

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



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Discover the vast world of scales and
measuring technology from KERN online.



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channels



EN



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:

Readability	Weighting capacity	Model	Page	Ver	M	PL	PLS	PLI	PLJ	PLS	PLN	PLP	PLQ	PLR	PLS	PLT
0,001	60	440-21A	28													
0,001	120	PF1 120-3	25													
0,001	200	PCB 200-3	26													
0,001	200	PCB 200-3	25													
0,001	200	PCB 200-3	33													
0,001	220	EW 220-3NM	33													
0,001	240	EG 220-3NM	34													
0,001	250	PCD 250-3	25													
0,001	300	PEB 300-3	29													
0,001	300	EWJ 300-3	29													
0,001	300	PCD 300-3	24													
0,001	300	EWJ 300-3H	30													
0,001	350	PCD 300-3	31													
0,001	380	PCB 300-3	36													
0,001	420	PLS 420-3F	31													
0,001	420	PLJ 420-3F	31													
0,001	420	EW 420-3NM	33													
0,001	420	EG 420-3NM	33													
0,001	420	972-32	30													
0,001	420	PNS 400-3	32													
0,001	420	PNJ 420-3NM	32													
0,001	420	EW 420-3NM	33													
0,001	420	EG 420-3NM	33													
0,001	420	PES 420-3M	36													
0,001	420	PEJ 420-3M	36													
0,001	420	PEI 420-3M	36													
0,001	420	PEI 420-3M	35													
0,001	720	PLS 720-3A	31													

KERN Models A-Z

440	28	F	FCB	57	N	NIB	124
572	30	FCE-N	56	NFB	125		
A		FCF	64	NFN	126		
ABS-N/ABJ-NM	42/43	FES/FEJ	37	P			
ACS/ACJ	42/43	FFN	69	PBJ/PBS	35		
ABP	46-47	FGE	63	PCB	26/27		
ABP-A	48	FKB	58/59	PCD	24		
ABT-NM	44	FOB · FOB-NL	67	PEJ/PES	36		
ADB/ADJ	39	FOB-LM	65	PFB	25		
ALS-A/ALJ-A	40/41	FOB-S · FOB-NS	66	PLJ/PLS	31		
B		FXN · FXN-M	70	PNJ/PNS	32		
BFB	116/117	G		PWS	34		
BFN	118	GAB-N	60	R			
BIC	113	H		RFE	77		
BID	114/115	HCB	161	RIB	75		
C		HCN	162	RPB	76		
CH	159	HCD	163	S			
CCA	88/89	HDB-N · HDB-XL	160	SFB/SFB-H	71		
CCS	90/91	HFA	164	SFE	108		
CDS	87	HFC	165	SXS	72/73		
CE HX	130	HFD	166/167	T			
CFS	84	HFM	168	TGC	13		
CKE	85	HGA	158	TGD	13		
CIB	81	I		U			
CM	12	IFB	106	UFA	119		
CB · CJ · CO · CP · CR · CT	147-153	IFS	86	UFB	122		
CPB	83	IOC	104/105	UFN	123		
CXB/CXB-NM	82	IXS	109/110	UIB	120		
D		K		UID	121		
DAB	50	KDP	131	V			
DBS	51	KFA-V20	144	VHB	155		
DE-D	100/101	KFB-TM	140	W			
DLB	52	KFD-V20	143	WTB	68		
DS	107	KFD-V40	145	Y			
E		KFN-TM	141	YKV	129		
ECB-N/ECE-N	55	KFP-V20 IP65	142	YRO-01/-02/-03	181		
EFS	15	KFP-V20 IP67	143				
EG-N/EW-N	33	KFP-V30	144				
EHA	19	KFP-V40	145				
EMB	16	KFS-TM	140				
EMB-V	17	KFU-V20	144				
EMS	18	KFU-V30	144				
EOB	98	KGP	128				
EOS	99	KIB-TM	141				
EOC	102/103	KIP-V20M	143				
EOE	97	KXP-V20 IP65	142				
EWJ	29						

BALANCES & TEST SERVICE

for laboratory, industry and food industry

BALANCES & TEST SERVICE for laboratory, industry and food industry

PROFESSIONAL MEASURING



23



KERN Pictograms

 Internal adjusting: Quick setting up of the balance's accuracy with internal adjusting weight (motordriven)	 Network interface: For connecting the scale to an Ethernet network	 Suspended weighing: Load support with hook on the underside of the balance
 Adjusting program CAL: For quick setting up of the balance's accuracy. External adjusting weight required	 KERN Communication Protocol (KCP): 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	 Battery operation: Ready for battery operation. The battery type is specified for each device
 Easy Touch: Suitable for the connection, data transmission and control through PC or tablet.	 Rechargeable battery pack: Rechargeable set	
 Memory: Balance memory capacity, e.g. for article data, weighing data, tare weights, PLU etc.	 GLP/ISO log: The balance displays weight, date and time, independent of a printer connection	 Universal plug-in power supply: with universal input and optional input socket adapters for A) EU, CH, GB B) EU, CH, GB, USA C) EU, CH, GB, USA, AUS
 Alibi memory: Secure, electronic archiving of weighing results, complying with the 2014/31/EU standard.	 GLP/ISO log: With weight, date and time. Only with KERN printers.	 Plug-in power supply: 230V/50Hz in standard version for EU, CH. On request GB, USA or AUS version available
 KERN Universal Port (KUP): allows the connection of external KUP interface adapters, e.g. RS-232, RS-485, SB, Bluetooth, WLAN, Analogue, Ethernet etc. for the exchange of data and control commands, without installation effort	 Piece counting: Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display	 Integrated power supply unit: Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, USA or AUS on request
 Data interface RS-232: To connect the balance to a printer, PC or network	 Recipe level A: The weights of the recipe ingredients can be added together and the total weight of the recipe can be printed out	 Weighing principle: Strain gauges Electrical resistor on an elastic deforming body
 RS-485 data interface: To connect the balance to a printer, PC or other peripherals. Suitable for data transfer over large distances. Network in bus topology is possible	 Recipe level B: Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display	 Weighing principle: Tuning fork A resonating body is electromagnetically excited, causing it to oscillate
 USB data interface: To connect the balance to a printer, PC or other peripherals	 Totalising level A: The weights of similar items can be added together and the total can be printed out	 Weighing principle: Electromagnetic force compensation Coil inside a permanent magnet. For the most accurate weighings
 Bluetooth* data interface: To transfer data from the balance to a printer, PC or other peripherals	 Percentage determination: Determining the deviation in % from the target value (100 %)	 Weighing principle: Single cell technology: Advanced version of the force compensation principle with the highest level of precision
 WiFi data interface: To transfer data from the balance to a printer, PC or other peripherals	 Weighing units: Can be switched to e.g. nonmetric units. See balance model. Please refer to KERN's website for more details	 Verification possible: The time required for verification is specified in the pictogram
 Control outputs (optocoupler, digital I/O): To connect relays, signal lamps, valves, etc.	 Weighing with tolerance range: (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	 DAkkS calibration possible (DKD): The time required for DAkkS calibration is shown in days in the pictogram
 Analogue interface: to connect a suitable peripheral device for analogue processing of the measurements	 Hold function: (Animal weighing program) When the weighing conditions are unstable, a stable weight is calculated as an average value	 Factory calibration (ISO): The time required for Factory calibration is shown in days in the pictogram
 Interface for second balance: For direct connection of a second balance	 Protection against dust and water splashes IPxx: The type of protection is shown in the pictogram.	 Package shipment: The time required for internal shipping preparations is shown in days in the pictogram
		 Pallet shipment: The time required for internal shipping preparations is shown in days in the pictogram

KERN – Measuring technology and testing services from a single source



Balances & Test service catalogue

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

Test 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

- 2+ 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

Keyword index

A
Adiposity scales _____ see website
Accessories _____ 169-181
Alibi memory _____ 223
Aluminium sample plate _____ 49-52
Analogue refractometer _____ see website
Analytical balances _____ 38-48
Animal scales _____ 57-58, 64-65, 72-73, 97-110, 113-126, 159-162

B
Baby scales _____ see website
Bench scales _____ 53-60
Bluetooth/RS-232 Adapter _____ 177
Body fat scales _____ see website

C
Calibration Service _____ 210-222
Carat balances ____ 13, 17, 26-37, 39-44, 46-48
Catalogues, Brochures, Flyer _____ 2, 226
Chair scales _____ see website
Chair weighers _____ see website
Coating thickness gauges _____ see website
Column _____ 179
Control of checking equipment _ 210-222, 225
Counting scales _____ 78-92
Counting systems _____ 88-91
Crane scales _____ 163-168

D
DakKS/DKD _____ 210-222
Density determination _____ 13-14, 22-23, 25, 27-28, 30-32, 36-41, 98
Display devices _____ 130, 140-141
Drive-through scale _____ 124-126
Drying balance _____ 49-52

E
Earth's gravitational force _____ 224
EasyTouch App _____ 132-135
Equipment qualification _____ 211
Ethernet/RS-232 Adapter _____ 176
Explosion hazard _____ 226

F
Factory calibration _____ 211, 221-222
Floor scales _____ 101-126
Foot switch _____ 26, 73, 110
Force gauges _____ see website

G
Grain balances _____ see website
Glossary _____ 223-225

H
Handrail scales _____ see website
Hanging scales _____ 156-168
Hardness tester _____ see website
Height rods _____ see website
Hydrostatic balances _____ 16-17, 24-25, 27, 30-31, 33, 35, 40-44, 46-48, 107

I
Industrial scales _____ 53-155
Information _____ 223-226
Interface cable _____ 173
Ioniser _____ 39-44, 180
IP 65...68 protected scales __ 65-73, 108, 123, 126
ISO calibration _____ 211, 221-222

J
Junction box _____ 153

K
Kitchen scales _____ 63

L
Laboratory balances _____ 14-52
Length measuring devices _____ see website
Lexicon _____ 223-225
Load cells _____ 146-152
Luggage scale _____ 158

M
Material thickness gauge _____ see website
Load cells _____ 146-152
Mechanical balances (spring balances) _____ see website
Medical scales _____ see website
Microscopes, biological _____ see website
Microscopes, metallurgical _____ see website
Microscopes, polarisation _____ see website
Microscopes, stereo _____ see website
Minimum sample weight _____ 215
Mobile pallet weigher _____ 154-155
Moisture analysers _____ 49-52

P
Pallet scales _____ 120-123
Personal floor scales _____ see website
Personal scales _____ see website
Pictogram overview _____ 2
Platform scales _____ 93-110
Platforms _____ 128, 131, 142-145
Plummet, density determination _____ 179
Pocket balances _____ 11-13
Power supply adapter set _____ 178
Pre-packaging legislation (FPVO) _____ 224
Precious stones plate _____ 32, 39
Precision balances _____ 20-37
PREMIUM+ WEIGHTS _____ 183
Price computing scales _____ 74-77
Printers _____ 170-172
Protective dust cover _____ 179

R
Recalibration _____ 214, 218
Refractometers, digital _____ see website
Retail balances _____ 74-77
Roller conveyor _____ 181
Round fiberglass filter _____ 50-52
RS-232/Bluetooth-Adapter _____ 177
RS-232/Ethernet-Adapter _____ 176
RS-232/USB-Adapter _____ 178
RS-232/WiFi-Adapter _____ 176

S
Safety Set _____ 184
Semi-micro balances _____ 40/41, 44, 46-48
Shop balances _____ 74-77
Signal lamp _____ 178
Software _____ 132-135, 174-175
Spring balances _____ see website
Stainless steel scales __ 65-67, 69-73, 108-110, _____ 118, 123, 126

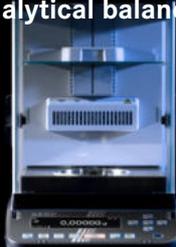
T
Tare pan _____ 179
Temperature calibration set _____ 49-52
Tensile force measurement device ____ 164-165
Terminals _____ 130, 140-141
Test service _____ 210-222
Test stands _____ see website
Test weights _____ 189-209
Touchscreen scales _____ 132-135
Tweezers _____ 205

U
Underfloor weighing, accessories _____ 16-17, 24-25, 30-32, 36, 40-44, 46-48, 85, 87, 107

V
Verification _____ 219, 223
Verification plug _____ 104-105, 114-115, 121

W
Weighing beams _____ 119
Weighing bridges _____ 142-145
Weighing Systems Industry 4.0 _____ 128-131
Weighing table _____ 180
Weighing transmitter, digital _____ 129
Wheelchair platform scales _____ see website
WiFi/RS-232 Adapter _____ 176

Product group index 2023

01 Pocket balances 11 – 13 	02 School balances 14 – 19 	03 Precision balances 20 – 37 
04 Analytical balances 38 – 48 	05 Moisture analysers 49 – 52 	06 Bench scales 53 – 60 
07 Food (kitchen/stainless steel/IP65...68 protection) 61 – 73 	08 Price computing scales 74 – 77 	09 Counting scales/ Counting systems 78 – 92 
10 Parcel scales/ Platform scales 93 – 110 	11 Floor scales/Pallet scales /Drive-through scales 111 – 126 	12 Weighing Systems Industry 4.0/EasyTouch 127 – 135 
13 Display devices/Platforms /Weighing bridges/ Load cells 136 – 153 	14 Pallet truck scales 154 – 155 	15 Hanging scales/ Crane scales 156 – 168 
16 Accessories 169 – 181 	17 Test weights 182 – 209 	18 DAkkS Calibration Service /Verification service 210 – 222 

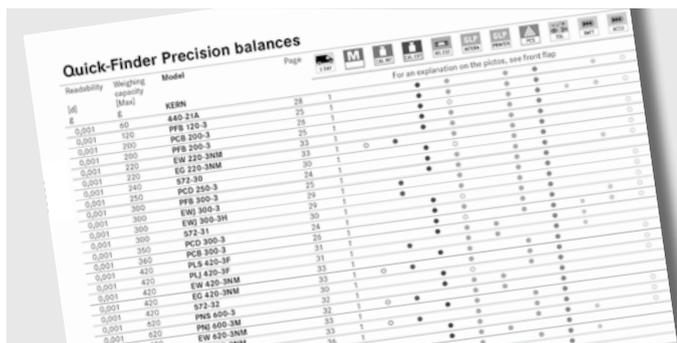
Finding your way through the KERN range: How do I find the product I am looking for?



Product group index ► Page 3

Search by product group

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



Balance Quick-Finder

Search by weighing data

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



Models A-Z ► Flap of the envelope

Search by model reference

Targeted search using the model reference



Keyword index ► Page 227

Search by keyword

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

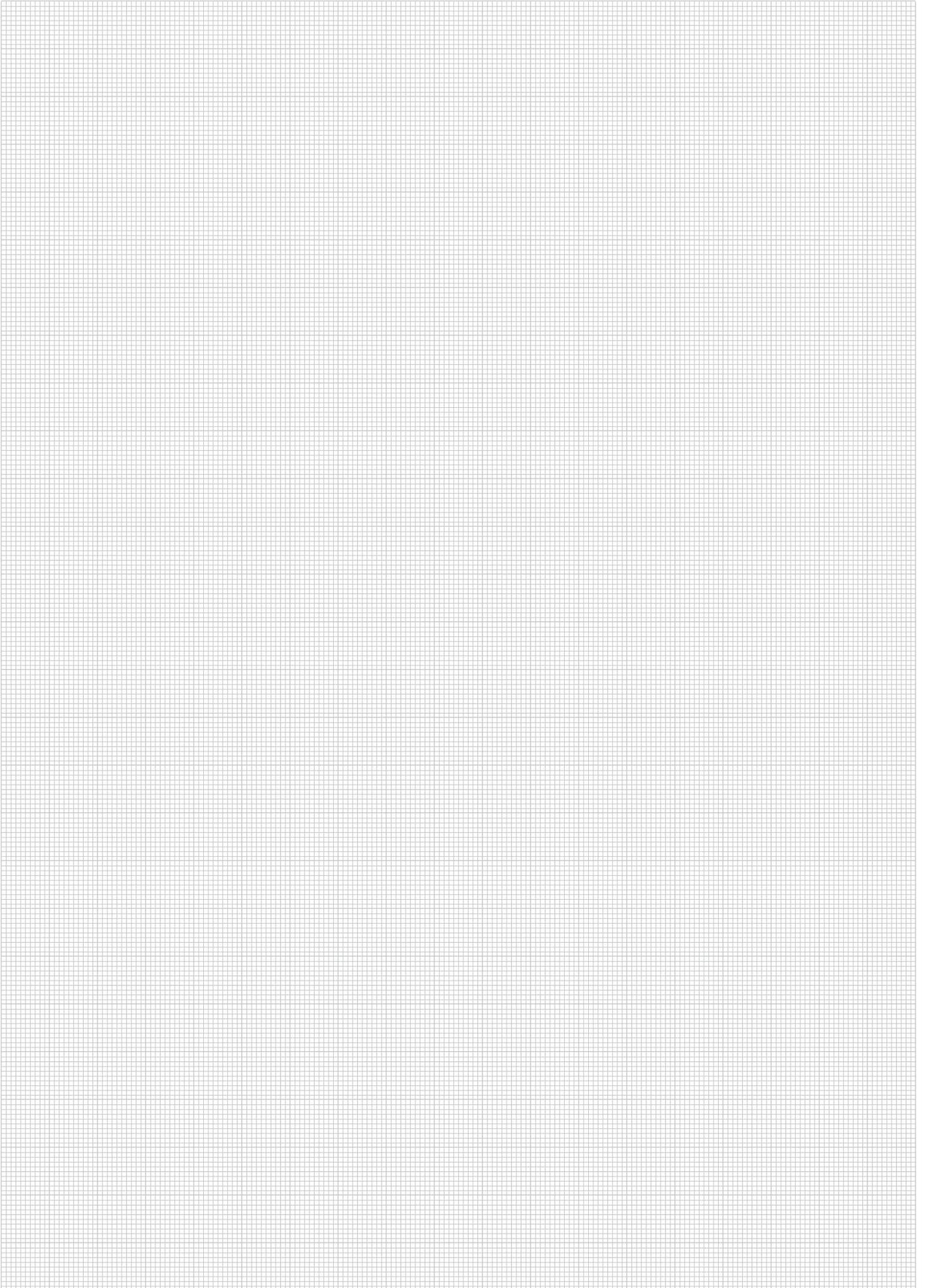


For more information ... ► Website

... please visit our website

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

Notes



WHEN DESIGN MEETS PERFORMANCE

May we introduce...? The new models from the KERN IoT Line are celebrating their debut.

Together we can enjoy the shared, advanced-looking KERN design, the consistent and simplified handling, the high connectivity level, and a persuasive performance that operates across all devices.



Dive into our new KERN brand universe.



Design

- + Trend-setting, high-quality KERN design
- + Recognisability through uniform product range
- + Reliable brand values are reflected visually and functionally in the product



Performance

- + Cross-device functionality and protocols
- + Consistently reliable performance
- + The latest technologies
- + Cross-device functionality and protocols



Philosophy

- + Sustainable due to high energy efficiency
- + Standardisation of design components across all units
- + Controlled value chain
- + Tested and monitored technology for maximum user safety



Are you curious about the models in the KERN IoT range and what opportunities they offer?

Then take a look at pages 8/9, because thanks to new technologies such as KUP and KCP these models are perfectly equipped for the wide range of challenges of Industry 4.0



User Interface

- + Uniform, simplified user guidance
- + Problem-free commissioning, use and expansion
- + Cross-model software



Service

- + Fast and competent help from our IoT specialists
- + Even more efficient repair process
- + Accessories can be flexibly combined

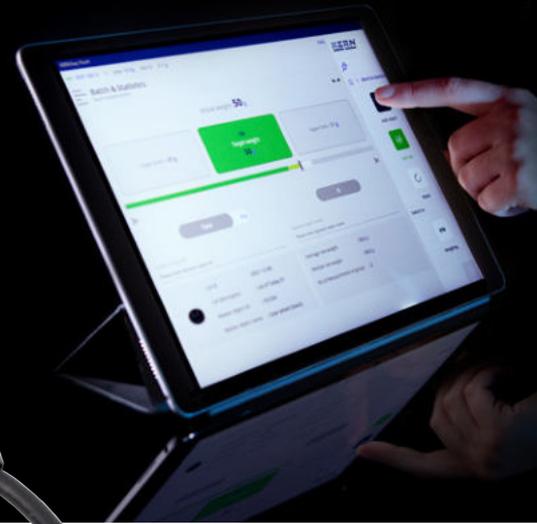
Note: Our KERN IoT accessories can be easily combined with all our IoT models.

Find the right printer and other practical accessories on page 169 or in our online shop

ARE YOU READY?

With the KERN Universal Port (KUP) and the KERN Communication Protocol (KCP) we ensure the perfect integration of your KERN balance into production or process chains for a complete, simplified work process.

Our products will make sure you are prepared for the future of weighing in the Internet of Things. Get IoT ready – with the IoT models from KERN.

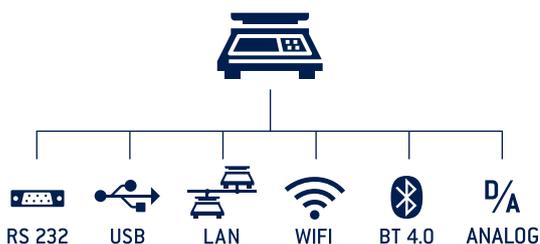


KERN Universal Port (KUP)

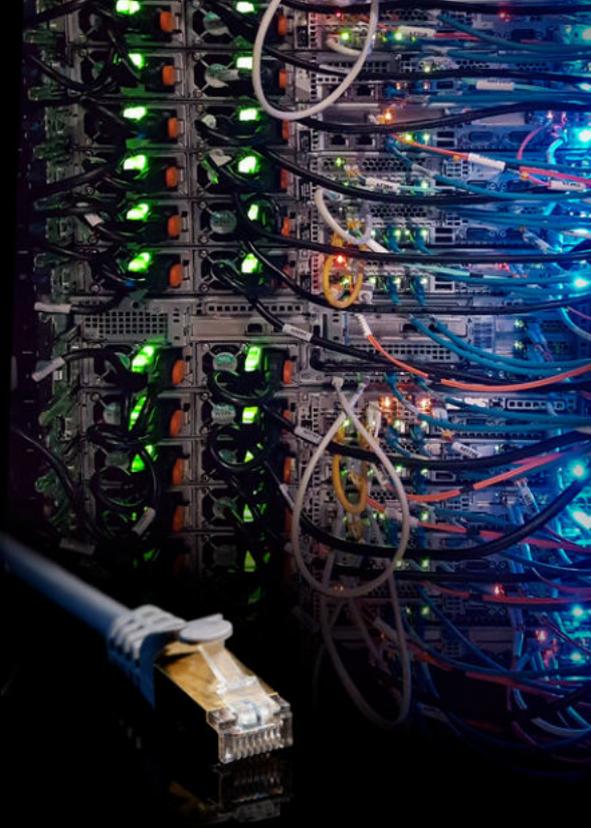
The integrated KERN Universal Port (KUP) allows the connection of external KUP interface adapters such as RS-232, USB, Bluetooth, WiFi, Analogue, Ethernet etc.

The outstanding advantage here is that the KUP interface adapters are simply plugged in, i.e. retrofitting interfaces is conveniently possible without opening the scale housing or complicated installation.

The interface adapters enable convenient transmission of weighing data to networks, PCs, smartphones, tablets, laptops, printers etc. In addition, control commands and data inputs can also be sent to the scale via the connected devices.



Tip: With the KERN KUP-13 extension box, up to three KUP interface adapters can be operated in parallel on the scale.



KERN Communication Protocol (KCP)

The KERN Communication Protocol (KCP) permits searching and remote control of the balance through external control devices or computers using the KERN Communication Protocol. KCP is a standardised interface command structure for KERN balances and other measuring instruments which allows you to recall and manage all relevant parameters and device functions. You can therefore simply connect KERN models with KCP to computers, industrial control systems and other digital systems.

In a large number of cases the KERN Communication Protocol is compatible with the MT-SICS protocol. KCP is available through all KUPs, and on the KERN KIB-TM display device through the interfaces available.

KCP – EXPORT („OUTBOUND“) – THE HIGHLIGHTS

- Stable, immediate weight
- Live transfer of weights
- Storing of gross weight, tare weight, net weight, stability, date, time etc., in the tamper-proof Alibi memory
- Output of the weighing result in percent
- Output of the weighing result in pieces (piece-counting function)
- Output of the weight at freely-definable timed intervals
- and much more

KCP – IMPORT („INBOUND“) – THE HIGHLIGHTS

- Recall of the central device data
- Setup or recall of an individual device ID number
- Setting or searching for a tare value (pre-tare value) externally
- Recall of stored weighing results from the alibi memory
- Carrying out external adjustment/linearization
- Setting the reference values in the balance externally and outputting the weighing result in percent or in pieces
- Setting a network address for the balance (IP) – also for WiFi
- and much more

Still got questions?

We will be happy to give you more comprehensive information on this topic – talk to us:

NEW IN → 2023

Innovative technology, stunning performance, improved features – all in proven KERN quality. You can see all our new additions in 2023 here – come and be inspired.



The born stacker – happily comes back to school

→ KERN EFS SCHOOL BALANCE

The uncomplicated companion for all school laboratories and other educational institutions. Easy handling, durable and robust, it can cope well with changing users. With its tremendous weighing range, it is a typical nerd and without a doubt at the top of its class. For details, see page 15



First Class products in an IP-protected stainless steel housing

→ KERN PWS PRECISION BALANCE

Resistant to fine particles and water splashes, withstands high loading. Let its high performance for reliable, high precision measurements impress you.

For details, see page 34



Proven KERN models – now with a facelift!

Proven KERN models – now with a facelift! These KERN models feature plenty of improved technology (IoT, KUP) and a refreshed KERN look:

→ KERN PCB PRECISION BALANCE
For details, see page 26/27

→ KERN 572 PRECISION BALANCE
For details, see page 30

→ KERN CKE COUNTING BALANCE
For details, see page 85

→ KERN CDS COUNTING BALANCE
For details, see page 87

→ KERN IOC PLATFORM SCALES
For details, see page 104/105

→ KERN DS PLATFORM SCALES
For details, see page 107



High-capacity precision balances with password-protected user administration

→ KERN FES/FEJ PRECISION BALANCE

With this robust allrounder you are particularly well-equipped for the pharmaceutical industry. Here you can easily allocate and manage different users.

For details, see page 37



Our Flagship – now with fully automatic doors

→ KERN ABP-A ANALYTICAL BALANCE

Our KERN Showcase model now features a super practical innovation, making your daily laboratory life easier—singlehandedly. For details, see page 47/48



→ IoT-ready models (with KUP) carry this icon

01

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]	Weighing capacity [Max]	Model	Page	 DAYS	 CAL EXT	 UNIT	 BATT
g	g	KERN					
For an explanation on the pictos, see front flap							
0,001	50	TGD 50-3CS05 	13	1	●	●	●
0,01	60	CM 60-2N	12	1	●	●	●
0,01	150	TGC 150-2S05	13	1	●	●	●
0,1	150	CM 150-1N	12	1	●	●	●
0,1	320	CM 320-1N	12	1	●	●	●
0,1	500	TGC 500-1S05	13	1	●	●	●
1	1000	CM 1K1N	12	1	●	●	●
1	1000	TGC 1K-3S05	13	1	●	●	●

 = Carat balances

● = standard

○ = option



KERN CM

Pocket balance with integrated pocket calculator

STANDARD				OPTION
CAL EXT	UNIT	BATT	1 DAY	+3 DAYS

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

Note

KERN pocket balances also excellent as a gift for your customers or for personalised marketing and sales campaigns. We will be happy to add your logo to the cover, the lid or the packaging, up from quantities of 100 items. Please ask for details.

KERN	CM 60-2N	CM 150-1N	CM 320-1N	CM 1K1N
Weighing capacity [Max] g	60 g	150 g	320 g	1000 g
Readability [d]	0,01 g	0,1 g	0,1 g	1 g
LCD display	backlit, digit height 12 mm			
Dimensions of weighing plate	W×D 70×80 mm			
Overall dimensions	W×D×H 85×130×25 mm			
Power supply	Batteries included with delivery, 2×1,5 V AAA, AUTO-OFF function to preserve battery life, operating time up to 33 h			
Net weight	0,20 kg			
Permissible ambient temperature	5 °C/35 °C			
Option DAkkS Calibr. Certificate	963-127			



KERN TGC

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



KERN TGD

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

STANDARD

CAL EXT UNIT BATT 1 DAY

OPTION

DAkkS +3 DAYS

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
- **1** 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 delivered in a set of 5 units. That means the prices given in the table refer to 5 units. Cannot be delivered individually. The calibration prices given here refer to calibration of a single balance

- 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
- **2** Delivered in single design packaging
- **Note:** The models are delivered in a set of 5 units. That means the prices given in the table refer to 5 units. Cannot be delivered individually. The calibration prices given here refer to calibration of a single balance

Note

KERN pocket balances also excellent as a gift for your customers or for personalised marketing and sales campaigns. We will be happy to add your logo to the cover, the lid or the packaging, up from quantities of 100 items. Please ask for details.

KERN	TGC 150-2S05	TGC 500-1S05	TGC 1K-3S05	TGD 50-3CS05
Weighing capacity [Max] g	150 g	500 g	1000 g	50 g 250 ct
Readability [d]	0,01 g	0,1 g	1 g	0,001 g 0,005 ct
LCD display	backlit, digit height 12 mm			backlit, digit height 20 mm
Dimensions of weighing plate	ø 81 mm			ø 65 mm
Overall dimensions	W×D×H 100×130×18 mm			W×D×H 96×149×36 mm
Power supply	Batteries included with delivery, 2× CR2032, operating time up to 33 h			Batteries included with delivery, 4×1,5 V AAA, operating time up to 150 h without backlight
Net weight	1 kg (set of 5 units)			1 kg (set of 5 units)
Permissible ambient temperature	0 °C/40 °C			5 °C/35 °C
Option DAkkS Calibr. Certificate	963-127			963-127

02



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: the brand new EFS school balance in our product range, a space-saving and inexpensive allrounder for school teaching programs and universities.

Quick-Finder School balances

Readability [d] g	Weighing capacity [Max] g	Model KERN	Page	 DAYS	 CAL EXT	 RS 232	 PCS	 RECIPE	 BATT
0,001	100	EMB 100-3	16	1	●				●
0,001	200	EMB 200-3	16	1	●				●
0,001	200	EMB 200-3V	17	1	●	●			●
0,001	300	EMS 300-3	18	1	●		●	●	●
0,01	200	EMB 200-2	16	1	●				●
0,01	500	EHA 500-2	19	1	●		●		●
0,01	500	EFS 500-2	15	1	●				●
0,01	600	EMB 600-2	16	1	●				●
0,01	1000	EMB 1000-2	16	1	●				●
0,01	2000	EMB 2000-2	16	1	●				●
0,01	2000	EMB 2000-2V	17	1	●	●			●
0,01	3000	EMS 3000-2	18	1	●		●	●	●
0,1	220	EFS 200-1S05	15	1	●				●
0,1	500	EMB 500-1	16	1	●				●
0,1	500	EMB 500-1BE	16	1	●				●
0,1	500	EHA 500-1	19	1	●		●		●
0,1	620	EFS 600-1S05	15	1	●				●
0,1	1000	EHA 1000-1	19	1	●		●		●
0,1	1200	EMB 1200-1	16	1	●				●
0,1	3000	EMB 3000-1	16	1	●				●
0,1	3000	EFS 3000-1	15	1	●				●
0,1	3000	EHA 3000-1	19	1	●		●		●
0,1	6000	EMB 6000-1	16	1	●				●
0,1	6000	EMS 6K0.1	18	1	●			●	●
0,1	12000	EMS 12K0.1	18	1	●		●	●	●
1	2200	EFS 2000-0S05	15	1	●				●
1	2200	EMB 2200-0	16	1	●				●
1	3000	EHA 3000-0	19	1	●		●		●
1	5200	EFS 5000-0S05	15	1	●				●
1	5200	EMB 5.2K1	16	1	●				●
1	6000	EMS 6K1	18	1	●		●	●	●
1	12000	EMS 12K1	18	1	●		●	●	●
5	5200	EMB 5.2K5	16	1	●				●

News 2023

● = standard

○ = option



NEW **SCHOOL** ★

5x



Perfect school balances for experimental teaching
- easy to use, space-saving, stackable

Features

- Simple and convenient 2-key operation, making them ideal for use in schools and universities
- Tare function facilitates formulation work
- Particularly flat design
- Secure and non-slip positioning with rubber feet
- 1 Stackable for space-saving storage
- 2 Practical battery operation using standard batteries ensures a high level of flexibility and freedom from mains adapters, sockets, chargers, etc.

Technical data

- Large LCD display, digit height 15 mm
- Dimensions weighing surface, plastic, WxD 134x127 mm
- Overall dimensions WxDxH 145x205x46,5 mm
- Battery operation, 4x1.5 V AA standard, operating time up to 200 h, Integrated AUTO-OFF function to preserve the batteries
- Net weight approx. 0,45 kg
- Permissible ambient temperature 10 °C / 40 °C
- **Note:** The models with the suffix -S05 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 prices refers to one single balance

Accessories

- External universal mains adapter, with universal input and optional input socket adapters for EU, CH, GB, USA, KERN YKA-27

STANDARD: CAL EXT, BATT, DMS, 1 DAY

OPTION: MULTI, +3 DAYS, DAKkS

Model	Weighing capacity [Max] g	Readability [d] g	Reproducibility g	Linearity g	Quantity delivered (balance)	Option DAKkS Calibr. Certificate DAKkS KERN
KERN EFS 500-2	500	0,01	0,01	± 0,03	1	963-127
EFS 200-1S05	220	0,1	0,1	± 0,3	5	963-127
EFS 600-1S05	620	0,1	0,1	± 0,3	5	963-127
EFS 3000-1	3000	0,1	0,1	± 0,3	1	963-127
EFS 2000-0S05	2200	1	1	± 3	5	963-127
EFS 5000-0S05	5200	1	1	± 3	5	963-127



02



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 \varnothing 82 mm, weighing space $\varnothing \times H$ 96 \times 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
 - A** \varnothing 82 mm, plastic, with conductive lacquer
 - B** \varnothing 105 mm, plastic
 - C** \varnothing 150 mm, plastic, see large picture
- Batteries included, 9 V block, respectively 2 \times 1.5 V AA
- Net weight approx. 0,85 kg
- Permissible ambient temperature 5 °C/35 °C

Accessories

- Stainless steel weighing plate, only for models with weighing plate size **B**, KERN EMB-A02
- External universal mains adapter, with universal input and optional input socket adapters for EU, CH, 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 (\varnothing 102 mm), hook (H 139 mm), suitable for models with weighing plate size **A**, KERN YDB-04

STANDARD						OPTION	
CAL EXT	UNIT	UNDER	BATT	DMS	1 DAY	MULTI	+3 DAYS

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



School balance with integrated density determination function

Features

- Easy density determination: 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/plummetts in air
 - 4 Weighing of samples/plummetts in liquid. The density will be shown on the display right away
- Particularly flat design

- Hook for underfloor weighing standard
- 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
 - A \varnothing 82 mm, plastic
 - B \varnothing 150 mm, plastic
- Overall dimensions WxDxH 175x245x54 mm
- Net weight approx. 0,85 kg
- Permissible ambient temperature 5 °C / 35 °C
- Also with carat weighing unit:
 - EMB 200-3V: 1000 ct/0,005 ct
 - EMB 2000-2V: 10000 ct/0,05 ct

Accessories

KERN EMB 200-3V:

- 5 Ancillary kit for density determination of liquids and solids with density > 1. Scope of delivery: Bridge for holding the beaker (\varnothing 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 \leq/\geq 1. Scope of delivery: Weighing plate, beaker (Hx \varnothing 71x51 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 \leq/\geq 1. Scope of delivery: Weighing plate, beaker (Hx \varnothing 135x100 mm), sample holder, plummet KERN YDB-02
- DAkkS-Calibration certificate for the plummet (200 g), KERN 962-338V
- Thermometer, KERN YDB-A03

STANDARD



OPTION



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



02



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

Features

- Especially suitable for use in schools and universities, for example for biology, chemistry, physics
- Large, shock proof weighing plate made of plastic
- Particularly flat design
- Ergonomically optimised key pad with large keys and a high-contrast LCD display
- Secure and non-slip positioning with rubber feet
- Adjusting program CAL 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

- Large LCD display, digit height 25 mm
- Dimensions weighing surface
 - A** Ø 105 mm, plastic, with conductive lacquer
 - B** W×D 175×190 mm, plastic
- Overall dimensions W×D×H 200×280×63 mm
- Optional battery operation, 9 V block not included in scope of delivery, operating time up to 40 h
- Mains adapter external, 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



OPTION



Model	Weighing capacity [Max]	Readability	Reproducibility	Linearity	Weighing plate	Option DAkKS Calibr. Certificate DAkKS KERN
KERN	g	[d]	g	g		
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



The compact all-round model with robust stainless steel weighing plate for use 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 with 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

- Large backlit LCD display, digit height 22 mm
- Dimensions weighing surface, weighing plate material
 - A** Ø 105 mm, stainless steel
 - B** WxD 120x120 mm, stainless steel
- Overall dimensions WxDxH 225x160x50 mm
- Optional battery operation, 2x1.5 V AA not included in scope of delivery, operating time up to 70 h
- Mains adapter external, standard
- Net weight approx. 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 [Max] g	Readability [d] g	Reproducibility g	Linearity g	Weighing plate	Option DAKKS Calibr. Certificate DAKKS KERN
KERN						
EHA 500-2	500	0,01	0,03	± 0,03	A	963-127
EHA 500-1	500	0,1	0,3	± 0,3	A	963-127
EHA 1000-1	1000	0,1	0,3	± 0,3	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

03



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

				★★★★
			FES/FEJ	★★
PBS/PBJ	PES/PEJ			★

STANDARD LABORATORY BALANCES

					★★★★
	PLS/PLJ	PNS/PNJ	EW-/EG-N	PWS	★★
572					★

BASIC LABORATORY BALANCES

				EWJ	★★★★
		PCB	440		★★
PCD	PFB				★

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 be battery-operated as an alternative to a main power source. This 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 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, offering 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 from page 132



Quick-Finder Precision balances

Readability [d] g	Weighing capacity [Max] g	Model	Page											
For an explanation on the pictos, see front flap														
0,001	60	440-21A	28	1										
0,001	120	PFB 120-3	25	1										
0,001	200	PCB 200-3	26	1										
0,001	200	PFB 200-3	25	1										
0,001	220	EW 220-3NM	33	1										
0,001	220	EG 220-3NM	33	1										
0,001	240	572-30	30	1										
0,001	250	PCD 250-3	24	1										
0,001	300	PFB 300-3	25	1										
0,001	300	EWJ 300-3	29	1										
0,001	300	EWJ 300-3H	29	1										
0,001	300	572-31	30	1										
0,001	350	PCD 300-3	24	1										
0,001	360	PCB 300-3	26	1										
0,001	420	PLS 420-3F	31	1										
0,001	420	PLJ 420-3F	31	1										
0,001	420	EW 420-3NM	33	1										
0,001	420	EG 420-3NM	33	1										
0,001	420	572-32	30	1										
0,001	620	PNS 600-3	32	1										
0,001	620	PNJ 600-3M	32	1										
0,001	620	EW 620-3NM	33	1										
0,001	620	EG 620-3NM	33	1										
0,001	620	PES 620-3M	36	1										
0,001	620	PBS 620-3M	35	1										
0,001	620	PEJ 620-3M	36	1										
0,001	620	PBJ 620-3M	35	1										
0,001	720	PLS 720-3A	31	1										
0,001	720	PLJ 720-3AM	31	1										
0,001	720	PLJ 720-3A	31	1										
0,001	1200	PLS 1200-3A	31	1										
0,001	1200	PLJ 1200-3A	31	1										
0,001	2100	PLJ 2000-3A	31	1										
0,01	200	440-33N	28	1										
0,01	300	PCB 300-2	26	1										
0,01	400	440-35N	28	1										
0,01	600	PFB 600-2	25	1										
0,01	600	440-35A	28	1										
0,01	600	EWJ 600-2SM	29	1										
0,01	600	EWJ 600-2M	29	1										
0,01	820	EW 820-2NM	33	1										
0,01	820	PWS 800-2	34	1										
0,01	1200	PFB 1200-2	25	1										
0,01	1200	PCB 1000-2	26	1										
0,01	1600	572-33	30	1										
0,01	2000	PFB 2000-2	25	1										
0,01	2200	EW 2200-2NM	33	1										
0,01	2200	EG 2200-2NM	33	1										
0,01	2200	PES 2200-2M	36	1										
0,01	2200	PEJ 2200-2M	36	1										
0,01	2400	572-35	30	1										
0,01	2500	PCD 2500-2	24	1										
0,01	3000	PFB 3000-2	25	1										
0,01	3000	EWJ 3000-2	29	1										
0,01	3000	572-37	30	1										
0,01	3200	PNS 3000-2	32	1										
0,01	3200	PNJ 3000-2M	32	1										
0,01	3500	PCD 3000-2	24	1										
0,01	3600	PCB 3000-2	26	1										
0,01	4200	PLS 4200-2F	31	1										
0,01	4200	EW 4200-2NM	33	1										
0,01	4200	PLJ 4200-2F	31	1										
0,01	4200	EG 4200-2NM	33	1										
0,01	4200	PES 4200-2M	36	1										
0,01	4200	PBS 4200-2M	35	1										
0,01	4200	PEJ 4200-2M	36	1										
0,01	4200	PBJ 4200-2M	35	1										
0,01	4200	572-39	30	1										
0,01	6200	EW 6200-2NM	33	1										
0,01	6200	PLS 6200-2A	31	1										
0,01	6200	PLJ 6200-2A	31	1										

Quick-Finder Precision balances

Readability [d] g	Weighing capacity [Max] g	Model	Page											
KERN														
For an explanation on the pictos, see front flap														
0,01	6200	PLJ 6200-2AM	31	1	○	●			●	●	●	●		
0,01	6200	PES 6200-2M	36	1			●		●	●	●	●		○
0,01	6200	PBS 6200-2M	35	1			●		●	●	●	●		
0,01	6200	PBJ 6200-2M	35	1	○	●			●	●	●	●		
0,01	8200	PLS 8000-2A	31	1			●		●	●	●	●		
0,05	6000	PFB 6000-2	25	1			●		●	●	●	●		
0,05	12000	572-45	30	1			●	○		●	●	●		○
0,05	20000	572-55	30	1			●	○		●	●	●		○
0,1	400	440-43N	28	1			●		●	●	●	●	●	○
0,1	1000	440-45N	28	1			●		●	●	●	●	●	○
0,1	2000	PCB 2000-1	26	1			●	○		●	●	●	●	○
0,1	2000	440-47N	28	1			●		●	●	●	●	●	○
0,1	3200	PWS 3000-1	34	1			●		●	●	●	●	●	○
0,1	4000	440-49N	28	1			●		●	●	●	●	●	○
0,1	6000	PCD 6K-4	24	1			●		●	●	●	●	●	○
0,1	6000	PFB 6000-1	25	1			●		●	●	●	●	●	○
0,1	6000	PCB 6000-1	26	1			●	○		●	●	●	●	○
0,1	6000	440-49A	28	1			●		●	●	●	●	●	○
0,1	6000	EWJ 6000-1SM	29	1	○	●			●	●	●	●	●	○
0,1	6000	EWJ 6000-1M	29	1	○	●			●	●	●	●	●	○
0,1	8200	PWS 8000-1	34	1			●		●	●	●	●	●	○
0,1	8200	PBJ 8200-1M	35	1	○	●			●	●	●	●	●	○
0,1	10000	PCD 10K0.1	24	1			●		●	●	●	●	●	○
0,1	10000	PCB 10000-1	26	1			●	○		●	●	●	●	○
0,1	10000	572-43	30	1			●	○		●	●	●	●	○
0,1	12000	PNS 12000-1	32	1			●		●	●	●	●	●	○
0,1	12000	PNJ 12000-1M	32	1	○	●			●	●	●	●	●	○
0,1	12000	EW 12000-1NM	33	1			●		●	●	●	●	●	○
0,1	15000	PES 15000-1M	36	1			●		●	●	●	●	●	○
0,1	16000	572-49	30	1			●	○		●	●	●	●	○
0,1	17000	FEJ 17K-4M	37	1	○	●			●	●	●	●	●	○
0,1	17000	FES 17K-4	37	1			●		●	●	●	●	●	○
0,1	20000	PLS 20000-1F	31	1			●		●	●	●	●	●	○
0,1	24000	572-57	30	1			●	○		●	●	●	●	○
0,1	31000	PES 31000-1M	36	1			●		●	●	●	●	●	○
0,1	33000	FES 33K-4	37	1			●		●	●	●	●	●	○
0,1	33000	FEJ 33K-4M	37	1	○	●			●	●	●	●	●	○
0,1 1	6200 62000	FES 62K-4D	37	1			●		●	●	●	●	●	○
0,1 1	6200 62000	FEJ 62K-4DM	37	1	○	●			●	●	●	●	●	○
1	4000	440-51N	28	1			●		●	●	●	●	●	○
1	6000	PCB 6000-0	26	1			●	○		●	●	●	●	○
1	6000	440-53N	28	1			●		●	●	●	●	●	○
1	10000	PCD 10K-3	24	1			●		●	●	●	●	●	○

