4×1.5 V AA not included in scope of delivery, operating time up to 60 h
- Permissible ambient temperature 5 °C/35 °C

Accessories

- Protective working cover over the display device, scope of delivery: 5 items, KERN EOB-A04BS05
- ① Stand to elevate display device, height of stand approx. 1000 mm, can be reordered, KERN EOB-A02B
- ② Stand to elevate display device Column height approx. 480 mm, KERN EOB-A01N
- Non-slip rubber mat W×D×H 945×505×5 mm, KERN EOE-A01

STANDARD | OPTION

CAL EXT | UNIT | MOVE | BATT | MULTI | DMS | 1 DAY | DAkkS +3 DAYS

Model KERN	Weighing capacity [Max] kg	Readability [d] g	Reproducibility g	Linearity g	Net weight approx. kg	Weighing plate		Option DAkkS Calibr. Certificate DAkkS KERN	
EOB 15K5	15	5	5	± 10	3,8	Ⓐ		963-128	
EOB 35K10	35	10	10	± 20	3,8	Ⓐ		963-128	
EOB 60K20	60	20	20	± 40	3,8	Ⓐ		963-129	
EOB 60K20L	60	20	20	± 40	15	Ⓑ		963-129	
EOB 150K50	150	50	50	± 100	3,8	Ⓐ		963-129	
EOB 150K50L	150	50	50	± 100	11	Ⓑ		963-129	
EOB 150K50XL	150	50	50	± 100	17	Ⓒ		963-129	
EOB 300K100A	300	100	100	± 200	4,6	Ⓐ		963-129	
EOB 300K100L	300	100	100	± 200	14	Ⓑ		963-129	
EOB 300K100XL	300	100	100	± 200	19	Ⓒ		963-129	

Parcel scale KERN EOS

Heavy duty parcel and veterinary platform scale with extra large stainless steel weighing plate

Features

- Weighing plate stainless steel, painted steel base
- Simple and convenient 4-key operation
- Wall mount for display device, standard
- Hold function: When the weighing conditions are unstable, a stable weight is calculated determining an average value: The scale can be easily transported using rollers and a handle and does not require much storage space
- 1 Protective working cover included with delivery: Non-slip rubber mat included with delivery
- Universal external mains adapter included with delivery

Technical data

- Large LCD display, digit height 25 mm
- A Weighing plate dimensions, stainless steel W×D×H, 950×500×58 mm
- Dimensions of display device W×D×H 235×114×51 mm
- Cable length of display device approx. 2,7 m (Spiral cable)
- Optional battery operation, 4×1.5 V AA not included in scope of delivery, operating time up to 60 h
- Permissible ambient temperature 5 °C/35 °C

Accessories

- Protective working cover over the display device, scope of delivery: 5 items, KERN EOB-A04BS05
- 2 Stand to elevate display device, height of stand approx. 1000 mm, can be reordered, KERN EOB-A02B
- Non-slip rubber mat W×D×H 950×500×5 mm, KERN EOE-A01

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STANDARD

| CAL EXT | UNIT | MOVE | BATT | MULTI | DMS | 1 DAY |

OPTION

| DAkkS +3 DAYS |

Model	Weighing capacity [Max]	Readability [d]	Reproducibility	Linearity	Net weight approx.	Option DAkkS Calibr. Certificate	
KERN	kg	g	g	g	kg	DAkkS KERN	
EOS 150K50XL	150	50	50	± 100	17	963-129	
EOS 300K100XL	300	100	100	± 200	17	963-129	

Parcel scale KERN DE-D

The long lasting story of success with dust and spray
protected display device

Piece counting

Animal weighing
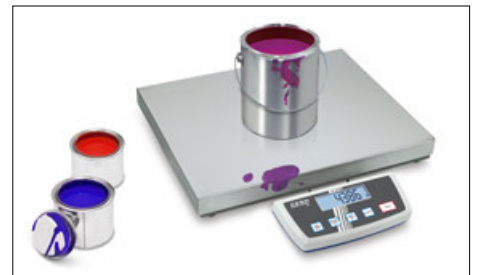
Recipe-weighing

Parcel scale KERN DE-D

Features

- High mobility: thanks to battery operation/ rechargeable battery operation (optional), compact, lightweight construction, it is suitable for the use in several locations (production, warehouse, dispatch department etc.)
- Display device flexible positioning e. g. free-standing or screwed to the wall
- 1 Display device: Plastics, protection against dust and water splashes IP65
- Weighing plate stainless steel, painted steel base
- 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 call up the total weight of all the ingredients
- Freely programmable weighing unit, e.g. display direct in special units such as length of thread g/m, paper weight g/m^2, or similar

- Protective working cover included with delivery

Technical data

- Large backlit LCD display, digit height 25 mm
- Weighing plate dimensions, stainless steel W×D×H
  - A 318×308×75 mm
  - B 318×308×88 mm
  - C 522×406×98 mm, see larger picture
  - D 522×403×83 mm
  - E 650×500×89 mm
- Dimensions of display device, W×D×H 225×110×45 mm
- Optional battery operation, 9 V block not included in scope of delivery, operating time up to 12 h
- Permissible ambient temperature 5 °C/35 °C

Accessories

- Protective working cover over the display device, scope of delivery: 5 items, KERN DE-A12S05
- Internal rechargeable battery pack, operating time up to 30 h without backlight, charging time approx. 10 h, KERN NDE-A02
- Mount to fasten the display device to the platform, for models with weighing plate size B, C, can be reordered, KERN DE-A11N
- Wall mount for display device, KERN DE-A13
- 2 Stand to elevate display device, height of stand approx. 480 mm, can be reordered, KERN DE-A10
- Individual header data: the free software SHM-01 can be used to print header lines on the printout when using printers YKN-01 and YKB-01N
- Further details, plenty of further accessories and suitable printers see *Accessories*

10

STANDARD

| CAL EXT | RS 232 | PCS | SUM A | PERCENT % | UNIT | MOVE | IP 65 | BATT | MULTI B | DMS | 1 DAY |

OPTION

| ACCU | DAkkS +3 DAYS |

1

Model KERN	Weighing capacity [Max] kg	Readability [d] g	Reproduci- bility g	Linearity g	Smallest part weight [Normal] g/piece	Cable length approx. m	Net weight approx. kg	Weighing plate	Option DAkkS Calibr. Certificate	
									DAkkS KERN	
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readibility [d]										
DE 6K1D	3 | 6	1 | 2	1 | 2	± 3 | 6	40	1,4	4,8	A	963-128	
DE 15K2D	6 | 15	2 | 5	2 | 5	± 6 | 15	100	1,4	4,8	A	963-128	
DE 35K5D	15 | 35	5 | 10	5 | 10	± 15 | 30	100	1,4	4,8	A	963-128	
DE 35K5DL	15 | 35	5 | 10	5 | 10	± 15 | 30	100	1,4	16	D	963-128	
DE 60K10D	30 | 60	10 | 20	10 | 20	± 30 | 60	200	1,4	4,8	A	963-129	
DE 60K10DL	30 | 60	10 | 20	10 | 20	± 30 | 60	200	1,4	16	D	963-129	
DE 150K20D	60 | 150	20 | 50	20 | 50	± 60 | 150	400	1,5	5	A	963-129	
DE 150K20DL	60 | 150	20 | 50	20 | 50	± 60 | 150	400	1,5	16	D	963-129	
DE 150K20DXL	60 | 150	20 | 50	20 | 50	± 60 | 150	400	1,4	28	E	963-129	
DE 300K50D	150 | 300	50 | 100	50 | 100	± 150 | 300	2000	1,25	16	D	963-129	
DE 300K50DL	150 | 300	50 | 100	50 | 100	± 150 | 300	2000	1,05	28	E	963-129	
DE 6K0.5A	6	0,5	0,5	± 1,5	10	1,4	4,8	A	963-128	
DE 12K1A	12	1	1	± 3	20	1,4	4,8	A	963-128	
DE 24K2A	24	2	2	± 6	40	1,4	4,8	A	963-128	
DE 60K5A	60	5	5	± 15	100	1,4	4,8	A	963-129	
DE 120K10A	120	10	10	± 30	200	1,4	5,0	A	963-129	
Dual-range balance with high resolution readability										
DE 15K0.2D	6 | 15	0,2 | 0,5	0,2 | 0,5	± 0,8 | 2	4	1	4	B	963-128	
DE 35K0.5D	15 | 35	0,5 | 1	0,5 | 1	± 2 | 4	10	1	7	B	963-128	
DE 60K1D	30 | 60	1 | 2	1 | 2	± 4 | 8	20	1,47	7	B	963-129	
DE 60K1DL	30 | 60	1 | 2	1 | 2	± 4 | 8	20	1,4	15	C	963-129	
DE 150K2D	60 | 150	2 | 5	2 | 5	± 8 | 20	40	1,6	7	B	963-129	
DE 150K2DL	60 | 150	2 | 5	2 | 5	± 8 | 20	40	1,4	15	C	963-129	
DE 300K5DL	150 | 300	5 | 10	5 | 10	± 20 | 40	100	1,4	15	C	963-129	

Industrial platform scale KERN EOC
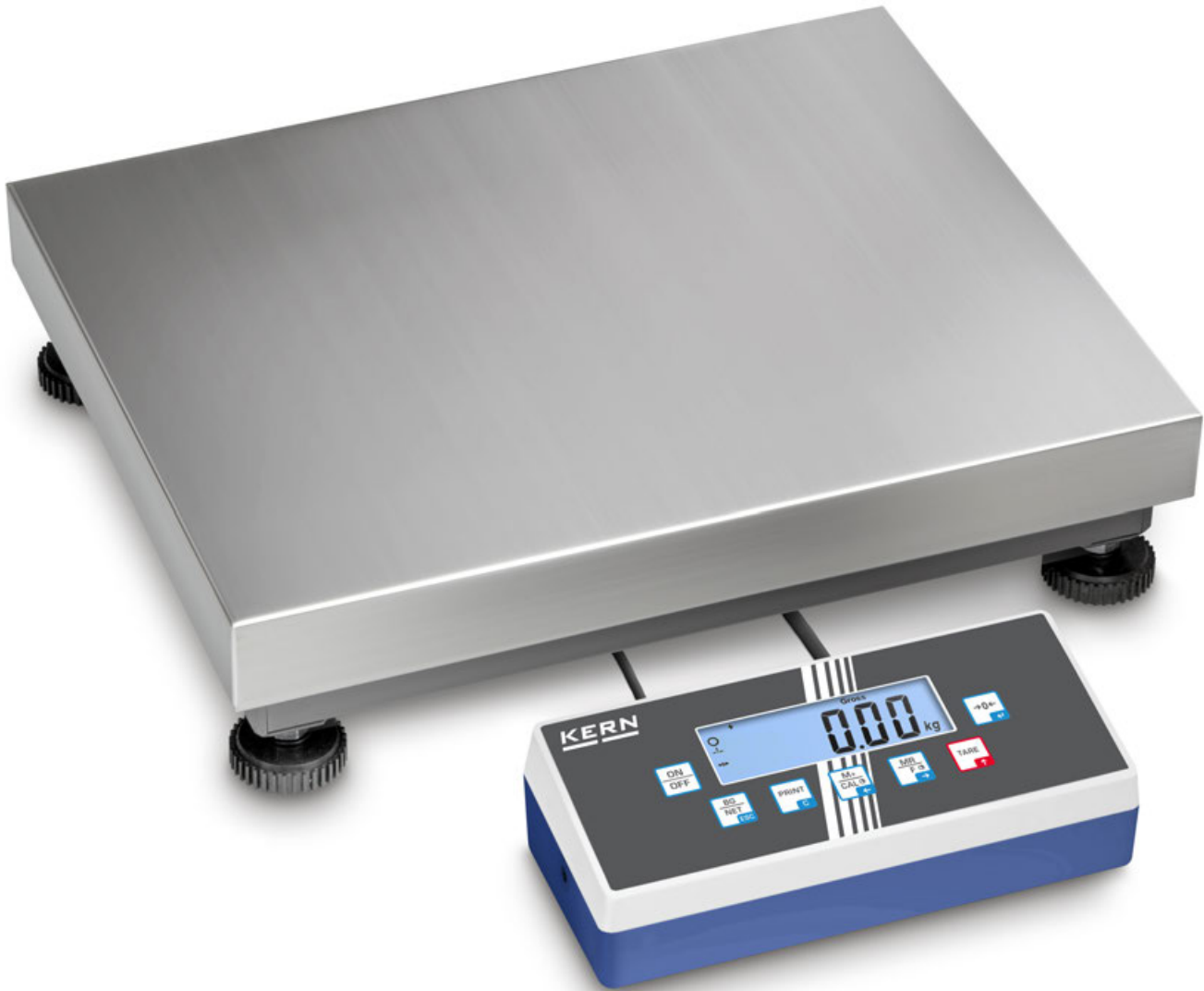
Robust and high-resolution platform scale with practical Flip/Flop display device for greatest ease of use

Weighing instead of counting!
Because the counting function is so easy to use, you can rapidly record large numbers of small parts – which saves time and money

Practical Flip/Flop display device: flexible positioning e.g. free-standing or screwed to the wall (optional). By rotating the upper housing shell you can determine the angle of the display as well as the cable outlet.
Conversion of the display device, Factory Option for an additional cost, delivery time + 2 working days, KERN KIB-M01, see Accessories on the right, please indicate when placing your order

Industrial platform scale KERN EOC

Features

- High mobility: thanks to rechargeable battery operation (optional), compact, lightweight construction, it is suitable for the use in several locations (laboratory, production, quality control, commissioning etc.)
- **1** Platform: weighing plate stainless steel, painted steel base, silicone-coated aluminium load cell, protection against dust and water splashes IP65. Level indicator and levelling feet for precise levelling of the scale, fitted as standard, to give the most accurate weighing result
- Weighing with tolerance range (checkweighing): a visual and audible signal helps with portioning, dispensing or grading
- Hold function: When the weighing conditions are unstable, a stable weight is calculated determining an average value
- Benchtop stand incl. wall mount for display device as standard
- Protective working cover included with delivery

- Searching and remote control of the balance using external control devices or computers with the KERN Communication Protocol (KCP). KCP is a standardised interface command structure for KERN balances and other instruments which allows you to recall and manage all relevant parameters and device functions. You can therefore simply connect KERN devices with KCP to computers, industrial control systems and other digital systems. In a large number of cases the KCP is compatible with the MT-SICS protocol.

Technical data

- Large backlit LCD display, digit height 25 mm
- Weighing plate dimensions W×D×H
  - **A** 300×300×110 mm
  - **B** 500×400×120 mm, see larger picture
  - **C** 600×500×150 mm
  - **D** 950×500×60 mm
- Dimensions of display device W×D×H 268×115×80 mm
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN EOC-A01S05
- Internal rechargable battery pack, operating time up to 43 h without backlight, charging time approx. 3 h, KERN KFB-A01
- **2** Stand to elevate display device, height of stand approx. 330 mm, KERN EOC-A05
- **3** Mount to fasten the display device to the platform, KERN EOC-A03
- Benchtop stand incl. wall mount for display device, KERN EOC-A04
- Conversion of the display device, to move the cable outlet to the front of the display device, ideal e.g. for subsequent wall installation of the display device (standard configuration ex works: rear outlet), Factory Option, delivery time + 2 working days, KERN KIB-M01

10

STANDARD

| CAL EXT | RS 232 | KCP PROTOCOL | GLP PRINTER | PCS | SUM | PERCENT | TOL | MOVE | IP 65 | MULTI | DMS | 1 DAY |

OPTION

| ACCU | DAkkS +3 DAYS |

Model KERN	Weighing capacity [Max] kg	Readability [d] g	Smallest part weight [Normal] g/piece	Cable length approx. m	Net weight approx. kg	Weighing plate		Option
								DAkkS Calibr. Certificate
								DAkkS KERN
EOC 6K-3	3 | 6	1 | 2	2,5	3	6	A		963-128
EOC 10K-3	6 | 12	2 | 5	5	3	7	A		963-128
EOC 30K-3	15 | 35	5 | 10	10	3	6	A		963-128
EOC 30K-3L	15 | 35	5 | 10	10	3	9	B		963-128
EOC 60K-2	30 | 60	10 | 20	20	3	6	A		963-129
EOC 60K-2L	30 | 60	10 | 20	20	3	9	B		963-129
EOC 100K-2	60 | 150	20 | 50	50	3	6	A		963-129
EOC 100K-2L	60 | 150	20 | 50	50	3	9	B		963-129
EOC 100K-2XL	60 | 150	20 | 50	50	3	19	C		963-129
EOC 100K-2XXL	60 | 150	20 | 50	100	0,7 – 2,7	26	D		963-129
EOC 300K-2	150 | 300	50 | 100	100	3	9	B		963-129
EOC 300K-2L	150 | 300	50 | 100	100	3	19	C		963-129
EOC 6K-4A	6	0,5	2,5	3	6	A		963-128
EOC 10K-3A	12	1	5	3	7	A		963-128
EOC 20K-3A	24	2	10	3	6	A		963-128
EOC 60K-3A	60	5	20	3	6	A		963-129
EOC 100K-2A	120	10	50	3	9	B		963-129
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readibility [d]								
EOC 10K-4	6 | 15	0,2 | 0,5	5	3	7	A		963-128
EOC 30K-4S	15 | 35	0,5 | 1	10	3	9	A		963-128
EOC 30K-4	15 | 35	0,5 | 1	10	3	9	B		963-128
EOC 60K-3	30 | 60	1 | 2	20	3	6	A		963-129
EOC 60K-3L	30 | 60	1 | 2	20	3	9	B		963-129
EOC 100K-3	60 | 150	2 | 5	50	3	7	A		963-129
EOC 100K-3L	60 | 150	2 | 5	50	3	9	B		963-129
EOC 300K-3	150 | 300	5 | 10	100	3	9	B		963-129
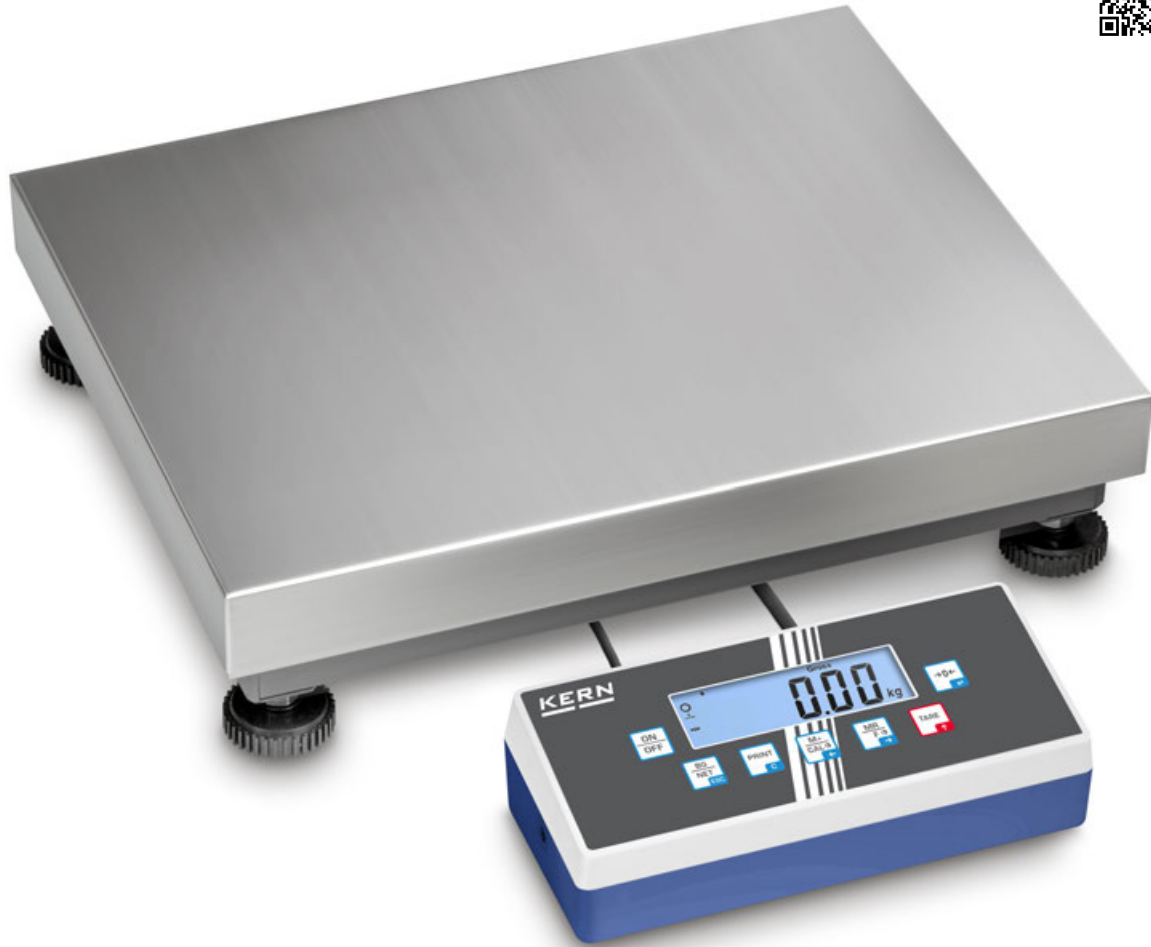
Industrial platform scale KERN IOC

EasyTouch

10

Allround platform scale with a wide range of communication options and EC type approval [M] – now also available as high-resolution version with fine display

- Verification plug, for verified balances this enables you to separate the display device and platform without affecting the verification, e.g. for installing the scale in a packing and dispatch table, pit frame etc. at a later date. Please order this at the same time as you purchase your scale, see accessories

Practical Flip/Flop display device: flexible positioning e.g. free-standing or screwed to the wall (optional). By rotating the upper housing shell you can determine the angle of the display as well as the cable outlet.
Conversion of the display device, Factory Option for an additional cost, delivery time + 2 working days, KERN KIB-M01, see Accessories on the right, please indicate when placing your order

Industrial platform scale KERN IOC

Features

- Industry 4.0: A wide range of (optional) data interfaces allows that it is easy to transfer weighing data to tablets, laptops, PCs, networks, Smartphones, printers, etc.
- High mobility: thanks to rechargeable battery operation (optional), compact, lightweight construction, it is suitable for the use in several locations (laboratory, production, quality control, commissioning etc.)
- Platform: weighing plate stainless steel, painted steel base, silicone-coated aluminium load cell, protection against dust and water splashes IP65
- Level indicator and levelling feet for precise levelling of the scale, fitted as standard, to give the most accurate weighing result
- Searching and remote control of the balance using external control devices or computers with the KERN Communication Protocol (KCP). KCP is a standardised interface command structure for KERN balances and other instruments which allows you to recall and manage all relevant parameters and device functions. You can therefore simply connect KERN devices with KCP to computers, industrial control systems and other digital systems. In a large number of cases the KCP is compatible with the MT-SICS protocol.

Technical data

- Large LCD display, digit height 25 mm
- Weighing plate dimensions W×D×H
  - A 300×240×110 mm
  - B 300×300×110 mm
  - C 400×300×110 mm
  - D 500×400×120 mm, see larger picture
  - E 650×500×150 mm
  - F 800×600×200 mm
- Dimensions of display device W×D×H 268×115×80 mm
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN EOC-A01S05
- Stand to elevate display device, height of stand approx. 330 mm, KERN EOC-A05
- Mount to fasten the display device to the platform, can be retrofitted, KERN EOC-A03
  Benchtop stand incl. wall mount for display device, KERN EOC-A04
- Internal rechargeable battery pack, operating time up to 26 h with backlight, charging time approx. 3 h, KERN KFB-A01
- USB data interface, for transferring weighing to the PC, printer etc., KERN KIB-A03
- Bluetooth data interface for wireless data transfer to PC or tablets, must be ordered at purchase, not possible in combination with verification, KERN KIB-A04
- WiFi interface for wireless connection of the balance to networks and WiFi capable devices, such as tablets, laptops or smartphones, continuous data transfer, must be ordered at purchase, KERN KIB-A10

- Ethernet data interface, must be ordered at purchase, KERN KIB-A02
- Alibi memory, including USB interface for exporting weighing results to external data storage media, such as, for example, USB sticks, hard drives, etc., KERN KIB-A01
- Signal lamp, including interface, for visual support of weighing with tolerance range, must be ordered at purchase, KERN KIB-A06
- Verification plug, please order this at the same time as you purchase your scale, KERN KIB-A12
- Conversion of the display device, Factory Option, delivery time + 2 working days, KERN KIB-M01
- Note: In addition to the RS 232 data interface integrated as standard, only one further data interface can be fitted and operated

10

STANDARD												OPTION			FACTORY					
CAL EXT	RS 232	KCP PROTOCOL	GLP PRINTER	PCS	SUM	PERCENT	TOL	MOVE	IP 65	MULTI	DMS	1 DAY	2 DAYS	ET	ACCU	DAkkS +3 DAYS	ALIBI	USB	BT 4.0	WIFI	LAN	M +3 DAYS

Model	Weighing capacity [Max]	Readability	Verification value	Minimal load	Weighing plate	Option		
						Verification	DAkkS Calibr. Certificate	
KERN	kg	[d] g	[e] g	[Min] g		M KERN	DAkkS KERN	
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readibility [d]								
IOC 6K-4	3 | 6	0,1 | 0,2	–	–	B		963-128	
IOC 10K-4	6 | 15	0,2 | 0,5	–	–	A		963-128	
IOC 10K-4L	6 | 15	0,2 | 0,5	–	–	C		963-128	
IOC 30K-4	15 | 30	0,5 | 1	–	–	C		963-128	
IOC 60K-3	30 | 60	1 | 2	–	–	C		963-129	
IOC 60K-3L	30 | 60	1 | 2	–	–	D		963-129	
IOC 100K-3	60 | 150	2 | 5	–	–	D		963-129	
IOC 100K-3L	60 | 150	2 | 5	–	–	E		963-129	
IOC 300K-3	150 | 300	5 | 10	–	–	E		963-129	
IOC 600K-2	300 | 600	10 | 20	–	–	F		963-130	
IOC 6K-3M	3 | 6	1 | 2	1 | 2	20 | 40	B	965-228	963-128	
IOC 10K-3M	6 | 15	2 | 5	2 | 5	40 | 100	A	965-228	963-128	
IOC 10K-3LM	6 | 15	2 | 5	2 | 5	40 | 100	C	965-228	963-128	
IOC 30K-3M	15 | 30	5 | 10	5 | 10	100 | 200	C	965-228	963-128	
IOC 60K-2M	30 | 60	10 | 20	10 | 20	200 | 400	C	965-229	963-129	
IOC 60K-2LM	30 | 60	10 | 20	10 | 20	200 | 400	D	965-229	963-129	
IOC 100K-2M	60 | 150	20 | 50	20 | 50	400 | 1000	D	965-229	963-129	
IOC 100K-2LM	60 | 150	20 | 50	20 | 50	400 | 1000	E	965-229	963-129	
IOC 300K-2M	150 | 300	50 | 100	50 | 100	1000 | 2000	E	965-229	963-129	
IOC 600K-1M	300 | 600	100 | 200	100 | 200	2000 | 4000	F	965-230	963-130	

Industrial platform scale KERN IFB

EasyTouch

A
2

Accessories

- Protective working cover, scope of delivery: 5 items, KERN KFB-A02S05
- Stand to elevate display device, for models with weighing plate size
  A – E: Height of stand approx. 330 mm, KERN IFB-A01
  D – F: 2 Height of stand approx. 600 mm, KERN IFB-A02
  A – F: Height of stand approx. 800 mm, Stand to elevate display device Column KERN BFS-A07
- 3 Internal rechargeable battery pack, operating time up to 35 h, without backlight, charging time approx. 12 h, must be ordered at purchase, KERN KFB-A01
- Bluetooth data interface for wireless data transfer to PC or tablets, must be ordered at purchase, not in combination with verification, KERN KFB-A03
- Analogue module, must be ordered at purchase, not possible in combination with signal lamp
  0–10 V: KERN KFB-A04
  4–20 mA: KERN KFB-A05
- Signal lamp for visual support of weighing with tolerance range, only in combination with, KERN CFS-A03
- Y-cable for parallel connection of two terminal devices to the RS-232 interface on the scale, e.g. signal lamp and printer, KERN CFS-A04

High-resolution industrial scale in heavy version with EC type approval [M], now also up to [Max] 600 kg

Features

- Tough industry standard suitable for use in harsh industrial applications
- 1 Platform: weighing plate stainless steel, painted steel base, silicone-coated aluminium load cell, protection against dust and water splashes IP65
- Benchtop stand incl. wall mount for display device as standard
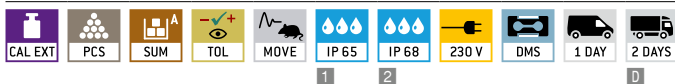- Protective working cover included with delivery

Technical data

- Large backlit LCD display, digit height 52 mm
- Weighing plate dimensions, stainless steel W×D×H
  A 230×230×110 mm, B 300×240×110 mm
  C 400×300×128 mm, D 500×400×130 mm
  E 650×500×142 mm, F 800×600×200 mm
- Dimensions of display device W×D×H 230×230×360 mm
- Cable length of display device approx. 3 m
- Permissible ambient temperature -10 °C/40 °C

STANDARD

CAL EXT	RS 232	KCP PROTOCOL	GLP PRINTER	PCS	SUM	TOL	MOVE	IP 65	MULTI	DMS	1 DAY	2 DAYS

1
F

OPTION

ET	DAkkS +3 DAYS

FACTORY

BT 2.0	ANALOG	ACCU	M +3 DAYS

3
IFB-M

Model KERN	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Net weight approx. kg	Weighing plate	Option Verification M⫶⫶ KERN	DAkkS Calibr. Certificate DAkkS KERN
IFB 3K-4	3	0,1	-	-	4,6	A	-	963-127
IFB 6K-4S	6	0,2	-	-	4,6	A	-	963-128
IFB 6K-4	6	0,2	-	-	5	B	-	963-128
IFB 10K-4	15	0,5	-	-	5	B	-	963-128
IFB 10K-4L	15	0,5	-	-	8	C	-	963-128
IFB 30K-3	30	1	-	-	8	C	-	963-128
IFB 60K-3	60	2	-	-	8	C	-	963-129
IFB 60K-3L	60	2	-	-	11	D	-	963-129
IFB 100K-3	150	5	-	-	11	D	-	963-129
IFB 100K-3L	150	5	-	-	20	E	-	963-129
IFB 300K-2	300	10	-	-	20	E	-	963-129
IFB 600K-2	600	20	-	-	44	F	-	963-130
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readibility [d]								
IFB 6K-3SM	3 | 6	1 | 2	1 | 2	20 | 40	4,6	A	965-228	963-128
IFB 6K1DM	3 | 6	1 | 2	1 | 2	20 | 40	5	B	965-228	963-128
IFB 15K2DM	6 | 15	2 | 5	2 | 5	40 | 100	5	B	965-228	963-128
IFB 15K2DLM	6 | 15	2 | 5	2 | 5	40 | 100	8	C	965-228	963-128
IFB 30K5DM	15 | 30	5 | 10	5 | 10	100 | 200	8	C	965-228	963-128
IFB 60K10DM	30 | 60	10 | 20	10 | 20	200 | 400	8	C	965-229	963-129
IFB 60K10DLM	30 | 60	10 | 20	10 | 20	200 | 400	11	D	965-229	963-129
IFB 150K20DM	60 | 150	20 | 50	20 | 50	400 | 1000	11	D	965-229	963-129
IFB 150K20DLM	60 | 150	20 | 50	20 | 50	400 | 1000	20	E	965-229	963-129
IFB 300K50DM	150 | 300	50 | 100	50 | 100	1000 | 2000	20	E	965-229	963-129
IFB 600K-1M	300 | 600	100 | 200	100 | 200	2000 | 4000	44	F	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.								

10

Precision platform scale KERN DS

EasyTouch

Precision industrial scale with laboratory accuracy

Features

- High-capacity precision balance, ideal for high volume or heavy samples to be weighed with a high degree of accuracy
- User guidance step by step on display by Yes/No dialogue
- Numerical subtraction of tare weight for known container weight. Useful for checking fill-levels
- Precise counting: The automatic reference weight optimisation of reference weight gradually improves the average piece weight value
- Freely programmable weighing unit, e.g. display direct in special units such as length of wire g/m, surface weight g/m^2, or else
- Protective working cover included with delivery

Technical data

- Large backlit LCD display, digit height 18 mm
- Weighing plate dimensions, stainless steel W×D×H
  - Ⓐ 228×228×95 mm
  - Ⓑ 308×318×75 mm, see larger picture
  - Ⓒ 400×300×90 mm
- Dimensions of display device W×D×H 225×115×60 mm
- Cable length of display device approx. Ⓐ, Ⓑ 2 m, Ⓒ 3 m
- Permissible ambient temperature 10 °C/40 °C

Accessories

- Protective working cover over the display device, scope of delivery: 5 items, KERN DE-A12S05

- 1 Stand to elevate display device, height of stand approx. 480 mm for models with weighing plate size Ⓑ, KERN DE-A10
- 2 Stand to elevate display device, height of stand approx. 600 mm for models with weighing plate size Ⓒ, KERN IXS-A04
- Mount to fasten the display device to the platform, for models with weighing plate size Ⓑ, Ⓒ, can be reordered, KERN DE-A11N
- Wall mount for display device, KERN DS-A02
- 3 Set for underfloor weighing, consists of platform, bow, hook, only for models with weighing plate Ⓑ, KERN DS-A01
- Rechargeable battery pack external, operating time up to 30 h without backlight, charging time approx. 10 h, KERN KS-A01
- Internal rechargeable battery pack, operating time up to 30 h without backlight, charging time approx. 10 h, KERN KB-A01N
- Further details, plenty of further accessories and suitable printers see Accessories

STANDARD

| CAL EXT | RS 232 | PCS | SUM Ⓐ | % PERCENT | UNIT | MOVE | MULTI Ⓑ | DMS | 1 DAY |

OPTION

| ET | UNDER Ⓑ | ACCU | DAkkS +3 DAYS |
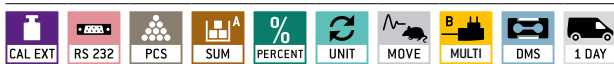
Model KERN	Weighing capacity [Max] kg	Readability [d] g	Smallest part weight [Normal] g/piece	Net weight approx. kg	Resolution Points	Weighing plate	Option DAkkS Calibr. Certificate DAkkS KERN	
DS 3K0.01S	3	0,01	0,1	4,2	300.000	Ⓐ	963-127	
DS 5K0.05S	5	0,05	0,5	4,2	100.000	Ⓐ	963-127	
DS 8K0.05	8	0,05	0,5	8	160.000	Ⓑ	963-128	
DS 10K0.1S	10	0,1	1	4,2	100.000	Ⓐ	963-128	
DS 16K0.1	16	0,1	1	9	160.000	Ⓑ	963-128	
DS 20K0.1	20	0,1	1	8	200.000	Ⓑ	963-128	
DS 30K0.1	30	0,1	1	8	300.000	Ⓑ	963-128	
DS 30K0.1L	30	0,1	1	18	300.000	Ⓒ	963-128	
DS 36K0.2	36	0,2	2	8	180.000	Ⓑ	963-128	
DS 36K0.2L	36	0,2	2	18	180.000	Ⓒ	963-128	
DS 60K0.2	60	0,2	2	18	300.000	Ⓒ	963-129	
DS 65K0.5	65	0,5	5	18	130.000	Ⓒ	963-129	
DS 100K0.5	100	0,5	5	18	200.000	Ⓒ	963-129	
DS 150K1	150	1	10	18	150.000	Ⓒ	963-129	

Platform scale with stainless steel display device KERN SFE

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

Features

- Platform scale protected to IP65 with stainless steel display device, for industrial applications, hygienic and easy to clean
- ① Platform: weighing plate stainless steel, painted steel base, silicone-coated aluminium load cell, protection against dust and water splashes IP65
- Display device: Stainless steel, protection against dust and water splashes IP65, flexible positioning, e.g. free-standing or mounted to the wall, for details see KERN KFE-TM
- Weighing with tolerance range (checkweighing): a visual and audible signal helps with portioning, dispensing or grading
- Hold function: When the weighing conditions are unstable, a stable weight is calculated determining an average value

- 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 LCD display, digit height 22 mm
- Weighing plate dimensions, stainless steel W×D×H
  - Ⓐ 300×240×110 mm, see larger picture
  - Ⓑ 400×300×130 mm
  - Ⓒ 500×400×140 mm
  - Ⓓ 650×500×140 mm
- Dimensions of display device W×D×H 195×120×70 mm
- Cable length of display device approx. 3 m
- Internal rechargeable battery pack, operating time up to 35 h without backlight, charging time approx. 12 h
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Stand to elevate display device, for models with weighing plate size
  Ⓐ-Ⓓ: Height of stand approx. 200 mm, Type ②, KERN SFE-A01
  Ⓑ-Ⓓ: Height of stand approx. 400 mm, Type ②, KERN SFE-A02
  Ⓒ-Ⓓ: Height of stand approx. 600 mm, Type ③, KERN SFE-A03
- Tare pan made from stainless steel. Ideal for weighing loose small parts as well as fruit, vegetables, etc., KERN RFS-A02

STANDARD CAL EXT | SUM | TOL | MOVE | IP 65 | ACCU | MULTI | DMS | 1 DAY   **OPTION** DAkkS +3 DAYS   **FACTORY** M +3 DAYS

Model KERN	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Net weight approx. kg	Weighing plate	Option	
							Verification Ⓜ KERN	DAkkS Calibr. Certificate DAkkS KERN
SFE 6K-3NM	6	2	2	40	6	Ⓐ	965-228	963-128
SFE 10K-3NM	15	5	5	100	6	Ⓐ	965-228	963-128
SFE 10K-3LNM	15	5	5	100	8	Ⓑ	965-228	963-128
SFE 30K-2NM	30	10	10	200	6	Ⓐ	965-228	963-128
SFE 60K-2NM	60	20	20	400	8	Ⓑ	965-229	963-129
SFE 60K-2LNM	60	20	20	400	12	Ⓒ	965-229	963-129
SFE 100K-2NM	150	50	50	1000	8	Ⓑ	965-229	963-129
SFE 100K-2LNM	150	50	50	1000	12	Ⓒ	965-229	963-129
SFE 100K-2XLNM	150	50	50	1000	20	Ⓓ	965-229	963-129
SFE 300K-1LNM	300	100	100	2000	20	Ⓓ	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.

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Platform scale with stainless steel display device KERN IXS

EasyTouch

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Platform scale with stainless steel display device with IP68 rating, XL-display und EC type approval [M] – now also as high resolution version with high-resolution display

Piece-counting function

Durable stainless steel weighing plate

Stainless steel display device with IP68 protection, hygienic and easy to clean

Platform scale with stainless steel display device KERN IXS

Features

- Tough industry standard suitable for use in harsh industrial applications
- **1** Platform: weighing plate stainless steel, painted steel base, silicone-coated aluminium load cell, protection against dust and water splashes IP65, Substruction in wing design, extremely resistant to bending
- **2** Superior display size: digit height 55 mm, bright backlight for easy reading of weighing results, even in poor lighting conditions
- **2** Display device: Stainless steel, protection against dust and water splashes IP68, integrated power supply
- ESD drain to protect against electrostatic discharge e.g. for electrostatically-charged weighing objects or people who work with the scale
- Thanks to interfaces such as RS-232, RS-485 and Bluetooth (optional) the scale can easily be connected to existing networks and facilitates the data exchange between the scale and printer

Technical data

- Large backlit LCD display, digit height 55 mm
- Weighing plate dimensions, stainless steel W×D×H
  - **A** 300×240×86 mm
  - **B** 400×300×89 mm, see larger picture
  - **C** 500×400×123 mm
  - **D** 650×500×133,5 mm
- Dimensions of display device W×D×H 232×150×80 mm
- Cable length of display device approx. 2,5 m
- Permissible ambient temperature -10 °C/40 °C

Accessories

- **3** Stand to elevate display device
  - **A**-**D** Height of stand approx. 50 mm, KERN IXS-A01
  - **A**-**D** Height of stand approx. 200 mm, KERN IXS-A02
  - **B**-**D** Height of stand approx. 400 mm, KERN IXS-A03
  - **C**-**D** Height of stand approx. 600 mm, KERN IXS-A04

- Internal rechargeable battery pack, operating time up to 80 h without backlight, charging time approx. 12 h, must be ordered at purchase, KERN GAB-A04
- Data interface RS-232, interface cable included, approx. 1,5 m, must be ordered at purchase, KERN KXS-A04
- Data interface RS-485, must be ordered at purchase, KERN KXS-A01
- Bluetooth data interface for wireless data transfer to PC or tablets, must be ordered at purchase, not in combination with verification, KERN KXS-A02
- Foot switch, must be ordered at purchase, KERN KXS-A03
- Roller conveyor attachment, with smooth-running, hot-dip galvanised steel rollers with ball bearings, robust aluminium profile frame, for platform size
  - **B** KERN YRO-01
  - **C** KERN YRO-02
  - **D** KERN YRO-03
- Further details, plenty of further accessories and suitable printers see *Accessories*

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STANDARD										OPTION		FACTORY				
CAL EXT	PCS	SUM	TOL	MOVE	IP 65 **1**	IP 68 **2**	230 V	DMS	1 DAY	2 DAYS **D**	ET	DAkkS +3 DAYS	RS 232 *	RS 485 *	BT	ACCU	M +3 DAYS

Model KERN	Weighing range [Max] kg	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Net weight approx. kg	Weighing plate		Option	
								Verification M(III) KERN	DAkkS Calibr. Certificate DAkkS KERN
IXS 6K-4	6	0,2	-	-	6	A		-	963-128
IXS 10K-4	15	0,5	-	-	6	A		-	963-128
IXS 10K-4L	15	0,5	-	-	11	B		-	963-128
IXS 30K-3	30	1	-	-	11	B		-	963-128
IXS 30K-3L	30	1	-	-	22	C		-	963-128
IXS 60K-3	60	2	-	-	11	B		-	963-129
IXS 60K-3L	60	2	-	-	22	C		-	963-129
IXS 100K-3	150	5	-	-	22	C		-	963-129
IXS 100K-3L	150	5	-	-	36	D		-	963-129
IXS 300K-2	300	10	-	-	36	D		-	963-129
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readibility [d]									
IXS 6K-3M	3 | 6	1 | 2	1 | 2	20 | 40	6	A		965-228	963-128
IXS 10K-3M	6 | 15	2 | 5	2 | 5	40 | 100	6	A		965-228	963-128
IXS 10K-3LM	6 | 15	2 | 5	2 | 5	40 | 100	11	B		965-228	963-128
IXS 30K-2M	15 | 30	5 | 10	5 | 10	100 | 200	11	B		965-228	963-128
IXS 30K-2LM	15 | 30	5 | 10	5 | 10	100 | 200	22	C		965-228	963-128
IXS 60K-2M	30 | 60	10 | 20	10 | 20	200 | 400	11	B		965-229	963-129
IXS 60K-2LM	30 | 60	10 | 20	10 | 20	200 | 400	22	C		965-229	963-129
IXS 100K-2M	60 | 150	20 | 50	20 | 50	400 | 1000	22	C		965-229	963-129
IXS 100K-2LM	60 | 150	20 | 50	20 | 50	400 | 1000	36	D		965-229	963-129
IXS 300K-2M	150 | 300	50 | 100	50 | 100	1000 | 2000	36	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.									

* Either RS-232 or RS-485 can be installed and used

Floor scales/Pallet scales/Drive-through scales

From Goods input through to production and on to dispatch – our modern, powerful floor scales can be used everywhere and intuitively. Many clever functions will help you to carry out processes effectively and economically. While meeting high requirements it will save ressources.

In our floor scales product category, we offer our customers a carefully coordinated product range in the weighing range from 300 to 6,000 kg. Choose between affordable entry level models, practical built-in solutions or Premium products made from stainless steel and verified. All floor scales really stand out because of their durable industrial quality as well as reliable protection against dust and water splashes.

Industrial scales for heavy loads

When weighing large containers and heavy goods, scales must overcome different challenges. As well as correspondingly large weighing ranges, a high level of stability and sturdiness is necessary, in order to withstand the maximum loads acting on the weighing plate. Our floor scales are perfectly suited for this task, for example through generously sized struts and material thicknesses, mobile stored adjustable feet for the protection of the load cells, IP67 protection against dust and water splashes or a convenient disconnect device bet ween the display device and platform. The latter means that you can install a verified scale in a packing and dispatch bench or a pit frame for barrier-free access at a later date. Large LCD displays make it easier to read the display even if the angle of view is not ideal. We also have pallet scales, weighing beams and drive-through scales available for versatile use.

Our recommendation: High-resolution KERN BIC floor scale with 2 x 3,000 [d] at the best price-to-performance ratio.

Easy integration through digital interfaces

Thanks to interfaces such as RS-232, USB, Bluetooth, WLAN, Ethernet the scale can easily be connected to existing networks. Data exchange between scale and PC or printer is easy and reliable. The standardised KCP interface (Kern Communication Protocol) takes over the searching und remote control of the scale using external control devices or computers. KCP enables you to recall and control the relevant parameters and device functions and is also compatible with the MT-SICS protocol in most cases.

Our recommendation: High-resolution dual-range KERN

UID pallet scale with EC type approval [M] and various data interfaces

The KERN calibration and verification service

In order to fulfil quality requirements in accordance with DIN EN ISO 9000ff and other standards, we can offer our customers DAkkS calibration. Calibration ensures correct, usable weighing results and makes the floor scale into a reliable measuring and testing instrument. When calibrating, deviations in the display will be identified and documented. The main points to remember are: DAkkS calibration is always sensible, when checking equipment is to be used in a QM process. While calibration is not legally regulated, verification is mandatory in different applications for example:

· In commercial trade, if the price of goods are determined by weighing results.
· In the production of pre-packaged goods
· In the pharmaceutical industry
· For official purposes.

Our recommendation: BID floor scale with EC type approval [M] and the best price-to-performance ratio – now also as a high-resolution dual-range balance

Individual solutions for maximum efficiency

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

If you have special requirements, you can also configure your ideal scale easily and quickly so that it meets your needs. We will put your weighing combination together for you, using the components you have selected and including verification. Please contact your personal customer advisor for further information!

