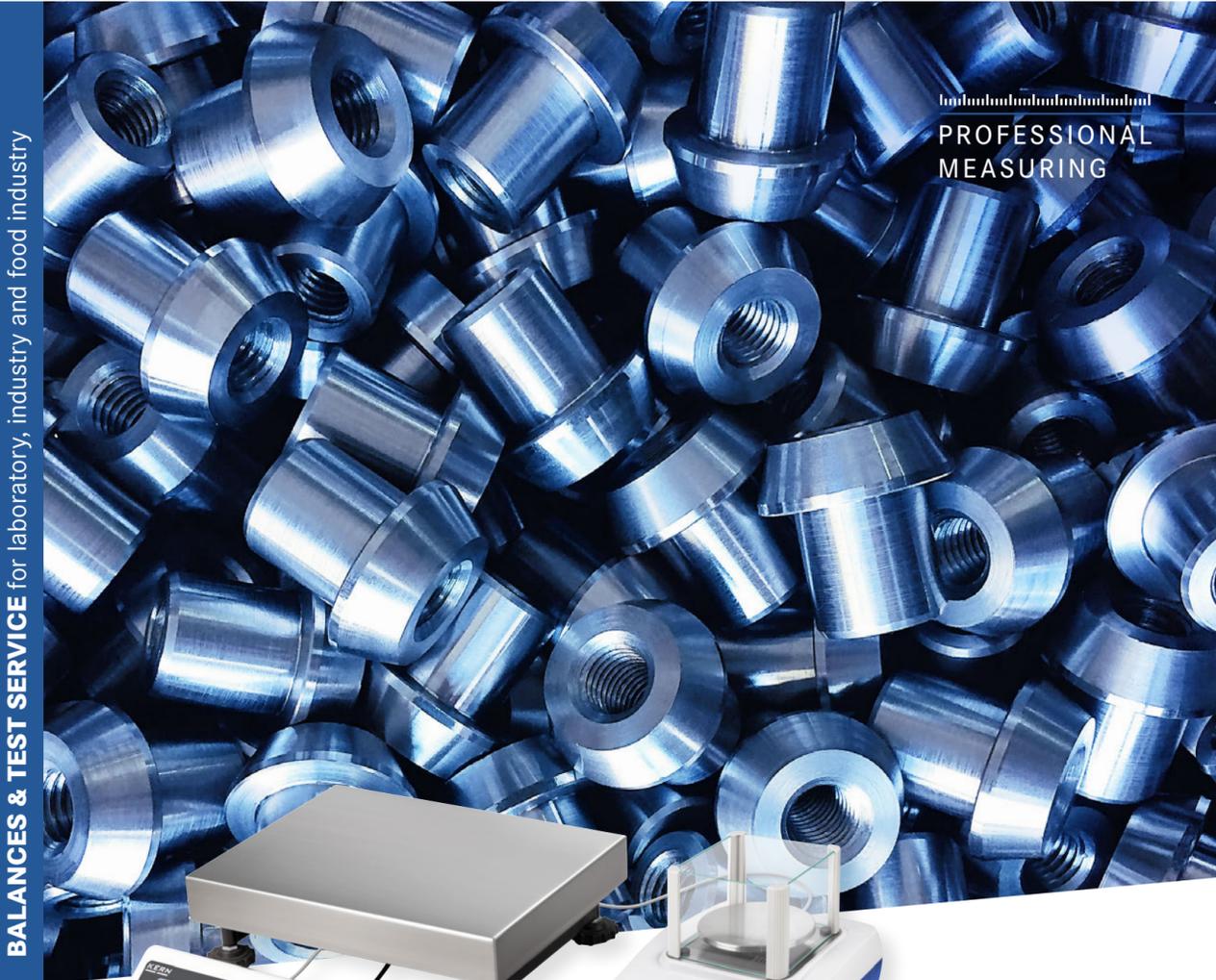


BALANCES & TEST SERVICE
for laboratory, industry and food industry



<p>1769 Ancestor Johann Jakob Sauter built the Hahn inclination scale out of iron, a foundation stone for weighing for the balance industry in Southern Germany</p>	<p>1844 KERN is founded – precision balances are produced</p>	<p>1863 A proud Gottlieb Kern with his staff</p>	<p>1880 Pharmaceutical balance with Aesculap</p>	<p>1923 Inflation – KERN wages are paid with self printed currency</p>
<p>1980 The electronic balance ousts mechanical devices</p>	<p>1994 Accredited DKD laboratory (ISO 17025)</p>	<p>2000 New premises in Balingen</p>	<p>2002 Existing QM system certification in accordance with DIN EN ISO 9001:2000 standards</p>	<p>2007 Approval for the manufacture of medical products (DIN EN 13485 and 93/42/EEC)</p>
<p>2008 Authorisation for initial verification by the manufacturer (2009/23/EC)</p>	<p>2009 Approval for the manufacture and sale of height rods (DIN EN 13485 and 93/42/EEC)</p>	<p>2012 Verification point for non-automatic balances and test weights.</p> <p>New customer portal www.kern-sohn.com goes live</p>	<p>2014 Expansion of the product range to include optical instruments (microscopes and refractometers)</p>	<p>2015 Inauguration of Ziegelei 2.0 with computer-controlled high-bay warehouse</p>
<p>2017 Come with KERN into the digital future: Expansion of the model ranges compatible with Industry 4.0, as well as the related services</p>	<p>2019 Significant anniversary year! 25 years of accredited DKD laboratory 175 years of KERN & SOHN 250 years of balance manufacture in the Sauter family-owned company</p>	<p>2020 Construction of Ziegelei 3.0, extension of administration building</p>		

BALANCES & TEST SERVICE for laboratory, industry and food industry



PROFESSIONAL MEASURING

2020

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

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

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

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

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

Quick-Finder

Readability [g]	Weighting capacity [kg]	Model	Page	Quality code	...
0,01	2500	PCB 2500-2	24	BA	1
0,01	3000	EMS 3000-2	21	AA	1
0,01	3000	PFB 3000-2	26	AA	1
0,01	3000	EWJ 3000-2	28	BA	1
0,01	3000	572-37	30	BA	1
0,01	3100	PLJ 3000-2FM	31	BB	1
0,01	3200	PNS 3000-2	32	BB	1
0,01	3200	PNJ 3000-2M	31	BA	1
0,01	3500	PCD 3000-2	24	AA	1
0,01	3500	PCB 3000-2	27	BA	1
0,01	3600	KB 3600-2N	29	BA	1
0,01	4200	572-39	30	BA	1
0,01	4200	PLS 4200-2F	30	BA	1
0,01	4200	PLJ 4200-2F	32	BB	1
0,01	4200	EW 4200-2NM	32	BB	1
0,01	4200	EG 4200-2NM	33	BC	1
0,01	4200	PBS 4200-2M	33	CC	1
0,01	4200	PBJ 4200-2M	34	BB	1
0,01	4200	PES 4200-2M	34	CB	1
0,01	4200	PEJ 4200-2M	34	BC	1
0,01	4200	PLS 4200-2A	30	CC	1
0,01	4200	PLJ 4200-2A	30	CC	1
0,01	4200	PLJ 4200-2AM	33	BB	1
0,01	4200	EW 4200-2NM	33	BC	1
0,01	4200	PBS 4200-2M	33	CC	1
0,01	4200	PBJ 4200-2M	34	BB	1
0,01	4200	PES 4200-2M	34	CB	1
0,01	4200	PEJ 4200-2M	34	BC	1
0,01	4200	PLS 8000-2A	30	BC	1

KERN Models A – Z

440	25	FKB	57	M	
572	29	FKT	58/59	MWB	123
A					
ABJ-NM/ABS-N	40/41	FOB	66	N	
ACJ/ACS	40/41	FOB-LM	68	NFB	130
ABP	42/43	FOB-NL	67	NFN	131
ABT-NM	44	FOB-NS	65	P	
ADB/ADJ	47	FOB-S	64	PBJ/PBS	33
ALJ-A/ALS-A	38/39	FXN	71	PCB	24
B					
BFA	120	G		PCD	23
BFB	118/119	GAB-N	56	PEJ/PES	34
BFN	121	GAT	60/61	PFB	26
BIC	115	H			
BID	116/117	HCB	160	PLJ/PLS	30
BXS	122	HCN	161	PNJ/PNS	31
C					
CH	157	HCD	162	R	
CCA	90	HDB-N	158	RFE	77
CCS	88/89	HDB-XL	159	RIB	75
CDS	87	HFA	163	RPB	76
CFS	84	HFB	165	S	
CKE	85	HFC	164	SFB/SFB-H	72
CM	11	HFD	166/167	SFE	105
CM-C	12	HFM	168	SXS	73
CPB	82	HFO	169	T	
CXB	83	HGA	156	TAB	12
D					
DAB	46	I			
DBS	47	IFB	103	TCB	11
DE-D	98/99	IFS	86	TEE	11
DLB	48	IFT	110/111	TGC	11
DS	104	IKT	108/109	TGD	12
E					
ECB-N/ECE-N	51	IOC	102	U	
EG-N/EW-N	32	IXS	108/109	UFA	124
EHA	22	K			
EMB	19	KB-N	27	UFB	127
EMB-S	18	KDP	136	UFC	128
EMB-V	20	KFA-V20	144	UFN	129
EMS	21	KFB-TM	139	UIB	125
EOB	96	KFD-V20	143	UID	126
EOS	97	KFD-V40	145	V	
EOC	100/101	KFE-TNM	141	VHB	153
EOE	95	KFN-TM	141	W	
EWJ	28	KFP-V20 IP65	142	WTB	69
F					
FCB	54	KFP-V20 IP67	143	Y	
FCE-N	52	KFP-V30	144	YKV-01	134
FCF	53	KFP-V40	145	YRO-01/-02/-03	182
FFN	70	KFS-TM	139		
FKB-A	55	KFU-V20	144		
		KFU-V30	144		
		KGP	133		
		KKP-V40	145		
		KIB-TM	140		
		KIP-V20M	143		
		KXP-V20 IP65	142		
		KXS-TM	141		



KERN Pictograms

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

*The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by KERN & SOHN GmbH is under license. Other trademarks and trade names are those of their respective owners.

KERN – measuring technology and testing services from a single source



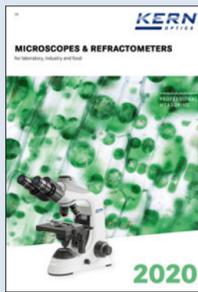
Balances & Test service catalogue

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



Medical scales catalogue

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



Microscopes & refractometers catalogue

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



SAUTER measuring equipment catalogue

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



DAkkS calibration service brochure

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

Keyword index

A	
Accessories _____	170–183
Adiposity scales _____	see website
Alibi memory _____	58, 108, 206
Aluminium sample plate _____	46–48
Analogue refractometer _____	see website
Analytical balances _____	36–44
Animal scales _____	24, 25, 27, 29, 33, _____ 39, 43, 53, 54, 55, 57, 59, 73, _____ 95–110, 116–122, 124–131, 157–161,

B	
Baby scales _____	see website
Bench scales _____	49–61
Bluetooth/RS-232 Adapter _____	178
Body fat scales _____	see website

C	
----------	--

Calibration _____	210–222
Calibration Service _____	210–222
Carat balances _____	11, 12, 20, 32, 37
Catalogues, Brochures, Flyer _____	2, 226
Chair scales _____	see website
Chair weighers _____	see website
Coating thickness gauges _____	see website
Control of checking equipment _____	210, 225
Counting scales _____	79–90
Counting systems _____	88–90
Crane scales _____	154–169

D	
----------	--

DakkS/DKD _____	210–223
Density determination _____	19, 20, 24, 25, 27, _____ 29, 30, 32, 33, 34, 38, 40, 42, _____ 44, 55, 57, 58, 104, 109, 180
Display devices _____	135, 137–141
Drive-through scale _____	130–131
Drying balance _____	45–48

E	
Earth's gravitational force _____	207
Ethernet/RS-232 Adapter _____	177
Explosion hazard _____	226

F	
Floor scales _____	112–131
Foot switch _____	23, 73, 106, 122, 141
Force gauges _____	see website

G	
----------	--

Grain balances _____	see website
----------------------	-------------

H	
----------	--

Handrail scales _____	see website
Hanging scales _____	154–169
Hardness tester _____	see website
Height rods _____	see website
Hydrostatic balances _____	19, 20, 24, 25, 27, 29, _____ 30, 32, 33, 34, 38, 40, 42, _____ 44, 55, 57, 58, 104, 109, 180

I	
----------	--

Industrial scales _____	49–73, 79–169
Information _____	223–228
Interface cable _____	174
Internet _____	2
Ioniser _____	37–44, 181
IP 65...68 protected scales _____	62, 63, 65, _____ 67–73, 98–103, 105, 106, 111, _____ 115–131, 133, 140–151, 153, 161, 167
ISO calibration _____	222

L	
----------	--

Laboratory balances _____	13–48
Length measuring devices _____	see website
Lexicon _____	223–225

M	
----------	--

Material thickness gauge _____	see website
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 _____	211, 214, 224
Mobile pallet weigher _____	152, 153
Moisture analysers _____	45–48

P	
----------	--

Pallet scales _____	125–129
Personal floor scales _____	see website
Personal scales _____	see website
Pictogram overview _____	2
Platform scales _____	91–111
Platforms _____	142–145
Plummet, density determination _____	180
Pocket balances _____	10–12
Power supply adapter set _____	179
Pre-packaging legislation (FPVO) _____	224
Precision balances _____	13–35
Price computing scales _____	74–77
Printer _____	171–173
Protective dust cover _____	180

R	
----------	--

Recalibration _____	218
Refractometers, digital _____	see website
Retail scales _____	74–77
Roller conveyor _____	182
Round fiberglass filter _____	46–48
RS-232/Bluetooth-Adapter _____	178
RS-232/Ethernet-Adapter _____	177
RS-232/USB-Adapter _____	179
RS-232/WLAN-Adapter _____	177

S	
----------	--

Semi-micro balances _____	38, 42, 44
Shop balances _____	74–78
Signal lamp _____	179
Software _____	175–176
Spring balances _____	see website
Stainless steel scales _____	64–68, 70–73

T	
----------	--

Tare pan _____	180
Temperature calibration set _____	46–48
Tensile force measurement device _____	163, 164
Terminals _____	15, 16, 136–139
Test service _____	210–222
Test stands _____	see website
Test weights _____	184–209
Touchscreen scales _____	58–61, 108–111
Tweezers _____	190

U	
----------	--

Underfloor weighing, accessories _____	19, 20, _____ 24, 25, 27, 29, 30, 32, 33, 34, 38, _____ 40, 42, 44, 55, 57, 58, 104, 109
--	--

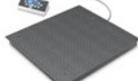
V	
----------	--

Verification _____	219, 223
--------------------	----------

W	
----------	--

Weighing beams _____	124
Weighing bridges _____	143–145
Weighing table _____	181
Wheelchair platform scales _____	see website
WLAN/RS-232 Adapter _____	177

Product group index 2020

01	Pocket balances		10 – 12
02	Precision balances		13 – 35
03	Analytical balances		36 – 44
04	Moisture analysers		45 – 48
05	Bench scales		49 – 61
06	Stainless steel/ Protection against dust and water splashes IP65...68		62 – 73
07	Price computing scales		74 – 78
08	Counting scales/Counting systems		79 – 90
09	Parcel scales/Platform scales		91 – 111
10	Floor scales/Pallet scales/Drive-through scales		112 – 131
11	System solutions Industry 4.0		132 – 136
12	Display devices/Platforms/Weighing bridges		137 – 151
13	Pallet truck scales		152 – 153
14	Hanging scales/Crane scales		154 – 169
15	Accessories		170 – 183
16	Test weights		184 – 209
17	DAkkS Calibration Service and 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

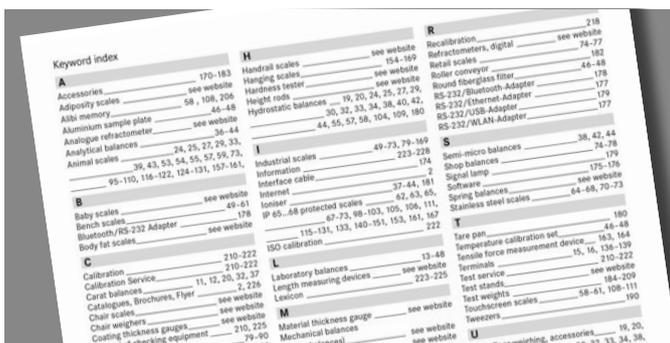
The tried and tested quick-find system prior each product group (compare product group index page 3) means that you can carry out a targeted search using the weighing data that you require, such as readout, weighing range, etc and offers a short description for each model.



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.