News 2023

● = standard

○ = option

03



BASIC
★



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/m², 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, plastic, with conductive lacquer
 - B W×D 160×160 mm, stainless steel, see larger picture
- 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 (without draught shield) W×D×H 165×280×75 mm
- Overall dimensions (incl. draught shield) W×D×H 165×280×141 mm (PCD 250-3, PCD 300-3)
- Dimensions of display device W×D×H 140×46×82 mm
- Cable length of display device approx. 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 KERN 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

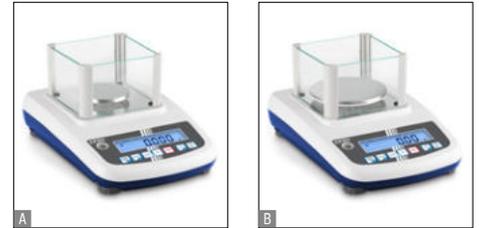
CAL EXT RS 232 GLP PRINTER PCS RECIPE PERCENT UNIT MOVE BATT MULTI DMS 1 DAY

OPTION

ET ACCU +3 DAYS

Model	Weighing capacity [Max]	Readability [d]	Reproducibility	Linearity	Weighing plate	Option DAkKS Calibr. Certificate DAkKS KERN
KERN	g	g	g	g	A	963-127
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

BASIC
★



03

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 **A** ø 80 mm, **B** ø 120 mm, Weighing space W×D×H 116×111×65 mm

Technical data

- Backlit LCD display, digit height 15 mm
- Dimensions weighing surface, stainless steel
 - A** ø 80 mm
 - B** ø 120 mm
 - C** W×D 190×180 mm, see larger picture
- Overall dimensions (without draught shield) W×D×H 210×315×90 mm
- Permissible ambient temperature 15 °C/30 °C

Accessories

- Protective working cover, scope of delivery 5 items, KERN PFB-A12S05
- 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*

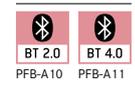
STANDARD



OPTION



FACTORY



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



The standard in the laboratory, ideal for a wide range of applications for Industry 4.0

Features

- Compatible with school-specific software solutions such as, for example, Vernier® or LabQuest®. Thanks to the KERN School Protocol, as part of technical experiments, weighing data can be transferred to a PC, laptop, etc. for evaluation and display using the USB data interface
- Industry 4.0: The integrated KERN Universal Port (KUP) allows the connection of external KUP interface adapters such as RS-232, USB, Bluetooth, WLAN, Analogue, Ethernet etc. The outstanding advantage here is that the KUP interface adapters are simply plugged in, i.e. retrofitting interfaces is conveniently possible without opening the scale housing or complicated installation. The interface adapters enable convenient transmission of weighing data to networks,

- PCs, smartphones, tablets, laptops, printers etc. In addition, control commands and data inputs can also be sent to the scale via the connected devices. Tip: with the KERN KUP-13 extension box, up to three KUP interface adapters can be operated in parallel on the scale.
- KERN Communication Protocol (KCP): The KCP permits searching and remote control of the balance using external control devices or computers. for details see page 8/9
- Standardised, simplified concept of operation
- 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

- Weighing with tolerance range (checkweighing): a visual signal helps with portioning, dispensing or grading
- Freely programmable weighing unit, e.g. display direct in special units such as length of thread g/m, paper weight g/m², or similar
- A special Anti-Shock system between the weighing plate and weighing cell reduces vibrations during the weighing process and in this way ensures rapid, reliable weighing results
- Ring-shaped draught shield standard, only for models with weighing plate size A, Ø 82 mm, weighing space Ø×H 90×40 mm
- Protective working cover included with delivery



Technical data

- Backlit LCD display, digit height 21 mm
- Dimensions weighing surface
 - A** ∅ 82 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 163×245×65 mm
- Optional battery operation, 4×1.5 V AA not included in scope of delivery, operating time up to 20 h, AUTO-OFF function to preserve the battery
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN YBA-A12S05
- Internal rechargeable battery pack, operating time up to 48 h without backlight, charging time approx. 8 h, KERN YKR-01
- External data interface RS-232, Interface cable included, KERN YKUP-01
- External data interface USB, Interface cable included, KERN YKUP-03
- External data interface Ethernet, KERN YKUP-04
- WiFi interface adapter, KERN YKUP-05
- Extension-Box, KERN YKUP-13
- Software BalanceConnection, for flexible recording or transmission of measured values, in particular also to Microsoft® Excel or Access as well as transfer of this data to other Apps and programs, For more details see the internet, Scope of supplies: 1 CD, 1 license, 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



OPTION



Model	Weighing capacity [Max] g	Readability [d] g	Reproducibility g	Linearity g	Weighing plate	Option DAkKS Calibr. Certificate DAkKS KERN
KERN						
PCB 200-3	200	0,001	0,001	± 0,005	A	963-127
PCB 300-3	360	0,001	0,001	± 0,005	A	963-127
PCB 300-2	300	0,01	0,01	± 0,02	B	963-127
PCB 1000-2	1000	0,01	0,01	± 0,03	C	963-127
PCB 3000-2	3600	0,01	0,01	± 0,05	C	963-127
PCB 2000-1	2000	0,1	0,1	± 0,2	C	963-127
PCB 6000-1	6000	0,1	0,1	± 0,3	D	963-128
PCB 10000-1	10000	0,1	0,1	± 0,3	D	963-128
PCB 6000-0	6000	1	1	± 2	D	963-128



BASIC
★★



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** \varnothing 81 mm, weighing space $\varnothing \times H$ 90 \times 40 mm
- Protective working cover included with delivery

Technical data

- Backlit LCD display, digit height 15 mm
- Dimensions weighing surface, weighing plate material
 - A** \varnothing 81 mm, plastic, with conductive lacquer
 - B** \varnothing 105 mm, stainless steel
 - C** W \times D 130 \times 130 mm, stainless steel
 - D** W \times D 150 \times 170 mm, stainless steel, see larger picture
- Overall dimensions W \times D \times H 165 \times 230 \times 80 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
- 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 rechargeable 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



OPTION



Model	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	\pm 0,003	A	963-127
440-33N	200	0,01	0,01	\pm 0,02	B	963-127
440-35N	400	0,01	0,01	\pm 0,03	B	963-127
440-35A	600	0,01	0,01	\pm 0,03	B	963-127
440-43N	400	0,1	0,1	\pm 0,2	C	963-127
440-45N	1000	0,1	0,1	\pm 0,2	C	963-127
440-47N	2000	0,1	0,1	\pm 0,2	C	963-127
440-49N	4000	0,1	0,1	\pm 0,3	D	963-127
440-49A	6000	0,1	0,1	\pm 0,3	D	963-128
440-51N	4000	1	1	\pm 2	D	963-127
440-53N	6000	1	1	\pm 2	D	963-128



03

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, printer etc.
- KERN EWJ-SM: Cost-effective variant without data interfaces
- KERN EWJ 300-3, 600-2M, 600-2SM: Draught shield standard, Weighing space W×D×H 134×128×80 mm
- **1** 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 LCD display, digit height 16,5 mm
- Dimensions weighing surface
 - A** Ø 80 mm, stainless steel
 - B** Ø 120 mm, stainless steel
 - C** Ø 135 mm, stainless steel, see larger picture
 - D** W×D 155×145 mm, stainless steel
- Overall dimensions (without draught shield) W×D×H
 - A, B** 220×315×90 mm
 - C** 220×315×105 mm
 - D** 215×330×105 mm
- Overall dimensions (incl. draught shield) W×D×H
 - EWJ 300-3, 600-2M, 600-2SM: 220×340×180 mm
 - EWJ 300-3H: 220×340×321 mm
- 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 as well as transfer of this data to other Apps and programs, for more details see the internet, Scope of supplies: 1 CD, 1 license, KERN SCD-4.0
- 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



OPTION



FACTORY



Model	Weighing capacity [Max] g	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Linearity g	Weighing plate	Option	
							Verification M II KERN	DAkkS Calibr. Certificate DAKkS KERN
KERN EWJ 300-3	300	0,001	-	-	± 0,005	A	-	963-127
KERN EWJ 300-3H	300	0,001	-	-	± 0,005	A	-	963-127
KERN EWJ 3000-2	3000	0,01	-	-	± 0,05	C	-	963-127
Note: For applications that require verification, please order verification at the same time, initial verification at a later date is not possible. Verification at the factory, we need to know the full address of the location of use.								
KERN EWJ 600-2SM	600	0,01	0,1	0,5	± 0,03	B	965-216	963-127
KERN EWJ 600-2M	600	0,01	0,1	0,5	± 0,03	B	965-216	963-127
KERN EWJ 6000-1SM	6000	0,1	1	5	± 0,3	D	965-217	963-128
KERN EWJ 6000-1M	6000	0,1	1	5	± 0,3	D	965-217	963-128



All-rounder e.g. as precision balance in the laboratory or in harsh industrial applications, ideal for the diverse possibilities of Industry 4.0 applications

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 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
- KERN Universal Port (KUP): permits the connection of an external KUP interface adapter, such as, for example, RS-232, USB, Bluetooth or Ethernet, for the exchange of data and control commands, without any installation outlay

- KERN Communication Protocol (KCP): The KCP permits searching and remote control of the balance using external control devices or computers, for details see page 8/9
- Standardised, simplified concept of operation
- 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 A ø 106 mm, weighing space ø×H 157×43 mm
- Level indicator to level the balance precisely
- Loop for underfloor weighing, standard for models with [d] = 0,001 g
- Protective working cover included with delivery

Technical data

- Large backlit LCD display, digit height 21 mm
- Dimensions weighing surface, stainless steel
 - A ø 106 mm
 - B ø 150 mm
 - C W×D 160×200 mm, see larger picture
- Overall dimensions (without draught shield) W×D×H 180×310×85 mm
- Net weight A, B approx. 2,4 kg
- C approx. 2,8 kg
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN 572-A02S05
- Internal rechargeable battery pack, operating time up to 48 h without backlight, charging time approx. 8 h, KERN YKUR-01
- External data interface RS-232, interface cable included, KERN YKUP-01
- External data interface USB, interface cable included, KERN YKUP-03
- Extension-Box, KERN YKUP-13
- Loop and hook for underfloor weighing, for models with [d] ≥ 0,01 g, KERN 572-A03
- 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 A, KERN 572-A05

STANDARD: CAL EXT, KUP, KCP, GLP, PCS, RECIPE, PERCENT, UNIT, TOL, MOVE, UNDER, MULTI, DMS, 1 DAY

OPTION: ET, RS 232, USB, DAKKS, +3 DAYS

FACTORY: ACCU

Model	Weighing capacity [Max]	Readability [d]	Reproducibility	Linearity	Resolution	Weighing plate	Option
KERN	g	g	g	g	Points		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
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
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



STANDARD
★★



03

Range of precision balances with enormous weighing capacities – ideal for heavy tare containers or large samples

Features

- 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
- Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display
- 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
- Dosage aid: High stability mode and other filter settings can be selected

- 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
- 2 PLJ 2000-3A: High-quality milligram balance with enormous weighing range up to 2100 g – ideal for large samples or heavy tare containers. Large glass draught shield for easy access to the items being weighed. Weighing space W×D×H 160×170×225 mm, standard
- Ring-shaped draught shield standard, only for models with weighing plate size \varnothing 110 mm, weighing space \varnothing ×H 150×60 mm

- Protective working cover included with delivery

Technical data

- Backlit LCD Graphic display, digit height 15 mm
- Dimensions weighing surface
 - A \varnothing 110 mm, stainless steel
 - B \varnothing 160 mm, stainless steel, see larger picture
 - C W×D 200×175 mm, stainless steel
- Permissible ambient temperature 15 °C/35 °C

Accessories

- Protective working cover, scope of delivery 5 items, KERN PLJ-A01S05
- 3 Hook f. underfloor weighing, KERN PLJ-A02
- Set for density determination of liquids and solids 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), for details see page 216

STANDARD



OPTION



FACTORY



Model	Weighing capacity [Max] g	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Linearity g	Weighing plate	Option	
							Verification	DAkkS Calibr. Certificate
KERN							M KERN	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								
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 verification at the same time, initial verification at a later date is not possible. Verification at the factory, we need to know the full address of the location of use.								
PLJ 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

STANDARD



EasyTouch



03



The new standard in the laboratory with robust tuning fork weighing system, also with EC type approval [M]

Features

- KERN PNS: Adjusting program CAL for quick setting of the balance accuracy using an external test weight at an additional price, see *test weights*
- 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
- 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

- **A** Large glass draught shield with 3 sliding doors for easy access to the items being weighed, for models with weighing plate size \varnothing 140 mm, Weighing space W×D×H 172×171×160 mm
- Protective working cover included with delivery

Technical data

- Large LCD display, digit height 16,5 mm
- Dimensions weighing surface, stainless steel
 - A** \varnothing 140 mm
 - B** W×D 190×190 mm, see larger picture
- Overall dimensions W×D×H, without draught shield
 - A** 196×293×266 mm, **B** 196×293×89 mm
- Net weight
 - A** approx. 4,2 kg, **B** approx. 3,6 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 130×80×30 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), for details see page 216
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD



OPTION



FACTORY



Model	Weighing capacity [Max]	Readability [d]	Verification value [e]	Minimal load [Min]	Linearity	Weighing plate	Verification	Option
							KERN	DAkkS Calibr. Certificate
KERN	g	g	g	g	g		KERN	DAkkS KERN
PNS 600-3	620	0,001	-	-	± 0,004	A	-	963-103
PNS 3000-2	3200	0,01	-	-	± 0,02	B	-	963-127
PNS 12000-1	12000	0,1	-	-	± 0,2	B	-	963-128
Note: For applications that require verification, please order verification at the same time, initial verification at a later date is not possible.								
Verification at the factory, we need to know the full address of the location of use.								
PNJ 600-3M	620	0,001	0,01	0,02	± 0,004	A	965-216	963-103
PNJ 3000-2M	3200	0,01	0,1	0,5	± 0,02	B	965-216	963-127
PNJ 12000-1M	12000	0,1	1	5	± 0,2	B	965-217	963-128



STANDARD



EasyTouch



03

- Net weight **A**, **B** approx. 2,0 kg, **C** approx. 4,0 kg
- Permissible ambient temperature 10°C/30°C

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 at an additional price, see *test weights*
- Stable temperature behaviour
- Short stabilisation time
- Shock proof construction
- High corner load performance
- Capacity display: A bargraph display lights up to show how much of the weighing range is still available

- 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
 - A** Ø 118 mm, stainless steel, see larger picture
 - B** W×D 170×140 mm, stainless steel
 - C** W×D 180×160 mm, stainless steel
- Overall dimensions W×D×H (without draught shield) **A**, **B** 182×235×65 mm, **C** 265×192×87 mm

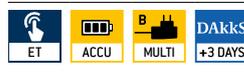
Accessories

- 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
- 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, 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, 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, plenty of further accessories and suitable printers see *Accessories*

STANDARD



OPTION



FACTORY



Model	Weighing capacity [Max]	Readability [d]	Verification value [e]	Minimal load [Min]	Linearity [g]	Weighing plate	Option	
							Verification	DAkkS Calibr. Certificate
KERN	g	g	g	g	g		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 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.

EG 220-3NM	220	0,001	0,01	0,02	± 0,002	A	965-216	EG	963-127
EG 420-3NM	420	0,001	0,01	0,02	± 0,003	A	965-216	EG	963-127
EG 620-3NM	620	0,001	0,01	0,1	± 0,004	A	965-201	EG	963-103
EG 2200-2NM	2200	0,01	0,1	0,5	± 0,01	C	965-216	EG	963-127
EG 4200-2NM	4200	0,01	0,1	0,5	± 0,02	C	965-216	EG	963-127



High-resolution precision balance made of stainless steel with IP protection

Features

- High-quality tuning fork measuring system for steady weight values and continuous weighing
- Thanks to the stainless steel design of the housing and platform with smooth surface, the scale is rust-free and easy to clean
- Dust and spray protection to IP65 (in accordance with EN 60529)
- Level indicator and levelling feet for precise levelling of the scale, fitted as standard
- RS-232 data interface for connection to a printer as standard
- Protective working cover included with delivery

Technical data

- Large LCD display, digit height 16,5 mm
- Dimensions weighing surface, stainless steel
 - A** Ø 140 mm
 - B** WxD 190x190 mm, see larger picture
- Overall dimensions WxDxH 310x208x87 mm
- Net weight approx. 1,6 kg
- Permissible ambient temperature 10 °C/30 °C

Accessories

- Loop for underfloor weighing, KERN EG-A07
- Software BalanceConnection, for flexible recording or transmission of measured values, in particular also to Microsoft® Excel or Access as well as transfer of this data to other Apps and programs, for more details see the internet, Scope of supplies: 1 CD, 1 license, KERN SCD-4.0
- **I** Battery insert, enables mobile weighing, Operating time 200 h, KERN PWS-A01
- Interface cable RS-232 to connect an external device, Dust and spray protection to IP65 (in accordance with EN 60529), KERN PWS-A02
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD										OPTION			
CAL EXT	RS 232	GLP	PC	PERCENT	TOL	IP 65	MULTI	T-FORK	1 DAY	ET	UNDER	BATT	DAKkS

Model	Weighing capacity [Max]	Readability [d]	Reproducibility	Linearity	Weighing plate	Option
KERN	g	g	g	g		DAKkS Calibr. Certificate
PWS 800-2	820	0,01	0,01	± 0,01	A	KERN 963-127
PWS 3000-1	3200	0,1	0,1	± 0,1	B	963-127
PWS 8000-1	8200	0,1	0,1	± 0,1	B	963-128

I EXPECTED TO BE AVAILABLE FROM MARCH 2023



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

Features

- KERN PBS: Adjusting program CAL for quick setting of the balance accuracy using an external test weight at an additional price, see *test weights*
- 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
- Metal housing: robust and sturdy
- Dosage aid: High stability mode and other filter settings can be selected
- 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
- **A** 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 180×190 mm, see larger picture
- Overall dimensions (without draught shield) W×D×H: 209×322×78 mm
- 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
- **1** 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, plenty of further accessories and suitable printers see *Accessories*

2 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



Model	Weighing capacity [Max] [g]	Readability [d] [g]	Verification value [e] [g]	Minimal load [Min] [g]	Linearity [g]	Weighing plate	Option	
							Verification M	DAkKS Calibr. Certificate
KERN							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 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.

PBJ 620-3M	620	0,001	0,01	0,1	± 0,002	A	965-201 U	963-103
PBJ 4200-2M	4200	0,01	0,1	0,5	± 0,02	B	965-216 U	963-127
PBJ 6200-2M	6200	0,01	0,1	1	± 0,02	B	965-202 U	963-104
PBJ 8200-1M	8200	0,1	1	5	± 0,2	B	965-217 U	963-128

PREMIUM



EasyTouch



- Net weight **A** approx. 3,6 kg, **B** approx. 4,4 kg, **C** approx. 10 kg
- Permissible ambient temperature 10 °C/30 °C

Accessories

- **A**, **B**: 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 **B**, 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, plenty of further accessories and suitable printers see *Accessories*

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

Features

- KERN PES: Adjusting program CAL for quick setting of the balance accuracy using an external test weight at an additional price, see *test weights*
- KERN PEJ: Automatic internal adjustment, guarantees high degree of accuracy and makes the balance independent of its location of use
- 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 portioning, dispensing or grading
- **1** 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 for models with [d] = 0,001 g, [d] = 0,01 g

- [d] = 0,001 g hook included with the delivery, [d] = 0,01 g/0,01 g hook not included with the delivery
- **A**, **B**: Protective working cover included with delivery

Technical data

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

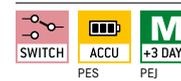
STANDARD



OPTION



FACTORY



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

NEW **PREMIUM** ★★



03

High-capacity precision balance with password-protected user administration, also with EC type approval [M]

Features

- KERN FEJ: Automatic internal adjustment, guarantees high degree of accuracy and makes the balance independent of its location of use
- KERN FES: Adjusting program CAL for quick setting of the balance accuracy using an external test weight at an additional price, see *test weights*
- Stainless steel display device with IP65 protection, hygienic and easy to clean
- Metal housing: robust and sturdy
- In order to meet requirements in the pharmaceutical industry, the balance is fitted with a user administration system, which enables unique assignment of users and protects against unauthorised access
- Intuitive concept of operation through info line on the display
- Freely-assignable function keys enable individual adjustment of the balance

- Dust and spray protection to IP65 (in accordance with EN 60529)
- 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, ...)
- Protective working cover included with delivery

Technical data

- Large backlit LCD display, digit height 16,5 mm
- Dimensions weighing surface, stainless steel, W×D 350×400 mm
- Dimensions of display device W×D×H 290×180×60 mm
- Overall dimensions W×D×H 350×520×170 mm
- Net weight approx. 19 kg
- Permissible ambient temperature 5 °C/35 °C

Accessories

- Protective working cover, scope of delivery 5 items, KERN FEJ-A02S05
- Relay output with 5 outputs for weighing in 3 tolerance ranges, KERN FEJ-A07
- 1 Stand to elevate display device, height of stand approx. 700 mm, KERN FEJ-A05
- Interface cable RS-232 to connect an external device, dust and spray protection to IP65 (in accordance with EN 60529), KERN PWS-A02
- 2 Loop for underfloor weighing, KERN FEJ-A06
- Further details, plenty of further accessories and suitable printers see *Accessories*

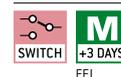
STANDARD



OPTION



FACTORY



Model	Weighing capacity [Max]	Readability [d]	Verification value [e]	Minimal load [Min]	Reproducibility	Linearity	Verification	Option
	kg	g	g	g	g	g	M KERN	DAkKS Calibr. Certificate DAkKS KERN
KERN								
FES 17K-4	17	0,1	-	5	0,1	± 0,3	-	963-128
FES 33K-4	33	0,1	-	5	0,1	± 0,3	-	963-128
FES 62K-4D	6,2 62	0,1 1	-	5	0,1 1	± 0,3 3	-	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.								
FEJ 17K-4M	17	0,1	1	5	0,1	± 0,3	965-217	963-128
FEJ 33K-4M	33	0,1	1	5	0,1	± 0,3	965-217	963-128
FEJ 62K-4DM	6,2 62	0,1 1	1	5	0,1 1	± 0,3 3	965-218	963-129

1 EXPECTED TO BE AVAILABLE FROM MARCH 2023

04



ANALYTICAL BALANCES

Quick-Finder Analytical balances

Readability [d] mg	Weighing capacity [Max] g	Model	Page								
KERN											
For an explanation on the pictos, see front flap											
0,01	101	ABT 100-5NM	44	1	●	●	●	●	●	●	●
0,01	135	ABP 100-5M	46	1	○	●	●	●	●	●	●
0,01	135	ABP 100-5AM	48	1	○	●	●	●	●	●	●
0,01	210	ALJ 210-5A	40	1	●	●	●	●	●	●	●
0,01	220	ABP 200-5M	46	1	○	●	●	●	●	●	●
0,01	220	ABP 200-5AM	48	1	○	●	●	●	●	●	●
0,01 0,1	42 120	ABT 120-5DNM	44	1	○	●	●	●	●	●	●
0,01 0,1	52 120	ABP 100-5DM	46	1	○	●	●	●	●	●	●
0,01 0,1	52 120	ABP 100-5DAM	48	1	○	●	●	●	●	●	●
0,01 0,1	82 220	ALJ 200-5DA	40	1	●	●	●	●	●	●	●
0,01 0,1	82 220	ABT 220-5DNM	44	1	○	●	●	●	●	●	●
0,01 0,1	102 220	ABP 200-5DM	46	1	○	●	●	●	●	●	●
0,01 0,1	102 220	ABP 200-5DAM	48	1	○	●	●	●	●	●	●
0,1	82	ABS 80-4N	42	1	●	●	●	○	●	●	●
0,1	82	ACS 80-4	42	1	●	●	●	●	●	●	●
0,1	82	ABJ 80-4NM	42	1	●	●	●	○	●	●	●
0,1	82	ACJ 80-4M	42	1	○	●	●	●	●	●	●
0,1	82	ADB 600-C3	39	1	●	●	●	●	●	●	●
0,1	120	ADB 100-4	39	1	●	●	●	●	●	●	●
0,1	120	ADJ 600-C3	39	1	●	●	●	●	●	●	●
0,1	120	ADJ 100-4	39	1	●	●	●	●	●	●	●
0,1	120	ABS 120-4N	42	1	●	●	●	○	●	●	●
0,1	120	ACS 100-4	42	1	●	●	●	●	●	●	●
0,1	120	ABJ 120-4NM	42	1	●	●	●	○	●	●	●
0,1	120	ACJ 100-4M	42	1	○	●	●	●	●	●	●
0,1	120	ABT 120-4NM	44	1	○	●	●	●	●	●	●
0,1	120	ABP 100-4M	46	1	○	●	●	●	●	●	●
0,1	160	ALS 160-4A	40	1	●	●	●	●	●	●	●
0,1	160	ALJ 160-4A	40	1	●	●	●	●	●	●	●
0,1	160	ALJ 160-4AM	40	1	○	●	●	●	●	●	●
0,1	220	ADB 200-4	39	1	●	●	●	●	●	●	●
0,1	220	ADJ 200-4	39	1	●	●	●	●	●	●	●
0,1	220	ABS 220-4N	42	1	●	●	●	○	●	●	●
0,1	220	ACS 200-4	42	1	●	●	●	●	●	●	●
0,1	220	ABJ 220-4NM	42	1	●	●	●	○	●	●	●
0,1	220	ACJ 200-4M	42	1	○	●	●	●	●	●	●
0,1	220	ABT 220-4NM	44	1	○	●	●	●	●	●	●
0,1	220	ABP 200-4M	46	1	○	●	●	●	●	●	●
0,1	220	ABP 200-4AM	48	1	○	●	●	●	●	●	●
0,1	250	ALS 250-4A	40	1	●	●	●	●	●	●	●
0,1	250	ALJ 250-4A	40	1	●	●	●	●	●	●	●
0,1	250	ALJ 250-4AM	40	1	○	●	●	●	●	●	●
0,1	310	ALJ 310-4A	40	1	●	●	●	●	●	●	●
0,1	320	ABS 320-4N	42	1	●	●	●	○	●	●	●
0,1	320	ACS 300-4	42	1	●	●	●	●	●	●	●
0,1	320	ABJ 320-4NM	42	1	●	●	●	○	●	●	●
0,1	320	ACJ 300-4M	42	1	○	●	●	●	●	●	●
0,1	320	ABT 320-4NM	44	1	○	●	●	●	●	●	●
0,1	320	ABP 300-4M	46	1	○	●	●	●	●	●	●
0,1	320	ABP 300-4AM	48	1	○	●	●	●	●	●	●
0,1	510	ALJ 500-4A	40	1	●	●	●	●	●	●	●



04

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

Features

- ADB 200-4: 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 $\geq 2\text{ }^{\circ}\text{C}$ 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 at an additional price, see *test weights*
- **1** ADJ 600-C3 / ADB 600-C3: Compact, space-saving carat balances 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 standard
- 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, $\varnothing 90\text{ mm}$
- 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 $\leq/\geq 1$, 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 130×80×30 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), for details see page 216
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD OPTION

CAL INT	CAL EXT	RS 232	GLP	PCS	PERCENT	UNIT	MULTI	FORCE	1 DAY	ET	DAkkS
ADJ	ADB										+3 DAYS

Model	Weighing capacity	Readability	Reproducibility	Linearity	Net weight	Option
						DAkkS Calibr. Certificate
KERN	[Max] g	[d] mg	mg	mg	approx. kg	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	220	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

= Carat balances

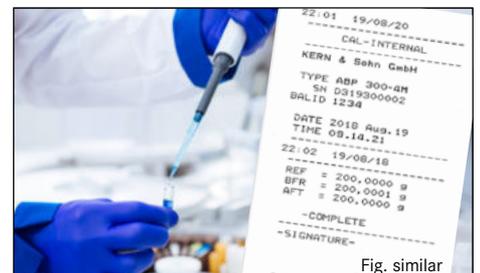
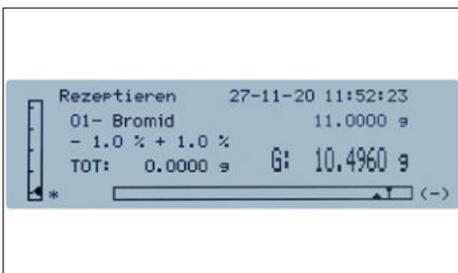


04



KERN ALJ 200-5DA with optional ioniser **1**, see *accessories*. High-precision semi-micro analytical balance. Thanks to its high level of precision, it is ideal for calibrating pipettes
 Note: To prevent evaporation we recommend economical capillary tubes (see standard 8655)

Analytical balances with a large weighing range, graphics display and user-friendly recipe weighing function - now also as single-range semi-micro balance with unbelievably 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 & 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



Features

- ALJ 210-5A: Semi-micro model with just one weighing range with unbelievably high resolution, ideal where heavy items need to be weighed with the most accurate readout across the entire weighing range. 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 Already fitted as standard in the model KERN ALJ 210-5A
- KERN ALS-A: Adjusting program CAL for quick setting of the balance accuracy using an external test weight at an additional price, see *test weights*
- Short stabilisation time: steady weight values within approx. 4 s 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 Graphic display, digit height 15 mm
- Dimensions weighing surface, stainless steel, \varnothing 80 mm
- Weighing space W×D×H 160×170×225 mm
- Overall dimensions (incl. draught shield) W×D×H 210×340×330 mm
- Net weight approx. 7 kg
- Permissible ambient temperature 5 °C/35 °C

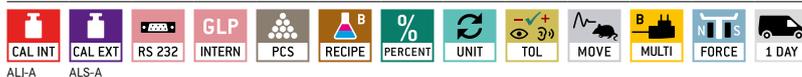
Accessories

- Protective working cover, scope of delivery 5 items, KERN ALJ-A01S05
- Protective dust cover, KERN ABS-A08
- KERN ALJ: Evaporation trap, minimises faults through evaporation when using pipettes for small volumes of 10 μ l to 10 ml, KERN ALJ-A02

- **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, 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 \leq/\geq 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), for details see page 216
- Further details, plenty of further accessories and suitable printers see *Accessories*

04

STANDARD



OPTION



FACTORY



Model	Weighing capacity [Max] g	Readability [d] mg	Verification value [e] mg	Minimal load [Min] mg	Reproducibility mg	Linearity mg	Option	
							Verification M1	DAkkS Calibr. Certificate
KERN							DAkkS	KERN
ALS 160-4A	160	0,1	-	-	0,1	$\pm 0,3$	-	963-101
ALS 250-4A	250	0,1	-	-	0,1	$\pm 0,3$	-	963-101
ALJ 210-5A	210	0,01	-	-	0,05	$\pm 0,1$	-	963-101
ALJ 160-4A	160	0,1	-	-	0,1	$\pm 0,3$	-	963-101
ALJ 250-4A	250	0,1	-	-	0,1	$\pm 0,3$	-	963-101
ALJ 310-4A	310	0,1	-	-	0,1	$\pm 0,3$	-	963-101
ALJ 500-4A	510	0,1	-	-	0,2	$\pm 0,4$	-	963-101
Multi-range balance, with increasing load it switches automatically to the next largest weighing range [Max] and readout [d] and when the load is fully removed, the balance switches back to the lower range								
ALJ 200-5DA	82 220	0,01 0,1	-	-	0,04 0,1	$\pm 0,1$ 0,2	-	963-101
Note: For applications that require verification, please order verification at the same time, initial verification at a later date is not possible.								
Verification at the factory, we need to know the full address of the location of use.								
ALJ 160-4AM	160	0,1	1	10	0,1	$\pm 0,3$	965-201	963-101
ALJ 250-4AM	250	0,1	1	10	0,1	$\pm 0,3$	965-201	963-101



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

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 $\geq 2\text{ °C}$ 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 at an additional price, see *test weights*
- 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
- 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



Technical data

- Large LCD display, digit height 14 mm
- Dimensions weighing surface, stainless steel, \varnothing 91 mm
- Weighing space W×D×H 174×162×227 mm
- Overall dimensions (incl. draught shield) W×D×H 213×333×338 mm
- Net weight approx. 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 \leq/\geq 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), for details see page 216
- Further details, plenty of further accessories and suitable printers see *Accessories*



Single-cell advanced technology:

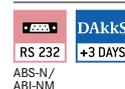
- **Fully automatic manufactured weighing cell from one piece of material**
- **Stable temperature behaviour**
- **Short stabilisation time:** steady weight values within approx. 3 s under laboratory conditions
- **Shock proof construction**
- **High corner load performance**

04

STANDARD



OPTION



FACTORY



Model	Weighing capacity [Max] g	Readability [d] mg	Verification value [e] mg	Minimal load [Min] mg	Reproducibility mg	Linearity mg	Verification MI	Option DAkkS Calibr. Certificate
KERN							KERN	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



The premium model with single-cell weighing system

Features

- Automatic internal adjustment in the case of a change in temperature $\geq 0,5\text{ }^{\circ}\text{C}$ or time-controlled 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 \varnothing 80 mm, stainless steel
- Weighing space W×D×H 168×172×223 mm
- Overall dimensions (incl. draught shield) W×D×H 217×356×338 mm
- Net weight approx. 7 kg
- Permissible ambient temperature 10 $^{\circ}\text{C}$ /30 $^{\circ}\text{C}$

Accessories

- Protective working cover, scope of delivery 5 items, KERN ABT-A02S05
- Set for density determination of liquids and solids with density $\leq/\geq 1$, the density is indicated directly on the display, KERN YDB-03

- Ioniser to neutralise electrostatic charge, KERN YBI-01A
- 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), for details see page 216
- 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. 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



Model	Weighing capacity [Max]	Readability [d]	Verification value	Minimal load [Min]	Reproducibility	Linearity	Option	
							Verification	DAkkS Calibr. Certificate
KERN	g	mg	[e] mg	mg	mg	mg		DAkkS KERN
ABT 100-5NM	101	0,01	1	1	0,05	$\pm 0,15$	965-201	963-101
ABT 120-4NM	120	0,1	1	10	0,1	$\pm 0,2$	965-201	963-101
ABT 220-4NM	220	0,1	1	10	0,1	$\pm 0,2$	965-201	963-101
ABT 320-4NM	320	0,1	1	10	0,1	$\pm 0,3$	965-201	963-101
Multi-range balance, with increasing load it switches automatically to the next largest weighing range [Max] and readout [d] and when the load is fully removed, the balance switches back to the lower range								
ABT 120-5DNM	42 120	0,01 0,1	1 1	1	0,02 0,1	$\pm 0,05$ 0,2	965-201	963-101
ABT 220-5DNM	82 220	0,01 0,1	1 1	1	0,05 0,1	$\pm 0,1$ 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.

ALL-ROUND SECURITY IN DAILY LABORATORY LIFE

For quality assurance and easy, compliant sequences in the laboratory, KERN offers you an extensive range of services and plenty of suitable accessories – we will be happy to advise you.

THE BENEFIT OF KERN ACCESSORIES:

Count on it – everything fits together! Our product advisors can recommend the fitting accessories for your KERN devices, so that your individual weighing systems seamlessly work together in a stable and reliable way.



All details on DAKKS calibration certificates for test weights, our KERN calibration service and other useful information can be found here: www.kern-lab.com

Our accessory tips for all KERN laboratory balances

For **thermal printer**, KERN YKB-01 or other suitable printers, see page 170



Draft shield rear panel with integrated ioniser, to neutralise electrostatic charge, guarantees extremely rapid ionisation, KERN ABP-A01, see page 47/48

Solid weighing table

Professionalism and security for a stable weighing environment. Suitable for all laboratory balances, KERN YPS-03, see page 180



→ Didn't find the right product in the catalogue?

You can find the full range of accessories and available KERN test equipment in our online shop

LOOKING FOR THE RIGHT TEST EQUIPMENT?

Sit back and relax! You will find that we have an enormous range of test weights and suitable calibration services - all in accordance with the current DAKKS guidelines.

For example, discover our DAKKS-calibrated KERN Safety Sets each with an appropriate test weight for correct adjusting of the balance, a small test weight for checking the minimum sample weight, plus space for another separate test weight.

Extensive details on all topics can be found on page 182.





2 KERN ABP 100-5DM with optional ionisor

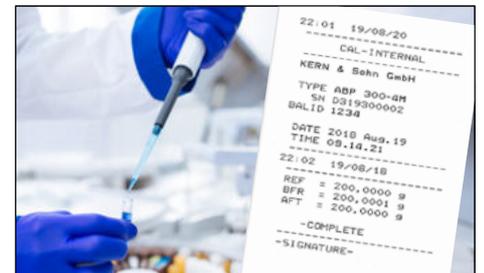
Premium analytical balance with the latest Single-Cell Generation for extremely rapid, stable weighing results - now also as a version with automatic sliding doors



1 The internal draft shield minimises the effect of currents of air in the weighing chamber and therefore significantly improves the stabilisation time and repeatability.



2 Draft shield rear panel with integrated ionisor, which can be fitted in place of the existing glass rear panel of the draft shield



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

Features

- NEW: KERN ABP-A: with 3 automatic sliding doors, which can be opened and closed using sensors, and integrated ioniser as standard. Thanks to the Memory Function, the balance stores how far the sliding doors have been opened. This prevents contamination and accelerates processes. Touching the sliding doors “gently” activates the push function and the doors open and shut automatically. The adjustable internal draft shield guarantees maximum stability of the weight readings
- 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 $\geq 1\text{ }^{\circ}\text{C}$ 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, e.g.

- B. balance adjustment, changing settings or conditioning or modification of a recipe only by the authorized person & performing the formulation by the user
- RS-232 data interfaces and USB (device) for transferring weighing data and USB (host) to connect a USB keyboard for easy capture of item numbers, recipes, 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
- [d] = 0,01 mg: 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 12 mm, bright with high contrast, for easy reading of the weight, even in poor lighting conditions
- Dimensions weighing surface \varnothing 91 mm, stainless steel
- Weighing space WxDxH 166x156x220 mm
- Overall dimensions WxDxH 213x433x344 mm
- Net weight approx. 8 kg
- Permissible ambient temperature 10 $^{\circ}\text{C}$ /30 $^{\circ}\text{C}$

Accessories

- Protective working cover, scope of delivery 5 items, KERN YBA-A06S05
- Set for density determination of liquids and solids with density $\leq/\geq 1$, the density is indicated directly on the display, KERN YDB-03
- Internal windbreak plate made of glass, KERN ABP-A02
- 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, the scope of delivery is the rear panel, ionizer, Universal plug-in power supply. Factory Option, KERN ABP-A01
- USB barcode scanner, hand-held version, dimensions WxDxH 152x84x63 mm, KERN PET-A09
- 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), for details see page 216
- 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**

STANDARD



OPTION



FACTORY



Model	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
ABP 100-5M	135	0,01	1	1	0,05	$\pm 0,2$	965-201	963-101
ABP 200-5M	220	0,01	1	1	0,05	$\pm 0,2$	965-201	963-101
ABP 100-4M	120	0,1	1	10	0,1	$\pm 0,2$	965-201	963-101
ABP 200-4M	220	0,1	1	10	0,1	$\pm 0,2$	965-201	963-101
ABP 300-4M	320	0,1	1	10	0,2	$\pm 0,3$	965-201	963-101
Multi-division balance, with increasing or decreasing load, it switches automatically to the next largest or smallest weighing range [Max] and readout [d].								
ABP 100-5DM	52 120	0,01 0,1	1 1	1	0,02 0,1	$\pm 0,05$ 0,2	965-201	963-101
ABP 200-5DM	102 220	0,01 0,1	1 1	1	0,05 0,1	$\pm 0,1$ 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.

Analytical balance KERN ABP-A – Features & accessories of the new models



Automatic sliding doors, which can be opened and closed using sensors



NEW

PREMIUM
★★★



Ioniser (included) can be activated at the touch of a button



Opening possible alternatively via button



Erlenmeyer piston holder, included as standard with ABP 200-5M and ABP 200-5AM



Internal draft shield - minimises the effect of air currents in the weighing chamber, only for 0.01 mg models of the ABP-A series



Multi-function weighing plate included with delivery for models with [d] = 0,01 mg

KERN ABP-A with integrated ioniser and internal draft shield

STANDARD



OPTION



FACTORY



Model	Weighing capacity [Max] g	Readability [d] mg	Verification value [e] mg	Minimal load [Min] mg	Reproducibility mg	Linearity mg	Option	
							Verification	DAKKS Calibr. Certificate
KERN							MD KERN	DAKKS KERN
ABP 100-5AM <small>NEW</small>	135	0,01	1	1	0,05	± 0,2	965-201	963-101
ABP 200-5AM <small>NEW</small>	220	0,01	1	1	0,05	± 0,2	965-201	963-101
ABP 200-4AM <small>NEW</small>	220	0,1	1	10	0,1	± 0,2	965-201	963-101
ABP 300-4AM <small>NEW</small>	320	0,1	1	10	0,2	± 0,3	965-201	963-101
Multi-division balance, with increasing or decreasing load, it switches automatically to the next largest or smallest weighing range [Max] and readout [d].								
ABP 100-5DAM <small>NEW</small>	52 120	0,01 0,1	1 1	1	0,02 0,1	± 0,05 0,2	965-201	963-101
ABP 200-5DAM <small>NEW</small>	102 220	0,01 0,1	1 1	1	0,05 0,1	± 0,1 0,2	965-201	963-101

Note: For applications that require verification, please order verification at the same time, initial verification at a later date is not possible.

Verification at the factory, we need to know the full address of the location of use.

NEW New model

05 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 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

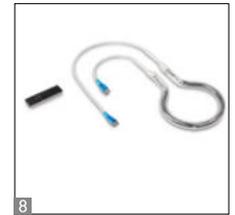
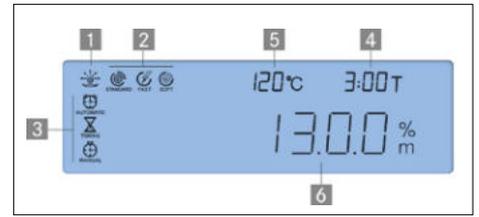
Please contact your personal customer advisor if you would like us to help!

Quick-Finder Moisture analysers

Readability [d] g	Weighing capacity [Max] g	Model KERN	Page	 DAYS	 CAL EXT	 MEMORY	 RS 232
For an explanation on the pictos, see front flap							
0,001	60	DBS 60-3	51	1	●	●	●
0,001	110	DAB 100-3	50	1	●	●	●
0,001	160	DLB 160-3A	52	1	●	●	●
0,01	200	DAB 200-2	50	1	●	●	●

● = standard

○ = option



05

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 %

- 400 W halogen-quartz glass heater
- 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

STANDARD

CAL EXT	MEMORY	RS 232	GLP	UNIT	230 V	DMS	1 DAY
---------	--------	--------	-----	------	-------	-----	-------

OPTION

DAKKS	+3 DAYS
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Model KERN	DAB 100-3	DAB 200-2
Readability [d]	0,001 g/0,01 %	0,01 g/0,05 %
Weighing capacity [Max]	110 g	200 g
Reproducibility weight of sample 2 g*	0,15 %	1,5 %
Reproducibility, weight of sample 10 g*	0,03 %	0,3 %
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	<input type="checkbox"/> Standard drying <input type="checkbox"/> Gentle drying <input type="checkbox"/> 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 WxDxH	240x365x180 mm	
Net weight	5,0 kg	
Option DAkKS Calibr. Certificate	Mass:	KERN 963-127
Option Factory Calibr. Certificate	Temperature:	KERN 964-305

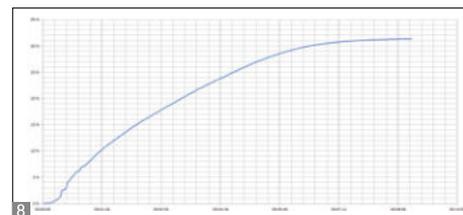
* application-dependent

containing many examples, field reports, settings and tips for each KERN moisture analyser

Note: both models are also available in infra-red version, see *Accessory*

Accessories

- Sample plates aluminium, ø 90 mm, unit of 80 pieces, KERN MLB-A01A
- Round fiberglass filter, medium mechanical stability, without 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, for more details see the internet, Scope of supplies: 1 CD, 1 license, 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



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

- 400 W halogen-quartz glass heater
- 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., *only in connection with 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



OPTION

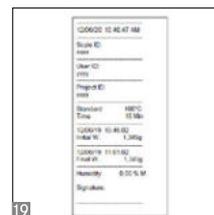
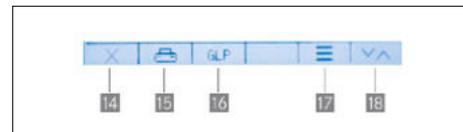


Modell KERN	DBS 60-3
Readability [d]	0,001 g/0,01 %
Weighing capacity [Max]	60 g
Reproducibility weight of sample 2 g*	0,15 %
Reproducibility, weight of sample 10 g*	0,02 %
Display after drying	
Moisture [%] = Moisture content (M) from wet weight (W)	0-100 %
Dry content [%] = Dry weight (D) from W	100-0 %
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	<input type="checkbox"/> Standard drying <input type="checkbox"/> Drying in levels <input type="checkbox"/> Gentle drying <input type="checkbox"/> 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 WxDxH	204x336x167 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, ø 90 mm, unit of 80 pieces, KERN MLB-A01A
- Round fiberglass filter, medium mechanical stability, without organic binder, box of 100 pieces, KERN RH-A02
- 7 Temperature calibration set consists of measuring sensor and display device, KERN DBS-A01.
- 8 Visualisation of the drying process in connection with BalanceConnection, KERN SCD-4.0
- Software BalanceConnection, for flexible recording or transmission of measured values, in particular also to Microsoft® Excel or Access as well as transfer of this data to other Apps and programs, For details see the internet, Scope of supplies: 1 CD, 1 license, KERN SCD-4.0-DL
- USB 2.0 cable, KERN DBS-A04
- Thermal printer, KERN YKB-01N
- Matrix needle printer, to print the weights on normal paper, ideal for long-term archiving, KERN 911-013
- Affordable universal label printer to print out weights on thermal labels, KERN YKE-01



05

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 LCD Graphic display, digit height 11 mm
- 6 direct keys for rapid access to the main functions

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 switch-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 for each KERN moisture analyser

STANDARD

CAL EXT RS 232 GLP 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	<input type="checkbox"/> Standard drying <input checked="" type="checkbox"/> Rapid drying, preheating can be switched on
Switch-off criteria	<ul style="list-style-type: none"> • 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 WxDxH	215x345x235 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, Ø 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



06 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.