Proof of compatibility

Conformity evaluation

Conformity declaration

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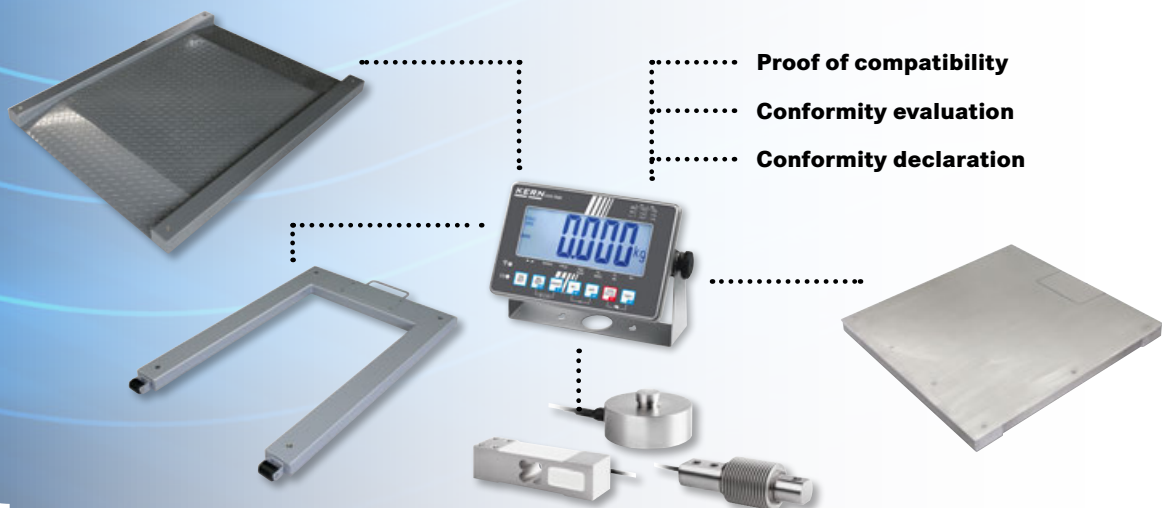
Quick-Finder Floor scales/Pallet scales/Drive-through scales

Readability [d] g	Weighing capacity [Max] kg	Weighing plate W×D×H mm	Model KERN	Page	DAYS	M	RS 232	USB	BT	WLAN	LAN	KCP PROTOCOL	PCS	TOL	ACCU
50 | 100	300 | 600	1000×1000×108	**BID 600K-1DS**	106	2		○	○	○	○					
50 | 100	300 | 600	1200×1500×108	**BID 600K-1D**	106	2		○	○	○	○					
100	300	1000×1000×80	NIB 300K-1	115	2										
100 | 200	300 | 600	1000×1000×108	BIC 600K-1S	104	2										
100 | 200	300 | 600	1200×1500×108	BIC 600K-1	104	2										
100 | 200	300 | 600	1000×1000×108	BID 600K-1DSM	105	2	○	●	○	○	○	○	●	●	●	○
100 | 200	300 | 600	1200×1500×108	BID 600K-1DM	105	2	○	●	○	○	○	○	●	●	●	○
100 | 200	300 | 600	1195×840×110	UID 600K-1DM	112	2	○	●	○	○	○	○	●	●	●	○
100 | 200	600 | 1500	1000×1000×108	**BID 1T-4DS**	106	2		○	○	○	○					
100 | 200	600 | 1500	1200×1500×108	**BID 1T-4D**	106	2		○	○	○	○					
200	600	1000×1000×108	BID 600K-1SM	105	2	○	●	○	○	○	○	●	●	●	○
200	600	1200×1500×108	BID 600K-1M	105	2	○	●	○	○	○	○	●	●	●	○
200	600	1000×1000×90	BFN 600K-1SM	109	2	○	○					●	●	●	●
200	600	800×120×100	UFA 600K-1S	110	2		●		○			●	●	●	○
200	600	1000×1000×85	BFB 600K-1SNM	107	2	○	●		○			●	●	●	○
200	600	1500×1250×85	BFB 600K-1NM	107	2	○	●		○			●	●	●	○
200	600	1195×840×110	UIB 600K-1	111	2										
200	600	1195×840×110	UID 600K-1M	112	2	○	●	○	○	○	○	●	●	●	○
200	600	1190×840×90	UFB 600K200M	113	2	○	●		○			●	●	●	○
200	600	1600×1200×80	NFB 600K200M	116	2	○	●		○			●	●	●	○
200	600	1800×1400×80	NFB 600K200LM	116	2	○	●		○			●	●	●	○
200	600	1600×1200×80	NFN 600K-1M	117	2	○	○						●	●	●
200	600	1360×840×90	UFN 600K200IPM	114	2	○	○							●	●
200	600	1000×1000×80	NIB 600K-2	115	2										
200 | 500	600 | 1500	1000×1000×108	BIC 1T-4S	104	2										
200 | 500	600 | 1500	1200×1500×108	BIC 1T-4	104	2										
200 | 500	600 | 1500	1000×1000×108	BID 1T-4DSM	105	2	○	●	○	○	○	○	●	●	●	○
200 | 500	600 | 1500	1200×1500×108	BID 1T-4DM	105	2	○	●	○	○	○	○	●	●	●	○
200 | 500	600 | 1500	1190×840×110	UID 1500K-1DM	112	2	○	●	○	○	○	○	●	●	●	○
200 | 500	1500 | 3000	1500×1500×108	**BID 3T-3DL**	106	2		○	○	○	○					
200 | 500	1500 | 3000	1200×1500×108	**BID 3T-3D**	106	2		○	○	○	○					
500	1500	1000×1000×108	BID 1T-4SM	105	2	○	●	○	○	○	○	●	●	●	○
500	1500	1200×1000×108	BID 1T-4EM	105	2	○	●	○	○	○	○	●	●	●	○
500	1500	1200×1500×108	BID 1T-4M	105	2	○	●	○	○	○	○	●	●	●	○
500	1500	1500×1500×108	BID 1T-4LM	105	2	○	●	○	○	○	○	●	●	●	○
500	1500	1495×1245×95	BFN 1.5T0.5M	109	2	○	○					●	●	●	●
500	1500	1000×1000×90	BFN 1T-4SM	109	2	○	○					●	●	●	●
500	1500	1200×120×100	UFA 1.5T0.5	110	2		●		○			●	●	●	○
500	1500	1000×1000×100	BFB 1T-4SNM	107	2	○	●		○			●	●	●	○
500	1500	1500×1250×90	BFB 1T-4NM	107	2	○	●		○			●	●	●	○
500	1500	1195×840×110	UIB 1.5T-4	111	2										
500	1500	1190×840×110	UID 1500K-1M	112	2	○	●	○	○	○	○	●	●	●	○
500	1500	1190×840×90	UFB 1.5T0.5M	113	2	○	●		○			●	●	●	○
500	1500	1600×1200×80	NFB 1.5T0.5M	116	2	○	●		○			●	●	●	○
500	1500	1800×1400×80	NFB 1.5T0.5LM	116	2	○	●		○			●	●	●	○
500	1500	1600×1200×80	NFN 1.5T-4M	117	2	○	○						●	●	●
500	1500	1360×840×90	UFN 1.5T0.5IPM	114	2	○	○							●	●
500 | 1000	1500 | 3000	1200×1500×108	BIC 3T-3	104	2										
500 | 1000	1500 | 3000	1500×1500×108	BIC 3T-3L	104	2									●	
500 | 1000	1500 | 3000	1200×1500×108	BID 3T-3DM	105	2	○	●	○	○	○	○	●	●	●	○
500 | 1000	1500 | 3000	1500×1500×108	BID 3T-3DLM	105	2	○	●	○	○	○	○	●	●	●	○
500 | 1000	1500 | 3000	1190×840×110	UID 3000K-0DM	112	2	○	●	○	○	○	○			●	○
1000	3000	1200×1500×108	BID 3T-3M	105	2	○	●	○	○	○	○	●	●	●	○
1000	3000	1500×1500×108	BID 3T-3LM	105	2	○	●	○	○	○	○	●	●	●	○
1000	3000	1495×1245×95	BFN 3T-3M	109	2	○	○					●	●	●	●
1000	3000	1200×120×100	UFA 3T1	110	2		●		○			●	●	●	○
1000	3000	2000×160×100	UFA 3T-3L	110	2		●		○			●	●	●	○
1000	3000	1500×1250×85	BFB 3T-3NM	107	2	○	●		○			●	●	●	○
1000	3000	1500×1500×80	BFB 3T1LM	107	2	○	●		○			●	●	●	○
1000	3000	1195×840×110	UIB 3T-3	111	2										
1000	3000	1195×840×110	UID 3000K-0M	112	2	○	●	○	○	○	○	●	●	●	○
2000	6000	1200×160×100	UFA 6T-3	110	2		●		○				●	●	○
2000	6000	2000×160×100	UFA 6T-3L	110	2		●		○				●	●	○
2000	6000	1500×1500×130	BFB 6T-3M	107	2	○	●		○			●	●	●	○

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● = standard   ○ = option

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Floor scale KERN BIC
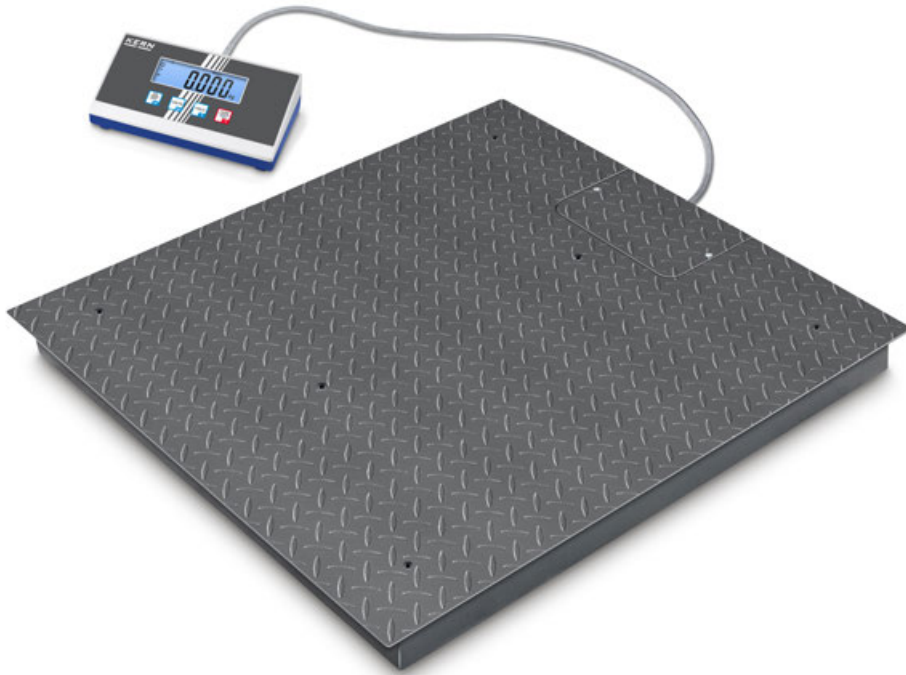
High-resolution floor scale with 2×3000 [d] and the best price-to performance ratio

Features

- 1 Weighing bridge: out of anti-slip corrugated steel, 4 load cells, alloy steel, silicone-coated, IP67
- Welded platform with screw holes to lift the scale for easy cleaning
- Easy levelling of the weighing bridge as well as access to the junction box from above
- Simple and convenient 4-key operation
- Wall mount for display device, standard
- A clever plug-in connector means that you can easily separate the display device and the platform, e.g. for installing the balance in a packing and dispatch bench, pit frame etc. at a later date
- 2 Did you know? Our floor scales are delivered in a robust wooden box. This protects the high-quality weighing technology from environmental influences and stresses during transportation. KERN – always one step ahead

Technical data

- Large LCD display, digit height 25 mm
- Weighing plate dimensions W×D×H
  A 1000×1000×108 mm
  B 1200×1500×108 mm
  C 1500×1500×108 mm
- Dimensions of display device W×D×H 235×114×51 mm
- Optional battery operation, 4×1.5 V AA not included in scope of delivery, operating time up to 60 h
- Cable length of display device approx. 5 m
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN EOB-A04BS05
- Pair of base plates to fix the weighing bridge to the floor, KERN BIC-A07
- 3 Ascending ramp, steel, powder coated, for models with weighing plate size
  A 1000×1000×108 mm, KERN BIC-A01
  B 1200×1000×108 mm, KERN BIC-A02
  C 1500×1000×108 mm, KERN BIC-A03
- 4 Stable pit frame, steel, for models with weighing plate size
  A 1088×1088×110 mm, KERN BIC-A04
  B 1288×1588×110 mm, KERN BIC-A05
  C 1588×1588×110 mm, KERN BIC-A06

! Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs

STANDARD

| CAL EXT | UNIT | MOVE | IP 67 | BATT | MULTI | DMS | 2 DAYS |

1

OPTION

| DAkkS +3 DAYS |

Model	Weighing capacity	Readability	Net weight	Weighing plate		Option	
						DAkkS Calibr. Certificate	
KERN	[Max] kg	[d] kg	approx. kg			DAkkS KERN	
	Dual-range balance switches automatically to the next largest weighing capacity [Max] and readibility [d]						
BIC 600K-1S	300 | 600	0,1 | 0,2	70	A		963-130	
BIC 600K-1	300 | 600	0,1 | 0,2	150	B		963-130	
BIC 1T-4S	600 | 1500	0,2 | 0,5	150	A		963-130	
BIC 1T-4	600 | 1500	0,2 | 0,5	70	B		963-130	
BIC 3T-3	1500 | 3000	0,5 | 1	150	B		963-132	
BIC 3T-3L	1500 | 3000	0,5 | 1	150	C		963-132	

Floor scales KERN BID/BID-D

EasyTouch

Floor scale with EC type approval [M] and the best price-to-performance ratio – now also as high-resolution dual-range balance

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Did you know?
Our floor scales are delivered in a robust wooden box. This protects the high-quality weighing technology from environmental influences and stresses during transportation.
KERN – always one step ahead

3 Access ramp incl. pair of base plates to facilitate access of e.g. wire cage trolleys, shelf trolleys, container trolleys, storage trolleys, sack trucks, transpallets, mobile containers, containers refuse etc.

4 Verification plug, for verified balances this enables you to separate the display device and platform without affecting the verification, e.g. for installing the scale in a packing and dispatch table, pit frame etc. at a later date.

Floor scales KERN BID/BID-D

Features

- Dual-range floor scales, ideal, high maximum loads need to be weighed, but in the lower load range you still need high resolution. This means that two scales can be replaced with one – which saves space and money!
- BID 1T-4EM: Compact special size, especially for weighing europallets
- ① Weighing bridge: out of anti-slip corrugated steel, 4 load cells, alloy steel, silicone-coated, IP67
- Easy levelling of the weighing bridge as well as access to the junction box from above
- ② Display device: for details see KERN KIB-TM
- Totalising of weights and piece counts
- Thanks to interfaces such as RS-232 or USB, WiFi, Bluetooth, Ethernet (optional), the scale can easily be connected to existing networks. Data exchange between the scale, PC or printer
- Searching and remote control of the balance using external control devices or computers with the KERN Communication Protocol (KCP). KCP is a standardised interface command structure for KERN balances and other instruments which allows you to recall and manage all relevant parameters and device functions. You can therefore simply connect KERN devices with KCP to computers, industrial control systems and other digital systems. In a large number of cases the KCP is compatible with the MT-SICS protocol.

Technical data

- Large LCD display, digit height 25 mm
- Weighing plate dimensions W×D×H
  Ⓐ 1000×1000×108 mm, Ⓑ 1200×1000×108 mm
  Ⓒ 1200×1500×108 mm, Ⓓ 1500×1500×108 mm
- Dimensions of display device W×D×H 268×115×80 mm
- Cable length of display device approx. 5 m
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN EOC-A01S05
- Pair of base plates to fix the weighing bridge to the floor, KERN BIC-A07
- Ascending ramp, steel, powder coated, for models with weighing plate size
  Ⓐ, Ⓑ KERN BIC-A01
  Ⓒ KERN BIC-A02
  Ⓓ KERN BIC-A03
- Stable pit frame, Steel, powder-coated, to install the weighing bridge so you can drive straight on, for models with weighing plate size
  Ⓐ KERN BIC-A04
  Ⓑ KERN BIC-A08
  Ⓒ KERN BIC-A05
  Ⓓ KERN BIC-A06
- Benchtop stand incl. wall mount for display device, KERN EOC-A04
- Internal rechargeable battery pack, operating time up to 43 h without backlight, charging time approx. 3 h, KERN KFB-A01
- USB data interface, for transferring weighing to the PC, printer etc., KERN KIB-A03
- Bluetooth data interface for wireless data transfer to PC or tablets, must be ordered at purchase, not possible in combination with verification, KERN KIB-A04
- WiFi interface for wireless connection of the balance to networks and WiFi capable devices, such as tablets or laptops, continuous data transfer, must be ordered at purchase, KERN KIB-A10
- Ethernet data interface, to connect an IP-based Ethernet network, continuous data transfer, must be ordered at purchase, KERN KIB-A02
- Signal lamp, including interface, for visual support of weighing with tolerance range, must be ordered at purchase, KERN KIB-A06
- Alibi memory, including USB interface for exporting weighing results to external data storage media, such as, for example, USB sticks, hard drives, etc., KERN KIB-A01
- Verification plug, for verified balances this enables you to separate the display device and platform without affecting the verification, e.g. for installing the scale in a packing and dispatch table, pit frame etc. at a later date. Please order this at the same time as you purchase your scale, KERN KIB-A12

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

In addition to the RS-232 data interface, which is integrated as standard, only one other data interface can be installed and operated

❗ Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs

STANDARD — **OPTION** — **FACTORY**

CAL EXT | RS 232 | KCP PROTOCOL | GLP PRINTER | PCS | SUM | PERCENT | TOL | MOVE | IP 65 | IP 67 | MULTI | DMS | 2 DAYS | ET | ACCU | DAkkS +3 DAYS | ALIBI | USB | BT 4.0 | WIFI | SWITCH | LAN | M +3 DAYS

11

Model KERN	Weighing capacity [Max] kg	Readability [d] kg	Verification value [e] kg	Minimal load [Min] kg	Net weight approx. kg	Weighing plate		Option	
								Verification M⏐⏐⏐ KERN	DAkkS Calibr. Certificate DAkkS KERN
Dual-range balance with high resolution readability									
BID 600K-1DS [NEW]	300 | 600	0,05 | 0,1	–	–	70	Ⓐ		–	963-130
BID 600K-1D [NEW]	300 | 600	0,05 | 0,1	–	–	150	Ⓒ		–	963-130
BID 1T-4DS [NEW]	600 | 1500	0,1 | 0,2	–	–	70	Ⓐ		–	963-130
BID 1T-4D [NEW]	600 | 1500	0,1 | 0,2	–	–	150	Ⓒ		–	963-130
BID 3T-3D [NEW]	1500 | 3000	0,2 | 0,5	–	–	150	Ⓒ		–	963-132
BID 3T-3DL [NEW]	1500 | 3000	0,2 | 0,5	–	–	155	Ⓓ		–	963-132
BID 600K-1SM	600	0,2	0,2	4	70	Ⓐ		965-230	963-130
BID 600K-1M	600	0,2	0,2	4	150	Ⓒ		965-230	963-130
BID 1T-4SM	1500	0,5	0,5	10	70	Ⓐ		965-230	963-130
BID 1T-4M	1500	0,5	0,5	10	150	Ⓒ		965-230	963-130
BID 1T-4EM	1500	0,5	0,5	10	85	Ⓑ		965-230	963-130
BID 1T-4LM	1500	0,5	0,5	10	160	Ⓓ		965-230	963-130
BID 3T-3M	3000	1	1	20	150	Ⓒ		965-232	963-132
BID 3T-3LM	3000	1	1	20	160	Ⓓ		965-232	963-132
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readibility [d]									
BID 600K-1DSM	300 | 600	0,1 | 0,2	0,1 | 0,2	2	70	Ⓐ	🔻	965-230	963-130
BID 600K-1DM	300 | 600	0,1 | 0,2	0,1 | 0,2	2	150	Ⓒ		965-230	963-130
BID 1T-4DSM	600 | 1500	0,2 | 0,5	0,2 | 0,5	5	70	Ⓐ		965-230	963-130
BID 1T-4DM	600 | 1500	0,2 | 0,5	0,2 | 0,5	5	150	Ⓒ		965-230	963-130
BID 3T-3DM	1500 | 3000	0,5 | 1	0,5 | 1	10	150	Ⓒ		965-232	963-132
BID 3T-3DLM	1500 | 3000	0,5 | 1	0,5 | 1	10	160	Ⓓ		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.									

[NEW] New model

🔻

Floor scale KERN BFB
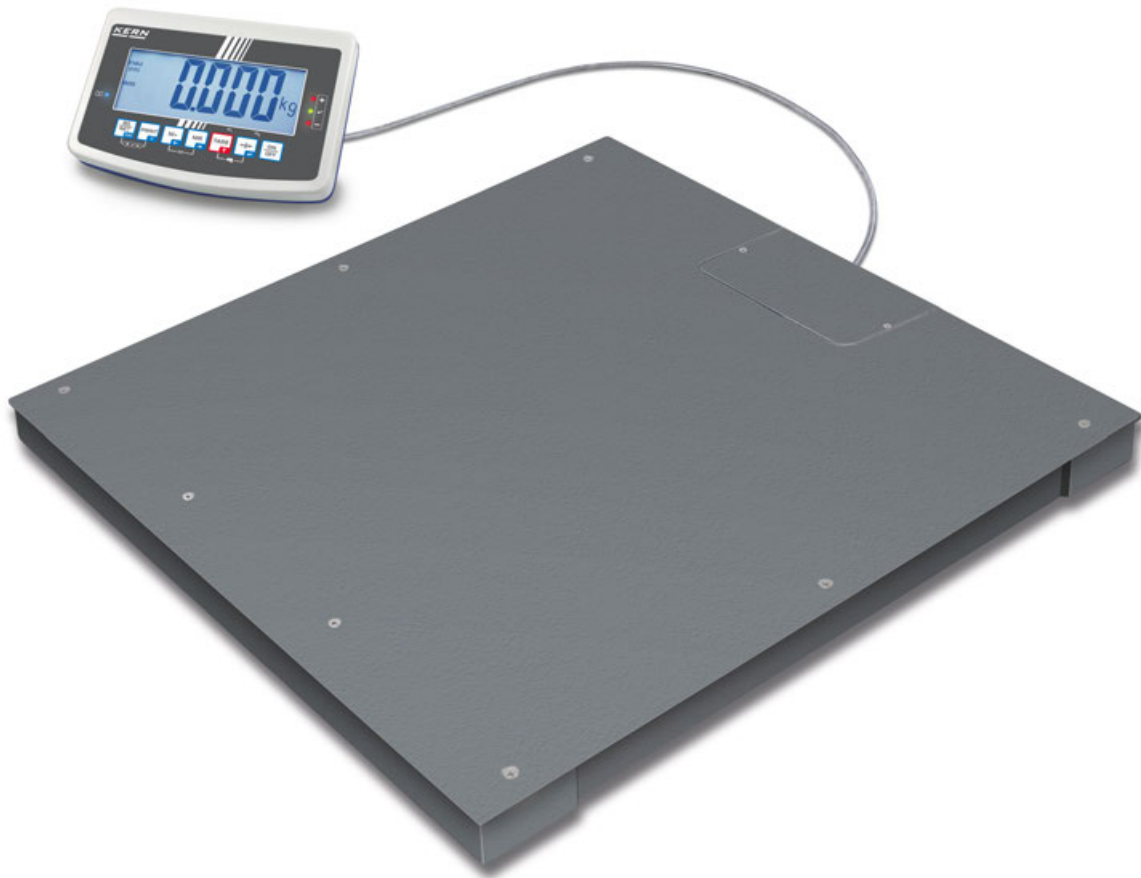
Weighing bridge with screwed-on weighing plate (IP67) and
XXL display device, with EC type approval [M]

Weighing plate can be unscrewed
The weighing plate can be conveniently
unscrewed for maintenance or cleaning
purposes (weighing plate size A, B)
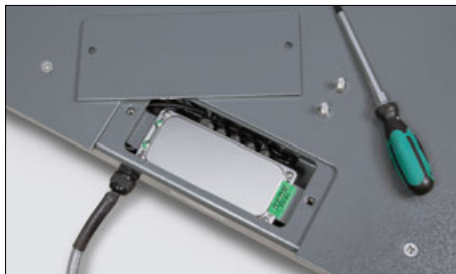
Easy levelling of the weighing bridge as well
as access to the junction box from above

Did you know? Our floor scales are delivered
in a robust wooden box. This protects the
high-quality weighing technology from
environmental influences and stresses during
transportation. KERN – always one step ahead

Floor scale KERN BFB

Features

- Weighing plate Ⓐ, Ⓑ screwed on from the top, so it easy to remove, hygienic and easy to clean
- ❶ Weighing bridge: steel, powder coated, weighing plate size Ⓒ, Ⓓ corrugated steel plate, welded, 4 silicone-coated steel load cells, dust and spray protection IP67
- Display device: for details see KERN KFB-TM
- Benchtop stand incl. wall mount for display device as standard
- Totalising of weights and piece counts
- Protective working cover included with delivery

Technical data

- Large backlit LCD display, digit height 52 mm
- Weighing plate dimensions W×D×H
  - Ⓐ 1000×1000×85 mm
  - Ⓑ 1500×1250×85 mm
  - Ⓒ 1500×1500×80 mm
  - Ⓓ 1500×1500×130 mm
- Dimensions of display device W×D×H 250×160×58 mm
- Cable length of display device approx. 5 m
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN KFB-A02S05
- ❷ Stand to elevate display device Column height approx. 800 mm, KERN BFS-A07
- Pair of base plates to fix the weighing bridge to the floor, for models with weighing plate size Ⓐ, Ⓑ, Ⓒ KERN BFS-A06N Ⓓ KERN BFS-A10
- ❸ Ascending ramp, Steel, lacquered, not included, for models with weighing plate size Ⓐ KERN BFS-A01N Ⓑ KERN BFS-A02N Ⓒ KERN BFS-A09N Ⓓ KERN BFS-A11
- ❹ Stable pit frame, steel, for models with weighing plate size Ⓐ KERN BFS-A03N Ⓑ KERN BFS-A04N Ⓒ KERN BFS-A08
- Internal rechargeable battery pack, operating time up to 35 h without backlight, charging time approx. 10 h, must be ordered at purchase, KERN KFB-A01
- Bluetooth data interface for wireless data transfer to PC or tablets, must be ordered at purchase, not in combination with verification. When installing the Bluetooth data interface, the RS-232 data interface can no longer be used, not possible in combination with RS 232 data interface, KERN KFB-A03

- Analogue module, must be ordered at purchase, not possible in combination with signal lamp 0–10 V: KERN KFB-A04 4–20 mA: KERN KFB-A05
- Signal lamp for visual support of weighing with tolerance range, not possible in combination with analogue module, KERN CFS-A03
- Large display with superior display size, KERN YKD-A02
- Cable with special length 15 m, between display device and platform, for verified models which must be ordered at the time of purchase, KERN BFB-A03
- Further details, plenty of further accessories and suitable printers see *Accessories*

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

❗ Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs

11

STANDARD									OPTION		FACTORY			
CAL EXT	RS 232	KCP PROTOCOL	PCS	SUM	TOL	MOVE	IP 67	MULTI ❶	DMS	2 DAYS	ET	DAkkS +3 DAYS	BT 2.0	ANALOG	ACCU	+3 DAYS

Model KERN	Weighing capacity [Max] kg	Readability = Verification value [d] = [e] kg	Minimal load [Min] kg	Net weight approx. kg	Weighing plate	Option	
						Verification Ⓜ KERN	**DAkkS Calibr. Certificate** DAkkS KERN
BFB 600K-1SNM	600	0,2	4	105	Ⓐ	965-230	963-130
BFB 600K-1NM	600	0,2	4	140	Ⓑ	965-230	963-130
BFB 1T-4SNM	1500	0,5	10	105	Ⓐ	965-230	963-130
BFB 1T-4NM	1500	0,5	10	140	Ⓑ	965-230	963-130
BFB 3T-3NM	3000	1	20	140	Ⓑ	965-232	963-132
BFB 3T1LM	3000	1	20	155	Ⓒ	965-232	963-132
BFB 6T-3M	6000	2	40	230	Ⓓ	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

EasyTouch
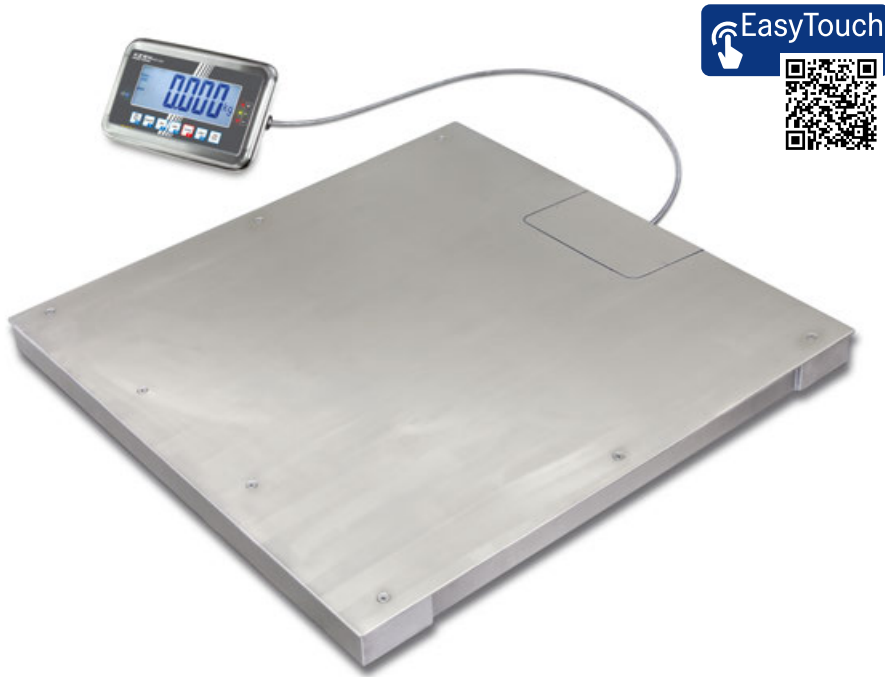
Stainless steel weighing bridge with screwed-on weighing plate (IP68) and stainless steel display device (IP65), with EC type approval [M]

Features

- Tough industry standard suitable for use in harsh industrial applications
- Weighing plate screwed on from the top with stainless steel screws, so it's easy to remove, hygienic and easy to clean
- ① Weighing bridge: stainless steel, extremely resistant to bending due to material thickness, 4 welded stainless steel load cells, dust and spray protection IP68. Weighing bridge can also be delivered as component without the display device, for details see KERN KFD-V40.
- Your support in a HACCP-compliant quality system
- Easy levelling of the weighing bridge as well as access to the junction box from above
- ② Display device: Stainless steel, protection against dust and water splashes IP65, for industrial applications, hygienic and easy to clean, integrated power supply. The display device can also be delivered as a component without the weighing bridge, for details see KERN KFN-TM
- Benchtop stand incl. wall mount for display device as standard

- Totalising of weights and piece counts
- Internal rechargeable battery pack included with delivery
- Did you know? Our floor scales are delivered in a robust wooden box. This protects the high-quality weighing technology from environmental influences and stresses during transportation. KERN – always one step ahead

Technical data

- Large backlit LCD display, digit height 52 mm
- Dimensions of display device W×D×H 266×165×96 mm
- Cable length of display device approx. 5 m
- Weighing plate dimensions W×D×H Ⓐ 1000×1000×90 mm, Ⓑ 1500×1250×95 mm
- Permissible ambient temperature -10 °C/40 °C

Accessories

- ③ Stand to elevate display device, height of stand approx. 800 mm, KERN YKP-02
- Pair of base plates to fix the weighing bridge to the floor, KERN BFN-A03

- ④ Ascending ramp, stainless steel, not included, for models with weighing plate size Ⓐ KERN BFN-A05 Ⓑ KERN BFN-A01
- ⑤ Stable pit frame, Stainless Steel, for models with weighing plate size Ⓐ KERN BFN-A06 Ⓑ KERN BFN-A02
- Bluetooth data interface, must be ordered at purchase, KERN KFB-A03
- Analogue module, 0–10 V: KERN KFB-A04 4–20 mA: KERN KFB-A05
- Internal rechargeable battery pack, operating time up to 35 h without backlight, charging time approx. 12 h, KERN GAB-A04
- RS 232 data interface including interface cable 1,5 m, must be ordered at purchase, KERN KFN-A01
- Cable with special length 15 m, between display device and platform, for verified models which must be ordered at the time of purchase, KERN BFB-A03
- Further details, plenty of further accessories and suitable printers see Accessories

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

⚠ Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs

Optionally configurable with IP68 display device on request, details see chapter 13

11

STANDARD												OPTION		FACTORY			
CAL EXT	KCP PROTOCOL	PCS	SUM	TOL	MOVE	IP 65	IP 68	ACCU	MULTI	DMS	2 DAYS	ET	DAkkS +3 DAYS	RS 232	BT 2.0	ANALOG	M +3 DAYS
						②	①							*		*	

Model	Weighing capacity [Max]	Readability = Verification value [d] = [e]	Minimal load [Min]	Net weight approx.	Weighing plate		Option	
							Verification	DAkkS Calibr. Certificate
KERN	kg	kg	kg	kg			Ⓜ KERN	DAkkS KERN
BFN 600K-1SM	600	0,2	4	100	Ⓐ		965-230	963-130
BFN 1T-4SM	1500	0,5	10	100	Ⓐ		965-230	963-130
BFN 1.5T0.5M	1500	0,5	10	145	Ⓑ		965-230	963-130
BFN 3T-3M	3000	1	20	150	Ⓑ		265-232	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.

* Not possible in combination with RS 232 data interface

Weighing beams KERN UFA

EasyTouch

Highly versatile weighing beams (IP67) for large loads to 6 t

Features

- Flexible solution for weighing large, bulky or long items thanks to freely positionable weighing beams and a 5 m (!) long connecting cable between the beams
- High mobility: thanks to rechargeable battery operation (optional), compact, lightweight construction, it is suitable for the use in several locations
- 1 Weighing beams: steel, painted, 4 silicone-coated aluminium load cells, protection against dust and water splashes IP67, weighing beams can also be delivered as components without the display device, for details see KERN KFA-V20
- 2 Sturdy handles for transporting the weighing beams
- 2 KERN UFA-L: Each weighing beam has a roller and handle for easy transport of the scale
- Display device: for details see KERN KFB-TM
- Benchtop stand incl. wall mount for display device as standard

- Totalising of weights and piece counts
- Protective working cover included with delivery
- KERN UFA-S, new model with short weighing beams, ideal for weighing compact items or animals in transport boxes
- Did you know? Our floor scales are delivered in a robust wooden box. This protects the high-quality weighing technology from environmental influences and stresses during transportation. KERN – always one step ahead

Technical data

- Large backlit LCD display, digit height 52 mm
- Dimensions of display device W×D×H 250×160×65 mm
- Cable length of display device approx. 5 m
- Cable length weighing beams approx. 5 m
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN KFB-A02S05
- 3 Stand to elevate display device Column height approx. 800 mm, KERN BFS-A07
- Internal rechargeable battery pack, operating time up to 35 h without backlight, charging time approx. 10 h, KERN KFB-A01
- Bluetooth data interface for wireless data transfer to PC or tablets, must be ordered at purchase, not in combination with verification. When installing the Bluetooth data interface, the RS-232 data interface can no longer be used, not possible in combination with RS 232 data interface, KERN KFB-A03
- Analogue module, must be ordered at purchase, not possible in combination with signal lamp
  0-10 V: KERN KFB-A04
  4-20 mA: KERN KFB-A05
- 4 Signal lamp for visual support of weighing with tolerance range, not possible in combination with analogue module, KERN CFS-A03
- 5 Large display with superior display size, KERN YKD-A02
- Y-cable for parallel connection of two terminal devices to the RS-232 interface on the scale, e.g. signal lamp and printer, KERN CFS-A04
- Cable with special length 15 m, between display device and platform, for verified models which must be ordered at the time of purchase, KERN BFB-A03
- Further details, plenty of further accessories and suitable printers see Accessories

STANDARD											OPTION		FACTORY		
CAL EXT	RS 232	KCP PROTOCOL	PCS	SUM	UNIT	TOL	MOVE	IP 67	MULTI	DMS	2 DAYS	ET	DAkkS +3 DAYS	BT 2.0	ANALOG	ACCU

Model KERN	Weighing capacity [Max] kg	Readability [d] kg	Net weight approx. kg	Dimensions Weighing beam W×D×H mm	Option DAkkS Calibr. Certificate DAkkS KERN	
UFA 600K-1S	600	0,2	36	800×120×100	963-130	
UFA 1.5T0.5	1500	0,5	38	1200×120×100	963-130	
UFA 3T1	3000	1	38	1200×120×100	963-132	
UFA 3T-3L	3000	1	60	2000×160×100	963-132	
UFA 6T-3	6000	2	85	1200×160×100	963-132	
UFA 6T-3L	6000	2	135	2000×160×100	963-132	

11

Pallet scale KERN UIB
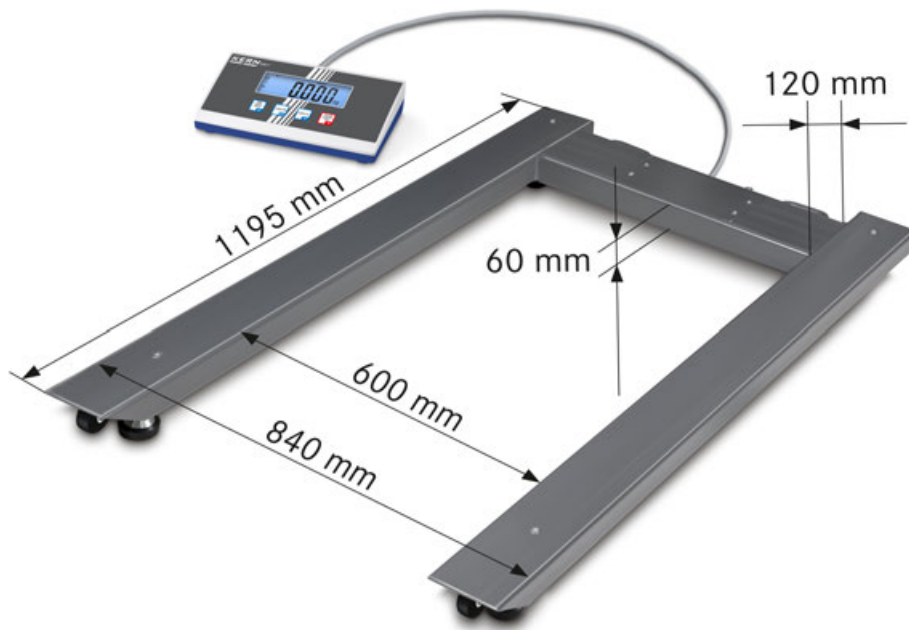
Pallet scale with steel load support (IP67) and the best price-to-performance ratio

Features

- High mobility: thanks to battery operation, compact, lightweight construction, it is suitable for the use in several locations
- **1** Load support: steel, powder coated, 4 silicone-coated aluminium load cells, protection against dust and water splashes IP67
- **2** The scale can be easily transported using rollers and a handle and does not require much storage space
- Totalising of weights and piece counts
- Protective working cover included with delivery
- **3** Did you know? Our floor scales are delivered in a robust wooden box. This protects the high-quality weighing technology from environmental influences and stresses during transportation. KERN – always one step ahead

Technical data

- Large LCD display, digit height 25 mm
- Dimensions of display device W×D×H 235×115×52 mm
- Cable length of display device approx. 5 m
- Optional battery operation, 4×1.5 V AA not included in scope of delivery, operating time up to 60 h
- Net weight approx. 55 kg
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Protective working cover over the display device, scope of delivery: 5 items, KERN EOB-A04BS05
- Stand to elevate display device, height of stand approx. 1000 mm, can be reordered, KERN EOB-A02B

❗ Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs

11

STANDARD

CAL EXT	UNIT	MOVE	IP 67	BATT	MULTI	DMS	2 DAYS

OPTION

DAkkS +3 DAYS

| Model | Weighing capacity | Readability | Net weight | | Option |
| | | | | | DAkkS Calibr. Certificate |
KERN	[Max] kg	[d] kg	approx. kg		DAkkS KERN
UIB 600K-1	600	0,2	55		963-130
UIB 1.5T-4	1500	0,5	55		963-130
UIB 3T-3	3000	1	55		963-132

Pallet scale KERN UID

EasyTouch
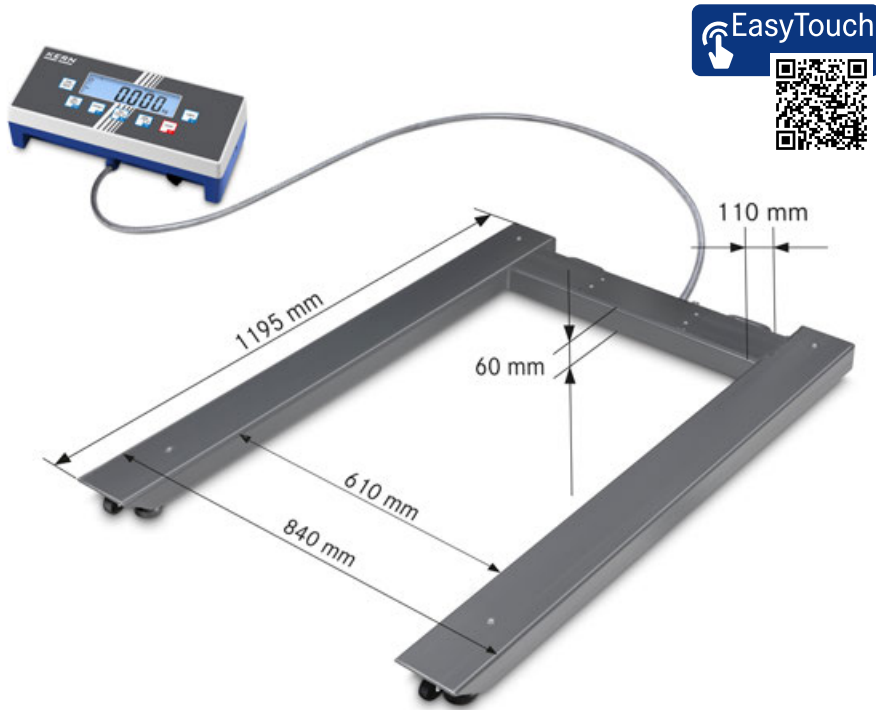
High-resolution dual-range pallet scale with EC type approval [M] and a wide range of interfaces

Features

- Dual-range pallet scale! Ideal, when high maximum loads need to be weighed, but in the lower load range you still need high resolution. This means that two scales can be replaced with one – which saves space and money!
- High mobility thanks to battery operation for **1** display device and platform
- **2** Load support: steel, powder coated, 4 load cells, alloy steel, silicone-coated, IP67
- The scale can be easily transported using rollers and a handle and does not require much storage space
- Totalising of weights and piece counts
- Searching and remote control of the balance using external control devices or computers with the KERN Communication Protocol (KCP). KCP is a standardised interface command structure for KERN balances and other instruments which allows you to recall and

manage all relevant parameters and device functions. You can therefore simply connect KERN devices with KCP to computers, industrial control systems and other digital systems. In a large number of cases the KCP is compatible with the MT-SICS protocol.
- Due to interfaces such as RS-232 or USB, WiFi, Bluetooth, Ethernet (optional), the scale can easily be connected to existing networks. Data exchange between the scale, PC or printer
- Protective working cover included with delivery

Technical data

- Large LCD display, digit height 25 mm
- Dimensions of display device W×D×H 268×115×80 mm
- Cable length of display device approx. 5 m
- Net weight 44 kg
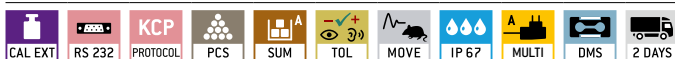- Permissible ambient temperature -10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN EOC-A01S05
- Stand to elevate display device, height of stand approx. 800 mm, KERN BFS-A07
- Internal rechargable battery pack, operating time up to 43 h without backlight, charging time approx. 3 h, KERN KFB-A01
- USB data interface, must be ordered at purchase, KERN KIB-A03
- Bluetooth data interface for wireless data transfer to PC or tablets, must be ordered at purchase, must be ordered at purchase, KERN KIB-A04
- WiFi interface for wireless connection of the balance to networks and WiFi capable devices, such as tablets or laptops, continuous data transfer, must be ordered at purchase, KERN KIB-A10
- Ethernet data interface, to connect an IP-based Ethernet network, continuous data transfer, must be ordered at purchase, KERN KIB-A02
- Signal lamp, including interface, for visual support of weighing with tolerance range, must be ordered at purchase, KERN KIB-A06
- Alibi memory, including USB interface for exporting weighing results to external data storage media, such as, for example, USB sticks, hard drives, etc., KERN KIB-A01
- Verification plug, for verified balances this enables you to separate the display device and platform without affecting the verification, e.g. for installing the scale in a packing and dispatch table, pit frame etc. at a later date. Please order this at the same time as you purchase your scale, KERN KIB-A12

Note: In addition to the RS-232 interface, which is integrated as standard, only one other interface can be installed and operated

! Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs

STANDARD														OPTION			FACTORY						
CAL EXT	RS 232	KCP PROTOCOL	GLP PRINTER	PCS	SUM	PERCENT	UNIT	TOL	MOVE	IP 65	IP 67	MULTI	DMS	2 DAYS	ET	ACCU	DAkkS +3 DAYS	ALIBI	USB	BT 4.0	WIFI	LAN	M +3 DAYS
										1	**2**												

Model	Weighing capacity	Readability = Verification value		Option	
				Verification	DAkkS Calibr. Certificate
KERN	[Max] kg	[d] = [e] kg		M〔Ⅲ〕 KERN	DAkkS KERN
UID 600K-1M	600	0,2		965-230	963-130
UID 1500K-1M	1500	0,5		965-230	963-130
UID 3000K-0M	3000	1		965-232	963-132
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readibility [d]					
UID 600K-1DM	300 | 600	0,1 | 0,2		965-230	963-130
UID 1500K-1DM	600 | 1500	0,2 | 0,5		965-230	963-130
UID 3000K-0DM	1500 | 3000	0,5 | 1		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.					

Pallet scale KERN UFB

EasyTouch

185 mm
1190 mm
90 mm
600 mm
840 mm
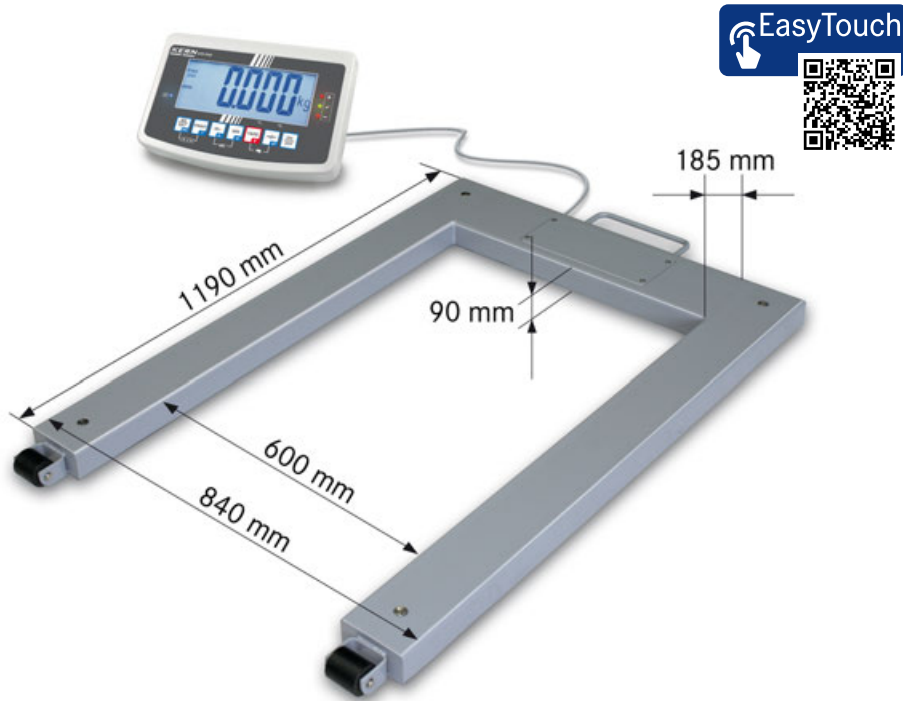
Pallet scale with steel load support (IP67) and EC type approval [M]

Features

- High mobility: thanks to rechargeable battery operation (optional), compact, lightweight construction, it is suitable for the use in several locations
- 1 Load support: steel, powder coated, 4 load cells, alloy steel, silicone-coated, IP67, Weighing bridge can also be delivered as component without the display device, for details see KERN KFU-V20
- Two wheels for easy transportation of the scale
- Weighing with tolerance range (checkweighing): A visual and audible signal assists the rapid checking of items on palettes
- Totalising of weights and piece counts
- Protective working cover included with delivery
- 2 Did you know? Our floor scales are delivered in a robust wooden box. This protects the high-quality weighing technology from environmental influences and stresses during transportation. KERN – always one step ahead

Technical data

- Large backlit LCD display, digit height 52 mm
- Dimensions of display device W×D×H 250×160×58 mm
- Cable length of display device approx. 5 m
- Net weight approx. 55 kg
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN KFB-A02S05
- 3 Stand to elevate display device Column height approx. 800 mm, KERN BFS-A07
- Internal rechargeable battery pack, operating time up to 35 h without backlight, charging time approx. 12 h, not possible in combination with verification, KERN KFB-A01
- Bluetooth data interface for wireless data transfer to PC or tablets, must be ordered at purchase, not in combination with verification. When installing the Bluetooth data interface, the RS-232 data interface can no longer be used, not possible in combination with RS 232 data interface, KERN KFB-A03

- Analogue module, must be ordered at purchase, not possible in combination with signal lamp 0-10 V, KERN KFB-A04 4-20 mA, KERN KFB-A05
- 4 Signal lamp for visual support of weighing with tolerance range, not possible in combination with analogue module, KERN CFS-A03
- 5 Large display with superior display size, KERN YKD-A02
- Y-cable for parallel connection of two terminal devices to the RS-232 interface on the scale, e.g. signal lamp and printer, KERN CFS-A04
- Cable with special length 15 m, between display device and platform, for verified models which must be ordered at the time of purchase, KERN BFB-A03
- Further details, plenty of further accessories and suitable printers see *Accessories*

! Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs

STANDARD

| CAL EXT | RS 232 | KCP PROTOCOL | GLP PRINTER | PCS | SUM | UNIT | TOL | MOVE | IP 67 | MULTI | DMS | 2 DAYS |

OPTION

| ET | DAkkS +3 DAYS |

FACTORY

| BT 2.0 | ANALOG | ACCU | M +3 DAYS |

| Model	Weighing capacity	Readability	Minimal load		Option	
					Verification	DAkkS Calibr. Certificate
KERN	[Max] kg	[d] kg	[Min] kg		M KERN	DAkkS KERN
UFB 600K200M	600	0,2	4		965-230	963-130
UFB 1.5T0.5M	1500	0,5	10		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.						