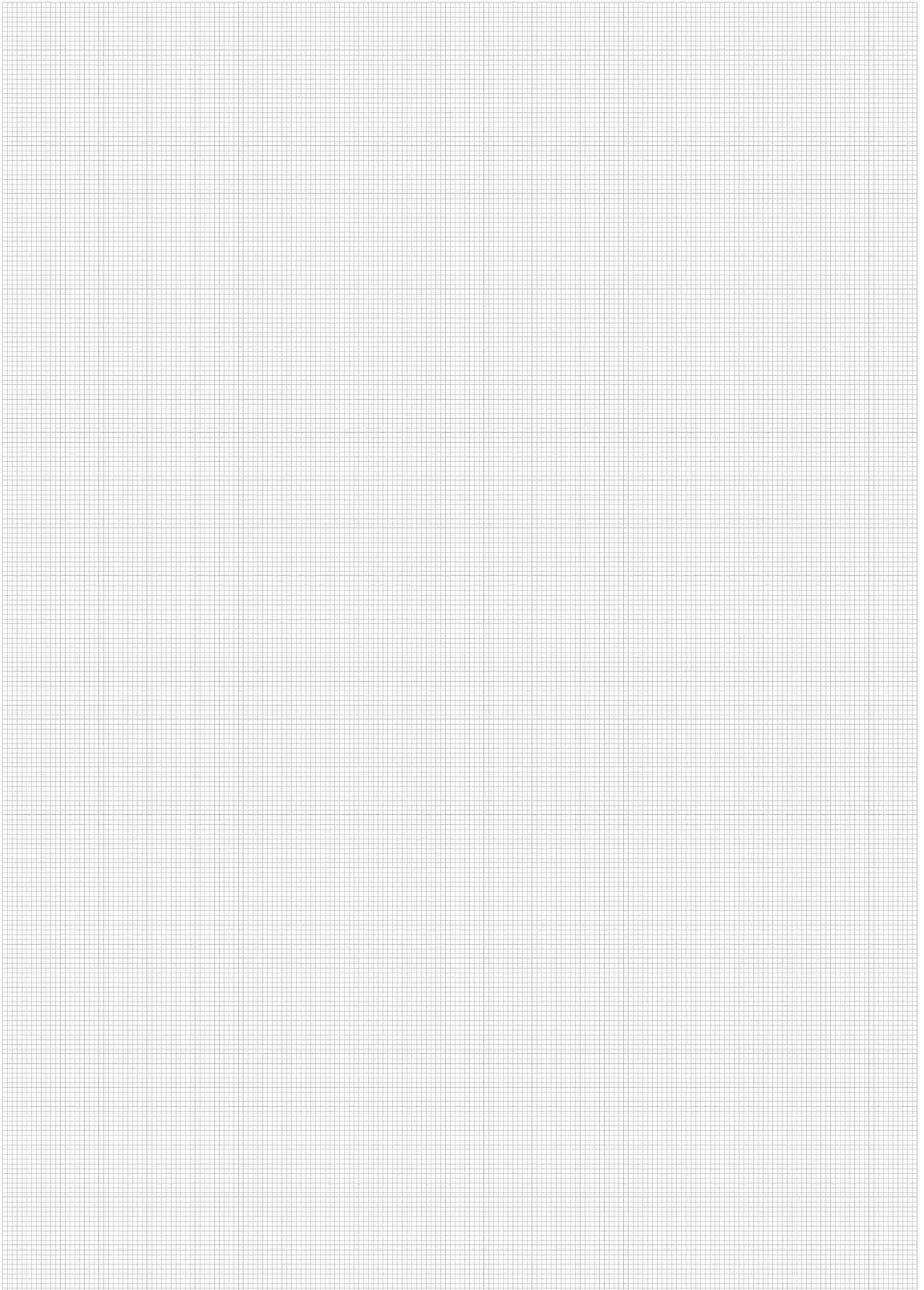


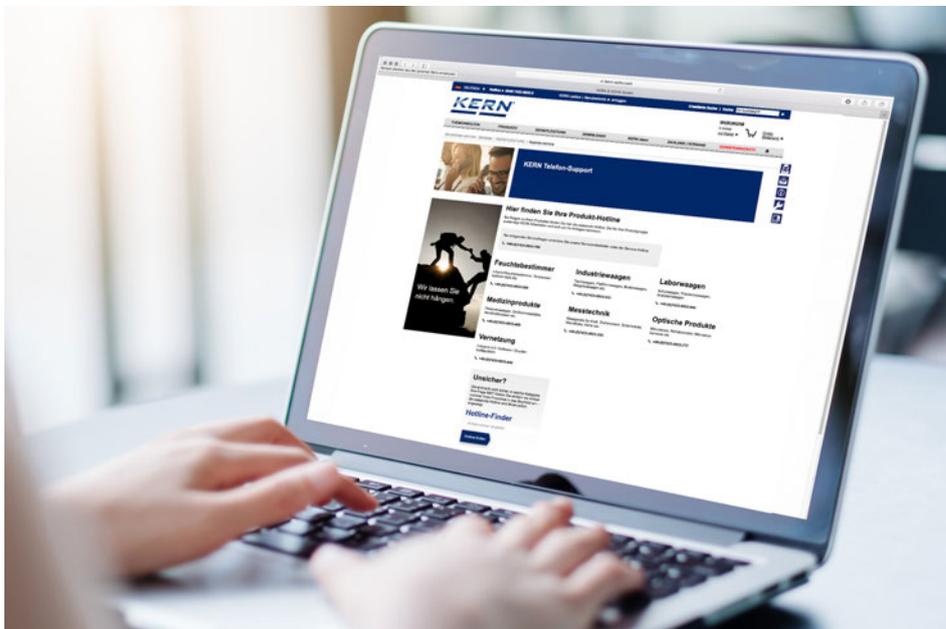
For more information ... ▶ Website

... 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





KERN Service Portal

[www.kern-sohn.com/
serviceportal](http://www.kern-sohn.com/serviceportal)



Technical contact enquiries this is where you can ask us a technical question about your product or request technical support for your product



Fast service
We deliver needed spare parts usually within 48 hours plus transport



At any time **status inquiry** from your device with your repair number and your password for your repair process

The KERN Service Portal – We won't let you down!

With a device from KERN you can be sure of the highest quality. But if you have any complaints at all, you can register your repair at www.kern-sohn.com/serviceportal and download a consignment note for your service return.

Your advantages: Accelerated processing as well as online tracking of the repair status.

Our reliable KERN service personnel will do everything within their power to make sure your precision balances and measuring devices are back in operation as quickly as possible.

Also 2020 we have many new models for you in our program

School balance KERN EHA

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



Further details ▶ Page 22

Analytical balance KERN ACS/ACJ

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



Further details ▶ Page 40

Counting system KERN CCA

High-resolution counting system with EC type approval [M] to count the smallest parts in the largest quantities, counting resolution up to 300.000.000 points



Further details ▶ Page 90

Pallet scale KERN UID

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



Further details ▶ Page 126

Display-unit (DIN-rail module) KERN CE Hx

Compact display device for recording weighing data using strain gauge load cells, e.g. in industrial applications. The configuration of the module can be carried out conveniently via a connected PC with the supplied software



Further details ▶ Page 135

Messzellen

Measuring cells for setting up individual weighing systems, test benches or individual process lines for force and mass measurements



Further details ▶ Page 146

Crane scale KERN HFD

Robust, high-resolution crane scale up to 12 tons, now also with protection type IP67 or EC type approval [M] (on request)



Further details ▶ Page 166

Dot matrix and thermal printers KERN YKG-01/YKH-01

High-quality, fast Dot-Matrix resp. thermal printers for the retail trade, gastronomy and for restaurant kitchens



Further details ▶ Page 173

KERN scales and components with KCP

Aim & advantages:

Searching and remote control of the balances 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.

KERN models with KCP:



A/D converter box YKV-01/YKV-02

Modern A/D converter for the rapid recording of weighing data and forwarding it to the most varied output channels such as tablets, networks, SPS controllers, etc.

Further details ▶ Page 134



Digital platform KDP

Universal weighing platforms for flexible connection in process chains

Further details ▶ Page 136



Laboratory balance PFB

Quick-displaying precision balance, now with larger housing for more secure footing

Further details ▶ Page 26



Compact laboratory balance EWJ

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

Further details ▶ Page 28



Bench scale GAT

KERN Easy-Touch bench scale – the intuitive way to weigh

Further details ▶ Page 60/61



Counting scale CPB

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

Further details ▶ Page 82



Counting scale CFS

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

Further details ▶ Page 84



Counting scale IFS

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

Further details ▶ Page 86



Counting system CCS

Counting system to count the smallest parts in the largest quantities, counting resolution up to 999,999 points

Further details ▶ Page 88



Platform scale SFB

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

Further details ▶ Page 72



Platform scale EOC

All-round parcel scale with practical Flip/Flop display device for greatest ease of use

Further details ▶ Page 100/101



Platform scale IOC

All-round platform scale with a range of communication options and EC type approval [M]

Further details ▶ Page 102



Platform scale IFB

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

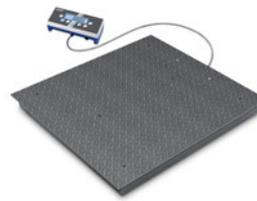
Further details ▶ Page 103



Platform scale IFT

KERN Easy-Touch platform scale – the intuitive way to weigh

Further details ▶ Page 110/111



Floor scale BID

Floor scale with EC type approval [M] and the best price-performance ratio

Further details ▶ Page 116/117



Floor scale BFB

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

Further details ▶ Page 118/119



Floor scale BFA

Weighing bridge with screwed-on weighing plate (IP67) and stainless steel display device (IP68), with EC type approval [M]

Further details ▶ Page 120



Floor scale BFN

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

Further details ▶ Page 121



Weighing beams UFA

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

Further details ▶ Page 124



Pallet scale UFB

Pallet scale with steel load support (IP67) and EC type approval [M]

Further details ▶ Page 127



Pallet scale UFC

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

Further details ▶ Page 128



Drive-through scale NFB

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

Further details ▶ Page 130



Drive-through scale NFN

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

Further details ▶ Page 131



Display device KFB-TM

Display device with large digits – easy to read

Further details ▶ Page 131



Display device KFS-TM

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

Further details ▶ Page 139



Display device KFN-TM

Stainless steel display device with IP65 protection and superior display size

Further details ▶ Page 141



Display device KIB-TM

Practical Flip/Flop display device for greatest ease of use

Further details ▶ Page 140



Display device KFT-TM

KERN Easy-Touch display device – the intuitive way to weigh

Further details ▶ see internet

Pocket balances

Pocket size precision

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

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

Quick-Finder Pocket balances

Readability [d] g	Weighing capacity [Max] g	Model KERN	Page	DAYS	CAL EXT	BATT
0,001	20	TAB 20-3	12	1	●	○
0,001	50	TGD 50-3CS05	12	1	●	○
0,002	10	CM 50-C2N	12	1	●	○
0,01	60	CM 60-2N	11	1	●	○
0,01	150	TGC 150-2S05	11	1	●	○
0,1	150	TEE 150-1	11	1	●	○
0,1	150	CM 150-1N	11	1	●	○
0,1	200	TCB 200-1	11	1	●	○
0,1	320	CM 320-1N	11	1	●	○
0,1	500	TGC 500-1S05	11	1	●	○
1	1000	CM 1K1N	11	1	●	○
1	1000	TGC 1K-3S05	11	1	●	○

□ News 2020

◆ = Carat balances

● = standard

○ = option



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

HIGHLIGHT



KERN TEE

Designer pocket balance at a bargain price

KERN TCB

This is where the fun starts with pocket format weighing

KERN CM

Pocket balance with integrated pocket calculator

KERN TGC

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

STANDARD

CAL EXT BATT 1 DAY

STANDARD

CAL EXT BATT 1 DAY

STANDARD

CAL EXT UNIT BATT 1 DAY

STANDARD

CAL EXT UNIT BATT 1 DAY

OPTION

DAkKs +3 DAYS

OPTION

DAkKs +3 DAYS

OPTION

DAkKs +3 DAYS

OPTION

DAkKs +3 DAYS

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

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

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

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

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

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

! * ONLY WHILE STOCKS LAST!



KERN CM-C

Pocket balance with carat display – ideal for jewellers

KERN TAB

High-precision pocket carat balance for jewellers and travelling salesmen

KERN TGD

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

STANDARD

- CAL EXT
- UNIT
- BATT
- 1 DAY

STANDARD

- CAL EXT
- UNIT
- BATT
- 1 DAY

STANDARD

- CAL EXT
- UNIT
- BATT
- 1 DAY

OPTION

- DAkKS
- +3 DAYS

OPTION

- DAkKS
- +3 DAYS

OPTION

- DAkKS
- +3 DAYS

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

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

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

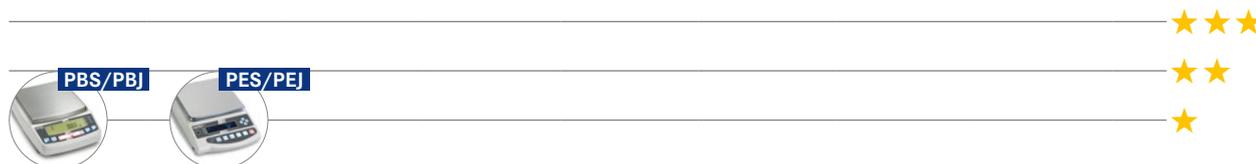
Tip: KERN pocket scales are also ideal as a customer gift or for personalized marketing and sales campaigns. We are happy to print your logo on the cover, the lid or the packaging, from 100 pieces. Please inquire details

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

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



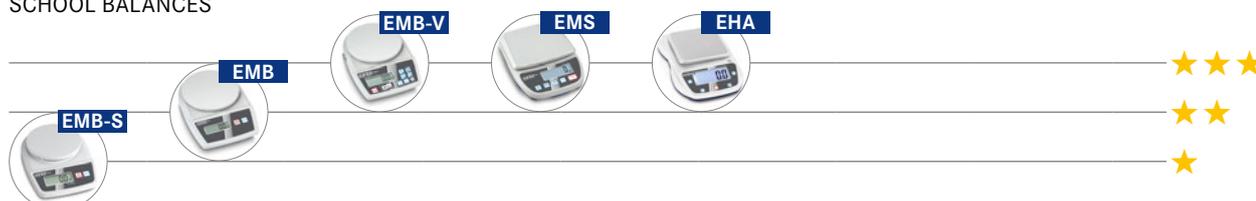
STANDARD LABORATORY BALANCES



BASIC LABORATORY BALANCES



SCHOOL BALANCES



- ▷ Large, shock-resistant stainless steel weighing plate
- ▷ Particularly flat design
- ▷ Large, bright LCD display
- ▷ Simple operation, suitable for school and teaching use



HIGHLIGHT

Precision balances

KERN school balances

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

KERN Basic laboratory balances

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

KERN Basic standard laboratory balances

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

KERN premium laboratory balances

are right at the top of the precision balance segment. The numerous equipment features of the standard balances are complemented by high-quality materials with robust, sturdy construction, high-quality, high-performance weighing systems, optimised operating sequences, speed benefits and in some cases, the most modern touchscreen technology. With its touchscreen technology a premium laboratory balance will support your users in their typical procedures. 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).

In order to make it easier for you to make the right choice of KERN balance, we have included a quality code for each model, which is made up of two quality features and will give you technical data and pictograms in addition to the product features. This will help you to make the decision on the perfect balance for your application:



The stability quality feature

How quickly and sensitively weighing results are displayed? This quality feature on the basis of the information on the housing material and total weight of the balance, the stability quality feature gives you an indication of the types of application for which the balance is particularly well-suited. Due to their low weight, materials such as plastic allows structures which are particularly advantageous for mobile applications. The appeal of models which are used to process high-quality, heavy material, such as, for example, aluminium casting or steel, is their durability and robustness and the fact that they are less susceptible to vibrations. A high level of stability allows rapid, repeatable weighing results.

Categorisation in **A, B, C, best value: C**

The dosing level quality feature

comes from the values for reaction time, stabilisation time and behaviour during long-term weighing procedures. These parameters give information about how well-suited a model is for fine dosing, amongst other functions. In particular with these dosing procedures, the balance performs a balancing act between filtering out disruptive environmental influences, such as, for example, vibrations on the one hand, and the highest level of accuracy as well as rapid display when weighing goods right down to the smallest division [d] on the other hand. In addition this value is printed, whether drift effects influence the continuous measurement in long-term trials. Categorisation into **A, B, C, best value: C**