► **Multi-division balances and Multi-range balances** cover a particularly wide range of applications. With these scales, the total weighing range is divided into 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. 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 182.

► **See the glossary on page 223–225**

Quick-Finder Bench scales

Readability [d] g	Weighing capacity [Max] kg	Weighing plate WxD mm	Model KERN	Page									
For an explanation on the pictos, see front flap													
0,02	6	340x240	FKB 6K0.02	58	1	●	○	●	●	●	●	●	○
0,05	6	294x225	GAB 6K0.05N	60	1	●	○	●	●	●	●	●	○
0,05	8	340x240	FKB 8K0.05	58	1	●	○	●	●	●	●	●	○
0,05	16	340x240	FKB 16K0.05	58	1	●	○	●	●	●	●	●	○
0,1	3	253x228	FCB 3K0.1	57	1	●	○	●	●	●	●	●	○
0,1	8	253x228	FCB 8K0.1	57	1	●	○	●	●	●	●	●	○
0,1	8	340x240	FKB 8K0.1	58	1	●	○	●	●	●	●	●	○
0,1	12	294x225	GAB 12K0.1N	60	1	●	○	●	●	●	●	●	○
0,1	16	340x240	FKB 16K0.1	58	1	●	○	●	●	●	●	●	○
0,1	36	340x240	FKB 36K0.1	58	1	●	○	●	●	●	●	●	○
0,2	30	294x225	GAB 30K0.2N	60	1	●	○	●	●	●	●	●	○
0,2	36	340x240	FKB 36K0.2	58	1	●	○	●	●	●	●	●	○
0,2	65	340x240	FKB 65K0.2	58	1	●	○	●	●	●	●	●	○
0,5	6	253x228	FCB 6K0.5	57	1	●	○	●	●	●	●	●	○
0,5	15	340x240	FKB 15K0.5	58	1	●	○	●	●	●	●	●	○
1	3	253x228	FCE 3K1N	56	1	●	○	●	●	●	●	●	○
1	12	253x228	FCB 12K1	57	1	●	○	●	●	●	●	●	○
1	30	253x228	FCB 30K1	57	1	●	○	●	●	●	●	●	○
1	30	340x240	FKB 30K1	58	1	●	○	●	●	●	●	●	○
1	65	340x240	FKB 65K1	58	1	●	○	●	●	●	●	●	○
1 2	3 6	295x225	GAB 6K1DNM	60	1	○	●	○	●	●	●	●	○
2	6	253x228	FCE 6K2N	56	1	●	○	●	●	●	●	●	○
2	24	253x228	FCB 24K2	57	1	●	○	●	●	●	●	●	○
2 5	6 15	300x230	GAB 15K2DNM	60	1	○	●	○	●	●	●	●	○
5	10	320x260	ECE 10K-3N	55	1	●	○	●	●	●	●	●	○
5	10	320x260	ECB 10K-3N	55	1	●	○	●	●	●	●	●	○
5	15	253x228	FCE 15K5N	56	1	●	○	●	●	●	●	●	○
5 10	15 30	294x225	GAB 30K5DNM	60	1	○	●	○	●	●	●	●	○
10	20	320x260	ECE 20K-2N	55	1	●	○	●	●	●	●	●	○
10	20	320x260	ECB 20K-2N	55	1	●	○	●	●	●	●	●	○
10	30	253x228	FCE 30K10N	56	1	●	○	●	●	●	●	●	○
20	50	320x260	ECE 50K-2N	55	1	●	○	●	●	●	●	●	○
20	50	320x260	ECB 50K-2N	55	1	●	○	●	●	●	●	●	○

● = standard ○ = option

06



Plain, mobile, uncomplicated

Features

- **2** 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.)
- Particularly large weighing plate
- Very fast display: steady weight values within 2 s
- Simple and convenient 2-key operation

Technical data

- ECE-N: Large LCD display, digit height 21 mm
- ECB-N: Large backlit LCD display, digit height 21 mm
- Weighing plate material
 - ECE-N: plastic
 - ECB-N: stainless steel, see larger picture
- Dimensions weighing surface, W×D
320×260 mm
- Overall dimensions W×D×H
320×300×60 mm
- Battery operation, 6×1.5 V AA standard, operating time up to 100 h, AUTO-OFF function to preserve the battery
- Net weight
 - ECE-N: approx. 1,6 kg
 - ECB-N: approx. 2,6 kg
- Permissible ambient temperature
5 °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, overall dimensions W×D×H, 400×300×45 mm, KERN RFS-A02
- External universal mains adapter, with universal input and optional input socket adapters for EU, CH, GB, USA, KERN YKA-03N
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD				OPTION		

Model	Weighing capacity [Max] kg	Readability [d] g	Reproducibility g	Linearity g	Option
					DAkkS Calibr. Certificate DAkkS KERN
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

06



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, commissioning 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, WxD 253x228 mm
- Overall dimensions WxDxH 270x323x110 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 rechargeable battery pack, operating time up to 20 h without backlight, charging time approx. 10 h, KERN FCB-A01

STANDARD					OPTION	
CAL EXT	BATT	MULTI	DMS	1 DAY	ACCU	DAKKS +3 DAYS

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



Bench scale, also 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 as standard
- Protective working cover included with delivery

Technical data

- Backlit LCD display, digit height 25 mm
- Dimensions weighing surface, stainless steel, WxD 253x228 mm
- Overall dimensions WxDxH 270x323x110 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 items, KERN FCF-A01S05
- Internal rechargeable 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				

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

FACE
LIFTPREMIUM
★★★

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
- Robust plastic die-cast housing: maintains the stability, protects the weighing technology elements and is robust enough to cope with everyday use
- PRE-TARE function for manual subtraction of a known container weight, useful for checking fill-levels
- Industry 4.0: The integrated KERN Universal Port (KUP) allows the connection of external KUP interface adapters such as RS-232, USB,

Bluetooth, WLAN, Analogue, Ethernet etc. The outstanding advantage here is that the KUP interface adapters are simply plugged in, i.e. retrofitting interfaces is conveniently possible without opening the scale housing or complicated installation. The interface adapters enable convenient transmission of weighing data to networks, PCs, smartphones, tablets, laptops, printers etc. In addition, control commands and data inputs can also be sent to the scale via the connected devices.

Tip: with the KERN YKUP-13 extension box, up to three KUP interface adapters can be operated in parallel on the scale

- KERN Communication Protocol (KCP): The KCP permits searching and remote control of the balance using external control devices or computers. for details see page 8/9
- Freely programmable weighing unit, e.g. display direct in special units such as length of wire g/m, surface weight g/m², or else
- Level indicator and levelling feet for precise levelling of the scale, fitted as standard
- Protective working cover included with delivery



Technical data

- Large backlit LCD display, digit height 25 mm
- Dimensions weighing surface, stainless steel, WxD 340×240 mm
- Overall dimensions W×D×H 350×390×120 mm
- Optional battery operation, 4×1.5 V AA not included in scope of delivery, operating time up to 20 h
- Net weight approx. 7 kg
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Protective working cover, scope of delivery 5 items, KERN FKB-A02S05
- Internal rechargeable battery pack, operating time up to 48 h without backlight, charging time approx. 8 h, KERN YKR-01
- External data interface USB, Interface cable included, KERN YKUP-03
- External data interface RS-232, Interface cable included, KERN YKUP-01
- Bluetooth interface adapter, KERN YKUP-06
- WiFi interface adapter, KERN YKUP-05
- External data interface Ethernet, KERN YKUP-04
- Extension-Box, KERN YKUP-13
- Tare pan made from stainless steel, overall dimensions W×D×H, 400×300×45 mm, KERN RFS-A02
- Further details, plenty of further accessories and suitable printers see *Accessories*

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.

STANDARD



OPTION



Model	Weighing capacity [Max] kg	Readability [d] g	Reproducibility g	Linearity g	Smallest part weight [Normal] g/piece	Resolution Points	Option DAKKS Calibr. Certificate DAKKS KERN
KERN							
FKB 6K0.02	6	0,02	0,04	± 0,2	0,2	300.000	963-128
FKB 8K0.05	8	0,05	0,05	± 0,5	0,5	300.000	963-128
FKB 8K0.1	8	0,1	0,05	± 0,5	0,5	160.000	963-128
FKB 15K0.5	15	0,5	0,1	± 0,3	10	320.000	963-128
FKB 16K0.05	16	0,05	0,1	± 1	0,5	80.000	963-128
FKB 16K0.1	16	0,1	0,1	± 1	1	160.000	963-128
FKB 30K1	30	1	0,2	± 2	20	360.000	963-128
FKB 36K0.1	36	0,1	0,2	± 2	1	180.000	963-128
FKB 36K0.2	36	0,2	0,5	± 5	2	325.000	963-128
FKB 65K0.2	65	0,2	1	± 10	2	30.000	963-129
FKB 65K1	65	1	1	± 10	20	65.000	963-129



06

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 WxD 295x225 mm
- Overall dimensions WxDxH 315x350x125 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
- 1 Signal lamp for visual support of weighing with tolerance range, KERN CFS-A03
- 2 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, overall dimensions WxDxH, 400x300x45 mm, 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 commercial trade.

STANDARD										OPTION			FACTORY	
													GAB-DNM	

Model	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Smallest part weight [Normal] g/piece	Option	
						Verification	DAkkS Calibr. Certificate
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

Multi-division balance, with increasing or decreasing load, it switches automatically to the next largest or smallest weighing range [Max] and readout [d].

Note: For applications that require verification, please order verification at the same time, initial verification at a later date is not possible.

Verification at the factory, we need to know the full address of the location of use.

GAB 6K1DNM	3 6	1 2	1 2	20	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

07 FOOD



(KITCHEN/STAINLESS STEEL/IP65...68 PROTECTION)

KERN scales – without fear of water!

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 food, chemical, 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 223–225

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

KERN-Pictogram	1. digit	Specification	2. digit	Specification
	6	Dustproof	5	Protection against jets of water (nozzle) from any angle (cleaning with a damp cloth)
	6	Dustproof	6	Protection against powerful jets of water
	6	Dustproof	7	Protection against temporary immersion
	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	Weighing capacity	Model	Page											
[d]	[Max]	KERN												
g	kg													
For an explanation on the pictos, see front flap														
0,1	0,5	FOB 500-1S	66	1										
0,1	0,5	FOB 0.5K-4NS	66	1										
0,1	3	FCF 3K-4	62	1										
0,2	1,5	WTB 1K-4N	68	1										
0,2	1,5	FFN 1K-4N	69	1										
0,2	3	FOB 3K-4NL	67	1										
0,5	1,5	FOB 1K-4LM	65	1										
0,5	1,5	FOB 1.5K0.5	67	1										
0,5	1,5	WTB 1K-4NM	68	1										
0,5	1,5	FFN 1K-4NM	69	1										
0,5	3	WTB 3K-4N	68	1										
0,5	3	FFN 3K0.5IPN	69	1										
0,5	3	FXN 3K-4N	70	1										
0,5	6	SXS 6K-3	72	1										
0,5 1	5 7,5	FOB 7K-4NL	67	1										
1	3	FOB 3K-3LM	65	1										
1	3	FOB 3K1	67	1										
1	3	WTB 3K-3NM	68	1										
1	3	FFN 3K1IPM	69	1										
1	3	FXN 3K-3M	70	1										
1	5	FGE 5K-3S05*	63	1										
1	5	FOB 5K1S	66	1										
1	5	FOB 5K-3NS	66	1										
1	6	WTB 6K-3N	68	1										
1	6	FFN 6K1IPN	69	1										
1	6	FXN 6K-3N	70	1										
1	10	SFB 10K1HIP	71	1										
1	15	FGE 10K-3S05*	63	1										
1	15	SXS 10K-3	72	1										
1	15	SXS 10K-3L	72	1										
1	30	FCF 30K-3	62	1										
1 2	3 6	SXS 6K-3M	72	1										
1 2	8 15	FOB 10K-3NL	67	1										
2	6	FOB 6K-3LM	65	1										
2	6	FOB 6K2	67	1										
2	6	WTB 6K-3NM	68	1										
2	6	FFN 6K2IPM	69	1										
2	6	FXN 6K-3M	70	1										
2	15	WTB 10K-3N	68	1										
2	15	FFN 15K2IPN	69	1										
2	15	FXN 10K-3N	70	1										
2	20	SFB 20K2HIP	71	1										
2	30	SXS 30K-2	72	1										
2	30	SXS 30K-2L	72	1										
2 5	6 15	SXS 10K-3M	72	1										
2 5	6 15	SXS 10K-3LM	72	1										
2 5	16 30	FOB 30K-3NL	67	1										
5	15	FOB 10K-3LM	65	1										
5	15	WTB 10K-3NM	68	1										
5	15	FFN 15K5IPM	69	1										
5	15	FXN 10K-3M	70	1										
5	15	SFB 15K5HIPM	71	1										
5	25	FFN 25K5IPN	69	1										
5	30	WTB 30K-3N	68	1										
5	30	FXN 30K-3N	70	1										
5	50	SFB 50K5LHIP	71	1										
5	50	SFB 50K5HIP	71	1										
5	50	SFB 50K-3XL	71	1										
5	60	SXS 60K-2	72	1										
5	60	SXS 60K-2L	72	1										
5 10	15 30	SXS 30K-2M	72	1										
5 10	15 30	SXS 30K-2LM	72	1										
10	25	FFN 25K10IPM	69	1										
10	30	WTB 30K-2NM	68	1										
10	30	FXN 30K-2M	70	1										
10	30	SFB 30K10HIPM	71	1										
10	100	SFB 100K10HIP	71	1										
10	100	SFB 100K-2XL	71	1										
10	150	SXS 100K-2	72	1										
10	150	SXS 100K-2L	72	2**										
10 20	30 60	SXS 60K-2M	72	1										
10 20	30 60	SXS 60K-2LM	72	1										
20	60	SFB 60K20LHIPM	71	1										
20	60	SFB 60K-2XLM	71	1										
20	300	SXS 300K-2	72	2**										
20 50	60 150	SXS 100K-2M	72	1										
20 50	60 150	SXS 100K-2LM	72	2**										
50	150	SFB 100K-2HM	71	1										
50	150	SFB 100K-2LM	71	1										
50	150	SFB 100K-2XLM	71	1										
50 100	150 300	SXS 300K-2M	72	2**										

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

● = standard ○ = option



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

07

Features

- FGE 10K-3S05: Weighing plate made out of safety glass
- Easy and hygienic cleaning
- Low overall height for secure footing and space-saving storage
- Secure and non-slip positioning with 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
- Large high-contrasted display that is easy to read
- 3 Delivered in single design packaging

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, luminescent 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 with the suffix -S05 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 prices refers to one single balance

STANDARD

CAL EXT UNIT BATT DMS 1 DAY

OPTION

DAkKS +3 DAYS

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



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
 - Checkweigher in the catering trade, cafeterias, school kitchens
 - compact letter and parcel scale, especially in constricted spaces
 - grading or commissioning balance or simple checkweigher in production or dispatch
- 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, WxD 253x228 mm
- Overall dimensions WxDxH 270x345x106 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 [Max] kg	Readability [d] g	Reproducibility g	Linearity g	Smallest part weight [Normal] g/piece	Option DAkks Calibr. Certificate DAkks KERN
KERN FCF 3K-4	3	0,1	0,1	± 0,3	2	963-127
KERN FCF 30K-3	30	1	1	± 3	20	963-128



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

07

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
- Thanks to the stainless steel design of the housing and platform with smooth surface, the scale is rust-free and easy to clean
- **2** Ideal for the increased hygienic requirements in the food industries
- High mobility: thanks to battery operation, compact, lightweight construction, it is suitable for the use in several locations (kitchens, sales offices, cafeterias, food industry laboratories, etc.)
- Your support in a HACCP-compliant quality system
- Protection against dust and water splashes IP65 (only when using battery)

- Secure and non-slip positioning with 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
- Dimensions weighing surface, stainless steel, WxD 248x198 mm
- Overall dimensions WxDxH 256x285x100 mm
- Battery operation, 4x1.5 V AA standard, operating time up to 48 h, AUTO-OFF function to preserve the battery
- Net weight approx. 3,8 kg
- Permissible ambient temperature 0 °C/40 °C

Accessories

- **3** Protective working cover, scope of delivery 5 items, KERN FOB-A13S05
- **4** Tare pan made from stainless steel, overall dimensions WxDxH, 400x300x45 mm, KERN RFS-A02

Note: Official verification is mandatory for commercial trade

STANDARD

CAL EXT TOL IP 65 BATT 230 V DMS 1 DAY

OPTION FACTORY

DAkkS +3 DAYS M +3 DAYS

Model	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Weighing plate mm	Option	
						Verification M KERN	DAkkS Calibr. Certificate DAKKS KERN
FOB 1K-4LM	1,5	0,5	0,5	10	248x198	965-227	963-127
FOB 3K-3LM	3	1	1	20	248x198	965-227	963-127
FOB 6K-3LM	6	2	2	40	248x198	965-228	963-128
FOB 10K-3LM	15	5	5	100	248x198	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.



FOB-S



FOB-NS

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

Features

- Thanks to the stainless steel design of the housing and platform with smooth surface, the scale is rust-free and easy 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 with rubber feet
- Your support in a HACCP-compliant quality system
- Particularly flat design
- Protective working cover included with delivery
- KERN FOB-NS: Protection against dust and water splashes IP65 (only when using battery)

Accessories

- Protective working cover, scope of delivery 5 items,
KERN FOB-S: KERN FOB-A11S05
KERN FOB-NS: KERN FOB-A12S05
- External mains adapter,
KERN FOB-A09

STANDARD						OPTION	
CAL EXT						230 V	
UNIT						DAkkS +3 DAYS	
IP 65							
BATT							
DMS							
1 DAY							
FOB-NS							

Model KERN	FOB 500-1S	FOB 5K1S	FOB 0.5K-4NS	FOB 5K-3NS
Weighing capacity [Max] kg	0,5	5	0,5	5
Readability [d] g	0,1	1	0,1	1
LCD display, digit height mm	20 without backlight			
Dimens. weighing surface mm	155×125		150×120	
Overall dimensions mm	155×175×40		150×170×40	
Power supply	9 V block, operating time up to 20 h			
Net weight kg	0,7		0,8	
Permissible ambient temperature	10 °C/40 °C		10 °C/35 °C	10 °C/40 °C
Option DAkkS Calibr. Certificate	963-127			



FOB



FOB-NL

Stainless steel bench scale with large weighing ranges and IP67 protection against dust and water spray

07

Features

- 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.)
- Thanks to the stainless steel design of the housing and platform with smooth surface, the scale is rust-free and easy to clean
- Ideal for the increased hygienic requirements in the food industries
- Your support in a HACCP-compliant quality system
- Increased protection against humidity through waterproof silicone sealing of the load cell, electronics and soldering joints

- KERN FOB-NL: Protection against dust and water splashes IP67 (only when using battery)
- KERN FOB: 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
- Protective working cover included with delivery

Accessories

- Protective working cover, scope of delivery 5 items
KERN FOB: KERN FOB-A05S05
KERN FOB-NL: KERN FOB-A13S05
- KERN FOB: Internal rechargeable battery pack, operating time up to 24 h without backlight, charging time approx. 8 h, KERN FOB-A07
- KERN FOB-NL: External mains adapter, KERN YKA-29
- Tare pan made from stainless steel, overall dimensions W×D×H, 400×300×45 mm, 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 KERN	FOB 1.5K0.5	FOB 3K1	FOB 6K2	FOB 3K-4NL	FOB 7K-4NL*	FOB 10K-3NL*	FOB 30K-3NL*
Weighing capacity [Max] kg	1,5	3	6	3	5 7,5	8 15	16 30
Readability [d] g	0,5	1	2	0,2	0,5 1	1 2	2 5
LCD display, digit height mm	20 without backlight			25 without backlight		25 backlight	
Dimens. weighing surface mm	175×165			248×198		252×200	
Overall dimensions mm	235×175×55			295×260×95		285×255×90	
Power supply	Plug-in power supply			Batteries included, 4×1.5 V AA, operating time up to 48 h			
Net weight kg	2,0			3,8			
Permissible ambient temperature	5 °C/35 °C			5 °C/35 °C			
Option DAkkS Calibr. Certificate	963-127	963-128		963-127	963-128		

*Multi-division balance, with increasing or decreasing load, it switches automatically to the next largest or smallest weighing range [Max] and readout [d].



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

Features

- Ideal for the increased hygienic requirements in the food industries
- 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 back 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
- Dimensions weighing surface, stainless steel, WxD 263x203 mm
- Overall dimensions WxDxH 286x316x126,5 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, overall dimensions WxDxH, 400x300x45 mm, KERN RFS-A02

STANDARD OPTION FACTORY

Model	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Option	
					Verification M III KERN	DAkkS Calibr. Certificate DAkkS KERN
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



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

07

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.)
- Thanks to the stainless steel design of the housing and platform with smooth surface, the scale is rust-free and easy 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, WxD 233x193 mm
- Overall dimensions WxDxH 243x300x127 mm
- Rechargeable battery pack integrated, as standard, operating time up to 50 h without backlight, charging time approx. 12 h
- Net weight approx. 4,0 kg
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Tare pan made from stainless steel, overall dimensions WxDxH, 400x300x45 mm, KERN RFS-A02

STANDARD

CAL EXT UNIT IP 65 ACCU MULTI DMS 1 DAY

OPTION FACTORY

DAkkS +3 DAYS M +3 DAYS FFN-M

Model	Weighing capacity	Readability	Verification value	Minimal load	Verification	Option DAkkS Calibr. Certificate
	[Max] kg	[d] g	[e] g	[Min] g	KERN	DAkkS KERN
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



Bench scale, protected by stainless steel and protection type IP68, also with EC type approval [M]

Features

- Ideal for the increased hygienic requirements in the food industries
- Your support in a HACCP-compliant quality system
- Ideal for the robust industrial applications
- Dust and splash water protection type IP68. Therefore very robust and durable. Ideal for rough environmental conditions. Even immersion of the scale in water possible
- Thanks to the stainless steel design of the housing and platform with smooth surface, the scale is rust-free and easy 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 (kitchens, sales offices, cafeterias, food industry laboratories, etc.)

- 1 Recessed grips on the underside of the scale for easy transportation
- Weighing with tolerance range (check-weighing): a visual and audible signal helps with portioning, dispensing or grading

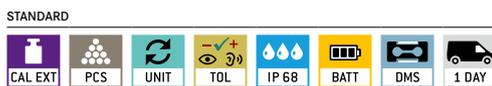
Technical data

- Large backlit LCD display, digit height 25 mm
- Dimensions weighing surface, stainless steel, WxD 236x195 mm
- Ready for use: Batteries standard, 4x1.5 V Size D, operating time approx. 500 h, AUTO-OFF function to preserve the battery
- Net weight approx. 3,4 kg
- Permissible ambient temperature -10 °C/40 °C

Accessories

- 2 Tare pan made from stainless steel, overall dimensions WxDxH, 400x300x45 mm, KERN RFS-A02

Note: Official verification is mandatory for commercial trade.



Model	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Smallest part weight [Normal] g/piece	Verification	Option DAKkS Calibr. Certificate
KERN						M KERN	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



Please note: only one optional interface can be fitted for each one

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** KERN 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

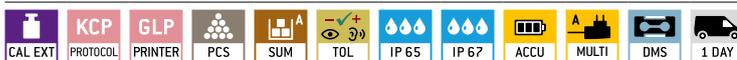
Technical data

- Large backlit LCD display, digit height 52 mm
- Dimensions of display device W×D×H 266×165×96 mm
- Weighing plate dimensions, stainless steel
 - A** W×D×H 300×240×105 mm
 - B** W×D×H 400×300×105 mm
 - C** W×D×H 500×400×137 mm
 - D** W×D×H 650×500×142 mm
- KERN SFB: Cable length of display device approx. 3 m
- Rechargeable battery pack integrated, as standard, operating time up to 35 h without backlight, charging time approx. 12 h
- Permissible ambient temperature -10 °C/40 °

Accessories

- **4** KERN SFB: Stand to be screwed onto the platform, height of stand approx. 600 mm, KERN SFB-A01
- **5** KERN SFB: Stand to elevate display device, height of stand approx. 800 mm, KERN BFN-A04
- Data interface RS-232, interface cable included, approx. 1,5 m, must be ordered at purchase, KERN KFN-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 0-10 V, must be ordered at purchase, KERN KFB-A04
- Analogue module 4-20 mA, must be ordered at purchase, KERN KFB-A05
- Further details, plenty of further accessories and suitable printers see *Accessories*

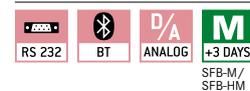
STANDARD



OPTION



FACTORY



Model	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Net weight approx. kg	Weighing plate W×D	Option		
							Verification M KERN	DAKKS Calibr. KERN	Certificate
KERN									
SFB 50K-3XL	50	5	-	-	14	C	-	963-128	
SFB 100K-2XL	100	10	-	-	24	D	-	963-129	
with elevated display									
SFB 10K1HIP	10	1	-	-	8	A	-	963-128	
SFB 20K2HIP	20	2	-	-	8	A	-	963-128	
SFB 50K5HIP	50	5	-	-	8	A	-	963-128	
SFB 50K5LHIP	50	5	-	-	10	B	-	963-128	
SFB 100K10HIP	100	10	-	-	10	B	-	963-129	
Note: For applications that require verification, please order verification at the same time, initial verification at a later date is not possible. Verification at the factory, we need to know the full address of the location of use.									
SFB 60K-2XLM	60	20	20	400	14	C	965-229	963-129	
SFB 100K-2LM	150	50	50	1000	14	C	965-229	963-129	
SFB 100K-2XLM	150	50	50	1000	24	D	965-229	963-129	
with elevated display									
SFB 15K5HIPM	15	5	5	100	8	A	965-228	963-128	
SFB 30K10HIPM	30	10	10	200	8	A	965-228	963-128	
SFB 60K20LHIPM	60	20	20	400	10	B	965-229	963-129	
SFB 100K-2HM	150	50	50	1000	10	B	965-229	963-129	



07

Stainless steel platform scale with stainless steel IP68 display and EC type approval [M]



Piece counting



Recipe-weighing



Thanks to the stainless steel design of the housing 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, protection against dust and water splashes IP68. Substruction in wing design, extremely resistant to bending. Earthed weighing plate, to reduce static charge
- Display device: stainless steel, dust and splash water protection IP68, integrated power supply
- Ideal for the increased hygienic requirements in the food industries
- 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
 - A** W×D×H 300×240×86 mm
 - B** W×D×H 400×300×89 mm
 - C** W×D×H 500×400×123 mm
 - D** W×D×H 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

Note: It is only possible to install one cable option. Either KXS-A04, KXS-A01 or KXS-A03



Accessories

- **2** Stand to elevate display device, for models with weighing plate size
 - 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
- **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
- Foot switch, must be ordered at purchase, KERN KXS-A03
- 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, must be ordered at purchase, not in combination with verification, KERN KXS-A02
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD



OPTION



FACTORY



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

1 ONLY WHILE STOCKS LAST



08

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 **MIII** 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.

All KERN 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.

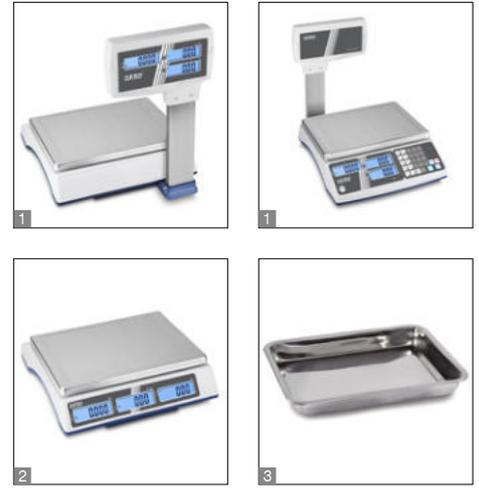
► See the glossary on page 223–225

Quick-Finder Price computing scales

Readability [d] g	Weighing capacity [Max] kg	Model	Page						
For an explanation on the pictos, see front flap									
0,5 1	1,5 3	RPB 3K3DM	76	1	○	●	●	●	○
0,5 1	1,5 3	RPB 3K3DHM	76	1	○	●	●	●	○
1 2	3 6	RIB 6K-3M	75	1	○	●	●	●	○
1 2	3 6	RIB 6K-3HM	75	1	○	●	●	●	○
1 2	3 6	RPB 6K1DM	76	1	○	●	●	●	○
1 2	3 6	RPB 6K1DHM	76	1	○	●	●	●	○
1 2	3 6	RFE 6K3M	77	1	○	●	●	●	○
2 5	6 15	RIB 10K-3M	75	1	○	●	●	●	○
2 5	6 15	RIB 10K-3HM	75	1	○	●	●	●	○
2 5	6 15	RPB 15K2DM	76	1	○	●	●	●	○
2 5	6 15	RPB 15K2DHM	76	1	○	●	●	●	○
2 5	6 15	RFE 15K3M	77	1	○	●	●	●	○
5 10	15 30	RIB 30K-2M	75	1	○	●	●	●	○
5 10	15 30	RIB 30K-2HM	75	1	○	●	●	●	○
5 10	15 30	RPB 30K5DM	76	1	○	●	●	●	○
5 10	15 30	RPB 30K5DHM	76	1	○	●	●	●	○
5 10	15 30	RFE 30K3M	77	1	○	●	●	●	○

● = standard

○ = option



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. 405 mm
- **2** KERN RIB-M: Second display on the back of the balance
- Three displays for weight display (verifiable), unit price, total price
- 10 direct price keys for frequently recurring article prices
- Memory (PLU) for 20 article prices
- Energy management: Backlight turns off after 5 sec, can be switched off
- Soil-resistant construction through water channels at the frame of the housing and sealing rings over the upper housing inlets
- Protective working cover included with delivery

Technical data

- Large backlit LCD displays, digit height 18 mm
- Weighing plate dimensions, stainless steel, WxD 294x225 mm
- Overall dimensions WxDxH
KERN RIB-M: 325x340x115 mm
KERN RIB-HM: 325x340x405 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 from stainless steel, overall dimensions WxDxH, 400x300x45 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 commercial trade

STANDARD					OPTION		FACTORY
CAL EXT	MEMORY	230 V	DMS	1 DAY	ACCU	DAkkS +3 DAYS	M +3 DAYS

Model	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Verification KERN	Option
						DAkkS Calibr. Certificate DAkkS KERN
Multi-range balance, with increasing load it switches automatically to the next largest weighing range [Max] and readout [d] and when the load is fully removed, the balance switches back to the lower range						
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.



Retail scale with memories for 10 item prices - now with Checkout-Dialogue 06

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
- **2** KERN RPB-M: Second display on the back 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
- Weighing plate dimensions, stainless steel, W×D 204×263 mm
- Overall dimensions W×D×H
KERN RPB-M: 283×318×100,3 mm
KERN RPB-HM: 283×375,5×486,8 mm
- Net weight
KERN RPB-M: approx. 2,8 kg
KERN RPB-HM: approx. 3,2 kg
- Permissible ambient temperature -10 °C/40 °C

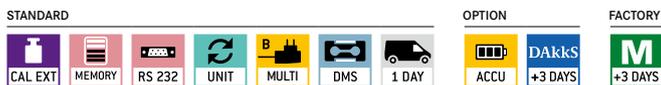
Accessories

- Protective working cover, scope of delivery 5 items, KERN RFC-A02S05
- Internal rechargeable battery pack, operating time up to 60 h without backlight, charging time approx. 12 h, KERN WTB-A01N
- Tare pan made from stainless steel, overall dimensions W×D×H, 400×300×45 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 commercial trade.



Model	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Option	
					Verification M KERN	DAKKS Calibr. Certificate DAKKS KERN
Multi-division balance, with increasing or decreasing load, it switches automatically to the next largest or smallest weighing range [Max] and readout [d].						
RPB 3K3DM	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	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.



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 back 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. Height of stand 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 €/kg to €/100 g
- Auto-clear-key: Unit price entry is automatically set to zero when scale is unloaded
- Up to three headers and footers of the printout can be programmed directly on the balance
- High mobility: thanks to rechargeable battery operation (optional), compact, light-weight construction, it is suitable for the use in several locations
- Recessed grips on the underside of the scale for easy transportation

Application examples

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

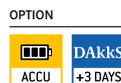
Note: Official verification is mandatory for commercial trade.

Technical data

- Large backlit LCD displays, digit height 20 mm
- Weighing plate dimensions, stainless steel, WxD 230x300 mm
- Overall dimensions WxDxH 320x450x130 mm 320x450x410 mm (incl. stand)
- Net weight approx. 4,2 kg
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Affordable universal label printer to print out weights on thermal labels. ASCII-capable. Convenient Auto-Forward function to automatically jump from label to label (only with KERN standard labels), KERN YKE-01
- Internal rechargeable battery pack, operating time up to 30 h with backlight, charging time approx. 12 h, KERN GAB-A04



Model	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Option	
					Verification M III KERN	DAKKS Calibr. Certificate DAKKS KERN
Multi-division balance, with increasing or decreasing load, it switches automatically to the next largest or smallest weighing range [Max] and readout [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.



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 $\leq 60,000$ points, 50 pieces from 60,000–150,000 points, 100 pieces $\geq 150,000$ 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. In this case, high-performing counting systems come into operation, as these combine a high-precision reference scale with a high-capacity bulk scale.

► **See the glossary on page 223–225**

Quick-Finder Counting scales/Counting systems

Readability [d] g	Weighing capacity [Max] kg	Smallest part weight [Normal] g/piece	Counting resolution Points	Model KERN	Page										
						For an explanation on the pictos, see front flap									
0,001	0,3	0,05	60.000	CFS 300-3	84	1	●	●	●	●	●	●	●	●	●
0,001	0,36	0,01	360.000	CKE 360-3	85	1	●	●	●	○	●	●	●	●	●
0,001	6	0,05	1.200.000	CCS 6K-6	90	2	●	●	●	●	●	●	●	●	●
0,001	15	0,05	3.000.000	CCS 10K-6	90	2	●	●	●	●	●	●	●	●	●
0,01	3	0,5	60.000	CFS 3K-5	84	1	●	●	●	●	●	●	●	●	●
0,01	3,6	0,1	360.000	CKE 3600-2	85	1	●	●	●	○	●	●	●	●	●
0,01	3 6	0,2	300.000	CCA 6K-5M	88	2	○	●	●	●	●	●	●	●	●
0,01	6 15	0,2	750.000	CCA 10K-5M	88	2	○	●	●	●	●	●	●	●	●
0,01	15 30	0,2	1.500.000	CCA 30K-5M	88	2	○	●	●	●	●	●	●	●	●
0,01	30	0,5	600.000	CCS 30K0.01.	90	2	●	●	●	●	●	●	●	●	●
0,01	30 60	0,2	3.000.000	CCA 60K-5M	88	2	○	●	●	●	●	●	●	●	●
0,01	60	0,5	1.200.000	CCS 60K0.01.	90	2	●	●	●	●	●	●	●	●	●
0,01	60	0,5	1.200.000	CCS 60K0.01L.	90	2	●	●	●	●	●	●	●	●	●
0,01	60 150	0,2	7.500.000	CCA 100K-5M	88	2	○	●	●	●	●	●	●	●	●
0,01	150	0,5	3.000.000	CCS 150K0.01	90	2	●	●	●	●	●	●	●	●	●
0,01	150	0,5	3.000.000	CCS 150K0.01L	90	2	●	●	●	●	●	●	●	●	●
0,01	150 300	0,2	15.000.000	CCA 300K-5M	88	2	○	●	●	●	●	●	●	●	●
0,01	300	0,5	6.000.000	CCS 300K0.01	90	2	●	●	●	●	●	●	●	●	●
0,01	600	0,5	12.000.000	CCS 600K-2U	90	4*	●	●	●	●	●	●	●	●	●
0,01	600	0,5	12.000.000	CCS 600K-2L	90	4*	●	●	●	●	●	●	●	●	●
0,02	4	0,2	200.000	CDS 4K0.02	87	1	●	●	●	○	●	●	●	●	●
0,02	6	0,2	300.000	CKE 6K0.02	85	1	●	●	●	○	●	●	●	●	●
0,05	8	0,5	160.000	CKE 8K0.05	85	1	●	●	●	○	●	●	●	●	●
0,05	15	0,5	300.000	CDS 15K0.05	87	1	●	●	●	○	●	●	●	●	●
0,05	16	0,5	320.000	CKE 16K0.05	85	1	●	●	●	○	●	●	●	●	●
0,1	6	1	60.000	CPB 6K0.1N	83	1	●	●	●	●	●	●	●	●	●
0,1	6	1	60.000	CFS 6K0.1	84	1	●	●	●	●	●	●	●	●	●
0,1	3 6	1	60.000	CCA 6K-4M	88	2	○	●	●	●	●	●	●	●	●
0,1	6 15	1	150.000	CCA 10K-4M	88	2	○	●	●	●	●	●	●	●	●
0,1 0,2	3 6	1	60.000	IFS 6K-4S	86	1	●	●	●	●	●	●	●	●	●
0,1 0,2	6 15	2	75.000	IFS 10K-4	86	1	●	●	●	●	●	●	●	●	●
0,1	16	1	160.000	CKE 16K0.1	85	1	●	●	●	○	●	●	●	●	●
0,1	16	1	160.000	CDS 16K0.1	87	1	●	●	●	○	●	●	●	●	●
0,1	30	1	300.000	CDS 30K0.1	87	1	●	●	●	○	●	●	●	●	●
0,1	30	1	300.000	CDS 30K0.1L	87	1	●	●	●	○	●	●	●	●	●
0,1	30	1	300.000	CCS 30K0.1.	90	2	●	●	●	●	●	●	●	●	●
0,1	15 30	1	300.000	CCA 30K-4M	88	2	○	●	●	●	●	●	●	●	●
0,1	36	1	360.000	CKE 36K0.1	85	1	●	●	●	○	●	●	●	●	●
0,1	30 60	1	600.000	CCA 60K-4M	88	2	○	●	●	●	●	●	●	●	●
0,1	60	1	600.000	CCS 60K0.1.	90	2	●	●	●	●	●	●	●	●	●
0,1	60	1	600.000	CCS 60K0.1L.	90	2	●	●	●	●	●	●	●	●	●
0,1	60 150	1	1.500.000	CCA 100K-4M	88	2	○	●	●	●	●	●	●	●	●
0,1	150	1	1.500.000	CCS 150K0.1.	90	2	●	●	●	●	●	●	●	●	●
0,1	150	1	1.500.000	CCS 150K0.1L	90	2	●	●	●	●	●	●	●	●	●
0,1	150 300	1	3.000.000	CCA 300K-4M	88	4*	○	●	●	●	●	●	●	●	●
0,1	300	1	3.000.000	CCS 300K0.1	90	4*	●	●	●	●	●	●	●	●	●
0,1	600	1	6.000.000	CCS 600K-1S	90	4*	●	●	●	●	●	●	●	●	●
0,1	600	1	6.000.000	CCS 600K-1	90	4*	●	●	●	●	●	●	●	●	●
0,1	1500	1	15.000.000	CCS 1T-4S	90	4*	●	●	●	●	●	●	●	●	●
0,1	1500	1	15.000.000	CCS 1T-1U	90	4*	●	●	●	●	●	●	●	●	●
0,1	1500	1	15.000.000	CCS 1T-4	90	4*	●	●	●	●	●	●	●	●	●
0,1	1500	1	15.000.000	CCS 1T-1L	90	4*	●	●	●	●	●	●	●	●	●
0,1	3000	1	30.000.000	CCS 3T-3L	90	4*	●	●	●	●	●	●	●	●	●
0,1	3000	1	30.000.000	CCS 3T-3	90	4*	●	●	●	●	●	●	●	●	●
0,1	3000	1	30.000.000	CCS 3T-1	90	4*	●	●	●	●	●	●	●	●	●
0,2	3	1	30.000	CIB 3K-4	81	1	●	●	●	●	●	●	●	●	●
0,2	3	1	30.000	CXB 3K0.2	82	1	●	●	●	●	●	●	●	●	●
0,2	15	2	75.000	CFS 15K0.2	84	1	●	●	●	●	●	●	●	●	●
0,2	15	2,5	60.000	CPB 15K0.2N	83	1	●	●	●	●	●	●	●	●	●
0,2	36	2	180.000	CDS 36K0.2L	87	1	●	●	●	○	●	●	●	●	●
0,2	60	2	300.000	CDS 60K0.2	87	1	●	●	●	○	●	●	●	●	●
0,2	65	2	325.000	CKE 65K0.2	85	1	●	●	●	○	●	●	●	●	●
0,2 0,5	12 30	5	60.000	IFS 30K0.2DL	86	1	●	●	●	●	●	●	●	●	●
0,5	6	2	30.000	CIB 6K-4	81	1	●	●	●	●	●	●	●	●	●
0,5	6	2	30.000	CXB 6K0.5	82	1	●	●	●	●	●	●	●	●	●
0,5	30	5	60.000	CPB 30K0.5N	83	1	●	●	●	●	●	●	●	●	●
0,5	30	5	60.000	CFS 30K0.5	84	1	●	●	●	●	●	●	●	●	●
0,5 1	30 60	10	60.000	IFS 60K0.5D	86	1	●	●	●	●	●	●	●	●	●
0,5 1	30 60	10	30.000	IFS 60K0.5DL	86	1	●	●	●	●	●	●	●	●	●
1	3	1	30.000	CXB 3K1NM	82	1	○	●	●	●	●	●	●	●	●
1	15	5	30.000	CIB 10K-3	81	1	●	●	●	●	●	●	●	●	●

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

● = standard ○ = option

Quick-Finder Counting scales/Counting systems

Readability [d] g	Weighing capacity [Max] kg	Smallest part weight [Normal] g/piece	Counting resolution Points	Model	Page									
1	15	5	50.000	CXB 15K1	82	1	●							○
1	50	10	60.000	CFS 50K-3	84	1	●							○
1 2	3 6	1	60.000	CPB 6K1DM	83	1	○	●						○
1 2	3 6	1	60.000	IFS 6K-3SM	86	1	○	●						○
1 2	3 6	1	60.000	IFS 6K-3M	86	1	○	●						○
1 2	75 150	25	60.000	IFS 100K-3	86	1	●							○
1 2	75 150	25	30.000	IFS 100K-3L	86	1	●							○
2	6	2	30.000	CXB 6K2NM	82	1	○	●						○
2	30	10	30.000	CIB 30K-3	81	1	●							○
2	30	10	75.000	CXB 30K2	82	1	●							○
2 5	6 15	2	75.000	IFS 10K-3M	86	1	○	●						○
2 5	6 15	2	60.000	IFS 10K-3LM	86	1	○	●						○
2 5	6 15	2,5	60.000	CPB 15K2DM	83	1	○	●						○
2 5	15 30	50	30.000	IFS 300K-3	86	1	●							○
5	15	5	60.000	CXB 15K5NM	82	1	○	●						○
5 10	15 30	5	60.000	CPB 30K5DM	83	1	○	●						○
5 10	15 30	5	30.000	IFS 30K-3M	86	1	○	●						○
10	30	10	60.000	CXB 30K10NM	82	1	○	●						○
10 20	30 60	10	60.000	IFS 60K-2M	86	1	○	●						○
10 20	30 60	10	60.000	IFS 60K-2LM	86	1	○	●						○
20 50	60 150	25	60.000	IFS 100K-2M	86	1	○	●						○
20 50	60 150	25	60.000	IFS 100K-2LM	86	1	○	●						○
50 100	150 300	50	60000	IFS 300K-2M	86	1	○	●						○

For an explanation on the pictos, see front flap

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

● = standard ○ = option



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), can be switched off
- 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 rechargeable battery operation, compact, lightweight construction, it is suitable for the use in several locations (kitchen, sales office, cafeteria, Food industry-Laboratory etc.)
- 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

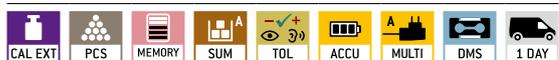
Technical data

- Large backlit LCD displays, digit height 18 mm
- Dimensions weighing surface, stainless steel, WxD 315x215 mm
- Overall dimensions WxDxH, 350x330x120 mm
- Net weight approx. 3,6 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 160 h without backlight, charging time approx. 14 h, KERN GAB-A04

STANDARD



OPTION



Model	Weighing capacity		Readability	Smallest part weight [Normal] g/piece	Counting resolution Points	Option
	[Max]	kg				[d]
KERN						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



Note: Official verification is mandatory for commercial trade

Entry level model for professional counting, with EC type approval [M], counting resolution of 30,000 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 (verifiable), reference weight, 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
- 10 memories for reference weights
- Counting results memory: adds up all individual piece counts, result is shown in total weight and total pieces

- Integrated ESD protection, which makes it ideal for weighing small plastic parts
- 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

Technical data

- Large backlit LCD displays, digit height 18 mm
- Weighing plate dimensions, stainless steel, W×D 300×225 mm
- Overall dimensions W×D×H, 300×330×110 mm
- Rechargeable battery pack integrated, as standard, 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 rechargeable battery pack, operating time up to 200 h without backlight, charging time approx. 8 h, KERN GAB-A04

STANDARD

OPTION

FACTORY

CXB-NM

Model	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	DAkkS Calibr. Certificate
KERN CXB 3K0.2	3	0,2	-	-	1	30.000	4,0	M KERN	DAkkS KERN
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	4,0	-	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	4,0	965-228	963-128
CXB 15K5NM	15	5	5	100	5	30.000	3,8	965-228	963-128
CXB 30K10NM	30	10	10	200	10	30.000	4,0	965-228	963-128



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 (verifiable), 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
- Weighing plate dimensions, stainless steel, WxD 295x225 mm
- Overall dimensions WxDxH, 315x350x100 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
- Signal lamp for visual support of weighing with tolerance range, 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										OPTION		FACTORY
CAL EXT	MEMORY	RS 232	KCP	PCS	SUM	TOL	MULTI	DMS	1 DAY	ACCU	DAKKS	M
												CPB-DM

Model	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	DAKKS	Calibr. Certificate
KERN CPB 6K0.1N	6	0,1	-	-	1	60.000	M	KERN	963-128
KERN CPB 15K0.2N	15	0,2	-	-	2,5	60.000	-	-	963-128
KERN CPB 30K0.5N	30	0,5	-	-	5	60.000	-	-	963-128

Multi-division balance, with increasing or decreasing load, it switches automatically to the next largest or smallest weighing range [Max] and readout [d].