* Not possible in combination with RS 232 data interface

11

Pallet scale KERN UFN

EasyTouch
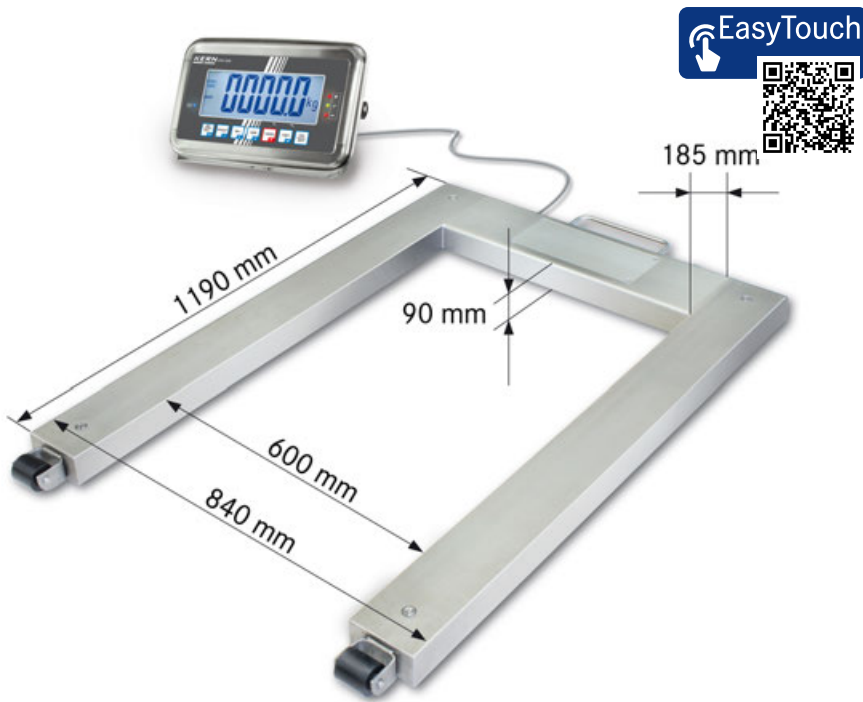
Pallet scale with stainless steel load support (IP67) and stainless steel display device (IP65), with EC type approval [M]

Features

- High mobility: thanks to rechargeable battery operation, compact, lightweight construction, it is suitable for the use in several locations (production, warehouse, dispatch department etc.)
- 1 Load support: stainless steel,, extremely resistant to bending due to material thickness, 4 silicone-coated stainless steel load cells, protection against dust and water splashes IP67, weighing bridge can also be delivered as component without the display device, for details see KERN KFU-V30
- Your support in a HACCP-compliant quality system
- Suitable for the ever-increasing hygienic requirements in the food industry
- 2 Display device: for details see KERN KFN-TM
- The scale can be easily transported using rollers and a handle and does not require much storage space
- Hold function: When the weighing conditions are unstable, a stable weight is calculated determining an average value

- Weighing with tolerance range (checkweighing): A visual and audible signal assists the rapid checking of items on palettes
- Totalising of weights
- Internal rechargeable battery pack included with delivery
- 3 Did you know? Our floor scales are delivered in a robust wooden box. This protects the high-quality weighing technology from environmental influences and stresses during transportation. KERN – always one step ahead

Technical data

- Large backlit LCD display, digit height 52 mm
- Dimensions of display device W×D×H 266×165×96 mm
- Cable length of display device approx. 5 m
- Net weight approx. 50 kg
- Permissible ambient temperature -10 °C/40 °C

Accessories

- 4 Stand to elevate display device, height of stand approx. 800 mm, KERN BFN-A04
- Internal rechargeable battery pack, operating time up to 35 h without backlight, charging time approx. 10 h, KERN GAB-A04
- RS 232 data interface including interface cable, KERN KFN-A01
- Bluetooth data interface, must be ordered at purchase, KERN KFB-A03
- Analogue module, 0–10 V: KERN KFB-A04 4–20 mA: KERN KFB-A05
- 5 Large display with superior display size, only in combination with data interface KFN-A01, KERN YKD-A02
- Cable with special length 15 m, between display device and platform, for verified models which must be ordered at the time of purchase, KERN BFB-A03
- Further details, plenty of further accessories and suitable printers see Accessories

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

! Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs

Optionally configurable with IP68 display device on request, details see chapter 13

STANDARD

| CAL EXT | KCP PROTOCOL | SUM | TOL | MOVE | IP 65 | IP 67 | ACCU | MULTI | DMS | 2 DAYS |

OPTION

| ET | DAkkS +3 DAYS |

FACTORY

| RS 232 | BT 2.0 | ANALOG | M +3 DAYS |
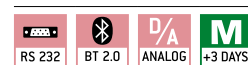
Model KERN	Weighing capacity [Max] kg	Readability = Verification value [d] = [e] kg	Minimal load [Min] kg	Option	
				Verification M(III) KERN	DAkkS Calibr. Certificate DAkkS KERN
UFN 600K200IPM	600	0,2	4	965-230	963-130
UFN 1.5T0.5IPM	1500	0,5	10	965-230	963-130
Note: For applications that require verification, 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 NIB

Compact, robust drive-through scale – particularly mobile thanks to its carrying handle, rollers and lightweight construction

Features

- Drive-through scale for rapid weighing of e.g. wire cage trolleys, shelf trolleys, container trolleys, storage trolleys, sack trucks, transpallets, mobile containers, containers refuse etc.
- Low platform height and integrated access ramps on both sides facilitate access. No need for pit frame installation – which saves money
- **1** Weighing bridge: Steel, powder coated, 4 silicon-coated aluminium load cells with protection against dust and water splashes to IP67
- **2** Level indicator for accurate levelling of the balance as standard
- **3** Scale can be conveniently transported and stowed away in a space-saving manner by means of particularly sturdy industrial castors and a handle
- Wall mount for the display device, as standard, only for models without a column
- Protective working cover included with delivery
- **4** Did you know? Our floor scales are delivered in a robust wooden box. This protects the high-quality weighing technology from environmental influences and stresses during transportation. KERN – always one step ahead

Technical data

- LCD display, digit height 25 mm
- Overall dimensions W×D×H 1066×1000×80 mm
- Very low clearance height – drive-through area: 40 mm
- Dimensions weighing surface 800×800 mm
- Dimensions of display device W×D×H 235×114×51 mm
- Cable length of display device approx. 5 m
- Optional battery operation, 4×1.5 V AA not included in scope of delivery, operating time up to 60 h
- External mains adapter standard
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN EOB-A04BS05
- Pair of base plates to fix the weighing bridge to the floor, KERN BIC-A07

STANDARD

CAL EXT	UNIT	MOVE	IP 67	BATT	MULTI	DMS	2 DAYS

1

OPTION

DAkkS +3 DAYS

Model	Weighing capacity	Readability	Net weight		Option
					DAkkS Calibr. Certificate
	[Max]	[d]	approx.		DAkkS
KERN	kg	kg	kg		KERN
NIB 300K-1	300	0,1	40		963-129
NIB 600K-2	600	0,2	40		963-130

11

Drive-through scale KERN NFB

EasyTouch

Total height

Depth of weighing surface

Total depth

Width of weighing surface

Total width

Drive-through scale (IP67) with XXL display device and EC type approval [M]

Features

- Drive-through scale for rapid weighing of e.g. wire cage trolleys, shelf trolleys, container trolleys, storage trolleys, sack trucks, transpallets, mobile containers, containers refuse etc.
- Low platform height and integrated access ramps on both sides facilitate access. No need for pit frame installation – which saves money
- 1 Weighing bridge: out of anti-slip corrugated steel, 4 silicone-coated steel load cells, dust and spray protection IP67
- Display device: for details see KERN KFB-TM
- Protective working cover included with delivery
- Did you know? Our floor scales are delivered in a robust wooden box. This protects the high-quality weighing technology from environmental influences and stresses during transportation. KERN – always one step ahead

Technical data

- Large backlit LCD display, digit height 52 mm
- Overall dimensions W×D×H
  - A 1600×1200×80 mm
  - B 1800×1400×80 mm
- Platform height in the drive-through area: 80 mm
- Dimensions of weighing surface
  - A W×D 1000×1000 mm
  - B W×D 1200×1200 mm
- Dimensions of display device W×D×H 250×160×65 mm
- Cable length of display device approx. 5 m
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN KFB-A02S05
- 3 Stand to elevate display device Column height approx. 800 mm, KERN BFS-A07
- Pair of base plates to fix the weighing bridge to the floor, KERN BFS-A06

- Internal rechargeable battery pack, operating time up to 35 h without backlight, charging time approx. 10 h, must be ordered at purchase, KERN KFB-A01
- Bluetooth data interface for wireless data transfer to PC or tablets, must be ordered at purchase, not in combination with verification. When installing the Bluetooth data interface, the RS-232 data interface can no longer be used, not possible in combination with RS 232 data interface, KERN KFB-A03
- Analogue module, must be ordered at purchase, not possible in combination with signal lamp 0–10 V: KERN KFB-A04 4–20 mA: KERN KFB-A05
- 4 Signal lamp for visual support of weighing with tolerance range, not possible in combination with analogue module, KERN CFS-A03
- 5 Large display with superior display size, KERN YKD-A02
- Y-cable for parallel connection of two terminal devices to the RS-232 interface on the scale, e.g. signal lamp and printer, KERN CFS-A04
- Cable with special length 15 m, between display device and platform, for verified models which must be ordered at the time of purchase, KERN BFB-A03

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

⚠ Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs

STANDARD | OPTION | FACTORY

| CAL EXT | RS 232 | KCP PROTOCOL | PCS | SUM A | TOL | MOVE | IP 67 | MULTI A | DMS | 2 DAYS | | ET | DAkkS +3 DAYS | | BT 2.0 | ANALOG D/A | ACCU | M +3 DAYS |

1

Model KERN	Weighing capacity [Max] kg	Readability = Verification value [d] = [e] kg	Minimal load [Min] kg	Net weight approx. kg	Weighing plate	Option	
						Verification	DAkkS Calibr. Certificate
						M KERN	DAkkS KERN
NFB 600K200M	600	0,2	4	130	A	965-230	963-130
NFB 600K200LM	600	0,2	4	165	B	965-230	963-130
NFB 1.5T0.5M	1500	0,5	10	130	A	965-230	963-130
NFB 1.5T0.5LM	1500	0,5	10	155	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.							

Drive-through scale KERN NFN

Total height

PREMIUM ★★★

EasyTouch

Depth of weighing surface
Total depth
Width of weighing surface
Total width

Stainless steel drive-through scale (IP68) with stainless steel display device (IP65), with EC type approval [M]

Features

- Robust stainless steel drive-through scale for rapid weighing of e.g. laundry carts, container trolleys, roller containers, etc. Ideal for hospital laundry services, goods inwards, hospital kitchens, etc.
- Low platform height and integrated access ramps on both sides facilitate access. No need for pit frame installation – which saves money
- Ideal for the increased hygienic requirements in the food, pharmaceutical and chemical industries
- ① Weighing bridge: stainless steel, extremely resistant to bending due to material thickness, 4 welded stainless steel load cells, dust and spray protection IP68. Weighing bridge can also be delivered as component without the display device, for details see KERN KFD-V40
- Your support in a HACCP-compliant quality system
- ② Display device: for details see KERN KFN-TM
- Totalising of weights and piece counts
- Internal rechargeable battery pack included with delivery

- ③ Did you know? Our floor scales are delivered in a robust wooden box. This protects the high-quality weighing technology from environmental influences and stresses during transportation. KERN – always one step ahead

Technical data

- Large backlit LCD display, digit height 52 mm
- Overall dimensions W×D×H 1600×1200×80 mm
- Platform height in the drive-through area: 80 mm
- Dimensions weighing surface W×D 1000×1000 mm
- Dimensions of display device W×D×H 266×165×96 mm
- Cable length of display device approx. 5 m
- Permissible ambient temperature -10 °C/40 °C

Accessories

- ④ Stand to elevate display device, height of stand approx. 800 mm, KERN BFN-A04
- Pair of base plates to fix the weighing bridge to the floor, KERN BFN-A03
- Internal rechargable battery pack, operating time up to 35 h without backlight, charging time approx. 12 h, KERN GAB-A04
- Data interface RS-232, interface cable included, approx. 1,5 m, must be ordered at purchase, KERN KFN-A01
- Bluetooth data interface, must be ordered at purchase, KERN KFB-A03
- Analogue module, 0–10 V: KERN KFB-A04 4–20 mA: KERN KFB-A05
- ⑤ Large display with superior display size, only in combination with data interface KFN-A01, KERN YKD-A02
- Cable with special length 15 m, between display device and platform, for verified models which must be ordered at the time of purchase, KERN BFB-A03
- Further details, plenty of further accessories and suitable printers see Accessories

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

⚠ Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs

Optionally configurable with IP68 display device on request, details see chapter 13

11

STANDARD											OPTION		FACTORY			
CAL EXT	KCP PROTOCOL	PCS	SUM	TOL	MOVE	IP 65 ②	IP 68 ①	ACCU	MULTI	DMS	2 DAYS	ET	DAkkS +3 DAYS	RS 232	BT 2.0	ANALOG	M +3 DAYS

Model	Weighing capacity	Readability = Verification value	Minimal load	Net weight		Option	
						Verification	DAkkS Calibr. Certificate
KERN	[Max] kg	[d] = [e] kg	[Min] kg	approx. kg		M⬛ KERN	DAkkS KERN
NFN 600K-1M	600	0,2	4	130		965-230	963-130
NFN 1.5T-4M	1500	0,5	10	125		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.							

Weighing Systems Industry 4.0
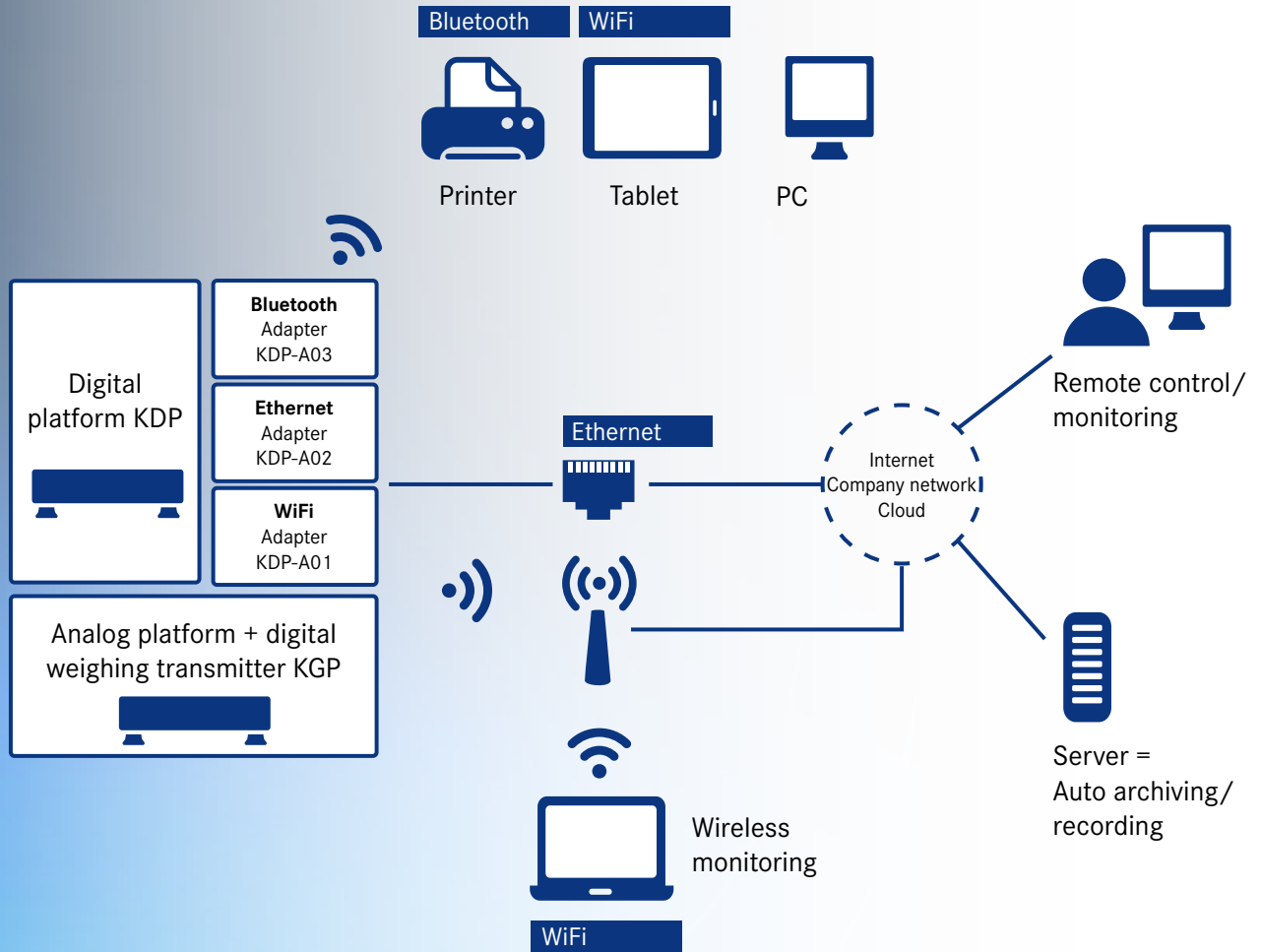
Bluetooth
WiFi

Printer

Tablet

PC

Bluetooth
Adapter
KDP-A03

Ethernet
Adapter
KDP-A02

WiFi
Adapter
KDP-A01

Digital
platform KDP

Ethernet

Internet
Company network
Cloud

Analog platform + digital
weighing transmitter KGP

Wireless
monitoring

WiFi

Remote control/
monitoring

Server =
Auto archiving/
recording

We will help to combine industrial production with the latest information and communication technology, with the aim of improving quality, reducing costs and using time and resources more efficiently so that you are able to react to future requirements in a more flexible manner. You will benefit from our uniform data protocol combined with our BalanceConnection 4.0 data software, for details please see page 168/169.

The KERN team in our centre of expertise – Industry 4.0

We would like to inform and advise you

Tel. +49 7433 9933‑200
ITsupport@kern-sohn.com

Industrial platform scale with digital weighing transmitter KERN KGP

EasyTouch
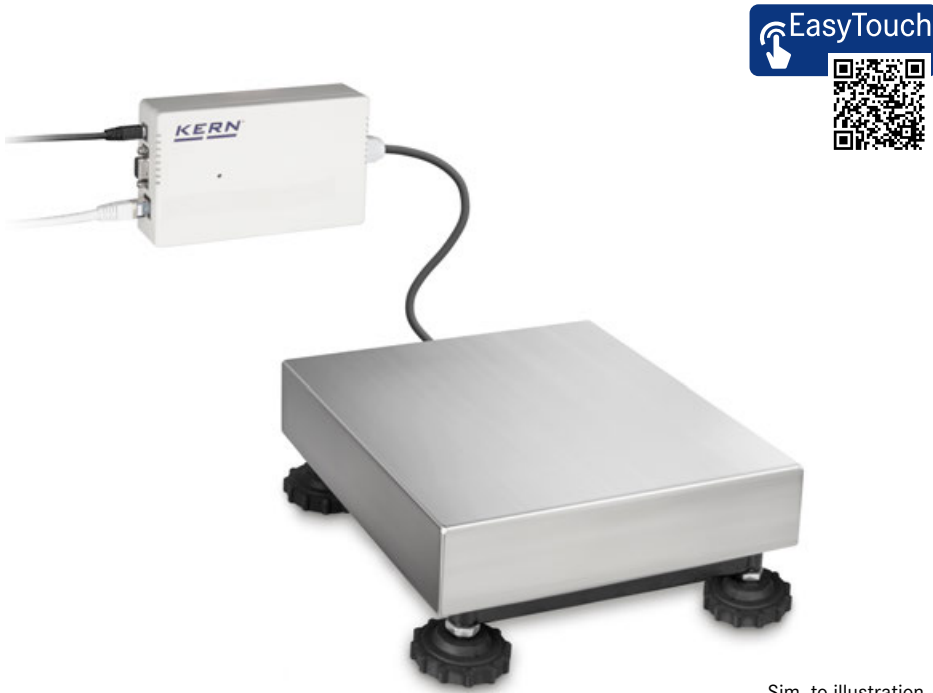
Sim. to illustration
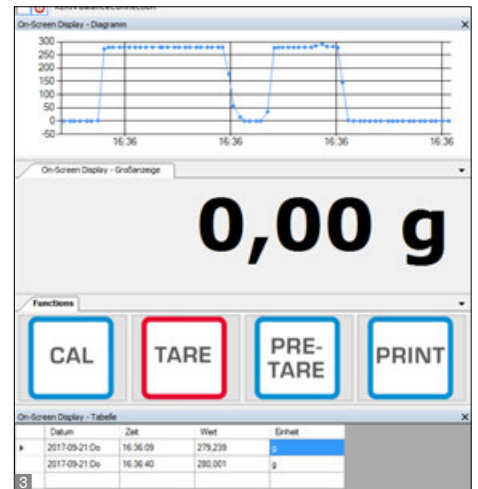
Robust industrial platform scale with digital weighing transmitter, ideal for varied range of applications for Industry 4.0

Features

- With this combination of **1** platform (KERN KFP V20 IP65) and digital weighing transmitter (KERN YKV-01) your weighing processes are ready for the requirements of Industry 4.0. Simply install the platform, connect the digital weighing transmitter to the network and start weighing
- For rapid transfer of weighing data to connected networks, computers, etc.
- USB and RS-232 data interface standard, Power supply via USB interface
- Transfer formats are freely configurable
- Functions: Weighing, taring
- Internal resolution 16 million divisions
- Measurement frequency 10 Hz
- Easy configuration using the software supplied
- KERN YKV-01: Robust plastic die-cast housing
- **2** KERN YKV-01: Suitable for wall mounting and DIN track mount (optional)

- Included with delivery:
  - Industrial platform KERN KFP
  - Digital weighing transmitter KERN YKV-01
  - DIN rail mounting bracket
  - Configuration software for adjusting and managing the KERN KDP, for large-format display of the values collected on the PC as well as transfer of this data to other Apps and programs. The displayed result can therefore be converted to any format for communication with the different user programs, such as, for example, e.g. SAP, Oracle etc.

Technical Data

- Weighing plate material stainless steel
- KERN YKV: Overall dimensions W×D×H 100×127×28 mm
- Permissible ambient temperature -10 °C/ 40 °C

Accessories

- Bluetooth data interface, KERN YKV-A02
- WiFi data interface, KERN YKV-A01
- Ethernet data interface on request
- **2** DIN rail mounting bracket for KERN YKV, KERN YKV-A03
- **3** Software BalanceConnection, flexible recording or transfer of measurements, particularly to Microsoft® Excel or Access as well as transfer of this data to other Apps and programs. The displayed result can therefore be converted to any format for communication with the different user programs, such as, for example, e.g. SAP, for details see page 168, KERN SCD-4.0

STANDARD								OPTION		FACTORY		
CAL EXT	RS 232	USB	KCP PROTOCOL	UNIT	IP 65	DMS	1 DAY	ET	DAkkS +3 DAYS	BT 4.0	WIFI	LAN

1

Model KERN	Weighing capacity [Max] kg	Read-out [d] g	Weighing plate mm	Cable length m	Net weight approx. kg	Options	
						DAkkS Calibr. Certificate	
						DAkkS KERN	
KGP 6K-4	6	0,2	300×240×120	3	6	963-128	
KGP 6K-4L	6	0,2	400×300×128	3	10	963-128	
KGP 10K-4	15	0,5	300×240×120	3	6	963-128	
KGP 10K-4L	15	0,5	400×300×128	3	10	963-128	
KGP 30K-3	30	1	300×240×120	3	6	963-128	
KGP 30K-3L	30	1	400×300×128	3	10	963-128	
KGP 60K-3	60	2	400×300×128	3	10	963-129	
KGP 60K-3L	60	2	500×400×137	3	13	963-129	
KGP 100K-3	150	5	500×400×137	3	14	963-129	
KGP 100K-3L	150	5	650×500×142	3	22	963-129	
KGP 300K-2L	300	10	650×500×142	3	22	963-129	

Digital weighing transmitter KERN YKV
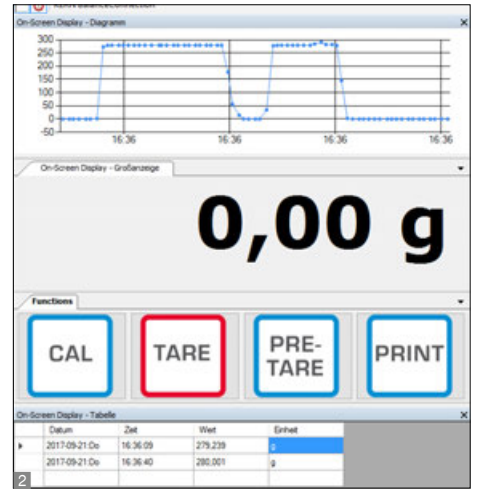
Modern digital weighing transmitter for the rapid recording of weighing data and forwarding it to the most varied output channels such as tablets, networks, SPS controllers, etc. – ideal for operating balances in systems or conveyors

Features

- With this digital weighing transmitter your weighing processes are ready for the requirements of Industry 4.0. Simply connect a weighing platform or measuring cell, integrate the digital weighing transmitter into the network and start weighing
- For rapid transfer of weighing data to connected networks, computers, etc.
- USB and RS-232 data interface standard, Power supply via USB interface
- Transfer formats are freely configurable
- Functions: Weighing, taring
- Measuring frequency 10 Hz
- Easy configuration using the software supplied
- Robust plastic die-cast housing
- 1 Suitable for wall mounting and DIN track mount
- Compatible with all KERN weighing platforms

- Included with delivery:
  - Industrial platform KERN KFP
  - USB cable incl. mains plug
  - DIN rail mounting bracket
  - Digital weighing transmitter KERN YKV-01
  - 2 Configuration software for adjusting and managing the KERN KDP, for large-format display of the values collected on the PC as well as transfer of this data to other Apps and programs. The displayed result can therefore be converted to any format for communication with the different user programs, such as, for example, e.g. SAP, Oracle etc.

Technical Data

- Overall dimensions W×D×H 100×127×28 mm
- Net weight approx. 1,2 kg
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Bluetooth data interface, KERN YKV-A02
- WiFi data interface, KERN YKV-A01
- DIN rail mounting bracket for KERN YKV, KERN YKV-A03
- Software BalanceConnection, flexible recording or transfer of measurements, particularly to Microsoft® Excel or Access as well as transfer of this data to other Apps and programs. The displayed result can therefore be converted to any format for communication with the different user programs, such as, for example, e.g. SAP, for details see page 168, KERN SCD-4.0

STANDARD

| CAL EXT | RS 232 | USB | LAN YKV-02 | KCP PROTOCOL | GLP PRINTER | UNIT | 1 DAY |

FACTORY

| BT 4.0 | WIFI |
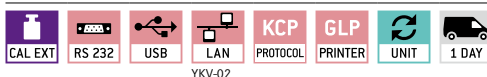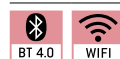
Model KERN	Standard interfaces	
YKV-01	RS-232, USB	
YKV-02	RS-232, USB, Ethernet	

12

Display device (rail-mounted module) KERN CE Hx
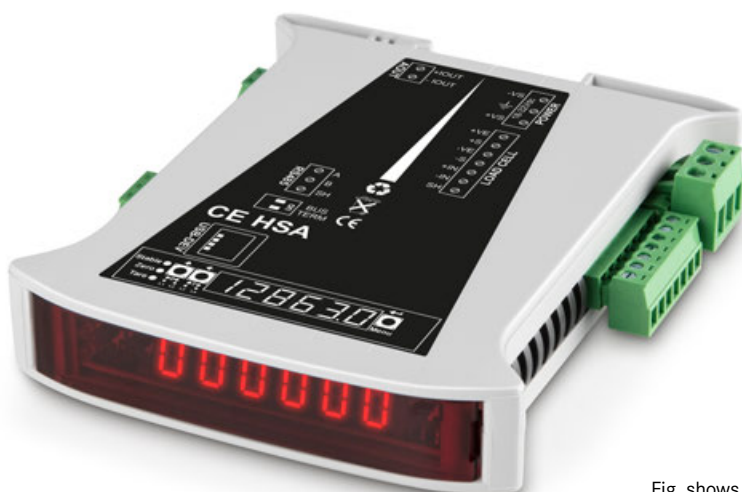
Fig. shows KERN CE HSA

Super compact display device (rail-mounted module) for installation in switch cabinets

Your contact for technical questions

Stefan Herrmann

Tel.   +49 7433 9933‑214
stefan.herrmann@kern-sohn.com

Features

· Compact display unit for recording weighing data using strain gauge load cells, e.g. in industrial applications
· Due to its small size, it is particularly space-saving to install in switch cabinets
· Thanks to the many interface variants, the modules can be ideally integrated into existing infrastructures and systems
· Ⓐ The modules can be used either individually or as a Buslink system with a total of up to 332 DIN rail modules

· The configuration of the module can be carried out conveniently via a connected PC with the suitable software (Download see Internet)
· Bright LED display for optical control and settings
· Time-saving G-Cal™ (Geographic Calibration) technology for fast and accurate calibration without weights conveniently over a network or the Internet worldwide
· Convenient communication via remote devices
· Backup and restore function via USB port
· Can handle various industrial protocols such as Ethernet IP, Modbus TCP, Modbus RTU, FINS and Profibus DP

· Extremely high measurement frequency possible, up to 1600 data records/s
· Internal resolution 24 Bit

Technical Data

· LCD display, digit height 7,6 mm
· Dimensions W×D×H 101×120×22,5 mm
· Permissible ambient temperature -10 ^{0}C/40^{0}C

Accessories

· Mains adapter for power supply of the KERN CE HS, mountable on DIN rail, KERN CE HSS

Features	Model KERN				
	CE HSA	CE HSE	CE HSN	CE HSP	CE HSR
Power supply	18-32 Vdc; 4 W max.	18-32 Vdc; 4 W max.	18-32 Vdc; 4 W max.	18-32 Vdc; 4 W max.	18-32 Vdc; 4 W max.
Load cell power supply	5 Vdc	5 Vdc	5 Vdc	5 Vdc	5 Vdc
Sensitivity	0,1 µV/d	0,1 µV/d	0,1 µV/d	0,1 µV/d	0,1 µV/d
Adjustable nominal sensitivity	1; 1.5; 2; 2.5; 3 mV/V	1; 1.5; 2; 2.5; 3 mV/V	1; 1.5; 2; 2.5; 3 mV/V	1; 1.5; 2; 2.5; 3 mV/V	1; 1.5; 2; 2.5; 3 mV/V
Input voltage Unipolar @3mV/V	-1 mV to +16 mV	-1 mV to +16 mV	-1 mV to +16 mV	-1 mV to +16 mV	-1 mV to +16 mV
Input voltage Bipolar @3mV/V	-16 mV to +16 mV	-16 mV to +16 mV	-16 mV to +16 mV	-16 mV to +16 mV	-16 mV to +16 mV
A/D Conversion speed	1600/s	1600/s	1600/s	1600/s	1600/s
Max. load cell impedance	1200Ω	1200Ω	1200Ω	1200Ω	1200Ω
Min. load cell impedance	43,75 Ω	43,75 Ω	43,75 Ω	43,75 Ω	43,75 Ω
Max. no. of load cells 350 Ω	8	8	8	8	8
Max. no. of load cells 1000 Ω	22	22	22	22	22
Max. number of d	10.000	10.000	10.000	10.000	10.000
Display steps	1,2,5,10,20,50,100,200	1,2,5,10,20,50,100,200	1,2,5,10,20,50,100,200	1,2,5,10,20,50,100,200	1,2,5,10,20,50,100,200
Communication/Interfaces	USB	USB, Ethernet	USB, PROFINET	USB, PROFIBUS	USB, RS-232/-422
Analog output	0/4-20/24mA	–	–	–	–
Dimensions W×D×H	120×110×22 mm	120×110×22 mm	120×110×22 mm	120×110×22 mm	120×110×22 mm
Net weight g	150	150	150	150	150

⚠ Models also available with verification approval, please enquire

Digital platform KERN KDP

FACE LIFT

EasyTouch

0,00 g

CAL TARE PRE-TARE PRINT
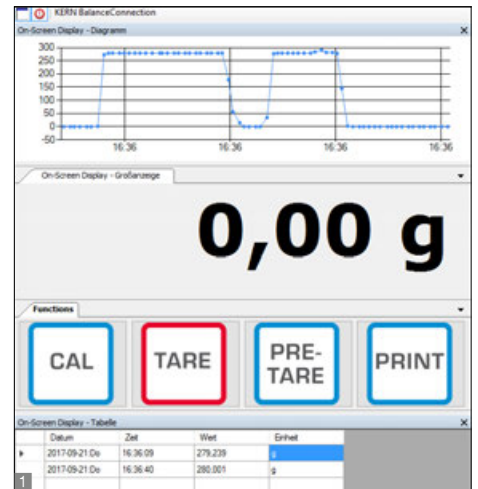
Universal weighing platforms for flexible connection into process chains

Features

- Industry 4.0 process chains: these weighing platforms can be easily integrated into your process chain. All recorded values can be easily transferred and processed further in your system as digital data and data that has already been compared using the many interfaces available. This saves cost, time and resources and ensures even more effective working
- Connecting the balance with a tablet or PC offers the advantage of being able to use the apps and programs which are on that device. These apps and programs are usually already tailored to your needs, are easy and convenient to use and can often be expanded as needed. This offers you the maximum level of flexibility when displaying, processing and saving the recorded weighing data
- Searching and remote control of the balance using external control devices or computers with the KERN Communication Protocol (KCP). KCP is a standardised interface command

structure for KERN balances and other instruments which allows you to recall and manage all relevant parameters and device functions. You can therefore simply connect KERN devices with KCP to computers, industrial control systems and other digital systems. In a large number of cases the KCP is compatible with the MT-SICS protocol
- PRE-TARE function for manual subtraction of a known container weight, useful for checking fill-levels
- Freely programmable weighing unit, e.g. display direct in special units such as length of thread g/m, paper weight g/m^2, or similar
- Draught shield standard for models with weighing plate size Ⓐ, weighing space W×D×H 146×146×80 mm
- Included with delivery:
  1 Software BalanceConnection for adjusting and managing the KERN KDP, for large-format display of the values collected on the PC as well as transfer of this data to other Apps and programs

Technical Data

- Dimensions weighing surface
  Ⓐ ⌀ 105 mm
  Ⓑ W×D 160×160 mm, see larger picture
- Weighing plate material
  Ⓐ plastic, with conductive lacquer
  Ⓑ stainless steel
- Overall dimensions W×D×H 165×166×75 mm (without draught shield)
- Cable length approx. 1,2 m
- Net weight approx. 1,2 kg
- Permissible ambient temperature 5 °C / 35 °C

Accessories

- Bluetooth data interface for wireless data transfer to PC or tablets, must be ordered at purchase, KERN KDP-A03
- WiFi interface for wireless connection of the balance to networks and WiFi capable devices, such as tablets or laptops, must be ordered at purchase, please ask for delivery time, KERN YMI-A01
- Ethernet data interface, to connect an IP-based Ethernet network, must be ordered at purchase, not in combination with verification, KERN KDP-A02

STANDARD: CAL EXT | USB | KCP PROTOCOL | B MULTI | DMS | 1 DAY

OPTION: ET | DAkkS +3 DAYS

FACTORY: BT 4.0 | WIFI | LAN

Model KERN	Weighing capacity [Max] g	Read-out [d] g	Reproducibility g	Linearity g	Weighing plate mm		Options	
							DAkkS Calibr. Certificate	
							DAkkS KERN	
KDP 300-3	350	0,001	0,002	± 0,005	Ⓐ		963-127	
KDP 3000-2	3500	0,01	0,02	± 0,05	Ⓑ		963-127	
KDP 10K-4	10000	0,1	0,1	± 0,3	Ⓑ		963-128	
KDP 10K-3	10000	1	1	± 3	Ⓑ		963-128	

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Welcome to the new age of weighing

The KERN EasyTouch software combines the performance of KERN scales with the flexibility of a Windows or Android environment

Find out more about the whole new world of weighing with KERN EasyTouch on the following pages ...

See for yourself how convenient and easy it is to use KERN EasyTouch

✓ The modular system solution for efficient weighing – perfect for your individual requirements

Just imagine, …

… You only pay for functions which you actually use.

… You could develop the range of services of your balance to meet your requirements, whenever you want.

… You could easily control your balance from wherever you happen to be, in the laboratory, in production, in the office.

… You could do this from a PC or tablet.

… You could save the weighing data from your balances in a tamper-proof manner on a central server, whereby all the data is systematically stored in a database.

Then the KERN EasyTouch App (SET) is the perfect solution for you.

Large clear display for optimum view even under poor environmental conditions.
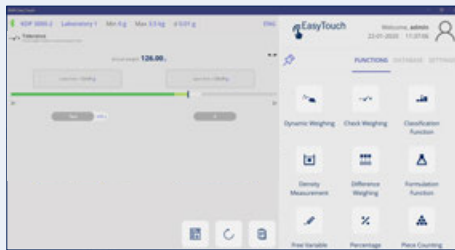
All installed functions are clearly arranged, enabling lightning-fast switching between functions.
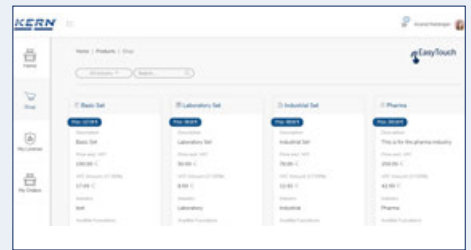
The functions can be adapted extensively to meet your particular requirements.

EasyTouch

12
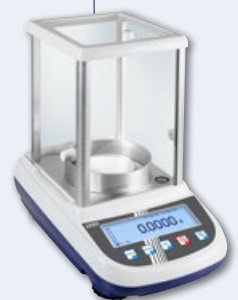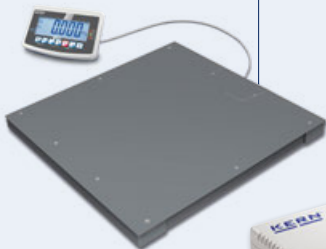
✓ Upgrade your scale into a powerful weighing system

Using the KERN EasyTouch App even a simple single scale can be transformed into a powerful weighing system, which offers a range of functions. To do this you simply have to install the KERN EasyTouch App on your PC or tablet (Windows® or Android®), connect the balance (either with cable or wireless), activate the App and straightaway you will be able to control your balance using your PC or tablet.

In order to find out about the many advantages of the KERN EasyTouch App, you can download a demo version of the App which contains the full range of functions, i.e. you can get started straightaway and test all the functions in your own time!

In addition to the pre-installed functions the KERN EasyTouch App offers these additional handy functions:

· Large database for item master data, container weights, product images etc.
· Large database for dynamic weighing data (tamper-proof measurement value memory, logging of changes to master data, high level of data integrity, etc.)
· Access to the large database from all KERN EasyTouch functions
· Storage facility for an individual ID number or an object name for each weighing process or object in the tamper-proof Measurement value memory
· User ID with date and time is also saved for each weighing process
· Individual user administration (Administrator, User, permissions, ...), cross-functional

· Application of different weighing scales in one workflow (e.g. formulation or counting) possible, with full data-traceablility (what item was measured on which weighing device)
· A large range of menu languages (DE, EN, FR, IT, ES, other languages on request)
· Individual print formats for printouts, including use of logos and free text
· It is possible to read barcodes using the connected barcode scanner
· All recorded weights can be printed from the individual functions using a connected network printer
· **1** Convenient initial reading of large amounts of data, e.g. from an ERP, PPS, ... system, e.g. SAP®, and permanent synchronization of weighing and measurement data between the connected measuring instruments and the ERP, PPS, ... systems, e.g. SAP
· Compatible with Bluetooth 2.0 and 4.0
· Your KERN EasyTouch system can be expanded with many more, useful functions, which will make your daily work easier. Please see the table below or visit www.kern-sohn.com for information about all available functions

Can't find the function you need or you have a particularly specific application?
Then you can simply program your own customised function – or just ask us, our team of software specialists will be happy to help you.

This is how easy a powerful weighing system can work – with the KERN EasyTouch App

· Laptop/ tablet
· KERN EasyTouch App
· Suitable balances
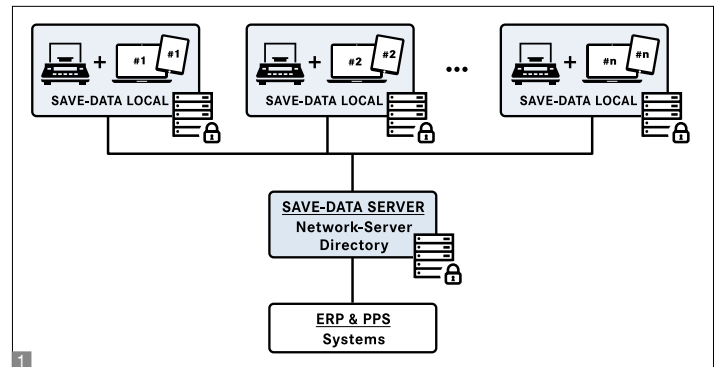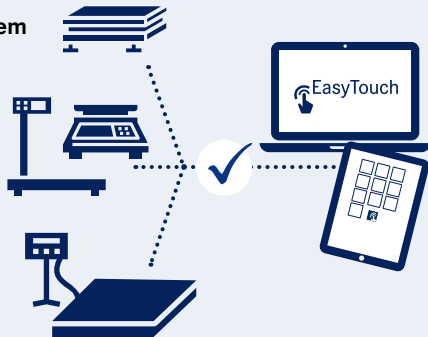
✓ Test it – completely without risk!

▶ simple

Simply download the KERN EasyTouch software from the Microsoft Store® or Google Play®.

The KERN EasyTouch software already contains **all available functions** right from the start.

▶ tailor-made

The „**Basic Weighing Package**" contains full database functionality. In addition they form the starting point for activating all other KERN EasyTouch functions. SET-01 OS forms the operating system with extensive basic functions. The operating system is the prerequisite for all other KERN EasyTouch Apps. All other apps can be customised on the basis of SET-01 OS.

▶ easy

Test it for 4 weeks, without obligation and free of charge!

After 4 weeks the functions go into sleep mode and you decide which functions you want to activate.

▶ extensive

Every purchased function license allows:
· 4 installations on PC or tablet
· the installation of an unlimited number of scales, measuring cells etc.
· as well as use by as many users as you want
· for an unlimited period

KERN EasyTouch App – summary of all functions

🖐 Function	Application	Price
ET OS – Operating system Basic Weighing & Laboratory Package	(Mandatory for initial installation) Weighing, totalising (REZ A), targeted dispensing, percentage weighing	**SET-01**
ET Lab-Set Premium Laboratory Package	Contains: **ET Recipe function** (SET-21) + **ET Difference function** (SET-22)	**SET-02**
ET Formulation Recipe function	User administration (Administrator, User, etc.), recipe administration, component administration, targeted dispensing, multiplier function for the production of larger containers, bulk packs, etc., Adjustment of recipe when dosages are exceeded, recipe interrupt function Basic batch management, printout, etc.	**SET-21**
ET Difference Difference function	Monitoring function e.g. for monitoring the growth of biological cell cultures (monitoring of defined series of test through regular weighing in defined periods of time), the weight differences are calculated automatically and a graphic growth pattern is displayed and stored, automatic sample pan recognition by barcode is possible	**SET-22**
ET Industry set Premium Industrial Package	Contains: **ET Tolerance weighing function** (SET-31) + **ET Piece-countingfunction** (SET-32) + **ET Target-counting function** (SET-33)	**SET-03**
ET Tolerance Tolerance weighing function	Master data administration of items and their tolerances, numeric or percentage entry of the tolerance based on the target weight or limits, weighing process is supported audibly and with a colour bar graph, each weighing result can be stored with an ID number of the particular object (batch management)	**SET-31**
ET Count Piece-counting function	Master data administration of items with name in clear text, ID number, reference weight and tare weight, rapid counting function, can be a counting system, each weighing result can be stored with ID number of the particular object (batch management)	**SET-32**
ET Target-Count Target-counting function	Fill-to-target function: Target count or target weight can be programmed. When the target weight is reached there is an audible and visual signal, numeric or percentage entry of the tolerance based on the target weight or limits, master data administration of items with name in clear text, ID no., reference weight and tare weight, weighing result can be stored with an ID number of the particular object (batch management	**SET-33**
ET Density Density determination function	Guidance through density determination of solid matter and liquids is particularly user-friendly and uses graphics, the density is calculated and output immediately	**SET-04**
ET Dynamic Animal and dynamic weighing function	Rapid entry facility for the time interval for a dynamic weighing process in seconds. Calculation of the average weight using the time interval which has been entered, also ideal for weighing where the weighing conditions are unstable	**SET-05**
ET Classify Classification function	Classification function for sorting objects into weight classes, you can name the classes as you wish, a further information field can be assigned to each class, e.g. price, etc., master data administration of items and their classes, the weighing result can be stored with an ID number of the particular object (batch management)	**SET-06**
ET Variable Free variable function	Free conversion function of the weight collected unit which can be individually named and defined (e.g. g/m = surface weight), output of the weight immediately in the defined unit, master data administration of items, the weighing result can be stored with an ID number of the particular object (batch management)	**SET-07**
ET Take-out Take-out function	Allows negative weighing (with take-out) from a source container, which is on the balance, visual and audible support of the take-out procedure, weight or piece display possible, statistical evaluation possible, such as, for example, average weight of the portions which have been taken out, total number of pieces which have been taken out, waste, etc., master data administration of items, the weighing result can be stored with an ID number of the particular object (batch management)	**SET-08**
ET Save-server Weight storage + Save-Server function	Allows the recorded weighing data to be saved in a shared folder or server workspace, for example	**SET-10**
ET Save-cloud Weight storage + Save-Server function in the Cloud	Central storage of weights and measurement data from different workplaces in the Cloud, tamper-proof	**SET-101**
ET Safety Precision & Safety function	• Regular calibration function with individually specified test loads and defined tolerances. Warning and switch-off function, if test weighings are outside the tolerances. E.g. daily tests at defined test points with defined tolerance • Management of the test weights used for the test with individual process time periods for each test weight, warning and switch-off function for invalid test weights • Monitoring of the minimum sample weight (MinWeight = smallest weight to be weighed), warning and switch-off function for weighings below the permitted minimum weight • Management of the verification or calibration of the balance used with individual process time periods for each balance, warning and switch-off function if the verification validity period or the defined recalibration period is exceeded	**SET-11**

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KERN EasyTouch App

EasyTouch
by KERN

Weighing the easy way – Do you want to store weighing data digitally, simply but secure? You want your users to be supported in their weighing processes? You want to reduce or avoid measuring errors and process errors? Then extend the range of functions of your scale with the KERN EasyTouch App. Whether for complex recipes, for exact piece counting or for fast and effective portioning – KERN EasyTouch always has the right function. Faster working, more comfortable data management and higher process reliability are only some of the benefits of KERN EasyTouch – weighing the easy way.

Connection possibilities KERN EasyTouch:
1 wired via an RS-232 interface
2 wireless via Bluetooth

3 Suitable RS-232/USB adapter for connecting a tablet, PC etc. to scales or measuring instruments with RS-232 output, KERN AFH 13

The new KERN EasyTouch app – available right now for the following KERN ranges/models:

KERN Balances and Weighing platforms				Scales from other manufacturers
440	DS	IXS	PNS/PNJ	Precisa Gravimetrics AG, CH
572/573	EG-N	KDP	SFB	Mettler-Toledo International Inc., USA, CH
ADB / ADJ	EW-N	KGP	SXS	
ALS / ALJ	FCB	NFN	UFA	
BFB	FKB	NFB	UIB	
BFN	GAB	PCB	UID	
BID[1]	IFB	PCD	KFB-TM	
CFS	IFS	PES/PEJ	KIB-TM [1]	
CKE	IOC [1]	PLS/PLJ	KXS-TM	

[1] Verified operation: Weighing data from legally regulated uses can be stored and archived in KERN EasyTouch in conformity with standards, by using models from this product family with valid calibration and measurement value memory. This standard-compliant data storage also applies to SaveServer and SaveCloud.

Other KERN ranges can be adapted to be EasyTouch compatible – keep up-to-date with the latest new on **www.kern-sohn.com**

Ina
Reger

Edgar
Litti

Daniel
Egeler

Our KERN EasyTouch specialists will gladly inform and advise you on all questions regarding the new KERN EasyTouch App

Tel. +49 7433 9933 - 200
ETsales@kern-sohn.com

KERN EasyTouch App – available in the Microsoft Store® (Windows® version) or in the Google Play Store® (Android™ version)

Get it from
Microsoft

GET IT ON
Google Play
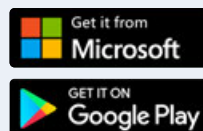
All details about the new KERN EasyTouch App can be found at
www.kern-sohn.com/EasyTouch

Display devices/Platforms/Weighing bridges

Putting together individual weighing systems which cannot be verified

KERN offers a range of KERN display devices and KERN weighing units, such as platform scales, floor scales, pallet scales and drive-through scales, which you can put together to make your ideal scale. You choose the components, KERN handles the rest.

Assembly
KERN delivers the complete scale which is ready to use. Prices for assembly can be found in the "Assembly" price table.
On request we can also create a calibration certificate in accordance with DAkkS/DKD at an additional price, see page 202 ff.

Putting together individual weighing systems which can be verified or are verified

In order to provide the complete package, as well as assembling your individual weighing system, KERN will also carry out the manufacturer's initial verification/evaluation for conformity in accordance with EC directives as a commercial scales of verification class III.

In accordance with the European verification regulations, when assembling a display device with a weighing unit you must take the following notes into account:
· Only elements which can be verified with type approval or OIML test certificate can be combined into a weighing system which can be verified. Possible models are marked with "M".
· Platforms with load cells, provided as third-party products which have an OIML test certificate can be included.
· It will not be possible to carry out verification at a later date, e.g. after assembly and delivery of the weighing system. So please order the verification at the same time as you order the weighing system.

You will find a wide variety of display devices, platforms, weighing bridges, etc. in KERN's product range and these can be put together to create your ideal scale. You simply choose the components, KERN handles the rest.