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

Quick-Finder Precision balances

Readability [d] g	Weighing capacity [Max] g	Model KERN	Page	Quality code QUALITY											
					For an explanation on the pictos, see front flap										
0,001	60	440-21A	25	AA	1				●		●	●		●	○
0,001	100	EMB 100-3	19	AA	1				●					●	○
0,001	100	PCB 100-3	24	AA	1				●		●	●		●	○
0,001	120	PFB 120-3	26	AA	1				●		●	●			
0,001	120	KB 120-3N	27	AA	1				●		●	●			○
0,001	200	EMB 200-3	19	AA	1				●					●	
0,001	200	EMB 200-3V	20	AA	1				●		●	●		●	
0,001	200	PFB 200-3	26	AA	1				●		●	●			
0,001	220	EW 220-3NM	32	AB	1			●	●		●	●	●		○
0,001	220	EG 220-3NM	32	BB	1	○	●				●	●	●		○
0,001	240	KB 240-3N	27	AA	1				●		●	●			○
0,001	240	572-30	29	BA	1				●		●	●			○
0,001	250	PCD 250-3	23	AA	1				●		●	●		●	○
0,001	250	PCB 250-3	24	AA	1				●		●	●		●	○
0,001	300	EMS 300-3	21	AA	1				●		●	●		●	
0,001	300	PFB 300-3	26	BA	1				●		●	●			
0,001	300	EWJ 300-3	28	BA	1			●			●	●			○
0,001	300	EWJ 300-3H	28	BA	1			●			●	●			○
0,001	300	572-31	29	BA	1				●		●	●			○
0,001	350	PCD 300-3	23	AA	1				●		●	●		●	○
0,001	350	PCB 350-3	24	AA	1				●		●	●		●	○
0,001	360	KB 360-3N	27	AA	1				●		●	●			○
0,001	420	572-32	29	BA	1				●		●	●			○
0,001	420	PLS 420-3F	30	BA	1				●		●	●			○
0,001	420	PLJ 420-3F	30	BA	1				●		●	●			○
0,001	420	EW 420-3NM	32	AB	1			●	●		●	●	●		○
0,001	420	EG 420-3NM	32	BB	1	○	●				●	●	●		○
0,001	620	PNS 600-3	31	BB	1			●	●		●	●			
0,001	620	PNJ 600-3M	31	BB	1	○	●				●	●	●		
0,001	620	EW 620-3NM	32	AB	1			●	●		●	●	●		○
0,001	620	EG 620-3NM	32	BB	1	○	●				●	●	●		○
0,001	620	PBS 620-3M	33	BC	1				●		●	●	●		
0,001	620	PBJ 620-3M	33	BC	1	○	●				●	●	●		
0,001	620	PES 620-3M	34	BB	1				●		●	●	●		○
0,001	620	PEJ 620-3M	34	BB	1	○	●				●	●	●		
0,001	720	PLS 720-3A	30	BC	1				●		●	●			
0,001	720	PLJ 720-3A	30	CC	1				●		●	●			
0,001	720	PLJ 720-3AM	30	CC	1	○	●				●	●			
0,001	1200	PLS 1200-3A	30	BC	1				●		●	●			
0,001	1200	PLJ 1200-3A	30	CC	1				●		●	●			
0,001	2100	PLJ 2000-3A	30	CC	1				●		●	●			
0,01	200	EMB 200-2	19	AA	1				●					●	
0,01	200	PCB 200-2	24	AA	1				●		●	●		●	○
0,01	200	440-33N	25	AA	1				●		●	●		●	○
0,01	400	440-35N	25	AA	1				●		●	●		●	○
0,01	500	EMB 500-2S	18	AA	1				●					●	
0,01	500	EHA 500-2	22	AA	1				●					●	
0,01	600	EMB 600-2	19	AA	1				●					●	
0,01	600	440-35A	25	AA	1				●		●	●		●	○
0,01	600	PFB 600-2	26	BA	1				●		●	●			
0,01	600	EWJ 600-2SM	28	BA	1	○	●				●	●			○
0,01	600	EWJ 600-2M	28	BA	1	○	●				●	●			○
0,01	650	KB 650-2N	27	BA	1				●		●	●			○
0,01	650	573-34	29	BA	1				●		●	●			○
0,01	820	EW 820-2NM	32	BB	1			●	●		●	●	●		○
0,01	1000	EMB 1000-2	19	AA	1				●					●	
0,01	1000	PCB 1000-2	24	AA	1				●		●	●		●	○
0,01	1200	PFB 1200-2	26	AA	1				●		●	●			
0,01	1200	KB 1200-2N	27	BA	1				●		●	●			○
0,01	1600	572-33	29	BA	1				●		●	●			○
0,01	2000	EMB 2000-2	19	AA	1				●					●	
0,01	2000	EMB 2000-2V	20	AA	1				●		●	●		●	
0,01	2000	PFB 2000-2	26	BA	1				●		●	●			
0,01	2000	KB 2000-2N	27	BA	1				●		●	●			○
0,01	2200	EW 2200-2NM	32	BB	1			●	●		●	●	●		○
0,01	2200	EG 2200-2NM	32	BB	1	○	●				●	●	●		○
0,01	2200	PES 2200-2M	34	BB	1				●		●	●	●		○
0,01	2200	PEJ 2200-2M	34	CB	1	○	●				●	●	●		○
0,01	2400	KB 2400-2N	27	BA	1				●		●	●			○
0,01	2400	572-35	29	BA	1				●		●	●			○
0,01	2500	PCD 2500-2	23	BA	1				●		●	●		●	○

Quick-Finder Precision balances

Readability [d] g	Weighing capacity [Max] g	Model KERN	Page	Quality code QUALITY											
					For an explanation on the pictos, see front flap										
0,01	2500	PCB 2500-2	24	BA	1				●		●	●		●	○
0,01	3000	EMS 3000-2	21	BA	1				●		●	●		●	
0,01	3000	PFB 3000-2	26	AA	1				●		●	●			
0,01	3000	EWJ 3000-2	28	BA	1			●			●	●			○
0,01	3000	572-37	29	BA	1				●		●	●			○
0,01	3100	PLJ 3000-2FM	30	BA	1			●			●	●			
0,01	3200	PNS 3000-2	31	BB	1			●	●		●	●			
0,01	3200	PNJ 3000-2M	31	BB	1	○		●			●	●			
0,01	3500	PCD 3000-2	23	BA	1				●		●	●		●	○
0,01	3500	PCB 3500-2	24	AA	1				●		●	●		●	○
0,01	3600	KB 3600-2N	27	BA	1				●		●	●			○
0,01	4200	572-39	29	BA	1				●		●	●			○
0,01	4200	PLS 4200-2F	30	BA	1				●		●	●			
0,01	4200	PLJ 4200-2F	30	BA	1			●			●	●			
0,01	4200	EW 4200-2NM	32	BB	1			●	●		●	●			○
0,01	4200	EG 4200-2NM	32	BB	1	○		●			●	●			○
0,01	4200	PBS 4200-2M	33	BC	1				●		●	●			
0,01	4200	PBJ 4200-2M	33	CC	1	○		●			●	●			
0,01	4200	PES 4200-2M	34	BB	1				●		●	●			○
0,01	4200	PEJ 4200-2M	34	CB	1	○		●			●	●			
0,01	6200	PLS 6200-2A	30	BC	1				●		●	●			
0,01	6200	PLJ 6200-2A	30	CC	1			●			●	●			
0,01	6200	PLJ 6200-2AM	30	CC	1	○		●			●	●			
0,01	6200	EW 6200-2NM	32	BB	1			●	●		●	●			○
0,01	6200	PBS 6200-2M	33	BC	1				●		●	●			
0,01	6200	PBJ 6200-2M	33	CC	1	○		●			●	●			
0,01	6200	PES 6200-2M	34	BB	1				●		●	●			○
0,01	8200	PLS 8000-2A	30	BC	1				●		●	●			
0,05	6000	PFB 6000-2	26	BA	1				●		●	●			
0,05	10000	KB 10K0.05N	27	BA	1				●		●	●			○
0,05	12000	572-45	29	BA	1				●		●	●			○
0,05	20000	572-55	29	BA	1				●		●	●			○
0,1	200	EMB 200-1SS05	18	AA	1				●		●	●			
0,1	400	440-43N	25	AA	1				●		●	●			○
0,1	500	EMB 500-1SS05	18	AA	1				●		●	●			
0,1	500	EMB 500-1	19	AA	1				●		●	●			
0,1	500	EMB 500-1BE	19	AA	1				●		●	●			
0,1	500	EHA 500-1	22	AA	1				●		●	●			
0,1	1000	EHA 1000-1	22	AA	1				●		●	●			
0,1	1000	PCB 1000-1	24	AA	1				●		●	●			○
0,1	1000	440-45N	25	AA	1				●		●	●			○
0,1	1200	EMB 1200-1	19	AA	1				●		●	●			
0,1	2000	PCB 2000-1	24	AA	1				●		●	●			○
0,1	2000	440-47N	25	AA	1				●		●	●			○
0,1	3000	EMB 3000-1S	18	AA	1				●		●	●			
0,1	3000	EMB 3000-1	19	AA	1				●		●	●			
0,1	3000	EHA 3000-1	22	AA	1				●		●	●			
0,1	4000	440-49N	25	AA	1				●		●	●			○
0,1	6000	EMB 6000-1	19	AA	1				●		●	●			
0,1	6000	EMS 6K0.1	21	AA	1				●		●	●			
0,1	6000	PCD 6K-4	23	BA	1				●		●	●			○
0,1	6000	PCB 6000-1	24	BA	1				●		●	●			○
0,1	6000	440-49A	25	AA	1				●		●	●			○
0,1	6000	PFB 6000-1	26	BA	1				●		●	●			
0,1	6000	EWJ 6000-1SM	28	BA	1	○		●			●	●			○
0,1	6000	EWJ 6000-1M	28	BA	1	○		●			●	●			○
0,1	6500	KB 6500-1N	27	BA	1				●		●	●			○
0,1	6500	573-46	29	BA	1				●		●	●			○
0,1	8200	PBJ 8200-1M	33	CC	1	○		●			●	●			
0,1	10000	PCD 10K0.1	23	BA	1				●		●	●			○
0,1	10000	PCB 10000-1	24	BA	1				●		●	●			○
0,1	10000	KB 10000-1N	27	BA	1				●		●	●			○
0,1	10000	572-43	29	BA	1				●		●	●			○
0,1	12000	EMS 12K0.1	21	BA	1				●		●	●			
0,1	12000	PNS 12000-1	31	BB	1				●		●	●			
0,1	12000	PNJ 12000-1M	31	BB	1	○		●			●	●			
0,1	12000	EW 12000-1NM	32	BB	1			●	●		●	●			○
0,1	15000	PES 15000-1M	34	BB	1				●		●	●			○
0,1	16000	572-49	29	BA	1				●		●	●			○
0,1	20000	PLS 20000-1F	30	BA	1	○		●			●	●			
0,1	24000	572-57	29	BA	1				●		●	●			○



Models with addition -S05



The price breaker!
Cheapest Laboratory balance in the KERN assortment

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

Features

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

Technical data

- Large LCD display, digit height 15 mm
- Dimensions weighing surface, plastic, \varnothing 120 mm
- Overall dimensions WxDxH 145x205x45 mm
- Optional battery operation, 2x 1.5 V AA, standard, operating time up to 35 h, AUTO-OFF function to preserve the battery
- Net weight approx. 0,50 kg
- Permissible ambient temperature 5 °C/35 °C
- **Note:** Models with addition -S05 are supplied in 5 pieces. This means that the price given in the table refers to a delivery of 5 items. Cannot be delivered individually. The calibration prices given here refer to calibration of a single balance

Accessories

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

STANDARD

CAL EXT UNIT BATT DMS 1 DAY

OPTION

B MULTI DAKkS +3 DAYS

Model	Weighing capacity [Max] g	Readability [d] g	Reproducibility g	Linearity g	Quantity delivered (balance)	Option		Quantity delivered (DAkkS Calibr. Certificate)
						DAkkS Calibr. Certificate		
						DAkkS KERN		
EMB 200-1SS05	200	0,1	0,2	$\pm 0,3$	5	963-127		1
EMB 500-2S <small>NEW</small>	500	0,01	0,02	$\pm 0,03$	1	963-127		1
EMB 500-1SS05	500	0,1	0,2	$\pm 0,3$	5	963-127		1
EMB 3000-1S	3000	0,1	0,2	$\pm 0,3$	1	963-127		1
EMB 2000-OSS05	2000	1	2	± 3	5	963-127		1
EMB 5000-OSS05	5000	1	2	± 3	5	963-127		1

NEW New model



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 **A**, weighing space $\phi \times H$ 96×35 mm
- **Hook for underfloor weighing** standard
- **2 Note:** KERN EMB 500-1BE Black Edition
- **Note:** With the optional auxiliary set for density determination KERN YDB-01 also well suited for school and teaching operation

Technical data

- Large LCD display, digit height 15 mm
- Dimensions weighing surface, plastic, with conductive lacquer
 - A** ϕ 82 mm
 - B** ϕ 105 mm
 - C** ϕ 150 mm, see larger picture
- Weighing plate material
 - A** plastic, with conductive lacquer
 - B, C** plastic
- Net weight approx. 0,75 kg
- Batteries included, 9 V block or 2×1.5 V AA
- Permissible ambient temperature 5 °C/35 °C

Accessories

- **Stainless steel weighing plate**, only for models with weighing plate size **B**, KERN EMB-A02
- **3 Stack frame** for space-saving storage of precision balances from the KERN EMB range, scope of delivery 5 pieces, for models with housing dimensions W×D×H 170×244×39 mm, KERN EMB-A07 170×244×52 mm, KERN EMB-A09
- **External universal mains adapter**, with universal input and optional input socket adapters for EU, GB, USA, KERN YKA-03N
- **4 Ancillary kit for density determination** of liquids and solids with density > 1. Scope of supplies: Weighing plate (ϕ 102 mm), hook (H 139 mm), suitable for models with weighing plate size **A**, KERN YDB-04

STANDARD

CAL EXT UNIT UNDER BATT DMS 1 DAY

OPTION

B MULTI DAKKS +3 DAYS

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



School balance with integrated density determination function

Features

- **Density determination made easy!** Thanks to the self-explanatory, graphic-assisted control panel, the density of solids and liquids can be determined in seconds, making them ideal for use in schools and universities
- **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
- **Ready for use:** Batteries included, 9 V-Block, operating time up to 12 h, AUTO-OFF function to preserve the battery

Note: Balance and appropriate set for density determination should be ordered at the same time, see accessories

Technical data

- Large LCD display, digit height 15 mm
- Dimensions weighing surface, plastic
 - A \varnothing 82 mm
 - B \varnothing 150 mm, see larger picture
- Overall dimensions WxDxH 175x245x54 mm
- Net weight approx. 0,85 kg
- Permissible ambient temperature 5 °C/35 °C
- **Now also with carat weighing unit:**
 - EMB 200-3V: 1000 ct/0,005 ct
 - 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 supplies: Weighing plate (\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

STANDARD



OPTION



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



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

Features

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

Technical data

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

Accessories

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

STANDARD



OPTION



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

NEW **AA**
QUALITY



02



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 biology, chemistry and physics, for example
- **Large, shock proof weighing plate made of stainless steel**, can be removed and therefore is hygienic and easy to clean
- **1 Particularly flat design**
- **Ergonomically optimised key pad**
- **Simple and convenient 5-key operation**
- Large high-contrast display that is easy to read
- **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, external test weights at an additional price, see *Test weights*

Technical data

- Backlit LCD display, digit height 22 mm
- Dimensions weighing surface, stainless steel
 - A** Ø 105 mm
 - B** B×H 120×120 mm, see larger picture
- Overall dimensions W×D×H 160×225×50 mm (without draught shield)
- Optional battery operation, 2×1.5 V AA, not included in scope of delivery, operating time up to 400 h
- External mains adapter standard
- Net weight approx. 0,5 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	
EHA 500-2	500	0,01	0,03	± 0,02	A	963-127	
EHA 500-1	500	0,1	0,3	± 0,2	A	963-127	
EHA 1000-1	1000	0,1	0,3	± 0,2	A	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	



High-resolution precision balance with removable display for maximum flexibility

Features

- Laboratory balance with separate platform: Ideal when working in the glove bag or fume cupboard. Particularly practical for weighing toxic, volatile or contaminated substances
- **PRE-TARE function** for manual subtraction of a known container weight, useful for checking fill-levels
- **Freely programmable weighing unit**, e.g. display 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
 - B** W×D 160×160 mm, see larger picture
- Weighing plate material
 - A** plastic, with conductive lacquer
 - B** stainless steel
- Dimensions of display device W×D×H 140×46×75 mm
- Optional battery operation, 9 V-Block not included in scope of delivery, operating time up to 12 h, AUTO-OFF function to preserve the battery
- Overall dimensions W×D×H 165×280×75 mm
- Cable length of display device approx. 1,2 m
- Net weight approx. 1,2 kg
- Permissible ambient temperature 5 °C/35 °C

Accessories

- **Protective working cover** over the display device, scope of delivery: 5 items, KERN PCD-A05S05
- **2 Stand** to elevate display device, height of stand approx. 250 mm, KERN PCD-A03
- **Rechargeable battery pack internal**, operating time up to 24 h without backlight, charging time approx. 10 h, KERN PCD-A04
- **3 Foot switch**, ideal when the application requires two free hands. TARE or PRINT function can be selected. Scope of delivery: foot switch, junction box, connection cable. For the PRINT function you will need the RS-232 interface cable, KERN YKF-01
- **RS-232/Ethernet adapter** for connection to an IP-based Ethernet network, KERN YKI-01
- **Individual header data**: the free software can be used to print 4 header lines on the printout when using printers 911-013, YKN-01, YKB-01N, 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	Quality code	Option	
							DAkKS Calibr. Certificate	DAkKS KERN
KERN						QUALITY		
PCD 250-3	250	0,001	0,002	± 0,005	A	AA	963-127	
PCD 300-3	350	0,001	0,002	± 0,005	A	AA	963-127	
PCD 2500-2	2500	0,01	0,02	± 0,05	B	BA	963-127	
PCD 3000-2	3500	0,01	0,02	± 0,05	B	BA	963-127	
PCD 6K-4	6000	0,1	0,1	± 0,3	B	BA	963-128	
PCD 10K0.1	10000	0,1	0,1	± 0,3	B	BA	963-128	
PCD 10K-3	10000	1	1	± 3	B	BA	963-128	



The standard in the laboratory

Features

- **PRE-TARE function** for manual subtraction of a known container weight, useful for checking fill-levels
- **Freely programmable weighing unit**, e.g. display direct in special units such as length of thread g/m, paper weight g/m², or similar
- With the **recipe function** you can weigh the different ingredients of a mixture. As a check, you can also call up the total weight of all the ingredients
- **Plus/minus weighing procedures**
- **Ring-shaped draught shield** standard, only for models with weighing plate size **A**, weighing space $\varnothing \times H$ 90×40 mm
- **Protective working cover** included with delivery

Technical data

- Backlit LCD display, digit height 15 mm
- Dimensions weighing surface
 - A** \varnothing 81 mm
 - B** \varnothing 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 W×D×H 163×245×79 mm (without draught shield)
- Optional battery operation, 9 V-Block not included in scope of delivery, operating time up to 20 h, AUTO-OFF function to preserve the battery
- Permissible ambient temperature 5 °C/35 °C

Accessories

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

STANDARD



OPTION



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



The classic balance in the laboratory

Features

- **Compact size**, practical for small spaces
- **Percentage determination**: makes it possible to store a given weight value (100 %) and to determine deviations from this target value
- **Ring-shaped draught shield** standard, only for models with weighing plate size **A**, weighing space $\varnothing \times H$ 90×40 mm
- **Protective working cover** included with delivery