Note: For applications that require verification, please order verification at the same time, initial verification at a later date is not possible. Verification at the factory, we need to know the full address of the location of use.

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



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 **A**, weighing space W×D×H 155×141×80 mm
- Protective working cover included with delivery, for models with weighing plate size **A**, **B**

Technical data

- Large backlit LCD displays, digit height 20 mm
- Dimensions weighing surface, stainless steel
 - A** ø 80 mm
 - B** W×D 295×225 mm, see larger picture
 - C** W×D 370×240 mm
- Overall dimensions W×D×H
 - A** 315×350×185 mm (incl. draught shield)
 - B** 315×350×125 mm
 - C** 370×360×125 mm
- Permissible ambient temperature 0 °C/40 °C

Accessories

- Fitting for models with weighing plate size **A**, **B**, Protective working cover, scope of delivery 5 items, 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, 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										OPTION				
CAL EXT	MEMORY	RS 232	KCP	GLP	DUAL	PCS	SUM	TOL	MULTI	DMS	1 DAY	ET	ACCU	DAkKS

Model	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
KERN CFS 300-3	0,3	0,001	0,05	60.000	2,6	A	963-127
CFS 3K-5	3	0,01	0,5	60.000	3,4	B	963-127
CFS 6K0.1	6	0,1	1	60.000	3,2	B	963-128
CFS 15K0.2	15	0,2	2	75.000	3,4	B	963-128
CFS 30K0.5	30	0,5	5	60.000	3,4	B	963-128
CFS 50K-3	50	1	10	50.000	4,4	C	963-128



Easy to use, self-explanatory counting scale with laboratory accuracy, ideal for the various possibilities of Industry 4.0 applications, highly accurate, counting, 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
- KERN Universal Port (KUP): permits the connection of an external KUP interface adapter, such as, for example, RS 232, USB, Bluetooth or Ethernet, for the exchange of data and control commands, without any installation outlay
- KERN Communication Protocol (KCP): The KCP permits searching and remote control of the balance using external control devices or computers. for details see page 8/9
- Two balances in one: Changes from counting mode to weighing mode at the touch of a key
- Ring-shaped draught shield standard, only for models with weighing plate size \varnothing 81 mm, weighing space $\varnothing \times H$ 90 \times 40 mm
- Protective working cover included with delivery

Technical data

- Large backlit display, digit height 25 mm
- Dimensions weighing surface
 - A \varnothing 81 mm, plastic
 - B WxD 130 \times 130 mm, stainless steel
 - C WxD 340 \times 240 mm, stainless steel, see larger picture
- Overall dimensions WxDxH
 - A, B 167 \times 250 \times 85 mm
 - C 350 \times 390 \times 120 mm
- Optional battery operation, 4 \times 1.5 V AA not included in scope of delivery, operating time up to 80 h
- Permissible ambient temperature -10 $^{\circ}$ C/40 $^{\circ}$ C

Accessories

- Protective working cover, scope of delivery 5 items, for models with weighing plate size
 - A, B, KERN YBA-A12S05
 - C, KERN FKB-A02S05
- A Internal rechargeable battery pack, operating time up to 48 h without backlight, charging time approx. 8 h, KERN YKR-01
- External data interface RS-232, Interface cable included, KERN YKUP-01
- External data interface USB, Interface cable included, KERN YKUP-03
- WiFi interface adapter, KERN YKUP-05
- Extension-Box, KERN YKUP-13
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD



OPTION



Model	Weighing capacity [Max]	Readability	Smallest part weight [Normal]	Counting resolution	Net weight approx.	Weighing plate	Option
KERN	kg	[d] g	[Normal] g/piece	Points	kg		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



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

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 (verifiable), 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
- Protective working cover included with delivery

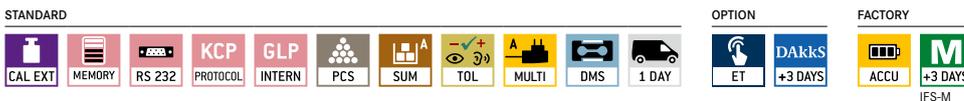
Technical data

- Large backlit LCD displays, digit height 16,5 mm
- Weighing plate dimensions, stainless steel
 - A W×D×H 230×230×110 mm
 - B W×D×H 300×240×110 mm
 - C W×D×H 400×300×120 mm
 - D W×D×H 500×400×140 mm
 - E W×D×H 650×500×140 mm
- Dimensions of display device W×D×H 260×150×65 mm

- Cable length of display device approx. approx. 3 m
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Protective working cover, scope of delivery 5 items, KERN KFB-A02S05
- Stand to elevate display device
 - 1 Height of stand approx. 330 mm, KERN IFB-A01
 - 2, 3: Height of stand approx. 600 mm, KERN IFB-A02
- Internal rechargeable battery pack, operating time up to 18 h without backlight, charging time approx. 12 h, must be ordered at purchase, KERN KFB-A01
- 2 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*



Model	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Smallest part weight [Min] [Normal] g/piece	Net weight approx. kg	Weighing plate	Option		
							Verification	DAkkS	Calibr. Certificate
Multi-range balance, with increasing load it switches automatically to the next largest weighing range [Max] and readout [d] and when the load is fully removed, the balance switches back to the lower range									
IFS 6K-4S	3 6	0,1 0,2	-	1	4,6	A	-	-	963-128
IFS 10K-4	6 15	0,1 0,2	-	2	6	B	-	-	963-128
IFS 30K0.2DL	12 30	0,2 0,5	-	5	11	C	-	-	963-128
IFS 60K0.5D	30 60	0,5 1	-	10	10	C	-	-	963-129
IFS 60K0.5DL	30 60	0,5 1	-	10	12	D	-	-	963-129
IFS 100K-3	75 150	1 2	-	25	12	D	-	-	963-129
IFS 100K-3L	75 150	1 2	-	25	20	E	-	-	963-129
IFS 300K-3	150 300	2 5	-	50	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	20 40	1	6	A	965-228	963-128
IFS 6K-3M	3 6	1 2	1 2	20 40	1	6	B	965-228	963-128
IFS 10K-3M	6 15	2 5	2 5	40 100	2	6	B	965-228	963-128
IFS 10K-3LM	6 15	2 5	2 5	40 100	2	10	C	965-228	963-128
IFS 30K-3M	15 30	5 10	5 10	100 200	5	10	C	965-228	963-128
IFS 60K-2M	30 60	10 20	10 20	200 400	10	11	C	965-229	963-129
IFS 60K-2LM	30 60	10 20	10 20	200 400	10	13	D	965-229	963-129
IFS 100K-2M	60 150	20 50	20 50	400 1000	25	12	D	965-229	963-129
IFS 100K-2LM	60 150	20 50	20 50	400 1000	25	22	E	965-229	963-129
IFS 300K-2M*	150 300	50 100	50 100	1000 2000	50	22	E	965-229	963-129

* ONLY WHILE STOCKS LAST



Easy to use industrial counting scale for heavy loads, ideal for the various possibilities of Industry 4.0 applications, 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

- KERN Universal Port (KUP): permits the connection of an external KUP interface adapter, such as, for example, RS 232, USB, Bluetooth or Ethernet, for the exchange of data and control commands, without any installation outlay
- KERN Communication Protocol (KCP): The KCP permits searching and remote control of the balance using external control devices or computers, for details see page 8/9
- Standardised, simplified concept of operation
- Protective working cover included with delivery

Technical data

- Backlit LCD display, digit height 21 mm
- Dimensions weighing surface, stainless steel
 - A W×D 228×228 mm
 - B W×D 308×318 mm, see larger picture
 - C W×D 500×400 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, KERN DE-A11N
- Stand to elevate display device, height of stand approx. 480 mm, for models with weighing plate size B, KERN DE-A10
- for models with weighing plate size C: , KERN DS-A03
- External data interface RS-232, Interface cable included, KERN YKUP-01
- External data interface USB, Interface cable included, KERN YKUP-03
- Extension-Box, KERN YKUP-13
- 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, KUP, KCP, GLP, PCS, TOL, MULTI, DMS, 1 DAY

OPTION: ET, RS 232, USB, UNDER, DAKKS +3 DAYS

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



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

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 a printer

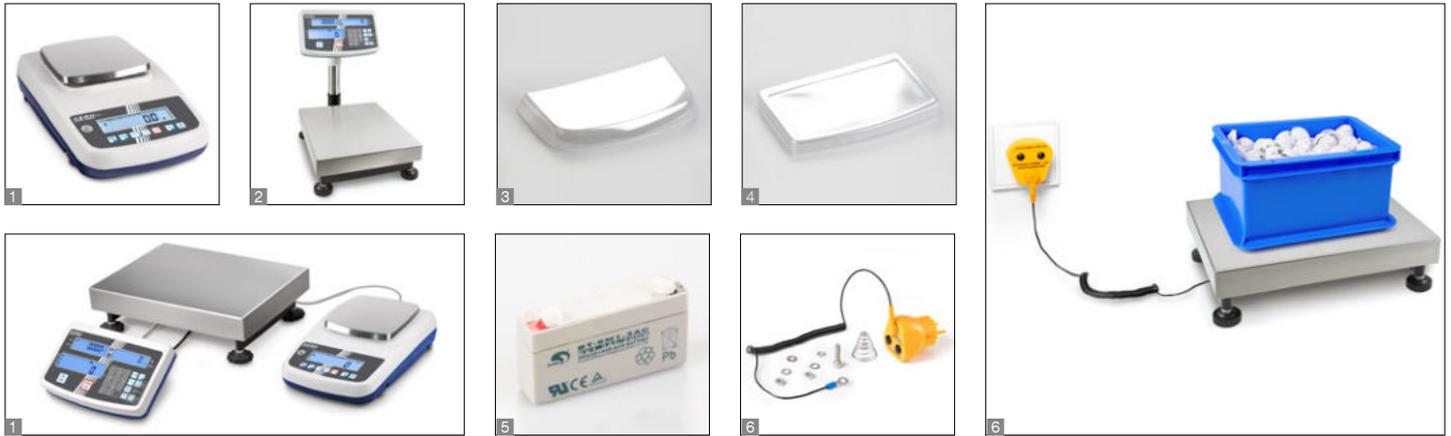
Reference scale KERN EWJ

- This precision balance, which can be used as an individual balance, also fulfils the highest demands through connection with a high-capacity weighing bridge
- 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
- 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) IFS. 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

- Dimensions weighing surface, stainless steel [Max] 600 g: Ø 120 mm, see larger picture
 - 1 [Max] 6000 g: W×D 155×145 mm
- Overall dimensions W×D×H [Max] 600 g: 220×340×180 mm (incl. draught shield) [Max] 6000 g: 215×330×105 mm
- Net weight [Max] 600 g: approx. 3,2 kg [Max] 6000 g: approx. 3,4 kg

Quantity scale KERN IFS

- Dimensions weighing surface, stainless steel
 - A W×D×H 300×240×110 mm
 - B W×D×H 400×300×120 mm
 - C W×D×H 500×400×140 mm
 - D W×D×H 650×500×140 mm
- Cable length of display device approx. 3 m

Counting system KERN CCA

- Connection cable approx. 1,5 m
- Net weight
 - A approx. 9 kg
 - B approx. 14 kg
 - C approx. 16 kg
 - D approx. 24 kg

Accessories

Reference scale KERN EWJ

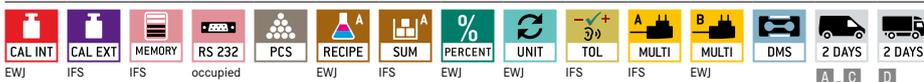
- 3 Protective working cover, scope of delivery 5 items, KERN EWJ-A04S05
- 5 Internal rechargeable battery pack, operating time up to 20 h without backlight, charging time approx. 12 h, KERN KFB-A01

Quantity scale KERN IFS

- 4 Protective working cover, scope of delivery 5 items, KERN KFB-A02S05
- 5 Internal rechargeable battery pack, operating time up to 18 h without backlight, charging time approx. 12 h, KERN KFB-A01
- 6 ESD drain to protect against electrostatic discharge e.g. for electrostatically-charged weighing objects or people who work with the scale, KERN YGR-01
- 2 Stand to elevate display device Height of stand approx. 330 mm, KERN IFB-A01 For models with weighing plate size A, B: Height of stand approx. 600 mm, KERN IFB-A02
- Further details, plenty of further accessories and suitable printers see *Accessories*

Note: Official verification is mandatory for commercial trade

STANDARD



OPTION



FACTORY



Model	Weighing capacity Quantity scale [Max] kg	Readability Quantity scale [d] g	Weighing plate	Weighing capacity Reference scale [Max] g	Readability Reference scale [d] g	Smallest part weight [Normal] g/piece	Verification KERN	Option DAkkS Calibr. Certificate DAkkS KERN
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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	0,2	965-228-216	963-128-127
CCA 6K-4M	3 6	1 2	A	6000	0,1	1	965-229-216	963-129-127
CCA 10K-5M	6 15	2 5	A	600	0,01	0,2	965-228-216	963-128-127
CCA 10K-4M	6 15	2 5	A	6000	0,1	1	965-229-216	963-129-127
CCA 30K-5M	15 30	5 10	B	600	0,01	0,2	965-228-216	963-128-127
CCA 30K-4M	15 30	5 10	B	6000	0,1	1	965-229-216	963-129-127
CCA 60K-5M	30 60	10 20	B	600	0,01	0,2	965-229-216	963-129-127
CCA 60K-4M	30 60	10 20	B	6000	0,1	1	965-229-216	963-129-127
CCA 100K-5M	60 150	20 50	C	600	0,01	0,2	965-229-216	963-129-127
CCA 100K-4M	60 150	20 50	C	6000	0,1	1	965-229-216	963-129-127
CCA 300K-5M	150 300	50 100	D	600	0,01	0,2	965-229-216	963-129-127
CCA 300K-4M	150 300	50 100	D	6000	0,1	1	965-229-216	963-129-127



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
- Draught shield standard for models with [d] = 0,001 g, weighing space W×D×H 155×141×80 mm
- Protective working cover included with delivery

Quantity scale KERN KFP/KERN KFU/ KERN KIP

- 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

Stainless steel platform KERN KFP-V20 IP65

- Weighing plate stainless steel, painted steel base
- Aluminium singlepoint load cell, protection against dust and water splashes
- for models with weighing plate size **A** - **E**

Weighing bridge KERN KFP-V20 IP67

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

U-shaped weighing bridge KERN KFU-V20

- Load range: painted steel
- 4 load cells, alloy steel, silicone-coated, IP67
- for models with weighing plate size **G**

Weighing bridge KERN KIP-V20M IP67

- 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, alloy steel, silicone-coated, IP67
- for models with weighing plate size **H**, **I**, **J**



Technical data

Reference scale KERN CFS

- Weighing plate dimensions, stainless steel
 - 1 [d] = 0,001 g: ø 80 mm
 - [d] ≥ 0,01 g: W×D 295×225 mm
- Overall dimensions W×D×H 315×350×100 mm
- Net weight
 - [d] = 0,001 g: approx. 2,6 kg
 - [d] ≥ 0,01 g: approx. 3,4 kg

Quantity platforms, KERN KFP-V20 IP65

- Weighing plate dimensions, stainless steel
 - A W×D×H 230×230×100 mm
 - B W×D×H 300×240×110 mm
 - C W×D×H 400×300×120 mm
 - D W×D×H 500×400×137 mm
 - E W×D×H 650×500×142 mm

Bulk weighing bridges, KFP-V20 IP67

- Weighing plate dimensions, coated metal
 - F W×D×H 1500×1250×80 mm

Bulk pallet load handling, KERN KFU-V20

- Weighing plate dimensions, coated metal
 - G W×D×H 840×1190×90 mm

Quantity platforms, KERN KIP-V20M

- Weighing plate dimensions, coated metal
 - H W×D×H 1000×1000×108 mm
 - I W×D×H 1200×1500×108 mm
 - J W×D×H 1500×1500×108 mm
- Connection cable approx.
 - A – E 1,5 m
 - F – J 1,5 m

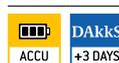
Accessories

- Protective working cover, scope of delivery 5 items, KERN CFS-A02S05
- 2 ESD drain to protect against electrostatic discharge e.g. for electrostatically-charged weighing objects or people who work with the scale, KERN YGR-01
- 3 Internal rechargeable battery pack, operating time up to 70 h without backlight, charging time approx. 14 h, KERN GAB-A04
- 4 Signal lamp for visual support of weighing with tolerance range, 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*

STANDARD



OPTION



Model	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
KERN CCS 6K-6	6	0,2	A	300	0,001	1.200.000	0,05	962-128-127
KERN CCS 10K-6	15	0,5	B	300	0,001	3.000.000	0,05	962-128-127
KERN CCS 30K0.01	30	1	C	3000	0,01	600.000	0,5	962-128-127
KERN CCS 30K0.1	30	1	C	6000	0,1	300.000	1	962-128-128
KERN CCS 60K0.01	60	2	C	3000	0,01	1.200.000	0,5	962-129-127
KERN CCS 60K0.01L	60	2	D	3000	0,01	1.200.000	0,5	962-129-127
KERN CCS 60K0.1	60	2	C	6000	0,1	600.000	1	962-129-128
KERN CCS 60K0.1L	60	2	D	6000	0,1	600.000	1	962-129-128
KERN CCS 150K0.01	150	5	D	3000	0,01	3.000.000	0,5	962-129-127
KERN CCS 150K0.01L	150	5	E	3000	0,01	3.000.000	0,5	962-129-127
KERN CCS 150K0.1	150	5	D	6000	0,1	1.500.000	1	962-129-128
KERN CCS 150K0.1L	150	5	E	6000	0,1	1.500.000	1	962-129-128
KERN CCS 300K0.01	300	10	E	3000	0,01	6.000.000	0,5	962-129-127
KERN CCS 300K0.1	300	10	E	6000	0,1	3.000.000	1	962-129-128
KERN CCS 600K-2U*	600	200	G	3000	0,01	12.000.000	0,5	962-130-127
KERN CCS 600K-2L	600	200	F	3000	0,01	12.000.000	0,5	962-130-127
KERN CCS 600K-1S	600	200	H	6000	0,1	6.000.000	1	962-130-127
KERN CCS 600K-1	600	200	I	6000	0,1	6.000.000	1	962-130-127
KERN CCS 1T-1U	1500	500	G	6000	0,1	15.000.000	1	962-130-128
KERN CCS 1T-4S	1500	500	H	6000	0,1	15.000.000	1	962-130-128
KERN CCS 1T-4	1500	500	I	6000	0,1	15.000.000	1	962-130-128
KERN CCS 1T-1L	1500	500	F	6000	0,1	15.000.000	1	962-130-128
KERN CCS 3T-1*	3000	1000	F	6000	0,1	30.000.000	1	962-132-128
KERN CCS 3T-3	3000	1000	I	6000	0,1	30.000.000	1	962-132-128
KERN CCS 3T-3L	3000	1000	J	6000	0,1	30.000.000	1	962-132-128

* ONLY WHILE STOCKS LAST

VERSATILE PRODUCTS

You will always find the right model for your application in our wide range of platform scales

KERN platform scales – as versatile as your areas of use:

- Entry-level models – portable, economical and well-made – for weighing post and packages
- High-quality models – with high IP rating or with EC type approval for commercial trade
- Top models – perfect in your workflow with KERN EasyTouch software, as a user-friendly solution for complex recipe weighing or checkweighing applications with relay control and much more



True allrounders – suitable for entry-level users and industrial professionals

In order to fulfil the diverse requirements of our industrial customers, KERN platform scales have a large number of practical features, such as, for example, counting and recipe functions, data interfaces (RS 232, RS 485, USB, Bluetooth, WLAN, Ethernet), options for integration into networks, PC or printer connections, rechargeable battery/battery operation for mobile use and much more.

KERN platform scales – just true allrounders!

Note: The “Hold function” is particularly useful for industrial weighing and guarantees stable weights even when the location is unstable or when weighing animals.

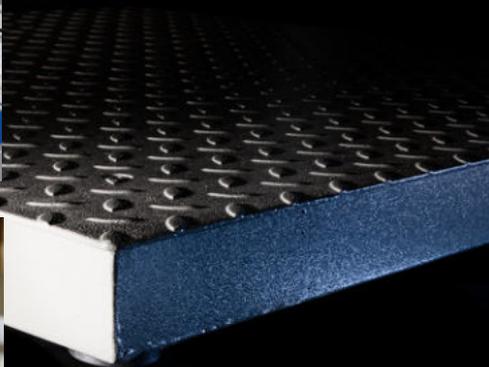


THE UNBEATABLE BENEFITS OF PLATFORM SCALES:

- Weighing range from 3 kg - 600 kg
- Robust platform construction for the harshest industrial use
- Versatile, available with column
- High degree of overload protection
- Stainless steel weighing plate, shock proof and easy to clean
- Large selection of platform sizes
- Display device can be positioned separately, e.g. wall-mounted, on a column or next to the platform. Clear view for the user of the display even with bulky items on the scale.

→ Top tip:

If you can't find what you are looking for in our standard range, then we can offer you our CUSOS service: Perfect weighing solutions with personalised platform sizes, specific software solutions and adapted peripheral devices. For further information on this, see page 138/139



You can find a large selection of platform scales and practical accessories, such as, for example, columns, scanners etc. from page 94 or in our online shop.



The very best in user-friendliness

Through the wireless communication between the platform and display device (PC or laptop), which has the KERN EasyTouch software installed, you have the highest level of flexibility: Weighing at the location of installation and readout from up to 20 m away thanks to Bluetooth or WiFi.



10 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

▶ Page 71	SXS	▶ Page 72	★★★★
SFB			★★★
			★

PLATFORM SCALES WITH STAINLESS STEEL DISPLAY

	IXS	★★★★
SFE		★★★
		★

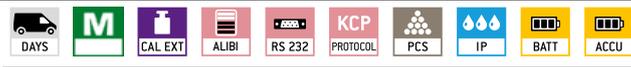
INDUSTRIAL PLATFORM SCALES

	IOC	IFS	★★★★
EOC	IFB		★★★
		▶ Page 86	★

PARCEL SCALES

	DE	★★★★
EOB	EOS	★★★
EOE		★

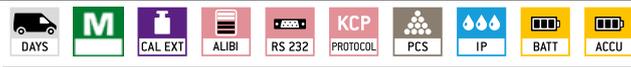
Quick-Finder Parcel scales/Platform scales

Readability [d] g	Weighing capacity [Max] kg	Weighing plate W×D×H mm	Model	Page										
					For an explanation on the pictos, see front flap									
					KERN									
0,01	3	228×228×95	DS 3K0.01S	107	1	●	○	●	●	●	●	●	●	○
0,05	8	308×318×75	DS 8K0.05	107	1	●	○	●	●	●	●	●	●	○
0,1	3	230×230×110	IFB 3K-4	106	1	●	○	●	●	●	●	●	●	○
0,1	10	228×228×95	DS 10K0.1S	107	1	●	○	●	●	●	●	●	●	○
0,1	16	308×318×75	DS 16K0.1	107	1	●	○	●	●	●	●	●	●	○
0,1	30	308×318×75	DS 30K0.1	107	1	●	○	●	●	●	●	●	●	○
0,1	30	500×400×125	DS 30K0.1L	107	1	●	○	●	●	●	●	●	●	○
0,1 0,2	3 6	300×300×110	IOC 6K-4	104	1	●	○	●	●	●	●	●	●	○
0,2	6	300×240×110	IFB 6K-4	106	1	●	○	●	●	●	●	●	●	○
0,2	6	230×230×110	IFB 6K-4S	106	1	●	○	●	●	●	●	●	●	○
0,2	6	300×240×86	IXS 6K-4	109	1	●	○	●	●	●	●	●	●	○
0,2	36	308×318×75	DS 36K0.2	107	1	●	○	●	●	●	●	●	●	○
0,2	60	500×400×125	DS 60K0.2	107	1	●	○	●	●	●	●	●	●	○
0,2	60	500×400×125	DS 65K0.5	107	1	●	○	●	●	●	●	●	●	○
0,2 0,5	6 15	318×308×88	DE 15K0.2D	100	1	●	○	●	●	●	●	●	●	○
0,2 0,5	6 15	300×300×110	EOC 10K-4	102	1	●	○	●	●	●	●	●	●	○
0,2 0,5	6 15	300×240×110	IOC 10K-4	104	1	●	○	●	●	●	●	●	●	○
0,2 0,5	6 15	400×300×110	IOC 10K-4L	104	1	●	○	●	●	●	●	●	●	○
0,5	6	318×308×75	DE 6K0.5A	100	1	●	○	●	●	●	●	●	●	○
0,5	6	300×300×110	EOC 6K-4A	102	1	●	○	●	●	●	●	●	●	○
0,5	15	300×240×110	IFB 10K-4	106	1	●	○	●	●	●	●	●	●	○
0,5	15	400×300×128	IFB 10K-4L	106	1	●	○	●	●	●	●	●	●	○
0,5	15	300×240×86	IXS 10K-4	109	1	●	○	●	●	●	●	●	●	○
0,5	15	400×300×89	IXS 10K-4L	109	1	●	○	●	●	●	●	●	●	○
0,5	100	500×400×125	DS 100K0.5	107	1	●	○	●	●	●	●	●	●	○
0,5 1	15 35	318×308×88	DE 35K0.5D	100	1	●	○	●	●	●	●	●	●	○
0,5 1	15 35	300×300×110	EOC 30K-4S	102	1	●	○	●	●	●	●	●	●	○
0,5 1	15 35	500×400×120	EOC 30K-4	102	1	●	○	●	●	●	●	●	●	○
0,5 1	15 30	400×300×110	IOC 30K-4	104	1	●	○	●	●	●	●	●	●	○
1	12	318×308×75	DE 12K1A	100	1	●	○	●	●	●	●	●	●	○
1	12	300×300×110	EOC 10K-3A	102	1	●	○	●	●	●	●	●	●	○
1	30	400×300×128	IFB 30K-3	106	1	●	○	●	●	●	●	●	●	○
1	30	400×300×89	IXS 30K-3	109	1	●	○	●	●	●	●	●	●	○
1	30	500×400×123	IXS 30K-3L	109	1	●	○	●	●	●	●	●	●	○
1	150	500×400×125	DS 150K1	107	1	●	○	●	●	●	●	●	●	○
1 2	3 6	318×308×75	DE 6K1D	100	1	●	○	●	●	●	●	●	●	○
1 2	3 6	300×300×110	EOC 6K-3	102	1	●	○	●	●	●	●	●	●	○
1 2	3 6	300×300×110	IOC 6K-3M	104	1	○	○	●	●	●	●	●	●	○
1 2	3 6	300×240×110	IFB 6K1DM	106	1	○	○	●	●	●	●	●	●	○
1 2	3 6	230×230×110	IFB 6K-3SM	106	1	○	○	●	●	●	●	●	●	○
1 2	3 6	300×240×86	IXS 6K-3M	109	1	○	○	●	●	●	●	●	●	○
1 2	30 60	318×308×88	DE 60K1D	100	1	●	○	●	●	●	●	●	●	○
1 2	30 60	522×406×98	DE 60K1DL	100	1	●	○	●	●	●	●	●	●	○
1 2	30 60	300×300×110	EOC 60K-3	102	1	●	○	●	●	●	●	●	●	○
1 2	30 60	500×400×120	EOC 60K-3L	102	1	●	○	●	●	●	●	●	●	○
1 2	30 60	400×300×110	IOC 60K-3	104	1	●	○	●	●	●	●	●	●	○
1 2	30 60	500×400×120	IOC 60K-3L	104	1	●	○	●	●	●	●	●	●	○
2	6	300×240×110	SFE 6K-3NM	108	1	○	○	●	●	●	●	●	●	○
2	24	318×308×75	DE 24K2A	100	1	●	○	●	●	●	●	●	●	○
2	24	300×300×110	EOC 20K-3A	102	1	●	○	●	●	●	●	●	●	○
2	60	400×300×128	IFB 60K-3	106	1	●	○	●	●	●	●	●	●	○
2	60	500×400×130	IFB 60K-3L	106	1	●	○	●	●	●	●	●	●	○
2	60	400×300×89	IXS 60K-3	109	1	●	○	●	●	●	●	●	●	○
2	60	500×400×123	IXS 60K-3L	109	1	●	○	●	●	●	●	●	●	○
2 5	6 15	318×308×75	DE 15K2D	100	1	●	○	●	●	●	●	●	●	○
2 5	6 12	300×300×110	EOC 10K-3	102	1	●	○	●	●	●	●	●	●	○
2 5	6 15	300×240×110	IOC 10K-3M	104	1	○	○	●	●	●	●	●	●	○
2 5	6 15	400×300×110	IOC 10K-3LM	104	1	○	○	●	●	●	●	●	●	○
2 5	6 15	300×240×110	IFB 15K2DM	106	1	○	○	●	●	●	●	●	●	○
2 5	6 15	400×300×128	IFB 15K2DLM	106	1	○	○	●	●	●	●	●	●	○
2 5	6 15	300×240×86	IXS 10K-3M	109	1	○	○	●	●	●	●	●	●	○
2 5	6 15	400×300×89	IXS 10K-3LM	109	1	○	○	●	●	●	●	●	●	○
2 5	60 150	318×308×88	DE 150K2D	100	1	●	○	●	●	●	●	●	●	○
2 5	60 150	522×406×98	DE 150K2DL	100	1	●	○	●	●	●	●	●	●	○
2 5	60 150	300×300×110	EOC 100K-3	102	1	●	○	●	●	●	●	●	●	○
2 5	60 150	500×400×120	EOC 100K-3L	102	1	●	○	●	●	●	●	●	●	○
2 5	60 150	500×400×120	IOC 100K-3	104	1	●	○	●	●	●	●	●	●	○
2 5	60 150	650×500×150	IOC 100K-3L	104	1	●	○	●	●	●	●	●	●	○
5	15	315×305×57	EOE 10K-3	97	1	●	○	●	●	●	●	●	●	○
5	15	315×305×57	EOB 15K5	98	1	●	○	●	●	●	●	●	●	○

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

● = standard ○ = option

Quick-Finder Parcel scales/Platform scales

Readability [d] g	Weighing capacity [Max] kg	Weighing plate W×D×H mm	Model	Page																	
					For an explanation on the pictos, see front flap																
					KERN																
5	15	300×240×110	SFE 10K-3NM	108	1	○	●														
5	15	400×300×130	SFE 10K-3LNM	108	1	○	●														
5	60	318×308×75	DE 60K5A	100	1																
5	60	300×300×110	EOC 60K-3A	102	1																
5	150	500×400×130	IFB 100K-3	106	1																
5	150	650×500×142	IFB 100K-3L	106	1																
5	150	500×400×123	IXS 100K-3	109	1																
5	150	650×500×133,5	IXS 100K-3L	109	2*																
5 10	15 35	318×308×75	DE 35K5D	100	1																
5 10	15 35	522×403×83	DE 35K5DL	100	1																
5 10	15 35	300×300×110	EOC 30K-3	102	1																
5 10	15 35	500×400×120	EOC 30K-3L	102	1																
5 10	15 30	400×300×110	IOC 30K-3M	104	1	○	●														
5 10	15 30	400×300×128	IFB 30K5DM	106	1	○	●														
5 10	15 30	400×300×89	IXS 30K-2M	109	1	○	●														
5 10	15 30	500×400×123	IXS 30K-2LM	109	1	○	●														
5 10	150 300	522×406×98	DE 300K5DL	100	1																
5 10	150 300	500×400×120	EOC 300K-3	102	1																
5 10	150 300	650×500×150	IOC 300K-3	104	1																
10	30	300×240×110	SFE 30K-2NM	108	1	○	●														
10	35	315×305×57	EOE 30K-2	97	1																
10	35	315×305×57	EOB 35K10	98	1																
10	120	318×308×75	DE 120K10A	100	1																
10	120	500×400×120	EOC 100K-2A	102	1																
10	300	650×500×142	IFB 300K-2	106	1																
10	300	650×500×133,5	IXS 300K-2	109	2*																
10 20	30 60	318×308×75	DE 60K10D	100	1																
10 20	30 60	522×403×83	DE 60K10DL	100	1																
10 20	30 60	300×300×110	EOC 60K-2	102	1																
10 20	30 60	500×400×120	EOC 60K-2L	102	1																
10 20	30 60	400×300×110	IOC 60K-2M	104	1	○	●														
10 20	30 60	500×400×120	IOC 60K-2LM	104	1	○	●														
10 20	30 60	400×300×128	IFB 60K10DM	106	1	○	●														
10 20	30 60	500×400×130	IFB 60K10DLM	106	1	○	●														
10 20	30 60	400×300×89	IXS 60K-2M	109	1	○	●														
10 20	30 60	500×400×123	IXS 60K-2LM	109	1	○	●														
10 20	300 600	800×600×200	IOC 600K-2	104	1																
20	60	315×305×57	EOE 60K-2	97	1																
20	60	550×550×58	EOE 60K-2L	97	1																
20	60	315×305×57	EOB 60K20	98	1																
20	60	550×550×58	EOB 60K20L	98	1																
20	60	400×300×130	SFE 60K-2NM	108	1	○	●														
20	60	500×400×140	SFE 60K-2LNM	108	1	○	●														
20	600	800×600×200	IFB 600K-2	106	2*																
20 50	60 150	318×308×75	DE 150K20D	100	1																
20 50	60 150	522×403×83	DE 150K20DL	100	1																
20 50	60 150	650×500×89	DE 150K20DXL	100	1																
20 50	60 150	300×300×110	EOC 100K-2	102	1																
20 50	60 150	500×400×120	EOC 100K-2L	102	1																
20 50	60 150	950×500×60	EOC 100K-2XXL	102	1																
20 50	60 150	600×500×150	EOC 100K-2XL	102	1																
20 50	60 150	500×400×120	IOC 100K-2M	104	1	○	●														
20 50	60 150	650×500×150	IOC 100K-2LM	104	1	○	●														
20 50	60 150	500×400×130	IFB 150K20DM	106	1	○	●														
20 50	60 150	650×500×142	IFB 150K20DLM	106	1	○	●														
20 50	60 150	500×400×123	IXS 100K-2M	109	1	○	●														
20 50	60 150	650×500×133,5	IXS 100K-2LM	109	2*	○	●														
50	150	315×305×57	EOE 100K-2	97	1																
50	150	550×550×58	EOE 150K50L	97	1																
50	150	950×500×58	EOE 150K50XL	97	1																
50	150	315×305×57	EOB 150K50	98	1																
50	150	550×550×58	EOB 150K50L	98	1																
50	150	950×500×58	EOB 150K50XL	98	1																
50	150	950×500×58	EOS 150K50XL	99	1																
50	150	400×300×130	SFE 100K-2NM	108	1	○	●														
50	150	500×400×140	SFE 100K-2LNM	108	1	○	●														
50	150	650×500×140	SFE 100K-2XLNM	108	1	○	●														
50 100	150 300	522×403×83	DE 300K50D	100	1																
50 100	150 300	650×500×95	DE 300K50DL	100	1																
50 100	150 300	500×400×120	EOC 300K-2	102	1																

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

● = standard ○ = option

Quick-Finder Parcel scales/Platform scales

Readability [d] g	Weighing capacity [Max] kg	Weighing plate W×D×H mm	Model KERN	Page										
For an explanation on the pictos, see front flap														
50 100	150 300	600×500×150	EOC 300K-2L	102	1									
50 100	150 300	650×500×150	IOC 300K-2M	104	1	○		○						
50 100	150 300	650×500×142	IFB 300K50DM	106	1	○								
50 100	150 300	650×500×133,5	IXS 300K-2M	109	2*	○		○						
100	300	315×305×57	EOE 300K100	97	1									●
100	300	550×550×58	EOE 300K100L	97	1									●
100	300	950×500×58	EOE 300K100XL	97	1									●
100	300	315×305×57	EOB 300K100A	98	1									●
100	300	550×550×58	EOB 300K100L	98	1									●
100	300	950×500×58	EOB 300K100XL	98	1									●
100	300	950×500×58	EOS 300K100XL	99	1									●
100	300	650×500×140	SFE 300K-1LNLM	108	1	○							●	●
100 200	300 600	800×600×200	IOC 600K-1M	104	2*	○		○					●	○
100 200	300 600	800×600×200	IFB 600K-1M	106	2*	○							●	○

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

● = standard ○ = option



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

Features **Technical data** **Accessories**

- 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

- Large LCD display, digit height 25 mm
- Weighing plate dimensions, steel, painted
 - A W×D×H 315×305×57 mm
 - B W×D×H 550×550×58 mm, see larger picture
 - C W×D×H 950×500×58 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 100 h
- Permissible ambient temperature 5 °C/35 °C

- 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, Height of stand approx. 480 mm KERN EOB-A01N
- Stand to elevate display device, height of stand approx. 1000 mm, KERN EOB-A02B
- 1 Non-slip rubber mat, W×D×H 945×505×5 mm, KERN EOE-A01

10

STANDARD

CAL EXT UNIT MOVE BATT MULTI DMS 1 DAY

OPTION

DAKKS +3 DAYS

Model	Weighing capacity [Max] kg	Readability [d] g	Reproducibility g	Linearity g	Weighing plate	Net weight approx. kg	Option DAKKS Calibr. Certificate DAKKS KERN
KERN EOE 10K-3	15	5	5	± 10	A	4,0	963-128
EOE 30K-2	35	10	10	± 20	A	4,0	963-128
EOE 60K-2	60	20	20	± 40	A	4,0	963-129
EOE 60K-2L	60	20	20	± 40	B	14	963-129
EOE 100K-2	150	50	50	± 100	A	4,0	963-129
EOE 150K50L	150	50	50	± 100	B	14	963-129
EOE 150K50XL	150	50	50	± 100	C	18	963-129
EOE 300K100	300	100	100	± 200	A	4,0	963-129
EOE 300K100L	300	100	100	± 200	B	14	963-129
EOE 300K100XL	300	100	100	± 200	C	18	963-129



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
 - A** W×D×H 315×305×57 mm
 - B** W×D×H 550×550×58 mm, see larger picture
 - C** W×D×H 950×500×58 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
- 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, KERN EOB-A02B
- **2** Stand to elevate display device, for models with weighing plate size **A**, Height of stand approx. 480 mm KERN EOB-A01N
- **3** Non-slip rubber mat, W×D×H 945×505×5 mm, KERN EOE-A01

10

STANDARD

CAL EXT UNIT MOVE BATT MULTI DMS 1 DAY

OPTION

DAKKS +3 DAYS

Model	Weighing capacity [Max]	Readability [d]	Reproducibility	Linearity	Weighing plate	Cable length (Spiral cable) approx.	Net weight approx.	Option DAKKS Calibr. Certificate
KERN	kg	g	g	g		m	kg	DAKKS KERN
EOB 15K5	15	5	5	± 10	A	1,8	3,8	963-128
EOB 35K10	35	10	10	± 20	A	1,8	3,8	963-128
EOB 60K20	60	20	20	± 40	A	1,8	3,8	963-129
EOB 60K20L	60	20	20	± 40	B	2,7	13	963-129
EOB 150K50	150	50	50	± 100	A	1,8	3,8	963-129
EOB 150K50L	150	50	50	± 100	B	2,7	13	963-129
EOB 150K50XL	150	50	50	± 100	C	2,7	17	963-129
EOB 300K100A	300	100	100	± 200	A	1,8	3,8	963-129
EOB 300K100L	300	100	100	± 200	B	2,7	13	963-129
EOB 300K100XL	300	100	100	± 200	C	2,7	17	963-129



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
- **1** The scale can be easily transported using rollers and a handle and does not require much storage space
- Protective working cover included with delivery
- Non-slip rubber mat included with delivery
- Universal external mains adapter included with delivery

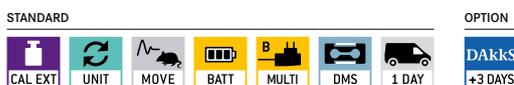
Technical data

- Large LCD display, digit height 25 mm
- Weighing plate dimensions, W×D×H 950×500×58 mm, stainless steel
- Dimensions of display device W×D×H 235×114×51 mm
- Cable length display device, spiral cable, approx. 2,7 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
- **2** Stand to elevate display device, height of stand approx. 1000 mm, KERN EOB-A02B

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



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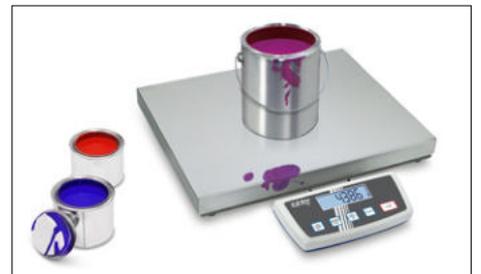
A long-term successful model with dust and spray protected display device



Piece counting



Animal weighing



Recipe-weighing



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/m², or similar
- Protective working cover included with delivery

Technical data

- Large backlit LCD display, digit height 25 mm
- Weighing plate dimensions, stainless steel
 - A** W×D×H 318×308×75 mm
 - B** W×D×H 318×308×88 mm
 - C** W×D×H 522×403×83 mm, see larger picture
 - D** W×D×H 522×406×98 mm
 - E** W×D×H 650×500×89 mm
- Dimensions of display device W×D×H 225×110×56 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**, KERN DE-A11N
- Wall mount for display device, KERN DE-A13
- **2** Stand to elevate display device, height of stand approx. 480 mm, 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*

STANDARD

CAL EXT | RS 232 | GLP | PRINTER | PCS | SUM | PERCENT | UNIT | MOVE | IP 65 | BATT | MULTI | DMS | 1 DAY

OPTION

ACCU | DAKKS +3 DAYS

Model	Weighing capacity [Max] kg	Readability [d] g	Reproducibility 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
Multi-range balance, with increasing load it switches automatically to the next largest weighing range [Max] and readout [d] and when the load is fully removed, the balance switches back to the lower range									
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
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



10

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. 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.