Platforms

Drive-through scales

Display devices

Pallet scales

Load cells/Compression load cells

Floor scales

13
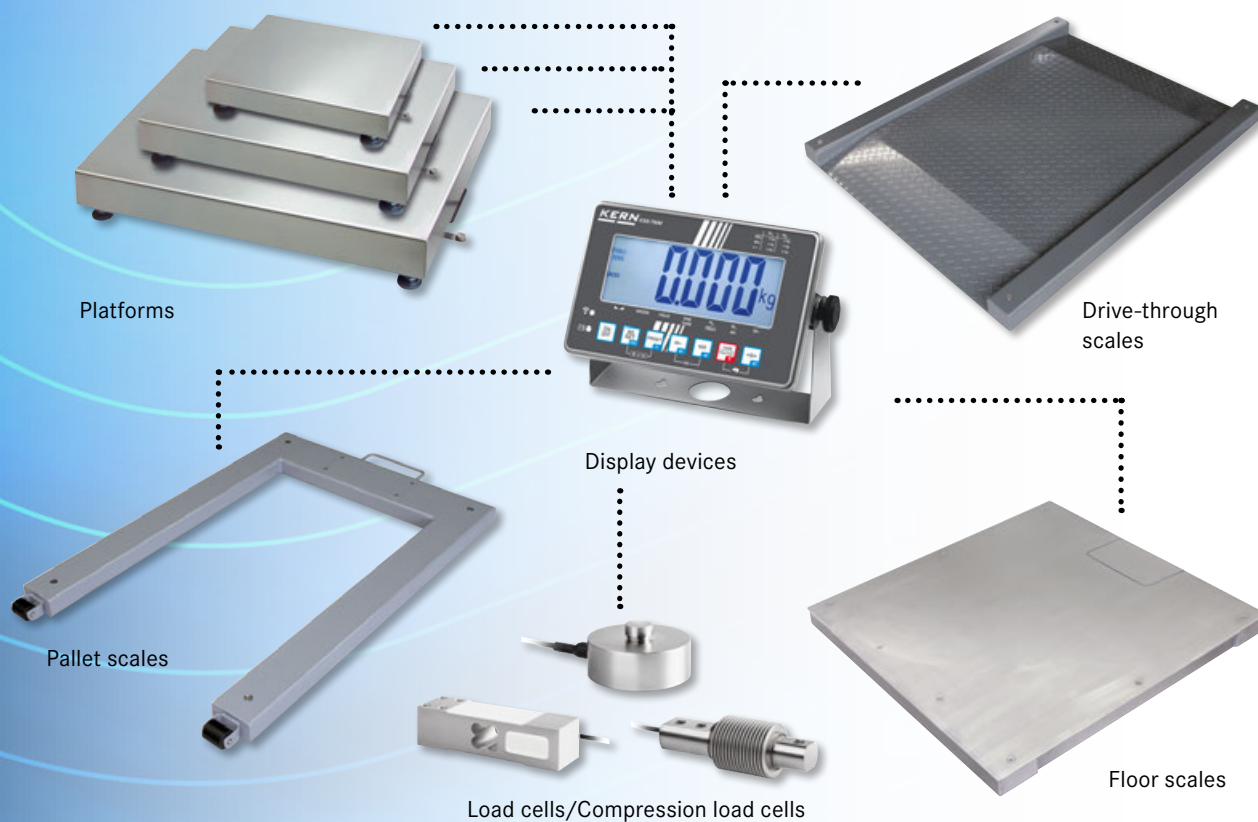
The individual KERN steps:

1. Proof of compatibility	Weighing capacity	Model	Price excl. of VAT, ex works
This is mandatory by law and includes testing by using type approvals, whether the connection values of the display device match the connection data of the weighing unit.	0 up ... kg	KERN	€
	all Weighing capacities	965-240	45,-

2. Assembly			
After testing for suitability using the proof of compatibility, the weighing system will be hard wired by KERN. The weighing system will then be tested in accordance with regulations of 2014/31/EU, the European directive for non-automatic weighing instruments and prepared for conformity assessment.	up ≤ 50 kg	965-411	70,-
	up ≤ 350 kg	965-412	100,-
	up ≤ 1500 kg	965-413	120,-
	up ≤ 2900 kg	965-414	150,-
	up ≤ 6000 kg	965-415	250,-

3. Initial verification by the manufacturer			
Conformity assessment ("Initial verification by the manufacturer") KERN is authorised to carry out the conformity assessment ("initial verification by the manufacturer") in accordance with 2014/31/EU, the European directive for non-automatic weighing instruments and is therefore authorised to introduce the weighing system onto the market, after the test has been carried out successfully and the conformity mark has been affixed.	up ≤ 5 kg	965-227	55,-
	up ≤ 50 kg	965-228	70,-
	up ≤ 350 kg	965-229	93,-
	up ≤ 1500 kg	965-230	132,-
	up ≤ 2900 kg	965-231	150,-
	up ≤ 6000 kg	965-232	200,-

4. Declaration of conformity			
KERN issues this after the initial verification by the manufacturer Conformity assessment has been carried out successfully and sends it with the weighing system at no additional cost, and it can be used in areas regulated by law.			

Modifications and special services

Description	Model KERN	Price excl. of VAT, ex works €
Cable extensions for platform scales		
up to 4 m extension	965-403	45,-
up to 7 m extension	965-404	60,-
up to 20 m extension	965-405	75,-
Individual settings		
Scale with NAWI conformity evaluation, only in combination with KERN 965-240	965-401	50,-
Other adjustments in the balance or software changes	965-407	95,-/h
Plug connection (replaces the fixed cable connection between the display device and platform with a plug connection which can be disconnected)		
balances with type approval and verification (according to time spent)	only possible with separable, verifiable plug connection with identification chip (e.g. KERN KIB-A12), for the corresponding models (e.g. IOC, BID, UID) please order when purchasing	
balances with type approval, no verification	965-406	60,-

! Delivery time for modifications & special services approx. 5-8 working days

Order example

KFP 30V20M platform and **KEN-TM** display device with cable extension (4 m) and setting an individual preload.	Model KERN	Price excl. of VAT, ex works €
KERN platform	KFP 30V20M	275,-
KERN display device	KFN-TM	330,-
Proof of compatibility	965-240	45,-
Cable extension	965-403	45,-
Setting the preload	965-401	50,-
Assembly	965-411	70,-
Verification at the factory KERN	965-228	70,-
Complete scale (verified)		**800,-**

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CUSTOMIZED SOLUTION SERVICE

That's how it fits!

High-performance scales and efficient weighing systems that support and advance your work should be adapted to your individual requirements. Standard models may not be sufficient for this. For this reason, we are happy to work with you to develop the right, target-oriented scale.

Together with your engineers and users we check the special requirements of your application and design the appropriate platform or floor scales for it.

Our competent team is at your disposal and is looking forward to your project. Please feel free to call or write us.

Tel: +49 7433 9933-570
E-Mail: cusos@kern-sohn.com

Max Matthes   ·   Ralf Schmieg   ·   Fabian Brenner

Display devices KERN KFB-TM · KFS-TM

EasyTouch
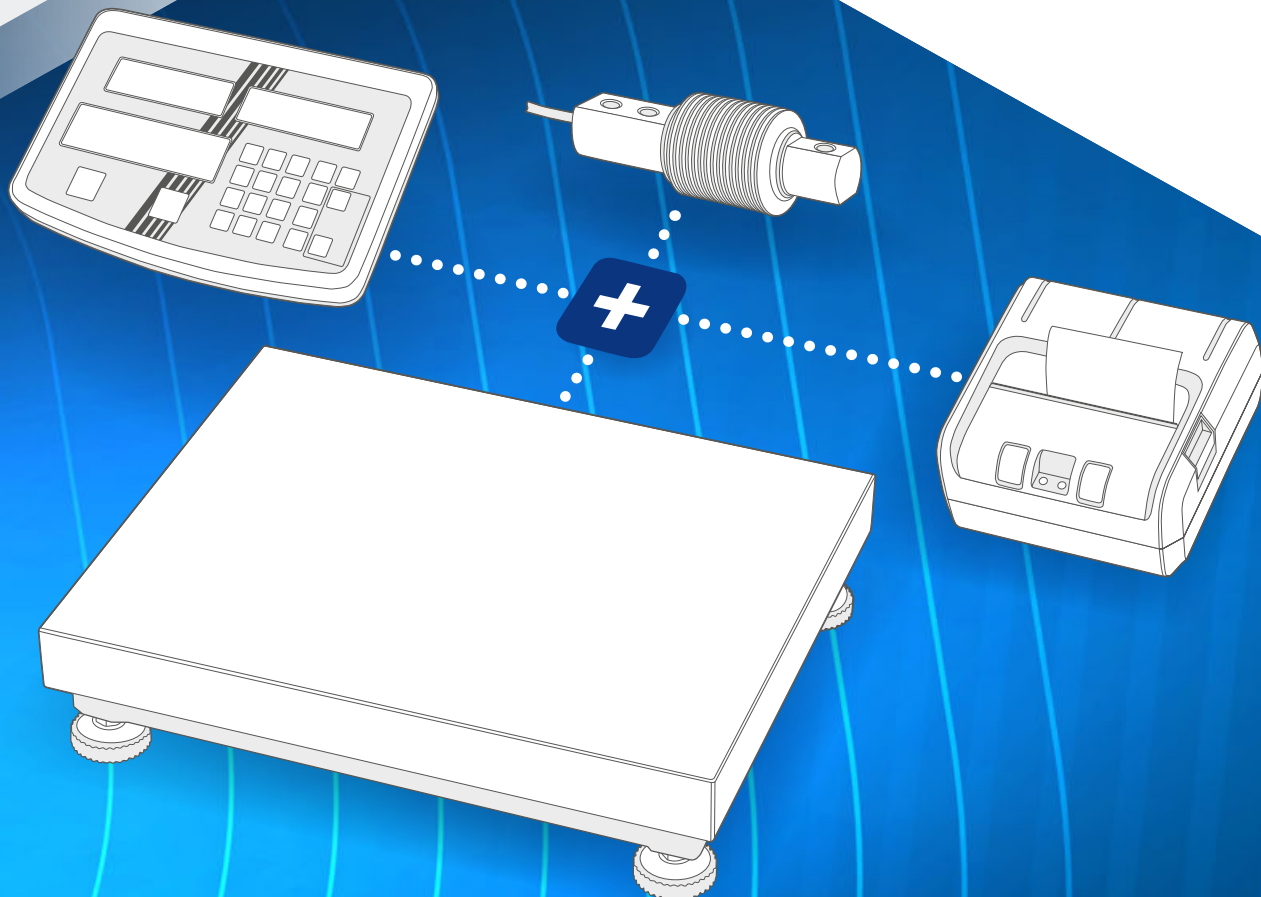
1 KERN KFB-TM

Display device with large digits – easy to read and optional analogue output for controlling systems (PLC) etc.

Tip

to see what options are offered by this display device, please see the KERN platform scale IFB on page 97

2 KERN KFS-TM

Professional indicator with 3 displays, also with EC type approval [M]

Tip

to see what options are offered by this display device, please see the KERN counting scale IFS on page 78

STANDARD
| CAL EXT | RS 232 | KCP PROTOCOL | GLP PRINTER | PCS | SUM A | UNIT | TOL |

STANDARD | OPTION | FACTORY
| MOVE | MULTI A | 1 DAY | ET | ACCU | BT 2.0 * | ANALOG ** | M |

STANDARD
| CAL EXT | MEMORY | RS 232 | KCP PROTOCOL | GLP INTERN | PCS | SUM A | UNIT |

STANDARD | OPTION | FACTORY
| TOL | MULTI C | 1 DAY | ET | ACCU | M |

* not possible in combination with verification. When installing the Bluetooth data interface, the RS-232 data interface can no longer be used

** not possible in combination with signal lamp. When installing the analogue module, the RS-232 data interface can no longer be used

Features	Model KERN 1 KFB-TM	Model KERN 2 KERN KFS-TM
Display (segments)	5 + ½ digits	6 digits
EC type approval	yes	yes
Resolution verifiable	6000 e	3000 e
Resolution non verifiable	30000 d	60000 d
Weighing capacities	≤ 2	≤ 2
Weighing units	kg, lb	kg, g
Readability	1, 2, 5, 10, n	1, 2, 5, 10, n
Piece counting with reference	10, 20, 50, 100, 200	n
Display, digit height	Backlit LCD display, 52 mm	Backlit LCD displays, 13/16,5 mm
Additional functions	Totalising, HOLD function, Integrated KERN Communication Protocol (KCP), ideal for connecting an Merchandise Management or ERP system, Compatible with the KERN EasyTouch App	99 item memories, totalising, printing of date and time, Integrated KERN Communication Protocol (KCP), ideal for connecting an Merchandise Management or ERP system, Compatible with the KERN EasyTouch App
Strain gauge load cells	87 – 1600 Ω	87 – 1600 Ω
Linearisation	3 points	4 points
Input voltage	12 V, 500 mA	12 V, 500 mA
Permissible ambient temperature	-10 °C/40 °C	0 °C/40 °C
Interface RS-232	yes	yes
2. Interface RS-232, separate Y cable	CFS-A04, € 35,-	CFS-A04, € 35,-
Interface RS-485	–	–
Interface USB	–	–
Interface Bluetooth	KERN KFB-A03, see page 97, € 135,-	–
Analogue module	0–10V: KERN KFB-A04, € 100,-; 4–20 mA: KERN KFB-A05, € 100,-; see page 97	–
Signal lamp	CFS-A03, € 280,-	CFS-A03, € 280,-
Foot switch	–	–
Stand	BFS-A07, see page 97, € 140,-	BFS-A07, see page 78, € 140,-
Benchtop stand for display device/wall mount	yes/yes	yes/yes
Protective working cover	KFB-A02S05, see page 97, € 40,-	KFB-A02S05, see page 78, € 40,-
Rechargeable battery pack	KFB-A01, see page 97, € 35,-	KFB-A01, see page 78, € 35,-
Operating/charging time	up to 35 h/12 h	up to 40 h/12 h
Dimensions Housing W×D×H	250×160×65 mm	260×150×65 mm
Net weight	1,2 kg	1,5 kg
Price excl. of VAT, ex works €	220,-	235,-

13

Display devices KERN KIB-TM

EasyTouch
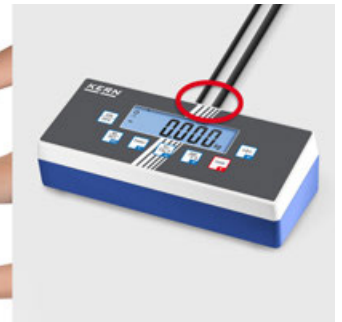
③ KERN KIB-TM

Practical Flip/Flop display device for greatest ease of use

- Practical Flip/Flop display device: flexible positioning e.g. free-standing or screwed to the wall (optional). By rotating the upper housing shell you can determine the angle of the display as well as the cable outlet. Factory Option ex works for an additional cost, delivery time + 2 working days, KERN KIB-M01, **€ 95,-**
- Industry 4.0: A large number of (optional) data interfaces enable convenient transferring weighing data to tablets, labtops, PCs, networks, smartphones, printers, etc.

- Searching and remote control of the balance using external control devices or computers with the KERN Communication Protocol (KCP). KCP is a standardised interface command structure for KERN balances and other instruments which allows you to recall and manage all relevant parameters and device functions. You can therefore simply connect KERN devices with KCP to computers, industrial control systems and other digital systems. In a large number of cases the KCP is compatible with the MT-SICS protocol. Only possible through RS-232 data interface, other interfaces on request.

In the KERN product range you will find a large number of platforms, weighbridges etc. which you can combine with the KERN KIB-TM display device. Simply select the components, KERN will take care of the rest.

* Note: In addition to the RS-232 data interface, which is integrated as standard, only one other data interface can be installed and operated

STANDARD

CAL EXT	RS 232	KCP PROTOCOL	GLP PRINTER	PCS	SUM	PERCENT	TOL	MOVE	IP 65	B MULTI	DMS	1 DAY

OPTION

ET	ACCU

FACTORY

ALIBI	USB	BT 4.0	WIFI	LAN	M
	*	*	*	*	

Features	Model KERN ③ KIB-TM
Display (segments)	6 digits
EC type approval	yes
Resolution verifiable	6000 e
Resolution non verifiable	60000 d
Weighing capacities	≤ 2
Weighing units	kg, g
Readability	1, 2, 5, 10, n
Piece counting with reference	5, 10, 20, 25, 50, 100
Display, digit height	Backlit LCD display, 24 mm
Additional functions	Totalising, HOLD function, printing of time. KCP Only possible through RS-232; USB, Bluetooth, WiFi, Digital I/O, LAN on request
Strain gauge load cells	87–1100 Ω
Linearisation	3 points
Input voltage	12 V DC, 1000 mA
Permissible ambient temperature	-10 °C/40 °C
Interface RS-232	yes*
Interface RS-485	–
Interface USB	KIB-A03*, see page 102, € 120,-
Interface Bluetooth	KIB-A04*, see page 102, € 110,-
WiFi	KIB-A10*, see page 102, € 120,-
SWITCH (DIGITAL I/O)	–
LAN	KIB-A02*, see page 102, € 150,-**
Alibi memory	KIB-A01, € 150,-
Stand	EOC-A05, see page 102, € 60,-
Benchtop stand for display device/wall mount	EOC-A04, € 30,-
Protective working cover	EOC-A01S05, € 40,-
Rechargeable battery pack	KFB-A01, see page 102, € 35,-
Operating/charging time	up to 43 h/3 h
Dimensions Housing W×D×H	268×115×70 mm
Net weight	0,8 kg
Price excl. of VAT, ex works €	**190,-**

Tip
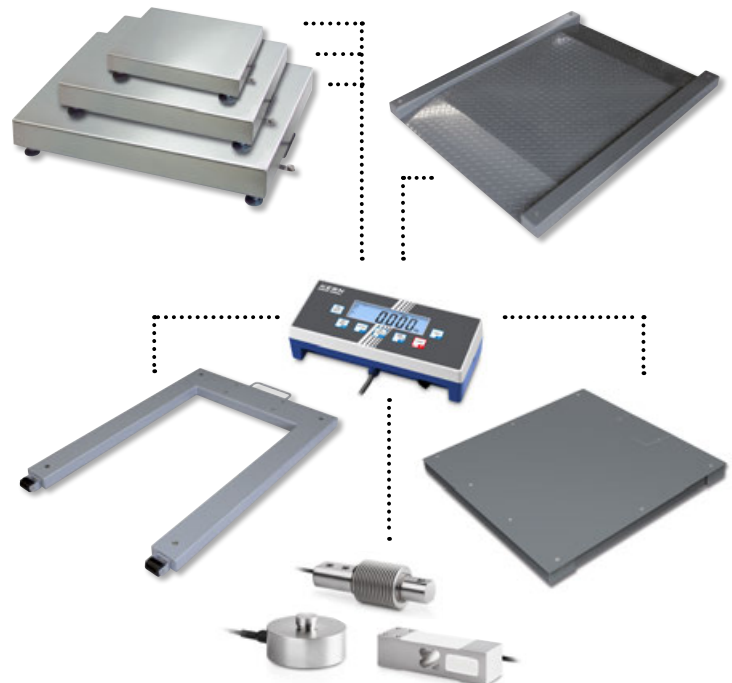
to see what options are offered by this display device, please see the KERN platform scale IOC on page 95/96

13

Display devices KERN KFN-TM · KXS-TM

EasyTouch

EasyTouch

④ KERN KFN-TM

Stainless steel display device with IP65 protection and superior display size and optional analogue output for controlling systems (PLC) etc.

! Tip

to see what options are offered by this display device, please see the KERN SFB platform scale on page 63

STANDARD

| CAL EXT | KCP PROTOCOL | PCS | SUM A | TOL | MOVE | IP 65 |

STANDARD / OPTION

| MULTI A | 1 DAY | ET | RS 232 | BT 2.0 * | ANALOG ** | ACCU |

FACTORY

M

⑤ KERN KXS-TM

Stainless steel display device with IP68 protection and integrated power supply

! Tip

to see what options are offered by this display device, please see the KERN SXS platform scale on page 64/65

STANDARD

| CAL EXT | PCS | SUM A | UNIT | TOL | MOVE | IP 68 |

STANDARD / OPTION

| 230 V | 1 DAY | ET | RS 232 | RS 485 | BT 2.0 * | ACCU |

FACTORY

M

* not possible in combination with verification.
When installing the Bluetooth data interface, the RS-232 data interface can no longer be used

** not possible in combination with signal lamp.
When installing the analogue module, the RS-232 data interface can no longer be used

Features	Model KERN ④ KFN-TM	Model KERN ⑤ KXS-TM
Display (segments)	5 + 1/2 digits	6 digits
EC type approval	yes	yes
Resolution verifiable	6000 e	10000 e
Resolution non verifiable	30000 d	30000 d
Weighing capacities	≤ 2	≤ 2
Weighing units	kg	kg, g
Readability	1, 2, 5, 10, n	1, 2, 5, 10, 50
Piece counting with reference	10, 20, 50, 100, 200	10, 20, 50, 100, 200
Display, digit height	Backlit LCD display, 52 mm	Backlit LCD display, 55 mm
Additional functions	Totalising, HOLD function	PRE-Tare function, totalising, HOLD function, peak hold, zero-point memorisation
Strain gauge load cells	87 – 1600 Ω	87 – 1600 Ω
Linearisation	3 points	2–7 points
Input voltage	12 V, 500 mA	220–240 V AC
Permissible ambient temperature	-10 °C/40 °C	-10 °C/40 °C
Interface RS-232	KFN-A01, see page 62, € 95,-	KXS-A04, € 100,-
Interface RS-485	–	KXS-A01, € 145,-
Interface USB	–	-
Interface Bluetooth	–	KXS-A02, € 170,- (balance ▶ PC)
Analogue module	0–10V: KERN KFB-A04, € 100,-; 4–20 mA: KERN KFB-A05, € 100,-; see page 97	–
Foot switch	–	KXS-A03, € 130,-
Stand	BFS-A07, see page 62, € 140,-	YKP-02, € 200,-
Benchtop stand for display device/wall mount	yes/yes	yes/yes
Protective working cover	–	KERN KXS-A07S05, € 40,-
Rechargeable battery pack	GAB-A04, € 40,-	GAB-A04, € 40,-
Operating/charging time	up to 35 h/12 h	up to 80 h/12 h
Dimensions Housing W×D×H	266×165×96 mm	232×170×80 mm
Net weight	2,6 kg	2,5 kg
Price excl. of VAT, ex works €	**330,-**	**360,-**

13

Platforms KERN KFP · KXP

① KERN KFP-V20 IP65

Platform

STANDARD

IP 65 | 1 DAY | 2 DAYS
KFP 600

FACTORY

M

- Stainless steel-weighing plate,
  Ⓐ Painted steel base
- 1 load cell, aluminium, silicone-coated, IP65,
  OIML-R60-approved, class III, 3000 e
- Level indicator and levelling feet for
  precise levelling of the scale

② KERN KXP-V20 IP65

Platform

STANDARD

IP 65 | 1 DAY

FACTORY

M

- Stainless steel-weighing plate, Ⓑ Painted
  steel base, extremely rigid, wing design
- 1 load cell, aluminium, silicone-coated, IP65,
  OIML-R60-approved, class III, 3000 e
- Level indicator and levelling feet for
  precise levelling of the scale

Other platform sizes, special construction, individual scale construction according to your individual requirements, also possible with third-party components, please enquire

Ⓐ

Ⓑ

Model KERN	Weighing range [Max] kg	Readability [d] g	Verification value [e] g	Min. load [Min] g	Cable length approx. m	Net weight approx. kg	Weighing plate W×D×H mm	Price excl. VAT, ex works €
① **Platform KFP-V20 IP65**								
KFP 3V20M	3	0,1	1	20	2,5	3,6	230×230×110	**170,-**
KFP 6V20M	6	0,2	1 | 2	40	2	3,6	230×230×110	**170,-**
KFP 6V20LM	6	0,2	1 | 2	40	2,5	6	300×240×110	**220,-**
KFP 15V20M	15	0,5	2 | 5	100	2	6	300×240×110	**220,-**
KFP 15V20LM	15	0,5	2 | 5	100	2,5	10	400×300×125	**270,-**
KFP 30V20SM	30	1	10	200	2,5	6	300×240×110	**215,-**
KFP 30V20M	30	1	5 | 10	200	2	10	400×300×125	**275,-**
KFP 60V20M	60	2	10 | 20	400	2	10	400×300×125	**280,-**
KFP 60V20LM	60	2	10 | 20	400	2	10	500×400×137	**360,-**
KFP 150V20M	150	5	20 | 50	1000	2	10	500×400×137	**360,-**
KFP 150V20LM	150	5	20 | 50	1000	2	22	650×500×135	**570,-**
KFP 300V20M	300	10	50 | 100	2000	2	22	650×500×135	**530,-**
KFP 600V20AM	600	20	200	4000	2,5	46	800×600×150	**1760,-**
② **Platform KXP-V20 IP65**								
KXP 6V20LM	6	0,2	1 | 2	40	3	3,2	300×240×90	**290,-**
KXP 15V20M	15	0,5	2 | 5	100	3	3,2	300×240×90	**300,-**
KXP 15V20LM	15	5	5	100	3	8	400×300×90	**390,-**
KXP 30V20M	30	1	5 | 10	200	3	8	400×300×90	**390,-**
KXP 30V20LM	30	1	5 | 10	200	3	18	500×400×123	**530,-**
KXP 60V20M	60	2	10 | 20	400	3	11	400×300×90	**400,-**
KXP 60V20LM	60	2	10 | 20	400	3	22	500×400×123	**550,-**
KXP 150V20M	150	5	20 | 50	1000	3	18	500×400×123	**530,-**
KXP 150V20LM	150	5	20 | 50	1000	3	34	650×500×133,5	**650,-**
KXP 300V20M	300	10	50 | 100	2000	3	34	650×500×133,5	**650,-**

13

Platforms KERN KIP · KFP · KFD

3 KERN KIP-V20M

Weighing bridge
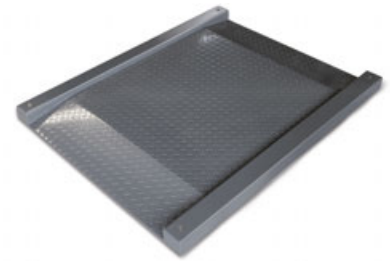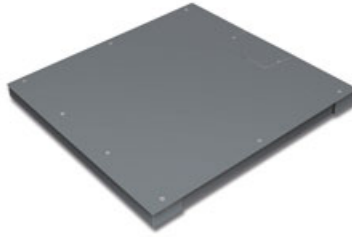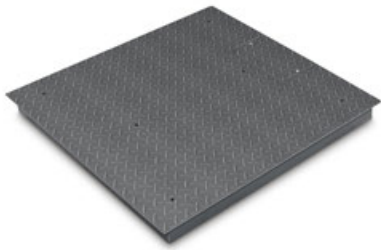
STANDARD IP 67 · 2 DAYS **FACTORY** M

- Weighing bridge with non-slip chequer plate, lacquered, welded
- 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 levelling feet for precise levelling of the scale
- Easy access to the junction box from the top
- Comfortable levelling of the weighing bridge from the top
- Accessories see KERN BID, page 105/106

4 KERN KFP-V20 IP67

Weighing bridge

STANDARD IP 67 · 2 DAYS **FACTORY** M

- C Weighing plate screwed on from the top (models with [Max] ≤ 1500 kg), so it easy to remove, hygienic and easy to clean.
- Lacquered steel weighing bridge, weighing plate size 1500×1500×130 mm corrugated steel plate. Extremely resistant to bending due to material thickness
- 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 levelling feet for precise levelling of the scale
- Easy access to the junction box from the top
- Comfortable levelling of the weighing bridge from the top
- Accessories see KERN BFB, page 107/108

5 KERN KFD-V20

Weighing bridge

STANDARD IP 67 · 2 DAYS **FACTORY** M

- Weighing bridge made of non-slip corrugated steel plate, lacquered, two access ramps integrated, extremely resistant to bending
- Extremely flat construction to facilitate access: access height only 45 mm
- 4 Load cells, alloy steel, silicone-coated, IP67, OIML-R60-approved class III, 3000 e
- Accessories see KERN NFB page 116

Model KERN	Weighing range [Max] kg	Readability [d] g	Verification value [e] g	Min. load [Min] g	Cable length approx. m	Net weight approx. kg	Weighing plate W×D×H mm	Price excl. VAT, ex works €
3 Weighing bridge KIP-V20M								
KIP 600V20SM	600	200	200	4000	5	130	1000×1000×108	**980,-**
KIP 600V20M	600	200	200	4000	5	150	1500×1200×108	**1310,-**
KIP 1500V20SM	1500	500	500	10000	5	130	1000×1000×108	**1140,-** ⬇
KIP 1500V20EM	1500	500	500	10000	5	140	1200×1000×108	**1070,-**
KIP 1500V20M	1500	500	500	10000	5	150	1500×1200×108	**1310,-** ⬇
KIP 3000V20M	3000	1000	1000	20000	5	150	1500×1200×108	**1310,-**
KIP 3000V20LM	3000	1000	1000	20000	5	180	1500×1500×108	**1560,-**
4 Weighing bridge KFP-V20 IP67								
KFP 600V20SNM	600	200	200	4000	5	105	1000×1000×80	**1220,-**
KFP 600V20NM	600	200	200	4000	5	135	1500×1250×80	**1760,-**
KFP 1500V20SNM	1500	500	500	10000	5	105	1000×1000×80	**1260,-**
KFP 1500V20NM	1500	500	500	10000	5	135	1500×1250×90	**1730,-**
KFP 3000V20NM	3000	1000	1000	20000	5	135	1500×1250×90	**1760,-**
KFP 3000V20LNM	3000	1000	1000	20000	5	155	1500×1500×80	**1960,-**
KFP 6000V20M	6000	2000	2000	40000	5	210	1500×1500×130	**2320,-**
5 Weighing bridge KFD-V20								
KFD 600V20M	600	200	200	4000	5	125	1600×1200×78	**1700,-**
KFD 600V20LM	600	200	200	4000	5	155	1800×1400×80	**2000,-**
KFD 1500V20M	1500	500	500	10000	5	125	1600×1200×78	**1700,-**
KFD 1500V20LM	1500	500	500	10000	5	175	1800×1400×78	**2000,-**

⬇ Price reduction

13
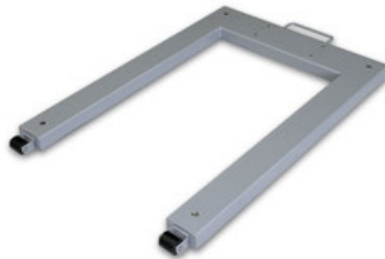
⑥ KERN KFA-V20

Weighing beams

STANDARD
IP 67 · 2 DAYS

- Weighing beams and painted steel base
- 4 load cells, alloy steel, silicone-coated, IP67
- Levelling feet for precise levelling of the weighing beams
- Ⓓ Image below: Version up to 6 t available. Each weighing beam has a roller and handle for easy transport of the scale (KERN KFA-L)
- **NEW:** new model with short weighing beams, ideal for weighing compact items or animals in transport boxes
  ▶ KERN KFA-600V20S
- Accessories see KERN UFA, page 110

⑦ KERN KFU-V20/V30

U-Weighing bridge

STANDARD
IP 67 · 2 DAYS

FACTORY
M

- Load range: painted steel (V20), stainless steel (V30) height 90 mm
- 4 load cells, alloy steel, silicone-coated, IP67, OIML-R60-approval for verification, class III, 3000 e
- 2 rollers and handle for easy transport of the scale
- Accessories KFU-V20 see KERN UFB, page 113
- Accessories KFU-V30 see KERN UFN, page 114

⑧ KERN KFP-V30

Platform

STANDARD
IP 67 · 1 DAY

FACTORY
M

- Stainless steel-weighing plate, Ⓔ Stainless steel substruction
- 1 load cell, Stainless steel, silicone-coated, IP67, OIML-approved, class III, 3000 e
- Level indicator and levelling feet for precise levelling of the scale

Ⓓ

Ⓔ

Model KERN	Weighing range [Max] kg	Readability [d] g	Verification value [e] g	Min. load [Min] g	Cable length approx. m	Net weight approx. kg	Weighing plate W×D×H mm	Price excl. VAT, ex works €
⑥ **Weighing beams KFA-V20**								
KFA 600V20S	600	200	-	-	5	30	800×120×100	**850,-**
KFA 1500V20	1500	500	-	-	5	36	1200×120×100	**930,-**
KFA 3000V20	3000	1000	-	-	5	36	1200×120×100	**960,-**
KFA 3000V20L	3000	1000	-	-	5	65	2000×120×100	**1200,-**
KFA 6000V20	6000	2000	-	-	5	85	1200×160×80	**1290,-**
KFA 6000V20L	6000	2000	-	-	5	125	2100×160×85	**1690,-**
⑦ **U-Weighing bridge KFU-V20**								
KFU 600V20M	600	200	200	4000	5	55	840×1350×90	**1130,-**
KFU 1500V20M	1500	500	500	10000	5	55	840×1350×90	**950,-**
⑦ **Stainless steel U-Weighing bridge KFU-V30**								
KFU 600V30M*	600	200	200	4000	5	55	840×1350×90	**1600,-**
KFU 1500V30M*	1500	500	500	10000	5	55	840×1350×90	**1600,-**
⑧ **Stainless steel platform KFP-V30**								
KFP 15V30M	15	0,5	5	100	2,5	5,0	300×240×100	**560,-**
KFP 30V30SM	30	10	10	200	2,5	5,0	300×240×100	**550,-**
KFP 30V30M	30	1	10	200	2,5	10	400×300×128	**620,-**
KFP 60V30M	60	2	20	400	2,5	10	400×300×128	**630,-**
KFP 60V30LM	60	2	20	400	2,5	10	500×400×137	**770,-**
KFP 60V30XLM	60	2	20	400	2,5	22	650×500×142	**1090,-**
KFP 150V30SM	150	5	50	1000	2,5	10	400×300×128	**620,-**
KFP 150V30M	150	5	50	1000	2,5	10	500×400×137	**770,-**
KFP 150V30LM	150	5	50	1000	2,5	22	650×500×135	**1100,-**
KFP 300V30M	300	10	100	2000	2,5	22	650×500×135	**1050,-**

! * ONLY WHILE STOCKS LAST!

13

Stainles steel weighing bridges KERN KFP · KFD

9 KERN KFP-V40

Weighing bridge

STANDARD   FACTORY

IP 68   2 DAYS   M

- Weighing bridge entirely made of stainless steel, extremely resistant to bending because of its high material thickness
- F Weighing plate fixed with stainless steel screws, for easier access to the loadcells from above
- 4 load cells, stainless steel, encapsulated, IP68, OIML-R60-approved, class III, 3000 e
- Can be built in using pit frames (optional)
- Level indicator and levelling feet for precise levelling of the scale
- Comfortable levelling of the weighing bridge from the top
- Accessories see KERN BFN, page 109

10 KERN KFD-V40

Weighing bridge

STANDARD   FACTORY

IP 68   2 DAYS   M

- Weighing bridge made from stainless steel, two integrated access ramps, extremely resistant to bending
- Extremely flat construction to facilitate access: access height only 45 mm
- 4 load cells, stainless steel, encapsulated IP68, OIML-R60-approval for verification, class III, 3000 e
- Level indicator and levelling feet for precise levelling of the scale
- Accessories see KERN NFN, page 117

F

Model KERN	Weighing range [Max] kg	Readability [d] g	Verification value [e] g	Min. load [Min] g	Cable length approx. m	Net weight approx. kg	Weighing plate W×D×H mm	Price excl. VAT, ex works €
9 Stainless steel weighing bridge KFP-V40								
KFP 600V40SM	600	200	200	4000	5	95	1000×1000×80	**2680,-**
KFP 1500V40M	1500	500	500	10000	5	135	1500×1250×80	**3460,-**
KFP 1500V40SM	1500	500	500	10000	5	95	1000×1000×80	**2700,-**
KFP 3000V40M	3000	1000	1000	20000	5	135	1500×1250×80	**3800,-**
10 Stainless steel weighing bridge KFD-V40								
KFD 600V40M	600	200	200	4000	5	130	1600×1200×78	**2700,-**
KFD 1500V40M	1500	500	500	10000	5	130	1600×1200×78	**2700,-**

13

Measuring cells

Accuracy classes with nominal loads from 300 g to 100 t and protection classes up to IP69K as well as cells protected according to ATEX or OIML approved cells are available to you from now in the SAUTER product range. Whatever the project – whether it's the development of customised weighing systems, installation in silos and storage tanks or in shelving for continuous inventory, for special application in mechanical engineering or in any type of test bench – SAUTER can offer you just the right measuring cell.

Of course, we can also supply you with the appropriate accessories such as load corners, pivot heads, display devices, junction boxes or the relevant calibration certificate at the same time.

Any special requests? Do you need special load cells, other capacities or cable lengths, individual force test benches or a special mount for your test item? No problem, our product specialist for force-measuring cells Mr Stefan Herrmann is available at any time to help you further and will work with you to develop a customised concept for your application.

Stefan Herrmann
Product specialist Load cells

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stefan.herrmann@kern-sohn.com

BALANCE MANUFACTURE
Load cell + Junction Box + KERN YKV

FORCE MEASUREMENT
Load cell + SAUTER FL + Software

BALANCE MANUFACTURE
Load cell + display device

BALANCE MANUFACTURE
Load cell + KERN YKV +
KERN Software BalanceConnection

BALANCE MANUFACTURE
Load cell + Junction Box +
display device

SAUTER

SAUTER measuring cells – integration opportunities

13.1

Load cells SAUTER CP P4 · CP P1 · CP P3

CP P4 · CP Y4

Single-point load cells made of anodised aluminium

STANDARD | OPTION

IP 65 | 1 DAY | DAkkS +3 DAYS | ISO +4 DAYS

- CP P4: Accuracy in accordance with OIML R60 C3
- CP Y4: Accuracy in accordance with OIML R60 C2
- CE and RoHS compliant
- Dust and spray protection to IP65 (in accordance with EN 60529)
- Aluminium, anodised
- Suitable for price-computing scales, bench scales, platform scales, etc.
- Maximum platform size 200×200 mm
- 4-wire connection
- Nominal sensitivity: 0,9 mV/V

Model	Nominal load	Price excl. of VAT ex works
SAUTER	kg	€
CP 300-0P4	0,3	**60,-**
CP 600-0P4	0,6	**60,-**

Model	Nominal load	Price excl. of VAT ex works
SAUTER	kg	€
ECO design		
CP 300-0Y4	0,3	**45,-**
CP 1500-0Y4	1,5	**45,-**
CP 3000-0Y4	3	**45,-**

CP P1 · CP Y1

Single-point load cells made of anodised aluminium

STANDARD | OPTION

IP 65 | M CP P1 | 1 DAY | DAkkS +3 DAYS | ISO +4 DAYS

- CP P1: Accuracy in accordance with OIML R60 C3
- CP Y1: Accuracy in accordance with OIML R60 C2
- CE and RoHS compliant
- Dust and spray protection to IP65 (in accordance with EN 60529)
- Aluminium, anodised
- Suitable for price-computing scales, bench scales, platform scales, etc.
- Maximum platform size 250×350 mm
- 4-wire connection
- Nominal sensitivity: 2 mV/V
- Note: Version in accordance with OIML R60 C4 or C5 on request

Model	Nominal load	Price excl. of VAT ex works
SAUTER	kg	€
CP 3-3P1	3	**55,-**
CP 5-3P1	5	**55,-**
CP 6-3P1	6	**55,-**
CP 8-3P1	8	**55,-**
CP 10-3P1	10	**55,-**
CP 15-3P1	15	**55,-**
CP 20-3P1	20	**55,-**
CP 30-3P1	30	**55,-**
CP 35-3P1	35	**55,-**
CP 40-3P1	40	**55,-**
CP 50-3P1	50	**55,-**

Model	Nominal load	Price excl. of VAT ex works
SAUTER	kg	€
ECO design (without EC type approval)		
CP 3-2Y1	3	**30,-**
CP 5-2Y1	5	**30,-**
CP 10-2Y1	10	**30,-**
CP 15-2Y1	15	**30,-**
CP 20-2Y1	20	**30,-**
CP 30-2Y1	30	**30,-**

CP P3

Single-point load cells made of anodised aluminium

STANDARD | OPTION

IP 65 | 1 DAY | DAkkS +3 DAYS | ISO +4 DAYS

- Accuracy in accordance with OIML R60 C3
- CE and RoHS compliant
- Dust and spray protection to IP65 (in accordance with EN 60529)
- Suitable for price-computing scales, bench scales, platform scales, etc.
- Maximum platform size 350×400 mm
- 4-wire connection
- Nominal sensitivity: 2 mV/V
- Note: Version in accordance with OIML R60 C4 on request

Model	Nominal load	Price excl. of VAT ex works
SAUTER	kg	€
CP 30-3P3 NEW	30	**70,-**
CP 40-3P3 NEW	40	**70,-**
CP 50-3P3	50	**70,-**
CP 75-3P3	75	**70,-**
CP 100-3P3 NEW	100	**70,-**

NEW New model

Tip Further details and technical data sheet as well as extensive accessories can be found at www.kern-sohn.com

13

Load cells SAUTER CP P2 · CP P7 · CP P9

NEW

CP P2

Single-point load cells of aluminium
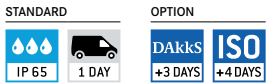
STANDARD IP 65 · 1 DAY
OPTION DAkkS +3 DAYS · ISO +4 DAYS

- Accuracy in accordance with OIML R60 C3
- RoHS compliant
- Dust and spray protection to IP65 (in accordance with EN 60529)
- Aluminium, anodised
- Suitable for price-computing scales, bench scales, etc.
- Maximum platform size 100–300 kg: 400×400 mm
- Maximum platform size 400–500 kg: 450×450 mm
- Nominal sensitivity: 2 mV/V
- Note: Version in accordance with OIML R60 C4 or C5 on request

CP P7

Single-point load cells of stainless steel
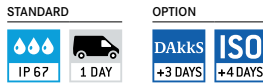
STANDARD IP 67 · 1 DAY
OPTION DAkkS +3 DAYS · ISO +4 DAYS

- Accuracy in accordance with OIML R60 C3
- RoHS compliant
- Dust and spray protection to IP67 (in accordance with EN 60529)
- Stainless steel
- Application example: Weight as well as compressive force measurements under harsh environmental conditions
- Suitable for bench scales, price-computing scales
- Maximum platform size 400×400 mm
- 6-wire connection
- Nominal sensitivity: 2 mV/V
- Note: Version in accordance with OIML R60 C4 on request

CP P9

Single-point load cells of stainless steel

STANDARD IP 68 · IP 69K · M · 1 DAY
OPTION DAkkS +3 DAYS · ISO +4 DAYS

- Accuracy in accordance with OIML R60 C3
- RoHS compliant
- Dust and spray protection to IP68/IP69K (in accordance with EN 60529 resp. ISO 20653), welded to create a hermetic seal
- Stainless steel
- Area of application: Weight measurement as well as compressive force in harsh environments
- Suitable for platform scales, checkweighers
- Maximum platform size 10–50 kg: 400×400 mm
- Maximum platform size 100–500 kg: 800×800 mm
- 4-wire connection (10–50 kg)
- 6-wire connection (100–500 kg)
- Nominal sensitivity: 2 mV/V
- Note: Version in accordance with OIML R60 C4 or C5 on request

13

Model SAUTER	Nominal load kg	Price excl. of VAT ex works €
CP 100-3P2	100	75,-
CP 150-3P2	150	75,-
CP 200-3P2	200	75,-
CP 300-3P2	300	75,-
CP 400-3P2	400	75,-
CP 500-3P2	500	75,-

Model SAUTER	Nominal load kg	Price excl. of VAT ex works €
CP 30-3P7	30	250,-
CP 50-3P7	50	250,-
CP 75-3P7	75	250,-
CP 100-3P7	100	250,-
CP 150-3P7	150	250,-

Model SAUTER	Nominal load kg	Price excl. of VAT ex works €
CP 10-3P9	10	350,-
CP 20-3P9	20	350,-
CP 50-3P9	50	350,-
CP 100-3P9	100	530,-
CP 200-3P9	200	530,-
CP 300-3P9	300	530,-
CP 400-3P9	400	530,-
CP 500-3P9	500	530,-

Tip Further details and technical data sheet as well as extensive accessories can be found at www.kern-sohn.com

Load cells SAUTER CR Q1 · CR P1

Fig. shows accessories, load corner **1** SAUTER CE Q42901, for further accessories please visit our online shop

CR Q1

Load cells made of stainless steel

STANDARD		OPTION
IP 68	1 DAY	ISO +4 DAYS **

- Accuracy in accordance with OIML R60 C1
- RoHS compliant
- Dust and spray protection to IP68 (in accordance with EN 60529), hermetically encapsulated
- Stainless steel
- Area of application: Weight measurement as well as compressive force
- Suitable for vehicle scales, weigh hoppers, vehicle testing equipment, test benches
- Nominal sensitivity: 2 mV/V

CR P1

Load cells made of stainless steel

STANDARD		OPTION	
IP 68	1 DAY	DAkkS +3 DAYS *	ISO +4 DAYS

- Accuracy in accordance with OIML R60 C3
- RoHS compliant
- Dust and spray protection to IP68 (in accordance with EN 60529), hermetically encapsulated
- Stainless steel
- Area of application: Weight measurement as well as compressive force
- Suitable for truck scales, suspended scales, silo scales and other diverse scales, test benches, etc.
- Nominal sensitivity: 1–2 mV/V

Accessories CR Q1:

- **1** Load corner, steel, galvanised, suitable for CR Q1 with nominal load ≤ 10 t, SAUTER CE Q42901, **€ 245,–**
- Load corner, steel, galvanised, suitable for CR Q1 with nominal load ≥ 20 t, SAUTER CE Q42902, **€ 390,–**
- Load corner, steel, rustproof, suitable for CR Q1 with nominal load ≤ 10 t, SAUTER CE RQ42901, **€ 440,–**
- Load corner, steel, rustproof, suitable for CR Q1 with nominal load ≥ 20 t, SAUTER CE RQ42902, **€ 750,–**

Accessories CR P1:

- Load corner for CR 1000-3P1, CR 250-3P1, CR 500-3P1 Steel, incl. pressure piece, SAUTER CE P244011, **€ 550,–**
- Pressure piece for CR 1000-3P1, CR 250-3P1, CR 500-3P1 steel, SAUTER CE P244012, **€ 105,–**
- Load corner for CR 2000-3P1 steel, rustproof, incl. pressure piece, SAUTER CE P244021, **€ 660,–**
- Pressure piece for CR 2000-3P1 steel, rustproof SAUTER CE P244022, **€ 115,–**

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Model SAUTER	Nominal load	Price excl. of VAT ex works €
CR 2500-1Q1	2,5 t/25 kN	**265,–**
CR 5000-1Q1	5 t/50 kN	**265,–**
CR 10000-1Q1	10 t/100 kN	**265,–**
CR 20000-1Q1	20 t/200 kN	**520,–**
CR 30000-1Q1	30 t/300 kN	**520,–**

** up to max. 25 t/250 kN

Model SAUTER	Nominal load	Price excl. of VAT ex works €
CR 60-3P1	60 kg/0,6 kN	**860,–**
CR 130-3P1	130 kg/1,3 kN	**900,–**
CR 250-3P1	250 kg/2,5 kN	**830,–**
CR 500-3P1	500 kg/5 kN	**790,–**
CR 1000-3P1	1000 kg/10 kN	**790,–**
CR 2000-3P1	2000 kg/20 kN	**790,–**

* up to max. 500 kg/5 kN

Tip Further details and technical data sheet as well as extensive accessories can be found at www.kern-sohn.com

Load cells SAUTER CB Q1 · CB Q2 · CB P1

Fig. shows accessories, base plate **1** SAUTER CE Q30903 and bearings **2** SAUTER CE Q30904, for further accessories please visit our online shop

Fig. shows optional accessory load corner **3** SAUTER CE P4022

CB Q1 · CB Q2

Bending beam and shear beam measuring cells made from stainless steelç

STANDARD			OPTION	
IP 68	IP 69K	1 DAY	DAkkS +3 DAYS	ISO +4 DAYS *

- Accuracy in accordance with OIML R60 C3
- CE and RoHS compliant
- Dust and spray protection to IP68/IP69K (in accordance with EN 60529), welded to create a hermetic seal
- Stainless steel
- Area of application: Weight measurement as well as compressive force in harsh environments
- Suitable for platform scales, weigh hoppers, floor scales and other weighing devices
- 4-wire connection
- Nominal sensitivity: 2 mV/V
- Note: Accuracy class OIML R60 C6 or EX version on request

CB P1

Measuring cells made from stainless steel

STANDARD			OPTION	
IP 67	M	1 DAY	DAkkS +3 DAYS	ISO +4 DAYS

- Accuracy in accordance with OIML R60 C3
- CE and RoHS compliant
- Dust and spray protection to IP67 (in accordance with EN 60529), hermetically encapsulated
- Nickel-plated steel
- Area of application: Weight measurement as well as compressive force in harsh environments
- Suitable for platform scales, silo scales, bed scales and other diverse scales
- 4-wire connection
- Nominal sensitivity: 3 mV/V

Accessories CB Q1 · CB Q2:

- Traction device, steel, galvanised, suitable for CB Q1, SAUTER CE Q30901, **€ 75,–**
- Traction device, steel, rustproof, suitable for CB Q2, SAUTER CE Q34905, **€ 80,–**
- **1** Base plate, steel, galvanised, suitable for CB Q1, SAUTER CE Q30903, **€ 90,–**
- Base plate, steel, rustproof, suitable for CB Q1, SAUTER CE RQ30903, **€ 175,–**
- Base plate, steel, rustproof, suitable for CB Q2, SAUTER CE Q34903, **€ 85,–**
- **2** Bearing, steel, rustproof, suitable for CB Q1 (nominal load 5 kg–50 kg), SAUTER CE Q30904, **€ 110,–**
- Bearing, steel, rustproof, suitable for CB Q1 (nominal load 75 kg–300 kg), SAUTER CE Q30905, **€ 110,–**
- Bearing, steel, rustproof, suitable for CB 500-3Q1, SAUTER CE Q30906, **€ 190,–**
- Bearing, steel, rustproof, suitable for CB 750-3Q2, CB 1000-3Q2, CB 1500-3Q2, SAUTER CE Q34906, **€ 175,–**
- Load corner, steel, galvanised, suitable for CB Q1, SAUTER CE Q30907, **€ 205,–**
- Load corner, steel, rustproof, suitable for CB Q1, SAUTER CE RQ30907, **€ 290,–**
- Adjustable foot, steel, rustproof, suitable for SAUTER CE Q34901, **€ 65,–**

Model	Nominal load	Price excl. of VAT ex works
SAUTER	kg	€
CB 5-3Q1	5	**210,-**
CB 10-3Q1	10	**210,-**
CB 20-3Q1	20	**210,-**
CB 30-3Q1	30	**210,-**
CB 50-3Q1	50	**210,-**
CB 75-3Q1	75	**210,-**
CB 100-3Q1	100	**210,-**
CB 150-3Q1	150	**210,-**
CB 200-3Q1	200	**210,-**
CB 250-3Q1	250	**210,-**
CB 300-3Q1	300	**210,-**
CB 500-3Q1	500	**210,-**
CB 750-3Q2	750	**220,-**
CB 1000-3Q2	1000	**220,-**
CB 1500-3Q2	1500	**220,-**