Technical data

- Backlit LCD display, digit height 15 mm
- Dimensions weighing surface
 - A** \varnothing 81 mm
 - B** \varnothing 105 mm
 - C** W×D 130×130 mm
 - D** W×D 150×170 mm, see larger picture
- Weighing plate material
 - A** plastic, with conductive lacquer
 - B, C, D** stainless steel
- Overall dimensions (without draught shield) W×D×H 165×230×80 mm
- Optional battery operation, 9 V-Block 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*

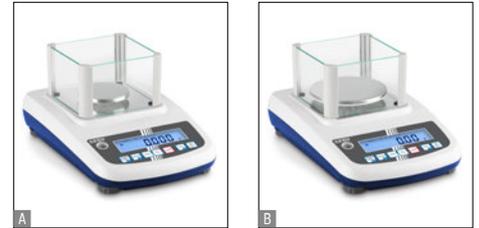
STANDARD



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



02

Quick-display precision balance with user-friendly concept of operation modes – 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 rising bar graph display shows the remaining available weighing capacity
- **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** and **B**, Weighing space W×D×H 158×143×64 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 155×145 mm, see larger picture
- Overall dimensions W×D×H 210×315×90 mm (without draught shield)
- Net weight approx. 2,0 kg
- Permissible ambient temperature 15 °C/30 °C

Accessories

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

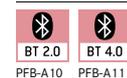
STANDARD



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	





Compact precision balance with large weighing capacity

Features

- Thanks to the **many typical laboratory functions**, such as, for example, recipe function, percentage determination, GLP record keeping, combined with the high level of precision, the KERN KB-N is a reliable partner for day-to-day work in the laboratory
- **User guidance step by step** on display by Yes/No dialogue
- **Freely programmable weighing unit**, e.g. display direct in special units such as length of thread g/m, paper weight g/m², or similar
- **Ring-shaped draught shield** standard, only for models with weighing plate size **A**, weighing space $\varnothing \times H$ 90×40 mm
- Model with resolution $\geq 240,000$ Pt.: **Level indicator to level the balance precisely**
- **Protective working cover** included with delivery

Technical data

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

Accessories

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

STANDARD



OPTION



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



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 bar lights up to show how much of the weighing capacity is still available
- KERN EWJ/EWJ-H/EWJ-M: **USB interface** for transferring weighing data to the PC, printer etc., possibly in conjunction with KERN DBS-A02. Can only be used in combination with KERN DBS-A02 accessories
- KERN EWJ-SM: cost-effective variant without data interfaces
- **Draught shield** standard on models KERN EWJ 300-3, EWJ 600-2SM, EWJ 600-2M, 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 175×155×217 mm
- **Protective working cover** included with delivery

Technical data

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

Accessories

- **Protective working cover,** scope of delivery: 5 items, KERN EWJ-A04S05
- **Rechargeable battery pack internal,** operating time up to 15 h without backlight, charging time approx. 4 h, KERN KFB-A01
- KERN EWJ/-H/-M: **USB Accessory Kit** for bi-directional data exchange between balance/moisture analyser and computer. Scope of delivery: USB cable, driver, Software BalanceConnection, KERN DBS-A02
- **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	DAkkS	Calibr. Certificate
KERN							M	DAkkS	
EWJ 300-3	300	0,001	-	-	± 0,005	A	KERN	KERN	
EWJ 300-3H	300	0,001	-	-	± 0,005	A	-	963-127	
EWJ 3000-2	3000	0,01	-	-	± 0,05	B	-	963-127	
Note: For applications that require verification, please order 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.									
EWJ 600-2SM	600	0,01	0,1	0,5	± 0,03	B	965-216	963-127	
EWJ 600-2M	600	0,01	0,1	0,5	± 0,03	B	965-216	963-127	
EWJ 6000-1SM	6000	0,1	1	5	± 0,3	C	965-217	963-128	
EWJ 6000-1M	6000	0,1	1	5	± 0,3	C	965-217	963-128	



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

Features

- Thanks to the **many typical laboratory functions**, such as, for example, recipe function, percentage determination, GLP record keeping, combined with the high level of precision, the KERN 572 · 573 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 capacities also make these balances ideal for all industrial applications, where a high level of precision is required
- **Freely programmable weighing unit**, e.g. display direct in special units such as length of thread g/m, paper weight g/m², or similar

- **The robust aluminium diecast housing** maintains the stability, protects the weighing technology elements and is robust enough to cope with everyday use
- **Ring-shaped draught shield** standard, only for models with weighing plate size **A**, weighing space $\varnothing \times H$ 157×43 mm
- Model with resolution > 240,000 Pt.: **Level indicator and levelling feet for precise levelling of the scale, fitted as standard**
- **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 18 mm
- Dimensions weighing surface, stainless steel
 - A** \varnothing 106 mm
 - B** \varnothing 150 mm
 - C** WxD 160×200 mm, see larger picture
- Overall dimensions WxD×H 180×310×85 mm
- Permissible ambient temperature 10 °C/40 °C

Accessories

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

STANDARD



OPTION



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





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

Features

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

- **Large glass draught shield** with 3 sliding doors for easy access to the items being weighed. Weighing space W×D×H 172×171×160 mm, for models with weighing plate size **A**
- **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** W×D 190×190 mm, see larger picture
- Overall dimensions W×D×H
 - A** 196×293×266 mm
 - B** 196×293×89 mm
- Net weight
 - A** approx. 2,2 kg
 - B** approx. 2,8 kg
- Permissible ambient temperature 5 °C/40 °C

Accessories

- **Protective working cover**, scope of delivery: 5 items, KERN PNJ-A01S05
- **RS-232/Bluetooth adapter** to connect to Bluetooth capable devices, such as Bluetooth printers, tablets, laptops, smartphones, etc., KERN YKI-02
- **RS-232/WiFi adapter** for wireless connection to networks and WiFi capable devices, such as tablets, laptops or smartphones, KERN YKI-03
- **RS-232/Ethernet adapter** for connection to an IP-based Ethernet network, KERN YKI-01
- **1 Precious stones plate**, aluminium with practical spout, W×D×H 83×66×23 mm, KERN AEJ-A05
- 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		DAkKS Calibr. Certificate
							M	KERN	DAkKS KERN
KERN PNS 600-3	620	0,001	-	-	± 0,004	A	-	-	963-127
KERN PNS 3000-2	3200	0,01	-	-	± 0,02	B	-	-	963-127
KERN PNS 12000-1	12000	0,1	-	-	± 0,2	B	-	-	963-128
Note: For applications that require verification, please order verificati on at the same time, initial verification at a later date is not possible. Verification at the factory, we need to know the full address of the location of use.									
PNJ 600-3M	620	0,001	0,01	0,02	± 0,004	A	965-216	-	963-127
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



The classic balance with robust tuning fork measuring system

Features

- **1** KERN EG-N: **Internal adjustment** by rotary knob on the side. Guarantees high degree of accuracy and makes the balance independent of its location
- KERN EW-N: **Adjusting program CAL** for quick setting of the balance accuracy using an external test weight
- **Stable temperature behaviour**
- **Short stabilisation time**
- **Shock proof construction**
- **High corner load performance**
- **GLP/ISO record keeping** of weight values
- **Totalising** of pieces when counting
- **Draught shield** standard for models with weighing plate size **A**, weighing space W×D×H 158×130×78 mm
- **Protective working cover** included with delivery

Technical data

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



Accessories

- **Protective working cover**, scope of delivery: 5 items, for models with weighing plate size
 - A, B** KERN EG-A05S05
 - C** KERN EG-A09S05
- **Rechargeable battery pack internal**, operating time up to 32 h without backlight, charging time approx. 12 h, for models with weighing plate size
 - A, B** KERN EG-A04
 - C** KERN EG-A06
 Note: If the rechargeable battery pack is retrofitted to a verified balance, it must be recalibrated
- **2** **Large glass draught shield** with 3 sliding doors for easy access to the items being weighed. Weighing space W×D×H 150×140×130 mm, for models with weighing plate size **A**, KERN EG-A03
- **Loop for underfloor weighing**, for models with weighing plate size
 - A, B** KERN EG-A07
 - C** KERN EG-A08
- **Precious stones plate**, aluminium with practical spout, W×D×H 83×66×23 mm, KERN AEJ-A05
- 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	Quality code	Option	
								Verification	DAkkS Calibr. Certificate
KERN							QUALITY	M	DAkkS KERN
EW 220-3NM	220	0,001	-	-	± 0,002	A	AB	-	963-127
EW 420-3NM	420	0,001	-	-	± 0,003	A	AB	-	963-127
EW 620-3NM	620	0,001	-	-	± 0,003	A	AB	-	963-127
EW 820-2NM	820	0,01	-	-	± 0,01	B	BB	-	963-127
EW 2200-2NM	2200	0,01	-	-	± 0,01	C	BB	-	963-127
EW 4200-2NM	4200	0,01	-	-	± 0,02	C	BB	-	963-127
EW 6200-2NM	6200	0,01	-	-	± 0,03	C	BB	-	963-128
EW 12000-1NM	12000	0,1	-	-	± 0,2	C	BB	-	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	BB	965-216 U	963-127
EG 420-3NM	420	0,001	0,01	0,02	± 0,003	A	BB	965-216 U	963-127
EG 620-3NM	620	0,001	0,01	0,1	± 0,004	A	BB	965-201 U	963-127
EG 2200-2NM	2200	0,01	0,1	0,5	± 0,01	C	BB	965-216 U	963-127
EG 4200-2NM	4200	0,01	0,1	0,5	± 0,02	C	BB	965-216 U	963-127





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

Features

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

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

Technical data

- Large backlit LCD display, digit height 14 mm
- Dimensions weighing surface, stainless steel
 - A W×D 108×105 mm
 - B W×D 180×190 mm, see larger picture
- Overall dimensions W×D×H 209×322×78 mm (without draught shield)
- Net weight approx. 3,2 kg
- Permissible ambient temperature 10 °C/30 °C

Accessories

- **Protective working cover**, scope of delivery: 5 items, for models with weighing plate size
 - A KERN PBS-A01S05
 - B KERN PBS-A02S05
- **2 Set for density determination** of liquids and solids with density ≥ 1, for models with weighing plate size
 - A KERN PBS-A04
 - B KERN PBS-A03
- **RS-232/Ethernet adapter** for connection to an IP-based Ethernet network, KERN YKI-01
- Further details, plenty of further accessories and suitable printers see *Accessories*

3 Single-cell advanced technology:

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

STANDARD



OPTION



FACTORY



Model	Weighing capacity [Max] g	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Linearity g	Weighing plate	Quality code	Option	
								Verification	DAkkS Calibr. Certificate
KERN							QUALITY		
PBS 620-3M	620	0,001	-	-	± 0,002	A	BC	-	963-127
PBS 4200-2M	4200	0,01	-	-	± 0,02	B	BC	-	963-127
PBS 6200-2M	6200	0,01	-	-	± 0,02	B	BC	-	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.									
PBJ 620-3M	620	0,001	0,01	0,1	± 0,002	A	BC	965-201 (U)	963-127
PBJ 4200-2M	4200	0,01	0,1	0,5	± 0,02	B	CC	965-216 (U)	963-127
PBJ 6200-2M	6200	0,01	0,1	1	± 0,02	B	CC	965-202 (U)	963-128
PBJ 8200-1M	8200	0,1	1	5	± 0,2	B	CC	965-217 (U)	963-128



02

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

Features

- KERN PEJ: **Automatic internal adjustment**, guarantees high degree of accuracy and makes the balance independent of its location of use
- KERN PES: **Adjusting program CAL** for quick setting of the balance accuracy using an external test weight
- **Metal housing**: robust and sturdy
- **Weighing with tolerance range (check-weighing)**: 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 loop on the underside of the balance, standard for models with [d] = 0,001 g, hook not included in scope of delivery

- **Protective working cover** included with delivery
- **A, B: Protective working cover** included with delivery

Technical data

- Fluorescent display, bright with high contrast, digit height 14 mm
- Dimensions weighing surface, stainless steel
 - A** W×D 140×120 mm
 - B** W×D 200×200 mm, see larger picture
 - C** W×D 250×220 mm
- Overall dimensions W×D×H, without draught shield
 - A** 220×330×90 mm
 - B** 220×339×80 mm
 - C** 260×330×113 mm
- Net weight approx. **A** 4,0 kg, **B** 4,4 kg, **C** 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: **Rechargeable battery pack internal**, 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
- Further details, plenty of further accessories and suitable printers see *Accessories*

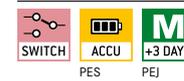
STANDARD



OPTION



FACTORY



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



TIPS FROM THE EXPERTS

As well as our balances and test services, we can offer you an extensive range of microscopes and refractometers.

We will offer you reliable quality at fair prices and with the shortest delivery times. Our product specialists will give you professional advice, will work with you to find the right product and will provide comprehensive support after the purchase too.

This ensures a high level of investment security and a good feeling – KERN, the nice balance manufacturer from the wilds of Southern Germany.



#1 “No compromises with optical device”

KERN offers you a complete, carefully-designed range of biological microscopes, stereo microscopes, metallurgical microscopes, polarisation microscopes, especially flexible, preconfigured stereomicroscope sets, individually configurable stereomicroscope systems as well as microscope cameras and camera software

#2 “High-precision refractive index measurement for laboratories and industry”

Quick and easy determination of measured values, whether on site, in production or in the laboratory, ensuring safety, consistent quality and accelerating processes. This is what KERN's analog and digital refractometers stand for and at an extremely attractive price in consistently high quality.

All microscopes, microscope cameras, refractometers and a variety of practical accessories can be found in the new KERN Catalog of Microscopes & Refractometers 2020.



KERN OBE-12 · 13



Daniel Junger,
Head of Product Management
Optical devices

Analytical balances

Quick-Finder Analytical balances

Readability [d] mg	Weighing capacity [Max] g	Model KERN	Page	 DAYS	 M	 CAL INT	 CAL EXT	 RS 232	 RECIPE
0,01	101	ABT 100-5NM	44	1	○	●		●	●
0,01 0,1	42 120	ABT 120-5DNM	44	1	○	●		●	●
0,01 0,1	52 120	ABP 100-5DM	42	1	○	●		●	●
0,01 0,1	82 220	ALJ 200-5DA	38	1		●		●	●
0,01 0,1	82 220	ABT 220-5DNM	44	1	○	●		●	●
0,01 0,1	102 220	ABP 200-5DM	42	1	○	●		●	●
0,1	82	ABS 80-4N	40	1			●	○	●
0,1	82	ABJ 80-4NM	40	1	○	●		○	●
0,1	82	ACS 80-4	40	1			●	●	●
0,1	82	ACJ 80-4M	40	1	○	●		●	●
0,1	120	ADB 600-C3 	37	1			●	●	
0,1	120	ADB 100-4	37	1			●	●	
0,1	120	ADJ 100-4	37	1		●		●	
0,1	120	ADJ 600-C3 	37	1		●		●	
0,1	120	ABS 120-4N	40	1			●	○	●
0,1	120	ABJ 120-4NM	40	1	○	●		○	●
0,1	120	ABT 120-4NM	44	1	○	●		●	●
0,1	120	ABP 100-4M	42	1	○	●		●	
0,1	120	ACS 100-4	40	1			●	●	●
0,1	120	ACJ 100-4M	40	1	○	●		●	●
0,1	160	ALS 160-4A	38	1			●	●	●
0,1	160	ALJ 160-4A	38	1		●		●	●
0,1	160	ALJ 160-4AM	38	1	○	●		●	●
0,1	210	ADB 200-4	37	1			●	●	
0,1	210	ADJ 200-4	37	1		●		●	
0,1	220	ABS 220-4N	40	1			●	○	●
0,1	220	ABJ 220-4NM	40	1	○	●		○	●
0,1	220	ABT 220-4NM	44	1	○	●		●	●
0,1	220	ABP 200-4M	42	1	○	●		●	
0,1	220	ACS 200-4	40	1			●	●	●
0,1	220	ACJ 200-4M	40	1	○	●		●	●
0,1	250	ALS 250-4A	38	1			●	●	●
0,1	250	ALJ 250-4A	38	1		●		●	●
0,1	250	ALJ 250-4AM	38	1	○	●		●	●
0,1	310	ALJ 310-4A	38	1		●		●	●
0,1	320	ABS 320-4N	40	1			●	○	●
0,1	320	ABJ 320-4NM	40	1	○	●		○	●
0,1	320	ABT 320-4NM	44	1	○	●		●	●
0,1	320	ABP 300-4M	42	1	○	●		●	
0,1	320	ACS 300-4	40	1			●	●	●
0,1	320	ACJ 300-4M	40	1	○	●		●	●
0,1	510	ALJ 500-4A	38	1		●		●	●

 News 2020

 = Carat balances

● = standard

○ = option



- ▷ Internal adjustment control
- ▷ Large glass draught shield with 3 sliding doors
- ▷ Large weighing capacities at a top price
- ▷ Now also available with internal adjustment

HIGHLIGHT



03

The price leader in analytical balances, now also with internal adjustment

Features

- **NEW 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
- **1** ADB/ADJ 600-C3: Compact, space-saving carat balance with a readout of 0.001 ct and a weighing capacity of 600 ct. The high level of accuracy saves hard cash wherever you are weighing valuable precious stones
- Level indicator and foot screws to level the balance precisely, fitted as standard, to give the most accurate weighing results
- **Large glass draught shield** with 3 sliding doors for easy access to the items being weighed.
- **Compact size**, practical for small spaces
- **Simple and convenient 6-key operation**