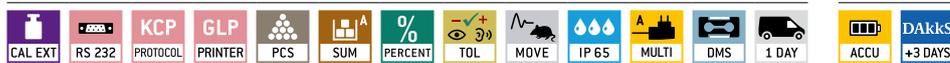
Technical data

- Large backlit LCD display, digit height 25 mm
- Weighing plate dimensions, stainless steel
 - A** W×D×H 300×300×110 mm
 - B** W×D×H 500×400×120 mm, see larger picture
 - C** W×D×H 600×500×150 mm
 - D** W×D×H 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 rechargeable 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
- Modification 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

STANDARD



OPTION

Model	Weighing capacity [Max] kg	Readability [d] g	Reproducibility g	Linearity g	Smallest part weight [Normal] g/piece	Weighing plate	Cable length approx. m	Net weight approx. kg	Option DAKKS Calibr. Certificate DAKKS KERN
Multi-range balance, with increasing load it switches automatically to the next largest weighing range [Max] and readout [d] and when the load is fully removed, the balance switches back to the lower range									
EOC 10K-4	6 15	0,2 0,5	0,2 0,5	± 0,6 1,5	5	A	3	6	963-128
EOC 30K-4S	15 35	0,5 1	0,5 1	± 1,5 3	10	B	3	9	963-128
EOC 30K-4	15 35	0,5 1	0,5 1	± 1,5 3	10	A	3	6	963-128
EOC 60K-3	30 60	1 2	1 2	± 3 6	20	A	3	6	963-129
EOC 60K-3L	30 60	1 2	1 2	± 3 6	20	B	3	9	963-129
EOC 100K-3	60 150	2 5	2 5	± 6 15	50	A	3	6	963-129
EOC 100K-3L	60 150	2 5	2 5	± 6 15	50	B	3	9	963-129
EOC 300K-3	150 300	5 10	5 10	± 15 30	100	B	3	9	963-129
EOC 6K-3	3 6	1 2	1 2	± 3 6	2,5	A	3	6	963-128
EOC 10K-3	6 12	2 5	2 5	± 6 15	5	A	3	6	963-128
EOC 30K-3	15 35	5 10	5 10	± 15 30	10	A	3	6	963-128
EOC 30K-3L	15 35	5 10	5 10	± 15 30	10	B	3	9	963-128
EOC 60K-2	30 60	10 20	10 20	± 30 60	20	A	3	6	963-129
EOC 60K-2L	30 60	10 20	10 20	± 30 60	20	B	3	9	963-129
EOC 100K-2	60 150	20 50	20 50	± 60 150	50	A	3	6	963-129
EOC 100K-2L	60 150	20 50	20 50	± 60 150	50	B	3	9	963-129
EOC 100K-2XL	60 150	20 50	20 50	± 60 150	50	C	3	19	963-129
EOC 100K-2XXL	60 150	20 50	20 50	± 60 150	100	D	2,7	17	963-129
EOC 300K-2	150 300	50 100	50 100	± 150 300	100	B	3	9	963-129
EOC 300K-2L	150 300	50 100	50 100	± 150 300	100	C	3	19	963-129
EOC 6K-4A	6	0,5	0,5	± 1,5	2,5	A	3	6	963-128
EOC 10K-3A	12	1	1	± 3	5	A	3	6	963-128
EOC 20K-3A	24	2	2	± 6	10	A	3	6	963-128
EOC 60K-3A	60	5	5	± 15	20	A	3	6	963-129
EOC 100K-2A	120	10	10	± 30	50	B	3	9	963-129



10

Allround platform scale with a wide range of communication options and EC type approval [M] - 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 item when making the scale purchase, see *Accessory*



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 for an additional cost, delivery time + 2 working days, KERN KIB-M01, see *Accessories* on the right, please indicate when placing your order

Features

- Industry 4.0: A wide range of (optional) data interfaces allows easy transfer of weighing data to tablets, laptops, 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 data interface RS-232, other interfaces on request, for details see page 8/9
- Standardised, simplified concept of operation
- 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

Technical data

- Large LCD display, digit height 25 mm
- Weighing plate dimensions, stainless steel, W×D×H×
 - 300×240×110 mm, ■ 300×300×110 mm
 - 400×300×110 mm, ■ 500×400×120 mm
 - 650×500×150 mm, ■ 800×600×200 mm
- Dimensions of display device W×D×H 268×115×80 mm
- Cable length display device approx. 3 m
- 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, 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., must be ordered at purchase, KERN KIB-A03
- Bluetooth data interface for wireless data transfer to PC or tablets, 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, laptops or smartphones, 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, for paperless archiving of the weighing results with ID no., gross/net/tare value, date and time, must be ordered at purchase, KERN KIB-A13
- Alibi memory, including USB interface for exporting weighing results to external data storage media, such as, for example, USB sticks, hard drives, etc., must be ordered at purchase, 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
- Modification 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
- Note: In addition to the RS-232 data interface, which is integrated as standard, only one other data interface can be installed and operated



Model	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Weighing plate	Option		
						Verification M III KERN	DAkKS KERN	Calibr. Certificate DAkKS KERN
Multi-range balance, with increasing load it switches automatically to the next largest weighing range [Max] and readout [d] and when the load is fully removed, the balance switches back to the lower range								
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

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.

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

It is essential that a verified balance which transfers measurements to external devices using an interface, has an alibi memory (KIB-A13).

It is not possible to upgrade later.



Accessories

- Protective working cover, scope of delivery 5 items, KERN KFB-A02S05
- **B** Stand to elevate display device, for models with weighing plate size
 - A** - **E**: Height of stand approx. 330 mm, KERN IFB-A01
 - D** - **F**: Height of stand approx. 600 mm, KERN IFB-A02
 - A** - **F**: Stand to elevate display device, Height of stand approx. 800 mm, KERN BFS-A07
- 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, must be ordered at purchase, not in combination with verification, KERN KFB-A03
- Analogue module, not possible in combination with signal lamp, must be ordered at purchase, 0-10 V, KERN KFB-A04 4-20 mA, KERN KFB-A05
- Signal lamp for visual support of weighing with tolerance range, 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** 230×230×110mm, **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 250×160×58 mm
- Cable length of display device approx. 3 m
- Permissible ambient temperature -10 °C/40 °C

10

STANDARD



OPTION



FACTORY



Model	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Net weight approx. kg	Weighing plate	Option	
							Verification	DAkkS Calibr. Certificate
KERN							M	DAkkS
							KERN	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

Multi-range balance, with increasing load it switches automatically to the next largest weighing range [Max] and readout [d] and when the load is fully removed, the balance switches back to the lower range

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.



Precision industrial scale with laboratory accuracy, ideal for the various possibilities of Industrie 4.0 applications

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/m², or else
- KERN Universal Port (KUP): permits the connection of an external KUP interface adapter, such as, for example, RS-232, USB, Bluetooth or Ethernet, for the exchange of data and control commands, without any installation outlay, for details see page 8/9

- KERN Communication Protocol (KCP): The KCP permits searching and remote control of the balance using external control devices or computers
- Standardised, simplified concept of operation
- Protective working cover included with delivery

Technical data

- Large backlit LCD display, digit height 21 mm
- Weighing plate dimensions, stainless steel
 - A W×D×H 228×228×95 mm
 - B W×D×H 308×318×75 mm
 - C W×D×H 500×400×125 mm, see larger picture
- 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
- 1 Stand to elevate display device, height of stand approx. 480 mm, for models with weighing plate size A, B, KERN DE-A10 for models with weighing plate size C, KERN DS-A03
- Mount to fasten the display device to the platform, for models with weighing plate size B, C, KERN DE-A11N
- Wall mount for display device, KERN DS-A02
- 2 Set for underfloor weighing, consists of platform, bow, hook, only for models with weighing plate B, KERN DS-A01
- External data interface RS-232, Interface cable included, KERN YKUP-01
- External data interface USB, Interface cable included, KERN YKUP-03
- Extension-Box, KERN YKUP-13
- Further details, plenty of further accessories and suitable printers see Accessories

STANDARD

CAL EXT KUP PROTOCOL PRINTER PCS SUM PERCENT UNIT TOL MOVE MULTI DMS 1 DAY

OPTION

ET RS 232 USB UNDER DAKKS +3 DAYS

Model	Weighing capacity [Max] kg	Readability [d] g	Smallest part weight [Normal] g/piece	Cable length of display device m	Net weight approx. kg	Resolution Points	Weighing plate	Option DAKKS Calibr. Certificate KERN
DS 3K0.01S	3	0,01	0,1	2	4,2	300.000	A	963-127
DS 5K0.05S	5	0,05	0,1	2	4,2	100.000	A	963-127
DS 8K0.05	8	0,05	0,5	2	8	160.000	B	963-128
DS 10K0.1S	10	0,1	1	2	4,2	100.000	A	963-128
DS 16K0.1	16	0,1	1	2	8	160.000	B	963-128
DS 20K0.1	20	0,1	1	2	8	200.000	A	963-128
DS 30K0.1	30	0,1	1	2	8	300.000	B	963-128
DS 30K0.1L	30	0,1	1	0,6	10	300.000	C	963-128
DS 36K0.2	36	0,2	1	0,6	10	180.000	B	963-128
DS 36K0.2L	36	0,2	1	0,6	10	180.000	C	963-128
DS 60K0.2	60	0,2	2	0,6	10	300.000	C	963-129
DS 65K0.5	60	0,2	2	0,6	10	300.000	C	963-129
DS 100K0.5	100	0,5	5	0,6	10	200.000	C	963-129
DS 150K1	150	1	10	0,6	10	150.000	C	963-129



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
 - A** W×D×H 300×240×110 mm, see larger picture
 - B** W×D×H 400×300×130 mm
 - C** W×D×H 500×400×140 mm
 - D** W×D×H 650×500×140 mm
- Dimensions of display device W×D×H 195×120×70 mm
- Rechargeable battery pack integrated, as standard, operating time up to 35 h without backlight, charging time approx. 12 h
- Cable length of display device approx. 3 m
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Stand to elevate display device, for models with weighing plate size
 - A - D**: Height of stand approx. 200 mm, KERN SFE-A01 **2**
 - B - D**: Height of stand approx. 400 mm, KERN SFE-A02 **2**
 - C - D**: Height of stand approx. 600 mm, KERN SFE-A03 **3**
- Tare pan made from stainless steel, overall dimensions W×D×H, 400×300×45 mm, KERN RFS-A02

STANDARD



OPTION



FACTORY



Model	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Net weight approx. kg	Weighing plate	Verification	Option
							KERN	DAkkS Calibr. Certificate DAKKS KERN
SFE 6K-3NM	6	2	2	40	6	A	965-228	963-128
SFE 10K-3NM	15	5	5	100	6	A	965-228	963-128
SFE 10K-3LNM	15	5	5	100	8	B	965-228	963-128
SFE 30K-2NM	30	10	10	200	6	A	965-228	963-128
SFE 60K-2NM	60	20	20	400	8	B	965-229	963-129
SFE 60K-2LNM	60	20	20	400	12	C	965-229	963-129
SFE 100K-2NM	150	50	50	1000	8	B	965-229	963-129
SFE 100K-2LNM	150	50	50	1000	12	C	965-229	963-129
SFE 100K-2XLNM	150	50	50	1000	22	D	965-229	963-129
SFE 300K-1LNM	300	100	100	2000	22	D	965-229	963-129

Note: For applications that require verification, please order verification at the same time, initial verification at a later date is not possible.

Verification at the factory, we need to know the full address of the location of use.



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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 protection IP68, 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
- 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
 - 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. 3 m
- Permissible ambient temperature -10 °C/40 °C

Accessories

- **B** 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 models with weighing plate size
 - B** KERN YRO-01
 - C** KERN YRO-02
 - D** KERN YRO-03
- Further details, plenty of further accessories and suitable printers see *Accessories*

*Note: only one of the port options can be built in for use

STANDARD: CAL EXT, PCS, SUM, TOL, MOVE, IP 65, IP 68, 230 V, DMS, 1 DAY, 2 DAYS

OPTION: ET, DAKKS +3 DAYS

FACTORY: RS 232, RS 485, BT, ACCU, M +3 DAYS IXS-M

Model	Weighing range [Max] kg	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Net weight approx. kg	Weighing plate	Verification KERN	Option DAKKS Calibr. Certificate KERN
KERN IXS 6K-4	6	0,2	-	-	6	A	-	963-128
KERN IXS 10K-4	15	0,5	-	-	6	A	-	963-128
KERN IXS 10K-4L	15	0,5	-	-	11	B	-	963-128
KERN IXS 30K-3	30	1	-	-	11	B	-	963-128
KERN IXS 30K-3L	30	1	-	-	22	C	-	963-128
KERN IXS 60K-3	60	2	-	-	11	B	-	963-129
KERN IXS 60K-3L	60	2	-	-	22	C	-	963-129
KERN IXS 100K-3	150	5	-	-	22	C	-	963-129
KERN IXS 100K-3L	150	5	-	-	36	D	-	963-129
KERN IXS 300K-2	300	10	-	-	36	D	-	963-129

Multi-range balance, with increasing load it switches automatically to the next largest weighing range [Max] and readout [d] and when the load is fully removed, the balance switches back to the lower range

KERN IXS 6K-3M	3 6	1 2	1 2	20 40	6	A	965-228	963-128
KERN IXS 10K-3M	6 15	2 5	2 5	40 100	6	A	965-228	963-128
KERN IXS 10K-3LM	6 15	2 5	2 5	40 100	11	B	965-228	963-128
KERN IXS 30K-2M	15 30	5 10	5 10	100 200	11	B	965-228	963-128
KERN IXS 30K-2LM	15 30	5 10	5 10	100 200	22	C	965-228	963-128
KERN IXS 60K-2M	30 60	10 20	10 20	200 400	11	B	965-229	963-129
KERN IXS 60K-2LM	30 60	10 20	10 20	200 400	22	C	965-229	963-129
KERN IXS 100K-2M	60 150	20 50	20 50	400 1000	22	C	965-229	963-129
KERN IXS 100K-2LM	60 150	20 50	20 50	400 1000	36	D	965-229	963-129
KERN 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.

ONLY WHILE STOCKS LAST

110 Parcel scales/Platform scales

Order Hotline: Go to back page of catalogue

11

FLOOR SCALES/ PALLET SCALES/ DRIVE-THROUGH SCALES



From incoming goods to production and shipping – our modern, powerful floor scales can be used everywhere and intuitively. The many clever functions will assist you in carrying out processes effectively and economically, all while meeting high requirements and saving resources.

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. Our floor scales stand out due to 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 between 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 × 3,000 [d] at the best price-to-performance ratio.

Easy integration through digital interfaces

Thanks to interfaces such as RS-232, USB, Bluetooth, WiFi, 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 and 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 multi-range pallet scale KERN UID 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 multi-range balance

Individual solutions for maximum efficiency

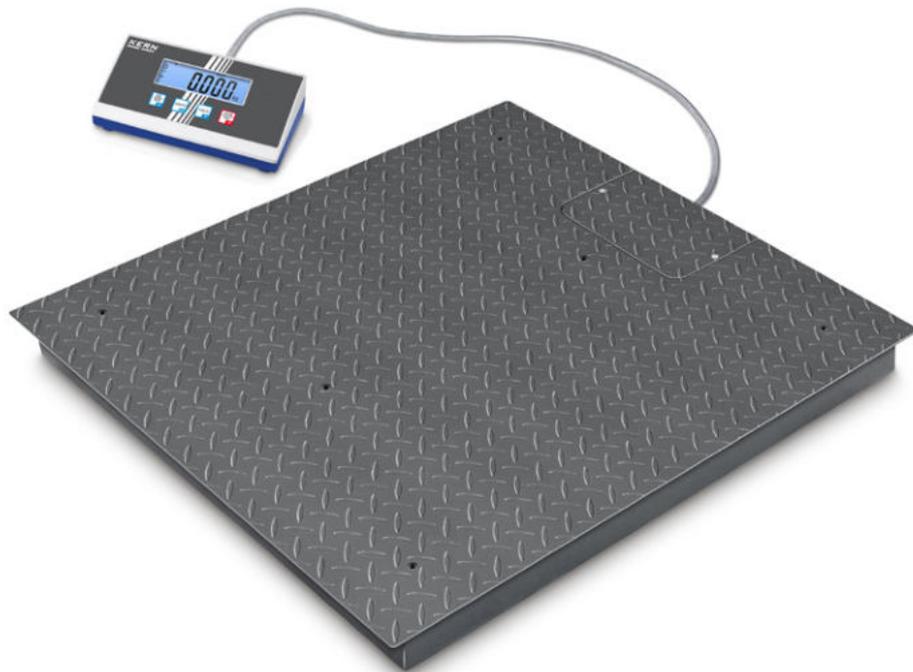
The weighing ranges of bench counting scales are often not sufficient to count large quantities, units or items on pallets. This is where high-performance counting systems come into their own, as these combine a high-precision reference scale with a high-capacity bulk scale, such as for example a floor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

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

Readability [d] g	Weighing capacity [Max] kg	Weighing plate WxDxH mm	Model	Page												
For an explanation on the pictos, see front flap																
50 100	300 600	1000×1000×108	BID 600K-1DS	114	2	●	○	○	○	○	○	●	●	●	●	○
50 100	300 600	1200×1500×108	BID 600K-1D	114	2	●	○	○	○	○	○	●	●	●	●	○
100	300	1000×1000×40	NIB 300K-1	124	2	●	○	○	○	○	○	●	●	●	●	○
100 200	300 600	1000×1000×108	BIC 600K-1S	113	2	●	○	○	○	○	○	●	●	●	●	○
100 200	300 600	1200×1500×108	BIC 600K-1	113	2	●	○	○	○	○	○	●	●	●	●	○
100 200	300 600	1000×1000×108	BID 600K-1DSM	114	2	○	●	○	○	○	○	●	●	●	●	○
100 200	300 600	1200×1500×108	BID 600K-1DM	114	2	○	●	○	○	○	○	●	●	●	●	○
100 200	300 600	1195×840×110	UID 600K-1DM	121	2	○	●	○	○	○	○	●	●	●	●	○
100 200	600 1500	1000×1000×108	BID 1T-4DS	114	2	●	○	○	○	○	○	●	●	●	●	○
100 200	600 1500	1200×1500×108	BID 1T-4D	114	2	●	○	○	○	○	○	●	●	●	●	○
200	600	1000×1000×108	BID 600K-1SM	114	2	○	●	○	○	○	○	●	●	●	●	○
200	600	1200×1500×108	BID 600K-1M	114	2	○	●	○	○	○	○	●	●	●	●	○
200	600	1000×1000×85	BFB 600K-1SNM	116	2	○	●	○	○	○	○	●	●	●	●	○
200	600	1500×1250×85	BFB 600K-1NM	116	2	○	●	○	○	○	○	●	●	●	●	○
200	600	1000×1000×90	BFN 600K-1SM	118	2	○	○	○	○	○	○	●	●	●	●	○
200	600	800×120×84	UFA 600K-1S	119	2	●	○	○	○	○	○	●	●	●	●	○
200	600	1195×840×110	UIB 600K-1	120	2	●	○	○	○	○	○	●	●	●	●	○
200	600	1195×840×110	UID 600K-1M	121	2	○	●	○	○	○	○	●	●	●	●	○
200	600	1190×840×90	UFB 600K200M	122	2	○	●	○	○	○	○	●	●	●	●	○
200	600	1360×850×90	UFN 600K200IPM	123	2	○	○	○	○	○	○	●	●	●	●	○
200	600	1000×1000×40	NIB 600K-2	124	2	●	○	○	○	○	○	●	●	●	●	○
200	600	1800×1400×80	NFB 600K200LM	125	2	○	●	○	○	○	○	●	●	●	●	○
200	600	1600×1200×80	NFB 600K200M	125	2	○	●	○	○	○	○	●	●	●	●	○
200	600	1600×1200×80	NFN 600K-1M	126	2	○	○	○	○	○	○	●	●	●	●	○
200 500	600 1500	1000×1000×108	BIC 1T-4S	113	2	●	○	○	○	○	○	●	●	●	●	○
200 500	600 1500	1200×1500×108	BIC 1T-4	113	2	●	○	○	○	○	○	●	●	●	●	○
200 500	600 1500	1000×1000×108	BID 1T-4DSM	114	2	○	●	○	○	○	○	●	●	●	●	○
200 500	600 1500	1200×1500×108	BID 1T-4DM	114	2	○	●	○	○	○	○	●	●	●	●	○
200 500	600 1500	1190×840×110	UID 1500K-1DM	121	2	○	●	○	○	○	○	●	●	●	●	○
200 500	1500 3000	1200×1500×108	BID 3T-3D	114	2	●	○	○	○	○	○	●	●	●	●	○
200 500	1500 3000	1500×1500×108	BID 3T-3DL	114	2	●	○	○	○	○	○	●	●	●	●	○
500	1500	1000×1000×108	BID 1T-4SM	114	2	○	●	○	○	○	○	●	●	●	●	○
500	1500	1200×1000×108	BID 1T-4EM	114	2	○	●	○	○	○	○	●	●	●	●	○
500	1500	1200×1500×108	BID 1T-4M	114	2	○	●	○	○	○	○	●	●	●	●	○
500	1500	1500×1500×108	BID 1T-4LM	114	2	○	●	○	○	○	○	●	●	●	●	○
500	1500	1000×1000×85	BFB 1T-4SNM	116	2	○	●	○	○	○	○	●	●	●	●	○
500	1500	1500×1250×85	BFB 1T-4NM	116	2	○	●	○	○	○	○	●	●	●	●	○
500	1500	1000×1000×90	BFN 1T-4SM	118	2	○	○	○	○	○	○	●	●	●	●	○
500	1500	1500×1250×85	BFN 1.5T0.5M	118	2	○	○	○	○	○	○	●	●	●	●	○
500	1500	1200×120×84	UFA 1.5T0.5	119	2	●	○	○	○	○	○	●	●	●	●	○
500	1500	1195×840×110	UIB 1.5T-4	120	2	●	○	○	○	○	○	●	●	●	●	○
500	1500	1190×840×110	UID 1500K-1M	121	2	○	●	○	○	○	○	●	●	●	●	○
500	1500	1190×840×90	UFB 1.5T0.5M	122	2	○	●	○	○	○	○	●	●	●	●	○
500	1500	1360×840×90	UFN 1.5T0.5IPM	123	2	○	○	○	○	○	○	●	●	●	●	○
500	1500	1600×1200×80	NFB 1.5T0.5M	125	2	○	●	○	○	○	○	●	●	●	●	○
500	1500	1800×1400×80	NFB 1.5T0.5LM	125	2	○	●	○	○	○	○	●	●	●	●	○
500	1500	1600×1200×80	NFN 1.5T-4M	126	2	○	○	○	○	○	○	●	●	●	●	○
500 1000	1500 3000	1500×1500×108	BIC 3T-3L	113	2	●	○	○	○	○	○	●	●	●	●	○
500 1000	1500 3000	1200×1500×108	BIC 3T-3	113	2	●	○	○	○	○	○	●	●	●	●	○
500 1000	1500 3000	1200×1500×108	BID 3T-3DM	114	2	○	●	○	○	○	○	●	●	●	●	○
500 1000	1500 3000	1500×1500×108	BID 3T-3DLM	114	2	○	●	○	○	○	○	●	●	●	●	○
500 1000	1500 3000	1190×840×110	UID 3000K-0DM	121	2	○	●	○	○	○	○	●	●	●	●	○
1000	3000	1200×1500×108	BID 3T-3M	114	2	○	●	○	○	○	○	●	●	●	●	○
1000	3000	1500×1500×108	BID 3T-3LM	114	2	○	●	○	○	○	○	●	●	●	●	○
1000	3000	1500×1500×85	BFB 3T1LM	116	2	○	●	○	○	○	○	●	●	●	●	○
1000	3000	1500×1250×85	BFB 3T-3NM	116	2	○	●	○	○	○	○	●	●	●	●	○
1000	3000	1200×120×84	UFA 3T1	119	2	●	○	○	○	○	○	●	●	●	●	○
1000	3000	1500×1250×85	BFN 3T-3M	118	2	○	○	○	○	○	○	●	●	●	●	○
1000	3000	2000×120×90	UFA 3T-3L	119	2	●	○	○	○	○	○	●	●	●	●	○
1000	3000	1195×840×110	UIB 3T-3	120	2	●	○	○	○	○	○	●	●	●	●	○
1000	3000	1195×840×110	UID 3000K-0M	121	2	○	●	○	○	○	○	●	●	●	●	○
2000	6000	1500×1500×130	BFB 6T-3M	116	2	○	●	○	○	○	○	●	●	●	●	○
2000	6000	1200×160×115	UFA 6T-3	119	2	●	○	○	○	○	○	●	●	●	●	○
2000	6000	1200×160×115	UFA 6T-3L	119	2	●	○	○	○	○	○	●	●	●	●	○

● = standard ○ = option



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, steel, powder coated
 - A W×D×H 1000×1000×108 mm
 - B W×D×H 1200×1500×108 mm
 - C W×D×H 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 over the display device, scope of delivery: 5 items, KERN EOB-A04BS05
- 3 Pair of base plates to fix the weighing bridge to the floor, KERN BIC-A07
- 4 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
- 5 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								OPTION	
								1	

Model	Weighing capacity	Readability	Net weight	Weighing plate	Option DAKKS Calibr. Certificate
	[Max] kg	[d] kg	approx. kg		DAKKS KERN
KERN 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	70	A	963-130
BIC 1T-4	600 1500	0,2 0,5	150	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



Multi-range balance, 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!

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



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. Please order this at the same time as you purchase your scale

Floor scales KERN BID/BID-D

Features

- 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
 - A** 1000×1000×108 mm, **B** 1200×1000×108 mm
 - C** 1200×1500×108 mm, **D** 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
- **3** Ascending ramp, steel, powder-coated, for models with weighing plate size
 - A**, **B** KERN BIC-A01
 - C** KERN BIC-A02
 - D** 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
 - A** KERN BIC-A04
 - B** KERN BIC-A08
 - C** KERN BIC-A05
 - D** 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., must be ordered at purchase, KERN KIB-A03
- Bluetooth data interface for wireless data transfer to PC or tablets, 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, laptops or smartphones, 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, for paperless archiving of the weighing results with ID no., gross/net/tare value, date and time, must be ordered at purchase, KERN KIB-A13
- **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. 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

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

STANDARD: CAL EXT, RS 232, KCP, GLP, PCS, SUM, PERCENT, TOL, MOVE, IP 65, IP 67, MULTI, DMS, 2 DAYS, ET, ACCU, DAKKS +3 DAYS

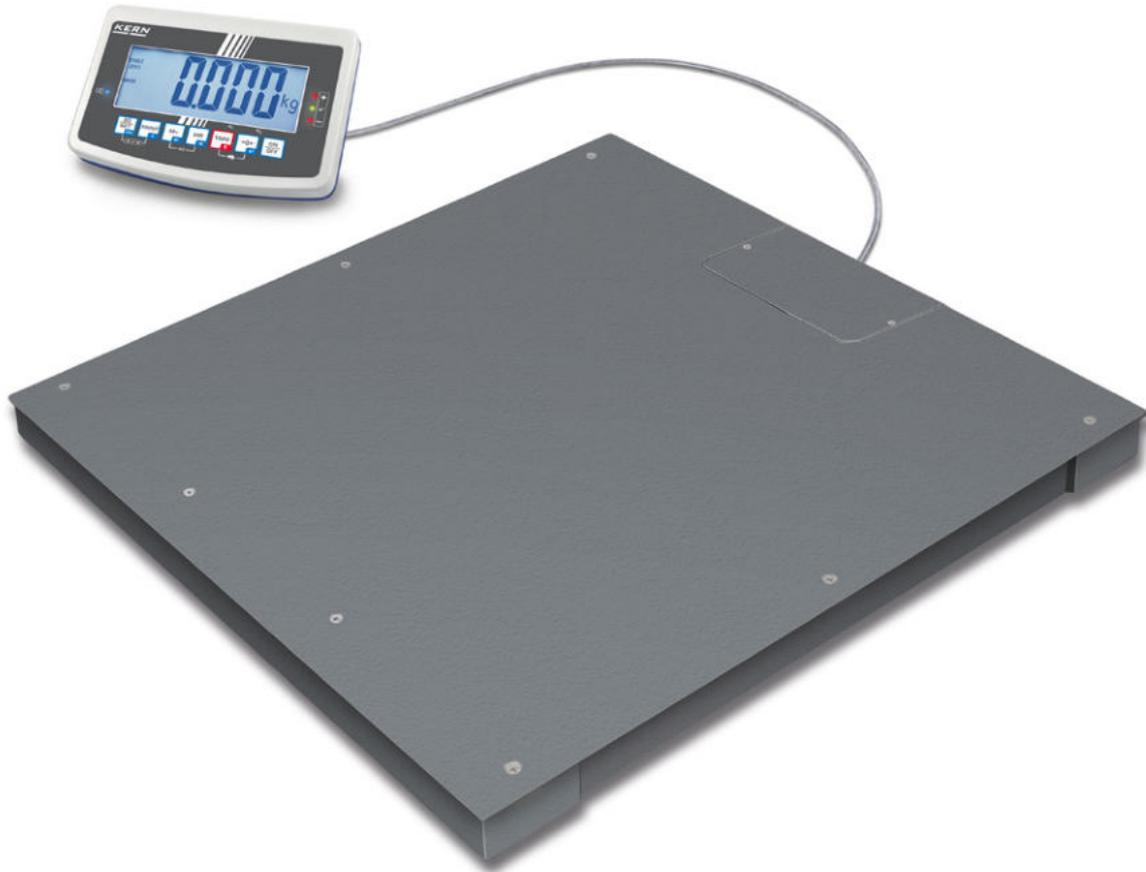
OPTION: ALIBI, USB, BT 4.0, WIFI, SWITCH, LAN, +3 DAYS

FACTORY: M

Model	Weighing capacity [Max] kg	Readability [d] kg	Verification value [e] kg	Minimal load [Min] kg	Net weight approx. kg	Weighing plate	Option	
							Verification KERN	DAkKS Calibr. Certificate DAKKS KERN
BID 600K-1DS	300 600	0,05 0,1	-	-	70	A	-	963-130
BID 600K-1D	300 600	0,05 0,1	-	-	150	A	-	963-130
BID 1T-4DS	600 1500	0,1 0,2	-	-	70	A	-	963-130
BID 1T-4D	600 1500	0,1 0,2	-	-	150	C	-	963-130
BID 3T-3D	1500 3000	0,2 0,5	-	-	150	C	-	963-132
BID 3T-3DL	1500 3000	0,2 0,5	-	-	155	D	-	963-132
Multi-range balance with high-resolution display, with increasing load it switches automatically, to the next largest weighing range [Max] and readout [d] and when the load is fully removed, the balance switches back to the lower range								
BID 600K-1DSM	300 600	0,1 0,2	0,1 0,2	2 4	70	A	965-230	963-130
BID 600K-1DM	300 600	0,1 0,2	0,1 0,2	2 4	150	C	965-230	963-130
BID 1T-4DSM	600 1500	0,2 0,5	0,2 0,5	4 10	70	A	965-230	963-130
BID 1T-4DM	600 1500	0,2 0,5	0,2 0,5	4 10	150	C	965-230	963-130
BID 3T-3DM	1500 3000	0,5 1	0,5 1	10 20	150	C	965-232	963-132
BID 3T-3DLM	1500 3000	0,5 1	0,5 1	10 20	155	D	965-232	963-132
BID 600K-1SM	600	0,2	0,2	4	70	A	965-230	963-130
BID 600K-1M	600	0,2	0,2	4	150	C	965-230	963-130
BID 1T-4SM	1500	0,5	0,5	10	70	A	965-230	963-130
BID 1T-4M	1500	0,5	0,5	10	150	C	965-230	963-130
BID 1T-4EM	1500	0,5	0,5	10	85	B	965-230	963-130
BID 1T-4LM	1500	0,5	0,5	10	155	D	965-230	963-130
BID 3T-3M	3000	1	1	20	150	C	965-232	963-132
BID 3T-3LM	3000	1	1	20	155	D	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.



11

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



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 **A**, **B**, **C** plate screwed on from the top, so it easy to remove, hygienic and easy to clean
- Models with weighing plate size **A**, **B**, **C**: Weighing bridge: steel, powder coated
Models with weighing plate size **D**: Weighing bridge: corrugated steel
- 4 silicone-coated steel load cells, dust and spray protection IP67
- Display device: for details see KERN KFB-TAM
- 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, steel, powder coated
A W×D×H 1000×1000×85 mm
B W×D×H 1500×1250×85 mm
C W×D×H 1500×1500×85 mm
D W×D×H 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
- **2** Stand to elevate display device, Height of stand approx. 800 mm, KERN BFS-A07
- Pair of base plates to fix the weighing bridge to the floor, for models with weighing plate size **A**, **B**, **C** KERN BFS-A06N
D KERN BFS-A10
- **3** Ascending ramp, steel, lacquered, not included, for models with weighing plate size **B** KERN BFS-A02N
C KERN BFS-A09N
D KERN BFS-A11
- **4** Stable pit frame, Steel, for models with weighing plate size
A KERN BFS-A03N
B KERN BFS-A04N
C KERN BFS-A08N
- 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, KERN KFB-A03

- Analogue module, not possible in combination with signal lamp
Analogue module 0–10 V, must be ordered at purchase, KERN KFB-A04
Analogue module 4–20 mA, must be ordered at purchase, KERN KFB-A05
- Signal lamp for visual support of weighing with tolerance range, 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

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

11

STANDARD



OPTION



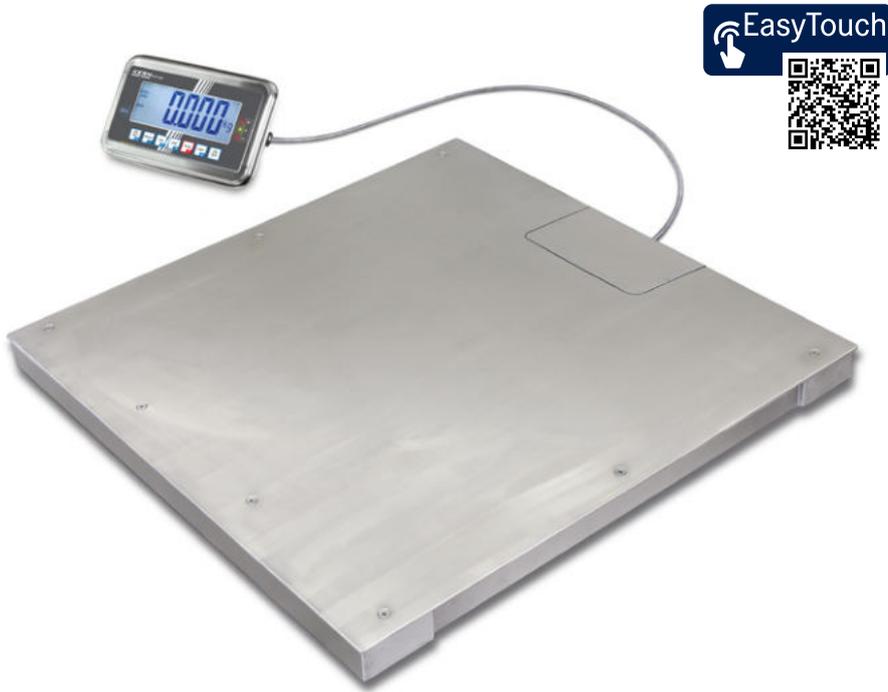
FACTORY



Model	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 KERN
KERN							
BFB 600K-1SNM	600	0,2	4	105	A	965-230	963-130
BFB 600K-1NM	600	0,2	4	140	B	965-230	963-130
BFB 1T-4SNM	1500	0,5	10	105	A	965-230	963-130
BFB 1T-4NM	1500	0,5	10	140	B	965-230	963-130
BFB 3T-3NM	3000	1	20	140	B	965-232	963-132
BFB 3T-1LM	3000	1	20	155	C	965-232	963-132
BFB 6T-3M	6000	2	40	230	D	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.



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 KFP-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. Ideal for industrial applications, hygienic and easy to clean. 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 the 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 weighing plate W×D×H
A 1000×1000×90 mm
B 1500×1250×85 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
- **5** Ascending ramp, stainless steel, for models with weighing plate size
A KERN BFN-A05
B KERN BFN-A01
- **6** Stable pit frame, Stainless steel, for models with weighing plate size
A KERN BFN-A06
B KERN BFN-A02
- 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, not possible in combination with verification, KERN KFB-A03
- Analogue module, must be ordered at purchase 0-10 V, KERN KFB-A04 4-20 mA, KERN KFB-A05
- 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.

1 Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs-device on request.

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

STANDARD



OPTION



FACTORY



Model	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
KERN						M KERN	DAkks KERN
BFN 600K-1SM	600	0,2	4	100	A	965-230	963-130
BFN 1T-4SM	1500	0,5	10	100	A	965-230	963-130
BFN 1.5T0.5M	1500	0,5	10	145	B	965-230	963-130
BFN 3T-3M	3000	1	20	150	B	965-232	963-132

Note: For applications that require verification, please order verification at the same time, initial verification at a later date is not possible. Verification at the factory, we need to know the full address of the location of use.

* Not possible in combination with RS-232 data interface



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, see larger picture
- 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: 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 WxDxH 250x160x65 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, Height of stand 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, must be ordered at purchase. When installing the Bluetooth data interface, the RS-232 data interface can no longer be used, KERN KFB-A03
- Analogue module, not possible in combination with signal lamp, must be ordered at purchase, 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*

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

STANDARD



OPTION



FACTORY



Model	Weighing capacity [Max] kg	Readability [d] kg	Net weight approx. kg	Dimensions Weighing beam WxDxH mm	Option
					DAkks Calibr. Certificate DAkks KERN
KERN					
UFA 600K-1S	600	0,2	36	800x120x84	963-130
UFA 1.5T0.5	1500	0,5	40	1200x120x84	963-130
UFA 3T1	3000	1	38	1200x120x84	963-132
UFA 3T-3L	3000	1	60	2000x120x90	963-132
UFA 6T-3	6000	2	95	1200x160x115	963-132
UFA 6T-3L	6000	2	130	2000x160x115	963-132



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
- 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 235×114×51 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
- 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, KERN EOB-A02B

11

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

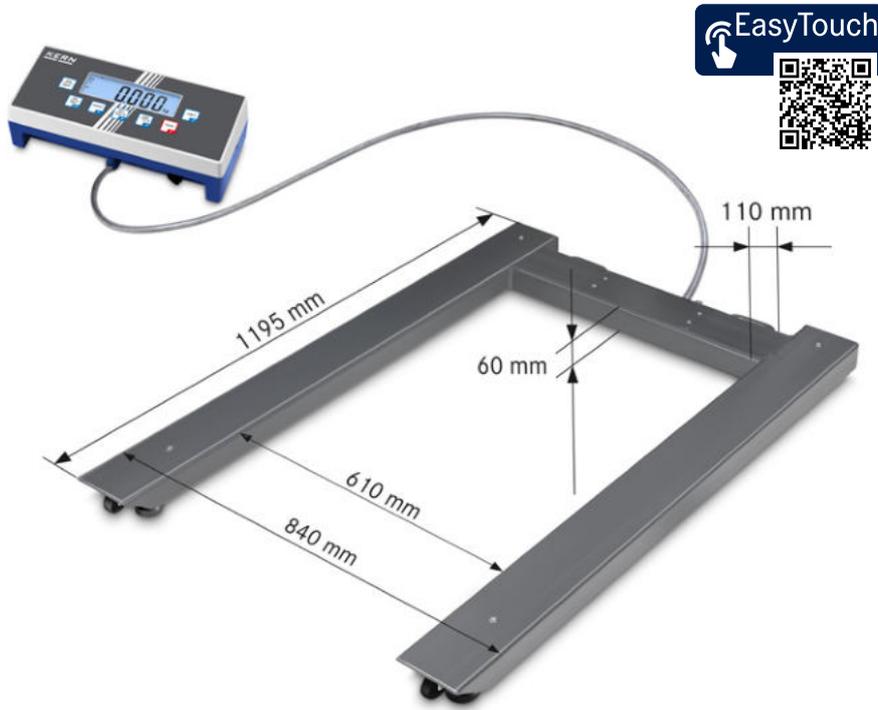
STANDARD



OPTION



Model	Weighing capacity	Readability	Net weight	Option DAkkS Calibr. Certificate
	[Max] kg	[d] kg	approx. kg	DAkkS KERN
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



- Net weight approx. 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 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., must be ordered at purchase, KERN KIB-A03
- Bluetooth data interface for wireless data transfer to PC or tablets, 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, laptops or smartphones, 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., must be ordered at purchase, 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

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

Features

- Multi-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 balances can be replaced with one - which saves space and money!
- High mobility thanks to battery operation for display device and platform
- 1 Display device: Protection against dust and water splashes IP65
- 2 Load support: steel, powder coated, 4 load cells, alloy steel, silicone-coated, protection against dust and water splashes 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.

- 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
- Protective working cover included with delivery

Technical data

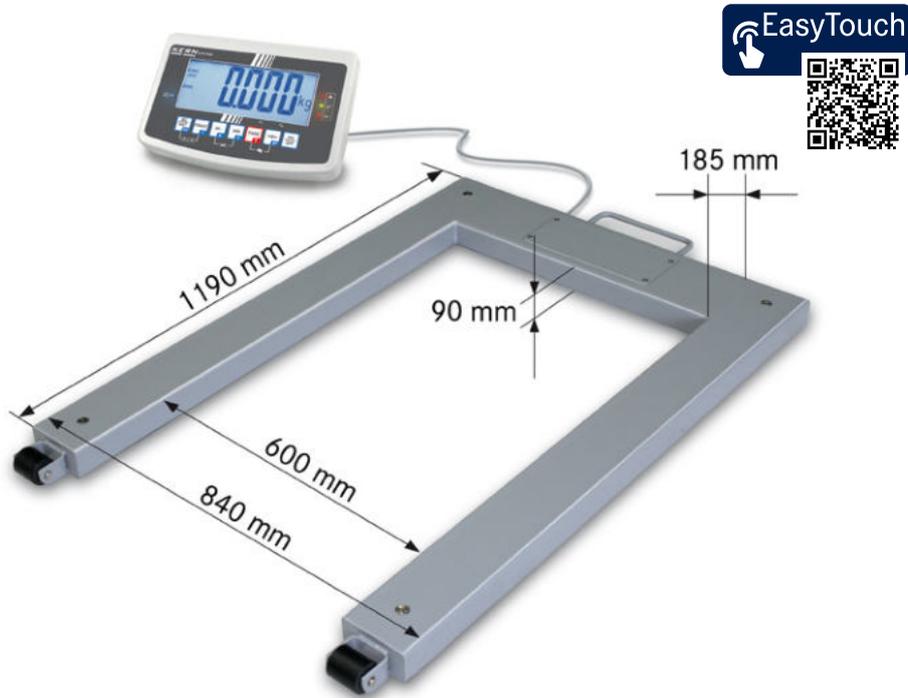
- Large LCD display, digit height 25 mm
- Dimensions of display device WxDxH 268x115x80 mm

***Note:** Only one optional interface can be installed and used
 1 Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs

STANDARD										OPTION				FACTORY										
CAL EXT	RS 232	KCP	GLP	PCS	SUM	%	UNIT	TOL	MOVE	IP 65	IP 67	MULTI	DMS	2 DAYS	ET	ACCU	DAkKS	ALIBI	USB	BT 4.0	WIFI	LAN	M	

Model	Weighing capacity [Max] kg	Readability = Verification value [d] = [e] kg	Minimal load [Min] kg	Cable length of display device approx. m	Net weight approx. kg	Option Verification	Option DAkKS Calibr. Certificate
KERN							
UID 600K-1M	600	0,2	4	5	44	965-230	963-130
UID 1500K-1M	1500	0,5	10	5	44	965-230	963-130
UID 3000K-0M	3000	1	20	5	44	965-232	963-132
Multi-range balance, with increasing load it switches automatically to the next largest weighing range [Max] and readout [d] and when the load is fully removed, the balance switches back to the lower range							
UID 600K-1DM	300 600	0,1 0,2	2 4	5	44	965-230	963-130
UID 1500K-1DM	600 1500	0,2 0,5	4 10	5	44	965-230	963-130
UID 3000K-0DM	1500 3000	0,5 1	10 20	5	44	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 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
- Display device: for details see KERN KFB-TM
- **1** Load support: steel, powder coated, Weighing bridge can also be delivered as component without the display device, for details see KERN KFV-V20
- 4 load cells, alloy steel, silicone-coated, IP67
- 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 pallets
- 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 WxDxH 250x160x58 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, Height of stand approx. 800 mm, KERN BFS-A07
- 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. When installing the Bluetooth data interface, the RS-232 data interface can no longer be used, KERN KFB-A03

- Analogue module, not possible in combination with signal lamp, must be ordered at purchase 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*

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

STANDARD



OPTION

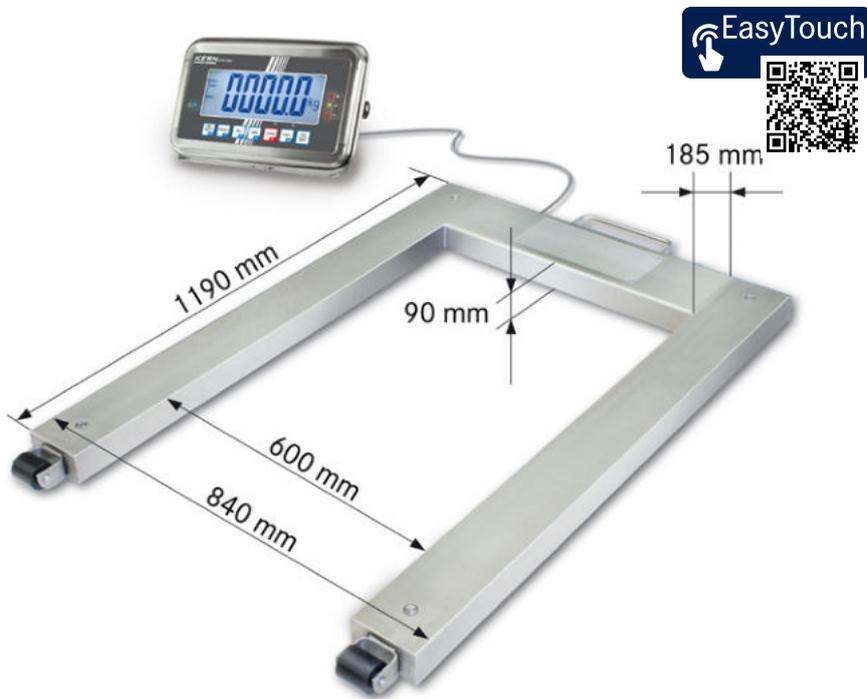


FACTORY



Model	Weighing capacity [Max] kg	Readability [d] kg	Verification value [e] kg	Minimal load [Min] kg	Net weight approx. kg	Option	
						Verification	DAkkS Calibr. Certificate
KERN						M	DAkkS
UFB 600K200M	600	0,2	0,2	4	55	KERN 965-230	KERN 963-130
UFB 1.5T0.5M	1500	0,5	0,5	10	55	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.