* up to max. 500 kg

Model	Nominal load	Price excl. of VAT ex works
SAUTER	kg	€
CB 100-3P1	100	**105,-**
CB 250-3P1	250	**105,-**

Accessories CB P1:

- Adjustable foot, steel, nickel-plated, load base M12 for CT 500-3P1, CT 1000-3P1 and CT 1500-3P1, SAUTER CE P2012, **€ 25,–**
- **3** Load corner, steel, nickel-plated for CT 500-3P1, CT 1000-3P1 and CT 1500-3P1, SAUTER CE P4022, **€ 180,–**
- Spacer plates for bending beam CB P1 made from steel, SAUTER CE P3012, **€ 8,–**

Tip Further details and technical data sheet as well as extensive accessories can be found at www.kern-sohn.com

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Load cells SAUTER CT Q1 · CT P1 · CT P2

Fig. shows optional accessory load corner **1** SAUTER CE RQ35903

Fig. shows optional accessory load corner **2** SAUTER CE P4022

CT Q1

Shear beam made from stainless steel

STANDARD
IP 68 · IP 69K · 1 DAY

OPTION
DAkkS +3 DAYS · ISO +4 DAYS *

- Accuracy in accordance with OIML R60 C3
- CE and RoHS compliant
- Dust and spray protection to IP68/IP69K (in accordance with EN 60529), welded to create a hermetic seal
- Stainless steel
- Area of application: Weight measurement as well as compressive force in harsh environments
- Suitable for platform scales, weigh hoppers, flush-mounted floor scales and other weighing devices
- 6-wire connection
- Nominal sensitivity: 2 mV/V
- Note: EX version on request

CT P1 · CT P2

Measuring cells made from stainless steel

STANDARD
IP 67 · M · 1 DAY

OPTION
DAkkS +3 DAYS · ISO +4 DAYS *

- Accuracy in accordance with OIML R60 C3
- CE and RoHS compliant
- Dust and spray protection to IP67 (in accordance with EN 60529), welded to create a hermetic seal
- Nickel-plated steel
- Area of application: Weight measurement as well as compressive force in harsh environments
- Suitable for platform scales, weigh hoppers, flush-mounted floor scales and other weighing devices
- 4-wire connection
- Nominal sensitivity: 3 mV/V
- Note: EX version, 6-wire connection and accuracy class C4 or C5 on request
- **CT P2:** Delivery with calibrated characteristic value, if several cells are ordered, this means significantly less effort when aligning the corners of a platform

Accessories CT Q1:

- Base plate, steel, rustproof, suitable for CT Q1, SAUTER CE RQ35911, **€ 185,–**
- Base plate, steel, rustproof, suitable for CT 3000-3Q1, CT 5000-3Q1, SAUTER CE RQ35912, **€ 185,–**
- Base plate, steel, rustproof, suitable for CT 7500-3Q1, CT 10000-3Q1, SAUTER CE RQ35919, **€ 790,–**
- Bearing, steel, rustproof, suitable for CT Q1, SAUTER CE RQ35909, **€ 150,–**
- Bearing, steel, rustproof, suitable for CT 3000-3Q1, CT 5000-3Q1, SAUTER CE RQ35910, **€ 295,–**
- Bearing, steel, rustproof, suitable for CT 7500-3Q1, CT 10000-3Q1, SAUTER CE RQ35918, **€ 360,–**
- Load corner, steel, rustproof, suitable for CT Q1, SAUTER CE RQ35902, **€ 390,–**
- **1** Load corner, steel, rustproof, suitable for CT 3000-3Q1, CT 5000-3Q1, SAUTER CE RQ35903, **€ 570,–**

Accessories CT P1:

- Load corner, steel, rustproof, suitable for CT 10000-3P1, CT 10000-3P2, SAUTER CE P40210, **€ 470,–**
- **2** Load corner, steel, nickel-plated, suitable for CT 500-3P1, CT 1000-3P1, CT 1500-3P1, SAUTER CE P4022, **€ 180,–**
- Load corner, steel, nickel-plated, suitable for CT 2500-3P1, CT 3000-3P1, CT 5000-3P1, SAUTER CE P4025, **€ 240,–**
- Adjustable foot, steel, rustproof, suitable for CT 500-3P1, CT 1000-3P1, CT 1500-3P1, SAUTER CE P2012, **€ 25,–**
- Adjustable foot, steel, rustproof, suitable for CT 2500-3P1, CT 3000-3P1, CT 5000-3P1, SAUTER CE P2018, **€ 35,–**
- Adjustable foot, steel, rustproof, suitable for CT 10000-3P1, SAUTER CE P2024, **€ 105,–**
- Spacer plate for CT 500-3P1, CT 500-3P2, CT 1000-3P1, CT 1000-3P2 and CT 1500-3P1, SAUTER CE P3012, **€ 8,–**
- Spacer plate for CT 2500-3P1, CT 3000-3P1, CT 3000-3P2, CT 5000-3P1 and CT 5000-3P2 SAUTER CE P3015, **€ 8,–**
- Spacer plate for CT 10000-3P1 and CT 10000-3P2 SAUTER CE P30110, **€ 25,–**

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Model SAUTER	Nominal load kg	Price excl. of VAT ex works €
CT 300-3Q1	300	**205,-**
CT 500-3Q1	500	**205,-**
CT 750-3Q1	750	**205,-**
CT 1000-3Q1	1000	**205,-**
CT 1500-3Q1	1500	**205,-**
CT 2000-3Q1	2000	**205,-**
CT 3000-3Q1	3000	**400,-**
CT 5000-3Q1	5000	**400,-**
CT 7500-3Q1	7500	**530,-**
CT 10000-3Q1	10000	**530,-**

* up to max. 500 kg

Model SAUTER	Nominal load kg	Price excl. of VAT ex works €
CT 500-3P1	500	**90,-**
CT 1000-3P1	1000	**90,-**
CT 1500-3P1	1500	**90,-**
CT 2500-3P1	2500	**110,-**
CT 3000-3P1	3000	**110,-**
CT 5000-3P1	5000	**110,-**
CT 10000-3P1	10000	**160,-**
CT 500-3P2	500	**95,-**
CT 1000-3P2	1000	**95,-**
CT 3000-3P2	3000	**115,-**
CT 5000-3P2	5000	**115,-**
CT 10000-3P2	10000	**165,-**

* up to max. 500 kg

Tip Further details and technical data sheet as well as extensive accessories can be found at www.kern-sohn.com

NEW

CO Y1

Miniature button-type measuring cells made of stainless steel

STANDARD

IP 65 | 1 DAY

OPTION

DAkkS +3 DAYS | ISO +4 DAYS
**

· Accuracy in accordance with OIML G5
· High precision (comprehensive Error 0,05 % F.S.)
· RoHS compliant
· Scope of application: compressive force applications
· Suitable for Weight measurement as well as force and force test benches
· Nominal sensitivity: 1.0 – 1.5 mV/V

CO Y2

Miniature button-type measuring cells made of stainless steel

STANDARD

IP 65 | 1 DAY

OPTION

DAkkS +3 DAYS | ISO +4 DAYS
**

· Accuracy in accordance with OIML G5
· High precision (comprehensive Error 0,05 % F.S.)
· RoHS compliant
· Scope of application: for tensile and compressive force measurement
· Suitable for Weight measurement as well as force and force test benches
· Nominal sensitivity: 1,5 – 2 mV/V, depending on nominal load

CO Y5

Tension and compression load cells made of stainless steal

STANDARD

IP 66 | M | 1 DAY

OPTION

DAkkS +3 DAYS | ISO +4 DAYS
not CO 0.5-Y5

· Accuracy in accordance with OIML R60 G1
· CE and RoHS compliant
· Dust and spray protection to IP66 (in accordance with EN 60529)
· Stainless steel
· Very low profile
· Suitable for test stands, force measuring devices, Automation systems, etc.
· 4-wire connection
· Nominal sensitivity:
  CO 0.5-Y5, CO 1-Y5: 1 mV/V
  CO 5-Y5, CO 10-Y5: 2 mV/V

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Model SAUTER	Nominal load	Price excl. of VAT ex works €
CO 10-Y1	10 kg/100 N	**155,–**
CO 20-Y1	20 kg/200 N	**155,–**
CO 50-Y1	50 kg/500 N	**155,–**
CO 100-Y1	100 kg/1 kN	**155,–**
CO 200-Y1	200 kg/2 kN	**155,–**
CO 500-Y1	500 kg/5 kN	**180,–**
CO 1000-Y1	1000 kg/10 kN	**180,–**
CO 2000-Y1	2000 kg/20 kN	**205,–**

** up to 500 kg/5 kN

Model SAUTER	Nominal load	Price excl. of VAT ex works €
CO 10-Y2	10 kg/100 N	**220,–**
CO 20-Y2	20 kg/200 N	**220,–**
CO 50-Y2	50 kg/500 N	**220,–**
CO 100-Y2	100 kg/1 kN	**275,–**
CO 200-Y2	200 kg/2 kN	**275,–**
CO 500-Y2	500 kg/5 kN	**275,–**
CO 1000-Y2	1000 kg/10 kN	**275,–**
CO 2000-Y2	2000 kg/20 kN	**300,–**

** up to 500 kg/5 kN

Model SAUTER	Nominal load	Price excl. of VAT ex works €
CO 0.5-Y5	0,5 kg/5 N	**320,-**
CO 1-Y5	1 kg/10 N	**320,-**
CO 5-Y5	5 kg/50 N	**320,-**
CO 10-Y5	10 kg/100 N	**320,-**

Tip Further details and technical data sheet as well as extensive accessories can be found at www.kern-sohn.com

Junctionboxes SAUTER CJ P · CJ X

CJ P4

CJ X467

CJ X468

CJ P6

CJ P4PG

CJ P

Junctionbox CJ P for connecting several measuring cells to one evaluation unit

STANDARD

IP 65   1 DAY
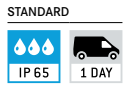
· Prepared for 4-wire and 6-wire measuring cells
· Models available for 2, 4, 6 or 8 load cells
· Robust aluminium die-cast housing
· Protection against dust and spray

CJ X

Junctionbox for connecting several measuring cells to one evaluation unit

STANDARD

IP 67   IP 68   1 DAY
CJ X467 CJ X468
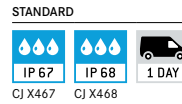
· Prepared for 4-wire and 6-wire measuring cells
· Models available for 4 load cells

CJ X467:
· Robust stainless steel housing with protection against dust and water splashes IP67

CJ X468:
· Robust aluminium die-cast housing with protection against dust and water splashes IP68

Model SAUTER	Number of connections	Price excl. of VAT ex works €
CJ P2	2	80,-
CJ P4	4	80,-
CJ P4PG	4	90,-
CJ P6	6	100,-
CJ P8	8	100,-

Model SAUTER	Number of connections	Price excl. of VAT ex works €
CJ X467	4	190,-
CJ X468	4	110,-

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Tip Further details and technical data sheet as well as extensive accessories can be found at www.kern-sohn.com

> The power package in the dispatch department and warehouse

> The display device is well-protected by a metal frame

> Due to the optimized loads rollers it is easier to get over rough ground

Pallet truck scales

Weighing and transporting – just 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 reduces commissioning times and avoids queues in front of fixed floor scales.

These mobile weighing solutions are space-saving and deliver reliable weighing results. Differences between given and actual weights can be determined quickly e.g. in the goods-in and out department. This uncovers inaccurate quantities, saves time and money and therefore ensures a very short amortisation period of the scales original cost.

KERN pallet truck scales are of robust industrial quality, with high-level protection against dust and water splashes, with high-contrast, easy-to-read displays as well as solid wheels and load rollers – 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 DAkkS calibration certificate (optional). This ensures the high level of accuracy of your pallet truck scale.

Quick-Finder Pallet truck scales

Readability [d] kg	Weighing capacity [Max] kg	Model	Page		DAYS	CAL EXT	SUM	IP	BATT	ACCU
		KERN			For an explanation on the pictos, see front flap					
1	2000	**VHB 2T1**	147	2		●	●	●	●	

● = standard   O = option

Pallet truck scale KERN VHB

PREMIUM ★★★

Pallet truck scale with complete protection against dust and water splashes IP65/67 and a memory for a container weight

⚠ Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping

Features

- PRE-TARE function for manual subtraction of a known container weight, useful for checking fill-levels
- ① Display device: plastic, protection against dust and water splashes IP65
- ② Load fork: Protection against dust and water splashes IP67, temporary use in wet areas possible
- Pivot range 206°
- Castors: Solid rubber on aluminium rims
- ③ Load rollers: Tandem tyres to overcome thresholds and obstacles more easily
- Totalising of weights
- Ready for use: Batteries included, 4×1.5 V AA, operating time up to 80 h

Technical data

- Large LCD display, digit height 28 mm
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Castors made of red polyurethane on aluminium rims. Ideal for light-coloured flooring as they leave less visible abrasive marks. Suitable for the current models of the pallet truck scale range KERN VHB (when retrofitting, please give the serial number of the pallet truck scale available when ordering), scope of delivery: 1 item, KERN VHB-A02

STANDARD

| CAL EXT | SUM | UNIT | IP 65 ① | IP 67 ② | BATT | DMS | 2 DAYS |

OPTION

| DAkkS +3 DAYS |
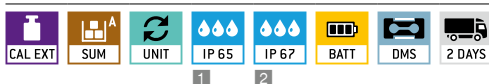
Model	Weighing capacity	Readability	Net weight		Option
					DAkkS Calibr. Certificate
KERN	[Max] kg	[d] kg	approx. kg		DAkkS KERN
VHB 2T1	2000	1	110		963-131	

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KERN HFD

> Triple-range scale: Ideal, when high maximum loads need to be weighed, but in the lower load range you still need high resolution. This means that three balances can be replaced with one – which saves space and money!

> Also available with high protection type IP67!

> Also EC type approval as version with calibration approval!

Hanging scales/Crane scales

TÜV-tested safety

KERN puts great emphasis on safety. For your safety, all KERN hanging and crane scales are subject to a stringent load test in accordance with EN 13155 and (Non-fixed load lifting attachments/breakage resistance) and EN 61010-1 (Electrical safety).

As well as the classic crane scales, we also have electronic tensile dynamometers which are extremely versatile thanks to their stable, compact construction. They can, for example, be fitted into testing machines, used for checking for overload, for bracing and tensile force measurement, etc.

This type of device is ideally suited for use between shackles or with a test bench. This is where the benefit of this construction comes to the fore, as the tensile force can be applied in both directions. These compact crane scales are also particularly suitable when weighing suspended loads where space is tight.

At the core of this construction is a robust load cell. Through the absence of moving parts, these scales are practical in maintenance and wear free.

! Note

DAkkS calibration and conformity evaluation for crane scales up to 12 t

Do you use your crane scales in ISO-certified processes or where verification is mandatory? Then we can produce the right calibration certificate or the relevant Declaration of Conformity for your measuring device. Thanks to a modern crane scale test unit, we can calibrate or verify crane scales and force-measuring devices from any manufacturer to a maximum load of up to 12 t or 120 kN. You can find all the important details on pages 206, 211 or directly from one of our test service specialists, we will be pleased to help you.

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Quick-Finder Hanging scales/Crane scales

Readability [d] kg	Weighing capacity [Max] kg	Model KERN	Page	DAYS	M	CAL EXT	BT	MOVE	IP	BATT	ACCU
								For an explanation on the pictos, see front flap			
0,005	5	HDB 5K5N	152	1		●		●		●	
0,005	6	HDB 6K-3XL	153	1		●		●		●	
0,01	10	HDB 10K10N	152	1		●		●		●	
0,01	15	HDB 10K-2XL	153	1		●		●		●	
0,01	20	HCB 20K10	154	1		●		●		●	
0,01	50	HGA 50K-2S05	150	1		●				●	
0,02	15	CH 15K20	151	1		●		●		●	
0,02	30	HDB 30K-2XL	153	1		●		●		●	
0,02	50	HCB 50K20	154	1		●		●		●	
0,02	60	HCD 60K-2	156	1		●				●	●
0,02 | 0,05	60 | 150	HCD 100K-2D	156	1		●				●	●
0,05	50	CH 50K50	151	1		●		●		●	
0,05	99	HCB 99K50	154	1		●		●		●	
0,05	150	HCD 100K-2	156	1		●				●	●
0,05 | 0,1	150 | 300	HCD 300K-2D	156	1		●				●	●
0,05 | 0,1 | 0,2	150 | 300 | 600	HFD 600K-1	159	1		●	○				●
0,05 | 0,1 | 0,2	150 | 300 | 600	HFD 600K-1IP	159	1		●	○		●		●
0,1	50	CH 50K100	151	1		●		●		●	
0,1	50	HCB 50K100	154	1		●		●		●	
0,1	50	HCN 50K100IP	155	1		●		●	●	●	
0,1	200	HCB 200K100	154	1		●		●		●	
0,1	300	HCD 300K-1	156	1		●				●	●
0,1	1000	HFM 1T0.1	161	1		●					●
0,1 | 0,2 | 0,5	300 | 600 | 1500	HFD 1T-4	159	1		●	○				●
0,1 | 0,2 | 0,5	300 | 600 | 1500	HFD 1T-4IP	159	1		●	○		●		●
0,2	100	HCB 100K200	154	1		●		●		●	
0,2	100	HCN 100K200IP	155	1		●		●	●	●	
0,2	600	HFA 600K-1	157	1		●				●	●
0,2	600	HFC 600K-1	158	1		●				●	●
0,2	600	HFD 600K-1M	159	1	○	●	○				●
0,2 | 0,5 | 1	600 | 1500 | 3000	HFD 3T-3	159	1		●	○				●
0,2 | 0,5 | 1	600 | 1500 | 3000	HFD 3T-3IP	159	1		●	○		●		●
0,5	200	HCB 200K500	154	1		●		●		●	
0,5	200	HCN 200K500IP	155	1		●		●	●	●	
0,5	1000	HFA 1T-4	157	1		●				●	●
0,5	1000	HFC 1T-4	158	1		●				●	●
0,5	1500	HFD 1T-4M	159	1	○	●	○				●
0,5	3000	HFM 3T0.5	161	1		●					●
0,5	5000	HFM 5T0.5	161	1		●					●
0,5 | 1 | 2	1500 | 3000 | 6000	HFD 6T-3	159	1		●	○				●
0,5 | 1 | 2	1500 | 3000 | 6000	HFD 6T-3IP	159	1		●	○		●		●
1	500	HCB 0.5T-3	154	1		●		●		●	
1	3000	HFA 3T-3	157	1		●				●	●
1	3000	HFC 3T-3	158	1		●				●	●
1	3000	HFD 3T-3M	159	1	○	●	○				●
1	10000	HFM 10T1	161	2**		●					●
1 | 2 | 5	3000 | 6000 | 12000	HFD 10T-3	159	1		●	○				●
1 | 2 | 5	3000 | 6000 | 12000	HFD 10T-3IP	159	1		●	○		●		●
2	1000	HCB 1T-3	154	1		●		●		●	
2	5000	HFA 5T-3	157	1		●				●	●
2	5000	HFC 5T-3	158	1		●				●	●
2	6000	HFD 6T-3M	159	1	○	●	○				●
5	10000	HFA 10T-3	157	1		●				●	●
5	10000	HFC 10T-3	158	1		●				●	●
5	12000	HFD 10T-3M	159	1	○	●	○				●

** Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs

● = standard ○ = option

15

Luggage scale KERN HGA

Ultra compact, digital luggage scale for fast weighing of luggage and other suspended loads

Features

- This ergonomically-optimised luggage scale is perfectly suited for rapid, accurate checking of cases, bags, sports baggage, etc. The high maximum load means that there is sufficient safety reserve and can therefore also be used for weighing other, suspended loads
- 1 Ergonomic design for easy handling
- Robust nylon fabric tape for secure fixing of the item to be weighed
- Simple and convenient 1-key operation
- Easy to toggle between units at the press of a button
- High mobility: thanks to battery operation, compact, lightweight construction, it is suitable for the use in several locations
- Automatic Hold function: When the weighing value remains unchanged the weight indicated on the display is automatically "frozen" for 10 sec. This leaves suffcient time to read the weight in peace

Technical data

- LCD display, digit height 9 mm
- Ready for use: Batteries included, 3V CR2032, operating time up to 20 h, AUTO-OFF function to preserve the battery, Battery level indicator on display
- Note: The models are only delivered in a set of 5 units. i.e. the price given in the table refers to a delivery of 5 items. Cannot be delivered individually. The calibration prices given here refer to calibration of a single balance

15

STANDARD   OPTION

UNIT | BATT | DMS | 1 DAY | DAkkS +3 DAYS

Model KERN	Weighing capacity [Max] kg	Readability [d] g	Dimensions housing W×D×H mm	Net weight/ balance approx. kg	Quantity delivered (balances)		Option DAkkS Calibr. Certificate DAkkS KERN	Quantity delivered (DAkkS Calibr. Certificate)
HGA 50K-2S05	50	10	150×31×35	0,4	5		963-128H	1

❗ ONLY WHILE STOCKS LAST!

Hanging scale KERN CH
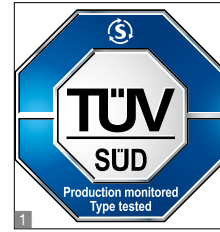
The classic among manual hanging scales – perfect for rapid weighing of higher loads

Features

- ☐1 With the TÜV certification mark, the scales meet the requirements of the standard EN 13155 (Non-fixed load lifting attachments/Breakage resistance) and EN 61010-1 (Electrical safety)
- Ideal for rapid control in goods-in and goods-out
- Also essential in the private sector to determine the weight of fish, game, fruits, bicycle parts, suitcases etc.
- Hold function: For easy reading of the weighing result, 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)
- Hook, steel

Technical data

- LCD display, digit height 11 mm
- ☐2 Tape measure, extractable, length approx. 100 cm
- Ready for use: Batteries included, 9 V block, operating time up to 20 h
- Further weighing units: kg, lb, N
- Permissible ambient temperature 5 °C/35 °C

Accessories

- ☐3 Tare pan with pan beam, details see Accessories, KERN CH-A01N

15

STANDARD					OPTION
CAL EXT	UNIT	MOVE	BATT	DMS	1 DAY	DAkkS +3 DAYS

Model	Weighing capacity	Readability	Dimensions housing W×D×H	Net weight		Option
						DAkkS Calibr. Certificate
	[Max]	[d]		approx.		DAkkS
KERN	kg	g	mm	kg		KERN
CH 15K20	15	20	90×30×176,5	0,35		963-128H
CH 50K50	50	50	90×30×176,5	0,35		963-128H
CH 50K100	50	100	90×30×176,5	0,35		963-128H

Hanging scale KERN HDB-N
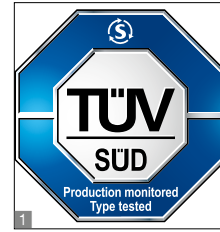
Practical hanging scale for rapid, mobile weighing

Features

- 1 With the TÜV certification mark, the scales meet the requirements of the standard EN 13155 (Non-fixed load lifting attachments/ breakage resistance) and EN 61010-1 (Electrical safety)
- Ideal for rapid control in goods-in and goods-out
- Also essential in the private sector to determine the weight of fish, game, fruits, bicycle parts, suitcases etc.
- Hold function: For easy reading of the weighing result, the display can be "frozen" in different ways. Either automatically when the weighing value remains unchanged or manually by pressing the Hold key
- Hook, steel, can be hinged
- Peak load display (peak hold)

Technical data

- LCD display, digit height 12 mm
- Ready for use: Batteries included, 2×1.5 V AAA, operating time up to 180 h
- Further weighing units: kg, lb, N
- Permissible ambient temperature 5 °C/35 °C

Accessories

- 2 Tare pan with pan beam, details see Accessories, KERN CH-A01N

15

STANDARD

| CAL EXT | UNIT | MOVE | BATT | DMS | 1 DAY |

OPTION

| DAkkS +3 DAYS |

Model	Weighing capacity	Readability	Dimensions housing W×D×H	Net weight		Option
						DAkkS Calibr. Certificate
	[Max]	[d]		approx.		DAkkS
KERN	kg	g	mm	kg		KERN
HDB 5K5N	5	5	72×25×105	0,20		963-127H
HDB 10K10N	10	10	72×25×105	0,20		963-128H

Hanging scale KERN HDB-XL
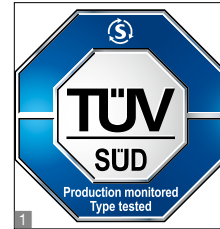
User-friendly hanging scale for rapid, mobile weighing

Features

- The larger design creates space for a large handle, which enables even better handling especially with heavier loads
- ◳ With the TÜV certification mark, the scales meet the requirements of the standard EN 13155 (Non-fixed load lifting attachments/ Breakage resistance) and EN 61010-1 (Electrical safety)
- Ideal for rapid control in goods-in and goods-out
- Also essential in the private sector to determine the weight of fish, game, fruits, bicycle parts, suitcases etc.
- Hold function: For easy reading of the weighing result, 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)
- Hook, steel, can be hinged

Technical data

- LCD display, digit height 12 mm
- Ready for use: Batteries included, 2×1.5 V AAA, operating time up to 180 h
- Further weighing units: kg, lb, N
- Permissible ambient temperature 5 °C/35 °C

Accessories

- ◲ Tare pan with pan beam, details see Accessories, KERN CH-A01N

15

STANDARD

CAL EXT · UNIT · MOVE · BATT · DMS · 1 DAY

OPTION

DAkkS +3 DAYS

Model	Weighing capacity	Readability	Dimensions housing W×D×H	Net weight		Option
						DAkkS Calibr. Certificate
	[Max]	[d]		approx.		DAkkS
KERN	kg	g	mm	kg		KERN
HDB 6K-3XL	6	5	107×25×101	0,20		963-128H
HDB 10K-2XL	15	10	107×25×101	0,20		963-128H
HDB 30K-2XL	30	20	107×25×101	0,20		963-128H

Hanging scale KERN HCB

Handy hanging scale for higher loads

Features

- 1 With the TÜV certification mark, the scales meet the requirements of the standard EN 13155 (Non-fixed load lifting attachments/breakage resistance) and EN 61010-1 (Electrical safety)
- Ideal for rapid control in goods-in and goods-out
- Also essential in the private sector to determine the weight of fish, game, fruits, bicycle parts, suitcases etc.
- Hold function: For easy reading of the weighing result, 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
- [Max] ≤ 200 kg: Snap link (stainless steel) with safety catch, as standard
- [Max] ≤ 200 kg: Hook (stainless steel) as standard

- 2 [Max] ≥ 0,5 t: Reinforced version for heavy loads. Snap link and Hook not included

Technical data

- LCD display, digit height 12 mm
- Hole diameter of load support, model with [Max] ≤ 200 kg: approx. 14 mm [Max] > 200 kg: approx. 16 mm
- Ready for use: Batteries included, 3×1.5 V AA, operating time up to 300 h

Accessories

for models with [Max] ≤ 20 kg
- Tare pan with pan beam, details see Accessories, KERN CH-A01N

for models with [Max] ≥ 100 kg
- 3 Hook with safety catch, cast steel, galvanised and lacquered, revolving. Scope of delivery: 2 shackles, 1 lacquered screw bolt, 1 hook, KERN YHA-06

for models with [Max] ≤ 200 kg
- Snap link (stainless steel) with safety catch, standard, opening approx. 15 mm, KERN HCB-A01
- Hook (stainless steel), standard, opening approx. 25 mm, KERN HCB-A02

for models with [Max] ≥ 0,5 t
- 4 High-strength shackle, hot-dipped galvanised cast steel bracket, bow shaped. Scope of delivery: 2 shackles with lacquered screw bolts, suitable for models KERN HCB with [Max] ≥ 0,5 t, KERN YSC-04

STANDARD | OPTION

CAL EXT | UNIT | MOVE | BATT | DMS | 1 DAY | DAkkS +3 DAYS

15

Model KERN	Weighing capacity [Max] kg	Readability [d] g	Dimensions housing W×D×H mm	Net weight approx. kg	Option DAkkS Calibr. Certificate DAkkS KERN	
HCB 20K10	20	10	82×43×153	0,30	963-128H	
HCB 50K20	50	20	82×43×153	0,30	963-128H	
HCB 50K100	50	100	82×43×153	0,30	963-128H	
HCB 99K50	99	50	82×43×153	0,30	963-129H	
HCB 100K200	100	200	82×43×153	0,30	963-129H	
HCB 200K100	200	100	82×43×153	0,30	963-129H	
HCB 200K500	200	500	82×43×153	0,30	963-129H	
HCB 0.5T-3	500	1000	82×43×153	0,40	963-130H	
HCB 1T-3	1000	2000	82×43×153	0,40	963-130H	

Hanging scale KERN HCN
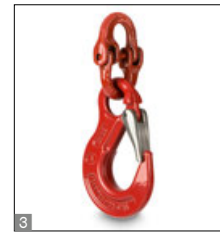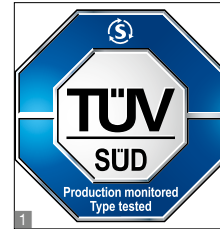
Robust, compact hanging scale with high level of protection against dust and water spray

Features

- **1** With the TÜV certification mark, the scales meet the requirements of the standard EN 13155 (Non-fixed load lifting attachments/ Breakage resistance) and EN 61010-1 (Electrical safety)
- Housing stainless Steel, IP65-protected against dust and water splashes
- Ideal for rapid control in goods-in and goods-out
- Also essential in the private sector to determine the weight of fish, game, fruits, bicycle parts, suitcases etc.
- Hold function: For easy reading of the weighing result, 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
- Snap link (stainless steel) with safety catch, as standard
- Hook (stainless steel) as standard

Technical data

- LCD display, digit height 12 mm
- Hole diameter of load support, model with [Max] ≤ 200 kg: approx. 14 mm [Max] > 200 kg: approx. 16 mm
- **2** Second display on the rear of the balance
- Ready for use: Batteries included, 2×1.5 V AA, operating time up to 200 h

Accessories

for models with [Max] ≥ 100 kg

- **3** Hook with safety catch, cast steel, galvanised and lacquered, revolving. Scope of delivery: 2 shackles, 1 lacquered screw bolt, 1 hook, KERN YHA-06
- Snap link (stainless steel) with safety catch, standard, opening approx. 15 mm, KERN HCB-A01
- Hook (stainless steel), opening approx. 25 mm, KERN HCB-A02

15

STANDARD   OPTION

| CAL EXT | UNIT | MOVE | IP 65 | BATT | DMS | 1 DAY | DAkkS +3 DAYS |

Model KERN	Weighing capacity [Max] kg	Readability [d] g	Dimensions housing W×D×H mm	Net weight approx. kg		Option DAkkS Calibr. Certificate DAkkS KERN	
HCN 50K100IP	50	100	96×48×179	0,50		963-128H	
HCN 100K200IP	100	200	96×48×179	0,50		963-129H	
HCN 200K500IP	200	500	96×48×179	0,50		963-129H	

Crane scale KERN HCD
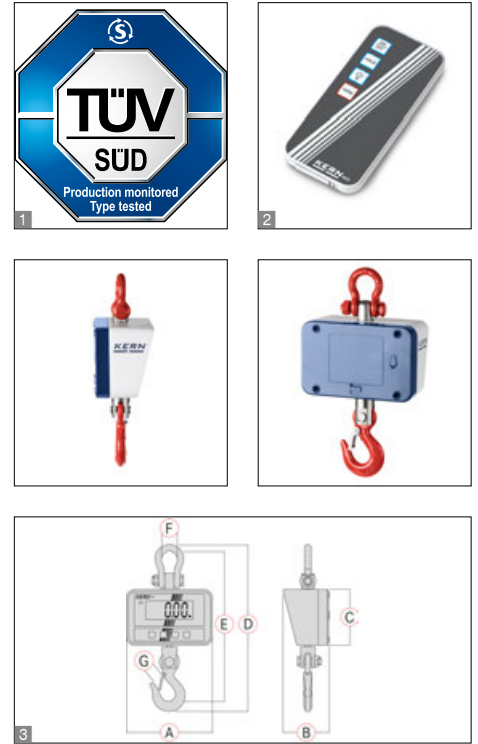
High-resolution crane scale for loads up to 300 kg

Features

- Fully-equipped crane scale for low to medium load ranges. The solid design guarantees that extra level of safety (TÜV tested). Thanks to the large LCD display and the remote control which is delivered as standard, it can also be operated safely from a distance and results can be read off
- **1** With the TÜV certification mark, the scale meets the requirements of the standard EN 13155 (Non-fixed load lifting attachments/Breakage resistance) and EN 61010-1 (Electrical safety)
- High level of mobility: thanks to battery pack operation, compact construction and low weight, it is suitable for use in several locations (production, warehouse, dispatch department, etc.)
- Hold function: For easy reading of the weighing result, the display can be "frozen" in different ways. Either automatically when the weighing value remains unchanged or manually by pressing the Hold key

- Tare: Resets the display to "0" when there is a load on the scale. Now removed or added loads are directly displayed
- Battery level indicator, LED visual display
- Large high-contrast display that is easy to read
- Standby function: display automatically switched off after 5 min without a change of load. Automatic activation with the touch of a key
- Hook with safety catch, revolving
- Shackle and safety catch made of nickel-plated steel
- **2** Infrared remote control standard. Range up to 20 m. All functions can be selected. W×D×H 65×24×100 mm. Batteries included

Technical data

- Backlit LCD display digit height 28 mm
- Ready for use: Batteries included, 4×1.5 V AA, operating time up to 100 h
- Precision: 0,2 % of [Max]
- Permissible ambient temperature 5 °C/40 °C

Accessories

- Internal rechargeable battery pack for Load lifting attachments, operating time up to 50 h without backlight, charging time approx. 12 h, KERN HCD-A01

15

STANDARD

CAL EXT · UNIT · BATT · DMS · 1 DAY

OPTION

ACCU · DAkkS +3 DAYS

Model KERN	Weighing capacity [Max] kg	Readability [d] g	Net weight approx. kg	**3** Dimensions							Option DAkkS Calibr. Certificate DAkkS KERN	
				A mm	B mm	C mm	D mm	E mm	F mm	G mm		
HCD 60K-2	60	20	1,10	150	79	97	276	250	26	18	963-129H	
HCD 100K-2	150	50	1,10	150	79	97	276	250	26	18	963-129H	
HCD 300K-1	300	100	1,10	150	79	97	276	250	26	18	963-129H	
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readibility [d]												
HCD 100K-2D	60 | 150	20 | 50	1,10	150	79	97	276	250	26	18	963-129H	
HCD 300K-2D	150 | 300	50 | 100	1,10	150	79	97	276	250	26	18	963-129H	

Crane scale KERN HFA
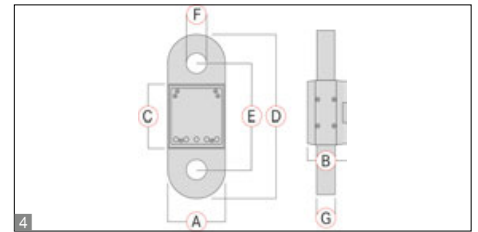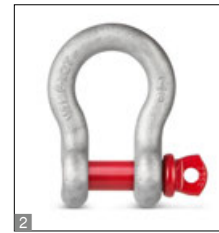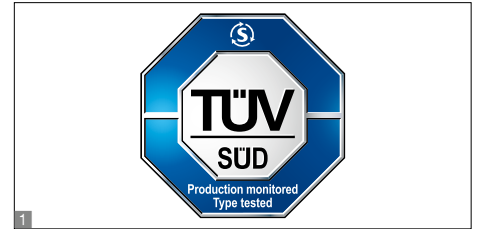
Compact crane scale with integrated display can also be used for tensile force measurement

Features

- ▯1 With the TÜV certification mark, the scale meets the requirements of the standard EN 13155 (Non-fixed load lifting attachments/ Breakage resistance) and EN 61010-1 (Electrical safety)
- With its high-quality finish, low weight and compact dimensions, this crane scale (tensile force gauge) is an essential device for industrial use, on building sites, in freight centres, ports etc.
- Because of its compact design it is also ideally suited for installation in systems where space is limited, etc.
- Ideally suited for determining weight quickly while loading and unloading
- Peak load display (peak hold)
- Hold function: For easy reading of the weighing result, the display can be "frozen" in different ways. Either automatically when the weighing value remains unchanged or manually by pressing the Hold key
- Tare: Resets the display to "0" when there is a load on the scale. Now removed or added loads are directly displayed

Technical data

- Large backlit LCD display, digit height 23 mm
- Material and design of housing/load support, models with
  [Max] ≤ 3 t: aluminium/stainless steel bearing
  [Max] > 3 t: steel/steel
- Internal rechargeable battery pack, operating time up to 30 h without backlight, charging time approx. 12 h
- Optional battery operation, 3×1.5 V AA not included in scope of delivery, operating time up to 40 h
- Precision: 0,2 % of [Max]
- Measuring frequency 60 Hz
- Further weighing units: kg, lb, N
- Permissible ambient temperature 5 °C/35 °C

Accessories

- ▯2 High-strength shackle, hot-dipped galvanised cast steel bracket, bow shaped. Scope of delivery: 2 shackles with lacquered screw bolts, suitable for models with
  [Max] ≤ 5 t: KERN YSC-01
  [Max] > 5 t: KERN YSC-02
- ▯3 Hook with safety catch, cast steel, galvanised and lacquered, non-revolving. Scope of delivery: 2 shackles, 1 lacquered screw bolt, 1 hook, suitable for models with
  [Max] ≤ 1 t: KERN YHA-01
  [Max] = 3 t: KERN YHA-02
  [Max] = 5 t: KERN YHA-03
  [Max] > 5 t: KERN YHA-04

15

STANDARD | OPTION

| CAL EXT | UNIT | BATT | ACCU | MULTI | DMS | 1 DAY | DAkkS +3 DAYS |

Model	Weighing capacity	Readability	Net weight	▯4 Dimensions								Option DAkkS Calibr. Certificate	
KERN	[Max] kg	[d] g	approx. kg	A mm	B mm	C mm	D mm	E mm	F mm	G mm		DAkkS KERN	
HFA 600K-1	600	200	1,8	90	62	100	255	165	32	30		963-130H	
HFA 1T-4	1000	500	1,8	90	62	100	255	165	32	30		963-130H	
HFA 3T-3	3000	1000	2,0	90	62	100	255	165	32	30		963-132H	
HFA 5T-3	5000	2000	4,0	90	62	100	255	165	30	30		963-132H	
HFA 10T-3	10000	5000	6	90	72	100	275	185	40	40		963-133H	

Crane scale KERN HFC
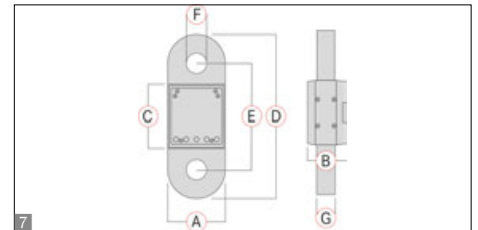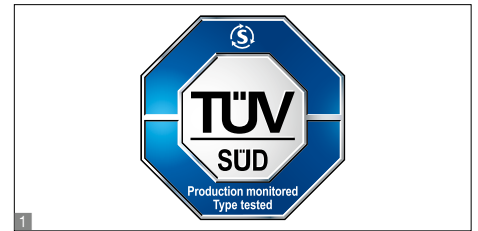
Compact crane scale for use in harsh environmental conditions or where space is limited, with convenient hand-held terminal

Features

- **1** With the TÜV certification mark, the scale meets the requirements of the standard EN 13155 (Non-fixed load lifting attachments/Breakage resistance) and EN 61010-1 (Electrical safety)
- With its high-quality finish, low weight and compact dimensions, this crane scale (tensile force gauge) is an essential device for industrial use, on building sites, in freight centres, ports etc.
- Because of its compact design it is also ideally suited for installation in systems where space is limited, etc.
- Peak load display (peak hold)
- 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** Display device with integrated radio module, which the user can carry around with him, thanks to the convenient hand strap **3**, standard. In this way the weighing data can always be read off the display device by the user, even when the user is a long way from the load receptor (force gauge) or under poor lighting conditions. Range up to 20 m, LCD display, digit height 23 mm, rechargeable battery pack internal, standard. Operating time up to 30 h without backlight, charging time approx. 12 h. Can be reordered, KERN HFC-A01
- Dimensions of display device W×D×H 85×64×256 mm
- Net weight 0,5 kg

Technical data

- Large backlit LCD display, digit height 23 mm
- Material and design of housing/load support, models with
  [Max] ≤ 3 t: aluminium/stainless steel bearing
  [Max] > 3 t: steel/steel

- Optional battery operation, 3×1.5 V AA not included in scope of delivery, operating time up to 40 h
- Precision: 0,2 % of [Max]
- Measuring frequency 10 Hz
- Further weighing units: kg, lb, N
- Permissible ambient temperature 5 °C/35 °C

Accessories

- **4** Internal rechargeable battery pack for load support, operating time up to 30 h, without backlight, charging time approx. 12 h
- **5** High-strength shackle, hot-dipped galvanised cast steel bracket, bow shaped. Scope of delivery: 2 shackles with lacquered screw bolts, suitable for models with
  [Max] ≤ 5t: KERN YSC-01
  [Max] > 5t: KERN YSC-02
- **6** Hook with safety catch, cast steel, galvanised and lacquered, non-revolving. Scope of delivery: 2 shackles, 1 lacquered screw bolt, 1 hook, suitable for models with
  [Max] ≤ 1t: KERN YHA-01
  [Max] = 3t: KERN YHA-02
  [Max] = 5t: KERN YHA-03
  [Max] > 5t: KERN YHA-04

15

STANDARD

| CAL EXT | UNIT | BATT | ACCU | MULTI | DMS | 1 DAY |

load receptors only **2**

OPTION

| ACCU | DAkkS +3 DAYS |

4

Model	Weighing capacity	Readability	Net weight	7 Dimensions							Option
											DAkkS Calibr. Certificate
	[Max]	[d]	approx.	A	B	C	D	E	F	G	DAkkS
KERN	kg	g	kg	mm	mm	mm	mm	mm	mm	mm	KERN
HFC 600K-1	600	200	1,8	90	62	100	255	165	32	30	963-130H
HFC 1T-4	1000	500	1,8	90	62	100	255	165	32	30	963-130H
HFC 3T-3	3000	1000	2,2	90	62	100	255	165	32	30	963-132H
HFC 5T-3	5000	2000	4,0	90	62	100	255	165	30	30	963-132H
HFC 10T-3	10000	5000	6	90	72	100	275	185	40	40	963-133H

Crane scale KERN HFD

KERN HFD-M

Robust, high-resolution crane scale up to 12 t, now also with
EC type approval [M] or protection type IP67

High mobility
thanks to rechargeable battery operation,
compact, lightweight construction, it is suitable
for the use in several locations (production,
warehouse, dispatch department etc.)

Solid shackles, non-revolving

Radio remote control standard. Range
up to 20 m. All functions can be selected.
W×D×H 65×24×100 mm. Batteries included,
1× 12 V 23A

15

Crane scale KERN HFD
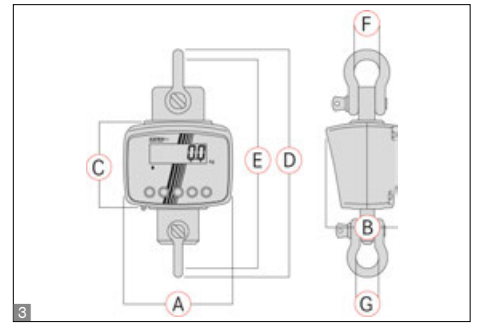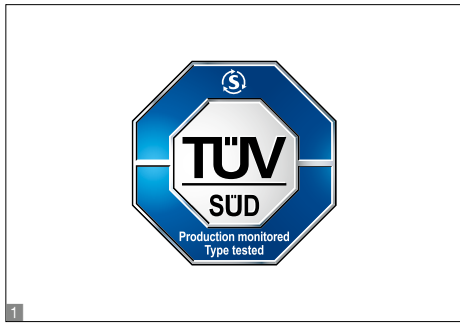
Features

- The models with M add-on have EC type approval and because of this they are ideal for use in verified applications such as, for example, calculation of a total price, based on weight
- The models with IP add-on have special spray and dust protection to IP67 and because of this they are ideal for use in harsh environments
- **1** With the TÜV certification mark, the scales meet the requirements of the standard EN 13155 (Non-fixed load lifting attachments/ Breakage resistance) and EN 61010-1 (Electrical safety)
- Because of its stable construction and robust design, it is ideal for continuous use in industrial environment
- High mobility: thanks to rechargeable battery operation, compact, lightweight construction, it is suitable for the use in several locations (production, warehouse, dispatch department etc.)
- 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 30 mm, bright backlight for easy reading of weighing results, even in poor lighting conditions
- Internal rechargeable battery pack, as standard, operating time up to 70 h without back light, charging time approx. 12 h. Battery pack accessible from the outside, which means it is easy to replace
- Precision: 0,2 % of [Max]
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Internal rechargeable battery pack for load support, operating time up to 70 h without backlight, charging time approx. 12 h, KERN HFD-A04
- Charging station for external battery charging, scope of delivery: charging station, exchangeable battery, mains adapter, KERN HFD-A07
- **2** Hook with safety catch, cast steel, galvanised and lacquered, non-revolving, suitable for models
  HFD 600, HFD 1T: KERN HFD-A01
  HFD 3T: KERN HFD-A02
  HFD 6T, HFD 10T: KERN HFD-A03
- Bluetooth data interface for wireless data transfer to PC or tablets, must be ordered at purchase, KERN HFD-A06

STANDARD						OPTION	FACTORY
CAL EXT	IP 67 HFD-IP	ACCU	MULTI	DMS	1 DAY · 2 DAYS HFD-6T-3M	DAkkS +3 DAYS	BT 4.0 · M +3 DAYS HFD-M

Model KERN	Weighing capacity [Max] kg	Readability [d] g	Net weight approx. kg	**3** Dimensions							Option	
				A mm	B mm	C mm	D mm	E mm	F = G mm		Verification M KERN	DAkkS Calibr. Certificate DAkkS KERN
Triple range balance switches automatically to the next largest weighing capacity [Max] and readibility [d]												
HFD 600K-1	150 | 300 | 600	50 | 100 | 200	9	194	129	145	421	383	50,8		–	963–130H
HFD 1T-4	300 | 600 | 1500	100 | 200 | 500	9	194	129	145	421	383	50,8		–	963–130H
HFD 3T-3	600 | 1500 | 3000	200 | 500 | 1000	10	194	129	145	421	383	50,8		–	963–132H
HFD 6T-3	1500 | 3000 | 6000	500 | 1000 | 2000	15	194	129	145	477	426	68,3		–	963–132H
HFD 10T-3	3000 | 6000 | 12000	1000 | 2000 | 5000	20	194	129	145	573	510	82,5		–	963–133H
Protection against dust and water splashes IP67												
HFD 600K-1IP	150 | 300 | 600	50 | 100 | 200	9	194	129	145	421	383	50,8		–	963–130H
HFD 1T-4IP	300 | 600 | 1500	100 | 200 | 500	9	194	129	145	421	383	50,8		–	963–130H
HFD 3T-3IP	600 | 1500 | 3000	200 | 500 | 1000	10	194	129	145	421	383	50,8		–	963–132H
HFD 6T-3IP	1500 | 3000 | 6000	500 | 1000 | 2000	15	194	129	145	477	426	68,3		–	963–132H
HFD 10T-3IP	3000 | 6000 | 12000	1000 | 2000 | 5000	20	194	129	145	573	510	82,5		–	963–133H
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.												
HFD 600K-1M	600	200	9	194	129	145	421	383	50,8		965–130H	963–130H
HFD 1T-4M	1500	500	9	194	129	145	421	383	50,8		965–130H	963–130H
HFD 3T-3M	3000	1000	10	194	129	145	421	383	50,8		965–132H	963–132H
HFD 6T-3M	6000	2000	15	194	129	145	477	426	68,3		965–132H	963–132H
HFD 10T-3M	12000	5000	20	194	129	145	573	510	82,5		965–133H	963–133H

15

Crane scale KERN HFM
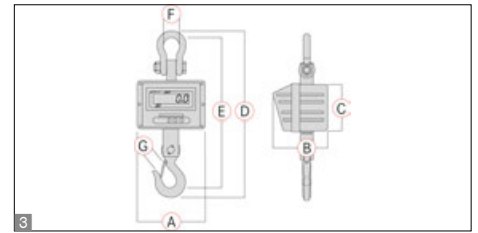
Robust industrial crane scale with bright LED display for optimum reading in unfavourable ambient conditions

Features

- **1** With the TÜV certification mark, the scales meet the requirements of the standard EN 13155 (Non-fixed load lifting attachments/ Breakage resistance) 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 environment
- High mobility: thanks to rechargeable battery operation, compact, lightweight construction, it is suitable for the use in several locations (production, warehouse, dispatch department etc.)