Technical data

- Large backlit LCD display, digit height 16 mm
- Dimensions weighing surface, stainless steel, \varnothing 90 mm
- Overall dimensions (incl. draught shield) W×D×H
KERN ADB/ADJ: 230×310×330 mm
KERN ADB-C/ADJ-C: 205×310×210 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 Ionizer** to neutralise electrostatic charge, KERN YBI-01A
- **3 Precious stones plate**, aluminium with practical spout, W×D×H 83×66×23 mm, KERN AEJ-A05
- **4 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
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD

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

OPTION

DAkkS +3 DAYS

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

New model



1 KERN ALJ 200-5DA with optional ionisor 2, see Accessories

Analytical balance range with large weighing capacities – now also with EC type approval [M] or available as semi-micro analytical balance

Features

- 1 **ALJ 200-5DA**: 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 DIN EN ISO 8655)
- 2 **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
- KERN ALJ-A/-AM: **Automatic internal adjustment** in the case of a change in temperature $\geq 1,2$ °C or timecontrolled every 3 h, guarantees high degree of accuracy and makes the balance independent of its location of use
- KERN ALS-A: **Adjusting program CAL** for quick setting of the balance accuracy using an external test weight
- **Ergonomically optimised keypad** for left and righthanded users
- **Large glass draught shield** with 3 sliding doors for easy access to the items being weighed.
- **Compact size**, practical for small spaces
- **Protective working cover** included with delivery



Technical data

- Backlit LCD display, digit height 17 mm
- Dimensions weighing surface, stainless steel, \varnothing 80 mm
- Overall dimensions (incl. draught shield) W×D×H 210×340×330 mm
- Weighing space W×D×H 160×140×205 mm
- Net weight 7 kg
- Permissible ambient temperature
KERN ALS-A/ALJ-A/ALJ-DA: 5 °C/35 °C
KERN ALJ-AM: 15 °C/30 °C

Accessories

- **Protective working cover**, scope of delivery: 5 items, KERN ALJ-A01S05
- Protective dust cover, KERN ABS-A08
- **2 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, power supply. Factory Option, KERN ALJ-A03
- **3 Set for density determination** of liquids and solids with density \leq/\geq 1, the density is indicated directly on the display, KERN YDB-03

- **4 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), KERN 961-231B
- Further details, plenty of further accessories and suitable printers see *Accessories*

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		
							MI	KERN	DAkkS	KERN	
KERN											
ALS 160-4A	160	0,1	-	-	0,1	± 0,3	-	-	-	963-101	
ALS 250-4A	250	0,1	-	-	0,1	± 0,3	-	-	-	963-101	
Note: For applications that require verification, please order verification at the same time, initial verification at a later date is not possible. Verification at the factory, we need to know the full address of the location of use.											
ALJ 200-5DA	82 220	0,01 0,1	1	1	0,04 0,1	± 0,1 0,2	-	-	-	963-101	
ALJ 160-4A	160	0,1	-	-	0,1	± 0,3	-	-	-	963-101	
ALJ 160-4AM	160	0,1	1	10	0,2	± 0,3	965-201	-	-	963-101	
ALJ 250-4A	250	0,1	-	-	0,1	± 0,3	-	-	-	963-101	
ALJ 250-4AM	250	0,1	1	10	0,2	± 0,3	965-201	-	-	963-101	
ALJ 310-4A	310	0,1	-	-	0,1	± 0,3	-	-	-	963-101	
ALJ 500-4A	510	0,1	-	-	0,2	± 0,4	-	-	-	963-101	



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

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

Features

- **ABJ-NM: Automatic internal adjustment** in the case of a change in temperature ≥ 2 °C or timecontrolled every 4 h, guarantees high degree of accuracy and makes the balance independent of its location of use
- **ABS-N: Adjusting program CAL** for quick setting of the balance accuracy using an external test weight
- **ACS** identical to ABS-N, **ACJ** identical to KERN ABJ-NM, but with RS-232 and USB data interface integrated as standard
- **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
- ABJ-NM, ACJ have OIML certification
- **Protective working cover** included with delivery



Technical data

- Large LCD display, digit height 14 mm
- Dimensions weighing surface, stainless steel, \varnothing 91 mm
- Overall dimensions (incl. draught shield) WxDxH 210x340x325 mm
- Weighing space WxDxH 174x162x227 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 Ionizer** 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
- Further details, plenty of further accessories and suitable printers see *Accessories*



Single-cell advanced technology:

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

STANDARD

CAL INT
 CAL EXT
 RS 232
 USB
 GLP
 PRINTER
 PCS
 RECIPE
 PERCENT
 UNIT
 TOL
 MULTI
 SC TECH
 1 DAY

OPTION

RS 232
 DAkkS
 +3 DAYS

FACTORY

+3 DAYS

Model	Weighing capacity [Max]	Readability	Verification value	Minimal load	Reproducibility	Linearity	Option			
							Verification		DAkkS Calibr. Certificate	
							MI	KERN	DAkkS	KERN
KERN	g	[d] mg	[e] mg	[Min] mg	mg	mg				
ABS 80-4N	82	0,1	-	-	0,2	$\pm 0,3$				963-101
ABS 120-4N	120	0,1	-	-	0,2	$\pm 0,3$				963-101
ABS 220-4N	220	0,1	-	-	0,2	$\pm 0,3$				963-101
ABS 320-4N	320	0,1	-	-	0,2	$\pm 0,3$				963-101
Note: For applications that require verification, please order verification at the same time, initial verification at a later date is not possible. Verification at the factory, we need to know the full address of the location of use.										
ABJ 80-4NM	82	0,1	1	10	0,2	$\pm 0,3$		965-201		963-101
ABJ 120-4NM	120	0,1	1	10	0,2	$\pm 0,3$		965-201		963-101
ABJ 220-4NM	220	0,1	1	10	0,2	$\pm 0,3$		965-201		963-101
ABJ 320-4NM	320	0,1	1	10	0,2	$\pm 0,3$		965-201		963-101
ACS 80-4	82	0,1	-	-	0,2	$\pm 0,3$				963-101
ACS 100-4	120	0,1	-	-	0,2	$\pm 0,3$				963-101
ACS 200-4	220	0,1	-	-	0,2	$\pm 0,3$				963-101
ACS 300-4	320	0,1	-	-	0,2	$\pm 0,3$				963-101
ACJ 80-4M	82	0,1	1	10	0,2	$\pm 0,3$		965-201		963-101
ACJ 100-4M	120	0,1	1	10	0,2	$\pm 0,3$		965-201		963-101
ACJ 200-4M	220	0,1	1	10	0,2	$\pm 0,3$		965-201		963-101
ACJ 300-4M	320	0,1	1	10	0,2	$\pm 0,3$		965-201		963-101

New model



03



1 KERN ABP 100-5DM with optional ionizer

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

Premium analytical balance with the latest Single-Cell Generation for extremely rapid, stable weighing results



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



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



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

Analytical balance KERN ABP



Features

- This new generation of analytical balances combines the highest level of precision with large weighing capacities. 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. For applications which do not require verification the time interval can be individually adjusted
- 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 for up to 10 users can be saved:** user name/user number (can be printed out or added to the record for each process), password, menu language, user profiles, accessing user settings via barcode, additional guest mode for users who are not logged in, authorizations, eg. B. balance adjustment, changing settings or conditioning or modification of a recipe only by the authorized person & performing the formulation by the user

- U.S. FDA 21 Part 11:** assists you in data integrity in accordance with U.S. Pat. FDA 21 Part 11 (for example (weighing result, sample ID, user name, scales ID, ...))
- Menu language DE, GB
- 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.
- KERN ABP-DM: Multi-function weighing plate** included with delivery, minimises the effect of currents of air in the weighing space and therefore significantly improves the stabilization time and repeatability. In addition samples, sample paper, PCR containers, micro centrifuge tubes and many other items which protrude can be easily fixed in place and weighed easily
- Protective working cover included with delivery**

Technical data

- Luminescent OLED display, digit height 14 mm, bright with high contrast, for easy reading of the weight, even in poor lighting conditions
- Dimensions weighing surface \varnothing 91 mm
- Overall dimensions (incl. draught shield) WxDxH 213x407x344 mm
- Weighing space WxDxH 166x156x220 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

- 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 KERN ABP range, please order at the time you order your balance, the scope of delivery is the rear panel, ionizer, power supply. Factory Option, KERN ABP-A01
- USB barcode scanner**, hand-held version, dimensions WxDxH 152x84x63 mm, KERN PET-A09
- Clavier USB** pour saisie aisée d'articles, dimensions LxPxH 440x128x24 mm, KERN PET-A06
- 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), KERN 961-231B
- 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) 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		DAkkS Calibr. Certificate	
							MT KERN		DAkkS KERN	
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	0,1	$\pm 0,3$	965-201		963-101	
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readability [d]										
ABP 100-5DM	52 120	0,01 0,1	1	1	0,02 0,1	$\pm 0,03 0,3$	965-201		963-101	
ABP 200-5DM	102 220	0,01 0,1	1	1	0,02 0,1	$\pm 0,03 0,3$	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.



The premium model with single-cell weighing system

Features

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

Technical data

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

Accessories

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

- **3 Weighing table** to absorb vibrations and oscillations, which would otherwise distort the weighing result, KERN YPS-03
- **Minimum weight of sample**, smallest weight to be weighed, depending on the required process accuracy, only in combination with a DAkkS calibration certificate, KERN 969-103
- Further details, plenty of further accessories and suitable printers see *Accessories*

4 Single-cell advanced technology:

- **Fully automatic manufactured weighing cell from one piece of material**
- **Stable temperature behaviour**
- **Short stabilisation time:** steady weight values within approx. 4 s 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	DAkkS Calibr. Certificate
KERN							M	DAkkS
ABT 120-4NM	120	0,1	1	10	0,1	$\pm 0,2$	KERN	KERN
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
ABT 100-5NM	101	0,01	1	1	0,05	$\pm 0,15$	965-201	963-101
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readability [d]								
ABT 120-5DNM	42 120	0,01 0,1	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	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.

Moisture analysers

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

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

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

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

- Sample is evenly warmed from above, without risk of burning the sample surface
- Affordable purchase costs ensure rapid amortisation of the device
- Most common temperature ranges from 35 – 200 °C
- High measuring precision, up to 0.01 %
- Sufficient buffer capacity, weighing capacity up to 200 g
- Various drying programs (soft drying, standard drying, drying in levels, rapid drying (Boost))

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

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

Determination of drying parameters

We would be pleased to carry out individual analyses on the sample you submit, which will help you when setting the parameters of your moisture analyser and will lead to results which can be reproduced. KERN 965-243

Temperature calibration by KERN moisture analysers (factory calibration certificate)

In order to guarantee the comparability of the results of moisture analyses it is crucial that the heating chamber and therefore the sample are maintained at the correct temperature. Over time, for example, deposits or dirt can contaminate the heating chamber of the moisture analyser and this can distort the measuring results. It is therefore necessary to carry out regular temperature calibration. KERN 964-305

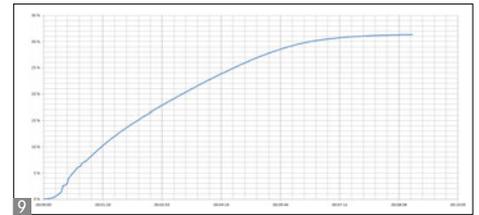
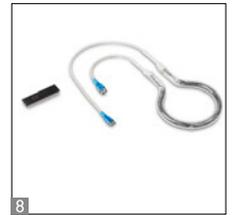
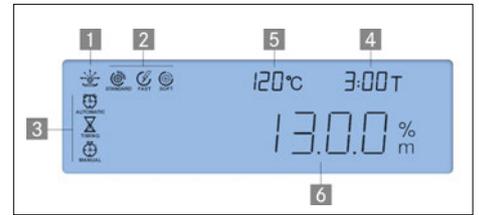
Quick-Finder Moisture analysers								
Readability [d] g	Weighing capacity [Max] g	Model KERN	Page	 DAYS	 CAL EXT	 MEMORY	 RS 232	For an explanation on the pictos, see front flap
0,001	60	DBS 60-3	47	1	●	●	●	●
0,001	110	DAB 100-3	46	1	●	●	●	●
0,001	160	DLB 160-3A	48	1	●	●	●	●
0,01	200	DAB 200-2	46	1	●	●	●	●

● = standard ○ = option

- ▷ **Powerful 400 W halogen quartz glass heater**
- ▷ **High process reliability thanks to 10 storable drying programs and 100 executed drying processes**
- ▷ **Up to 99 samples can be individually labelled and printed out in the measuring protocol**



HIGHLIGHT



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

Features

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

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

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

Accessories

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

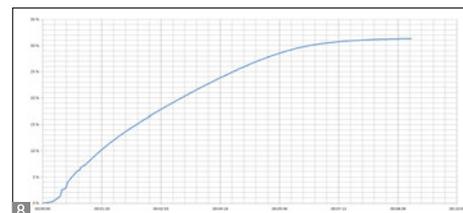
STANDARD

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

OPTION

DAkkS | +3 DAYS

Model KERN	DAB 200-2	DAB 100-3
Readability [d]	0,01 g/0,05 %	0,001 g/0,01 %
Weighing capacity [Max]	200 g	110 g
Reproducibility weight of sample 2 g	1,5 %	0,15 %
Reproducibility, weight of sample 10 g	0,3 %	0,02 %
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	40 °C - 160 °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	4,82 kg	
Option DAkkS Calibr. Certificate	Mass:	KERN 963-127
Option Factory Calibr. Certificate	Temperature:	KERN 964-305



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

Features

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

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

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

STANDARD

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

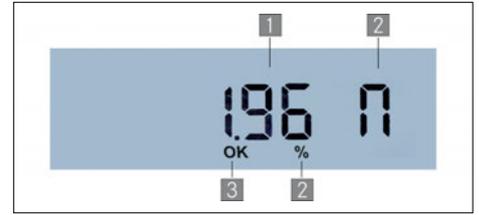
OPTION

DAkKS +3 DAYS

Modell KERN	DBS 60-3
Readability [d]	0,001 g/0,01 %
Weighing capacity [Max]	60 g
Reproducibility weight of sample 2 g	0,15 %
Reproducibility, weight of sample 10 g	0,02 %
Display after drying	
Moisture [%] = Moisture content (M) from wet weight (W)	0-100 %
Dry content [%] = Dry weight (D) from W	100-0 %
ATRO [%] [(W-D) : D] · 100%	0-999 %
Moisture content (M)	Absolute value in [g]
Temperature range	50 °C-200 °C in steps up to 1 °C
Drying modes	<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

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** high mechanical stability, with organic binder, box of 100 pieces, KERN RH-A02
- **Temperature calibration set** consists of measuring sensor and display device, KERN DBS-A01.
- **USB interface kit** for bi-directional data exchange between balance/moisture analyser and computer. Scope of delivery: USB cable, driver, Software Balance Connection, KERN DBS-A02
- **Display of the drying process** in conjunction with BalanceConnection, KERN SCD-4.0
- **Thermal printer**, KERN YKB-01N
- **Matrix needle printer**, to print the weights on normal paper, ideal for long-term archiving, KERN 911-013
- **Label printer**, KERN YKE-01



04

The moisture analyser for heavy samples

Features

- Backlit LCD display, digit height 17 mm
 - 1 Current moisture content in %
 - 2 Unit for displaying the results
 - 3 Drying process active
- **Halogen quartz glass heater** 400 W
- **Internal memory** for automatic sequence of 5 complete drying processes

- The last value measured remains on the display until it is replaced by a new measurement
- **10 sample plates included**
- **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

Accessories

- **Protective working cover**, scope of delivery: 5 items, KERN ALJ-A01S05
- **Sample plates aluminium**, \varnothing 90 mm. unit of 80 pieces, KERN MLB-A01A
- **4 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
- **4 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

STANDARD



OPTION



Modell KERN	DLB 160-3A
Readability [d]	0,001 g/0,01 %
Weighing capacity [Max]	160 g
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 checked="" type="checkbox"/> Standard drying <input 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 0,1%-9,9% in 60 s) • Time controlled switch-off (1 min - 99 min) • Manual switch-off at the press of a button
Log output	<ul style="list-style-type: none"> • Continuous output (residual weight) • At the end of the drying process, manual or automatic (Only in connection with printer or PC)
Overall dimensions WxDxH	210x340x225 mm
Net weight	approx. 4,2 kg
Option DAkkS Calibr. Certificate	Mass: KERN 963-127
Option Factory Calibr. Certificate	Temperature: KERN 964-305



Bench scales

Compact industrial weighing technology

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

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

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

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

All KERN bench scales have an adjustment program (CAL) to adjust the accuracy. In this way, the high level of accuracy is guaranteed at all times, even during harsh everyday use. Find the right test weights for you, see page 184.

Touchscreen balances

The newest development for an even greater level of user-friendliness is the intuitive touchscreen operation, which is being integrated into new KERN models, see page 58/59 (FKT), 108/109 (IKT).

NOTE: a high-quality touchscreen bench scale range (KERN GAT, page 60/61) and touchscreen platform scale range (KERN IFT, page 110/111). Thanks to the intuitive touchscreen concept and multi-lingual operation (DE, GB, IT, ES, PT, NL, FI, PL, RUS, SE, CZ) the balances can be used easily by inexperienced users, straightaway. For the professional user, the balances also provide convenient functions which permit a high level of individualisation and which thereby make operation significantly easier and quicker. Through a large memory, e.g. for item master data, weighing data etc. the balances are the ideal solution when working with a large range of goods or where there are high requirements for record keeping and documentation. Thanks to the high level of connectivity it is easy to connect barcode readers for item recognition, USB sticks for data storage or data transfer to PCs and networks using RS 232 or USB and this means that this range can be used for many different functions in Industry 4.0 applications.