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, Weighing bridge can also be delivered as component without the display device, for details see KERN KFU-V30
- 4 silicone-coated steel load cells, dust and spray protection IP67
- Your support in a HACCP-compliant quality system
- Ideal for the increased hygienic requirements in the food industries
- **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 pallets
- Totalising of weights
- **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 WxDxH 266x165x96 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
- 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, Data interface RS-232, interface cable included, approx. 1,5 m, must be ordered at purchase, KERN KFN-A01
- Bluetooth data interface for wireless data transfer to PC or tablets, must be ordered at purchase, not possible in combination with verification, KERN KFB-A03
- Analogue module 0-10 V, must be ordered at purchase, KERN KFB-A04
Analogue module 4-20 mA, must be ordered at purchase, KERN KFB-A05
- 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*

1 Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs
Optionally configurable with IP68 display device on request, for details see chapter 13

STANDARD



OPTION



FACTORY



Model	Weighing capacity [Max] kg	Readability = Verification value [d] = [e] kg	Verification value [e] kg	Minimal load [Min] kg	Net weight approx. kg	Option	
						Verification KERN	DAkkS Calibr. Certificate KERN
UFN 600K200IPM	600	0,2	0,2	4	55	965-230	963-130
UFN 1.5T0.5IPM	1500	0,5	0,5	10	50	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.



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 to level the balance precisely
- **3** The scale can be easily transported using rollers and a handle and does not require much storage space
- Wall mount for the display device, as standard, only for models without a stand
- 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

- Large LCD display, digit height 25 mm
- Platform height in the drive-through area: 40 mm
- Dimensions weighing surface, steel, painted W×D 800×800 mm (Without ramps) W×D×H 1000×1000×40 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
- Permissible ambient temperature -10 °C/40 °C

Accessories

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

11

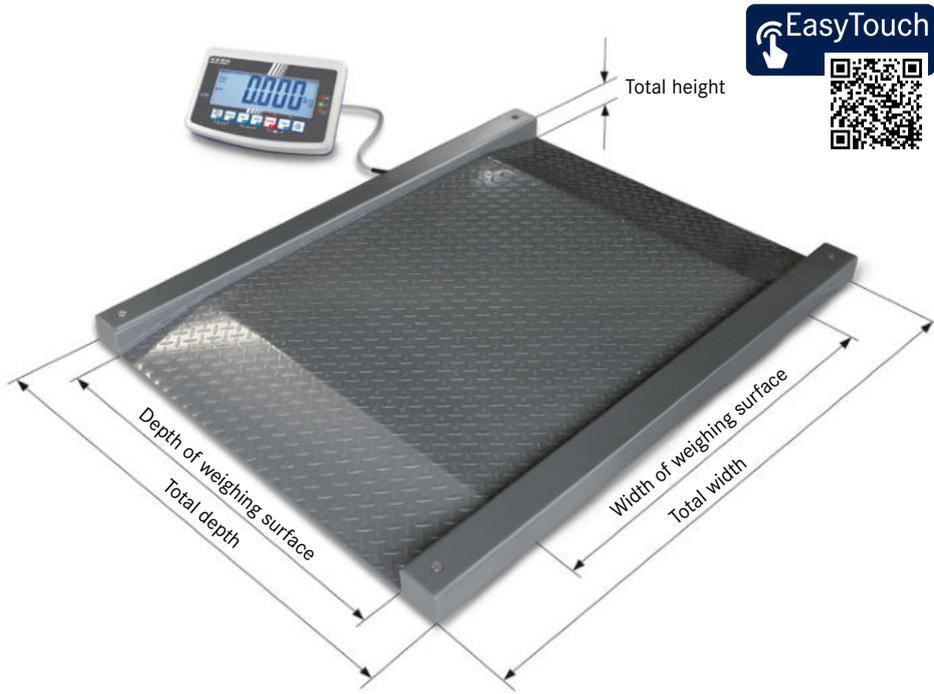
STANDARD



OPTION



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



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, trans-pallets, 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
- **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
- Weighing plate dimensions
 - A** W×D 1000×1000 mm (Without ramps)
 - B** W×D 1200×1200 mm (Without ramps)
- Overall dimensions
 - A** W×D×H 1600×1200×80 mm
 - B** W×D×H 1800×1400×80 mm
- Platform height in the drive-through area: 80 mm
- Dimensions of display device W×D×H 250×160×58 mm
- 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, Height of stand 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, KERN KFB-A03
- Analogue module, not possible in combination with signal lamp
 - Analogue module 0–10 V, must be ordered at purchase, KERN KFB-A04
 - Analogue module 4–20 mA, must be ordered at purchase, KERN KFB-A05
- **4** not possible in combination with analogue module, Signal lamp for visual support of weighing with tolerance range, 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*

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

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

STANDARD



OPTION

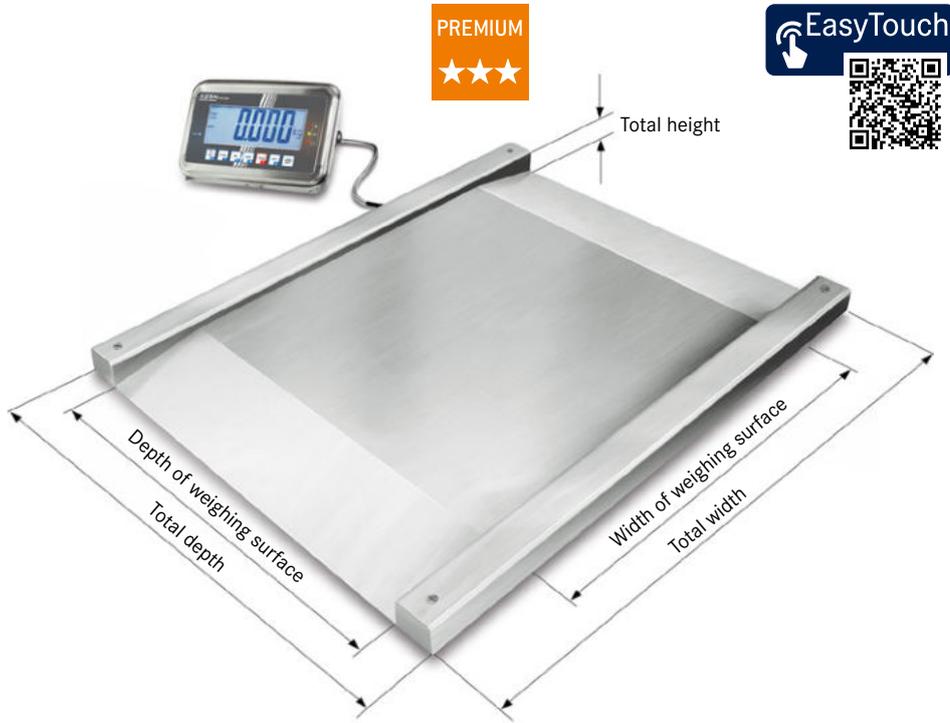


FACTORY



Model	Weighing capacity [Max] kg	Readability = Verific. value [d] = [e] kg	Minimal load [Min] kg	Cable length of display device approx. m	Net weight approx. kg	Weighing plate	Option		
							Verification	DAkKS	Calibr. Certificate
KERN							M III		
NFB 600K200M	600	0,2	4	5	140	A	KERN 965-230		KERN 963-130
NFB 600K200LM	600	0,2	4	5	165	B	KERN 965-230		KERN 963-130
NFB 1.5T0.5M	1500	0,5	10	5	140	A	KERN 965-230		KERN 963-130
NFB 1.5T0.5LM	1500	0,5	10	5	155	B	KERN 965-230		KERN 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.



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 ever-increasing hygienic requirements in the food, pharmaceutical and chemical industries.
- Your support in a HACCP-compliant quality system
- **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
- **2** Display device: for details see KERN KFN-TM
- Totalising of weights and piece counts
- Internal rechargeable battery pack included with the 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
- Weighing plate dimensions WxD 1000x1000 mm (Without ramps)
- Platform height in the drive-through area: 80 mm
- Overall dimensions WxDxH 1600x1200x80 mm
- Dimensions of display device WxDxH 266x165x96 mm
- Permissible ambient temperature -10 °C/40 °C

Accessories

- **4** Stand to elevate display device, height of stand approx. 750 mm, KERN YKP-02
- Pair of base plates to fix the weighing bridge

- to the floor, KERN BFN-A03
- Internal rechargeable 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 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, KERN KFB-A03
- Analogue module, must be ordered at purchase, Analogue module 0-10 V, KERN KFB-A04
Analogue module 4-20 mA, KERN KFB-A05
- **5** 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
- For further details, plenty of further accessories and suitable printers, see Internet

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.

1 Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs-device on request.

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

STANDARD



OPTION



FACTORY

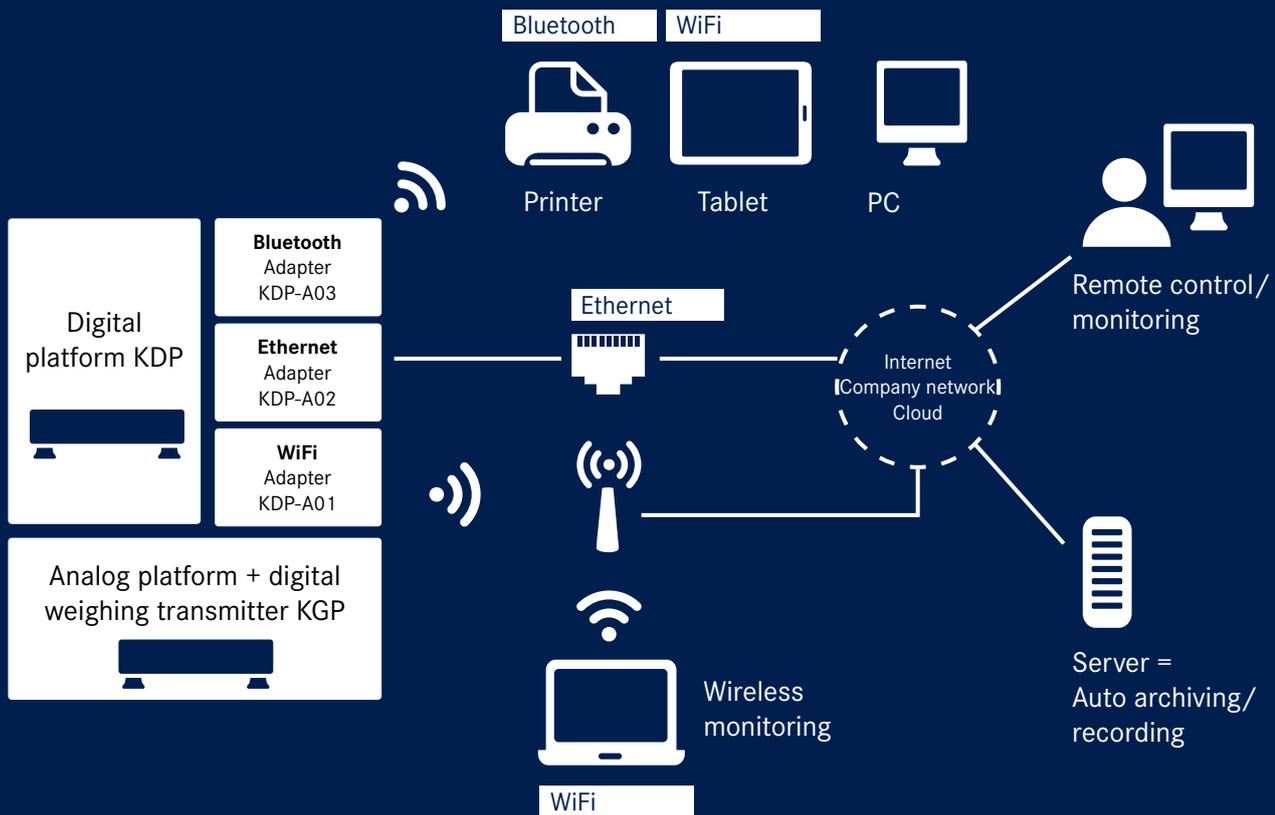


Model	Weighing capacity [Max] kg	Readability = Verification value [d] = [e] kg	Minimal load [Min] kg	Cable length of display device approx. m	Net weight approx. kg	Option	
						Verification	DAkkS Calibr. Certificate
KERN						Verification	DAkkS
NFN 600K-1M	600	0,2	4	5	105	KERN 965-230	KERN 963-130
NFN 1.5T-4M	1500	0,5	10	5	105	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.

1 ONLY WHILE STOCKS LAST!

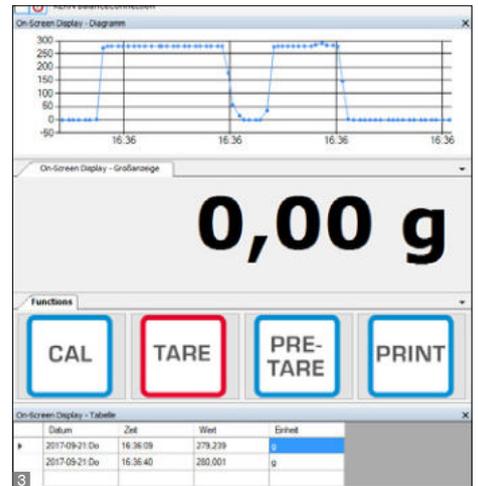
12 WEIGHING SYSTEMS INDUSTRY 4.0



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 174/175.



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 platform **1** (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
- Digital weighing transmitter with standard Ethernet data interface on request
- Functions: Weighing, taring
- Internal resolution 16 million divisions
- Measuring 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 the delivery:
 - Industrial platform KERN KFP
 - Digital weighing transmitter KERN YKV-01
 - **2** DIN rail mounting bracket for KERN YKV
 - Configuration software for adjusting and managing the KERN KGP, 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-01: Overall dimensions W×D×H 100×140×36 mm
- Permissible ambient temperature -10 °C/ 40 °C

Accessories

- Bluetooth data interface, KERN YKV-A02
- WiFi interface, KERN YKV-A01
- Ethernet data interface on request
- **3** Software BalanceConnection, for flexible recording or transmission of measured values, in particular also to Microsoft® Excel or Access as well as transfer of this data to other Apps and programs, For more details see the internet, Scope of supplies: 1 CD, 1 license, KERN SCD-4.0

STANDARD



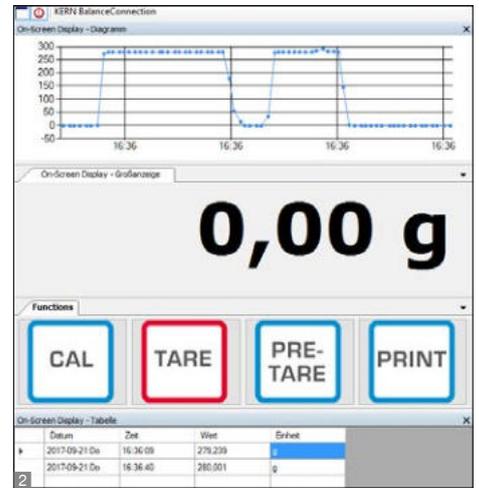
OPTION



FACTORY



Model	Weighing capacity [Max] kg	Read-out [d] g	Weighing plate W×D×H mm	Cable length approx. m	Net weight approx. kg	Options
						DAkKS Calibr. Certificate DAkKS KERN
KERN KGP 6K-4	6	0,2	230×230×120	2,5	6	963-128
KERN KGP 6K-4L	6	0,2	300×240×128	2,5	10	963-128
KERN KGP 10K-4	15	0,5	300×240×120	2,5	6	963-128
KERN KGP 10K-4L	15	0,5	400×300×128	2,5	10	963-128
KERN KGP 30K-3	30	1	300×240×120	2,5	6	963-128
KERN KGP 30K-3L	30	1	400×300×128	2,5	10	963-128
KERN KGP 60K-3	60	2	400×300×128	2,5	10	963-129
KERN KGP 60K-3L	60	2	500×400×137	2,5	14	963-129
KERN KGP 100K-3	150	5	500×400×137	2,5	14	963-129
KERN KGP 100K-3L	150	5	650×500×142	2,5	22	963-129
KERN KGP 300K-2L	300	10	650×500×142	2,5	22	963-129



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 load 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 the delivery:
 - Digital weighing transmitter KERN YKV-01
 - USB cable incl. mains plug
 - DIN rail mounting bracket
 - Configuration software for adjusting and managing, 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 100×140×36 mm
- Net weight approx. 0,35 kg
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Bluetooth data interface, KERN YKV-A02
- WiFi interface, KERN YKV-A01
- 2 Software BalanceConnection, for flexible recording or transmission of measured values, in particular also to Microsoft® Excel or Access as well as transfer of this data to other Apps and programs, For more details see the internet, Scope of supplies: 1 CD, 1 license, KERN SCD-4.0

STANDARD										FACTORY	
YKV-02											

Model

Standard interfaces

KERN

YKV-01

RS-232, USB

YKV-02

RS-232, USB, Ethernet

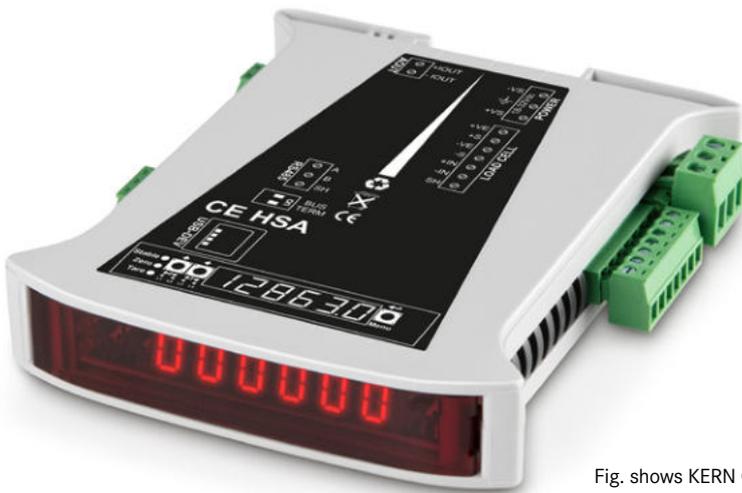


Fig. shows KERN CE HSA



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

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
- **A** 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, PROFIBUS DP and PROFINET (according to model)
- Extremely high measurement frequency possible, up to 1600 data records/s
- Internal resolution 24 Bit

Technical Data

- 7 segment LED display, digit height 7,62 mm
- Dimensions W×D×H 120×101×23 mm
- Power supply 18-32 Vdc; 4 W max.
- Load cell power supply 5 Vdc
- Sensitivity 0,1 µV/d
- Adjustable nominal sensitivity: 1; 1.5; 2; 2.5; 3 mV/V
- Input voltage Unipolar @3mV/V: -1 mV to +16 mV
- Input voltage Bipolar @3mV/V: -16 mV to +16 mV
- Max. load cell impedance: 1200Ω
- Min. load cell impedance: 43,75 Ω
- Max. no. of load cells 350 Ω: 8
- Max. no. of load cells 1000 Ω: 22
- Max. number of d: 10.000

- Display steps: 1, 2, 5, 10, 20, 50, 100, 200
- Permissible ambient temperature -10 °C/40°C

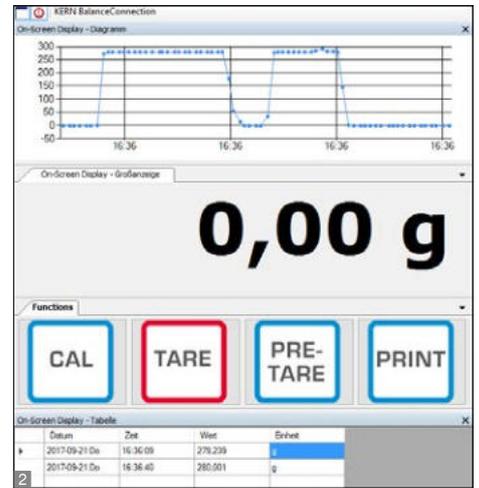
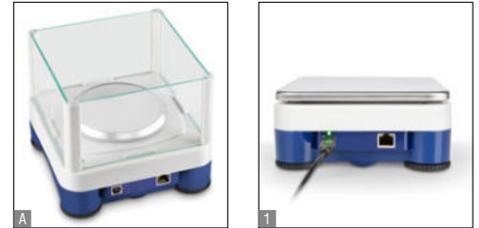
Accessories

- Mains adapter for voltage supply to the KERN CE, can be fitted on the DIN rail, KERN CE HSS
- Large display with superior display size, KERN YKD-A02
- For further accessories, such as load and load cells, torque sensors and weighing platforms (strain gauge based only) from the SAUTER and KERN range, see www.sauter.eu
- Further accessories such as DIN rail, housing as well as individual assembly, configuration, adjustment, etc. on request

Note: Models also available with verification approval, please enquire

Model	Communication Interfaces	Digital I/O	Analog output
KERN			
CE HSA	USB	-	0/4-20/24mA
CE HSAIO <small>NEW</small>	USB	3 input/4 output	0/4-20/24mA
CE HSE	USB, Ethernet	3 input/4 output	-
CE HSP	USB, PROFIBUS	3 input/4 output	-
CE HSR	USB, RS232/422	3 input/4 output	-
CE HSN	USB, PROFINET	3 input/4 output	-

NEW New model



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
- **1** A practical status LED informs about the active power supply
- Freely programmable weighing unit, e.g. display direct in special units such as length of thread g/m, paper weight g/m², or similar
- Draught shield standard for models with weighing plate size \varnothing 105 mm, weighing space WxDxH 146x146x80 mm
- Included with the delivery:
 - 2** 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
 - A** \varnothing 105 mm, plastic, with conductive lacquer
 - B** WxD 160x160 mm, stainless steel, see larger picture
- Overall dimensions WxDxH 165x166x75 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 data interface to transfer data from balances to PC or tablet, must be ordered at purchase, KERN YMI-A01
- Ethernet data interface, to connect an IP-based Ethernet network, continuous data transfer, must be ordered at purchase, KERN KDP-A02



Model	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	A	963-127
KDP 3000-2	3500	0,01	0,02	± 0,05	B	963-127
KDP 10K-4	10000	0,1	0,1	± 0,3	B	963-128
KDP 10K-3	10000	1	1	± 3	B	963-128

WE CAN MAKE YOUR WEIGHING DATA DIGITAL – KERN EASY TOUCH

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

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



**See for yourself the many benefits of the new
KERN EasyTouch App:**

- Greater efficiency through short workflows for the user
- Greater security of the measuring results
- Avoiding measuring and process errors
- Unlimited master data memory
- Central data storage and data security (tamper-proof)
- Interfaces to ERP, PPS, etc. systems

 EasyTouch



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

All details about the new KERN EasyTouch App can be found at
www.kern-sohn.com/easytouch-app/en

Working with the KERN EasyTouch is so easy

Collect the weight and measurement data with the appropriate device

Transfer, process and agument the weight or measurement data through KERN EasyTouch

Output or store the weight or measurement data to connected systems or peripheral devices



- A standard balance is connected to an external laptop/tablet
- The performance of the balance is transferred to the terminal device 1:1

- Even simpler control and use of data by expanding the user interface
- The data is integrated directly in the process and this means it can continue to be used and stored

- Errors in the process or application are avoided
- In this way a simple balance becomes a highly-complex measuring device
- The recorded data can be processed further in a flexible way

The EasyTouch App – these functions are included:

- Operating system with Basic Weighing and Laboratory Package
- At present 14 optional add-on functions
- Data storage functions (local or cloud-based)
- On request we can also offer tailor-made solutions – get in touch with us



Test it without any risk and free of charge – it's that easy!

- 1 Load the basic App from the Appstore**
 The KERN EasyTouch App already contains many helpful functions.
- 2 Connect the devices you need**
 Connect to devices using the four interfaces provided (Bluetooth, wired or USB adapter or WiFi).
- 3 Test the basic package for 6 weeks, without obligation and free of charge**
 After 6 weeks you can decide whether to continue using the Apps. With absolutely no loss of data.

Talk to the professionals

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

KERN EasyTouch – You have the following options



Possible interfaces:

- Wired through RS 232 interface cable + USB adapter AFH 13
- Bluetooth through RS 232 interface cable + ET Connect Box YKI-14 Bluetooth
- Ethernet through RS 232 interface cable + YKI-01 Ethernet
- WLAN through RS 232 interface cable + YKI-03 WLAN

YOUR BENEFITS OF THE KERN EASYTOUCH SOFTWARE

- You only pay for the functions that you use
- Expansion of the range of services of your balance to meet your individual ideas and preferences
- Easy control of your balances from wherever you currently are: laboratory, production, office control of a PC, laptop or a tablet
- Tamper-proof storage of all weighing data on a central server, in an orderly database

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

KERN BALANCES / WEIGHING PLATFORMS			SCALES FROM OTHER MANUFACTURERS	
440	EW/EG	KDP	PCD	Mettler-Toledo International Inc., USA, CH
572	EWJ	KFB-TM	PBS/PBJ	Minebea Intec GmbH, DE (ex Sartorius Industrie)
ABS/ABJ	FCB	KFC-TM	PES/PEJ	Ohaus Corp., USA
ADB/ADJ	FES/FEJ	KFN-TM	PLS/PLJ	Precisa Gravimetrics AG, CH
ALS/ALJ	FKB	KGP	PNS/PNJ	Radwag Wagy, PL
BFB	GAB	KIB-TM ⁽¹⁾	PWS	Sartorius AG, DE
BFN	IFB	KIC-TM	SFB	SysTec Systemtechnik/Industrieautomation GmbH, DE
BID ⁽¹⁾	IFS	KXS-TM	SXS	
CFS	IOC ⁽¹⁾	NFB	UFA	
CKE	IXS	NFN	UFB	
DS	KB	PCB	UID	

⁽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.

Depending on the model and connection type (USB, Bluetooth, Ethernet, WiFi), please contact KERN specifically, as there may currently still be restrictions on the possible combinations.

TIPP: Other KERN ranges can be adapted to be EasyTouch compatible – keep up-to-date with the latest new on www.kern-sohn.com/easytouch-app/en



Note: All KERN models which are EasyTouch compatible are marked with the relevant symbol in the catalogue!

EasyTouch function at a glance

Basic Package – Operating system

SET-01 ET OS

Basic Weighing & Laboratory Package

The basic package contains many useful functions such as weighing, totalizing, target dispensing and percentage weighing. As well as the local master data administration and management of the weighing results.

The basic package can be expanded at any time with additional, optional add-on functions.



Optional add-on functions

SET-07 ET Variable

Free variable function

Individually definable units, e.g. cable length g/m, weight per unit area g/m², etc.

SET-08 ET Take-Out

Take-out function

Ideal for portioning by removing from a source container

SET-11 ET Safety

Precision & Safety function

Scale monitoring: the MUST for the pharmaceutical sector

NEW

SET-16 ET Batch & Statistics

Batch measuring function with statistical analysis

Perfect function in the context of production control, for calculating averages, etc

SET-21 ET Formulation

Recipe function

Recipe management, dosing aid, recipe adjustment, multiplier function, etc.

SET-22 ET Difference

Difference function

Monitoring of weight increase (e.g. cell growth) or weight decrease (e.g. drying) and calculation of the weight difference

SET-31 ET Tolerance

Tolerance weighing function

Weighing within defined limits ensures fast sorting, portioning, picking, checking

SET-32 ET Count

Piece-counting function

Fast counting of large quantities, avoids counting errors, saves time and money!

SET-33 ET Target Count

Target-counting function

For lightning-fast picking of small parts, safely supported by optical and acoustic signals

SET-171 ET PrePack

Production control and packaging

Perfect for use in sectors such as the food industry for weighing in accordance with pre-packaging legislation

NEW

SET-14 ET Individual Print

User-customised print format function

Individual positioning of print elements, form printing, paper sizes and barcode printing is possible

NEW

You can find more functions on our EasyTouch home page:



www.kern-sohn.com/easytouch-app/en



Central data memory

SET-10 ET Save-Data Server

Weight storage and Save-Server function

Central storage of weighing and measuring data in a network

SET-101 Save-Data Cloud

Weight storage and Save-Server function in the cloud

Central storage of weighing and measuring data in the cloud, tamper-proof

13

DISPLAY DEVICES/ PLATFORMS/ WEIGHING BRIDGES

Customized individual weighing systems, without verification

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 customize 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 at an additional price, see page 210 ff.

Customizing 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.



The individual KERN steps:

	Weighing capacity	Model
1. Proof of compatibility 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
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
	up ≤ 350 kg	965-412
	up ≤ 1500 kg	965-413
	up ≤ 2900 kg	965-414
	up ≤ 6000 kg	965-415
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
	up ≤ 50 kg	965-228
	up ≤ 350 kg	965-229
	up ≤ 1500 kg	965-230
	up ≤ 2900 kg	965-231
	up ≤ 6000 kg	965-232
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
Cable extensions for platform scales	
up to 4 m extension	965-403
up to 7 m extension	965-404
up to 20 m extension	965-405
Individual settings	
Scale with NAWI conformity evaluation, only in combination with KERN 965-240	965-401
Other adjustments in the balance or software changes	965-407
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
 Delivery time for modifications & special services approx. 5-8 working days	

Order example

	Model
KFP 30V20M platform and KEN-TM display device with cable extension (4 m) and setting an individual preload.	KERN
KERN platform	KFP 30V20M
KERN display device	KFN-TM
Proof of compatibility	965-240
Cable extension	965-403
Setting the preload	965-401
Assembly	965-411
Verification at the factory KERN	965-228
Complete scale (verified)	

NOTHING IS IMPOSSIBLE – KERN CUSOS

Perfectly working weighing solutions with customized platform sizes, specific software solutions and coordinated peripherals - to suit your processes.

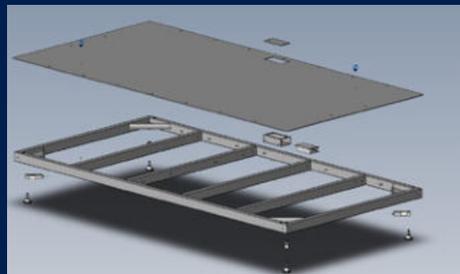
Our KERN Customized Solution Service offers maximum freedom of choice - give it a try.

KERN CUSOS – Perfectly tailored to you and your requirements

Powerful balances and efficient weighing systems which support you in your work, should be adapted to your individual requirements. Standard models are therefore not sufficient under some circumstances.

For this reason, at KERN it is our pleasure to work with you to develop a solution which is appropriate and tailor-made for you. From a range of platform sizes through to personalised weighing systems within large production plants, we can provide the right measuring technology.

Through close collaboration with your engineers and users, we first check the special requirements for your application. Using this data we will put together the appropriate platform scale, floor scale or a completely personalised weighing system for you, to fit your requirements perfectly.



Our service for you: Individual weighing solutions

Fig.: Example of a design for personalised platform scales in the floor scale sector

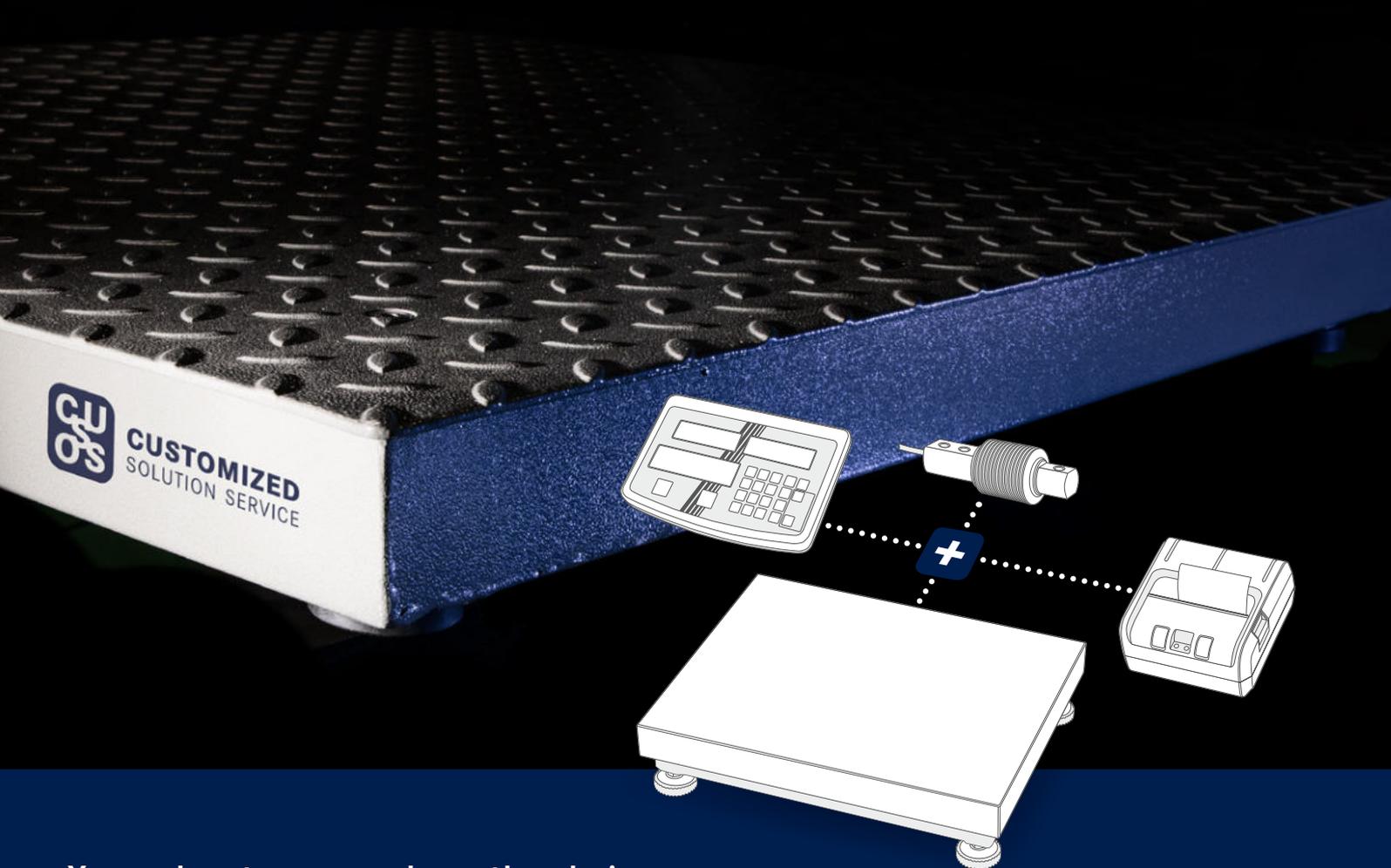


Ideal for the most varied requirements, e.g. for weight measurement on roller conveyors in automation processes and packing stations



For perfect integration into existing and newly configured processes: individual platform construction in individual formats





Your advantage - you have the choice

Choose from a wide range of display devices. Economical and lightweight (plastic version), robust and water-resistant (stainless steel version), with numeric key pad, battery or mains operation or the most varied interfaces.

Load cells to construct automatic weighing systems such as filling or dosing systems, such as might be used, for example, in manufacturing or filling processes in the chemical industry, construction industry, mineral industry, etc. On many occasions, load cells are also used in the construction of check-weighers or for installation into packaging machines of any type in the food industry.

The weighing data can be forwarded to peripheral devices such as signal lamps, printers and laptops or be used to switch valves, or similar devices.

What's your individual requirement?

Just tell us the size you want and the material you want for your platform and other essential construction details – done! We'll take care of the implementation.

From page 136 you will find a selection of our platforms, load cells and evaluation devices – the starting point for your individual system solution !



Tip: Save money and ask our experts. Maybe your desired combination is already included in our standard range?



1 KERN KFB-TM

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

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 platform scale IFB on page 106

Tip

to see what options are offered by this display device, please see the KERN counting scale IFS on page 86

STANDARD

CAL EXT RS 232 KCP GLP PCS SUM UNIT TOL

STANDARD OPTION FACTORY

MOVE MULTI 1 DAY ET ACCU BT 2.0 ANALOG M

STANDARD

CAL EXT MEMORY RS 232 KCP GLP INTERN PCS SUM

STANDARD OPTION FACTORY

TOL MULTI 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	CFS-A04
Interface RS-485	-	-
Interface USB	-	-
Interface Bluetooth	KERN KFB-A03, see page 97	-
Analogue module	0–10V: KERN KFB-A04 4–20 mA: KERN KFB-A05 see page 97	-
Signal lamp	CFS-A03	CFS-A03
Foot switch	-	-
Stand	BFS-A07, see page 97	BFS-A07, see page 78
Benchtop stand for display device/wall mount	yes/yes	yes/yes
Protective working cover	KFB-A02S05, see page 97,	KFB-A02S05, see page 78,
Rechargeable battery pack	KFB-A01, see page 97,	KFB-A01, see page 78,
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



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
- Industry 4.0: A large number of (optional) data interfaces enable convenient transferring weighing data to tablets, laptops, PCs, networks, smartphones, printers, etc.
- Searching and remote control of the balance using external control devices or computers with the KERN Communication Protocol (KCP).

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 71

STANDARD												OPTION					
FACTORY												STANDARD		OPTION		FACTORY	

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

Features	Model KERN 3 KIB-TM	Model KERN 4 KFN-TM
Display (segments)	6 digits	5 + 1/2 digits
EC type approval	yes	yes
Resolution verifiable	6000 e	6000 e
Resolution non verifiable	60000 d	30000 d
Weighing capacities	≤ 2	≤ 2
Weighing units	kg, g	kg
Readability	1, 2, 5, 10, n	1, 2, 5, 10, n
Piece counting with reference	5, 10, 20, 25, 50, 100	10, 20, 50, 100, 200
Display, digit height	Backlit LCD display, 24 mm	Backlit LCD display, 52 mm
Additional functions	Totalising, HOLD function, printing of time. KCP Only possible through RS-232; USB, Bluetooth, WiFi, Digital I/O, LAN on request	Totalising, HOLD function
Strain gauge load cells	87-1100 Ω	87 - 1600 Ω
Linearisation	3 points	3 points
Input voltage	12 V DC, 1000 mA	12 V, 500 mA
Permissible ambient temperature	-10 °C/40 °C	-10 °C/40 °C
Interface RS-232	yes*	KFN-A01, see page 62
Interface RS-485	-	-
Interface USB	KIB-A03*, see page 102	-
Interface Bluetooth	KIB-A04*, see page 102	-
WiFi	KIB-A10*, see page 102	-
SWITCH (DIGITAL I/O)	-	-
LAN	KIB-A02*, see page 102	-
Alibi memory	KIB-A01	-
Analogue module	-	0-10V: KERN KFB-A04 4-20 mA: KERN KFB-A05 see page 97
Stand	EOC-A05, see page 102	BFS-A07, see page 62
Benchtop stand for display device/wall mount	EOC-A04	yes/yes
Protective working cover	EOC-A01S05	-
Rechargeable battery pack	KFB-A01, see page 102	GAB-A04
Operating/charging time	up to 43 h/3 h	up to 35 h/12 h
Dimensions Housing W×D×H	268×115×70 mm	266×165×96 mm
Net weight	0,8 kg	2,6 kg

- * 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



Other platform sizes, special construction, individual scale construction according to your individual requirements, also possible with third-party components, please enquire

1 KERN KFP-V20 IP65

Platform

STANDARD FACTORY

IP 65 1 DAY 2 DAYS KFP 600

M

- Stainless steel-weighing plate, **A** 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 FACTORY

IP 65 1 DAY

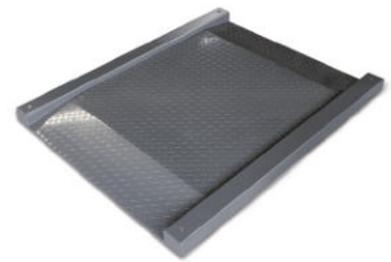
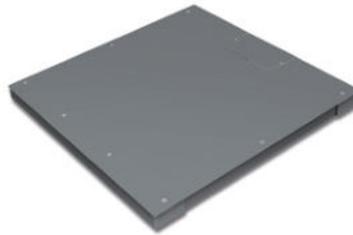
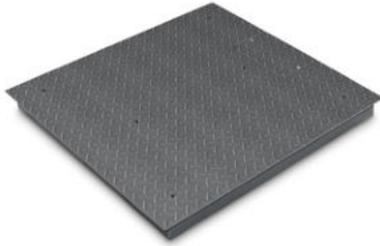
M

- Stainless steel-weighing plate, **B** 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



Model	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
1 Platform KFP-V20 IP65							
KFP 3V20M	3	0,1	1	20	2,5	3,6	230×230×105
KFP 6V20M	6	0,2	1 2	40	2	3,6	230×230×105
KFP 6V20LM	6	0,2	1 2	40	2,5	6	300×240×105
KFP 15V20M	15	0,5	2 5	100	2	6	300×240×105
KFP 15V20LM	15	0,5	2 5	100	2,5	10	400×300×125
KFP 30V20SM	30	1	10	200	2,5	6	300×240×105
KFP 30V20M	30	1	5 10	200	2	10	400×300×125
KFP 60V20M	60	2	10 20	400	2	10	400×300×125
KFP 60V20LM	60	2	10 20	400	2	10	500×400×130
KFP 150V20M	150	5	20 50	1000	2	10	500×400×130
KFP 150V20LM	150	5	20 50	1000	2	22	650×500×135
KFP 300V20M	300	10	50 100	2000	2	22	650×500×135
KFP 600V20AM	600	20	200	4000	2,5	46	800×600×190
2 Platform KXP-V20 IP65							
KXP 6V20LM *	6	0,2	1 2	40	3	3,2	300×240×90
KXP 15V20M *	15	0,5	2 5	100	3	3,2	300×240×90
KXP 15V20LM *	15	5	5	100	3	8	400×300×90
KXP 30V20M *	30	1	5 10	200	3	8	400×300×90
KXP 30V20LM *	30	1	5 10	200	3	18	500×400×123
KXP 60V20M *	60	2	10 20	400	3	11	400×300×90
KXP 60V20LM *	60	2	10 20	400	3	22	500×400×123
KXP 150V20M *	150	5	20 50	1000	3	18	500×400×123
KXP 150V20LM *	150	5	20 50	1000	3	34	650×500×133,5
KXP 300V20M *	300	10	50 100	2000	3	34	650×500×133,5

* ONLY WHILE STOCKS LAST!



3 KERN KIP-V20M

Weighing bridge



- 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 114/115

4 KERN KFP-V20 IP67

Weighing bridge



- **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 116/117

5 KERN KFD-V20

Weighing bridge



- 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 125



Model	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
3 Weighing bridge KIP-V20M							
KIP 600V20SM	600	200	200	4000	5	130	1000×1000×108
KIP 600V20M	600	200	200	4000	5	150	1500×1200×108
KIP 1500V20SM	1500	500	500	10000	5	130	1000×1000×108
KIP 1500V20EM	1500	500	500	10000	5	140	1200×1000×108
KIP 1500V20M	1500	500	500	10000	5	150	1500×1200×108
KIP 3000V20M	3000	1000	1000	20000	5	150	1500×1200×108
KIP 3000V20LM	3000	1000	1000	20000	5	180	1500×1500×108
4 Weighing bridge KFP-V20 IP67							
KFP 600V20SNM	600	200	200	4000	5	105	1000×1000×80
KFP 600V20NM	600	200	200	4000	5	135	1500×1250×80
KFP 1500V20SNM	1500	500	500	10000	5	105	1000×1000×80
KFP 1500V20NM	1500	500	500	10000	5	135	1500×1250×90
KFP 3000V20NM	3000	1000	1000	20000	5	135	1500×1250×90
KFP 3000V20LNM	3000	1000	1000	20000	5	155	1500×1500×80
KFP 6000V20M	6000	2000	2000	40000	5	210	1500×1500×130
5 Weighing bridge KFD-V20							
KFD 600V20M	600	200	200	4000	5	125	1600×1200×78
KFD 600V20LM	600	200	200	4000	5	155	1800×1400×80
KFD 1500V20M	1500	500	500	10000	5	125	1600×1200×78
KFD 1500V20LM	1500	500	500	10000	5	175	1800×1400×78



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
- Connection cable, length 5 m
- **D** 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)
- **Special feature:** model with short weighing beams, ideal for weighing compact items or animals in transport boxes
 - ▶ KERN KFA-600V20S
- Accessories see KERN UFA, page 119

7 KERN KFU-V20/V30

U-Weighing bridge

STANDARD FACTORY

IP 67 2 DAYS **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 122
- Accessories KFU-V30 see KERN UFN, page 123

8 KERN KFP-V30

Platform

STANDARD FACTORY

IP 67 1 DAY **M**

- Stainless steel-weighing plate, **E** Stainless steel substructure
- 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	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
6 Weighing beams KFA-V20							
KFA 600V20S	600	200	-	-	5	30	800×120×100
KFA 1500V20	1500	500	-	-	5	36	1200×120×100
KFA 3000V20	3000	1000	-	-	5	36	1200×120×100
KFA 3000V20L	3000	1000	-	-	5	65	2000×120×100
KFA 6000V20	6000	2000	-	-	5	85	1200×160×80
KFA 6000V20L	6000	2000	-	-	5	125	2100×160×85
7 U-Weighing bridge KFU-V20							
KFU 600V20M	600	200	200	4000	5	55	840×1350×90
KFU 1500V20M	1500	500	500	10000	5	55	840×1350×90
7 Stainless steel U-Weighing bridge KFU-V30							
*	600	200	200	4000	5	55	840×1350×90
KFU 1500V30M*	1500	500	500	10000	5	55	840×1350×90
8 Stainless steel platform KFP-V30							
KFP 15V30M	15	0,5	5	100	2,5	5,0	300×240×100
KFP 30V30SM	30	10	10	200	2,5	5,0	300×240×100
KFP 30V30M	30	1	10	200	2,5	10	400×300×128
KFP 60V30M	60	2	20	400	2,5	10	400×300×128
KFP 60V30LM	60	2	20	400	2,5	10	500×400×137
KFP 60V30XLM	60	2	20	400	2,5	22	650×500×142
KFP 150V30SM	150	5	50	1000	2,5	10	400×300×128
KFP 150V30M	150	5	50	1000	2,5	10	500×400×137
KFP 150V30LM	150	5	50	1000	2,5	22	650×500×135
KFP 300V30M	300	10	100	2000	2,5	22	650×500×135

I * ONLY WHILE STOCKS LAST!