- Adaptation to unstable environmental conditions by changing the readability
- 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
- Hook with safety catch, revolving
- **2** Radio remote control standard. Range up to 20 m. All functions can be selected (excl. ON/OFF). W×D×H 48×10×95 mm. Batteries included, 2×1.5 V AAA

Technical data

- Superior display size: digit height 30 mm, bright with high contrast for easy reading of weighing results, even in poor lighting conditions
- Internal rechargeable battery pack, operating time up to 50 h without backlight, charging time approx. 14 h
- Precision: 0,2 % of [Max]
- Permissible ambient temperature 0 °C/40 °C

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STANDARD

CAL EXT | ACCU | MULTI | DMS | 1 DAY | 2 DAYS

OPTION

DAkkS +3 DAYS

4

Model KERN	Weighing capacity [Max] kg	Readability [d] g	Net weight approx. kg	**3** Dimensions							DAkkS Calibr. Certificate DAkkS KERN
				A mm	B mm	C mm	D mm	E mm	F mm	G mm	
HFM 1T0.1	1000	100	14	270	200	175	610	540	68	40	963-130H
HFM 3T0.5	3000	500	16	270	200	175	610	540	74	40	963-132H
HFM 5T0.5	5000	500	24	300	230	190	730	650	74	55	963-132H
HFM 10T1 **4**	10000	1000	34	300	230	190	840	750	92	60	963-133H

Accessories
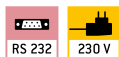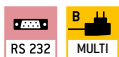
16

Printers

STANDARD

| RS 232 | 230 V |

STANDARD

| RS 232 | B MULTI |

STANDARD

| RS 232 | GLP INTERN | B MULTI |

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

Matrix needle printer
KERN 911-013

For printing weighing results on normal paper, which is ideal for long-term archiving.

Matrix needle printer
KERN YKN-01

For printing weighing results on normal paper, which is ideal for long-term archiving.

Thermal printer
KERN YKB-01N

For printing weighing results, recipes, quantities etc. or for GLP record keeping of balance adjustment with date and time print. GLP/GMP compliant print form available as standard. Language versions: DE, EN, FR.

Technical data

- Needle print
- Speed: 1,8 line/s
- Max. 40 characters per line
- Width of the paper strip: 57 mm wide
- Operation via mains adapter 230 V/50 Hz (standard EU), as standard
- Dimensions housing:
  W×D×H 100×180×106 mm
- Not suitable for KERN PNS/PNJ, PES/PEJ ranges
- Interface cable not included with delivery, see page 166

Price printer without interface cable,
KERN 911-013

Technical data

- Needle print
- Speed: 1 line/s
- Max. 16 characters per line
- Width of the paper strip: 44 mm wide
- Operation via mains adapter 230 V/50 Hz (standard EU/GB/USA), as standard
- Dimensions housing:
  W×D×H 158×106×40 mm
- Interface cable not included with delivery, see page 166

Price printer without interface cable,
KERN YKN-01

Technical data

- Thermal print
- Speed: 0,75 lines/s
- Max. 40 characters per line
- Width of the paper strip: 112 mm wide
- Operation via mains adapter 230 V/50 Hz (standard EU/GB/USA), as standard
  Dimensions housing:
  W×D×H 165×140×50 mm
- Interface cable not included with delivery, see page 166

Price printer without interface cable,
KERN YKB-01N

Accessories

- Paper rolls (10 pcs.), KERN 911-013-010
- Universal mains adapter, standard EU/GB/US, KERN ABS-A01

Accessories

- Paper rolls (5 pcs.), KERN YKN-A01

Accessories

- Paper rolls (10 pcs.), KERN YKB-A10

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Individual header data:
For printers **KERN 911-013, YKN-01, YKB-01N and YKE-01 (in combination with YKI-02)** the free software **KERN SHM-01** (see www.kern-sohn.com) can be used to print 4 header lines on the printout (see marking on balance). Compatible models: KERN 440, DE, FCB, FKB-A, PCB, PCD.

Printers

STANDARD

RS 232	GLP INTERN	B MULTI

STANDARD

RS 232	GLP INTERN	B MULTI

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

Thermal statistics printer
KERN YKS-01

For printing weighing results, recipes etc. or for GLP record keeping of weighing data 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, average value, standard deviation, available units: mg, g, kg, pcs. Language versions: DE, EN, FR.

Technical data

· Thermal print
· Speed: 0,75 lines/s
· Max. 40 characters per line
· Width of the paper strip: 112 mm wide
· Operation via mains adapter 230 V/50 Hz (standard EU/GB/USA), as standard
· Dimensions housing: W×D×H 165×140×50 mm
· Interface cable not included with delivery, see page 166
· Note: Please order the matching paper roll with it, see accessories
· Not suitable for KERN EWJ, PFB-M ranges as well as KERN moisture analysers and counting scales

Price printer without interface cable, KERN YKS-01

Accessories

· Paper rolls (10 pcs.), KERN YKB-A10

Thermal label printer
KERN YKE-01

Affordable universal label printer to print out weighing results on thermal labels. ASCII-capable. Comfortable Auto-Forward function for automatic jump from label to label (only with KERN standard labels).

Technical data

· Thermal print
· Speed: 22 mm/s
· Max. 82 characters per line
· Width of the paper strip:
  YKE-A02: 78 mm
  YKE-A03: 112 mm
· Operation via mains adapter 230 V/50 Hz (standard EU/GB/USA), as standard
· Dimensions housing: W×D×H 150×155×65 mm
· Interface cable not included with delivery, see page 166
· Note: Please order the matching label roll with it, see accessories
· Not suitable for KERN BFS, CCS, CFS, DAB, DBS, DLB, IFS, KFS-TM, RPB ranges, counting scales

Price printer without interface cable, KERN YKE-01

Accessories

· Paper roll (1 pc.), Dimensions labels:
  W×D 73×61 mm, 100 labels,
  KERN YKE-A02
  W×D 105×48 mm, 45 labels,
  KERN YKE-A03

Individual header data:
For printers **KERN 911-013, YKN-01, YKB-01N and YKE-01 (in combination with YKI-02)** the free software **KERN SHM-01** (see www.kern-sohn.com) can be used to print 4 header lines on the printout (see marking on balance). Compatible models: KERN 440, DE, FCB, FKB-A, PCB, PCD.

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Printers

| RS 232 | 230 V | 1 DAY |

| RS 232 | 230 V | 1 DAY |

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

Dot matrix printer
KERN YKG-01

High-quality dot matrix printer

Flexible and rapid dot matrix printer for retail, the catering trade and for restaurant kitchens. To print the weights on normal paper, which is ideal for long-term archiving. This model has an interchangeable interface and you will be impressed by how easy it is to replace the paper and ribbon

Technical data

- Needle print
- Speed: 4,7 line/s
- Max. 42 characters per line
- Supported paper widths:
  58 mm, 70 mm, 76 mm (roll)
- Operation via mains adapter 230 V/50 Hz standard EU, as standard
- Interfaces: RS-232, cash drawer connection, bidirectional parallel
- Interface cable not included with delivery, see page 166
- Dimensions housing
  B×T×H 160×248×139 mm
- Not suitable for KERN DAB, DBS, DLB, FKT, RFE ranges

Price printer without interface cable,
KERN YKG-01

Accessories

- Paper rolls (5 pcs.), KERN YKG-A01

Thermal printer
KERN YKH-01

High-quality thermal printer – fast, robust, user-friendly

Robust, low-maintenance dot matrix printer for retail, the catering trade and for restaurant kitchens. Extremely compact and long-lasting. Thanks to the waterproof switch cover it is particularly suitable for use under tough, loud environmental conditions

Technical data

- Thermal print
- Speed: 2 line/s
- Max 64 characters per line
- Supported paper widths:
  58 mm, 80 mm (roll)
- Operation via mains adapter 230 V/50 Hz standard EU, as standard
- Interfaces: RS-232
- Interface cable not included with delivery, see page 166
- Dimensions housing
  B×T×H 140×199×146 mm
- Not suitable for KERN DAB, DBS, DLB, FKT, RFE ranges

Price printer without interface cable,
KERN YKH-01

Accessories

- Paper rolls (5 pcs.), KERN YKH-A01

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Individual header data:
For printers **KERN 911-013, YKN-01, YKB-01N and YKE-01 (in combination with YKI-02)** the free software **KERN SHM-01** (see www.kern-sohn.com) can be used to print 4 header lines on the printout (see marking on balance). 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.

Tip

The interface cable is **free of charge** if you purchase balance, printer or Ethernet-/WiFi-/Bluetooth adapter together.

Printer, ... ▶ / Balance ▼	PC, YKI-01/ -02/-03 KERN	911-013, YKB-01N, YKN-01 KERN	YKE-01 KERN	YKG-01, YKH-01 KERN	YKS-01 KERN	
440, 572, 573, ALJ-AM, ALS-A, ALT-B, CDS, CKE, DE-D, DS, EMB-V, FCB, FKA, FKB, FKC, FKB-A, IKT, KB, PCB, PCD, PLJ-A, PLJ-F, PLS-A, PLS-F, PLE, PLT, KDP	572-926					
BAN, BKN, BXS, IXS, KXS-TM, SXS	KXS-A04 (Factory Option)					
EOC, IOC, BID, KIB-T, KIB-TM	EOC-A12					
YKV-01, KGP	572-926	–				
ABJ-NM, ABS-N	ACS-A01					
BFA, BFB, BFN (until year of construction 2019), GAB-N, GAB-P, GAT, IFB, KFB-TM, KFN-TM, NFB, NFN (until year of construction 2019) PFB, SFB, UFA, UFB, UFC, UFN	CFS-A01					
BFS, CPB, EWJ, KFS-TM, IFT, PFB, PFB-M	CFS-A01				–	
CFS, CCS, KFS-TM, IFS (from year of production 2015)	–	CFS-A01	–	–	–	
ABT-NM, PBJ, PBS	770-926					
DBS, DLB	572-926	–	–	–		
DAB	MLB-A05	MLB-A05	–	MLB-A05		
ABP, KFS-T	MLB-A05			–		
ADB, ADJ, ACS, ACJ, PNS/PNJ	MLB-A05					
HFT	KFF-A01					
EG-N, EW-N	474-926					
PES/PEJ (Interface cable for printer YKB-01: MLB-A05)						
CCA	CCA-A01					
RFE, RPB (not compatible with YKN-01)	–	CFS-A01	–	CFS-A01	–	

With products from KERN you are ready to face the challenges of Industry 4.0
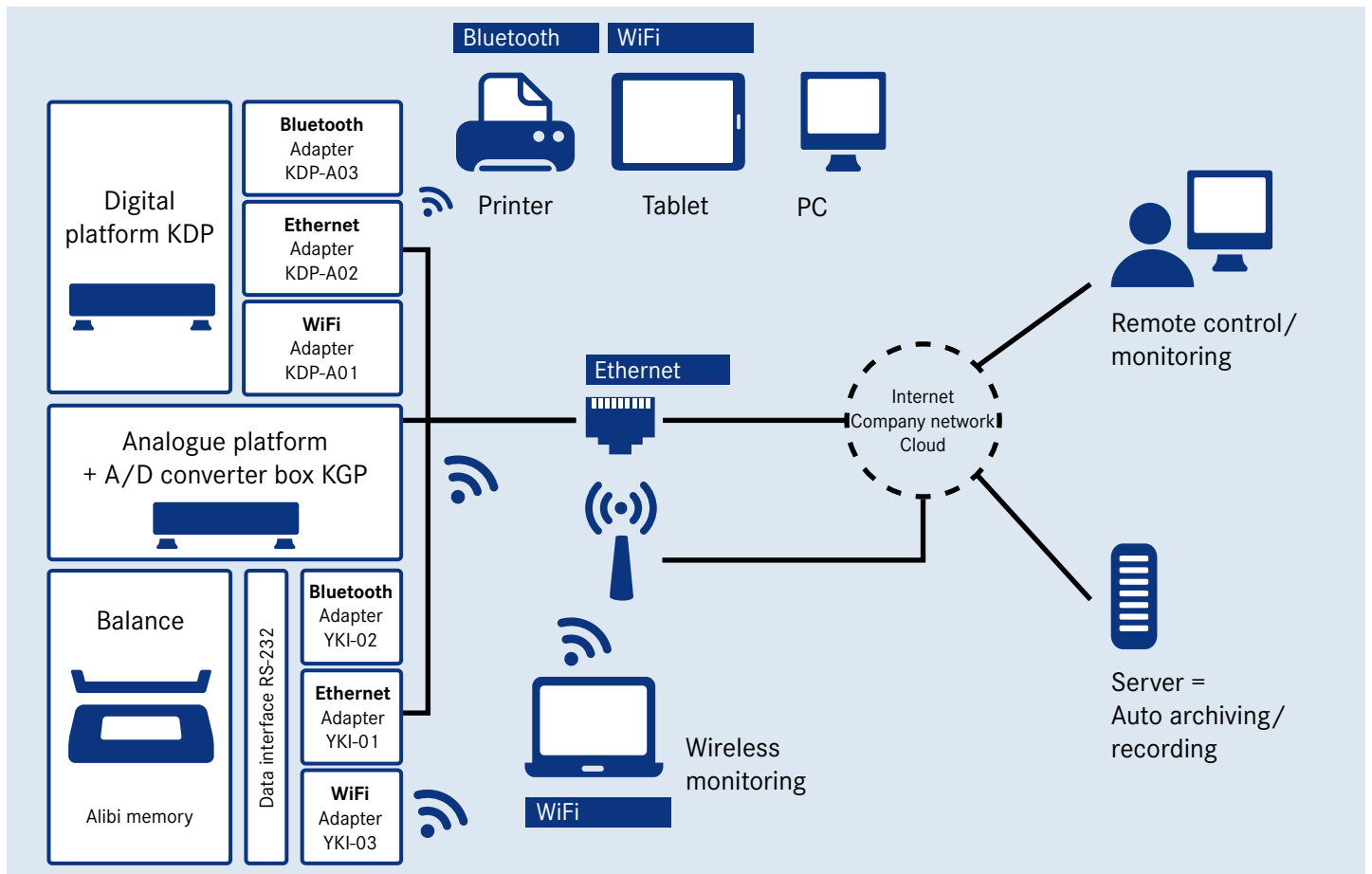
We will help to combine industrial production with the latest information and communication technology, with the aim of improving quality, reducing costs and using time and resources more efficiently so that you are able to react to future requirements in a more flexible manner. You will benefit from our uniform data protocol combined with our BalanceConnection 4.0 data software, for details please see page 167/168.

16

KERN **Software BalanceConnection** SCD-4.0
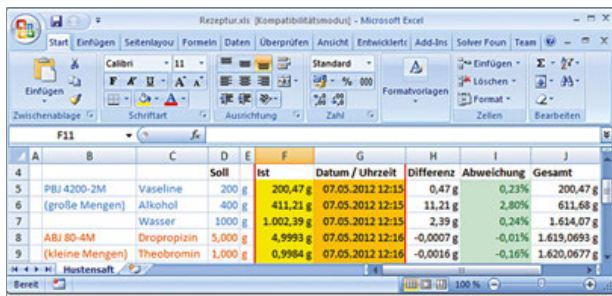
Easy transfer and editing of measuring results e.g. in Microsoft® Excel

Full overview of devices, outputs, queries, interfaces, etc. shown on the output window immediately.
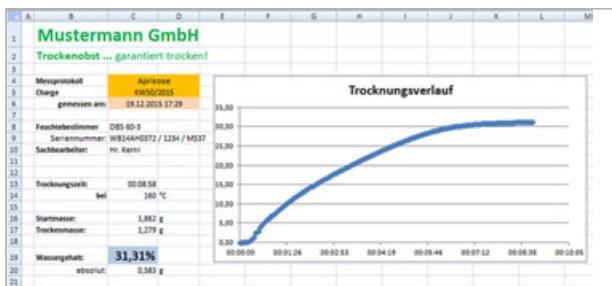
Measurement report with line chart showing a moisture analysis

Different on-screen displays with export function

Tip

Do you have any questions? The team from our Industry 4.0 centre of expertise will be happy to help: e-mail: ITsupport@kern-sohn.com Or download a free demo version of the BalanceConnection software: http://balanceconnection.kern-sohn.com/demo

Flexible recording or transfer of measurements, particularly to Microsoft® Excel or Access

Features

- For operating systems Windows XP, Vista, 7, 8, 8.1, 10
- Supports balances measuring devices with RS 232, RS 485, Bluetooth, LAN or WiFi network (TCP/UDP/IP)
- Highly flexible formatting of the output (any order, formatting and rounding), particularly recording of date and time for every value transferred, if required
- Any number of devices/interfaces can be connected, as well as simultaneous and synchronised recording of several balances
- Key-activated or time-controlled interrogation of measurements or trigger of device functions, also for continuous recording
- The interface protocols for KERN balances are already predefined (standard configuration)

- Compatible interface cable included when you order a KERN balance at the same time
- Many different transfer and recording options:
  - Microsoft® Excel/Access/Word in the foreground or background
  - Other Windows applications (through key simulation), e.g. shipping software or ERP system (SAP, Sage, etc.)
  - File recording (e.g. as text or CSV file)
  - Print out on text or label printer
  - Screen output such as large display, line chart (drying curve for moisture analyser), histogram, etc.

Benefits

- Typing errors during e.g. manual transfer are avoided
- Automatic recording, e.g. for long-term tests
- GLP-compliant lab software
- Can be used across different branches and applications
- Also available as a cost-optimised package with 5 licenses, **you save more than 30 %!**
- Also available immediately as a download license
- Scope of supplies: 1 CD, 1 license, KERN SCD-4.0
- Scope of supplies: 1 CD, 5 licenses, KERN SCD-4.0-S05
- Scope of supplies: Download link for 1 license, KERN SCD-4.0-DL

16

KERN **Software BalanceConnection** SCD-4.0 Pro
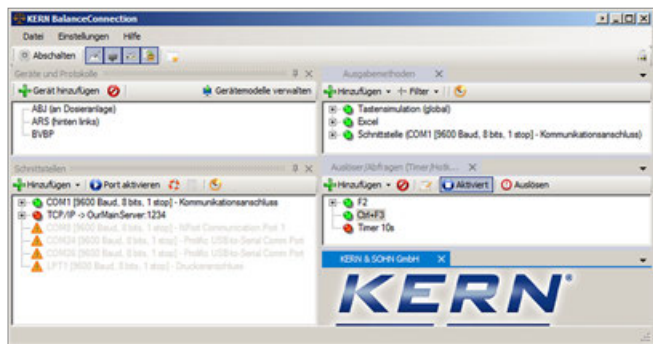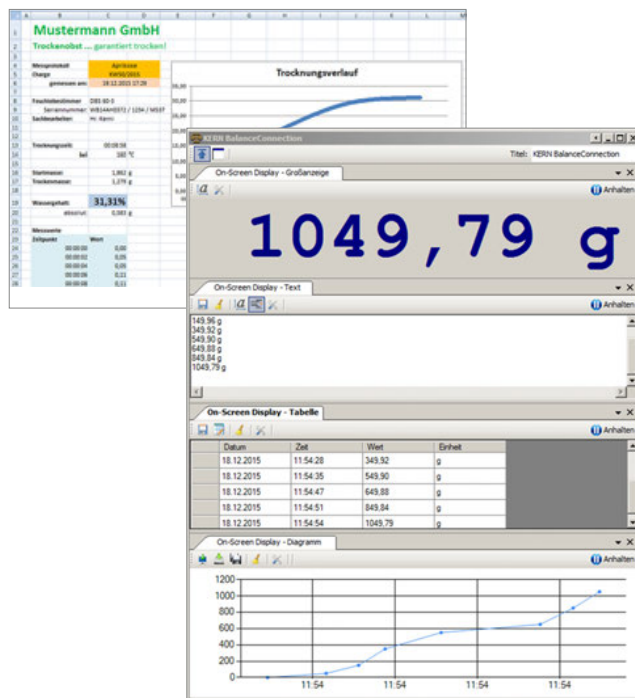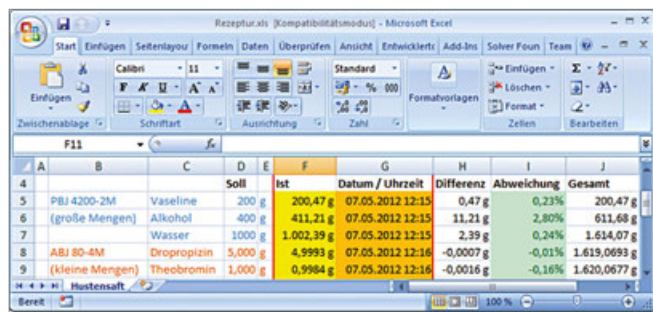
Professional and highly flexible recording or transmission of measured values, in particular also to Microsoft® Excel or Access

Features

- For operating systems Windows XP, Vista, 7, 8, 8.1, 10
- Supports balances measuring devices with RS 232, RS 485, Bluetooth, LAN or WiFi network (TCP/UDP/IP)
- Highly flexible formatting of the output (any order, formatting and rounding), particularly recording of date and time for every value transferred, if required
- Any number of devices/interfaces can be connected, as well as simultaneous and synchronised recording of several balances
- Key-activated or time-controlled interrogation of measurements or trigger of device functions, also for continuous recording
- The interface protocols for KERN balances are already predefined (standard configuration)
- Compatible interface cable included when you order a KERN balance at the same time
- Many different transfer and recording options:
  - Microsoft® Excel/Access/Word in the foreground or background
  - Other Windows applications (through key simulation), e.g. shipping software or ERP system (SAP, Sage, etc.)
  - File recording (e.g. as text or CSV file)
  - Print out on text or label printer
  - Screen output such as large display, line chart (drying curve for moisture analyser), histogram, etc.

Additional features of the BalanceConnection PRO version:

- ODBC/SQL databases such as SQL Server or MySQL
- Transfer to HTTP Webservices/Web forms
- Histogram
- Enables the connection of medical balances to practice EDP systems using the device data transfer protocol (GDT) and also the HL7 protocol
- Implementation of programs/scrips using freely-definable command lines
- Command sequences
- Defining the conditions for specific events and the reaction to these events
- Filter for stability recognition (configurable value storage)
- Central configuration repository, e.g. on the network
- On-screen displays with configurable user interface for flexible balance operation

Benefits

- Ideal software where weighing data which has been collected needs to be transferred to a Windows PC
- Particularly suitable for professional integration of weighing systems into existing networks where there is a high demand for automated data transfer and further processing, for integration of databases
- Automatic recording, e.g. for long-term tests
- GLP-compliant lab software
- Can be used across different branches and applications
- Also available as a cost-optimised package with 5 licenses, **you save more than 30 %!**
- Also available immediately as a download license
- Scope of supplies:
  1 CD, 1 License
  KERN SCD-4.0-PRO
- Scope of supplies:
  1 CD, 5 Licenses
  KERN SCD-4.0-PROS05
- Scope of supplies: Download link for 1 License, KERN SCD-4.0-PRO-DL

16

Accessories

| RS 232 | LAN |

| RS 232 | WIFI | LAN |
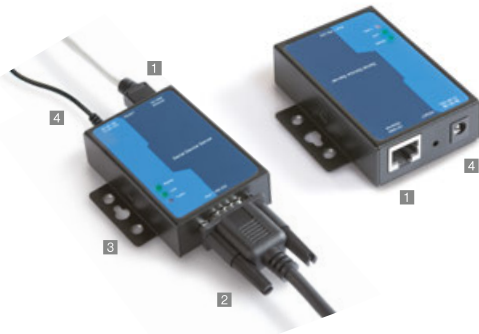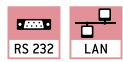
RS-232/Ethernet adapter
KERN YKI-01

Adapter to connect balances, force measuring devices etc. with an RS-232 interface [2] to an IP-based Ethernet network [1]. 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 from within the whole network, without having to use additional cables. The adapter supports a wide range of configurational options using the enclosed administration software or by 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. DIN track mount [3] or free-standing.
Scope of delivery: RS-232 Ethernet adapter with 1x Port RS-232 [1], mains adapter [4], CD (driver, software, operating instructions), adhesive feet, (interface cable see page 167),

KERN YKI-01

RS-232/WiFi adapter
KERN YKI-03

High-quality adapter for the wireless connection of balances, force measuring devices etc. with RS-232 interface to WiFi-enabled devices, such as tablets, laptops, Smartphones etc. In this way, where there is a physical separation or a large distance between the devices, the weighing data from one or several balances can be easily transferred without cable to a WiFi device or a network (relevant software on the WiFi device needed, not included in delivery). The adapter allows direct integration of measurement devices into most company networks, with automatic configuration using DHCP or statistical IP allocation. You can access the current measuring data at any time from within the whole network, without having to use additional cables. The adapter supports a wide range of configurational options using the enclosed administration software or by the web interface. The driver delivered with the goods allows you to access the measurement device with existing, non-network-compatible applications using a virtual COM port. Compatible with KERN Software BalanceConnection.

The adapter also has an Ethernet interface for a wired connection to an IP-based Ethernet network [1]. Thanks to the screw terminals [2], the power connection can be implemented individually using individual wires or using the robust, screw-in power connector [3]. Large input voltage range from 12 V–48 V. Suitable for wall mounting and DIN track mount [4] or free-standing.

Scope of delivery: RS-232/WiFi adapter, mains adapter, network cable (1 m), driver CD, (interface cable see page 167),

KERN YKI-03

Note: To connect to your network, you will need information from your network administrator. We recommend discussing connecting your device into your network with the administrator before you place your order.
Note: If you order a KERN balance at the same time, then the interface cable is **free of charge** (please specify balance model).

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STANDARD
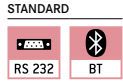
RS 232 | BT

RS-232/Bluetooth adapter
KERN YKI-02

Adapter for the wireless connection of balances, force measuring devices etc. with an RS-232 interface to Bluetooth devices, such as Bluetooth printers, tablets, laptops, Smartphones etc. In this way, where there is a physical separation or a large distance between the devices, the weighing data from one or several balances can be easily sent without cable and printed on a Bluetooth printer or transferred to a Bluetooth device (you would need the relevant software on the Bluetooth device, not included with the delivery). The compact adapter with its attractive design can usually be connected directly to the balance 1, e.g. an additional interface cable would not be necessary. Bluetooth adapter will be powered by the balance (if compatible) or with the mains adapter which is supplied as standard 2. Range up to 100 m outside, depending on obstacles, such as, walls, the sensitivity and type of antenna of the receiver. Intersections of sending and receiving lines using the DCE/DTE switch 3. Compatible with KERN Software BalanceConnection.

Scope of delivery: RS-232/Bluetooth adapter, mains adapter (EU/UK/USA/AUS/CH) 2, USB-A to Mini-USB-B cable 4, gender changer 5, driver CD, (interface cable see page 167),

KERN YKI-02

Note: To connect to your network, you will need information from your network administrator. We recommend discussing connecting your device into your network with the administrator before you place your order.
Note: If you order a KERN balance at the same time, then the interface cable is **free of charge** (please specify balance model).

**Large display
KERN YKD-A02**

with superior display size, digit height 3" (76 mm). Luminescent, red LED display for easy reading of weight, even from a distance or under poor lighting conditions. 6 segments, mains connection as standard (230 V, EU/GB), connection using RS-232 data interface, dimensions W×D×H 541×55×180 mm.

Suitable for series IFB, BFB, NFB, UFA, UFB,

KERN YKD-A02

**Signal lamp
KERN CFS-A03**

Signal lamp for visual support of weighing with tolerance range. Three-colour LED, red, green, yellow. Power supply via balance using RS-232. Total dimensions W×D×H 100×180×300 mm

Suitable for series BFB, BFN, BID, CKE, CPB-N, GAB-N, GAB-P, IFB, IFS, IOC, KFB-TM, KFN-TM, KIB-TM, NBB, NFB, NFN, SFB, UFA, UFB, UFC, UFN,

KERN CFS-A03

**Power supply adapter set
KERN YKA-02**

from standard EU to GB/US/AUS/CH etc. Four pieces. Ideal for devices with Class II protection (not earthed). Ideal for Euro moulded plug,

KERN YKA-02

**2nd RS-232 data interface
KERN CFS-A04**

separate Y cable, e.g. for simultaneous connection of a a printer and a signal lamp.

Suitable for series BAN, BFB, CFS, CPB-N, GAB-N, GAB-P, IFB, KFB-TM, NFB, NFN, UFN, UFA, UFB, SFB,

KERN CFS-A04

**RS-232/USB adapter
KERN AFH 12**

to connect peripheral devices with USB connection, fits on all balances and measuring instruments with RS-232 port.

Please order the appropriate RS-232 interface cable for your balance at the same time, see table on page 166

Scope of delivery: Converter cable, CD with driver,

KERN AFH 12

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Accessories

Stand (tripodal)
KERN YKP-01

stable and robust, to elevate display device, stainless steel, height-adjustable, large three-legged adjustable foot, height of stand approx. 750–1000 mm, Factory Option.

Suitable for series BFA, BBB, BFN, BBN, KEN-TM, NFN, SFB (from weighing plate size W×D 500×400 mm), UFN,

KERN YKP-01

Stand (tripodal)
KERN YKP-02

stable and robust, to elevate display device, stainless steel, height-adjustable, large three-legged adjustable foot, height of stand approx. 750–1000 mm, Factory Option.

Suitable for series BFB, BXS, BFS, BFA, BBB, BBN, BKN, IFS, IFB, KFE-TM, KXG-TM, KXS-TM, KEN-TM, NFB, NBB, SFE, UFA, UFB, UFC,

KERN YKP-02

Protective dust cover
KERN ABS-A08

For protection from dust and light.

Suitable for all KERN analytical balances and precision balances with glass draught shield,

KERN ABS-A08

Tare pan
KERN RFS-A02

Made of stainless steel, which makes cleaning easy and hygienic. Ideal for weighing loose screws, small parts as well as fruit, vegetables, cheese, etc.
· W×D×H 370×240×20 mm
· Net weight approx. 524 g

KERN RFS-A02

Tare pan with pan beam
KERN CH-A01N

Made of stainless steel. Ideal for weighing loose small parts as well as fruit, vegetables etc. Max. load 30 kg. Removable tare pan which makes cleaning easy and hygienic.

Suitable for models KERN CH 15K20, HCB 20K10, HCN 20K50IP, HDB-N, HDB-XL
· Dimensions: tare pan, ∅/H 160×40 mm (dim. outside), 240×40 mm (dim. inside)
· Pan beam: W×D×H
  290×240×300 mm
  290×240×340 mm (incl. tare pan)
· Total net weight approx. 500 g

KERN CH-A01N

Universal density set
KERN YDB-03

Universal density set for precise and convenient density determination of liquids and solids ≤/≥ 1. Suitable for all current KERN analytical balances.

Scope of delivery: Beaker (∅×H 84×113 mm), thermometer, sample holder, adapter, equalising weights, volume plummet (stainless steel, 20 g), universal submersible basket for solid bodies which float and sink. The wire of the submersible basket has a diameter of 0.5 mm and therefore complies with the requirements of DIN EN ISO 1183-1 (test methods for the determination of density of non-foamed plastics), KERN YDB-03

Optional:
Density determination of the volume plummet, DAkkS calibration certificate with all data relating to the density and volume, KERN 962-335V

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Accessories

NEW

STANDARD

2 DAYS

Ioniser to neutralise electrostatic charge KERN YBI-01A

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 feet 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.

- Discharge of ozone 0,05 ppm/h
- Total dimensions W×D×H
  115×100×60 mm (Adjustable foot retracted),
  115×110×80 mm (Adjustable foot folded out)
- Net weight approx. 0,31 kg
- Mains connection 100–240 V, 50/60 Hz,
  AC power supply, DC 12 V, 500 mA, output,

KERN YBI-01A

Weighing table KERN YPS-03

The KERN YPS-03 weighing table has been constructed to absorb vibrations and oscillations, which would otherwise distort the weighing result.

The YPS-03 weighing table consists of:
- a heavy, polished granite slab (24 kg) and is positioned on absorbing rubber components and is used as a surface on which to stand the analytical balance
- a work table, the work surface of which surrounds the slab and offers many storage options. The sturdy powder-coated steel frame has four height-adjustable feet, which can be used to accurately level the weighing table if the floor is at all uneven
- You can work in an ergonomic way at the weighing table whether you are in a standing or seated position. The inlet on the front of the table offers enough space for you to sit down and operate the scale without touching the weighing table.
- All surfaces are hygienic and easy to clean
- Suitable for all KERN analytical balances with total dimensions ≤ W×D 300×400 mm
- Total dimensions W×D×H
  785×600×800 mm (Height adjustable)
- Dimensions granite slab, W×D×H
  300×400×80 mm
- Net weight approx. 46 kg

Ready for shipping in 2 working days. Dispatch complete on pallet, simple self-assembly. Please ask for dimensions, gross weight, shipping costs,

KERN YPS-03
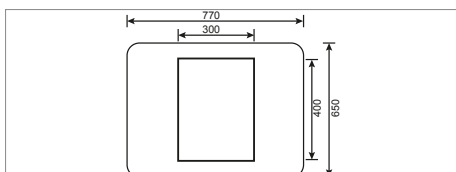
Anti-vibration granite plates KERN YPS-04, -05, -06

- The KERN YPS-04, -05, -06 anti-vibration granite plates are designed to dampen shocks and vibrations that would otherwise distort the weighing results of high precision Laboratory Scales and analytical balances. Also ideal for vibration-free microscope set-up
- The anti-vibration granite plate is made of polished granite, which is supported through absorbent rubber elements
- The anti-vibration granite plate can be used ergonomically while standing or sitting comfortably
- Compact size, practical for small spaces
- All surfaces are hygienic and easy to clean
- Suitable for all KERN analytical balances, precision balances and microscopes with the corresponding dimensions
- Overall dimensions, W×D×H
  YPS-04: 400×450×60 mm
  YPS-05: 565x450x60 mm
  YPS-06: individual dimensions, according to your requirements
- Net weight approx.
  YPS-04: 30 kg
  YPS-05: 35 kg
  YPS-06: on request

Ready for shipping in 2 working days. Dispatch complete on pallet.
Please ask for dimensions, gross weight, shipping costs,

KERN YPS-04
KERN YPS-05
KERN YPS-06, on request

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STANDARD

2 DAYS

Roller conveyor
KERN YRO-01/ YRO-02/ YRO-03

Through the smooth-running KERN roller conveyor attachments, KERN YRO, you can convert your platform scale into a robust measuring system for rapid and flexible weight determination in conveyor applications

Especially suitable for use in production and dispatch lines, where time means money. The goods or packages can either be weighed as they pass over the balance or, at fixed stations, heavy goods can easily be pushed onto the scale thanks to the roller conveyor and moved onto the connected roller conveyor

· 1 Simply connect the roller conveyor attachment to a platform (e.g. KERN IFB, IFS, IXS, KFP, KXP, SXS) – done!
· Robust aluminium profile frame. The modular design means that you can easily disassemble it for cleaning or to replace individual components
· Smooth-running, hot-dip galvanised steel rollers with ball bearings
· Conductive rollers
· Suitable for use in dry environments
· Roller distance approx. 30 mm
· Direction of movement is lengthways

· Scope of delivery: 1 roller conveyor attachment (without scale)
· We are happy to adapt the roller conveyor to your scale, adjust the preload or switch-on tolerance, etc. Please ask for your individual offer, your personal KERN contact person will be happy to help you

Model KERN	Total dimensions W×D×H mm	Suitable for platforms with weighing plate sizes W×D mm	Total net weight approx. kg	
YRO-01	405×305×130	400×300	6	
YRO-02	505×405×130	500×400	9	
YRO-03	655×505×130	650×500	12	

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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, the right way!

The internationally valid OIML norm R111:2004 classifies test weights hierarchically in 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 test weight only becomes an ▸ **ISO 9000ff**-compliant test instrument when its accuracy has been proven, we offer the appropriate ▸ **DAkkS-calibration certificate** or verification certificate (in connection with a box) for all KERN test weights. For further details, see the calibration service section on page 202.

KERN offers you the appropriate test weight package for your balance, consisting of the test weight, box and DAkkS-calibration certificate, as proof of its accuracy. The best prerequisite for a correct adjustment or checking of your scales.

▸ *See the glossary on page 215–217*

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

E1 Test weights for customers who require a high degree of accuracy for the most demanding applications. For high-resolution balances with d > 1,000,000 Use recommended with DAkkS calibration certificate only.

E2 Most accurate test weights for high resolution analytical balances of verification class I ≥ 100,000 e

F1 Test weights for analytical balances/precision balances for verification class I/II ≤ 100,000 e

F2 Test weights for precision balances of verification class II ≤ 30,000 e

M1 Test weights for industrial and commercial scales of verification class III ≤ 10,000 e

The appropriate test weight for your new KERN balance can also be found directly in the accessories of the balance in our webshop.

KERN DAkkS delivery times & shipping type	Total weight ≤ 30 kg (gross weight, incl. packaging)	Total weight > 30 kg (gross weight, incl. packaging)
DAkkS standard service Class E2 – M3	4 DAYS	4 DAYS
DAkkS standard service Class E1, 1 mg – 500 mg and recalibration 1 g – 10 kg with a known volume	10 DAYS	10 DAYS
ClassE1, ≥ 1 g, incl. volume determination (new weights)	15 DAYS	15 DAYS
Special weights, Newton weights, heavy duty weights, weight carriers, containers for individual weight sets etc.	on request	

Competence in the field of weights

Just lean back – we have just the right test weight for your measuring device

KERN offers you a large range of OIML test weights, which you can use at any time to quickly and reliably check your balance, force-measuring device, etc.. From milligram weights to tonne weights, from the classic OIML design to special weights which are specifically manufactured to your specifications, we can offer you just the right test weight, and naturally the weights have the relevant DAkkS calibration certificate or factory calibration certificate.

On the following pages you will see a selection of standard test weights for OIML error limit classes E1, E2, F1, F2, M1, M2, M3.

We will be happy to manufacture special (large) weights, weight containers, Newton weights or weights with special weight values for you on request. Our test weights product specialist will be happy to give you expert, comprehensive advice.

Note: In our webshop you can conveniently select test weights for your scale that have been calculated and matched to your accuracy requirements and intended use – with or without calibration. We will be happy to determine the minimum sample quantity according to USP Chapter <41> and recommend a KERN Safety Set especially designed for your scale.

PREMIUM⁺ TEST WEIGHTS

Note: Our highly-accurate OIML test weights are also available as **PREMIUM⁺ test weights** for that extra level of safety. Thanks to the most modern manufacturing technology, these test weights can also be adjusted within the specified error limit classes (= tolerances).

I.e. this means that these **PREMIUM⁺ test weights** have a significantly longer service life, thanks this guaranteed positive tolerance. This is of particular benefit with intensive use of the test weights.

For all the details on this **PREMIUM⁺ service** please see **www.kern-lab.com/premium+** or look at the weight you want in our online shop at www.kern-sohn.com

Marking – never lose track again!

With the large variety of test equipment used then it is essential that they are identified accurately. We can help you with this and mark your test weights according to your ideas by etching or with impact numbers. Whether it's letters, numbers, your logo, barcodes or something else – it's your choice. Our product specialist "Test weights" will gladly help you with any questions about this service, prices, etc.

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KERN **SAFETY SETS**

All the security you need!

"**KERN Safety Sets**" which have been specially developed, put together and contain the right test weights to test and monitor your balance. They each consist of a test weight for checking the sensitivity, i.e. the correct adjustment of your scale, and a small test weight for checking at the lower end of the weighing range, the so-called minimum sample weight. As an option, the "KERN Safety Set" has space for another test weight, for testing your balance at a weight which is relevant for you.

Useful accessories which have been selected to suit that particular "KERN Safety Set", such as, for example, special gloves, tweezers, weight grips, brushes, etc. will assist you in handling your test weights properly. Stored in the practical protective case next to your balance, you can check and ensure the high precision of your balance at any time.

Just ask our test weight product specialist, he will be happy to recommend the right "KERN Safety Set" for your balance. You can also find the matching "KERN Safety Set" for each model on the Internet at www.kern-sohn.com

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Our KERN weight cases at a glance:

Plastic box for individual weights	Aluminium protected box for individual weights	Wooden box, lined / unlined for individual weights	Plastic case for weight sets	Aluminium protected case for weight sets	Wooden case, lined / unlined for weight sets
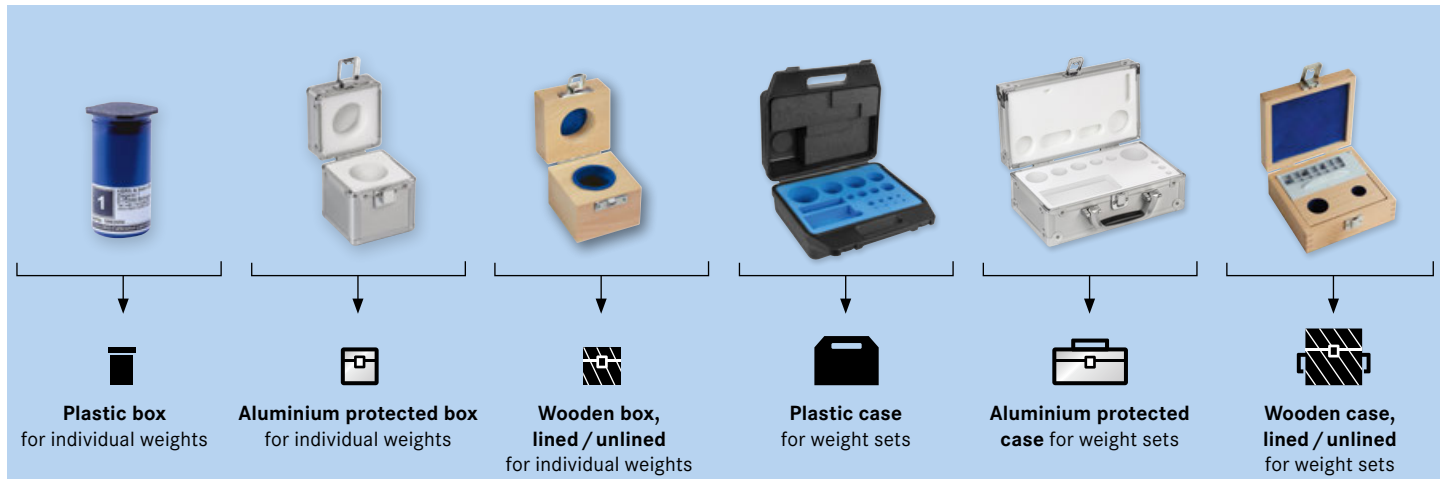
It's your choice!

To protect your test weights we can offer you an appropriate weight case. If there are no legal or normative specifications, then you have the choice between plastic, aluminium protected or wood. The available weight cases are shown as a symbol in the test weight tables on the following pages. In this way you have all the materials, versions, sizes and prices at a glance, listed in a concise way.

It's so easy to order your suitable test weight

1.
According to your safety requirements or the specifications of your QM system, you select the test weight with the appropriate weight value and the required tolerance (see page 179/180).

2.
We offer many test weights in different designs, giving you complete freedom to decide which test weights you want to use for your application. It goes without saying that all our test weights comply with the OIML R111:2004 directive.

3.
To protect your high-quality test equipment, we offer you cases in various designs. From low-priced plastic weight cases to aluminium protected weight cases to classic, high-quality wooden weight cases.

4.
A DAkkS calibration certificate – the auditor's favourite! With this certificate you provide the standard-compliant proof of all important values of your test equipment and are on the safe side when operating and testing your measuring equipment.

Weight	Tol +/- mg	Individual weights, compact shape		Individual weights, knob shape		Plastic box		Aluminium protected box		Wooden box		DAkkS certificate	
		KERN	€	KERN	€	KERN	€	KERN	€	KERN	€	KERN	€
1 g	0,03	316-01	36,-	317-01	52,-	317-020-400	4,-	317-010-600	14,-	317-010-100	26,-	962-331	30,-
2 g	0,04	316-02	36,-	317-02	53,-	317-020-400	4,-	317-020-600	14,-	317-020-100	26,-	962-332	30,-
5 g	0,05	316-03	37,-	317-03	56,-	317-030-400	4,-	317-030-600	14,-	317-030-100	26,-	962-333	30,-
10 g	0,06	316-04	38,-	317-04	60,-	317-040-400	4,-	317-040-600					30,-
20 g	0,08	316-05	43,-	317-05	68,-	317-050-400							
		316-06	46,-	317-06	73,-	317-0							

Weight	Knob shape in plastic case		Knob shape in aluminium protected case		Knob shape in wooden case		DAkkS certificate	
	KERN	€	KERN	€	KERN	€	KERN	€
1 mg - 500 mg	338-22	143,-	338-226	183,-			962-450	110,-
1 mg - 50 g	333-024	345,-	333-026	365,-	333-02	370,-	962-401	184,-
1 mg - 100 g	333-034	385,-	333-036	400,-	333-03	405,-	962-402	196,-
1 mg - 200 g	333-044	450,-	333-046	465,-	333-04	470,-	962-403	220,-
1 mg - 500 g	333-054	510,-	333-056	530,-	333-05	540,-	962-404	230,-
1 mg - 1 kg	333-064	630,-	333-066	650,-	333-0		962-405	240,-
1 mg - 2 kg	333-074	890,-	333-076					

Selection of the appropriate test weight for your balance

A balance can never be more accurate than the test weight that is used to adjust it, it all depends on its tolerance. **The accuracy of the test weight should correspond to the readout [d] of the balance, or rather be better.**

Nominal weight value is shown in adjust mode "CAL" in the balance display. Given a 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 180.

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]: max. tolerance ± 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, can be found in accuracy class F1. KERN-No 326-12, see page 186.

Exception, analytical balances (readout [d] ≤ 0,1 mg):
E1 test weights are recommended. Depending on the safety requirements, E2 test weights with a DAkkS calibration certificate will also be sufficient.

From finely turned to polished stainless steel – the right test weight for every situation

Test weight → / Features ↓	Knob shape with lifting knob, polished stainless steel	Compact shape with carrying grip, polished stainless steel	Knob shape with lifting knob, polished stainless steel	ECO shape, polished stainless steel	Knob shape with lifting knob, finely turned stainless steel
Conforms to OIML:R111	yes	yes	yes	yes	yes
Available classes	E1, E2	E2	F1	F1	F2, M1
Upper surface	polished	polished	polished	polished	finely turned
Material	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Adjusting cavity	no	no	yes	yes, from 50 g, readjustment can only be carried out by KERN	yes, from 20 g
Marking (Milligram weights, generally none)	no	none	Nominal value, etched	Nominal value, etched	F2: Class + nominal value, etched; M1: Class + nominal value, adopted
Verification possible	yes (E2)	yes	yes	no	yes (M1)
Checking equipment for verification purposes	approved (E2)	approved	approved	approved	approved (M1)
Ideal as checking equipment in QM systems (e.g. ISO 9000 ff)	yes	yes	yes	yes	yes
Benefits	• High-quality test weight for analytical and precision balances • Highly-refined surface • Ideal shape of the top for good grip	• Affordable test weight for analytical and precision balances • Highly refined surface	• Ideal, high-quality test weight for precision balances • No visible adjustment chamber • High long-term stability • Ideal shape of the top for good grip	• Affordable test weight for analytical and precision balances • Highly refined surface • Optimum shape of the top for good grip	• Ideal test weight for commercial and industrial scales • Ideal shape of the top for good grip

Composition table, valid for all KERN test weight sets from 1 mg

Individual weights per set → / Test weight set ↓	1 mg	2 mg	2 mg	5 mg	10 mg	20 mg	20 mg	50 mg	100 mg	200 mg	200 mg	500 mg	1 g	2 g	2 g	5 g	10 g	20 g	20 g	50 g	100 g	200 g	200 g	500 g	1 kg	2 kg	2 kg	5 kg	10 kg
1 mg–500 mg	Total weight 1,11 g																												
1 mg–50 g																				111,11 g									
1 mg–100 g																					211,11 g								
1 mg–200 g																							611,11 g						
1 mg–500 g																								1.111,11 g					
1 mg–1 kg																									2.111,11 g				
1 mg–2 kg																											6.111,11 g		
1 mg–5 kg																												11.111,11 g	
1 mg–10 kg																													21.111,11 g

OIML norm R111:2004 for test weights

The key points from the OIML norm R111:2004

OIML (Organisation Internationale de Métrologie Légale) has established the exact metrological requirements for weights in verified applications in approx. 100 states all over the world. The OIML recommendation R111 (2004 Edition) for weights relates to sizes 1 mg – 5000 kg. Statements are made on the accuracy, materials, geometric shape, marking and storage of the weights.

Error limits for weights of classes E1 to M3

The error limit classes are in fixed hierarchical levels in the proportion of 1:3, where E1 is the most accurate and M3 is the least accurate weight class. When testing weights with other weights, the correct test class is the next highest class.

Error limit classes (= tolerances)

The values given in the table below (tolerances ± ... mg) are the respective permitted fabrication tolerances. They are to be equal to the ▸ **measuring uncertainty** of the weight, if no ▸ **DAkkS calibration certificate** is available.

Conventional mass

The problem is the air buoyancy, which makes the weight appear lighter. In order to avoid this "distortion" in daily use, all weights are adjusted to the unit specifications as given in R111, e.g. it is accepted that: material density of the weights is 8000 kg/m^3, air density is 1.2 kg/m^3 and measuring temperature is 20 °C.

KERN test weights: Unless otherwise specified, they conform to OIML R111:2004 in every detail.