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

- ▷ **Simple and convenient 5-key operation**
- ▷ **Very fast display**
- ▷ **High mobility**



HIGHLIGHT

Quick-Finder Bench scales

Readability [d] g	Weighing capacity [Max] kg	Weighing plate W×D mm	Model KERN	Page												
					For an explanation on the pictos, see front flap											
0,02	6	340×240	FKB 6K0.02	57	1		●			●	●			●	●	
0,02	6	340×240	FKT 6K0.02L	59	1		●	●	●	●	●			●	●	○
0,05	6	294×225	GAB 6K0.05N	56	1		●		●	●	●	●				○
0,05	8	340×240	FKB 8K0.05	57	1		●			●	●			●	●	○
0,05	16	340×240	FKB 16K0.05	57	1		●		●	●	●			●	●	○
0,05	16	340×240	FKT 16K0.05L	59	1		●	●	●	●	●			●	●	○
0,1	3	253×227	FCF 3K-4	53	1		●				●			●	●	○
0,1	3	253×227	FCB 3K0.1	54	1		●		●	●	●			●	●	○
0,1	8	253×227	FCB 8K0.1	54	1		●		●	●	●			●	●	○
0,1	8	340×240	FKB 8K0.1A	55	1		●		●	●	●			●	●	○
0,1	12	294×225	GAB 12K0.1N	56	1		●		●	●	●	●				○
0,1	16	340×240	FKB 16K0.1	57	1		●		●	●	●			●	●	○
0,1	36	340×240	FKB 36K0.1	57	1		●		●	●	●			●	●	○
0,1	36	340×240	FKT 36K0.1L	59	1		●	●	●	●	●			●	●	○
0,2	6	300×225	GAT 6K-4	60	1		●	●	●	●	●	●				○
0,2	30	294×225	GAB 30K0.2N	56	1		●		●	●	●	●				○
0,2	36	340×240	FKB 36K0.2	57	1		●		●	●	●			●	●	○
0,2	65	340×240	FKB 65K0.2	57	1		●		●	●	●			●	●	○
0,2	65	340×240	FKT 65K0.2L	59	1		●	●	●	●	●			●	●	○
0,5	6	253×227	FCB 6K0.5	54	1		●		●	●	●			●	●	○
0,5	15	340×240	FKB 15K0.5A	55	1		●		●	●	●			●	●	○
0,5	15	300×225	GAT 10K-4	60	1		●	●	●	●	●	●				○
0,5	30	340×240	FKT 30K0.5L	59	1		●	●	●	●	●	●			●	○
0,5	65	340×240	FKB 65K0.5	57	1		●		●	●	●			●	●	○
1	3	252×228	FCE 3K1N	52	1		●								●	○
1	6	340×240	FKT 6K1LM	59	1	○	●	●	●	●	●			●	●	○
1	12	253×227	FCB 12K1	54	1		●		●	●	●			●	●	○
1	15	340×240	FKB 15K1A	55	1		●		●	●	●			●	●	○
1	30	253×227	FCF 30K-3	53	1		●				●			●	●	○
1	30	253×227	FCB 30K1	54	1		●		●	●	●			●	●	○
1	30	340×240	FKB 30K1A	55	1		●		●	●	●			●	●	○
1	30	300×225	GAT 30K-3	60	1		●	●	●	●	●	●				○
1	60	340×240	FKT 60K1L	59	1		●	●	●	●	●	●			●	○
1	65	340×240	FKB 65K1A	55	1		●		●	●	●			●	●	○
1 2	3 6	295×225	GAB 6K1DNM	56	1	○	●		●	●	●					○
2	6	252×228	FCE 6K2N	52	1		●								●	○
2	12	340×240	FKT 12K2LM	59	1	○	●	●	●	●	●			●	●	○
2	24	253×227	FCB 24K2	54	1		●		●	●	●			●	●	○
2 5	6 15	300×230	GAB 15K2DNM	56	1	○	●		●	●	●					○
5	10	320×260	ECE 10K-3N	51	1		●								●	○
5	10	320×260	ECB 10K-3N	51	1		●								●	○
5	15	252×228	FCE 15K5N	52	1		●								●	○
5	30	340×240	FKT 30K5LM	59	1	○	●	●	●	●	●			●	●	○
5 10	15 30	294×225	GAB 30K5DNM	56	1	○	●		●	●	●					○
10	20	320×260	ECE 20K-2N	51	1		●								●	○
10	20	320×260	ECB 20K-2N	51	1		●								●	○
10	30	252×228	FCE 30K10N	52	1		●								●	○
10	60	340×240	FKT 60K10LM	59	1	○	●	●	●	●	●			●	●	○
20	50	320×260	ECE 50K-2N	51	1		●								●	○
20	50	320×260	ECB 50K-2N	51	1		●								●	○

● = standard ○ = option



Plain, mobile, uncomplicated

Features

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

Technical data

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

Accessories

- **Rechargeable battery pack internal,** 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 of stainless steel,** ideal for weighing loose small parts, fruit, vegetables etc., W×D×H 370×240×20 mm, KERN RFS-A02
- **External universal mains adapter,** with universal input and optional input socket adapters for EU, GB, USA, KERN YKA-03N
- Further details, plenty of further accessories and suitable printers see *Accessories*

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

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





05

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

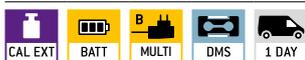
Technical data

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

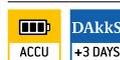
Accessories

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

STANDARD



OPTION



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



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

Features

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

Technical data

- Large backlit LCD display, digit height 25 mm
- Dimensions weighing surface, stainless steel, 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
- **Rechargeable battery pack internal**, operating time up to 120 h without backlight, charging time approx. 16 h, KERN GAB-A04

STANDARD



OPTION



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



05

Bench scale with second display on the backside of the scale

Features

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

Technical data

- Backlit LCD display, digit height 25 mm
- Dimensions weighing surface, stainless steel, WxD 253x227 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 FCB-A02S05
- **Rechargeable battery pack internal**, operating time up to 12 h without backlight, charging time approx. 10 h, KERN FCB-A01
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD

OPTION

CAL EXT
 RS 232
 PCS
 RECIPE
 PERCENT
 UNIT
 MOVE
 BATT
 MULTI
 DMS
 1 DAY
 ACCU
 DAKkS +3 DAYS

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



Bench scale up to 65 kg with large weighing plate

Features

- **PRE-TARE function** for manual subtraction of a known container weight, useful for checking fill-levels
- **Particularly practical:** thanks to the large weighing capacities 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.
- Large, robust weighing plate made of stainless steel, removable for easy cleaning
- **Freely programmable weighing unit**, e.g. display direct in special units such as length of wire g/m, surface weight g/m², or else
- **Protective working cover** included with delivery

Technical data

- Large backlit LCD display, digit height 25 mm
- Dimensions weighing surface, stainless steel, W×D 340×240 mm
- Overall dimensions W×D×H 350×390×120 mm
- Optional battery operation, 9 V-Block not included in scope of delivery, operating time up to 12 h
- Net weight approx. 6 kg
- Permissible ambient temperature 5 °C/35 °C

Accessories

- **Protective working cover**, scope of delivery: 5 items, KERN FKB-A02S05
- **Rechargeable battery pack internal**, operating time up to 10 h without backlight, charging time approx. 10 h, KERN PCB-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	
FKB 8K0.1A	8	0,1	0,1	± 0,3	2	963-128	
FKB 15K0.5A	15	0,5	0,5	± 1,5	10	963-128	
FKB 15K1A	15	1	1	± 3	20	963-128	
FKB 30K1A	30	1	1	± 3	20	963-128	
FKB 65K1A	65	1	1	± 3	20	963-129	



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 320x345x125 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
- **Rechargeable battery pack internal**, operating time up to 90 h without backlight, charging time approx. 12 h, KERN GAB-A04

- **WiFi interface** for wireless connection of the balance to networks and WiFi capable devices, such as tablets, laptops or smartphones, must be ordered at purchase, please ask for delivery time, KERN CFS-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
- **Tare pan made of stainless steel**, ideal for weighing loose small parts, fruit, vegetables etc., WxDxH 370x240x20 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 duty for commercial trade

STANDARD



OPTION



FACTORY



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	-
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readability [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	

* Verification not in combination with KERN CFS-A05



Large, high resolution bench scale

Features

- Thanks to the high resolution of up to 360.000 points it is ideal for high-precision weighing in the industrial field
- **Housing with robust aluminium diecast housing trough**, maintains the stability, protects the weighing technology elements and is robust enough to cope with everyday use
- **Particularly practical:** thanks to the large weighing capacities and compact dimensions, you can accurately weigh heavy loads in the most restricted of spaces. Useful for determining very small weight differences, such as, for example, gas wastage, abrasion of mechanical parts, rock samples, minerals, druses, silver etc.
- **PRE-TARE function** for manual subtraction of a known container weight, useful for checking fill-levels
- **Freely programmable weighing unit**, e.g. display direct in special units such as length of wire g/m, surface weight g/m², or else

- **Model with resolution > 240.000 Pkt.:** Level indicator and levelling feet for precise levelling of the scale, fitted as standard
- **Protective working cover** included with delivery

Technical data

- Backlit LCD display, digit height 18 mm
- Dimensions weighing surface, stainless steel, W×D 340×240 mm
- Dimensions housing W×D×H, 350×390×120 mm
- Optional battery operation, 6×1.5 V Size C not included in scope of delivery, operating time up to 40 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
- **Rechargeable battery pack external**, operating time up to 30 h without backlight, charging time approx. 10 h, KERN KS-A01
- **Tare pan made of stainless steel**, ideal for weighing loose small parts, fruit, vegetables etc., W×D×H 370×240×20 mm, KERN RFS-A02
- 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 KERN	DAkKS Calibr. Certificate
FKB 6K0.02	6	0,02	0,04	± 0,1	0,2	963-128	
FKB 8K0.05	8	0,05	0,05	± 0,15	0,5	963-128	
FKB 16K0.05	16	0,05	0,1	± 0,25	0,5	963-128	
FKB 16K0.1	16	0,1	0,1	± 0,3	1	963-128	
FKB 36K0.1	36	0,1	0,2	± 0,5	1	963-128	
FKB 36K0.2	36	0,2	0,2	± 0,6	2	963-128	
FKB 65K0.2	65	0,2	0,4	± 1	2	963-129	
FKB 65K0.5	65	0,5	0,5	± 1,5	5	963-129	

Alibi memory

- Ring memory for up to 49,152 measuring results (744 measuring results per day!)
- Saved measuring results cannot be changed or cleared. If the maximum memory capacity is reached, then the oldest value will be overwritten
- In addition to the measuring result, the date, time, tare value, a sequential number and the serial number of the balance are also saved
- Saved measuring results can be searched and recalled easily
- The alibi memory can also be used for applications which do not require verification
- Complies with WELMEC 2.5



Touchscreen industrial scale with enormous range of functions, also with EC type approval [M]



Easy input of text and values
Using large keypad, e.g. up to 80 item descriptions, user name, packaging weights for tare containers etc.



80 memories for each mode
e.g. for Checkweighing, PRE-TARE, reference weight, target value when dispensing, item descriptions, user name, weights for tare containers, etc. Easy to enter using the large-scale keypad



Weighing with tolerance range (checkweighing)
Input of an upper/lower limit value. A visual and audible signal assists with portioning, dispensing or grading

Features

- **Convenient recipe weighing:** 99 In recipes with 10 components each can be stored in plain text. There is a function to adjust the other components if the initial weight was too high. The actual values and the desired values well as the proportionate percentages can be printed afterwards.
- **Multiplier function:** recipes with the ingredient weights recorded as percentage values can easily be replicated by entering a new target weight. The ideal solution for the preparation of larger containers, bulk packs etc.
- **Rapid function** for shortened stabilisation time with reduced readability
- **16 print forms** which can store up to 20 different information, such as, e.g., date, time, operator, item, net, tare, gross, PCS, target weight, PRE-TARE etc. The print forms can be generated easily in an Excel list at the PC and transferred to the balance using the RS-232 interface
- **Control outputs (optocoupler, digital I/O)** to connect relays, signal lamps, valves etc. (35 V/80 mA)
- **Protective working cover and hook for underfloor weighing** standard

Technical data

- Large backlit LCD touch display, digit height 18 mm, screen diagonal 5,8" (127×74 mm)
- Dimensions weighing surface, stainless steel, W×D 340×240 mm
- Overall dimensions W×D×H 350×390×120 mm
- Optional battery operation, 6×1.5 V Size C not included in scope of delivery, operating time up to 20 h
- Permissible ambient temperature 10 °C/40 °C

Accessories

- **Protective working cover**, scope of delivery: 5 items, KERN FKB-A02S05
- **Rechargeable battery pack external**, operating time up to 20 h without backlight, charging time approx. 10 h, KERN KS-A01
- **RS-232/Ethernet adapter** for connection to an IP-based Ethernet network, KERN YKI-01
- **RS-232/USB adapter**, to connect peripheral devices with USB connection, KERN AFH 12
- **Signal lamp** for visual support of weighing with tolerance range, KERN IKT-A04
- Further details, plenty of further accessories and suitable printers see *Accessories*

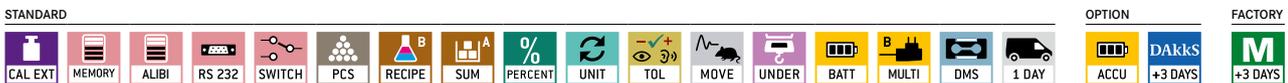
Modes

- ① Weighing
- ② Counting
- ③ Dispensing
- ④ Recipe weighing
- ⑤ Checkweighing
- ⑥ Totalising with daily total
- ⑦ Percentage determination
- ⑧ Animal weighing
- ⑨ Surface weight
- ⑩ Rapid function, not for [M]

Functions

- Capacity display with ①-②, ⑤-⑦, ⑨-⑩
- Dispensing aid (-/+), with ③, ④
- Net/gross display, permanent, with ①, ③-⑤, ⑧-⑩
- Variable reference quantity, with ②
- Automatic reference optimisation, with ②
- PRE-TARE numerical or from the memory unit, with ①-⑦, ⑩
- Entering of item or batch description, operator etc., with ①-⑦, ⑩
- Freely programmable weighing unit, e.g. display direct in special units such as length of thread g/m, grammage g/m², or similar, with ⑨
- Date/time, with ①-⑩
- Statistical function, with ①
- GLP printout, with ①-⑩
- Individual formatting of up to 16 printer forms, recipes, operating mode master data in MS Excel, import via RS-232, for examples, see the internet, with ①-⑩

05



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
							M KERN	DAkKS KERN	
FKT 30K0.5L	30	0,5	-	-	5	↓	-	963-128	
FKT 60K 1L	60	1	-	-	10	↓	-	963-129	
High resolution readability									
FKT 6K0.02L	6	0,02	-	-	0,2	↓	-	963-128	
FKT 16K0.05L	16	0,05	-	-	0,5	↓	-	963-128	
FKT 36K0.1L	36	0,1	-	-	1	↓	-	963-128	
FKT 65K0.2L	65	0,2	-	-	2	↓	-	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.									
FKT 6K1LM	6	1	1	20	10	↓	965-228	963-128	
FKT 12K2LM	12	2	2	40	20	↓	965-228	963-128	
FKT 30K5LM	30	5	5	100	50	↓	965-228	963-128	
FKT 60K10LM	60	10	10	200	100	↓	965-229	963-129	

ONLY WHILE STOCKS LAST!

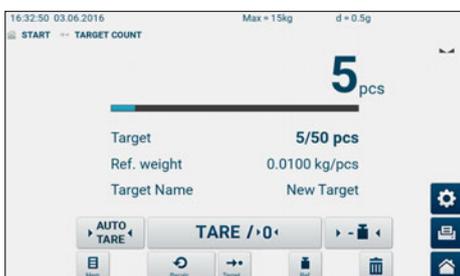
Order Hotline: Go to back page of catalogue



05



KERN **easytouch** bench scale – the intuitive way to weigh



Convenient piece-counting function
Komfortable Stückzahl-Funktion

Standard use: Direct input of the reference quantity or the reference weight
Professional use: Recall of items to be counted from the database with all relevant additional data such as piece weight, name, reference quantity, tare container weight, tolerances. Which means a super-fast sequence when counting: select item – load – count – done!



Fill-to-target function

Programmable target quantity or target weight. A signal will be displayed when the target value is reached



Convenient weighing with tolerance range (Checkweighing)

Standard use: Direct input of the tolerances in grams or percent
Professional use: Recall of items from the database with all relevant additional data such as piece weight, name, reference quantity, tare container weight, tolerances. That leads to a super-fast sequence when portioning, dosing or sorting: Select item – load – check – done!



Features

- High-quality, rapid processors allow efficient, delay-free operation
- Thanks to the **intuitive touchscreen concept** and multi-lingual operation (DE, GB, FR, IT, ES, PT, NL, FI, PL, RUS, SE, CZ) the balance can be used easily by inexperienced users, straightaway. For the professional user, the balance provides convenient functions which permit a high level of individualisation and which thereby make operation significantly easier and quicker.
- Through a **large memory (256 MB)**, e.g. for item master data, weighing data etc. the balance is the ideal solution when working with a large range of goods or where there are high requirements for record keeping and documentation
- **1** Thanks to the high level of **connectivity** it is easy to connect USB sticks for data storage or data transfer to PCs, scales and networks using RS-232 or USB. This means that this range can be used for many different functions in Industry 4.0 applications
- **Convenient recipe weighing**
 Standard use: Direct input of the recipe ingredients in grams or percent
 Professional use: Recall of items from the database with all relevant additional data such as target value, tolerances, name, tare container weight. That leads to a super-fast sequence when recipe-weighing: select recipe – weigh – done!
 A graphic signal helps when dosing individual recipe ingredients. An information column on the lefthand edge of the screen allows you to see at a glance which ingredients have already been weighed (proportionately).