9 KERN KFP-V40

Weighing bridge



- 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 118

10 KERN KFD-V40

Weighing bridge

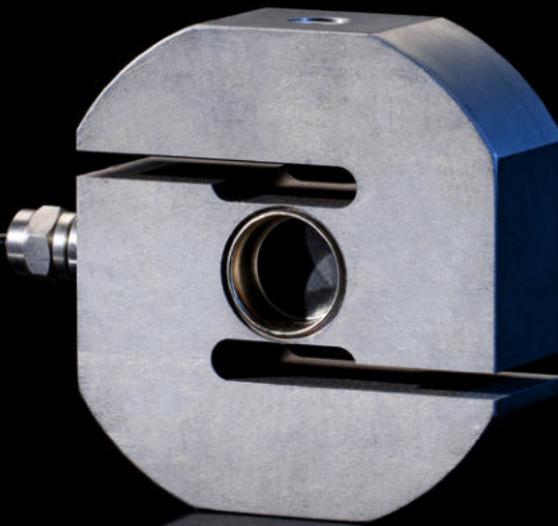


- Weighing bridge made from stainless steel, two integrated access ramps, extremely resistant to bending
- Extremely flat construction to facilitate access: access height only 45 mm
- 4 load cells, stainless steel, encapsulated IP68, OIML-R60-approval for verification, class III, 3000 e
- Level indicator and levelling feet for precise levelling of the scale
- Accessories see KERN NFN, page 126



Model	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
9 Stainless steel weighing bridge KFP-V40							
KFP 600V40SM	600	200	200	4000	5	95	1000×1000×80
KFP 1500V40M	1500	500	500	10000	5	135	1500×1250×80
KFP 1500V40SM	1500	500	500	10000	5	95	1000×1000×80
KFP 3000V40M	3000	1000	1000	20000	5	135	1500×1250×80
10 Stainless steel weighing bridge KFD-V40							
KFD 600V40M	600	200	200	4000	5	130	1600×1200×78
KFD 1500V40M	1500	500	500	10000	5	130	1600×1200×78

13 LOAD 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 load cell.

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-load 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.

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.

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 load cells – integration opportunities



CP P4 · CP Y4

Single-point load cells made of anodised aluminium

STANDARD	OPTION
IP 65 1 DAY	DAKkS ISO
	+3 DAYS +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

CP P1 · CP Y1

Single-point load cells made of anodised aluminium

STANDARD	OPTION
IP 65 M 1 DAY	DAKkS ISO
	+3 DAYS +4 DAYS

CP P1

- 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

CP P3

Single-point load cells made of anodised aluminium

STANDARD	OPTION
IP 65 1 DAY	DAKkS ISO
	+3 DAYS +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
SAUTER	kg
CP 300-0P4	0,3
CP 600-0P4	0,6

Model	Nominal load
SAUTER	kg
ECO design	
CP 300-0Y4	0,3
CP 1500-0Y4	1,5
CP 3000-0Y4	3

Model	Nominal load
SAUTER	kg
CP 3-3P1	3
CP 5-3P1	5
CP 6-3P1	6
CP 8-3P1	8
CP 10-3P1	10
CP 15-3P1	15
CP 20-3P1	20
CP 30-3P1	30
CP 35-3P1	35
CP 40-3P1	40
CP 50-3P1	50

Model	Nominal load
SAUTER	kg
ECO design (without EC type approval)	
CP 3-2Y1	3
CP 5-2Y1	5
CP 10-2Y1	10
CP 15-2Y1	15
CP 20-2Y1	20
CP 30-2Y1	30

Model	Nominal load
SAUTER	kg
CP 30-3P3	30
CP 40-3P3	40
CP 50-3P3	50
CP 75-3P3	75
CP 100-3P3	100

New model

Tip

- Further details and technical data sheet as well as extensive accessories can be found online



CP P2 · CP P8

Single-point load cells of aluminium

STANDARD
 IP 65 1 DAY

OPTION
 DAKkS ISO
 +3 DAYS +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 ISO
 +3 DAYS +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 ISO
 +3 DAYS +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	Nominal load
SAUTER	kg
CP 100-3P2	100
CP 150-3P2	150
CP 200-3P2	200
CP 300-3P2	300
CP 400-3P2	400
CP 500-3P2	500
CP 100-3P8	NEW 50
CP 150-3P8	NEW 100
CP 200-3P8	NEW 150
CP 250-3P8	NEW 200
CP 300-3P8	NEW 250
CP 500-3P8	NEW 300
CP 50-3P8	NEW 500
CP 600-3P8	NEW 600

New model

Tip

- Further details and technical data sheet as well as extensive accessories can be found online

Model	Nominal load
SAUTER	kg
CP 30-3P7	30
CP 50-3P7	50
CP 75-3P7	75
CP 100-3P7	100
CP 150-3P7	150

Model	Nominal load
SAUTER	kg
CP 10-3P9	10
CP 20-3P9	20
CP 50-3P9	50
CP 100-3P9	100
CP 200-3P9	200
CP 300-3P9	300
CP 400-3P9	400
CP 500-3P9	500



Fig. shows accessories, load corner SAUTER CE Q42901, for further accessories please visit our online shop

CR Q1

Load cells made of stainless steel



- 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



- 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:

- Load corner, steel, galvanised, suitable for CR Q1 with nominal load ≤ 10 t, SAUTER CE Q42901
- Load corner, steel, galvanised, suitable for CR Q1 with nominal load ≥ 20 t, SAUTER CE Q42902
- Load corner, steel, rustproof, suitable for CR Q1 with nominal load ≤ 10 t, SAUTER CE RQ42901
- Load corner, steel, rustproof, suitable for CR Q1 with nominal load ≥ 20 t, SAUTER CE RQ42902

Accessories CR P1:

- Load corner for CR 1000-3P1, CR 250-3P1, CR 500-3P1 Steel, incl. pressure piece, SAUTER CE P244011
- Pressure piece for CR 1000-3P1, CR 250-3P1, CR 500-3P1 steel, SAUTER CE P244012
- Load corner for CR 2000-3P1 steel, rustproof, incl. pressure piece, SAUTER CE P244021
- Pressure piece for CR 2000-3P1 steel, rustproof SAUTER CE P244022

Model Nominal load

SAUTER	
CR 2500-1Q1	2,5 t/25 kN
CR 5000-1Q1	5 t/50 kN
CR 10000-1Q1	10 t/100 kN
CR 20000-1Q1	20 t/200 kN
CR 30000-1Q1	30 t/300 kN

** up to max. 25 t/250 kN

Model Nominal load

SAUTER	
CR 60-3P1	60 kg/0,6 kN
CR 130-3P1	130 kg/1,3 kN
CR 250-3P1	250 kg/2,5 kN
CR 500-3P1	500 kg/5 kN
CR 1000-3P1	1000 kg/10 kN
CR 2000-3P1	2000 kg/20 kN

* up to max. 500 kg/5 kN

Tip

- Further details and technical data sheet as well as extensive accessories can be found online



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 load cells made from stainless steel



- 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

Load cells made from stainless steel



- 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
- Traction device, steel, rustproof, suitable for CB Q2, SAUTER CE Q34905
- **1** Base plate, steel, galvanised, suitable for CB Q1, SAUTER CE Q30903
- Base plate, steel, rustproof, suitable for CB Q1, SAUTER CE RQ30903
- Base plate, steel, rustproof, suitable for CB Q2, SAUTER CE Q34903
- **2** Bearing, steel, rustproof, suitable for CB Q1 (nominal load 5 kg–50 kg), SAUTER CE Q30904
- Bearing, steel, rustproof, suitable for CB Q1 (nominal load 75 kg–300 kg), SAUTER CE Q30905
- Bearing, steel, rustproof, suitable for CB 500-3Q1, SAUTER CE Q30906
- Bearing, steel, rustproof, suitable for CB 750-3Q2, CB 1000-3Q2, CB 1500-3Q2, SAUTER CE Q34906
- Load corner, steel, galvanised, suitable for CB Q1, SAUTER CE Q30907
- Load corner, steel, rustproof, suitable for CB Q1, SAUTER CE RQ30907
- Adjustable foot, steel, rustproof, suitable for SAUTER CE Q34901

13

Model	Nominal load
SAUTER	kg
CB 5-3Q1	5
CB 10-3Q1	10
CB 20-3Q1	20
CB 30-3Q1	30
CB 50-3Q1	50
CB 75-3Q1	75
CB 100-3Q1	100
CB 150-3Q1	150
CB 200-3Q1	200
CB 250-3Q1	250
CB 300-3Q1	300
CB 500-3Q1	500
CB 750-3Q2	750
CB 1000-3Q2	1000
CB 1500-3Q2	1500

* up to max. 500 kg

Model	Nominal load
SAUTER	kg
CB 100-3P1	100
CB 250-3P1	250

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
- **3** Load corner, steel, nickel-plated for CT 500-3P1, CT 1000-3P1 and CT 1500-3P1, SAUTER CE P4022
- Spacer plates for bending beam CB P1 made from steel, SAUTER CE P3012

Tip

- Further details and technical data sheet as well as extensive accessories can be found online



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



- 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

Model	Nominal load
SAUTER	kg
CT 300-3Q1	300
CT 500-3Q1	500
CT 750-3Q1	750
CT 1000-3Q1	1000
CT 1500-3Q1	1500
CT 2000-3Q1	2000
CT 3000-3Q1	3000
CT 5000-3Q1	5000
CT 7500-3Q1	7500
CT 10000-3Q1	10000

* up to max. 500 kg

CT P1 · CT P2

Load cells made from stainless steel



- 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

Model	Nominal load
SAUTER	kg
CT 500-3P1	500
CT 1000-3P1	1000
CT 1500-3P1	1500
CT 2500-3P1	2500
CT 3000-3P1	3000
CT 5000-3P1	5000
CT 10000-3P1	10000
CT 500-3P2	500
CT 1000-3P2	1000
CT 3000-3P2	3000
CT 5000-3P2	5000
CT 10000-3P2	10000

* up to max. 500 kg

Accessories CT Q1:

- Base plate, steel, rustproof, suitable for CT Q1, SAUTER CE RQ35911
- Base plate, steel, rustproof, suitable for CT 3000-3Q1, CT 5000-3Q1, SAUTER CE RQ35912
- Base plate, steel, rustproof, suitable for CT 7500-3Q1, CT 10000-3Q1, SAUTER CE RQ35919
- Bearing, steel, rustproof, suitable for CT Q1, SAUTER CE RQ35909
- Bearing, steel, rustproof, suitable for CT 3000-3Q1, CT 5000-3Q1, SAUTER CE RQ35910
- Bearing, steel, rustproof, suitable for CT 7500-3Q1, CT 10000-3Q1, SAUTER CE RQ35918
- Load corner, steel, rustproof, suitable for CT Q1, SAUTER CE RQ35902
- 1 Load corner, steel, rustproof, suitable for CT 3000-3Q1, CT 5000-3Q1, SAUTER CE RQ35903

Accessories CT P1:

- Load corner, steel, rustproof, suitable for CT 10000-3P1, CT 10000-3P2, SAUTER CE P40210
- 2 Load corner, steel, nickel-plated, suitable for CT 500-3P1, CT 1000-3P1, CT 1500-3P1, SAUTER CE P4022
- Load corner, steel, nickel-plated, suitable for CT 2500-3P1, CT 3000-3P1, CT 5000-3P1, SAUTER CE P4025
- Adjustable foot, steel, rustproof, suitable for CT 500-3P1, CT 1000-3P1, CT 1500-3P1, SAUTER CE P2012
- Adjustable foot, steel, rustproof, suitable for CT 2500-3P1, CT 3000-3P1, CT 5000-3P1, SAUTER CE P2018
- Adjustable foot, steel, rustproof, suitable for CT 10000-3P1, SAUTER CE P2024
- Spacer plate for CT 500-3P1, CT 500-3P2, CT 1000-3P1, CT 1000-3P2 and CT 1500-3P1, SAUTER CE P3012
- Spacer plate for CT 2500-3P1, CT 3000-3P1, CT 3000-3P2, CT 5000-3P1 and CT 5000-3P2 SAUTER CE P3015
- Spacer plate for CT 10000-3P1 and CT 10000-3P2 SAUTER CE P30110

Tip

- Further details and technical data sheet as well as extensive accessories can be found online



CO Y1

Miniature button-type load 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
- Dust and spray protection to IP65/IP67
- 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 load 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
- Dust and spray protection to IP65
- 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 steel

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

13

Model	Nominal load
SAUTER	
CO 10-Y1	10 kg/100 N
CO 20-Y1	20 kg/200 N
CO 50-Y1	50 kg/500 N
CO 100-Y1	100 kg/1 kN
CO 200-Y1	200 kg/2 kN
CO 500-Y1	500 kg/5 kN
CO 1000-Y1	1000 kg/10 kN
CO 2000-Y1	2000 kg/20 kN

** up to 500 kg/5 kN

Model	Nominal load
SAUTER	
CO 10-Y2	10 kg/100 N
CO 20-Y2	20 kg/200 N
CO 50-Y2	50 kg/500 N
CO 100-Y2	100 kg/1 kN
CO 200-Y2	200 kg/2 kN
CO 500-Y2	500 kg/5 kN
CO 1000-Y2	1000 kg/10 kN
CO 2000-Y2	2000 kg/20 kN

** up to 500 kg/5 kN

Model	Nominal load
SAUTER	
CO 0.5-Y5	0,5 kg/5 N
CO 1-Y5	1 kg/10 N
CO 5-Y5	5 kg/50 N
CO 10-Y5	10 kg/100 N

Tip

- Further details and technical data sheet as well as extensive accessories can be found online



CJ P4



CJ P6



CJ P4PG



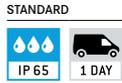
CJ X467



CJ X468

CJ P

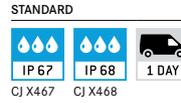
Junctionbox CJ P for connecting several measuring cells to one evaluation unit



- Prepared for 4-wire and 6-wire load cells
- Models available for 2, 4, 6 or 8 load cells
- Robust aluminium die-cast housing
- Protection against dust and spray IP65

CJ X

Junctionbox for connecting several measuring cells to one evaluation unit



- Prepared for 4-wire and 6-wire load 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	Number of connections
SAUTER	
CJ P2	2
CJ P4	4
CJ P4PG	4
CJ P6	6
CJ P8	8

Model	Number of connections
SAUTER	
CJ X467	4
CJ X468	4

Tip

- Further details and technical data sheet as well as extensive accessories can be found online



14

PALLET TRUCK SCALES

Weighing and transporting – just one operation

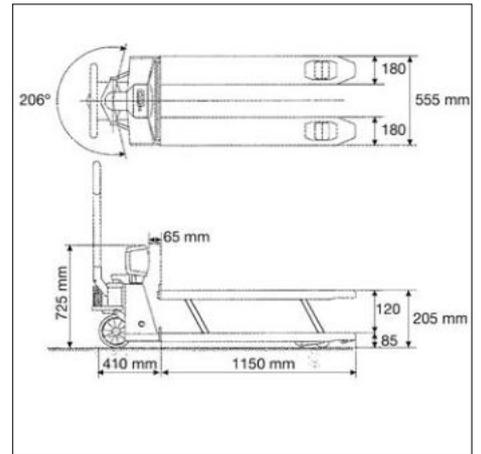
Speed up your warehouse and dispatch processes with the KERN pallet truck scales.

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.



Pallet truck scale with complete protection against dust and water splashes IP65/67 and a memory for a container weight

Features

- PRE-TARE function for manual subtraction of a known container weight, useful for checking fill-levels
- **1** Display device: Plastic, protected 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, 4x1.5 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

- **4** Castors made of polyurethane (colour exemplary) 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

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

STANDARD							OPTION	
			1	2				+3 DAYS

Model	Weighing capacity	Readability	Net weight	Option
KERN	[Max] kg	[d] kg	approx. kg	DAkkS Calibr. Certificate DAkkS KERN
VHB 2T1	2000	1	110	963-131



15

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

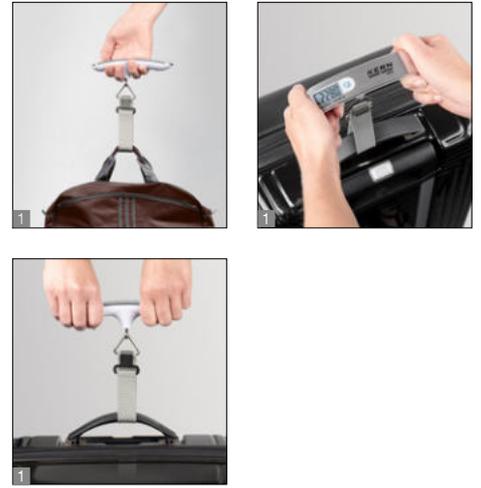


Do you use your crane scales in ISO-certified processes or where verification is mandatory? Then we can produce the right calibration certificate or the relevant Declaration of Conformity for your measuring device. Thanks to a modern crane scale test unit, we can calibrate or verify crane scales and 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 214, 219 or directly from one of our test service specialists, we will be pleased to help you.

Quick-Finder Hanging scales/Crane scales

Readability	Weighing capacity	Model	Page								
[d] kg	[Max] kg	KERN		For an explanation on the pictos, see front flap							
0,005	5	HDB 5K5N	160	1	●						●
0,005	6	HDB 6K-3XL	160	1	●						●
0,01	10	HDB 10K10N	160	1	●						●
0,01	15	HDB 10K-2XL	160	1	●						●
0,01	20	HCB 20K10	161	1	●						●
0,01	50	HGA 50K-2S05	158	1	●						●
0,02	15	CH 15K20	159	1	●						●
0,02	30	HDB 30K-2XL	160	1	●						●
0,02	50	HCB 50K20	161	1	●						●
0,02	60	HCD 60K-2	163	1	●						● ○
0,02 0,05	60 150	HCD 100K-2D	163	1	●						● ○
0,05	50	CH 50K50	159	1	●						●
0,05	99	HCB 99K50	161	1	●						●
0,05	150	HCD 100K-2	163	1	●						● ○
0,05 0,1	150 300	HCD 300K-2D	163	1	●						● ○
0,05 0,1 0,2	150 300 600	HFD 600K-1	166	1	●		○				●
0,05 0,1 0,2	150 300 600	HFD 600K-1IP	166	1	●		○		●		●
0,1	50	CH 50K100	159	1	●						●
0,1	50	HCB 50K100	161	1	●						●
0,1	50	HCN 50K100IP	162	1	●				●		●
0,1	200	HCB 200K100	161	1	●						●
0,1	300	HCD 300K-1	163	1	●						● ○
0,1	1000	HFM 1T0.1	168	1	●						●
0,1 0,2 0,5	300 600 1500	HFD 1T-4	166	1	●		○				●
0,1 0,2 0,5	300 600 1500	HFD 1T-4IP	166	1	●		○		●		●
0,2	100	HCB 100K200	161	1	●						●
0,2	100	HCN 100K200IP	162	1	●				●		●
0,2	600	HFA 600K-1	164	1	●						● ○
0,2	600	HFC 600K-1	165	1	●						● ○
0,2	600	HFD 600K-1M	166	1	○		○				●
0,2 0,5 1	600 1500 3000	HFD 3T-3	166	1	●		○				●
0,2 0,5 1	600 1500 3000	HFD 3T-3IP	166	1	●		○		●		●
0,5	200	HCB 200K500	161	1	●						●
0,5	200	HCN 200K500IP	162	1	●				●		●
0,5	1000	HFA 1T-4	164	1	●						● ○
0,5	1000	HFC 1T-4	165	1	●						● ○
0,5	1500	HFD 1T-4M	166	1	○		○				●
0,5	3000	HFM 3T0.5	168	1	●						●
0,5	5000	HFM 5T0.5	168	1	●						●
0,5 1 2	1500 3000 6000	HFD 6T-3	166	1	●		○				●
0,5 1 2	1500 3000 6000	HFD 6T-3IP	166	1	●		○		●		●
1	500	HCB 0.5T-3	161	1	●						●
1	3000	HFA 3T-3	164	1	●						● ○
1	3000	HFC 3T-3	165	1	●						● ○
1	3000	HFD 3T-3M	166	1	○		○				●
1	10000	HFM 10T1	168	2**	●						●
1 2 5	3000 6000 12000	HFD 10T-3	166	1	●		○				●
1 2 5	3000 6000 12000	HFD 10T-3IP	166	1	●		○		●		●
2	1000	HCB 1T-3	161	1	●						●
2	5000	HFA 5T-3	164	1	●						● ○
2	5000	HFC 5T-3	165	1	●						● ○
2	6000	HFD 6T-3M	166	1	○		○				●
5	10000	HFA 10T-3	164	1	●						● ○
5	10000	HFC 10T-3	165	1	●						● ○
5	12000	HFD 10T-3M	166	1	○		○				●

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



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
- 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 sufficient time to read the weight in peace

Technical data

- LCD display, digit height 9 mm
- Overall dimensions W×D×H 150×31×35 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
- Net weight approx. 0,40 kg
- **Note:** The models are delivered in a set of 5 units. That means the prices given in the table refer to 5 units. Cannot be delivered individually. The calibration prices given here refer to calibration of a single balance

STANDARD				OPTION
UNIT	BATT	DMS	1 DAY	DAKkS +3 DAYS

Model	Weighing capacity [Max] [kg]	Readability [d] [g]	Quantity delivered (balances)	Option DAKkS Calibr. Certificate KERN	Quantity delivered (DAKkS Calibr. Certificate)
KERN HGA 50K-2S05	50	10	5	963-128H	1

ONLY WHILE STOCKS LAST!



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 made of 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
- Overall dimensions W×D×H
90×30×176,5 mm (without load hook)
90×30×270 mm (with load hook)
- Permissible ambient temperature 5 °C/35 °C

Accessories

- **3** Tare pan with pan beam, details see Accessories, KERN CH-A01N

STANDARD						OPTION
CAL EXT	UNIT	MOVE	BATT	DMS	1 DAY	DAkkS +3 DAYS

Model	Weighing capacity [Max] kg	Readability [d] g	Dimensions housing W×D×H mm	Net weight approx. kg	Option
					DAkkS Calibr. Certificate KERN
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



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)
- HDB-XL: High-capacity XL-version. The larger design creates space for a large handle, which enables even better handling especially with heavier loads
- 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
- Overall dimensions W×D×H (without load hook)
HDB-N: 72×25×105 mm
HDB-XL: 101×25×107 mm
- Overall dimensions W×D×H (with load hook)
HDB-N: 72×25×188 mm
HDB-XL: 101×25×203 mm
- Net weight approx. 0,20 kg
- Permissible ambient temperature 5 °C/35 °C

Accessories

- **2** Tare pan with pan beam, details see Accessories, KERN CH-A01N

15

STANDARD						OPTION

Model	Weighing capacity	Readability	Dimensions housing W×D×H	Net weight	Option DAkkS Calibr. Certificate
	[Max] kg	[d] g	mm	approx. kg	DAkkS KERN
HDB 5K5N	5	5	72×25×105	0,20	963-127H
HDB 10K10N	10	10	72×25×105	0,20	963-128H
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



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] ≥ 500 kg: 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] ≥ 500 kg: approx. 16 mm
- Further weighing units: kg, lb, N
- Overall dimensions W×D×H ca. 82×43×153 mm (without load hook)
- Ready for use: Batteries included, 3×1.5 V AA, operating time up to 300 h
- Permissible ambient temperature 5 °C/35 °C

Accessories

- **3** Hook with safety catch, galvanised and lacquered cast steel, not rotatable, scope of delivery: 2 shackles, 1 connecting link, 1 hook, KERN YHA-06
- **4** High-strength shackle, hot-dipped galvanised cast steel bracket, curved edge. Scope of delivery: 2 shackles, KERN YSC-04

Suitable for model HCB 20K10

- **5** Tare pan with pan beam, details see Accessories, KERN CH-A01N
- Accessories for models with [Max] ≤ 200 kg
- Snap link (stainless steel) with safety catch, opening approx. 15 mm, KERN HCB-A01
- Hook (stainless steel), opening approx. 25 mm, KERN HCB-A02



Model	Weighing capacity [Max] kg	Readability [d] g	Net weight approx. kg	Option
				DAkkS Calibr. Certificate DAkkS KERN
KERN				
HCB 20K10	20	10	0,30	963-128H
HCB 50K20	50	20	0,30	963-128H
HCB 50K100	50	100	0,30	963-128H
HCB 99K50	99	50	0,30	963-129H
HCB 100K200	100	200	0,30	963-129H
HCB 200K100	200	100	0,30	963-129H
HCB 200K500	200	500	0,30	963-129H
HCB 0.5T-3	500	1000	0,40	963-130H
HCB 1T-3	1000	2000	0,60	963-130H



Robust, compact hanging scale with high level of protection against dust and water spray

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)
- 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)
- Internal 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 ca. 14 mm
- **2** Second display on the back of the balance
- Ready for use: Batteries included, 2×1.5 V AA, operating time up to 200 h

Accessories

- Snap link (stainless steel) with safety catch, opening approx. 15 mm, KERN HCB-A01
- Hook (stainless steel), opening approx. 25 mm, KERN HCB-A02

15

STANDARD							OPTION

Model	Weighing capacity [Max] kg	Readability [d] g	Dimensions housing W×D×H mm	Net weight approx. kg	Option
					DAkkS Calibr. Certificate KERN
KERN HCN 50K100IP	50	100	96×48×179	0,85	963-128H
KERN HCN 100K200IP	100	200	96×48×179	0,50	963-129H
KERN HCN 200K500IP	200	500	96×48×179	0,50	963-129H



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
- 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)
- 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

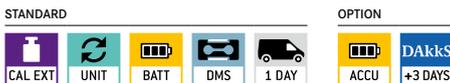
- Tare: Resets the display to „0“ when there is a load on the scale. Now removed or added loads are directly displayed
- Battery level indicator, LED visual display
- Large high-contrasted display that is easy to read
- Standby function: display automatically switched off after 5 min without a change of load. Automatic activation with the touch of a key
- Hook with safety catch, revolving
- Shackle and safety catch made of nickel-plated steel
- 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

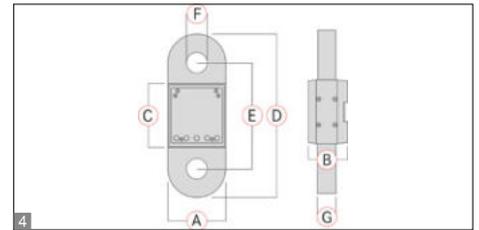
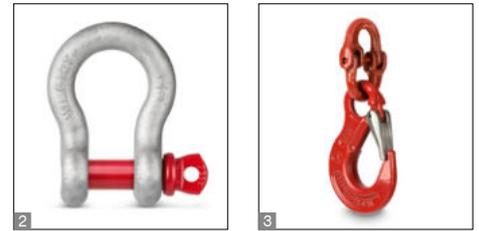
- Backlit LCD display, digit height 28 mm
- Ready for use: Batteries standard, 4×1.5 V AA, operating time approx. 100 h
- Precision: 0,2 % of [Max]
- Permissible ambient temperature 5 °C/40 °C

Accessories

- Internal rechargeable battery pack for load receptor, operating time up to 50 h without backlight, charging time approx. 12 h. Weighing is not possible during the charging process, KERN HCD-A01



Model	Weighing capacity [Max] kg	Readability [d] g	Net weight approx. kg	③ Dimensions							Option DAkkS Calibr. Certificate	
				A mm	B mm	C mm	D mm	E mm	F mm	G mm	DAkkS KERN	
KERN HCD 60K-2	60	20	1,2	150	79,3	97,7	276,5	246,5	26	23,5		963-129H
KERN HCD 100K-2	150	50	1,2	150	79,3	97,7	276,5	246,5	26	23,5		963-129H
KERN HCD 300K-1	300	100	1,2	150	79,3	97,7	276,5	246,5	26	23,5		963-129H
Multi-range balance, with increasing load it switches automatically to the next largest weighing range [Max] and readout [d] and when the load is fully removed, the balance switches back to the lower range												
KERN HCD 100K-2D	60 150	20 50	1,2	150	79,3	97,7	276,5	246,5	26	23,5		963-129H
KERN HCD 300K-2D	150 300	50 100	1,2	150	79,3	97,7	276,5	246,5	26	23,5		963-129H



Compact crane scale with integrated display can also be used for tensile force measurement

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)
- 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 bushing [Max] > 3 t: Steel/Steel
- Rechargeable battery pack integrated, as standard, 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]
- Internal measuring frequency: 60 Hz
- Further weighing units: kg, lb, N
- Permissible ambient temperature 5 °C/35 °C

Accessories

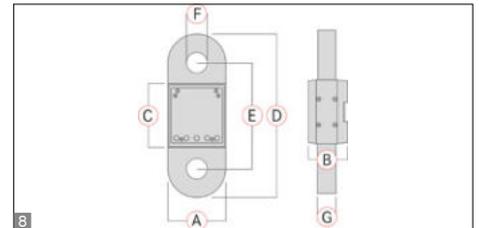
- **2** High-strength shackle, hot-dipped galvanised cast steel bracket, bow shaped. Scope of delivery: 2 shackles with lacquered screw bolts, suitable for models with [Max] ≤ 5 t: KERN YSC-01 [Max] > 5 t: KERN YSC-02
- **3** Hook with safety catch, cast steel, galvanised and lacquered, non-revolving. 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

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Model	Weighing capacity [Max] kg	Readability [d] g	Net weight approx. kg	Dimensions							Option DAkkS Calibr. Certificate DAkkS KERN
				A mm	B mm	C mm	D mm	E mm	F mm	G mm	
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



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 scales meet 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. All functions can be selected (Can be ordered separately)

Technical data

- Material and design of housing/load support, models with
[Max] ≤ 3 t: Aluminium/Stainless steel bushing
[Max] > 3 t: Steel/Steel
- Precision: 0,2% of [Max]
- Internal measuring frequency: 10 Hz
- Further weighing units: kg, lb, N
- Permissible ambient temperature 5 °C/35 °C

Display device

- Large backlit LCD display, digit height 23 mm
- Rechargeable battery pack integrated, as standard, operating time up to 30 h without backlight, charging time approx. 12 h

- Dimensions of display device W×D×H 88×64×256 mm
- Net weight 0,5 kg

Load receptor

- **4** Optional battery operation, 3×1.5 V AA not included in scope of delivery, operating time up to 40 h

Accessories

- **5** Load receptor: Rechargeable battery pack internal, operating time up to 30 h, without backlight, charging time approx. 12 h, KERN HFA-A01
- Display device: Rechargeable battery pack internal, KERN HFC-A01
- **6** 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
- **7** 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

STANDARD

CAL EXT UNIT BATT ACCU MULTI DMS 1 DAY

OPTION

ACCU DAKKS +3 DAYS

Model	Weighing capacity [Max]	Readability [d]	Net weight approx. kg	B Dimensions							Option DAKKS Calibr. Certificate
				A mm	B mm	C mm	D mm	E mm	F mm	G mm	
KERN	[Max] kg	[d] g	approx. kg	A mm	B mm	C mm	D mm	E mm	F mm	G mm	Option DAKKS Calibr. Certificate
HFC 600K-1	600	200	1,8	90	62	100	255	165	32	27	963-130H
HFC 1T-4	1000	500	1,8	90	62	100	255	165	32	32	963-130H
HFC 3T-3	3000	1000	2,2	90	62	100	255	165	32	32	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



KERN HFD-M



KERN HFD/HFD-IP

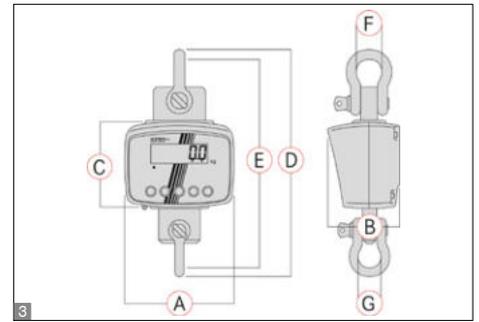
Robust, high-resolution crane scale up to 12 t, also with EC type approval [M] or protection type IP67



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



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)
- Because of its stable construction and robust design, it is ideal for continuous use in industrial environment
- Hold function: the weight display is „frozen“ when the Hold button is pressed (Not usable with HFD-M)
- Tare: Resets the display to „0“ when there is a load on the scale. Now removed or added loads are directly displayed

KERN HFD-IP

- 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

KERN HFD-M

- 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
- Will support you when weighing freight in a SOLAS compliant manner
- Sleep function: when the sleep button is pressed, the weight display is switched off, but the value remains stored. This can extend the battery life

Technical data

- Superior display size: digit height 30 mm, bright backlight for easy reading of weighing results, even in poor lighting conditions
- Rechargeable battery pack integrated, as standard, operating time up to 70 h without backlight, 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 receptor, operating time up to 70 h without backlight, charging time approx. 12 h, Internal rechargeable battery pack, 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

CAL EXT | IP 67 | ACCU | MULTI | DMS | 1 DAY

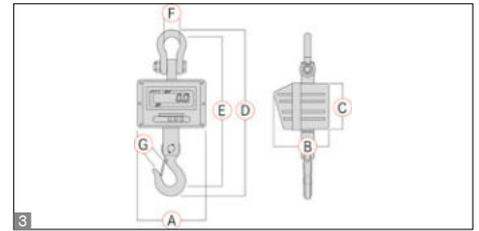
HFD-IP

OPTION | **FACTORY**

DAkkS +3 DAYS | BT 4.0 | M +3 DAYS

HFD-M

Model	Weighing capacity			Readability			Net weight approx. kg	3 Dimensions						Verification	Option	
	[Max] kg			[d] g				A	B	C	D	E	F = G		DAkkS	Calibr. Certificate
Multi-range balance, with increasing load it switches automatically to the next largest weighing range [Max] and readout [d] and when the load is fully removed, the balance switches back to the lower range																
HFD 600K-1	150	300	600	50	100	200	9	194	129	160	422	384	50,8	-	963-130H	
HFD 1T-4	300	600	1500	100	200	500	9	194	129	160	422	384	50,8	-	963-130H	
HFD 3T-3	600	1500	3000	200	500	1000	10	194	129	160	457	413	58	-	963-132H	
HFD 6T-3	1500	3000	6000	500	1000	2000	15	194	129	160	518	467	68,3	-	963-132H	
HFD 10T-3	3000	6000	12000	1000	2000	5000	20	194	129	160	584	521	82,5	-	963-133H	
Protection against dust and water splashes IP67																
HFD 600K-1IP	150	300	600	50	100	200	9	194	129	160	422	384	50,8	-	963-130H	
HFD 1T-4IP	300	600	1500	100	200	500	9	194	129	160	422	384	50,8	-	963-130H	
HFD 3T-3IP	600	1500	3000	200	500	1000	10	194	129	160	457	413	58	-	963-132H	
HFD 6T-3IP	1500	3000	6000	500	1000	2000	15	194	129	160	518	467	68,3	-	963-132H	
HFD 10T-3IP	3000	6000	12000	1000	2000	5000	20	194	129	160	584	521	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	160	422	384	50,8	965-130H	963-130H	
HFD 1T-4M	1500			500			9	194	129	160	422	384	50,8	965-130H	963-130H	
HFD 3T-3M	3000			1000			10	194	129	160	457	413	58	965-132H	963-132H	
HFD 6T-3M	6000			2000			15	194	129	160	518	467	68,3	965-132H	963-132H	
HFD 10T-3M	12000			5000			20	194	129	160	584	521	82,5	965-133H	963-133H	



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: the weight display is „frozen“ when the Hold button 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 backlight for easy reading of weighing results, even in poor lighting conditions
- Rechargeable battery pack integrated, as standard, 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

STANDARD						OPTION

Model	Weighing capacity [Max] kg	Readability [d] g	Net weight approx. kg	3 Dimensions							DAKKS Calibr. Certificate
				A mm	B mm	C mm	D mm	E mm	F mm	G mm	
KERN											DAKKS
HFM 1T0.1	1000	100	14	270	200	175	610	540	68	40	KERN
HFM 3T0.5	3000	500	16	270	200	175	610	540	74	40	963-130H
HFM 5T0.5	5000	500	24	300	230	190	730	650	74	55	963-132H
HFM 10T1	10000	1000	34	300	230	190	840	750	92	60	963-133H

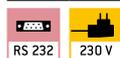
16 ACCESSORIES



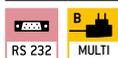
Printers



STANDARD



STANDARD



STANDARD



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 173

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 173

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 173

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

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** 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.



STANDARD



STANDARD



Tipp

EasyTouch Individual Print

The print product (e.g. labels) can be individually designed. The size of the print area as well as the placement of the print elements can be customized. The barcode function enables the printing of each element as a barcode.

For further details, see also page 132ff *EasyTouch*

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 173
- 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).

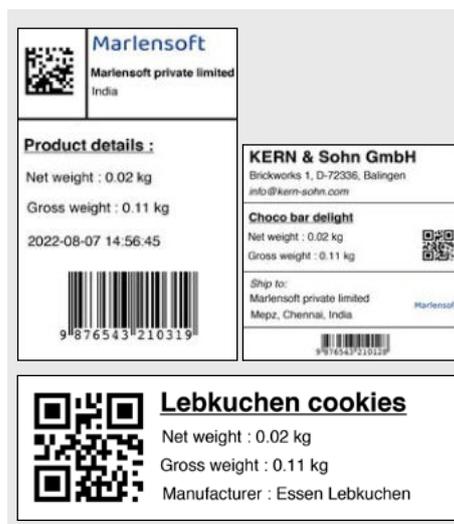
Technical data

- 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 173
- 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



Example printouts with ET Individual Print

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** 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



STANDARD



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

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** 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.

Interface cable for RS-232

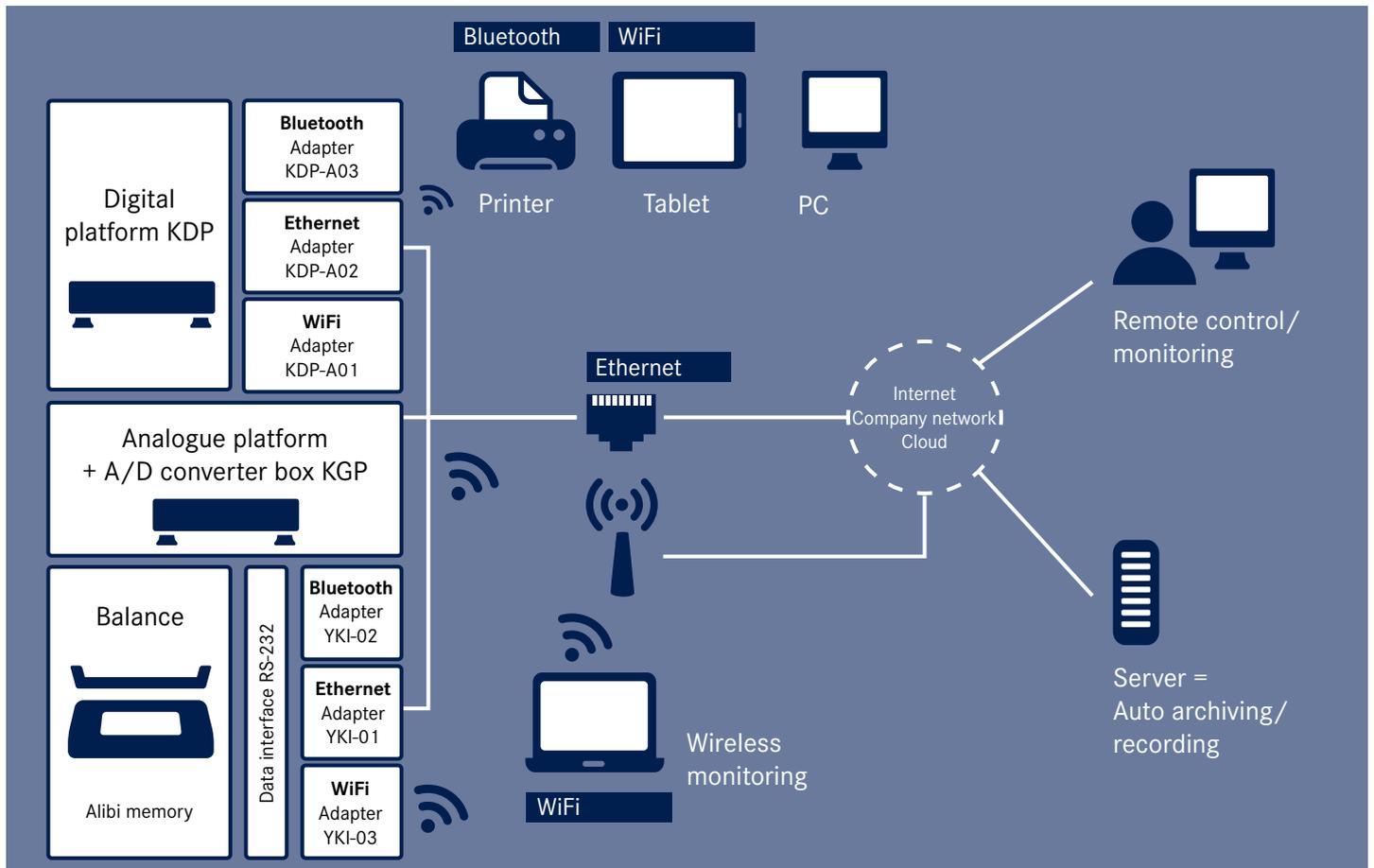
For direct connection to a printer or PC, cable length approx. 1.5 m.
The interface parameters can be set using the balance keypad.

Tip

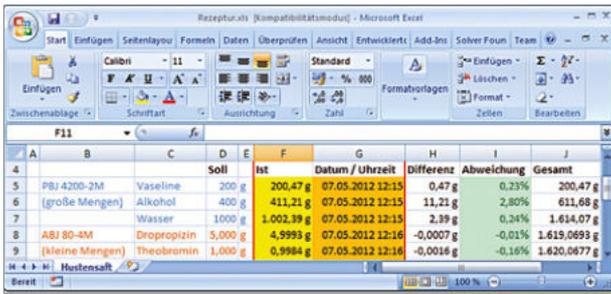
The interface cable is **free of charge** if you purchase balance, printer or Ethernet-/WiFi-/Bluetooth adapter together.

Printer, ...	PC, YKI-01/ -02/-03 KERN	911-013, YKB-01N, YKN-01 KERN	YKE-01 KERN	YKG-01, YKH-01 KERN	YKS-01 KERN
Balance					
440, 572, 573, ALJ, ALS, ALT-B, CDS, CKE, DE-D, DS, EMB-V, FCB, FKA, FKB, FKC, FKB-A, IKT, KB, PCB, PCD, PLJ, PLS, KDP				572-926	
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, 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, 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, FES/FEJ, 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-A01	
CCA				CCA-A01	
RFE, RPB (not compatible with YKN-01)	-	CFS-A01	-	CFS-A01	-

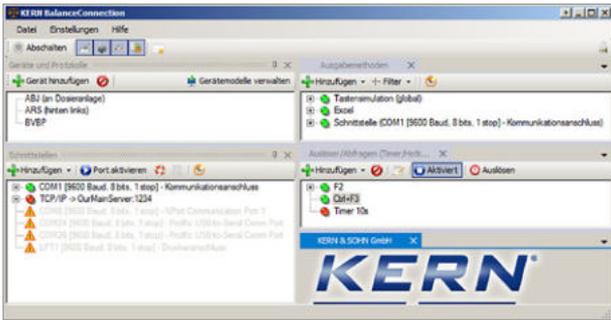
With products from KERN you are ready to face the challenges of Industry 4.0



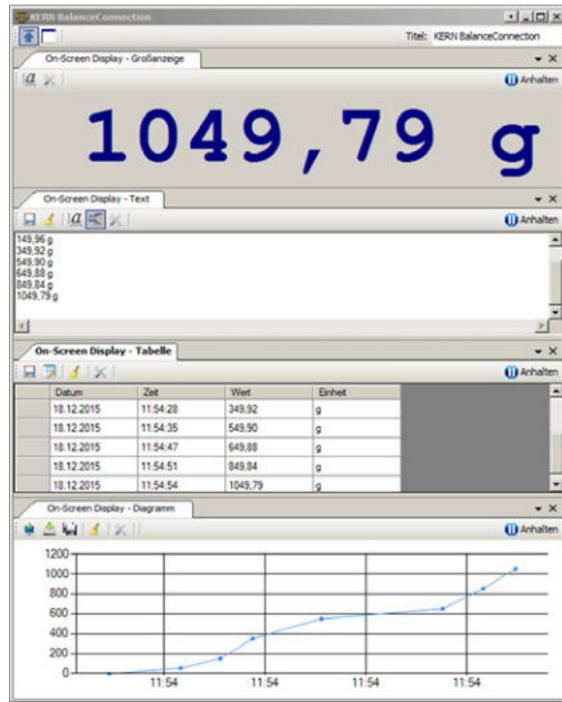
We will help to combine industrial production with the latest information and communication technology, with the aim of improving quality, reducing costs and using time and resources more efficiently so that you are able to react to future requirements in a more flexible manner. You will benefit from our uniform data protocol combined with our BalanceConnection 4.0 data software, for details please see page 167/168.