Nominal value	OIML R111:2004 Maximum permissible errors for weights = permissible tolerances "Tol ± mg"						
↓	E1	E2	F1	F2	M1	M2	M3
1 mg	± 0,003 mg	± 0,006 mg	± 0,020 mg	± 0,06 mg	± 0,20 mg	-	-
2 mg	± 0,003 mg	± 0,006 mg	± 0,020 mg	± 0,06 mg	± 0,20 mg	-	-
5 mg	± 0,003 mg	± 0,006 mg	± 0,020 mg	± 0,06 mg	± 0,20 mg	-	-
10 mg	± 0,003 mg	± 0,008 mg	± 0,025 mg	± 0,08 mg	± 0,25 mg	-	-
20 mg	± 0,003 mg	± 0,010 mg	± 0,03 mg	± 0,10 mg	± 0,3 mg	-	-
50 mg	± 0,004 mg	± 0,012 mg	± 0,04 mg	± 0,12 mg	± 0,4 mg	-	-
100 mg	± 0,005 mg	± 0,016 mg	± 0,05 mg	± 0,16 mg	± 0,5 mg	± 1,6 mg	-
200 mg	± 0,006 mg	± 0,020 mg	± 0,06 mg	± 0,20 mg	± 0,6 mg	± 2,0 mg	-
500 mg	± 0,008 mg	± 0,025 mg	± 0,08 mg	± 0,25 mg	± 0,8 mg	± 2,5 mg	-
1 g	± 0,010 mg	± 0,03 mg	± 0,10 mg	± 0,3 mg	± 1,0 mg	± 3,0 mg	± 10 mg
2 g	± 0,012 mg	± 0,04 mg	± 0,12 mg	± 0,4 mg	± 1,2 mg	± 4,0 mg	± 12 mg
5 g	± 0,016 mg	± 0,05 mg	± 0,16 mg	± 0,5 mg	± 1,6 mg	± 5,0 mg	± 16 mg
10 g	± 0,020 mg	± 0,06 mg	± 0,20 mg	± 0,6 mg	± 2,0 mg	± 6,0 mg	± 20 mg
20 g	± 0,025 mg	± 0,08 mg	± 0,25 mg	± 0,8 mg	± 2,5 mg	± 8,0 mg	± 25 mg
50 g	± 0,03 mg	± 0,10 mg	± 0,3 mg	± 1,0 mg	± 3,0 mg	± 10 mg	± 30 mg
100 g	± 0,05 mg	± 0,16 mg	± 0,5 mg	± 1,6 mg	± 5,0 mg	± 16 mg	± 50 mg
200 g	± 0,10 mg	± 0,3 mg	± 1,0 mg	± 3,0 mg	± 10 mg	± 30 mg	± 100 mg
500 g	± 0,25 mg	± 0,8 mg	± 2,5 mg	± 8,0 mg	± 25 mg	± 80 mg	± 250 mg
1 kg	± 0,5 mg	± 1,6 mg	± 5,0 mg	± 16 mg	± 50 mg	± 160 mg	± 500 mg
2 kg	± 1,0 mg	± 3,0 mg	± 10 mg	± 30 mg	± 100 mg	± 300 mg	± 1 000 mg
5 kg	± 2,5 mg	± 8,0 mg	± 25 mg	± 80 mg	± 250 mg	± 800 mg	± 2 500 mg
10 kg	± 5,0 mg	± 16 mg	± 50 mg	± 160 mg	± 500 mg	± 1 600 mg	± 5 000 mg
20 kg	± 10 mg	± 30 mg	± 100 mg	± 300 mg	± 1 000 mg	± 3 000 mg	± 10 g
50 kg	± 25 mg	± 80 mg	± 250 mg	± 800 mg	± 2 500 mg	± 8 000 mg	± 25 g
100 kg	-	± 160 mg	± 500 mg	± 1 600 mg	± 5 000 mg	± 16 g	± 50 g
200 kg	-	± 300 mg	± 1 000 mg	± 3 000 mg	± 10 g	± 30 g	± 100 g
500 kg	-	± 800 mg	± 2 500 mg	± 8 000 mg	± 25 g	± 80 g	± 250 g
1 000 kg	-	± 1 600 mg	± 5 000 mg	± 16 g	± 50 g	± 160 g	± 500 g
2 000 kg	-	-	± 10 g	± 30 g	± 100 g	± 300 g	± 1 000 g
5 000 kg	-	-	± 25 g	± 80 g	± 250 g	± 800 g	± 2 500 g

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Test weights and boxes
Class E1

Milligram weights, wire shape

Individual weights, knob shape

Wooden box, for milligram weights

Plastic box, lined, for individual weights ≤ 50 g

Plastic box, lined, for individual weights ≥ 100 g

Wooden box, lined, for individual weights ≤ 500 g

Wooden box, lined, for individual weights ≥ 1 kg

Milligram weight set in plastic box (308-42)

Milligram weight set in aluminium protected box, lined (308-426)

Plastic case, lined, for weight sets, compact shape/ knob shape

Aluminium protected case, lined, for weight sets, knob shape

Wooden case, lined, for weight sets, knob shape

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Test weights class E1

Class E1 · **Milligram weights, wire shape, stainless steel**

Test weight material: stainless steel

Weight	Tol +/- mg	Milligram weight, wire shape KERN	Plastic box KERN	Aluminium protected box KERN	Wooden box KERN	DAkkS certificate KERN
1 mg	0,003	308-31	347-009-400	317-009-600	338-090-200	962-251
2 mg	0,003	308-32	347-009-400	317-009-600	338-090-200	962-252
5 mg	0,003	308-33	347-009-400	317-009-600	338-090-200	962-253
10 mg	0,003	308-34	347-009-400	317-009-600	338-090-200	962-254
20 mg	0,003	308-35	347-009-400	317-009-600	338-090-200	962-255
50 mg	0,004	308-36	347-009-400	317-009-600	338-090-200	962-256
100 mg	0,005	308-37	347-009-400	317-009-600	338-090-200	962-257
200 mg	0,006	308-38	347-009-400	317-009-600	338-090-200	962-258
500 mg	0,008	308-39	347-009-400	317-009-600	338-090-200	962-259

Class E1 · **Individual weights, knob shape, stainless steel polished**

Test weight material: stainless steel polished

Weight	Tol +/- mg	Individual weight, knob shape KERN	Plastic box KERN	Aluminium protected box KERN	Wooden box KERN	DAkkS certificate Initial calibration* KERN	DAkkS certificate Recalibration KERN
1 g	0,010	307-01	317-020-400	317-010-600	317-010-100	963-231	962-231 R
2 g	0,012	307-02	317-020-400	317-020-600	317-020-100	963-232	962-232 R
5 g	0,016	307-03	317-030-400	317-030-600	317-030-100	963-233	962-233 R
10 g	0,020	307-04	317-040-400	317-040-600	317-040-100	963-234	962-234 R
20 g	0,025	307-05	317-050-400	317-050-600	317-050-100	963-335	962-235 R
50 g	0,030	307-06	317-060-400	317-060-600	317-060-100	963-236	962-236 R
100 g	0,050	307-07	317-070-400	317-070-600	317-070-100	963-237	962-237 R
200 g	0,100	307-08	317-080-400	317-080-600	317-080-100	963-238	962-238 R
500 g	0,250	307-09	317-090-400	317-090-600	317-090-100	963-239	962-239 R
1 kg	0,500	307-11	317-110-400	317-110-600	317-110-100	963-241	962-241 R
2 kg	1,000	307-12	317-120-400	317-120-600	317-120-100	963-242	962-242 R
5 kg	2,500	307-13	317-130-400	317-130-600	317-130-100	963-243	962-243 R
10 kg	5,000	307-14	317-140-400	317-140-600	317-140-100	963-244	962-244 R
20 kg	10,000	307-15	-	317-150-600	317-150-100	963-245	962-245 R
50 kg	25,000	307-16	-	317-160-600	317-160-100	963-246	962-246 R

* **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.**

Class E1 · **Weight sets, knob shape, stainless steel polished**

Test weight material: stainless steel polished

Weight set	Knob shape in plastic case KERN	Knob shape in aluminium protected case KERN	Knob shape in wooden case KERN	DAkkS certificate Initial calibration* KERN	DAkkS certificate Recalibration KERN
1 mg – 500 mg	308-42	308-426		962-250	962-250 R
1 mg – 50 g	303-024	303-026	303-02	963-201	962-201 R
1 mg – 100 g	303-034	303-036	303-03	963-202	962-202 R
1 mg – 200 g	303-044	303-046	303-04	963-203	962-203 R
1 mg – 500 g	303-054	303-056	303-05	963-204	962-204 R
1 mg – 1 kg	303-064	303-066	303-06	963-205	962-205 R
1 mg – 2 kg	303-074	303-076	303-07	963-206	962-206 R
1 mg – 5 kg	303-084	303-086	303-08	963-207	962-207 R
1 mg – 10 kg	-	303-096	303-09	963-208	962-208 R
1 g – 50 g	304-024	304-026	304-02	963-215	962-215 R
1 g – 100 g	304-034	304-036	304-03	963-216	962-216 R
1 g – 200 g	304-044	304-046	304-04	963-217	962-217 R
1 g – 500 g	304-054	304-056	304-05	963-218	962-218 R
1 g – 1 kg	304-064	304-066	304-06	963-219	962-219 R
1 g – 2 kg	304-074	304-076	304-07	963-220	962-220 R
1 g – 5 kg	304-084	304-086	304-08	963-221	962-221 R
1 g – 10 kg	-	304-096	304-09	963-222	962-222 R

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Test weights and boxes
Class E2

Milligram weights, flat polygonal sheet

Individual weights, compact shape

Individual weights, knob shape

Plastic box, lined, for individual weights ≤ 50 g

Plastic box, lined, for individual weights ≥ 100 g

Aluminium protected box, lined, for individual weights

Wooden box, lined, for individual weights ≤ 500 g

Wooden box, lined, for individual weights ≥1 kg

Milligram weight set in plastic box (318-22)

Milligram weight set in aluminium protected box, lined (318-226)

Plastic case, lined, for weight sets, compact shape/ knob shape

Aluminium protected case, lined, for weight sets, compact shape/ knob shape

Wooden case, lined, for weight sets, compact shape/ knob shape

Test weights class E2

Class E2 · **Milligram weights, flat polygonal sheet, stainless steel**

Test weight material: stainless steel

Weight	Tol +/- mg	Milligram weight, flat polygonal sheet KERN	Plastic box KERN	Aluminium protected box KERN	Wooden box KERN	DAkkS certificate KERN
1 mg	0,006	318-01	347-009-400	317-009-600	338-090-200	962-351
2 mg	0,006	318-02	347-009-400	317-009-600	338-090-200	962-352
5 mg	0,006	318-03	347-009-400	317-009-600	338-090-200	962-353
10 mg	0,008	318-04	347-009-400	317-009-600	338-090-200	962-354
20 mg	0,010	318-05	347-009-400	317-009-600	338-090-200	962-355
50 mg	0,012	318-06	347-009-400	317-009-600	338-090-200	962-356
100 mg	0,016	318-07	347-009-400	317-009-600	338-090-200	962-357
200 mg	0,020	318-08	347-009-400	317-009-600	338-090-200	962-358
500 mg	0,025	318-09	347-009-400	317-009-600	338-090-200	962-359

Class E2 · **Individual weights, compact shape or knob shape, polished stainless steel**

Test weight material: stainless steel polished

Weight	Tol +/- mg	Individual weights, compact shape KERN	Individual weights, knob shape KERN	Plastic box KERN	Aluminium protected box KERN	Wooden box KERN	DAkkS certificate KERN
1 g	0,03	316-01	317-01	317-020-400	317-010-600	317-010-100	962-331
2 g	0,04	316-02	317-02	317-020-400	317-020-600	317-020-100	962-332
5 g	0,05	316-03	317-03	317-030-400	317-030-600	317-030-100	962-333
10 g	0,06	316-04	317-04	317-040-400	317-040-600	317-040-100	962-334
20 g	0,08	316-05	317-05	317-050-400	317-050-600	317-050-100	962-335
50 g	0,10	316-06	317-06	317-060-400	317-060-600	317-060-100	962-336
100 g	0,16	316-07	317-07	317-070-400	317-070-600	317-070-100	962-337
200 g	0,30	316-08	317-08	317-080-400	317-080-600	317-080-100	962-338
500 g	0,80	316-09	317-09	317-090-400	317-090-600	317-090-100	962-339
1 kg	1,60	316-11	317-11	317-110-400	317-110-600	317-110-100	962-341
2 kg	3,00	316-12	317-12	317-120-400	317-120-600	317-120-100	962-342
5 kg	8,00	316-13	317-13	317-130-400	317-130-600	317-130-100	962-343
10 kg	16,00	316-14	317-14	317-140-400	317-140-600	317-140-100	962-344
20 kg	30,00	-	317-15	-	317-150-600	317-150-100	962-345
50 kg	80,00	-	317-16	-	317-160-600	317-160-100	962-346

Class E2 · **Weight sets, compact shape or knob shape, polished stainless steel**

Test weight material: Milligramm weights stainless steel, individual weights: polished stainless steel.

Weight sets	Compact shape in plastic case KERN	Knob shape in plastic case KERN	Knob shape in aluminium protected case KERN	Knob shape in wooden case KERN	DAkkS certificate KERN
1 mg - 500 mg	318-22	-	318-226		962-350
1 mg - 50 g	-	313-024	313-026	313-02	962-301
1 mg - 100 g	-	313-034	313-036	313-03	962-302
1 mg - 200 g	-	313-044	313-046	313-04	962-303
1 mg - 500 g	-	313-054	313-056	313-05	962-304
1 mg - 1 kg	-	313-064	313-066	313-06	962-305
1 mg - 2 kg	-	313-074	313-076	313-07	962-306
1 mg - 5 kg	-	313-084	313-086	313-08	962-307
1 mg - 10 kg	-	-	313-096	313-09	962-308
1 g - 50 g	312-024	314-024	314-026	314-02	962-315
1 g - 100 g	312-034	314-034	314-036	314-03	962-316
1 g - 200 g	312-044	314-044	314-046	314-04	962-317
1 g - 500 g	312-054	314-054	314-056	314-05	962-318
1 g - 1 kg	312-064	314-064	314-066	314-06	962-319
1 g - 2 kg	312-074	314-074	314-076	314-07	962-320
1 g - 5 kg	312-084	314-084	314-086	314-08	962-321
1 g -10 kg	-	-	314-096	314-09	962-322

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Note Our highly-accurate OIML test weights are also available as **Premium+ weights** for that extra level of safety. See all details page 176 or on **www.kern-lab.com/premium+**

Test weights and boxes
Class F1

Milligram weights,
flat polygonal sheet

Individual weights/
Weight sets,
ECO shape

Individual weights/
Weight sets,
knob shape

Test weights (10 – 50 kg),
polished stainless steel,
KERN 327-141 ff, optional:
Wooden box

Block weight,
polished stainless steel

Plastic box,
lined, for
individual
weights
≤ 200 g

Plastic box,
lined, for
individual
weights
≥ 500 g

Aluminium protected box, lined,
for individual weights

Wooden box, lined,
for individual weights ≤ 500 g

Wooden box, lined,
for individual weights ≥1 kg

Milligram weight
set in plastic box
(328-22)

Milligram weight
set in aluminium
protected box,
lined (328-226)

Plastic case, lined
for weight sets, ECO shape/
knob shape

Aluminium protected case, lined,
for weight sets ECO shape/
knob shape

Wooden case, lined,
for weight sets ECO shape/
knob shape

Test weights class F1

Class F1 · **Milligram weights, flat polygonal sheet, stainless steel**

Test weight material: stainless steel

Weight	Tol +/- mg	Milligram weight, flat polygonal sheet KERN	Plastic box KERN	Aluminium protected box KERN	Wooden box KERN	DAkkS certificate KERN
1 mg	0,020	328-01	347-009-400	317-009-600	338-090-200	962-451
2 mg	0,020	328-02	347-009-400	317-009-600	338-090-200	962-452
5 mg	0,020	328-03	347-009-400	317-009-600	338-090-200	962-453
10 mg	0,025	328-04	347-009-400	317-009-600	338-090-200	962-454
20 mg	0,03	328-05	347-009-400	317-009-600	338-090-200	962-455
50 mg	0,04	328-06	347-009-400	317-009-600	338-090-200	962-456
100 mg	0,05	328-07	347-009-400	317-009-600	338-090-200	962-457
200 mg	0,06	328-08	347-009-400	317-009-600	338-090-200	962-458
500 mg	0,08	328-09	347-009-400	317-009-600	338-090-200	962-459

Class F1 · **Individual weights, ECO shape or knob shape, polished stainless steel**

Test weight material: stainless steel polished

Weight	Tol +/- mg	Individual weight, ECO shape KERN	Individual weight, knob shape KERN	Plastic box KERN	Aluminium protected box KERN	Wooden box KERN	DAkkS certificate KERN
1 g	0,10	326-01	327-01	347-030-400	317-010-600	317-010-100	962-431
2 g	0,12	326-02	327-02	347-030-400	317-020-600	317-020-100	962-432
5 g	0,16	326-03	327-03	347-030-400	317-030-600	317-030-100	962-433
10 g	0,20	326-04	327-04	347-050-400	317-040-600	317-040-100	962-434
20 g	0,25	326-05	327-05	347-050-400	317-050-600	317-050-100	962-435
50 g	0,30	326-06	327-06	347-070-400	317-060-600	317-060-100	962-436
100 g	0,50	326-07	327-07	347-070-400	317-070-600	317-070-100	962-437
200 g	1,00	326-08	327-08	347-080-400	317-080-600	317-080-100	962-438
500 g	2,50	326-09	327-09	347-090-400	317-090-600	317-090-100	962-439
1 kg	5,00	326-11	327-11	347-110-400	317-110-600	317-110-100	962-441
2 kg	10	326-12	327-12	347-120-400	317-120-600	317-120-100	962-442
5 kg	25	326-13	327-13	347-130-400	317-130-600	317-130-100	962-443
10 kg	50	326-14	327-14	347-140-400	317-140-600	317-140-100	962-444
20 kg	100	–	327-15	–	317-150-600	317-150-100	962-445
50 kg	250	–	327-16	–	317-160-600	317-160-100	962-446

Class F1 · **Block weights, stainless steel polished**

Block weight material: stainless steel polished

Weight	Tol +/- mg	Block weight, stainless steel KERN	Aluminium protected case KERN	DAkkS certificate KERN
5 kg	25	326-36	346-060-600	962-443
10 kg	50	326-37	346-070-600	962-444
20 kg	100	326-38	346-080-600	962-445
50 kg	250	326-39	346-090-600	962-446

Class F1 · **Test weights, stainless steel polished, stackable**

Test weight material: stainless steel polished

Weight	Tol +/- mg	Test weight, stainless steel KERN	Wooden case KERN	DAkkS certificate KERN
10 kg	50	327-141	337-141-100	962-444
20 kg	100	327-151	337-151-100	962-445
50 kg	250	327-161	337-161-100	962-446

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Test weights class F1

Class F1 · **Weight sets, ECO shape, polished stainless steel**

Test weight material: Milligramm weights stainless steel, Individual weights: polished stainless steel

Weight sets	ECO shape in plastic case KERN	ECO shape in aluminium protected case KERN	ECO shape in wooden case KERN	DAkkS certificate KERN
1 mg - 500 mg	328-22	328-226		962-450
1 mg - 50 g	325-024	325-026	325-022	962-401
1 mg - 100 g	325-034	325-036	325-032	962-402
1 mg - 200 g	325-044	325-046	325-042	962-403
1 mg - 500 g	325-054	325-056	325-052	962-404
1 mg - 1 kg	325-064	325-066	325-062	962-405
1 mg - 2 kg	325-074	325-076	325-072	962-406
1 mg - 5 kg	325-084	325-086	325-082	962-407
1 mg - 10 kg	-	325-096	325-092	962-408
1 g - 50 g	326-024	326-026	326-022	962-415
1 g - 100 g	326-034	326-036	326-032	962-416
1 g - 200 g	326-044	326-046	326-042	962-417
1 g - 500 g	326-054	326-056	326-052	962-418
1 g - 1 kg	326-064	326-066	326-062	962-419
1 g - 2 kg	326-074	326-076	326-072	962-420
1 g - 5 kg	326-084	326-086	326-082	962-421
1 g - 10 kg	-	326-096	326-092	962-422

Class F1 · **Weight sets, knob shape, polished stainless steel**

Test weight material: Milligramm weights stainless steel, Individual weights: polished stainless steel

Weight sets	Knob shape in plastic case KERN	Knob shape in aluminium protected case KERN	Knob shape in wooden case KERN	DAkkS certificate KERN
1 mg - 500 mg	328-22	328-226		962-450
1 mg - 50 g	323-024	323-026	323-02	962-401
1 mg - 100 g	323-034	323-036	323-03	962-402
1 mg - 200 g	323-044	323-046	323-04	962-403
1 mg - 500 g	323-054	323-056	323-05	962-404
1 mg - 1 kg	323-064	323-066	323-06	962-405
1 mg - 2 kg	323-074	323-076	323-07	962-406
1 mg - 5 kg	323-084	323-086	323-08	962-407
1 mg - 10 kg	-	323-096	323-09	962-408
1 g - 50 g	324-024	324-026	324-02	962-415
1 g - 100 g	324-034	324-036	324-03	962-416
1 g - 200 g	324-044	324-046	324-04	962-417
1 g - 500 g	324-054	325-092	324-05	962-418
1 g - 1 kg	324-064	324-066	324-06	962-419
1 g - 2 kg	324-074	324-076	324-07	962-420
1 g - 5 kg	324-084	324-086	324-08	962-421
1 g - 10 kg	-	324-096	324-09	962-422

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Test weights and boxes
Class F2

Milligram weights, flat polygonal sheet

Individual weights/Weight sets, knob shape

Block weight, stainless steel

Test weights (10 – 50 kg), finely turned stainless steel KERN 337-141 ff, optional: Wooden box

Plastic box, lined, for individual weights ≤ 200 g

Plastic box, lined, for individual weights ≥ 500 g

Aluminium protected box, lined, for individual weights

Wooden box, not lined for individual weights ≤ 500 g

Wooden box, not lined, for individual weights ≥1 kg

Milligram weight set in plastic box (338-22)

Milligram weight set in aluminium protected box, lined (338-226)

Plastic case, lined, for weight sets, knob shape

Aluminium protected case, lined, for weight sets, knob shape

Wooden case, for weight sets, knob shape

Test weights class F2

Class F2 · **Milligram weights, flat polygonal sheet, stainless steel**

Test weight material: stainless steel

Weight	Tol +/- mg	Milligram weight, flat polygonal sheet KERN	Plastic box KERN	Aluminium protected box KERN	Wooden box KERN	DAkkS certificate KERN
1 mg	0,06	338-01	347-009-400	317-009-600	338-090-200	962-451
2 mg	0,06	338-02	347-009-400	317-009-600	338-090-200	962-452
5 mg	0,06	338-03	347-009-400	317-009-600	338-090-200	962-453
10 mg	0,08	338-04	347-009-400	317-009-600	338-090-200	962-454
20 mg	0,10	338-05	347-009-400	317-009-600	338-090-200	962-455
50 mg	0,12	338-06	347-009-400	317-009-600	338-090-200	962-456
100 mg	0,16	338-07	347-009-400	317-009-600	338-090-200	962-457
200 mg	0,20	338-08	347-009-400	317-009-600	338-090-200	962-458
500 mg	0,25	338-09	347-009-400	317-009-600	338-090-200	962-459

Class F2 · **Individual weights, knob shape, finely turned stainless steel**

Test weight material: finely turned polished

Weight	Tol +/- mg	Individual weight, knob shape KERN	Plastic box KERN	Aluminium protected box KERN	Wooden box KERN	DAkkS certificate KERN
1 g	0,3	337-01	347-030-400	317-010-600	337-010-200	962-431
2 g	0,4	337-02	347-030-400	317-020-600	337-020-200	962-432
5 g	0,5	337-03	347-030-400	317-030-600	337-030-200	962-433
10 g	0,6	337-04	347-050-400	317-040-600	337-040-200	962-434
20 g	0,8	337-05	347-050-400	317-050-600	337-050-200	962-435
50 g	1,0	337-06	347-070-400	317-060-600	337-060-200	962-436
100 g	1,6	337-07	347-070-400	317-070-600	337-070-200	962-437
200 g	3,0	337-08	347-080-400	317-080-600	337-080-200	962-438
500 g	8,0	337-09	347-090-400	317-090-600	337-090-200	962-439
1 kg	16	337-11	347-110-400	317-110-600	337-110-200	962-441
2 kg	30	337-12	347-120-400	317-120-600	337-120-200	962-442
5 kg	80	337-13	347-130-400	317-130-600	337-130-200	962-443
10 kg	160	337-14	347-140-400	317-140-600	337-140-200	962-444
20 kg	300	337-15	-	317-150-600	337-150-200	962-445
50 kg	800	337-16	-	317-160-600	337-160-200	962-446

Class F2 · **Test weights, finely turned stainless steel**

Test weight material: finely turned stainless steel

Weight	Tol +/- mg	Test weight, stainless steel KERN	Wooden box KERN	DAkkS certificate KERN
10 kg	160	337-141	337-141-200	962-444
20 kg	300	337-151	337-151-200	962-445
50 kg	800	337-161	337-161-200	962-446

Class F2 · **Block weights, stainless steel glass bead blasted**

Block weight material: stainless steel glass bead blasted

Weight	Tol +/- mg	Block weight, stainless steel KERN	Aluminium protected case KERN	DAkkS certificate KERN
5 kg	80	336-36	346-060-600	962-443
10 kg	160	336-37	346-070-600	962-444
20 kg	300	336-38	346-080-600	962-445
50 kg	800	336-39	346-090-600	962-446

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Class F2 · **Weight sets, knob shape, finely turned stainless steel**

Test weight material: Milligramm weights stainless steel, individual weights finely turned stainless steel.

Weight	Knob shape in plastic case	Knob shape in aluminium protected case	Knob shape in wooden case	DAkkS certificate
	KERN	KERN	KERN	KERN
1 mg - 500 mg	338-22	338-226		962-450
1 mg - 50 g	333-024	333-026	333-02	962-401
1 mg - 100 g	333-034	333-036	333-03	962-402
1 mg - 200 g	333-044	333-046	333-04	962-403
1 mg - 500 g	333-054	333-056	333-05	962-404
1 mg - 1 kg	333-064	333-066	333-06	962-405
1 mg - 2 kg	333-074	333-076	333-07	962-406
1 mg - 5 kg	333-084	333-086	333-08	962-407
1 mg - 10 kg	-	333-096	333-09	962-408
1 g - 50 g	334-024	334-026	334-02	962-415
1 g - 100 g	334-034	334-036	334-03	962-416
1 g - 200 g	334-044	334-046	334-04	962-417
1 g - 500 g	334-054	334-056	334-05	962-418
1 g - 1 kg	334-064	334-066	334-06	962-419
1 g - 2 kg	334-074	334-076	334-07	962-420
1 g - 5 kg	334-084	334-086	334-08	962-421
1 g -10 kg	-	334-096	334-09	962-422

Test weights and boxes
Class M1

Milligram weights,
flat polygonal sheet

Individual weights/weight sets,
knob shape, finely turned
stainless steel

Hook weights, finely turned
stainless steel

Slotted weights, finely turned
stainless steel

Plastic box, for individual
weights ≤ 200 g, for hook
weights and slotted
weights ≤ 50 g

Plastic box, lined, for
individual weights ≥ 500 g,
for hook weights and
slotted weights ≥ 100 g

Aluminium protected
box, lined, for individual
weights

Wooden box, not lined, for
individual weights ≤ 500 g

Wooden box, not lined, for
individual weights ≥1 kg

Milligram weight
set in plastic box
(348-22)

Milligram weight
set in aluminium
protected box,
lined (348-226)

Plastic case, lined, for weight
sets, knob shape, finely turned
stainless steel

Aluminium protected case, lined,
for weight sets, knob shape, finely
turned stainless steel

Wooden case, for weight sets,
knob shape, finely turned
stainless steel

Test weights (10 – 50 kg),
finely turned stainless steel KERN
347-141 ff, optional: Wooden box

Beam bars, for fixing slotted
weights, aluminium or finely
turned stainless steel

* | ** | *** see page 194

Block weights, lacquered cast iron/stainless steel glass bead blasted,
optional: Aluminium protected case, lined

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Test weights class M1

Class M1 · **Milligram weights, flat polygonal sheet, stainless steel**

Test weight material: stainless steel

Weight	Tol +/- mg	Milligram weight, flat polygonal sheet	Plastic box	Aluminium protected box	Wooden box	DAkkS certificate
		KERN	KERN	KERN	KERN	KERN
1 mg	0,20	348-01	347-009-400	317-009-600	338-090-200	962-651
2 mg	0,20	348-02	347-009-400	317-009-600	338-090-200	962-652
5 mg	0,20	348-03	347-009-400	317-009-600	338-090-200	962-653
10 mg	0,25	348-04	347-009-400	317-009-600	338-090-200	962-654
20 mg	0,30	348-05	347-009-400	317-009-600	338-090-200	962-655
50 mg	0,40	348-06	347-009-400	317-009-600	338-090-200	962-656
100 mg	0,50	348-07	347-009-400	317-009-600	338-090-200	962-657
200 mg	0,60	348-08	347-009-400	317-009-600	338-090-200	962-658
500 mg	0,80	348-09	347-009-400	317-009-600	338-090-200	962-659

Class M1 · **Individual weights, knob shape, stainless steel**

Test weights material: stainless steel

Weight	Tol +/- mg	Individual weight, stainless steel	Plastic box	Aluminium protected box	Wooden box	DAkkS certificate
		KERN	KERN	KERN	KERN	KERN
1 g	1,0	347-01	347-030-400	317-010-600	337-010-200	962-631
2 g	1,2	347-02	347-030-400	317-020-600	337-020-200	962-632
5 g	1,6	347-03	347-030-400	317-030-600	337-030-200	962-633
10 g	2,0	347-04	347-050-400	317-040-600	337-040-200	962-634
20 g	2,5	347-05	347-050-400	317-050-600	337-050-200	962-635
50 g	3,0	347-06	347-070-400	317-060-600	337-060-200	962-636
100 g	5,0	347-07	347-070-400	317-070-600	337-070-200	962-637
200 g	10	347-08	347-080-400	317-080-600	337-080-200	962-638
500 g	25	347-09	347-090-400	317-090-600	337-090-200	962-639
1 kg	50	347-11	347-110-400	317-110-600	337-110-200	962-641
2 kg	100	347-12	347-120-400	317-120-600	337-120-200	962-642
5 kg	250	347-13	347-130-400	317-130-600	337-130-200	962-643
10 kg	500	347-14	347-140-400	317-140-600	337-140-200	962-644

Class M1 · **Block weights, lacquered cast iron or stainless steel glass bead blasted**

Block weight material: cast iron or stainless steel, surface and edges refined

Weight	Tol +/- g	Block weight, cast iron	Block weight, stainless steel	Aluminium protected case	DAkkS certificate
		KERN	KERN	KERN	KERN
5 kg	0,25	346-86	346-06	346-060-600	962-643
10 kg	0,50	346-87	346-07	346-070-600	962-644
20 kg	1,00	346-88	346-08	346-080-600	962-645
50 kg	2,50	346-89	346-09	346-090-600	962-646

Class M1 · **ECO Block weights, lacquered cast iron**

ECO Block weight material: cast iron, surface and edges machined

Weight	Tol +/- g	ECO Block weight, cast iron	Aluminium protected case	DAkkS certificate
		KERN	KERN	KERN
5 kg	0,25	346-76	346-060-600	962-643
10 kg	0,50	346-77	346-070-600	962-644
20 kg	1,00	346-78	346-080-600	962-645
50 kg	2,50	346-79	346-090-600	962-646

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Test weights class M1

Class M1 · **Test weights, stainless steel, stackable**

Test weight material: finely turned stainless steel

Weight	Tol +/- g	Test weight, stainless steel KERN	Wooden box KERN	DAkkS certificate KERN
10 kg	0,5	347-141	337-141-200	962-644
20 kg	1,0	347-151	337-151-200	962-645
50 kg	2,5	347-161	337-161-200	962-646

Class M1 · **Heavy duty weights, lacquered cast iron, stackable**

Heavy duty weight material: cast iron
Designed to be lifted with forklift trucks or cranes, delivery time is approx. 6–8 weeks
Dimensions: see internet on www.kern-sohn.com

Weight	Tol +/- g	Heavy duty weight, cast iron KERN	DAkkS certificate KERN
100 kg	5	346-81	962-691
200 kg	10	346-82	962-692
500 kg	25	346-83	962-693
1000 kg	50	346-84	962-694
2000 kg	100	346-85	962-695

Note

We also offer a large range of heavy-duty weights in other materials, for example, stainless steel and in other forms, for example, discs or individual weight containers, please ask for details.

Class M1 · **Weight sets, knob shape, stainless steel**

Test weight material: Milligramm weights stainless steel, individual weights stainless steel

Weight	Knob shape, finely turned stainless steel, in plastic case KERN	Knob shape, finely turned stainless steel, in wooden case KERN	Knob shape, finely turned stainless steel, in aluminium protected case KERN	DAkkS certificate KERN
1 mg - 500 mg	348-22	-	348-226	962-650
1 mg – 50 g	343-024	343-02	343-026	962-601
1 mg – 100 g	343-034	343-03	343-036	962-602
1 mg – 200 g	343-044	343-04	343-046	962-603
1 mg – 500 g	343-054	343-05	343-056	962-604
1 mg – 1 kg	343-064	343-06	343-066	962-605
1 mg – 2 kg	343-074	343-07	343-076	962-606
1 mg – 5 kg	343-084	343-08	343-086	962-607
1 mg – 10 kg	-	343-09	343-096	962-608
1 g – 50 g	344-024	344-02	344-026	962-615
1 g – 100 g	344-034	344-03	344-036	962-616
1 g – 200 g	344-044	344-04	344-046	962-617
1 g – 500 g	344-054	344-05	344-056	962-618
1 g – 1 kg	344-064	344-06	344-066	962-619
1 g – 2 kg	344-074	344-07	344-076	962-620
1 g – 5 kg	344-084	344-08	344-086	962-621
1 g – 10 kg	-	344-09	344-096	962-622

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Test weights class M1

Class M1 · **Hook weights, finely turned stainless steel**

Hook weight material: finely turned stainless steel

Weight	Tol +/- mg	Hook weight, stainless steel KERN	Plastic box, linned KERN	DAkkS certificate KERN
1 g	1,0	347-016	347-030-400	962-631
2 g	1,2	347-026	347-030-400	962-632
5 g	1,6	347-036	347-030-400	962-633
10 g	2,0	347-046	347-050-400	962-634
20 g	2,5	347-056	347-050-400	962-635
50 g	3,0	347-066	347-070-400	962-636
100 g	5,0	347-076	347-090-400	962-637
200 g	10,0	347-086	347-090-400	962-638
500 g	25,0	347-096	347-110-400	962-639
1 kg	50,0	347-116	347-120-400	962-641
2 kg	100,0	347-126	347-130-400	962-642
5 kg	250,0	347-136	347-140-400	962-643
10 kg	500,0	347-146	–	962-644

Class M1 · **Slotted weights, finely turned stainless steel**

Slotted weight material: finely turned stainless steel

Weight	Tol +/- mg	Slotted weight, stainless steel KERN	Plastic box, lined KERN	DAkkS certificate KERN
1 g	1,0	347-015	347-030-400	962-631
2 g	1,2	347-025	347-030-400	962-632
5 g	1,6	347-035	347-030-400	962-633
10 g	2,0	347-045	347-030-400	962-634
20 g	2,5	347-055	347-080-400	962-635
50 g	3,0	347-065	347-080-400	962-636
100 g	5,0	347-075	347-090-400	962-637
200 g	10	347-085	347-090-400	962-638
500 g	25	347-095	347-110-400	962-639
1 kg	50	347-115	347-130-400	962-641
2 kg	100	347-125	347-130-400	962-642
5 kg	250	347-135	347-140-400	962-643
10 kg	500	347-145	347-140-400	962-644

Class M1 · **Beam bars, for fixing slotted weights**

Beam bars material: 10 g: aluminium, 100 g–1 kg: finely turned stainless steel

Own weight beam bar	Maximum total load [1]	Largest slotted weight possible	Material	Length	Beam bar KERN	DAkkS certificate KERN
10 g	200 g	100 g	Aluminium	117,5	347-445-100*	962-634
100 g	2 kg	1 kg	Stainless steel	238	347-075-100**	962-637
500 g	20 kg	10 kg	Stainless steel	639	347-095-100***	962-639
1 kg	40 kg	10 kg	Stainless steel	1020	347-115-100***	962-641

[1] is exclusive of the own weight of the beam bar, e.g. the maximum possible total weight is calculated from
   "Maximum total load" + "own weight beam bar";
* | ** | *** see page 191

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 postal code.
DAkkS calibration certificate for N weights: identical to DAkkS prices for individual weights M1

Test weights and boxes
Classes M2 · M3

Individual weights/Weight sets,
knob shape, stainless steel

Individual weights/Weight sets,
knob shape, lacquered cast iron

Block weights,
lacquered cast iron

Plastic box, lined,
for individual weights

Aluminium protected box,
lined, for individual weights

Wooden box, not lined, for
individual weights ≤ 500 g,
⚠ not appropriate for
cast iron weights

Wooden box, not lined, for
individual weights ≥1 kg,
⚠ not appropriate for
cast iron weights

Aluminium protected case,
lined, for block weights

Aluminium protected case, lined, for weight
sets knob shape, finely turned stainless steel,
⚠ not appropriate for cast iron weights

Wooden case, for weight sets, knob shape,
finely turned stainless steel

Wooden block, for weight sets, knob shape,
lacquered cast iron

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Test weights classes M2

Class M2 · **Individual weights, knob shape, finely turned stainless steel**

Test weight material: finely turned stainless steel

Weight	Tol +/- mg	Individual weight, knob shape KERN	Plastic box, lined KERN	Aluminium protected box KERN	Wooden box KERN	DAkkS certificate KERN
1 g	3	357-01	347-030-400	317-010-600	337-010-200	962-631
2 g	4	357-02	347-030-400	317-020-600	337-020-200	962-632
5 g	5	357-03	347-030-400	317-030-600	337-030-200	962-633
10 g	6	357-04	347-050-400	317-040-600	337-040-200	962-634
20 g	8	357-05	347-050-400	317-050-600	337-050-200	962-635
50 g	10	357-06	347-070-400	317-060-600	337-060-200	962-636
100 g	16	357-07	347-070-400	317-070-600	337-070-200	962-637
200 g	30	357-08	347-080-400	317-080-600	337-080-200	962-638
500 g	80	357-09	347-090-400	317-090-600	337-090-200	962-639
1 kg	160	357-11	347-110-400	317-110-600	337-110-200	962-641
2 kg	300	357-12	347-120-400	317-120-600	337-120-200	962-642
5 kg	800	357-13	347-130-400	317-130-600	337-130-200	962-643
10 kg	1600	357-14	347-140-400	317-140-600	337-140-200	962-644

Class M2 · **Block weights, lacquered cast iron**

Block weight material: cast iron, surface and edges refined

Weight	Tol +/- g	Block weight, cast iron KERN	Aluminium protected box KERN	DAkkS certificate KERN
5 kg	0,8	356-86	346-060-600	962-643
10 kg	1,6	356-87	346-070-600	962-644
20 kg	3,0	356-88	346-080-600	962-645
50 kg	8,0	356-89	346-090-600	962-646

Class M2 · **ECO Block weights, lacquered cast iron**

ECO Block weight material: lacquered cast iron, surface and edges machined

Weight	Tol +/- g	ECO block weight, cast iron KERN	Aluminium protected box KERN	DAkkS certificate KERN
5 kg	0,8	356-76	346-060-600	962-643
10 kg	1,6	356-77	346-070-600	962-644
20 kg	3,0	356-78	346-080-600	962-645
50 kg	8,0	356-79	346-090-600	962-646

Class M2 · **Weight sets, knob shape, stainless steel**

Test weight material: finely turned stainless steel

Weight	Knob shape, in aluminium protected case KERN	Knob shape, in wooden case KERN	DAkkS certificate KERN
1 g – 50 g	354-026	354-02	962-615
1 g – 100 g	354-036	354-03	962-616
1 g – 200 g	354-046	354-04	962-617
1 g – 500 g	354-056	354-05	962-618
1 g – 1 kg	354-066	354-06	962-619
1 g – 2 kg	354-076	354-07	962-620
1 g – 5 kg	354-086	354-08	962-621
1 g – 10 kg	354-096	354-09	962-622

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Test weights classes M3

Class M3 · **Individual weights, knob shape, stainless steel**

Test weight material: finely turned stainless steel

Weight	Tol +/- mg	Individual weight, knob shape KERN	Plastic box, lined KERN	Aluminium protected box KERN	Wooden box KERN	DAkkS certificate KERN
1 g	10	367-01	347-030-400	317-010-600	337-010-200	962-631
2 g	12	367-02	347-030-400	317-020-600	337-020-200	962-632
5 g	16	367-03	347-030-400	317-030-600	337-030-200	962-633
10 g	20	367-04	347-050-400	317-040-600	337-040-200	962-634
20 g	25	367-05	347-050-400	317-050-600	337-050-200	962-635
50 g	30	367-06	347-070-400	317-060-600	337-060-200	962-636
100 g	50	367-07	347-070-400	317-070-600	337-070-200	962-637
200 g	100	367-08	347-080-400	317-080-600	337-080-200	962-638
500 g	250	367-09	347-090-400	317-090-600	337-090-200	962-639
1 kg	500	367-11	347-110-400	317-110-600	337-110-200	962-641
2 kg	1000	367-12	347-120-400	317-120-600	337-120-200	962-642

Class M3 · **Individual weights, knob and cylindrical shape, lacquered cast iron**

Test weight material: cast iron

Weight	Tol +/- g	Individual weight, knob and cylindrical shape KERN	DAkkS certificate KERN
100 g*	0,05	366-91	962-637
200 g*	0,10	366-92	962-638
500 g**	0,25	366-93	962-639
1 kg**	0,50	366-94	962-641
2 kg**	1,0	366-95	962-642
5 kg**	2,5	366-96	962-643
10 kg**	5,0	366-97	962-644

Class M3 · **Block weights, lacquered cast iron**

Block weight material: cast iron, surface and edges refined

Weight	Tol +/- g	Block weight, cast iron KERN	Aluminium protected box KERN	DAkkS certificate KERN
5 kg	2,5	366-86	346-060-600	962-643
10 kg	5,0	366-87	346-070-600	962-644
20 kg	10	366-88	346-080-600	962-645
50 kg	25	366-89	346-090-600	962-646

Class M3 · **ECO Block weights, lacquered cast iron**

ECO Block weight material: lacquered cast iron, surface and edges machined

Weight	Tol +/- g	ECO block weight, cast iron KERN	Aluminium protected box KERN	DAkkS certificate KERN
5 kg	2,5	366-76	346-060-600	962-643
10 kg	5,0	366-77	346-070-600	962-644
20 kg	10	366-78	346-080-600	962-645
50 kg	25	366-79	346-090-600	962-646

Class M3 · **Weight sets, knob and cylindrical shape, stainless steel and lacquered cast iron**

Test weight material: ≤ 50 g stainless steel, ≥ 100 g cast iron

Weight	Knob and cylindrical shape, in wooden block KERN	DAkkS certificate KERN
1 g – 1 kg	362-96	962-619
1 g – 2 kg	362-97	962-620
1 g – 5 kg	362-98	962-621
1 g – 10 kg	362-99	962-622

Individual weights
≤ 50 g

Individual weights
100 g and 200 g

Individual weights
≥ 500 g

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Tweezers, weight grips, gloves, dusting brush

Tweezers
to be able to safely grip small test weights

For class	For weight	Length	Version	KERN
E1 - M3	1 mg – 200 g	105 mm	1 Stainless steel with silicone-coated tips	315-243
E1 - M3	500 g – 2 kg	250 mm	1 Stainless steel with silicone-coated tips	315-245
E1 - M3	≤ 5 g	130 mm	2 Stainless steel, curved, high-quality plastic tips	315-246
E1 - M3	≤ 5 g	136 mm	3 Stainless steel, straight, high quality plastic tips	315-247
E1 - M3	≤ 200 g	225 mm	4 Stainless steel, straight, high-quality plastic tips, with a special shape for gripping weights of various shapes and sizes	315-248
F2 – M3	1 mg – 200 g	100 mm	5 Stainless steel	335-240
E1 – M3	1 mg – 200 g	100 mm	6 Plastic	315-242

Weight grip
plastic coated

For class	for knob shaped weights	KERN
E1 - M3	2 kg	315-273
E1 - M3	5 kg	315-274
E1 - M3	10 kg	315-275
E1 - M3	20 kg	315-276

! not appropriate for cast iron weights

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. Ideal for test weights from 2 kg

KERN
317-290

Premium gloves
Nylon, 1 pair.
Particularly elastic, one size fits all, with special fingertip coating to ensure a safe grip. Helps to protect the test weights in everyday use from grease from fingers, damp etc.

KERN
317-281

Dusting brush
to clean the weights

KERN
318-270

Bellows
for cleaning weights

KERN
318-271

Microfibre cloth
for cleaning weights

KERN
318-272

Boxes for individual weights

For weights ≤ 500 g,
OIML class E1 – F1

For weights ≥ 1 kg,
OIML class E1 – F1

Case material: Wood, lined, suitable for single
weights, KERN-Nr. 307, 316, 317, 326, 327

For weights ≤ 500 g,
OIML class F2 – M3

For weights ≥ 1 kg,
OIML class F2 – M3

Case material: Wood, not lined, suitable for
single weights, KERN-Nr. 337, 347, 357, 367
⚠ not suitable for cast iron weights

For test weights ≥ 10 kg,
OIML class F1 – M1

Case material: Wood, lined/not lined, suitable
for single weights, KERN-Nr. 327, 337, 347
⚠ not suitable for cast iron weights

Wooden box, lined
for single 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

Wooden box,
for single 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

Wooden box, not lined
for test weights F1 – M1

For weights	KERN
10 kg	337-141-200
20 kg	337-151-200
50 kg	337-161-200

Wooden box, lined
for test weights F1 – M1

For weights	KERN
10 kg	337-141-100
20 kg	337-151-100
50 kg	337-161-100

For weights ≤ 5 kg, OIML class E1 – M3

Case material: Aluminium protected, lined,
suitable for single weights, KERN-Nr. 307, 316,
317, 326, 327, 337, 347, 357, 367
⚠ not suitable for cast iron weights

For weights ≤ 10 kg, OIML class E1 – M3

Case material: Aluminium protected, lined,
suitable for single weights, KERN-Nr. 307, 316,
317, 326, 327, 337, 347, 357, 367
⚠ not suitable for cast iron weights

For block weight ≥ 5 kg, OIML class F1 – M3

Case material: Aluminium protected, lined,
suitable for block weights, KERN-Nr. 326, 336,
346, 356, 366

Aluminium protected box, lined
for individual weights, knob and compact shape,
class E1 – M3

For weights	KERN
Individual weight, mg	317-009-600
1 g	317-010-600
2 g	317-020-600
5 g	317-030-600
10 g	317-040-600
20 g	317-050-600
50 g	317-060-600
100 g	317-070-600
200 g	317-080-600
500 g	317-090-600
1 kg	317-110-600
2 kg	317-120-600
5 kg	317-130-600

Aluminium protected box, lined
for individual weights, knob and compact shape,
class E1 – M3

For weights	KERN
10 kg	317-140-600
20 kg	317-150-600
50 kg	317-160-600

Aluminium protected case, lined
for individual weights F1 – M3

For weights	KERN
5 kg	346-060-600
10 kg	346-070-600
20 kg	346-080-600
50 kg	346-090-600

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Carrying cases/boxes for individual weight sets

Individual weight sets:
You can create your own "tailor-made" individual weight sets yourself. KERN will customise 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 × 50 g, 2 × 100 g, 1 × 500 g, 2 × 1 kg, 1 × 2 kg.

The correct individual box is **KERN-Nr. 313-080-400** (plastic) or **KERN-Nr. 315-070-100** (wood, not lined)

Plastic case
for individual weight sets classes E1 – M3, not appropriate for cast iron weights

Largest possible weight	KERN
≤ 500 g	313-050-400
≤ 5 kg	313-080-400

Wooden case
lined, for individual weight sets classes E1 – F1
* with side handles

Largest possible weight	KERN
≤ 200 g	315-040-100
≤ 1 kg	315-060-100
≤ 2 kg	315-070-100
≤ 5 kg*	315-080-100
≤ 10 kg*	315-090-100

Wooden case not lined, for individual weight set classes F2 – M3, not appropriate for cast iron weights
* with side handles

Largest possible weight	KERN
≤ 200 g	335-040-200
≤ 500 g	335-050-200
≤ 1 kg	335-060-200
≤ 2 kg	335-070-200
≤ 5 kg*	335-080-200
≤ 10 kg*	335-090-200

Carrying cases for standard weight sets

Fig. shows
313-010-600

Aluminium protected case for safe storage and transportation under harsh industrial conditions.

Plastic case for weight sets
with standard denomination classes E1 – M3, not appropriate for cast iron weights

Largest possible weight	KERN
≤ 500 g	313-052-400
≤ 5 kg	313-082-400

Aluminium protected case
for weight sets with standard denomination classes E1 – M2
*1 front handle; **2 side handles; ***no handle

For weights	For class	KERN
1 mg - 500 mg	E1 - M1	313-010-600*
1 mg - 50 g	E1 - M1	313-020-600*
1 mg - 100 g	E1 - M1	313-030-600*
1 mg - 200 g	E1 - M1	313-040-600*
1 mg - 500 g	E1 - M1	313-050-600*
1 mg - 1 kg	E1 - M1	313-060-600*
1 mg - 2 kg	E1 - M1	313-070-600**
1 mg - 5 kg	E1 - M1	313-080-600***
1 mg - 10 kg	E1 - M1	313-090-600***
1 g - 50 g	E1 - M2	314-020-600 *
1 g - 100 g	E1 - M2	314-030-600 *
1 g - 200 g	E1 - M2	314-040-600 *
1 g - 500 g	E1 - M2	314-050-600 *
1 g - 1 kg	E1 - M2	314-060-600 *
1 g - 2 kg	E1 - M2	314-070-600 *
1 g - 5 kg	E1 - M2	314-080-600 ***
1 g - 10 kg	E1 - M2	314-090-600 ***

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Test weights class M1

Weight containers for rectangular weights or other test weights, stainless steel glass bead blasted, adjusted to OIML class M1

Preconfigured weight containers for testing high-load 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 is adjusted to OIML accuracy class M1. Other OIML accuracy classes are also available, please ask.