Recipes can be easily transferred via USB stick between the KERN touchscreen scales GAT or IFT

- **Take-Out function:** allows you to remove the same quantity every time, e.g. when portioning in cafeterias or when picking small parts. A colour bar graph shows whether the quantity removed is below the limit or within the specified tolerances (blue) or is above the limit (red)
- **Classifying:** Similar objects are automatically classified according to their weight into predetermined classes.
- **AUTO-PRINT function:** Automatic printing of the weighing when the weighing value remains unchanged. The print function as well as the content of the print-out can be adjusted individually depending on the operating mode
- **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
- **2** The battery compartment of the device can be opened easily, which means it is possible to change the batteries without having to use any tools or break any verification seal labels etc.

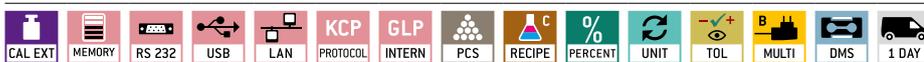
Technical data

- Large backlit LCD touch display, digit height 12 mm, screen diagonal 7" (155×85 mm)
- Dimensions weighing surface, stainless steel, W×D 300×225 mm
- Overall dimensions W×D×H 315×350×120 mm

Accessories

- **Rechargeable battery pack internal**, operating time up to 40 h with backlight, charging time approx. 12 h, KERN GAB-A04
- 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
GAT 6K-4	6	0,2	0,4	± 0,6	2	963-128	
GAT 10K-4	15	0,5	0,5	± 1,5	5	963-128	
GAT 30K-3	30	1	2	± 3	10	963-128	

1 ONLY WHILE STOCKS LAST!

Stainless steel/Protection against dust and water splashes IP65...68

KERN scales – not scared of water at all!

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

For use in such harsh environmental conditions, levels of protection are defined, which specify which environmental stresses a system can be exposed to with respect to the level of contact, foreign object and moisture protection, without damage being caused to the unit. These levels of protection are described in the following standard: “DIN EN 60529: protection types through housing” The IP code usually consists of a two-digit combination, which gives the relevant level of protection, e.g. IP68.

The first digit specifies the protection level for contact protection and protection against foreign bodies (dust protection), the second digit is for the water and moisture protection (protection against splashes of water).

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

► See the glossary on page 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))



- ▷ Now with innovative checkweighing display
- ▷ With EC-Type Approval [M]
- ▷ Large stainless steel-weighing plate
- ▷ High mobility: thanks to compact, flat construction and low weight, it is suitable for use in several locations (kitchen, cafeteria, warehouse etc.)

HIGHLIGHT



06

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

Features

- **Stainless steel design** of the housing and weighing plate. Its smooth surfaces make it simple to clean
- **High mobility:** thanks to battery operation, compact, lightweight construction, it is suitable for the use in several locations (kitchen, sales office, cafeteria, Food industry-Laboratory etc.)
- **Secure and non-slip positioning** with rubber feet
- Your support in a **HACCP-compliant** quality system
- **Particularly flat design**
- **Protective working cover** included with delivery

Technical data

- Large LCD display, digit height 20 mm
- Dimensions weighing surface, stainless steel, WxD 125x155 mm
- Overall dimensions WxDxH 175x155x40 mm
- Ready for use: Battery included, 9 V-Block, operating time up to 20 h
- Net weight approx. 0,7 kg
- Permissible ambient temperature 10 °C/40 °C

Accessories

- **Protective working cover**, scope of delivery: 5 items, KERN FOB-A11S05
- **Mains adapter external**, KERN FOB-A09

STANDARD

CAL EXT UNIT INOX BATT DMS 1 DAY

OPTION

230 V DAKKS +3 DAYS

Model	Weighing capacity [Max] kg	Readability [d] g	Weighing plate WxD mm	Options	
				DAkkS Calibr. Certificate	DAkkS KERN
KERN					
FOB 500-1S	0,5	0,1	155x125	963-127	
FOB 5K1S	5	1	155x125	963-127	



Super compact stainless steel balance with protection type IP65 against dust and water splashes

Features

- **Stainless steel design** of the housing and weighing plate. Its smooth surfaces make it simple to clean
- **High mobility:** thanks to battery operation, compact, lightweight construction, it is suitable for the use in several locations (kitchen, sales office, cafeteria, Food industry-Laboratory etc.)
- **Secure and non-slip positioning** with rubber feet
- **Particularly flat design**
- Your support in a **HACCP**-compliant quality system
- **Protection against dust and water splashes IP65** (only when using battery)
- **Protective working cover** included with delivery

Technical data

- Large LCD display, digit height 20 mm
- Dimensions weighing surface, stainless steel, W×D 150×120 mm
- Overall dimensions W×D×H 170×150×40 mm
- Ready for use: Batteries included, 9 V-Block, operating time up to 24 hours
- Net weight approx. 0,8 kg
- Permissible ambient temperature 10 °C/35 °C

Accessories

- **Protective working cover**, scope of delivery: 5 items, KERN FOB-A12S05
- **Mains adapter external**, KERN FOB-A09

STANDARD



OPTION



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



06

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

Features

- **1 Innovative weighing with tolerance range (Checkweighing):** The colour of the display changes depending on the weight (too light/ok/too heavy) and is an aid to help with portioning, dosing and grading
- **Stainless steel design** of the housing and weighing plate. Its smooth surfaces make it simple to clean
- **High mobility:** thanks to battery operation, compact, lightweight construction, it is suitable for the use in several locations (kitchen, sales office, cafeteria, Food industry-Laboratory etc.)
- Your support in a **HACCP**-compliant quality system
- **Secure and non-slip positioning** with rubber feet
- **Increased protection against humidity** through waterproof silicone sealing of the load cell, electronics and soldering joints
- **Check the weighing capacity which is in use** at the press of a button (net/gross weight)
- **Protective working cover** included with delivery

Technical data

- Large backlit LCD display, digit height 20 mm
- Overall dimensions W×D×H 240×180×60 mm
- Net weight approx. 2,0 kg
- Permissible ambient temperature 5 °C/35 °C

Accessories

- **2 Protective working cover**, scope of delivery: 5 items, KERN FOB-A05S05
- **Rechargeable battery pack internal**, operating time up to 24 h without backlight, charging time approx. 8 h, KERN FOB-A07
- **3 Tare pan made of stainless steel**, ideal for weighing loose small parts, fruit, vegetables etc., W×D×H 370×240×20 mm, KERN RFS-A02

STANDARD OPTION

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

Model	Weighing capacity [Max] kg	Readability [d] g	Weighing plate mm	Option	
				DAkkS KERN	DAkkS Calibr. Certificate
KERN					
FOB 1.5K0.5	1,5	0,5	175×165	963-127	
FOB 3K1	3	1	175×165	963-127	
FOB 6K2	6	2	175×165	963-128	



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

Features

- **Stainless steel design** of the housing and weighing plate. Its smooth surfaces make it simple to clean
- **1 Suitable for the ever-increasing hygienic requirements** in the food industry
- Your support in a **HACCP-compliant** quality system
- **Protection against dust and water splashes IP67** (only when using battery)
- **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.)
- **Protective working cover** included with delivery

Technical data

- Large backlit LCD display, digit height 25 mm, stainless steel
- Overall dimensions W×D×H 285×255×90 mm
- **Ready for use:** Batteries included, 4×1.5 V AA, operating time up to 48 h
- Net weight approx. 3,8 kg
- Permissible ambient temperature 5 °C/35 °C

Accessories

- **2 Mains adapter external**, not included, not suitable for model FOB 3K-4NL, KERN FOB-A01
- **Protective working cover**, scope of delivery: 5 items, KERN FOB-A13S05
- **3 Tare pan made of stainless steel**, ideal for weighing loose small parts, fruit, vegetables etc., W×D×H 370×240×20 mm, KERN RFS-A02

STANDARD

CAL EXT UNIT IP 67 INOX BATT DMS 1 DAY

OPTION

230 V DAKKS +3 DAYS

Model	Weighing capacity [Max] kg	Readability [d] g	Weighing plate W×D mm	Option	
				DAkKS Calibr. Certificate	DAkKS KERN
FOB 3K-4NL	3	0,2	252×200	963-127	
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readability [d]					
FOB 7K-4NL	5 7,5	0,5 1	252×200	963-128	
FOB 10K-3NL	8 15	1 2	252×200	963-128	
FOB 30K-3NL	16 30	2 5	252×200	963-128	

NEW New model



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

Features

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

- **Increased protection against humidity** through waterproof silicone sealing of the load cell, electronics and soldering joints
- **Check the weighing capacity which is in use** at the press of a button (net/gross weight)
- **Mains adapter** included with delivery
- **Protective working cover** included with delivery

Technical data

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

Accessories

- **3 Protective working cover**, scope of delivery: 5 items, KERN FOB-A13S05
- **Mains adapter external**, KERN FOB-A01
- **4 Tare pan made of stainless steel**, ideal for weighing loose small parts, fruit, vegetables etc., W×D×H 370×240×20 mm, KERN RFS-A02

STANDARD

CAL EXT TOL IP 67 INOX 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		DAkkS Calibr. Certificate
						M	KERN	DAkkS KERN
FOB 1K-4LM	1,5	0,5	0,5	10	248×198	965-227		963-127
FOB 3K-3LM	3	1	1	20	248×198	965-227		963-127
FOB 6K-3LM	6	2	2	40	248×198	965-228		963-128
FOB 10K-3LM	15	5	5	100	248×198	965-228		963-128

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



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

Features

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

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

Technical data

- Large backlit LCD display, digit height 25 mm
- Weighing plate dimensions, stainless steel, WxD 260x200 mm
- Overall dimensions WxDxH 285x315x128 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
- **Rechargeable battery pack internal**, operating time up to 50 h without backlight, charging time approx. 12 h, KERN WTB-A01N
- **4 Tare pan made of stainless steel**, ideal for weighing loose small parts, fruit, vegetables etc., WxDxH 370x240x20 mm, KERN RFS-A02

STANDARD OPTION FACTORY

CAL EXT TOL IP 65 MULTI DMS 1 DAY ACCU DAKKS +3 DAYS M +3 DAYS WTB-NM

Model	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Option		
					Verification		DAkkS Calibr. Certificate
					M	KERN	DAkkS KERN
WTB 1K-4N	1,5	0,2	-	-	-	963-127	
WTB 3K-4N	3	0,5	-	-	-	963-127	
WTB 6K-3N	6	1	-	-	-	963-128	
WTB 10K-3N	15	2	-	-	-	963-128	
WTB 30K-3N	30	5	-	-	-	963-128	
Note: For applications that require verification, please order verification at the same time, initial verification at a later date is not possible. Verification at the factory, we need to know the full address of the location of use.							
WTB 1K-4NM	1,5	0,5	0,5	10	↓	965-227	963-127
WTB 3K-3NM	3	1	1	20	↓	965-227	963-127
WTB 6K-3NM	6	2	2	40	↓	965-228	963-128
WTB 10K-3NM	15	5	5	100	↓	965-228	963-128
WTB 30K-2NM	30	10	10	200	↓	965-228	963-128



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

Features

- **1 Ideal for the increased 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 battery operation, compact, lightweight construction, it is suitable for the use in several locations (kitchen, sales office, cafeteria, Food industry-Laboratory etc.)
- **Stainless steel design** of the housing and weighing plate. Its smooth surfaces make it simple to clean

- **Recessed grips on the underside** of the scale for easy transportation

Technical data

- Large backlit LCD display, digit height 25 mm
- Dimensions weighing surface, stainless steel, WxD 230x190 mm
- Overall dimensions WxDxH 230x300x130 mm
- Rechargeable battery pack internal, operating time up to 50 h without backlight, charging time approx. 12 h
- Net weight approx. 4,0 kg
- Permissible ambient temperature
KERN FFN-N: 0 °C/40 °C
KERN FFN-NM: -10 °C/40 °C

Accessories

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

STANDARD

CAL EXT UNIT IP 65 INOX ACCU MULTI 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	Option			
					Verification		DAKKS Calibr. Certificate	
					M 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	



Robust, space-saving bench scale, protected by stainless steel and IP68 rating – with EC type approval [M]

Features

- **Suitable for the ever-increasing hygienic requirements** in the food industry
- Your support in a **HACCP-compliant** quality system
- **Ideal for the robust industrial applications protection against dust and water splashes IP68**, ideal for harsh ambient conditions. Submersion in water actually possible
- **Stainless steel design** of the housing and weighing plate. Its smooth surfaces make it simple to clean
- **Very fast display:** steady weight values within 2 s
- **High mobility:** thanks to battery operation, compact, lightweight construction, it is suitable for the use in several locations (kitchen, sales office, cafeteria, Food industry-Laboratory 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 (FXN-M: green), digit height 25 mm
- Dimensions weighing surface, stainless steel, WxD 236x195 mm
- Overall dimensions WxDxH 240x280x120 mm
- Ready for use: Batteries included, 4x1.5 V Size D, operating time without backlight FXN-N up to 250 h, FXN-M up to 625 h, AUTO-OFF function to preserve the battery
- Net weight approx. 3,2 kg
- Permissible ambient temperature -10 °C/40 °C

Accessories

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

Note: Official verification duty for commercial trade

STANDARD

CAL EXT PCS UNIT TOL IP 68 INOX BATT 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	Smallest part weight [Normal] g/piece	Option		
						Verification	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



06

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

Features

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

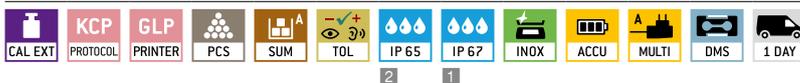
Technical data

- Large backlit LCD display, digit height 52 mm
- Dimensions of display device W×D×H 266×165×96 mm
- Cable length of display device approx. 3 m
- Rechargeable battery pack internal, operating time up to 35 h without backlight, charging time approx. 12 h
- Permissible ambient temperature -10 °C/40 °C

Accessories

- **Data interface RS-232,** interface cable included, approx. 1,5 m, must be ordered at purchase, KERN KFN-A01
- **Stand** to be screwed onto the platform, height of stand approx. 600 mm, KERN SFB-A01
- **4 Stand** to elevate display device, height of stand approx. 800 mm, KERN BFS-A07
- Further details, plenty of further accessories and suitable printers see *Accessories*

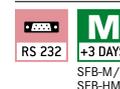
STANDARD



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		DAkkS Calibr. Certificate		
							M	KERN	DAkkS	KERN	
KERN											
SFB 50K-3XL	50	5	-	-	14	500×400	-	-	-	-	963-128
SFB 100K-2L	100	10	-	-	14	500×400	-	-	-	-	963-129
SFB 100K-2XL	100	10	-	-	26	650×500	-	-	-	-	963-129
SFB 200K-2XL	200	20	-	-	26	650×500	-	-	-	-	963-129
with elevated display											
SFB 10K1HIP	10	1	-	-	8	300×240	-	-	-	-	963-128
SFB 20K2HIP	20	2	2	-	8	300×240	-	-	-	-	963-128
SFB 50K5HIP	50	5	5	-	8	300×240	-	-	-	-	963-128
SFB 50K5LHIP	50	5	5	-	8	400×300	-	-	-	-	963-128
SFB 100K10HIP	100	10	-	-	14	400×300	-	-	-	-	963-129
Note: For applications that require verification, please order verification at the same time, initial verification at a later date is not possible. Verification at the factory, we need to know the full address of the location of use.											
SFB 60K-2XLM	60	20	20	400	16	500×400	⚠	965-229	-	-	963-129
SFB 100K-2XLM	150	50	50	1000	24	650×500	-	965-229	-	-	963-129
SFB 300K-1LM *	300	100	100	2000	26	650×500	-	965-229	-	-	963-129
with elevated display											
SFB 15K5HIPM	15	5	5	100	8	300×240	-	965-228	-	-	963-128
SFB 30K10HIPM	30	10	10	200	8	300×240	-	965-228	-	-	963-128
SFB 60K20LHIPM	60	20	20	400	14	400×300	-	965-229	-	-	963-129
SFB 100K-2HM	150	50	50	1000	13	400×300	-	965-229	-	-	963-129

* ONLY WHILE STOCKS LAST



Stainless steel platform scale with high type of protection IP68 and EC type approval [M]

Features

- **Ideal for the robust industrial applications**
- **Platform:** made entirely of stainless steel, silicone-coated 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, protection against dust and water splashes IP68, integrated power supply
- **Suitable for the ever-increasing hygienic requirements** in the food industry
- **Wall mount** for display device, standard
- **Superior display size:** digit height 55 mm, bright backlight for easy reading of weighing results, even in poor lighting conditions
- Easy-to use KERN menu structure with printout of weighing results which can be intuitively adapted

- Thanks to **interfaces** such as RS-232, RS-485 and Bluetooth (optional) the scale can easily be connected to existing networks and facilitates the data exchange between the scale and printer

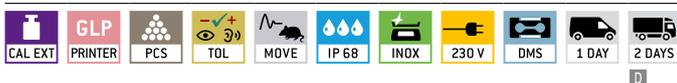
Technical data

- Large backlit LCD display, digit height 55 mm
- Weighing plate dimensions, stainless steel W×D×H
 - 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 232×170×80 mm
- Cable length of display device approx. 2,5 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 IXS-A02
 - B–D Height of stand approx. 400 mm, KERN IXS-A03
 - C–D Height of stand approx. 600 mm, KERN IXS-A04
- **Rechargeable battery pack internal**, operating time up to 80 h without backlight, charging time approx. 12 h, must be ordered at purchase, Factory Option, KERN GAB-A04
- **Data interface RS-232**, interface cable included, approx. 1,5 m, must be ordered at purchase, KERN KXS-A04
- **Data interface RS-485**, must be ordered at purchase, KERN KXS-A01
- **Foot switch**, must be ordered at purchase, KERN KXS-A03
- **Bluetooth data interface** for wireless data transfer to PC or tablets, must be ordered at purchase, not in combination with verification, KERN KXS-A02
- Further details, plenty of further accessories and suitable printers see *Accessories*

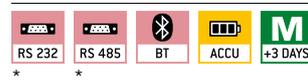
STANDARD



OPTION



FACTORY



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

Dual-range balance switches automatically to the next largest weighing capacity [Max] and readability [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.