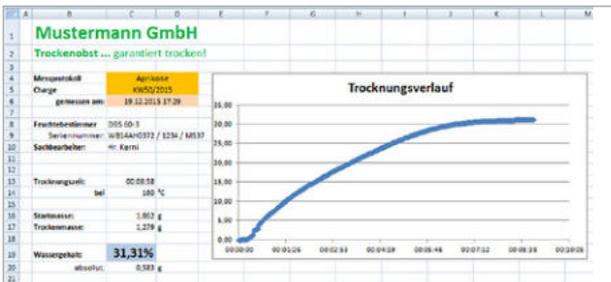
Easy transfer and editing of measuring results e.g. in Microsoft® Excel



Full overview of devices, outputs, queries, interfaces, etc. shown on the output window immediately.



Different on-screen displays with export function



Measurement report with line chart showing a moisture analysis

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

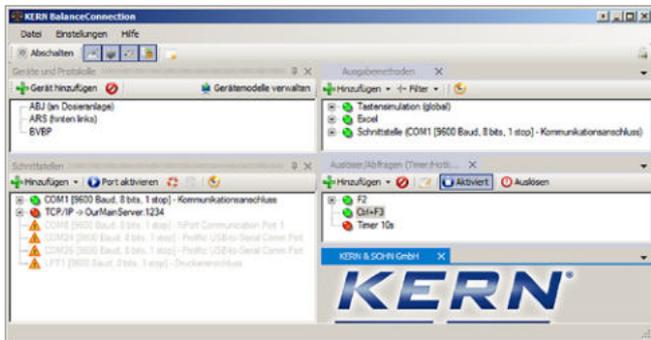
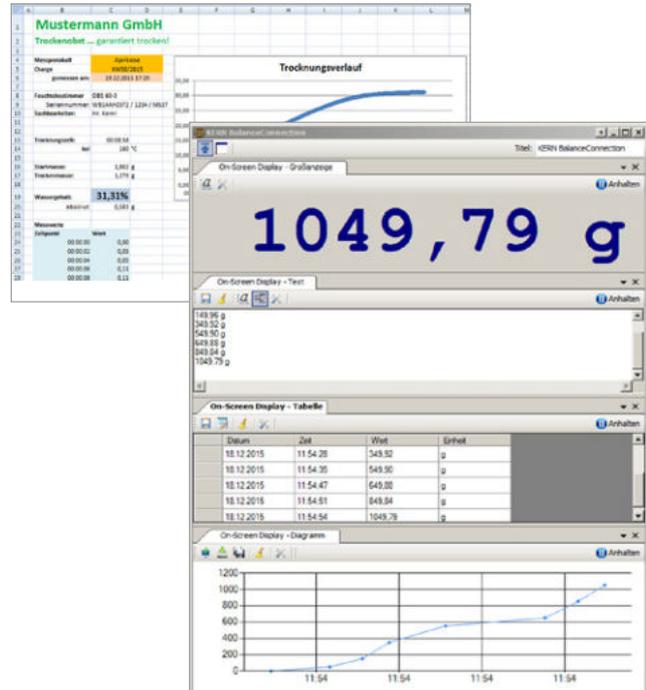
- For operating systems Windows XP, Vista, 7, 8, 8.1, 10, 11
- Supports balances measuring devices with RS 232, RS 485, Bluetooth, LAN or WiFi network (TCP/UDP/IP)
- Highly flexible formatting of the output (any order, formatting and rounding), particularly recording of date and time for every value 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
- Supports GLP-compliant processes
- 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-4.0S05
- Scope of supplies: Download link for 1 license, KERN SCD-4.0-DL

	Soll	Ist	Datum / Uhrzeit	Differenz	Abweichung	Gesamt	
4		200,47 g	07.05.2012 12:15	0,47 g	0,23%	200,47 g	
5	PBJ 4200-2M Vaseline	200 g					
6	(große Mengen) Alkohol	400 g	411,21 g	07.05.2012 12:15	11,21 g	2,80%	611,68 g
7	Wasser	3000 g	1.002,39 g	07.05.2012 12:15	2,39 g	0,24%	1.634,07 g
8	ABJ 80-4M Dropropizin	5,000 g	4,5993 g	07.05.2012 12:16	-0,0007 g	-0,01%	1.619,0693 g
9	(Kleine Mengen) Theobromin	1,000 g	0,9984 g	07.05.2012 12:16	-0,0016 g	-0,16%	1.620,0677 g



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, 11
- 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/scripts 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
- Supports GLP-compliant processes
- Can be used across different branches and applications
- Any number of balances can be used on one PC/workstation per licence
- 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



STANDARD



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 173),

KERN YKI-01



STANDARD



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.

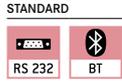
Scope of delivery: RS-232/WiFi adapter, mains adapter, network cable (1 m), driver CD, (interface cable see page 173),

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).



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 173),

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 WxDxH 541x55x180 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 WxDxH 100x180x300 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 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 173

Scope of delivery: Converter cable, CD with driver,

KERN AFH 12



**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 (Fig. similar).

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 400×300×45 mm
- Net weight approx. 554 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, HDB-N, HDB-XL

- Dimensions: tare pan, \varnothing /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 $\leq/\geq 1$. Suitable for all current KERN analytical balances.

Scope of delivery: Beaker (\varnothing ×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



**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 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 WxDxH
115x100x60 mm (Adjustable foot retracted),
115x110x80 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



STANDARD
2 DAYS

**Weighing table
KERN YPS-03**

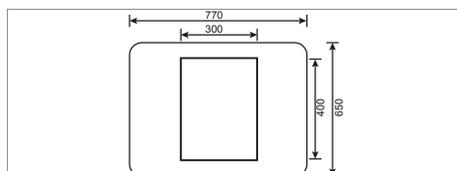
The KERN YPS-03 weighing table has been constructed to absorb vibrations and oscillations, which would otherwise distort the weighing result.

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 $\leq W \times D$ 300x400 mm
- Total dimensions WxDxH
785x600x800 mm (Height adjustable)
- Dimensions granite slab, WxDxH
300x400x80 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 on absorbent damping 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, WxDxH
YPS-04: 400x450x60 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



STANDARD



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

- 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	Total dimensions W×D×H	Suitable for platforms with weighing plate sizes W×D	Total net weight approx.
KERN	mm	mm	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



17

TEST WEIGHTS



Weights yesterday and today

For centuries now, weight pieces have been used in scales for weighing procedures. This original purpose has now almost disappeared. Today, weights are used almost exclusively for adjusting and testing = calibration of electronic balances. They are now named "test weights" as this is their contemporary purpose.

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 chapter *DAkkS Calibration Service*.

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 223–225**

Classes of accuracy of test weights 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 $\geq 100,000$ e
- F1 Test weights for analytical balances/precision balances for verification class I/II $\leq 100,000$ e
- F2 Test weights for precision balances of verification class II $\leq 30,000$ e
- M1 Test weights for industrial and commercial scales of verification class III $\leq 10,000$ 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
Class E1, ≥ 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	

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.



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.

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





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, they 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



Our KERN weight cases at a glance:



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. 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



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 186/187).

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.

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.

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.

1		2		3			4	
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 €	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 14,-			30,-
20 g	0,08	316-05 43,-	317-05 68,-	317-050-400 4,-				
		316-06 46,-	317-06 73,-					

1	2	3	4	
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,-		
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 more precise.**

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 187.

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 or KERN-No 327-12, see page 193.

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)	none	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	<ul style="list-style-type: none"> • High-quality test weight for analytical and precision balances • Highly-refined surface • Ideal shape of the top for good grip 	<ul style="list-style-type: none"> • Affordable test weight for analytical and precision balances • Highly refined surface 	<ul style="list-style-type: none"> • Ideal, high-quality test weight for precision balances • No visible adjustment chamber • High long-term stability • Ideal shape of the top for good grip 	<ul style="list-style-type: none"> • Affordable test weight for analytical and precision balances • Highly refined surface • Optimum shape of the top for good grip 	<ul style="list-style-type: none"> • 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	→	1	2	2	5	10	20	20	50	100	200	200	500	1	2	2	5	10			
Test weight set	↓	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	g	g	g	g	g	g		
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							

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 $\pm \dots$ 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/m³, air density is 1.2 kg/m³ and measuring temperature is 20 °C.

KERN test weights: Unless otherwise specified, they conform to OIML R111:2004 in every detail.

► *See the glossary, page 223–225*

Nominal value	OIML R111:2004 Maximum permissible errors for weights = permissible tolerances "Tol \pm mg"						
	E1	E2	F1	F2	M1	M2	M3
1 mg	$\pm 0,003$ mg	$\pm 0,006$ mg	$\pm 0,020$ mg	$\pm 0,06$ mg	$\pm 0,20$ mg	-	-
2 mg	$\pm 0,003$ mg	$\pm 0,006$ mg	$\pm 0,020$ mg	$\pm 0,06$ mg	$\pm 0,20$ mg	-	-
5 mg	$\pm 0,003$ mg	$\pm 0,006$ mg	$\pm 0,020$ mg	$\pm 0,06$ mg	$\pm 0,20$ mg	-	-
10 mg	$\pm 0,003$ mg	$\pm 0,008$ mg	$\pm 0,025$ mg	$\pm 0,08$ mg	$\pm 0,25$ mg	-	-
20 mg	$\pm 0,003$ mg	$\pm 0,010$ mg	$\pm 0,03$ mg	$\pm 0,10$ mg	$\pm 0,3$ mg	-	-
50 mg	$\pm 0,004$ mg	$\pm 0,012$ mg	$\pm 0,04$ mg	$\pm 0,12$ mg	$\pm 0,4$ mg	-	-
100 mg	$\pm 0,005$ mg	$\pm 0,016$ mg	$\pm 0,05$ mg	$\pm 0,16$ mg	$\pm 0,5$ mg	$\pm 1,6$ mg	-
200 mg	$\pm 0,006$ mg	$\pm 0,020$ mg	$\pm 0,06$ mg	$\pm 0,20$ mg	$\pm 0,6$ mg	$\pm 2,0$ mg	-
500 mg	$\pm 0,008$ mg	$\pm 0,025$ mg	$\pm 0,08$ mg	$\pm 0,25$ mg	$\pm 0,8$ mg	$\pm 2,5$ mg	-
1 g	$\pm 0,010$ mg	$\pm 0,03$ mg	$\pm 0,10$ mg	$\pm 0,3$ mg	$\pm 1,0$ mg	$\pm 3,0$ mg	± 10 mg
2 g	$\pm 0,012$ mg	$\pm 0,04$ mg	$\pm 0,12$ mg	$\pm 0,4$ mg	$\pm 1,2$ mg	$\pm 4,0$ mg	± 12 mg
5 g	$\pm 0,016$ mg	$\pm 0,05$ mg	$\pm 0,16$ mg	$\pm 0,5$ mg	$\pm 1,6$ mg	$\pm 5,0$ mg	± 16 mg
10 g	$\pm 0,020$ mg	$\pm 0,06$ mg	$\pm 0,20$ mg	$\pm 0,6$ mg	$\pm 2,0$ mg	$\pm 6,0$ mg	± 20 mg
20 g	$\pm 0,025$ mg	$\pm 0,08$ mg	$\pm 0,25$ mg	$\pm 0,8$ mg	$\pm 2,5$ mg	$\pm 8,0$ mg	± 25 mg
50 g	$\pm 0,03$ mg	$\pm 0,10$ mg	$\pm 0,3$ mg	$\pm 1,0$ mg	$\pm 3,0$ mg	± 10 mg	± 30 mg
100 g	$\pm 0,05$ mg	$\pm 0,16$ mg	$\pm 0,5$ mg	$\pm 1,6$ mg	$\pm 5,0$ mg	± 16 mg	± 50 mg
200 g	$\pm 0,10$ mg	$\pm 0,3$ mg	$\pm 1,0$ mg	$\pm 3,0$ mg	± 10 mg	± 30 mg	± 100 mg
500 g	$\pm 0,25$ mg	$\pm 0,8$ mg	$\pm 2,5$ mg	$\pm 8,0$ mg	± 25 mg	± 80 mg	± 250 mg
1 kg	$\pm 0,5$ mg	$\pm 1,6$ mg	$\pm 5,0$ mg	± 16 mg	± 50 mg	± 160 mg	± 500 mg
2 kg	$\pm 1,0$ mg	$\pm 3,0$ mg	± 10 mg	± 30 mg	± 100 mg	± 300 mg	$\pm 1\ 000$ mg
5 kg	$\pm 2,5$ mg	$\pm 8,0$ mg	± 25 mg	± 80 mg	± 250 mg	± 800 mg	$\pm 2\ 500$ mg
10 kg	$\pm 5,0$ mg	± 16 mg	± 50 mg	± 160 mg	± 500 mg	$\pm 1\ 600$ mg	$\pm 5\ 000$ mg
20 kg	± 10 mg	± 30 mg	± 100 mg	± 300 mg	$\pm 1\ 000$ mg	$\pm 3\ 000$ mg	± 10 g
50 kg	± 25 mg	± 80 mg	± 250 mg	± 800 mg	$\pm 2\ 500$ mg	$\pm 8\ 000$ mg	± 25 g
100 kg	-	± 160 mg	± 500 mg	$\pm 1\ 600$ mg	$\pm 5\ 000$ mg	± 16 g	± 50 g
200 kg	-	± 300 mg	$\pm 1\ 000$ mg	$\pm 3\ 000$ mg	± 10 g	± 30 g	± 100 g
500 kg	-	± 800 mg	$\pm 2\ 500$ mg	$\pm 8\ 000$ mg	± 25 g	± 80 g	± 250 g
1 000 kg	-	$\pm 1\ 600$ mg	$\pm 5\ 000$ mg	± 16 g	± 50 g	± 160 g	± 500 g
2 000 kg	-	-	± 10 g	± 30 g	± 100 g	± 300 g	$\pm 1\ 000$ g
5 000 kg	-	-	± 25 g	± 80 g	± 250 g	± 800 g	$\pm 2\ 500$ g

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

Class E1 • Milligram weights, wire shape

Test weight material: stainless steel

Weight	Tol +/- mg	Milligram weight, wire shape	Plastic box	Aluminium protected box	Wooden box	DAkkS certificate
		KERN	KERN 	KERN 	KERN 	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

Test weight material: stainless steel polished

Weight	Tol +/- mg	Individual weight, knob shape	Plastic box	Aluminium protected box	Wooden box	DAkkS certificate Initial calibration*	DAkkS certificate Recalibration
		KERN	KERN 	KERN 	KERN 	KERN	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

Test weight material: stainless steel polished

Weight set	Knob shape in plastic case	Knob shape in alu- minium protected case	Knob shape in wooden case	DAkkS certificate Initial calibration*	DAkkS certificate Recalibration
	KERN 	KERN 	KERN 	KERN	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

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

Class E2 · Milligram weights, flat polygonal sheet

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 	
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

Test weight material: stainless steel polished

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 	
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

Test weight material: Milligram weights stainless steel, individual weights: polished stainless steel

Weight sets	Compact shape in plastic case	Knob shape in plastic case	Knob shape in aluminium protected case	Knob shape in wooden case	DAkkS certificate
	KERN 	KERN 	KERN 	KERN 	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

Note

Our highly-accurate OIML test weights are also available as **Premium+** weights for that extra level of safety. See all details page 183 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

Class F1 - Milligram weights, flat polygonal sheet

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	0,020	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

Test weight material: stainless steel polished

Weight	Tol +/- mg	Individual weight, ECO shape	Individual weight, knob shape	Plastic box	Aluminium protected box	Wooden box	DAkkS certificate
		KERN	KERN	KERN 	KERN 	KERN 	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

Block weight material: stainless steel polished

Weight	Tol +/- mg	Block weight	Aluminium protected case	DAkkS certificate
		KERN	KERN 	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, stackable

Test weight material: stainless steel polished

Weight	Tol +/- mg	Test weight	Wooden case	DAkkS certificate
		KERN	KERN 	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

Class F1 - Weight sets, ECO shape

Test weight material: Milligramm weights stainless steel, Individual weights: polished stainless steel

Weight sets	ECO shape in plastic case	ECO shape in aluminium protected case	ECO shape in wooden case	DAkkS certificate
	KERN 	KERN 	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

Test weight material: Milligramm weights stainless steel, Individual weights: polished stainless steel

Weight sets	Knob shape in plastic case	Knob shape in aluminium protected case	Knob shape in wooden case	DAkkS certificate
	KERN 	KERN 	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	324-056	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

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

Class F2 - Milligram weights, flat polygonal sheet

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	0,06	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

Test weight material: finely turned stainless steel

Weight	Tol +/- mg	Individual weight, knob shape	Plastic box	Aluminium protected box	Wooden box	DAkkS certificate
		KERN	KERN 	KERN 	KERN 	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

Test weight material: finely turned stainless steel

Weight	Tol +/- mg	Test weight	Wooden box	DAkkS certificate
		KERN	KERN 	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

Block weight material: stainless steel glass bead blasted

Weight	Tol +/- mg	Block weight	Aluminium protected case	DAkkS certificate
		KERN	KERN 	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

Class F2 - Weight sets, knob shape

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 	
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 201



Block weights, lacquered cast iron/stainless steel glass bead blasted, optional: Aluminium protected case, lined



Class M1 • Milligram weights, flat polygonal sheet

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

Test weights material: stainless steel

Weight	Tol +/- mg	Individual weight	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

Block weight material: lacquered cast iron, surface and edges machined or unmachined (ECO)

Weight	Tol +/- g	Block weight	ECO Block weight	Aluminium protected case	DAkkS certificate
		KERN	KERN	KERN 	KERN
5 kg	0,25	346-86	346-76	346-060-600	962-643
10 kg	0,50	346-87	346-77	346-070-600	962-644
20 kg	1,00	346-88	346-78	346-080-600	962-645
50 kg	2,50	346-89	346-79	346-090-600	962-646

Class M1 • Block weights

Block weight material: stainless steel glass bead blasted

Weight	Tol +/- g	Block weight	Aluminium protected case	DAkkS certificate
		KERN	KERN 	KERN
5 kg	0,25	346-06	346-060-600	962-643
10 kg	0,50	346-07	346-070-600	962-644
20 kg	1,00	346-08	346-080-600	962-645
50 kg	2,50	346-09	346-090-600	962-646

Class M1 · Test weights, stackable

Test weight material: finely turned stainless steel

Weight	Tol +/- g	Test weight	Wooden box	DAkkS certificate
		KERN	KERN 	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, stackable

Heavy duty weight material: lacquered cast iron

Designed to be lifted with forklift trucks or cranes, delivery time is approx. 6–8 weeks

Dimensions: see internet

Weight	Tol +/- g	Heavy duty weight	DAkkS certificate
		KERN	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, (e.g. stainless steel) and in other forms (e.g. discs) or individual weight containers, please ask for details.

Class M1 · Weight sets, knob shape

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	348-22	348-226	-	962-650
1 mg - 50 g	343-024	343-026	343-02	962-601
1 mg - 100 g	343-034	343-036	343-03	962-602
1 mg - 200 g	343-044	343-046	343-04	962-603
1 mg - 500 g	343-054	343-056	343-05	962-604
1 mg - 1 kg	343-064	343-066	343-06	962-605
1 mg - 2 kg	343-074	343-076	343-07	962-606
1 mg - 5 kg	343-084	343-086	343-08	962-607
1 mg - 10 kg	-	343-096	343-09	962-608
1 g - 50 g	344-024	344-026	344-02	962-615
1 g - 100 g	344-034	344-036	344-03	962-616
1 g - 200 g	344-044	344-046	344-04	962-617
1 g - 500 g	344-054	344-056	344-05	962-618
1 g - 1 kg	344-064	344-066	344-06	962-619
1 g - 2 kg	344-074	344-076	344-07	962-620
1 g - 5 kg	344-084	344-086	344-08	962-621
1 g - 10 kg	-	344-096	344-09	962-622

Class M1 · Hook weights

Hook weight material: finely turned stainless steel

Weight	Tol +/- mg	Hook weight	Plastic box, lined	DAkkS certificate
		KERN	KERN 	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

Slotted weight material: finely turned stainless steel

Weight	Tol +/- mg	Slotted weight	Plastic box, lined	DAkkS certificate
		KERN	KERN 	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	DAkkS certificate
					KERN	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 198

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

Class M2 · Individual weights, knob shape

Test weight material: finely turned stainless steel

Weight	Tol +/- mg	Individual weight, knob shape	Plastic box	Aluminium protected box	Wooden box	DAkkS certificate
		KERN	KERN 	KERN 	KERN 	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

Block weight material: lacquered cast iron, surface and edges machined or unmachined (ECO)

Weight	Tol +/- g	Block weight	ECO block weight	Aluminium protected box	DAkkS certificate
		KERN	KERN	KERN 	KERN
5 kg	0,8	356-86	356-76	346-060-600	962-643
10 kg	1,6	356-87	356-77	346-070-600	962-644
20 kg	3,0	356-88	356-78	346-080-600	962-645
50 kg	8,0	356-89	356-79	346-090-600	962-646

Class M2 · Weight sets, knob shape

Test weight material: finely turned stainless steel

Weight	Knob shape, in aluminium protected case	Knob shape, in wooden case	DAkkS certificate
	KERN 	KERN 	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

Class M3 · Individual weights, knob shape

Test weight material: finely turned stainless steel

Weight	Tol +/- mg	Individual weight, knob shape	Plastic box	Aluminium protected box	Wooden box	DAkkS certificate
		KERN	KERN 	KERN 	KERN 	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

Test weight material: lacquered cast iron

Weight	Tol +/- g	Individual weight, knob and cylindrical shape	DAkkS certificate
		KERN	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

Block weight material: lacquered cast iron, surface and edges machined or unmachined (ECO)

Weight	Tol +/- g	Block weight	ECO block weight	Aluminium protected box	DAkkS certificate
		KERN	KERN	KERN 	KERN
5 kg	2,5	366-86	366-76	346-060-600	962-643
10 kg	5,0	366-87	366-77	346-070-600	962-644
20 kg	10	366-88	366-78	346-080-600	962-645
50 kg	25	366-89	366-79	346-090-600	962-646

Class M3 · Weight sets, knob and cylindrical shape

Test weight material: ≤ 50 g stainless steel, ≥ 100 g lacquered cast iron

Weight	Knob and cylindrical shape, in wooden block	DAkkS certificate
	KERN	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

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.
Suitable for test weights up to 2 kg.

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.
Ideal for all test weights.

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 No. 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 No. 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 No. 327, 337, 347
■ not suitable for cast iron weights

Wooden box, lined

for single weights E1 – F1

For weights	KERN	
-	-	
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, not lined

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 mg and single weights, KERN No. 307, 308, 316, 317, 318, 326, 327, 328, 337, 338, 347, 348, 357, 367
■ not suitable for cast iron weights

Aluminium protected box, lined

for individual weights, knob and compact shape, class E1 – M3

For weights	KERN	
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	



For weights ≤ 10 kg, OIML class E1 – M3

Case material: Aluminium protected, lined, suitable for single weights, KERN No. 307, 316, 317, 326, 327, 337, 347, 357, 367
■ not suitable for cast iron weights

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	



For block weight ≥ 5 kg, OIML class F1 – M3

Case material: Aluminium protected, lined, suitable for block weights, KERN No. 326, 336, 346, 356, 366

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	

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 (class F1):
1 × 50 g, 2 × 100 g, 1 × 500 g, 2 × 1 kg, 1 × 2 kg.

The correct individual box is **KERN No. 313-080-400** (plastic) or **KERN No. 315-070-100** (wood, 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

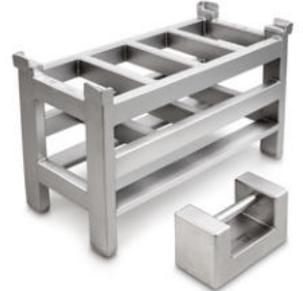
for weight sets with standard denomination classes E1 – M2
*1 front handle; **2 side handles; ***no handle

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***	

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:

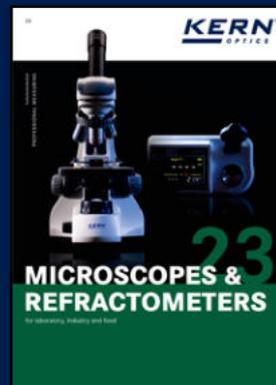
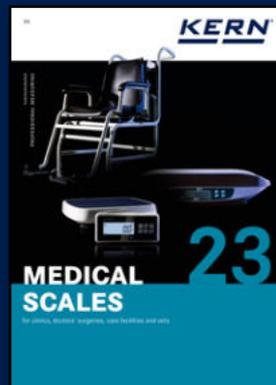
3 block weights each 50 kg, class M1 = 150 kg
 1 weight container each 50 kg, class M1 = 50 kg
 Total = 200 kg

Weight of the weight container, OIML class M1	Price
	KERN
Individual weight container for rectangular weights	346-000-000
Individual weight container for test weights	347-000-000



Example illustration

ASSORTMENT RANGE LEADER AND HIDDEN CHAMPION IN THE REGION: KERN WEIGHING & MEASURING TECHNOLOGY



KERN – the king of broad product ranges

Reliable, easy, durable products from the world of weighing and measuring technology, innovative software and the competent test service from KERN and SAUTER will win you over.

The best thing to do is to request our special catalogues straight-away – free of charge, of course!

There is also plenty for you to discover online: latest offers, new models, sale items and interesting news ...



PROFESSIONAL MEASURING

18

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 DAkkS 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

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

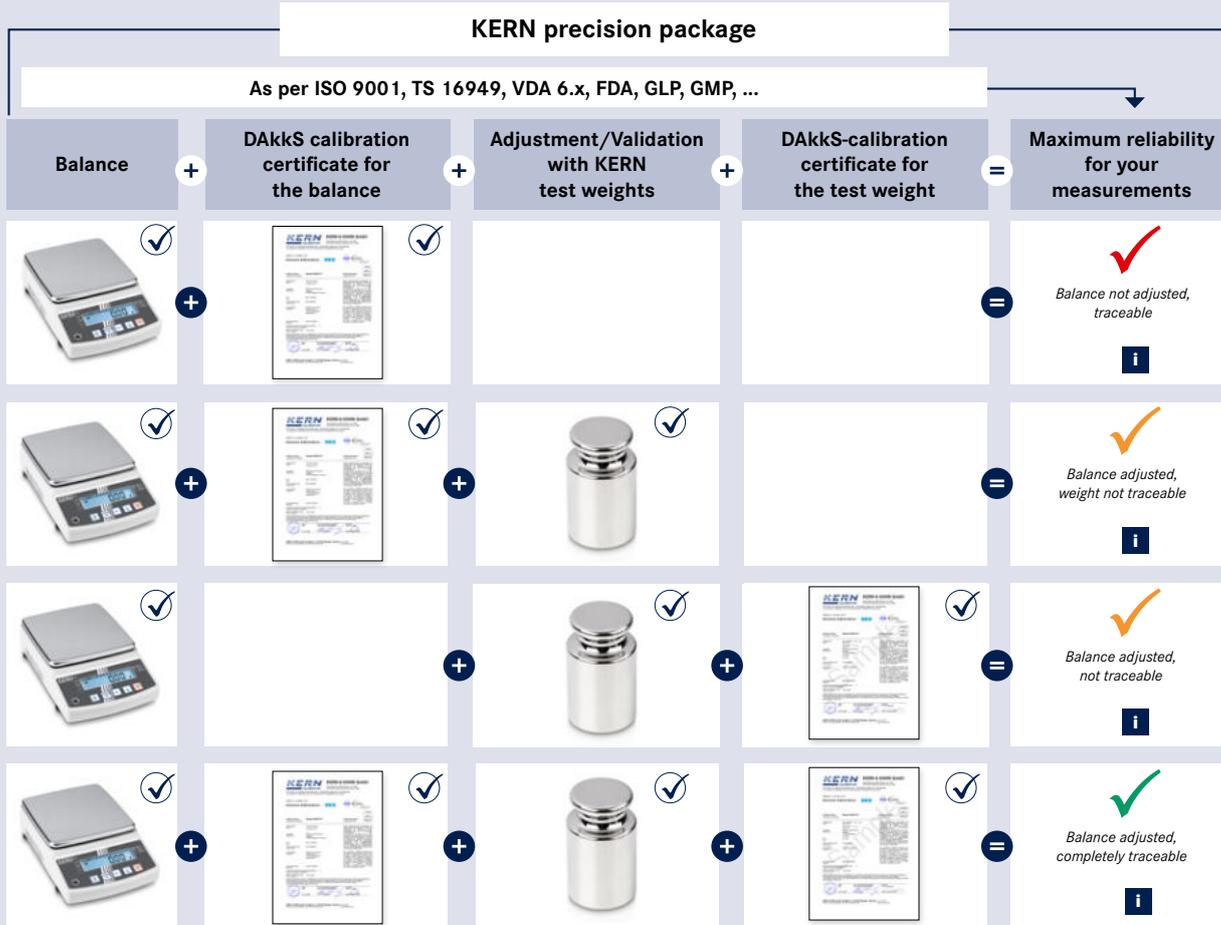
Range of services:

- 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 212/213.

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?



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:
 - > Design qualification (DQ)
 - > 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

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

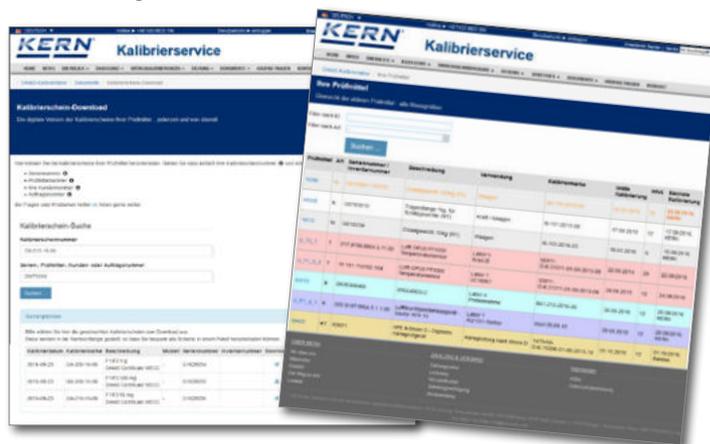
Information on your test equipment which has been calibrated by us is stored in our database. In this way it is possible to make trend calculations. You will therefore get an overview about the long-term stability and trend behaviour of your test equipment as well as the necessary recalibration period 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.



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



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.



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



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.

KERN CALIBRATION KERN & SOHN GmbH
 Akkreditiertes Kalibrierlabor seit 1994
 Accredited calibration laboratory since 1994

Ihr Partner für Kalibrierdienstleistungen, Prüfmittelmanagement und Beratung.
 Your partner for calibration services, test equipment management and support.

Mitglied in / member of the
Deutschen Kalibrierdienst DKD **ILAC-MRA** **DAkKS**

Sample: D-K-19408-01-00, 2023-01

Kalibrierschein Sample-2023-01/1
Calibration Certificate

Gegenstand / Objekt: Analytische Waage / Analyser balance
Hersteller / Manufacturer: KERN & SOHN GmbH, Ziegels 1, 72336 Balingen-Frommern
Typ / Type: ABT 120-SDM
Fabrikat/Serien-Nr. / Serial number: WX12345678
Auftraggeber / Customer: Mustermann GmbH, Musterweg 42, 12345 Musterstadt, Deutschland

Messergebnisse / Measurement results:
Zustand #1 / Ursprungszustand / as found State: -
Temperatur / Temperature: zu Beginn / at the beginning, 22,0 °C
Wiederholbarkeit / Repeatability:

Messung / Measuring	Prüflast / Load	Waagenanzeige / Indication
No. 1	100 g	100,0002 g
No. 2	100 g	100,0003 g
No. 3	100 g	100,0004 g
No. 4	100 g	100,0004 g
No. 5	100 g	100,0004 g

 Standardabweichung: s = 0.00009 g

3. Richtigkeit / Errors of indication:

Position	Prüflast / Load	Waagenanzeige / Indication
No. 1	50 g	50,00001 g
No. 2	50 g	50,00002 g
No. 3	50 g	50,00003 g
No. 4	50 g	50,00002 g
No. 5	50 g	50,00002 g

6. Messunsicherheit / Measurement uncertainty:

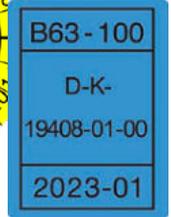
Prüflast / Load	Abweichung / Error	Erweiterungsfaktor k / Coverage factor	Unsicherheit / Uncertainty	relative Unsicherheit / Rel. uncertainty
20 g	0,0001 g	2,27	0,00028 g	0,00129 %
50 g	0,0002 g	2,18	0,00028 g	0,00054 %
70 g	0,0003 g	2,05	0,00035 g	0,00048 %
100 g	0,0004 g	2,00	0,00034 g	0,00035 %
120 g	0,0005 g	2,02	0,00034 g	0,00035 %

7. Verwendungsgenauigkeit / Total usage accuracy: $G = 0,00009 \text{ g} + 1,03 \cdot 10^{-4} \cdot m_n$

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 page 215)		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

DAkKS calibration certificate for balances (extract)

- 1 Official document
- 4 Identification/Applicant
- 7 Application accuracy, see page 223
- 2 Item to be calibrated
- 5 Metrological component
- 8 Minimum weight of sample (additional price)
- 3 Traceability, see page 225
- 6 Uncertainty of measurement, see page 225

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.

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.

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:

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.

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 <math><60,000\text{ d}</math>. For higher resolutions we recommend a balance with an internal adjusting weight or adjustment with a calibrated adjusting weight at the location of installation.

Conformity evaluation on the basis of the:	KERN	
Usage accuracy*	relative	969-511
	absolute	969-512
Calibration results*	relative	969-513
	absolute	969-514
Measurements as manufacturer or customer specification	Foreign device	969-515
	Customer specifications	969-516
	KERN devices	969-517

relative = % / absolute = g

*as attachment to the DAkkS calibration certificate

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]

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.



Important elements of equipment qualification:



Design qualification (DQ)

With the design qualification, all requirements on which you as a user depend are defined. The purchase decision is made on the basis of the design specifications and the available devices. Careful selection in the DQ can prevent subsequent deficiencies.



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).

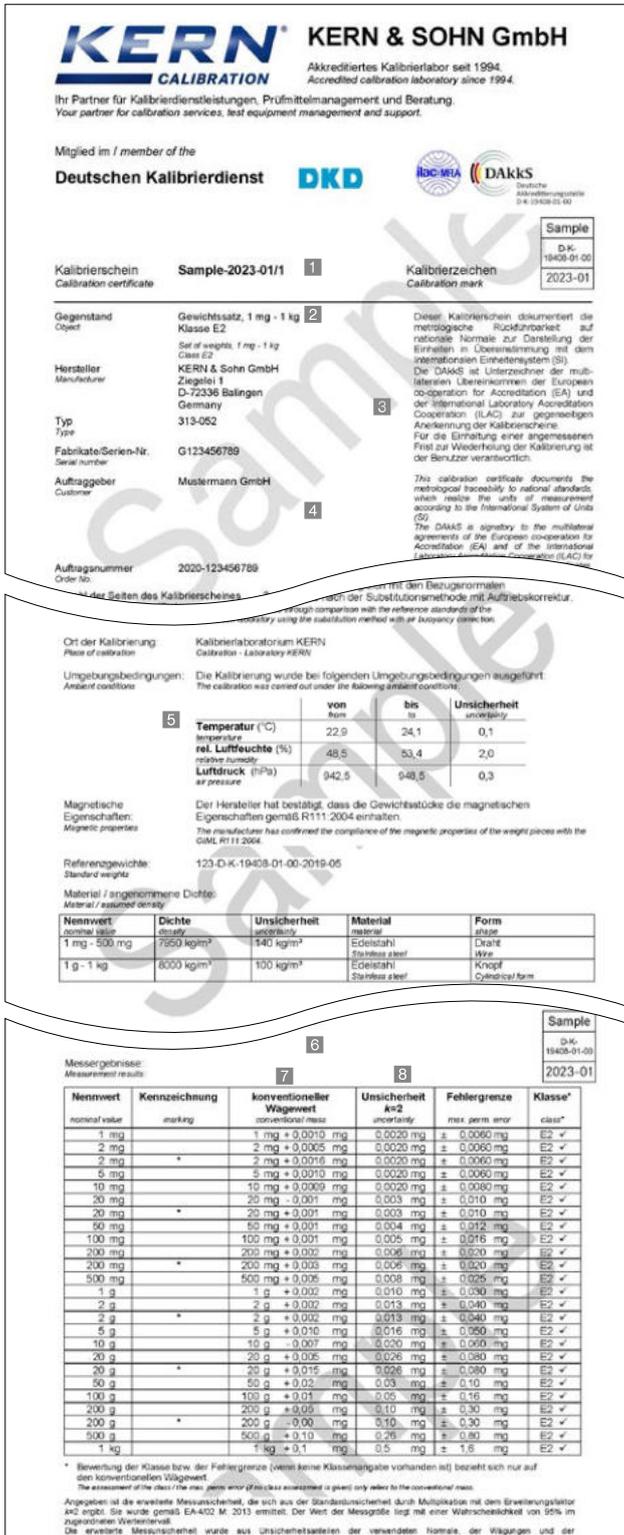


Maintenance qualification (MQ)

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.



If you are interested in a training for equipment qualification, please feel free to contact us



DAkKS calibration certificate for test weights (extract).
For more details on our calibration service and other useful information, please see the internet

- 1 Official document
- 2 Item to be calibrated
- 3 Traceability, see page 225
- 4 Identification/Applicant
- 5 Environmental conditions
- 6 Metrological component
- 7 Conventional mass
- 8 Uncertainty of measurement, see page 225

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

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 R 111:2004, per weight	961-115(R)
Calibration of NON-OIML test weights, additional price per weight	-

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 214

Verification prices for test weights and (crane) scales

Class acc. → OIML R 11:2004	E2 with verification certificate	F1 with verification certificate	M1 with verification certificate
Nominal value ↓	KERN	KERN	KERN
1 mg	952-351	952-451	952-651
2 mg	952-352	952-452	952-652
5 mg	952-353	952-453	952-653
10 mg	952-354	952-454	952-654
20 mg	952-355	952-455	952-655
50 mg	952-356	952-456	952-656
100 mg	952-357	952-457	952-657
200 mg	952-358	952-458	952-658
500 mg	952-359	952-459	952-659
1 g	952-331	952-431	952-631
2 g	952-332	952-432	952-632
5 g	952-333	952-433	952-633
10 g	952-334	952-434	952-634
20 g	952-335	952-435	952-635
50 g	952-336	952-436	952-636
100 g	952-337	952-437	952-637
200 g	952-338	952-438	952-638
500 g	952-339	952-439	952-639
1 kg	952-341	952-441	952-641
2 kg	952-342	952-442	952-642
5 kg	952-343	952-443	952-643
10 kg	952-344	952-444	952-644
20 kg	952-345	952-445	952-645
50 kg	-	952-446	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 6 working days
Class E2 - M1

Additional costs **KERN**
for preparation, overhaul
and adjustment before the
verification

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, 969-005R
repair, special packaging,
adjustment E2 ...)

Adjustment, per weight
only available for weights
with adjustment chamber 969-010R
(F1/F2 - M1)

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.

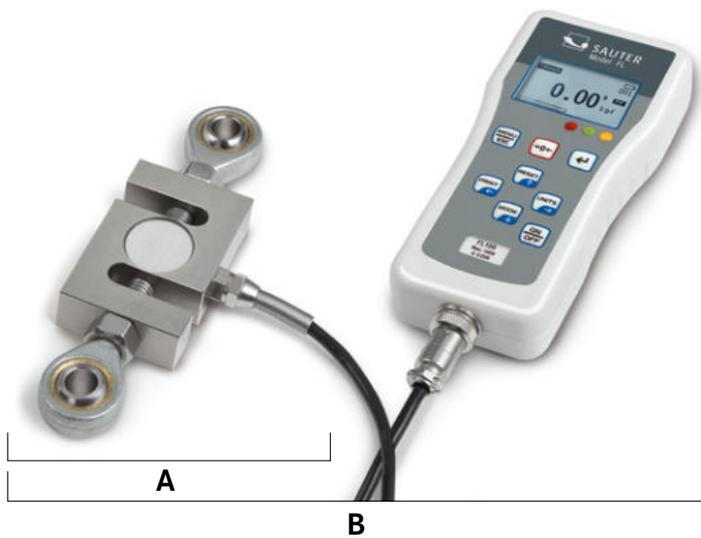
From the transducer to the full measuring chain, we are happy to take care of traceable calibration of your test equipment for you. Our accreditation includes the calibration of tensile and pressure force up to 5 kN according to the standards DIN EN ISO 376 and DKD-R 3-3, each with the Newton (N) display 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

► See also tables, right side

Situation B:

Complete force gauge (N), consisting of transducer, amplifier and display, display unit N

You can find further information on this topic

The image shows an extract of a DAkkS Calibration certificate for force-measuring devices. The certificate is issued by KERN & SOHN GmbH, an accredited calibration laboratory since 1994. It details the calibration of a force gauge (Sample-2023-01) against the standards ISO 376 and DKD-R 3-3. The certificate includes a table of measurement results (Messwerte) and a table of measurement values (Messergebnisse) for various force levels (0 N to 1000 N). The certificate also includes the company name, address, and contact information.

DAkkS Calibration certificate for force-measuring devices (extract).

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}

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

Factory calibration certificates

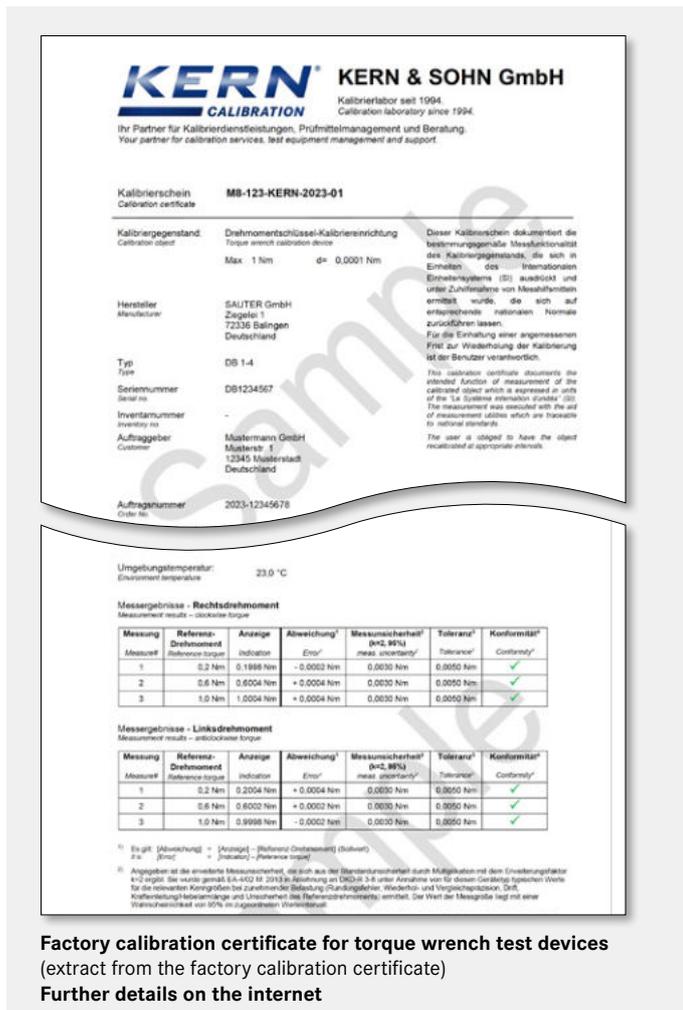
As DAkkS calibration certificates cannot be offered for all measuring devices or measurement sizes, or where it is not customary, we then offer factory calibration certificates. These calibration certificates meet international standards and are particularly suitable as proof of exacting calibration in the monitoring of your checking equipment, for example:

- Mechanical balances (spring balances, etc.)
- Force-measuring devices up to 250 kN (see also page 221)
- 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. 221

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
964-305	Temperature calibration for moisture analyzer*	
Additional services		
962-116	Express service with 48 hour delivery	



Factory calibration certificate for torque wrench test devices
(extract from the factory calibration certificate)
Further details on the internet

(R): Recalibration

For each force gauge without interface or from other manufacturers we charge a surcharge

*Calibration available for the following models:

DAB 100-3, DAB 200-2, DBS-60-3, DLB 160-3A, MLS 150-2A, MLS 65-3A, MLB 50-3N, MLB 50-3C, MLB 50-3, DLT 100-3N, MLS 50-3D, MLS 50-3C

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

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. Therefore see also directives 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

See product group 18 "Calibration service"

Calibration or verification

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/m³, air density is 1.2 kg/m³ 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

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 weighing 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

Glossary

Applications:

- Pre-packaged goods control, whenever a product is sold according to its volume [cm³]. This volume is calculated with weight [g] : density [g/cm³].
- 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** $d \leq 1$ 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.

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.

Multi-division balance / Multi-range balance

On multi-division balances, the weighing range is subdivided several times, each with a different readability. The readability [d] changes automatically with increasing and decreasing load. Multi-range balances have several weighing ranges with different maximum loads and different numerical increments. Switching takes effect automatically when the load increases; switching back to the lower weighing range only takes effect when the scale has been completely unloaded.

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:

- in commercial trade when the price of a commodity is determined by weighing.
- in the manufacture of pharmaceuticals in pharmacies and analysis in pharmaceutical and medical laboratories.
- for official purposes.
- in the production of prepackaging.
- in medical applications.

Every balance is tested by 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.