Weight of the weight container, OIML class M1	Tol +/- g	Possible equipment, rectangular weights, OIML class M1	Maximum total weight (weight container incl. weights)	Price (weight container excluding weights) KERN
20 kg	1,0	5 × 20 kg	120 kg	346-022-005
40 kg	1,5	8 × 20 kg	200 kg	346-042-008
50 kg	2,5	10 × 20 kg	250 kg	346-052-010
50 kg	2,5	4 × 50 kg	250 kg	346-055-004
50 kg	2,5	9 × 50 kg	500 kg	346-055-009
60 kg	3,0	8 × 50 kg and 2 × 20 kg	500 kg	346-065-009

Weight of the weight container, OIML class M1	Tol +/- g	Possible equipment, test weights, OIML class M1	Maximum total weight (weight container incl. weights)	Price (weight container excluding weights) KERN
20 kg	1,0	max. 10 × 10 kg or 5 × 20 kg	120 kg	347-022-005
40 kg	2,0	max. 16 × 10 kg or 8 × 20 kg	200 kg	347-042-008
50 kg	2,5	max. 20 × 10 kg or 10 × 20 kg	250 kg	347-052-010
60 kg	3,0	max. 22 × 20 kg	500 kg	347-062-022

Individual weight containers for rectangular weights or other test weights, calibrated to OIML class M1

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 scale in one go, saving 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.

Example:

9 block weights	each 50 kg, class M1 =	450 kg
1 weight container	each 50 kg, class M1 =	50 kg
Total	=	500 kg

Weight of the weight container, OIML class M1	KERN
Individual weight container for rectangular weights	346-000-000
Individual weight container for test weights	347-000-000

Example illustration

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DAkkS Calibration Service / Verification service

The DAkkS (German accreditation body)

The DAkkS is the national accreditation body of the Federal Republic of Germany. According to Regulation (EC) No. 765/2008 and the Accreditation Body Act (AkkStelleG), the DAkkS acts in the public interest as the sole service provider for accreditation in Germany.

In order to be able to fulfil its sovereign accreditation tasks, the DAkkS was entrusted by the Federal Government. As an entrusted body, the DAkkS is subject to federal supervision.

Only an accredited calibration laboratory can issue a DAkkS calibration certificate. This defines not only the measuring method as well as the measuring result, but also gives information on tracing the test medium to national standards and the relevant uncertainty of measurement.

> **You are certified to …**
> ISO 9001, QS 9000, GLP, GMP, TS16949

> **You need …**
> to control your measuring equipment

> **Our solution …**
> DAkkS calibration certificate; (traceability, measuring uncertainty, internationally recognised)

KERN – Precision is our business

The KERN 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 DAkkS 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 or visit us on the web at **www.kern-lab.com**

DAkkS calibration

Why? DAkkS 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, GMP etc.)

What? Any checking equipment in proper condition can be DAkkS calibrated

How? Determination of accuracy throughout the world by a laboratory which is accredited to DIN EN ISO 17025. Traceability to internationally recognised standards. The DAkkS 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 e.g. DAkkS (German calibration service) in Germany

When? The operator control the use of checking equipment and periodic recalibration time intervals themselves

Range of services:

- DAkkS calibration of balances with a maximum load of up to 50.000 kg
- DAkkS calibration of weights in the range of 1 mg – 2.500 kg. Calibrations can be carried out in the following classes: E1, E2, F1, F2, M1, M2, M3
- DAkkS calibration of force gauges and force transducers
- Volume determination for weights of accuracy class E1
- Measuring of sensitivity (magnetic characteristics)
- Factory calibration in various sizes:
- Force (sensors and measuring devices), hardness (Shore, UCI, Leeb, etc.), thickness of coatings and walls, torque wrench testing devices, and much more
- Conformity assessments and recalibration of balances and weights at the KERN verification point, working closely with the verification authorities

And on top of all these services, we also offer additional services – see page 204/205.

KERN calibration laboratory

Balance & weight in the quality management system

Do you already use all the modules of the KERN precision package for maximum accuracy and reliability of your balance?

	KERN precision package			
As per ISO 9001, TS 16949, VDA 6.x, FDA, GLP, GMP, ...				
Balance +	**DAkkS calibration certificate for the balance** +	**Adjustment/Validation with KERN test weights** +	**DAkkS-calibration certificate for the test weight** =	**Maximum reliability for your measurements**
✔ +	✔ +			✔ *Balance not adjusted, traceable* ⓘ
✔ +	✔ +	✔ +		✔ *Balance adjusted, weight not traceable* ⓘ
✔ +		✔ +	✔	✔ *Balance adjusted, not traceable* ⓘ
✔ +	✔ +	✔ +	✔	✔ *Balance adjusted, completely traceable* ⓘ

Information & ordering:

kern-sohn.com/qmb

The KERN calibration laboratory (D-K-19408-01-00)

KERN has a highly-automated DAkkS laboratory with accreditation to DIN EN ISO/IEC 17025 in the field of balances, test weights and force measurement. By using the most modern calibration technology with high-end calibration robots in fully air-conditioned laboratories, the measurement uncertainty and process times are reduced to a minimum, and also the quality of the calibration is increased.

As an accredited and certified calibration service provider with decades of experience, KERN offers you an extensive range of services, which will leave no demand unfulfilled. The accreditation applies to the extent specified in the appendix to the certificate D-K-19408-01-00.

We offer the following services:

Waagen:

▸ DAkkS calibration up to 50 t

▸ Minimum sample weight (in use)

▸ Usage accuracy

▸ Adjustment at the location of installation

▸ Certificate of conformity

▸ Equipment qualification:

> Installation qualification (IQ)

> Function qualification (OQ)

> Performance qualification (PQ)

> Maintenance qualification (MQ)

▸ Verification

Weights:

▸ DAkkS calibration up to 2.5 t (OIML classes E1 – M3)

▸ Volume determination for OIML class E1

▸ Measuring of sensitivity (magnetic characteristics)

▸ Verification

Force measuring devices and force transducers:

▸ DAkkS calibration up to 5 kN

Factory calibration for:

▸ Force measuring devices and force transducers ≤ 250 kN

▸ Hardness

▸ Layer thickness

▸ Material thickness

▸ Temperature of moisture analysers

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KERN calibration service

Our commitment to satisfy our customers never stops. Perhaps this is one of the reasons why our roots can perhaps be traced so far back in history. **Discover the KERN route to success: fast - competent - reliable - versatile!**

The order process

1 You will receive a **reminder** that your test equipment is due or you will generate online a quotation for new or existing test equipment

2 Submission or collection of your test equipment

3 Initial inspection of your goods, to check that they are suitable for calibration, and are complete, etc.

4 You will get a detailed order confirmation

5 Our experts will carry out initial calibration

6 Checked for conformity with required tolerances and if required, any necessary actions which arise from this are carried out

7 Before these actions are carried out, we will contact you (in so far as no individual processing has been agreed with you beforehand)

8 After your approval the necessary actions will be implemented and the calibration will be completed

9 After that your test equipment will be returned to you without delay, together with the appropriate calibration certificates

10 We will monitor your recalibration periods and will send you a reminder about your next calibration, free of charge

Our service

▸ **Reminder service**
The continuous cyclic recalibration of your checking equipment is an integral part of the reliable management of test equipment. You can rely on us to support you, and we will remind you in time, free of charge, when the next recalibration is due. In addition, you have the option of managing your test equipment online by yourself (cf. **1**, **10**).

▸ **Quote generator**
You will be impressed by our price-to-performance ratio. Request a non-binding quotation or create it yourself to suit your specifications at www.kern-lab.com (cf. **1**)

▸ **Collection service**
We will be pleased to arrange a pick up by our forwarding agent the goods from your premises. You only need to tell us the weight and dimensions of your package and leave the rest to us (cf. **2**)

▸ **Repair and reconditioning of balances and weights**
KERN will get your weights back up to standard, regardless of the manufacturer. Whether it is adjustment, marking, sand blasting or lacquering - the aim here is compliance and long-term stability. Any repairs of balances and instruments which may be necessary can be carried out quickly and easily (cf. **5**, **6**)

▸ **Individual processing**
In order to avoid delays with future orders, we would be pleased to incorporate your individual requirements for future processing of such calibration results. Even for smaller issues such as the printing of calibration certificates (stapling, punching, double-sided) we can work to your requirements (cf. **8**).

▸ **Express service and dispatch**
If you need a particularly fast service, you can use your DAkkS express service. You will receive your test equipment after only 2 days (cf. **9**).

www.kern-lab.com – the central portal for everything you need to know about the extensive KERN calibration services

On our website you will always find the latest news and useful information about testing and measuring devices, calibration, legal metrology and expansions to our range of services. You will also find numerous online services on the website.

Database supported management of test equipment

Information on your test equipment which has been calibrated by us is stored in our database. In this way it is possible to make trend calculations. You will therefore get an overview about the long-term stability and trend behaviour of your test equipment as well as the necessary recalibration period can easily be determined and specified.

Paperless documentation

So there is no administrative effort, we can handle all calibration documentation in a paperless process. From quotation, through to order confirmation, delivery note and invoice right up to calibration certificate, you will receive all documents by e-mail or you can retrieve them online. Would you prefer to receive your certificate or your invoice in paper form, for example? Of course this is not a problem either. We will send you everything you require by post.

Calibration certificate download

By using our download service you can easily download your calibration certificates as soon as the calibration work is complete and you will have access to them at any time in the future. Simply create your user account on www.kern-lab.com and you will never have to look for your certificates again.

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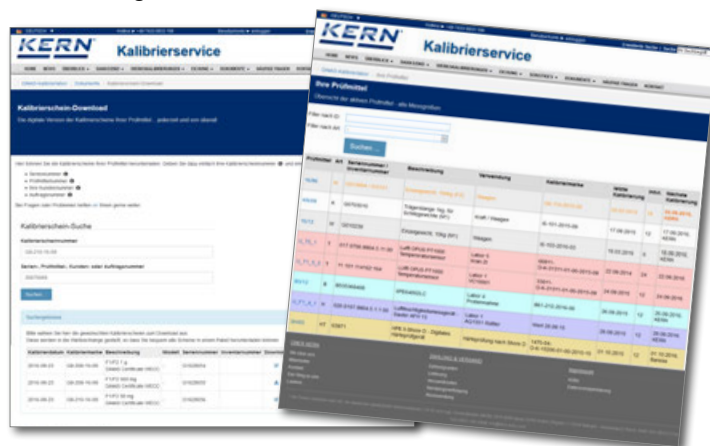
DAkkS Calibration of balances

Any balance will only give correct results if it is checked regularly, i.e. calibrated correctly and adjusted when required. A balance is only a reliable measuring and checking tool if it is calibrated and this calibration is documented. The issued DAkkS calibration certificates are proof of the metrological traceability to national and international standards, as required by the DIN EN ISO 9000 and DIN EN ISO/IEC 17025 standards, amongst others. KERN recommends a recalibration period of one year. The standard does not give a defined recalibration period. KERN recommends that, with intensive (daily) use, you to recalibrate your balance every 6 months and at normal (weekly) use, every 12 months.

THE ADVANTAGES OF USING THE KERN ON-SITE CALIBRATION:

+ **Calibration on-site** at your premises in the field of use

+ **No risk of damage** during transportation

+ **Low downtime**

+ **Cross-brand servicing**, basic inspection and adjustment by a specialist

+ You tell us **when you would like us to come**

+ **Device training** for qualified users

THE ADVANTAGES OF USING THE KERN IN-HOUSE CALIBRATION:

+ **Short calibration time:** Test time in the laboratory is only four working days

+ **Competence:** Calibration laboratory, which complies with the highest standards in the area of metrology

+ **Independent management** of the recalibration calendar for your individual measuring instrument is possible

+ **Cross-brand service:** Measuring devices from any manufacturer can be calibrated independently

+ **Repair:** Any necessary repairs can be carried out immediately, if you wish

a) KERN on-site calibration (we visit you)

In Germany, KERN has a close-knit network of KERN DAkkS calibration laboratory employees, who can carry out on-site calibration of balances up to 50 tonnes.

This on-site testing service is metrologically recommended, as your balance is in its field of use and can be calibrated without any possible transportation problems.

Lower downtime and personal contact with our expert are the major benefits of this service.

Preparatory maintenance work by agreement. Prices for on-site calibration on request.

You tell us when you would like us to come, giving us details of the balances to be tested. Our on-site DAkkS calibration team will then get in touch with you immediately and will discuss the process with you at your premises – it's straight forward and professional.

This KERN calibration service is also independent of the brand.

b) Calibration at the KERN factory (you send your balance to us)

Recommended for new devices and for balances which can be affordably transported, as then there is no need for us to travel to carry out the calibration on-site. Repairs can be carried out at the same time, quickly and in full.

The process would be as follows:

Day 1:   Send your balance to the KERN calibration laboratory in Balingen.

Day 2 to 3: Evaluation and calibration of your balance by our specialists.

Day 4:   After positive validation, your balance is returned.

Please feel free to contact us at Phone +49 7433 9933-400 or E-Mail: recalibration-balances@kern-sohn.com

Please feel free to contact us at Phone +49 7433 9933-400 or E-Mail: testservices-onsite@kern-sohn.com

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Calibration service for balances (DAkkS calibration)

DAkkS calibration certificate for balances (extract)

To get reliable weighing results you need to have calibrated balances. KERN offers you an extensive calibration service for your balances – you have the choice:

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 balances every 6 months if they are used intensively, and every 12 months with normal use.
- The KERN calibration service is independent of the brand.
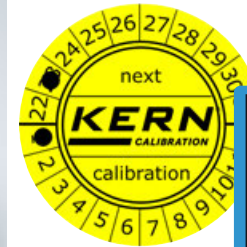
Initial calibration and recalibration of balance at the KERN factory	KERN	
Weighing capacity		
Analytical balances		
[Max] ≤ 5 kg	963–101	
[Max] > 5 kg	963–102	
Precision balances/Industrial scales		
[Max] ≤ 5 kg	963–127	
[Max] > 5 kg – 50 kg	963–128	
[Max] > 50 kg – 350 kg	963–129	
[Max] > 350 kg – 1500 kg	963–130	
[Max] > 1500 kg – 2900 kg[1]	963–131	
[Max] > 2900 kg – 6000 kg[1]	963–132	
[Max] > 6000 kg – 12000 kg[1]	963–133	
Hanging scales/Crane scales		
[Max] ≤ 5 kg	963–127H	
[Max] > 5 kg – 50 kg	963–128H	
[Max] > 50 kg – 350 kg	963–129H	
[Max] > 350 kg – 1500 kg	963–130H	
[Max] > 1500 kg – 2900 kg	963–131H	
[Max] > 2900 kg – 6000 kg	963–132H	
[Max] > 6000 kg – 12000 kg[3]	963–133H	
Preparation for recalibration (cleaning, adjustment, function test)	969–003R	
Additional services		
Minimum weight of sample (for details see p. 206)	969–103	
Additional measurement points (as part of the) weighing test	963–140	
Additional measurement points (as part of the) repeatability testing	963–140	
DAkkS Express service with delivery time 48 hours (only on initial purchase, details see p. 210)	962–116	
Express shipping: Express supplement for guaranteed delivery on the next working day (if ready for shipment before 12:00 noon)	962–115 in GER only *(other countries on request)*	

[1] Floor scales & axle load scales only (Price per weighing panel). Please ask for further details.
[2] On request
[3] Processing time 4 working days
[4] Processing time 15 working days

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1 Official document
2 Item to be calibrated
3 Traceability, see page 217
4 Identification/Applicant
5 Metrological component
6 Uncertainty of measurement, see page 217
7 Application accuracy, see page 215
8 Minimum weight of sample (additional price)

Minimum weight of sample (in use)

What is the lightest item you can weigh on your balance, while still achieving accurate and reliable weighing results? What exactly is the limit?
The KERN minimum sample weight protocol accounts for the established minimum sample weight of your balance and its location of installation and use with the relative measuring uncertainty. With various safety coefficients and required weighing accuracy (process accuracy), depending on standard or quality-related requirements on the balance being used.

The higher the selected safety coefficient, the higher the safety when using the balance in a particular process. Typical perturbations when using the balance e.g. small fluctuations in temperature are taken into account. In easily predictable conditions in a professional environment of use, KERN recommends a safety coefficient of 3. For critical processes, a correspondingly higher factor should be selected. The minimum sample weight protocol contains a diagram as well as a table, from which you can ascertain the minimum sample weight for your balance, depending on the process.

Adjustment at the location of installation

Why?

Adjustment at the location of installation is necessary, as the measuring results of balances depend on the local gravitational force (gravitational acceleration) and therefore depend on the location of use. KERN can carry this out just before shipping at the factor, individually to suit the location of installation.

What are the advantages of carrying out adjustment at the location of installation?

· The balance gives reliable measurement results at the location of installation.
· No time-consuming on-site adjustment necessary.
· You do not need a Service Engineer or any additional weights.
· The balance is ready for immediate use.

Pricing table for adjustment at the location of installation

Weighing capacity	KERN	
[Max] ≤ 5 kg	961-247	
[Max] > 5 – 50 kg	961-248	
[Max] > 50 – 350 kg	961-249	
[Max] > 350 – 1500 kg	961-250	
[Max] > 1500 – 2900 kg	961-251	
[Max] > 2900 – 6000 kg	961-252	
[Max] > 6000 – 12000 kg	961-253	

For adjustment to the location of installation you need the value for gravitational acceleration at the location of installation, which KERN can calculate using the point of use. The procedure is suitable for balances with a resolution of <60,000 d. For higher resolutions we recommend a balance with an internal adjusting weight or adjustment with a calibrated adjusting weight at the location of installation.

Certificate of conformity

With a certificate of conformity you get a statement about whether the balance meets your defined requirements.
In conjunction with a DAkkS calibration certificate it serves as documented proof that the balance fulfils the required process demands. When doing this the process owner for the balance can select from different temperature specifications – depending on its individual requirements:

Conformity evaluation on the basis of the:	KERN	
Usage accuracy*	relative absolute	969-511 969-512
Calibration results*	relative absolute	969-513 969-514
Measurements as manufacturer or customer specification	Foreign device Customer specifications KERN devices	969-515 969-516 969-517

relative = % / absolute = g   *as attachment to the DAkkS calibration certificate (Details see www.kern-lab.com)

Example for absolute customer tolerance (absolute)
(Item no. 969-511):

No.	Tare	Load	Display	Deviation	Uncertainty	Customer tolerance	Conformity[1]
1	0 g	500 g	500,00 g	0,00 g	± 0,013 g	± 0,05 g	☑
2	0 g	1000 g	1000,00 g	0,00 g	± 0,015 g	± 0,05 g	☑
3	0 g	1500 g	1500,01 g	0,01 g	± 0,017 g	± 0,05 g	☑
4	0 g	2000 g	2000,01 g	0,01 g	± 0,020 g	± 0,10 g	☑
5	0 g	3000 g	3000,02 g	0,02 g	± 0,022 g	± 0,10 g	☑

1) Evaluation criteria: |[Deviation]| + [extended measuring uncertainty] ≤ [tolerance]

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Documented quality of your balances in the log book

Consistently high product quality requires the use of measuring and test equipment that provides comprehensible, consistent and reproducible results. Hence, quality management systems require that measuring and test equipment produces a detailed traceable description and documentation of calibration results and conformity statements. Work not documented is work not done.

Equipment qualification is documentary evidence that a equipment is suitable for the intended purpose and is working faultlessly. A balance log book is used to record all activities and results required for the qualification and monitoring of balances during routine operation. This includes the installation and commissioning of the balances, routine tests, maintenance as well as the recording of special events (failures, repairs, change of location).

The structure of the balance log book is based on the qualification process of the balance. The requirements for the qualification system such as DIN EN ISO 9001, DIN EN ISO/IEC 17025, GLP/GMP, VDA must be taken into account. The log book supports the user in his/her daily work with the balance and is meant to serve as necessary evidence during inspections and audits. The responsibility for maintaining the log book and its appropriate use is to be borne by the user.

Our proposal: Count on our support!

KERN offers this qualification concept throughout. Our validation services are carried out on the spot by technicians of our calibration laboratory and comprise among other things: installation, measurement test inclusive DAkks calibration certificate as well as records in your qualification log book.

We give you advice already when selecting a new device, for example KERN ADB/ADJ, ALS/ALJ, ABS/ABJ, ACJ, ABT, ABP, PLS/PLJ, PNS/PNJ, EG-N, PBS/PBJ, PES/PEJ, about the options of device qualification, as required and will be happy to set up an appointment for qualification at the place of installation. We offer individual calibration and maintenance agreements for the periodically required requalification.

Further information can be found at www.kern-lab.com

Installation qualification (IQ)

All steps to be taken for the installation and commissioning of the equipment are described in detail in the installation qualification. These include among others:

· checking for completeness of delivery and assurance that the delivered equipment meets the required specifications
· a description of the ambient conditions at the place of installation
· proper installation and assurance that the equipment is ready for operation after installation
· documentation of equipment configuration and equipment settings
· Recording and installation of connected peripherals units

Function qualification (OQ)

The operational qualification describes the metrological test performed for the balance at the place of installation. In the course of this all parameters that define the efficiency of a measurement will be checked. Functional qualification is carried out with the help of a standard operating procedure (SOP) and recorded in a calibration certificate. The OQ must be carried out by trained staff with the help of qualified aids (such as certified weights that are traceable to an approved standard). Briefing / training of users must be assured and recorded in the OQ.

Performance qualification (PQ)

The PQ represents documented evidence that the balance or weighing system functions in the selected application as intended. This will be assured by a qualification test of the equipment under real conditions with respect to its surroundings and the problem definition (such as traceable data transmission). If the balance or weighing system is "merely" to be used for weighing it will not be necessary to carry out a PQ as the ability to function has already been proven during the metrological test (OQ).

Maintenance qualification (MQ)

The periodical maintenance, cleaning work and complete metrological test of the balance/weighing system is documented in the MQ by a trained authorised engineer. The results are documented on a DAkkS calibration certificate. Maintenance is carried out with the help of a maintenance schedule.

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If you are interested in a training for equipment qualification, please feel free to contact us
at **+49 7433 9933-400**
or **testservices-onsite@kern-sohn.com**

Calibration service for test weights (DAkkS calibration)

DAkkS calibration certificate for test weights (extract).
For more details on our calibration service and other useful information, please see the internet at www.kern-lab.com

[1] Official document
[2] Item to be calibrated
[3] Traceability, see page 217
[4] Identification/Applicant
[5] Environmental conditions
[6] Metrological component
[7] Conventional mass
[8] Uncertainty of measurement, see page 216

Traceable KERN test weights –

Calibration of test weights

Calibrated measuring equipment requires calibrated checking equipment. For balances, these are calibrated test weights, also called "standard weights".

KERN will calibrate your test weights

- In all classes with permissible error limits E1–M3 according to OIML R111:2004 (for tolerance tables, see page 180), in sizes 1 mg to 2500 kg.
- With free nominal value
- Newton (N)
- Independent of design (special designs)

The advantages of using the KERN in-house calibration

You send your test weights to us.
- Excellent price performance ratio
- The quickest processing time
  - DAkkS standard service: 4 working days
  - DAkkS express service: 48 hrs (new weights)
- The most modern calibration methods with robot controlled comparators allow the most accurate calibration results and fastest throughput time
- KERN DAkkS 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, we can also provide a pick-up and collection service with our parcel service

The advantages of using the KERN on-site calibration

We visit you.
We would be pleased to visit you within Germany and carry out the calibration of your reference standards to OIML classes M1–M3, 10 kg–2500 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 six months if they are used intensively, and every 12 months with normal use
- We would be pleased to monitor your recalibration schedule

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Recalibration price of test weights (DAkkS calibration)

Class acc. →	E1 with volume determination		E1 without volume determination		E2		F1/F2 * F2 only		M1/M2/M3	
Nominal value ↓	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	
1000 kg	–		–		–		–		962-694R	
2000 kg	–		–		–		–		962-695R	
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	963-222		962-222R		962-322R		962-422R		962-622R	

Additional costs for preparation, overhaul and adjustment before the calibration	KERN	
Preparation of weights (e.g. cleaning, etc.)		
Single weight	969-001R	
Weight set	969-002R	
Subsequent services are carried out after confirmation		
Continued overhaul of weights (e.g. wet-cleaning, markings, repair, special packaging, adjustment E1 (DAkkS only), E2 ...)	969-005R	
Adjustment, per weight only available for weights with adjustment chamber (F1–M3)	969-010R	
Second calibration after adjustment or substitution, per weight		
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	961-115(R)	
Calibration of NON-OIML test weights, additional price per weight	–	

KERN DAkkS Express Service

KERN DAkkS Express Service	
DAkkS standard service Class E2–M3	4 working days
DAkkS standard service Class E1, 1 mg–500 mg, and recalibration 1 g–10 kg with a known volume	10 working days
Class E1, ≥ 1 g, incl. volume determination (new weights)	15 working days

DAkkS 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 within two working days, at 12:00 noon
· Return by standard parcel service or express shipping (Costs and processing time on request)
· Additional cost for DAkkS Express Service, for each KERN test weight KERN KERN 962-115
· For Express shipping, see page 206

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Verification prices for test weights and (crane) scales

Class acc. → OIML R111:2004 Nominal value ↓	E2 with verification certificate KERN		F1 with verification certificate KERN		M1 with verification certificate 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	–		952-446		952-646	
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	952-320		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 time	
Standard verification service Class E2 – M1	6 working days

Additional costs for preparation, overhaul and adjustment before the verification	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 ...)	969-005R	
Adjustment, per weight only available for weights with adjustment chamber (F1/F2 – M1)	969-010R	
Verification after adjustment or substitution, per weight		
Class E2	969-310R	
Class F1/F2	969-410R	
Class M1	969-610R	

Verification prices for balances	Reverification KERN	
Accuracy class I (precision balances) [1]		
[Max] ≤ 5 kg [1]	950-101R	
[Max] > 5 kg [1]	950-102R	
Accuracy class II (precision balances) [1]		
[Max] ≤ 5 kg [1]	950-116R	
[Max] > 5 kg – 50 kg [1]	950-117R	
[Max] > 50 kg – 350 kg [1]	950-118R	
Accuracy class III-IV [1]		
Bench scales and industrial scales (excl. crane scales)		
[Max] ≤ 5 kg [1]	950-127R	
[Max] > 5 kg – 50 kg [1]	950-128R	
[Max] > 50 kg – 350 kg [1]	950-129R	
[Max] > 350 kg – 1500 kg [1]	950-130R	
[Max] > 1500 kg – 2900 kg [1]	950-131R	
[Max] > 2900 kg – 6000 kg [1]	950-132R	
Crane scales		
[Max] > 50 kg – 350 kg [1]	950-129HR	
[Max] > 350 kg – 1500 kg [1]	950-130HR	
[Max] > 1500 kg – 2900 kg [1]	950-131HR	
[Max] > 2900 kg – 6000 kg [1]	950-132HR	
[Max] > 6000 kg – 12000 kg [1]	950-133HR	

[1] Processing time 4 working days, [2] Processing time 15 working days, [1] [2] Preparation of reverification of balances, 969-006R

The force gauge

Accredited calibration with DAkkS calibration certificate for force gauges

The KERN calibration laboratory is at your side when you need to calibrate according to DAkkS.

From the transducer to the full measuring chain, we are happy to take care of traceable calibration of your test equipment for you. Our accreditation includes the calibration of tensile and pressure force up to 5 kN according to the standards DIN EN ISO 376 and DKD-R 3-3, each with the Newton (N) display unit for a complete measuring chain (situation A) or voltage ratio/transmission coefficient (mV/V, situation B).

Below you will find a comparison of which standard meets which criteria:

Comparison of DIN EN ISO 376 and DKD-R 3-3		
	ISO 376	**DKD-R 3-3**
Standardization	ISO standard (internationally standardized)	Standard of the DKD (Germany)
Measuring equipment	Force transducers and complete measuring chains	Force transducers and complete measuring chains
Area of application	Specifically force gauges for the testing of testing equipment	General force gauges
Number of power stages	8	5
Classification/Assessment	Classification in classes 00; 0,5; 1 and 2	None in standard
Test sequences	Fixed procedure	Sequences A, B, C, D possible Standard is sequence A B, C and D are reduced sequences, relevant previous knowledge is necessary
Summary	Higher-quality calibration, as 8 force levels are calibrated	High-quality calibration, reduced sequences with less effort possible

We can offer you a calibration solution for the following situations:
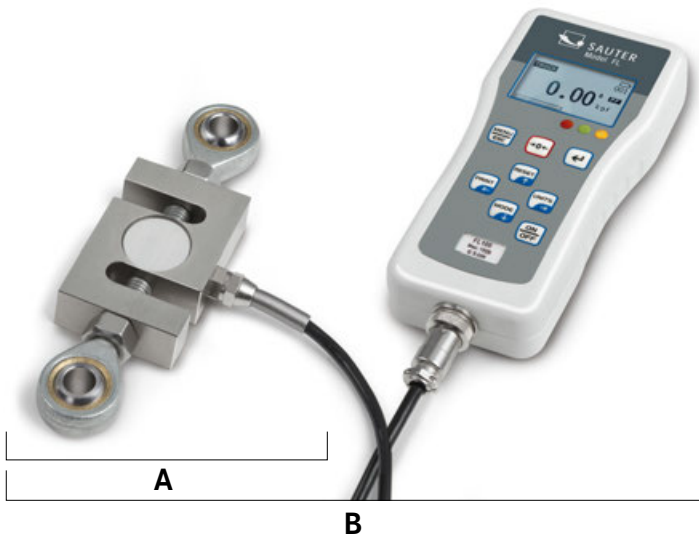
Situation A:

Separate force transducer,
display unit mV/V

Situation B:

Complete force gauge (N),
consisting of transducer,
amplifier and display,
display unit N

▶ See also tables, right side

You can find further information on this topic at: **www.kern-lab.com**

DAkkS Calibration certificate for force-measuring devices
(extract).

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Prices for DAkkS calibration of force gauges and force transducers

Situation A: Force transducer (voltage ratio, in mV/V)[1,2]					
ISO 376 (8 stages)			DKD-R 3-3 (5 stages, sequence A)		
KERN	Measuring range		KERN	Measuring range	
Tensile force:					
963-161IV (R)	≤ 500 N		963-161V (R)	≤ 500 N	
963-162IV (R)	≤ 2 kN		963-162V (R)	≤ 2 kN	
963-163IV (R)	≤ 5 kN		963-163V (R)	≤ 5 kN	
Compression force:					
963-261IV (R)	≤ 500 N		963-261V (R)	≤ 500 N	
963-262IV (R)	≤ 2 kN		963-262V (R)	≤ 2 kN	
963-263IV (R)	≤ 5 kN		963-263V (R)	≤ 5 kN	
Tensile and Compression force:					
963-361IV (R)	≤ 500 N		963-361V (R)	≤ 500 N	
963-362IV (R)	≤ 2 kN		963-362V (R)	≤ 2 kN	
963-363IV (R)	≤ 5 kN		963-363V (R)	≤ 5 kN	

Situation B: Complete force gauge (in N)[2]					
ISO 376 (8 stages)			DKD-R 3-3 (5 stages, sequence A)		
KERN	Measuring range		KERN	Measuring range	
Tensile force:					
963-161I (R)	≤ 500 N		963-161 (R)	≤ 500 N	
963-162I (R)	≤ 2 kN		963-162 (R)	≤ 2 kN	
963-163I (R)	≤ 5 kN		963-163 (R)	≤ 5 kN	
Compression force:					
963-261I (R)	≤ 500 N		963-261 (R)	≤ 500 N	
963-262I (R)	≤ 2 kN		963-262 (R)	≤ 2 kN	
963-263I (R)	≤ 5 kN		963-263 (R)	≤ 5 kN	
Tensile and Compression force:					
963-361I (R)	≤ 500 N		963-361 (R)	≤ 500 N	
963-362I (R)	≤ 2 kN		963-362 (R)	≤ 2 kN	
963-363I (R)	≤ 5 kN		963-363 (R)	≤ 5 kN	

Factory calibration for force

Situation A: Force transducer (voltage ratio, in mV/V)[1,2]			Situation B: Complete force gauge (in N)[2]		
KERN	Measuring range		KERN	Measuring range	
Tensile force:					
961-161V (R)	≤ 500 N		961-161 (R)	≤ 500 N	
961-162V (R)	≤ 2 kN		961-162 (R)	≤ 2 kN	
961-163V (R)	≤ 5 kN		961-163 (R)	≤ 5 kN	
961-164V (R)	≤ 20 kN		961-164 (R)	≤ 20 kN	
961-165V (R)	≤ 50 kN		961-165 (R)	≤ 50 kN	
961-166V (R)	≤ 250 kN		961-166 (R)	≤ 120 kN	
Compression force:					
961-261V (R)	≤ 500 N		961-261 (R)	≤ 500 N	
961-262V (R)	≤ 2 kN		961-262 (R)	≤ 2 kN	
961-263V (R)	≤ 5 kN		961-263 (R)	≤ 5 kN	
961-264V (R)	≤ 20 kN		961-264 (R)	≤ 20 kN	
961-265V (R)	≤ 50 kN		961-265 (R)	≤ 50 kN	
961-266V (R)	≤ 250 kN		961-266 (R)	≤ 120 kN	
Tensile and Compression force:					
961-361V (R)	≤ 500 N		961-361 (R)	≤ 500 N	
961-362V (R)	≤ 2 kN		961-362 (R)	≤ 2 kN	
961-363V (R)	≤ 5 kN		961-363 (R)	≤ 5 kN	
961-364V (R)	≤ 20 kN		961-364 (R)	≤ 20 kN	
961-365V (R)	≤ 50 kN		961-365 (R)	≤ 50 kN	
961-366V (R)	≤ 250 kN		961-366 (R)	≤ 120 kN	

(R): Recalibration

For each force gauge without interface or from other manufacturers we charge a surcharge

[1] Compatibility with our amplifiers required

[2] Installation in our measuring equipment required

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Works calibration of further measuring devices

Factory calibration certificates

As DAkkS calibration certificates cannot be offered for all measuring devices or measurement sizes, or where it is not customary, we then offer factory calibration certificates. These calibration certificates meet international standards and are particularly suitable as proof of exacting calibration in the monitoring of your checking equipment, for example:

· Mechanical balances (spring balances, etc.)

· Force-measuring devices up to 250 kN (see also page 213)

· Measuring devices for layer thickness 0 µm – 2000 µm

· Hardness testing devices in accordance with Leeb tests

· Ultrasonic material thickness testing device 25 mm - 300 mm

We carry out calibrations independent of brand. In order to avoid any unnecessary delays when processing your order, please send us the technical documents and necessary accessories with the checking device. Calibration time 4 working days.

For up-to-date information on test services for further measuring variables please see p. 213 or visit our website www.kern-lab.com

Factory calibration certificate for torque wrench test devices
(extract from the factory calibration certificate)
Further details on the internet at www.kern-lab.com

KERN	Measuring device	Measuring range	
Factory calibration			
961-110	Coating thickness	≤ 2000 µm F or N	
961-112	Coating thickness	≤ 2000 µm FN	
961-113	Wall thickness (ultra sound)	≤ 300 mm (in stainless steel)	
961-114	Wall thickness (Test blocks)	≤ 300 mm	
961-170	Hardness comparison plate (Shore)	For sets up to 7 plates	
961-131	Hardness tester (Leeb)	400 – 800 HLD	
961-132	Hardness comparison plate (Leeb)	Hardness comparison plate (for Leeb durometer)	
961-270	Hardness (UCI)	200 - 800 HV	
961-150	Length	≤ 300 mm	
961-190	Light	≤ 200000 lx	
961-100	Mechanical balances/ spring balances	≤ 5 kg	
961-101	Mechanical balances/ spring balances	> 5 – 50 kg	
961-102	Mechanical balances/ spring balances	> 50 – 350 kg	
961-103	Mechanical balances/ spring balances	> 350 – 1500 kg	
961-102K	Digital dynamometer KERN MAP	≤ 130 kg	
961-120 (R)	Torque wrench test devices	1 Nm - 200 Nm	
Additional services			
962-116	Express service with 48 hour delivery		

(R): Recalibration
For each force gauge without interface or from other manufacturers we charge a surcharge

Glossary

A

Accuracy classes for test weights

E, F, M ▸ *Error limit classes*

Adjusting of measurement equipment

Precise setting of a measurement value via a professional intervention in the measurement system.

Adjusting the weighing range of a balance

`CAL INT` `CAL EXT`

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.**

Alibi memory

For weighings where verification is mandatory, and which are to be analysed and processed by a PC (e.g. printing out a packing list using a PC instead of a printer connected directly to the balance) electronic archiving is required by the metrological authorities by a verifiable data memory which cannot be manipulated. Alibi memories from KERN fulfil this requirement. They are for paperless archiving of weighing results. For KERN products the alibi memory is fitted inside the balance, right between where the weight is determined and the output to the PC.

All data transferred to the PC is stored with date, time and all important weights for at least three months. These stored data strings can be displayed on the balance at any time. The data in the alibi memory can be deleted, but not changed.

Application accuracy

Allowance for measuring uncertainty during practical use of a balance. Is given in the appendix to the DKD calibration certificate.

ATEX

Derived from **AT**mosphère **EX**plosibles. (explosive atmosphere). A synonym for EU guidelines, which controls the quality and use of equipment in hazardous industrial environments, where there is explosion danger, e.g. by handling of flammable substances, which are present in high concentrations in the form of gas, mist, vapour or dust. See also 2014/34/EU as well as 1999/92/EU.

B

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.

C

CAL

Adjusting the balance is triggered with an external test weight by using the CAL key on the key pad or on the touch display of the display device or the CAL menu option. This will guarantee the consistent high accuracy of the balance.

Calibration of measurement equipment

Determination of the precision of a measurement 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 Certificate DKD/DAkkS

`DAkkS`

See product group 18 "Calibration service"

Calibration or verification

`DAkkS` `M`

DAkkS-Calibration is possible for every balance in perfect condition. DAkkS calibration (DKD) 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. **Verifying (conformity assessment)** is only possible for type-approved balances marked with the green **M** ▸ *Verification*

Commercial error limit

Permitted tolerance (plus and minus) of measuring devices where verification is mandatory when used within their verification validity period. This tolerance is double the permissible error limit, in so far as this is not specified otherwise in the Weights and Measures Act).

Conformity assessment

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 9001 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 to have a measurement equipment which is working accurately. Chapter 7.1.5 "Resources for monitoring and measuring" of DIN EN ISO 9001:2015-11 states that measuring equipment must be calibrated at defined intervals and before use. The measurement devices and measurement standards needed to do this must:

- be traced back to international or national standards.
  (▸ *Traceability to the National Standard*)
- their uncertainty of measurement must be known- they must be marked with a clear identification
- the test must be documented

The ▸ *DAkkS calibration (DKD)* fulfils all these requirements.

Conventional mass of weights

The problem is the air movement, which makes the weight appear lighter. In order to avoid this "distortion" in daily use, all weights are adjusted to the unit specifications given in R111, e.g. it is accepted that: material density of the weights is 8000 kg/m^3, air density is 1.2 kg/m^3 and measuring temperature is 20°C.

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.

D

DAkkS = German accreditation authority

▸ *Calibration Certificate DKD/DAkkS*
See product group 18 "Calibration service"

Data interface

`RS 232`

To connect the balance to a printer, PC, network or a second balance. Typical interfaces are, for example, RS-232, RS-485, USB, Bluetooth, LAN, Digital I/O, DUAL, LAN etc. The interface parameters can be set using the balance. The interfaces available are stated in the model description.

Density determination

One of the main areas of application for laboratory balances is determining densities, e.g. determining the specific weight of liquids and solids. To do this you will need a highly accurate precision or analytical balance and a density set. It is particularly convenient if the balance can calculate and display the density right away.

It has become apparent that by means of weigting when in the process of determining the density of liquids and solids according to the buoyancy method particularly accurate results can be obtained (Archimedes' principle).

a) Density determination of liquids: By means of measuring the buoyancy with a glass plummet with known volume immersed in the liquid to be measured

b) Density determination of solid bodies:

$$\rho = \frac{A}{A-B} \cdot \rho_0$$

ρ = Density of sample
A = Weight of sample in air
B = Weight of sample in auxiliary liquid
ρ_0 = Density of the auxiliary liquid

For a more detailed version of the glossary, please refer to the website.

Glossary 215

Glossary

Applications:
a) Pre-packaged goods control, whenever a product is sold according to its volume [cm³]. This volume is calculated with weight [g] : density [g/cm³].
b) Materials analysis

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].

E

Error limit classes for test weights according to EU directive OIML R111

For further details, see product group 17 "Test weights"

F

FACTORY

These options can only be carried out at 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 equalising. The measured value is calculated via the change in the coil current.

G

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*.

H

HACCP

= Hazard Analysis and Critical Control Points (HACCP) The HACCP concept is a preventative system, which is designed to guarantee the safety of foodstuffs EC regulation 852/2004 mandates the use of the HACCP concept for all companies which are involved in production, processing and sales of foodstuffs.

I

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 measurement devices for accuracy in accordance with a procedure which is recognised, but not accredited.

ISO/GLP record keeping

Quality Assurance Systems demands record keeping of weighing results and correct adjusting of the balance, giving details of date, time and balance identification. The easiest way to obtain this documentation is by means of a connected printer.

J

Junction Box

For connection and simple corner adjustment of several load cells.

K

KCP

KCP is an universal communication protocol between laboratory balances, industrial scales or other measuring instruments and digital devices, such as a computer, server or process management system. Due to the universal protocol structure, one measuring instrument can be replaced by another without adapting the communication interface.

L

Linearity/Precision

Greatest deviation of the weight displayed of a balance with regard to the value of the respective test weight in terms of plus and minus across the whole weighing range.

M

Minimum load [Min]

Lower limit of the verifiable weighing range. Is marked on the verification mark. The function of the balance is also given below the minimum load.

Minimum sample weight

Indicates the smallest weight which can be determined, depending on the process accuracy required.

N

Newton

Newton (N) is the unit for physical force values. A Newton is the force required to accelerate a 1 kg mass at rest to a speed of 1 m/s within one second.

Notified body

Neutral and independent, predominantly government bodies, which are formally appointed by the EC. They are engaged in the field of verification for conformity evaluations (initial verification) and type-approval test within the scope of type approvals.

O

Optimisation of reference weight (when piece counting)

See product group 9 "Counting balances/ Counting systems".

P

Percentage determination

Example: Reference weight prior to drying: 50g = balance display 100%. After drying 40g = balance display 80% absolute (dry mass) or 20% relative (humidity).

Permissible ambient temperature

Measuring errors are possible if you use the balances outside the permitted specified ambient temperature range. With verified balances this is stated on the identification plate.

PLU (Price Look Up)

This refers to a data memory in price-computing retail scales for the base price of sales items.

Pre-packaging legislation (FPVO)

Ensures that pre-packed goods are filled correctly, for example, in food industry. The Weights and Measures Act governs the permissible weight and volume tolerances.

PRE-TARE

Entering and saving a tare weight (e.g. container weight) through weighing or manual entry using the balance keypad before the actual weighing process. When you subsequently place the tare container on the balance, the balance will show zero immediately – saves time. Particularly useful e.g. for checking fill levels

Proof of compatibility

This documents the verification compatibility for combinations of weighing modules such as display devices, load cells and connecting elements.

R

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 control accuracy, ▶ *Control of measurement equipment*

Reference weight (when piece counting)

See product group 9 "Counting balances/Counting systems".

Reproducibility (standard deviation)

Sequenced measure of conformity in repeated weighing (e.g. balances) subject to the same conditions. Mostly 1 [d] or less. Quality feature.

Resolution of a balance

The resolution is calculated from the weighing range [Max] divided by the readout [d], e. g. [Max] 420 g : [d] 0.001 g = 420,000 points. The resolution is a quality feature – the higher, the better.

S

SC-TECH = Single-Cell-Technology

▶ *FORCE*. The load cell consists of a single aluminium block, which gives a very high measurement 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.

T

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.

Taring, automatic

▶ *PRE-TARE*

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 6000g, Tare (= container) 470g, available weighing range 5530g.

Test weight, external (previously calibration weight)

For adjusting or checking the balance accuracy ▶ *Adjusting the weighing range*. The external test weight can be DAkkS calibrated at any time, even afterwards, see product group 18 "Calibration Service".

Test weight, internal

Like test weight external, but installed in the balance and powered.

Totalising

Various individual weighings are added automatically to aggregate, e.g. all individual weighings of a batch.

Traceability to the National Standard

A pre-requisite for every perfect measurement is the validated comprehensive proof that the measuring equipment can be traced back to the international or national standards. In Germany the statutory binding standards are available from the PTB.

Type approval for balances

Strict process to test whether a balance fulfils the verification requirements. A balance can only be verified, if it has got a type approval from a ▶ *notified body.*

U

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. Uncertainty of measurement increases by a rising charge of the balance, see product group 18 "Calibration Service"

V

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 metrology marking **M**. The state requires assessment for conformity and this assessment serves as consumer protection. According to EU directive 2014/31/EEC balances must be officially assessed for conformity (calibrated) if they are used as follows:
a) in commercial trade when the price of a commodity is determined by weighing.
b) in the manufacture of pharmaceuticals in pharmacies and analysis in pharmaceutical and medical laboratories.
c) for official purposes.
d) in the production of prepackaging.
e) in medical applications.

Every balance is tested by KERN and marked with a conformity mark. Its accuracy within the framework of permissible tolerances is thereby confirmed. EU verification applies to all member states of the EU.

Verification classes of balances

Class I – Analytical balance (precision balance), Class II – precision balance, Class III – industrial scale (commercial scale).

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*
To be able to correctly adjust the balance to your location of use, it is necessary to advise the location of use and postcode. 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 verification, therefore it is not sealed. In this case, verification does not depend on the location.

Verification validity for balances

Generally 2 years for all verification classes, for control balances generally 1 year, after expiry the balance has to be re-verified.

Verification value [e]

Measure of the verification tolerance, depending on balance, mostly between 1 [d] and 10 [d] ▶ *Readout*

W

Weighing range [Max]

is the working range of the balance. The balance can be loaded up to the specified upper limit.

For a more detailed version of the glossary, please refer to the website.

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Sales conditions

All prices are valid as of January 1st 2022 until a new version of the KERN catalogue is released. In Europe, all prices do not include the applicable V.A.T.

At KERN there is no minimum order value. For orders less than € 15.00 there is no re-sale discount available.

Delivery Conditions: we supply ex works Balingen, e.g. the transport costs are invoiced. With our contract logistics partners we always offer you shipping at a good rate. When shipping to islands or other more distant areas, or areas which are difficult to access, the transport costs may possibly be higher, please ask for details. Any goods supplied remain KERN's property until complete payment for the goods sold has been received.

Delivery is usually via courier service.

When you see this symbol by truck, please ask for prices.

Extract from general terms and conditions: Court of jurisdiction/Legal domicile: 72336 Balingen, Germany; Commercial register N°: HRB 400865, AG Stuttgart; Managing director: Albert Sauter For the full Terms and Conditions, please refer to the website. www.kern-sohn.com/en/kern/agbs.html

Price changes and product changes are likely in individual cases, due to product modifications as well as error.

Sale or return: within 14 days of purchase. Not valid for order-specific adaptations such as special productions, cable extensions, special weights, etc. or test services such as calibration, verification, etc. Depending on the time and effort involved, there may be processing and storage costs, please ask for details.**Warranty:**

· 3 years for products with list price ≥ € 400.00
· 2 years for components as well as products with list price < € 400.00
· 1 year for pallet truck scales
Does not apply to consumables such as batteries, rechargeable battery packs, etc.

Balances in areas regulated by law (▸ Verification) must comply with the commercial error limits during the period of validity for verification – these are usually double the verification permissible error limits. If this period of validity for verification expires, then reverification must be carried out. If, in order to pass the verification, it should be necessary to adjust the balance to comply with the verification permissible error limits, then this does not constitute a warranty claim.

Service

KERN DirectCash: The quick, secure COD procedure for protection against non-payment. With the KERN DirectCash COD system, you can safely deliver orders to end customers with unknown credit rating, with no risk of non-payment. Please request further details on this procedure.

Hire Purchase
Financing is available using KERN hire purchase – easy and convenient. Hire Purchase gives you the option of purchasing any product from our range against a simple monthly installment. The product value is financed over the period of the agreement. On payment of the last installment, the ownership of the contract item automatically transfers from the contractor to the contractee. The Hire Purchase Agreement can – if you so choose – be set for a period of between one and five years. This package includes the transfer of items as well as the guarantee for the entire transfer period.

Compared with buying the product, KERN hire purchase offers the advantage that the initial financial investment is largely unnecessary. This is particularly relevant when purchasing a number of products, for example when refitting a laboratory, a company department or a hospital ward. In addition the monthly installments constitute a direct cost and the item does not have to be capitalised by the purchaser.

After-Sales-Service

Repair service
Within 1 week at our plant in Balingen, transportation costs are additional. In urgent cases, if requested by customer, a replacement device will be provided until all repairs are completed; please ask.

Price reduction for a new device
If repair costs exceed the current value of the defective device, a new device will be offered for a discount price. This offer is valid only up to 2 years after warranty expiration.

Spare parts service
Usually within 48 hours, transportation costs are additional.

Marketing support

KERN catalogues, brochures, branch prospectuses – your own personalised marketing tools
This catalogue and branch prospectuses are available free of charge. A neutral version of the catalogue, without the KERN address imprint, is also available free of charge for your marketing activities, larger quantities on request.

On demand, your company logo and address can be printed on the back of the KERN catalogue free of charge, larger quantities on request. In this way you have got your own individual marketing tool.

The KERN catalogue and branch prospectuses are available in the following languages: DE, EN, FR, IT, ES.

Important notice

Explosion hazard or humidity
Our balances are not suitable for rooms with a risk of explosion. Our models are also not suitable for rooms with a high level of air humidity (condensing). Please observe the applicable electrical regulations.

Earth's gravitational force
Electronic balances are subject to location regulations due to the earth's gravitational force. If location of use is changed, reverification and recalibration of the electronic balance is needed.