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

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, 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.

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

► See the glossary on page 223–225

Quick-Finder Price computing scales

Readability [d] g	Weighing capacity [Max] kg	Model KERN	Page	DAYS	M	CAL EXT	RS 232	MEMORY	ACCU	For an explanation on the pictos, see front flap					
										1	2	3	4	5	6
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



- ▷ Intuitive operation
- ▷ Little space requirements
- ▷ Mains operation and rechargeable battery pack possible
- ▷ Second display which can be fitted on the back of the balance

HIGHLIGHT



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

07

Features

- **1** KERN RIB-HM: **Elevated display backlit**, height of stand approx. 530 mm, must be ordered at purchase
- **2** KERN RIB-M: **Second display** on the rear of the balance
- **Three displays** for weight display (verifiable), unit price, total price
- **Calculation of change**
- **Soil-resistant construction** through water channels at the frame of the housing and sealing rings over the upper housing inlets
- **10 Direct price keys** for frequently recurring article prices
- **Memory (PLU) for 20 article prices**
- **Energy management:** Backlight turns off after 5 s, can be switched off
- **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
- Dimensions weighing surface, stainless steel, W×D 294×225 mm
- Overall dimensions W×D×H
KERN RIB-M: 325×400×115 mm
KERN RIB-HM: 325×340×405 mm
- Net weight
KERN RIB-M: approx. 3,2 kg
KERN RIB-HM: approx. 3,8 kg
- Permissible ambient temperature -10 °C/40 °C

Accessories

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

Application examples

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

Note: Official verification duty for commercial trade

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

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

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



07 Retail scale with memories for item prices

Features

- **NEW:** modern, ergonomic design and a housing which is even more compact, supporting efficient operation and saving space
- **1** KERN RPB-HM: **Elevated display backlit**, revolving on column, height of stand approx. 480 mm, must be ordered at purchase
- **2** KERN RPB-M: **Second display** on the rear of the balance
- **Three displays** for weight display (verifiable), unit price, total price
- **Calculation of change**
- **Memory (PLU) for 10 article prices**
- **Unit price can be switched** from €/kg to €/100 g
- **Auto-clear-key:** Unit price entry is automatically set to zero when scale is unloaded
- **3 High mobility:** thanks to rechargeable battery operation (optional), compact, lightweight construction, it is suitable for the use in several locations

- **Protective working cover** included with delivery

Technical data

- Large backlit LCD displays, digit height 15 mm
- Dimensions weighing surface, stainless steel, WxD 204x263 mm
- Overall dimensions WxDxH
RPB-M: 310x270x65 mm
RPB-HM: 310x270x545 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
- **Rechargeable battery pack internal**, operating time up to 50 h without backlight, charging time approx. 12 h, KERN WTB-A01N
- **4 Tare pan made of stainless steel**, ideal for weighing loose small parts, fruit, vegetables etc., WxDxH 370x240x20 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 duty for commercial trade

STANDARD

CAL EXT MEMORY RS 232 RECIPE UNIT MULTI DMS 1 DAY

OPTION

ACCU DAKKS +3 DAYS

FACTORY

M +3 DAYS

Model	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Minimal load [Min] g	Option		
					Verification		DAkkS Calibr. Certificate
					M KERN		DAkkS KERN
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readability [d]							
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 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

07

Features

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

- **4 Direct price keys** for frequently recurring article prices
- **Memory (PLU) for 100 article prices**
- Item description can be entered, stored and shown on the display in clear 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
- **Headers and footers of the printout** can be programmed directly on the balance
- **High mobility:** thanks to rechargeable battery operation (optional), compact, lightweight construction, it is suitable for the use in several locations
- **Recessed grips on the underside** of the scale for easy transportation

Technical data

- Large backlit LCD display, digit height 20 mm
- Dimensions weighing surface, stainless steel, WxD 230x300 mm
- Overall dimensions WxDxH 320x450x130 mm
- Net weight approx. 4,2 kg
- Permissible ambient temperature -10 °C/40 °C

Accessories

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

Application examples

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

Note: Official verification duty for commercial trade

STANDARD

- CAL EXT
- MEMORY
- RS 232
- UNIT
- MULTI
- DMS
- 1 DAY

OPTION

- ACCU
- DAKKS +3 DAYS

FACTORY

- M +3 DAYS

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



TIPS FROM THE EXPERTS

As well as our balances and test services, we can offer you an extensive range of medical scales.

We will offer you reliable quality at fair prices and with the shortest delivery times. Our product specialists will give you professional advice, will work with you to find the right product and will provide comprehensive support after the purchase too.

This ensures a high level of investment security and a good feeling – KERN, the nice balance manufacturer from the wilds of Southern Germany.

#3 “Medical products from KERN – products you can rely on”

For years an established name in hospitals, doctors' surgeries, rehabilitation clinics and nursing homes.

Wherever reliable quality is important, look no further than the complete KERN range of medical scales, from baby scales, to personal scales, chair scales, obesity scales through to hand dynamometers.

KERN 2020 catalogue for medical balances and devices – this is where you will find everything for day-to-day tasks in the medical environment!



*Hendrik Neff, product specialist
Medical scales*



Counting scales/Counting systems

Interesting facts about density determination

Smallest part weight when counting

Smallest piece the scale will accept for piece counting and piece count display. 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 give 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.

- ▷ High-resolution counting system with EC type approval [M]
- ▷ Ergonomic display device with large keypad
- ▷ 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.

Which counting scale for which application?

Simple counting scale

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

Professional counting scale

with 3 separate displays for reference weight (average weight of the pieces), total weight of all pieces and total quantity of all pieces. Very useful integrated memories, e.g. for container weight, item number, reference weight as well as audible and visual counting aids and an alphanumeric key pad for easy data entry.

Special tip for counting large quantities: Counting systems

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

► See the glossary on page 223–225



HIGHLIGHT

Quick-Finder Counting scales/Counting systems

Readability [d] g	Weighing capacity [Max] kg	Counting resolution Points	Model KERN	Page								For an explanation on the pictos, see front flap					
0,001	0,3	60.000	CFS 300-3	84	1			●	●	●	●	○					
0,001	0,36	360.000	CKE 360-3	85	1			●	●	●	●	○					
0,001	6	1.200.000	CCS 6K-6	88	2			●	●	●	●	○					
0,001	15	3.000.000	CCS 10K-6	88	2			●	●	●	●	○					
0,01	2	200.000	CKE 2000-2	85	1			●	●	●	●	○					
0,01	3	60.000	CFS 3K-5	84	1			●	●	●	●	○					
0,01	3 6	360.000	CKE 3600-2	85	1			●	●	●	●	○					
0,01	3 6	600.000	CCA 6K-5M	90	2			●	●	●	●	○					
0,01	6 15	600.000	CCA 10K-5M	90	2			●	●	●	●	○					
0,01	15 30	1.500.000	CCA 30K-5M	90	2			●	●	●	●	○					
0,01	30	600.000	CCS 30K0.01.	88	2			●	●	●	●	○					
0,01	30 60	3.000.000	CCA 60K-5M	90	2			●	●	●	●	○					
0,01	60	1.200.000	CCS 60K0.01.	88	2			●	●	●	●	○					
0,01	60	1.200.000	CCS 60K0.01L.	88	2			●	●	●	●	○					
0,01	60 150	15.000.000	CCA 100K-5M	90	2			●	●	●	●	○					
0,01	150	3.000.000	CCS 150K0.01	88	2			●	●	●	●	○					
0,01	150	3.000.000	CCS 150K0.01L	88	2			●	●	●	●	○					
0,01	150 300	30.000.000	CCA 300K-5M	90	2*			●	●	●	●	○					
0,01	300	6.000.000	CCS 300K0.01	88	2*			●	●	●	●	○					
0,01	600	12.000.000	CCS 600K-2U	88	2*			●	●	●	●	○					
0,01	600	12.000.000	CCS 600K-2	88	2*			●	●	●	●	○					
0,01	600	12.000.000	CCS 600K-2L	88	2*			●	●	●	●	○					
0,02	4	200.000	CDS 4K0.02	87	1			●	●	●	●	○					
0,02	6	300.000	CKE 6K0.02	85	1			●	●	●	●	○					
0,05	8	160.000	CKE 8K0.05	85	1			●	●	●	●	○					
0,05	15	300.000	CDS 15K0.05	87	1			●	●	●	●	○					
0,05	16	320.000	CKE 16K0.05	85	1			●	●	●	●	○					
0,1	6	60.000	CPB 6K0.1N	82	1			●	●	●	●	○					
0,1	6	60.000	CFS 6K0.1	84	1			●	●	●	●	○					
0,1	16	160.000	CKE 16K0.1	85	1			●	●	●	●	○					
0,1	16	160.000	CDS 16K0.1	87	1			●	●	●	●	○					
0,1	30	300.000	CDS 30K0.1	87	1			●	●	●	●	○					
0,1	30	300.000	CDS 30K0.1L	87	1			●	●	●	●	○					
0,1	30	300.000	CCS 30K0.1.	88	2			●	●	●	●	○					
0,1	36	360.000	CKE 36K0.1	85	1			●	●	●	●	○					
0,1	60	600.000	CCS 60K0.1.	88	2			●	●	●	●	○					
0,1	60	600.000	CCS 60K0.1L.	88	2			●	●	●	●	○					
0,1	150	1.500.000	CCS 150K0.1.	88	2			●	●	●	●	○					
0,1	150	1.500.000	CCS 150K0.1L	88	2			●	●	●	●	○					
0,1	300	3.000.000	CCS 300K0.1	88	2*			●	●	●	●	○					
0,1	300 600	6.000.000	CCS 600K-1S	88	2*			●	●	●	●	○					
0,1	300 600	6.000.000	CCS 600K-1	88	2*			●	●	●	●	○					
0,1	600 1500	15.000.000	CCS 1T-4S	88	2*			●	●	●	●	○					
0,1	600 1500	15.000.000	CCS 1T-4	88	2*			●	●	●	●	○					
0,1	1500 3000	30.000.000	CCS 3T-3	88	2*			●	●	●	●	○					
0,1	1500 3000	30.000.000	CCS 3T-3L	88	2*			●	●	●	●	○					
0,1	1500	15.000.000	CCS 1T-1U	88	2*			●	●	●	●	○					
0,1	1500	15.000.000	CCS 1T-1L	88	5*			●	●	●	●	○					
0,1	3000	30.000.000	CCS 3T-1	88	5*			●	●	●	●	○					
0,1 0,2	3 6	60.000	IFS 6K-4S	85	1			●	●	●	●	○					
0,1 0,2	6 15	75.000	IFS 10K-4	85	1			●	●	●	●	○					
0,2	3	30.000	CXB 3K0.2	83	1			●	●	●	●	○					
0,2	15	60.000	CPB 15K0.2N	82	1			●	●	●	●	○					
0,2	15	75.000	CFS 15K0.2	84	1			●	●	●	●	○					
0,2	36	180.000	CDS 36K0.2L	87	1			●	●	●	●	○					
0,2	60	300.000	CDS 60K0.2	87	1			●	●	●	●	○					
0,2	65	325.000	CKE 65K0.2	85	1			●	●	●	●	○					
0,2 0,5	12 30	60.000	IFS 30K0.2DL	85	1			●	●	●	●	○					
0,5	6	30.000	CXB 6K0.5	83	1			●	●	●	●	○					
0,5	30	60.000	CPB 30K0.5N	82	1			●	●	●	●	○					
0,5	30	60.000	CFS 30K0.5	84	1			●	●	●	●	○					
0,5	65	130.000	CKE 65K0.5	85	1			●	●	●	●	○					
0,5 1	30 60	60.000	IFS 60K0.5D	85	1			●	●	●	●	○					
0,5 1	30 60	60.000	IFS 60K0.5DL	85	1			●	●	●	●	○					
1	3	30.000	CXB 3K1NM	83	1		○	●	●	●	●	○					
1	15	30.000	CXB 15K1	83	1			●	●	●	●	○					
1	50	50.000	CFS 50K-3	84	1			●	●	●	●	○					
1 2	3 6	60.000	CPB 6K1DM	82	1		○	●	●	●	●	○					
1 2	3 6	60.000	IFS 6K-3SM	85	1		○	●	●	●	●	○					
1 2	75 150	60.000	IFS 100K-3	85	1			●	●	●	●	○					
1 2	75 150	60.000	IFS 100K-3L	85	1			●	●	●	●	○					

Quick-Finder Counting scales/Counting systems

Readability [d] g	Weighing capacity [Max] kg	Counting resolution Points	Model KERN	Page							
2	6	30.000	CXB 6K2NM	83	1	○	●				●
2	30	30.000	CXB 30K2	83	1		●				●
2 5	6 15	60.000	CPB 15K2DM	82	1	○	●		●		○
2 5	6 15	75.000	IFS 10K-3M	85	1	○	●	●	●		○
2 5	6 15	75.000	IFS 10K-3LM	85	1	○	●	●	●		○
2 5	150 300	60.000	IFS 300K-3	85	1		●	●	●		○
5	15	30.000	CXB 15K5NM	83	1	○	●				●
5 10	15 30	60.000	CPB 30K5DM	82	1	○	●		●		○
5 10	15 30	60.000	IFS 30K-3M	85	1	○	●	●	●		○
10	30	30.000	CXB 30K10NM	83	1	○	●				●
10 20	30 60	60.000	IFS 60K-2M	85	1	○	●	●	●		○
10 20	30 60	60.000	IFS 60K-2LM	85	1	○	●	●	●		○
20 50	60 150	60.000	IFS 100K-2M	85	1	○	●	●	●		○
20 50	60 150	60.000	IFS 100K-2LM	85	1	○	●	●	●		○
50 100	150 300	60.000	IFS 300K-2M	85	1	○	●	●	●		○

News 2020

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

● = standard ○ = option



Note: Official verification duty 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. 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

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

Technical data

- Large backlit LCD displays, digit height 20 mm
- Dimensions weighing surface, stainless steel, WxD 295x225 mm
- Overall dimensions WxDxH 315x350x105 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
- **Rechargeable battery pack internal**, 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	
												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	-					963-128	
CPB 15K0.2N	15	0,2	-	-	2,5	60.000	-					963-128	
CPB 30K0.5N	30	0,5	-	-	5	60.000	-					963-128	

Dual-range balance switches automatically to the next largest weighing capacity [Max] and readability [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	



Note: Official verification duty for commercial trade

Entry level model into professional counting, also 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. A signal will be displayed when the target value is reached
- 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,** therefore suitable for weighing small plastic parts

- **Energy management:** Backlight turns off after 5 s
- **PRE-TARE function** for manual subtraction of a known container weight, useful for checking fill-levels
- **Two balances in one:** Changes from counting mode to weighing mode at the touch of a key
- **Protective working cover** included with delivery
- **Internal rechargeable battery pack** included with delivery

Technical data

- Large backlit LCD displays, digit height 18 mm
- Dimensions weighing surface, stainless steel, W×D 300×225 mm
- Dimensions housing W×D×H, 300×330×110 mm
- Rechargeable battery pack internal, operating time up to 200 h without backlight, charging time approx. 8 h
- Permissible ambient temperature -10 °C/40 °C

Accessories

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

STANDARD

CAL EXT PCS SUM ACCU 230 V DMS 1 DAY

OPTION FACTORY

DAKKS +3 DAYS M +3 DAYS 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	
								M	KERN	DAkkS	KERN
KERN											
CXB 3K0.2	3	0,2	-	-	1	30.000	4,0	-	-	963-127	
CXB 6K0.5	6	0,5	-	-	2	30.000	4,0	-	-	963-128	
CXB 15K1	15	1	-	-	5	30.000	4,0	-	-	963-128	
CXB 30K2	30	2	-	-	10	30.000	4,2	-	-	963-128	
Note: For applications that require verification, please order verification at the same time, initial verification at a later date is not possible. Verification at the factory, we need to know the full address of the location of use.											
CXB 3K1NM	3	1	1	20	1	30.000	4,0	965-227		963-127	
CXB 6K2NM	6	2	2	40	2	30.000	4,2	965-228		963-128	
CXB 15K5NM	15	5	5	100	5	30.000	4,0	965-228		963-128	
CXB 30K10NM	30	10	10	200	10	30.000	4,2	965-228		963-128	



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

08

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 (verifiable), reference weight, total pieces
- **Weighing with tolerance range (check-weighing):** 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
- **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
 - A** Ø 80 mm
 - B** WxD 295x225 mm
 - C** WxD 295x225 mm
- Overall dimensions WxDxH
 - A** 315x350x180 mm (incl. draught shield)
 - B** 315x350x110 mm
 - C** 365x250x125 mm
- Permissible ambient temperature 0 °C/40 °C

Accessories

- **Protective working cover**, standard for models with weighing plate size **A**, **B**, scope of delivery: 5 items, KERN CFS-A02S05
- **Rechargeable battery pack internal**, 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		FACTORY

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 KERN	DAKKS Calibr. Certificate
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, 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 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
- **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 display
 - A, B digit height 9 mm
 - C digit height 25 mm
- Dimensions weighing surface
 - A ø 81 mm, plastic
 - B WxD 150x170 mm, stainless steel
 - C 6 340x240 mm, stainless steel

- Overall dimensions WxDxH
 - A, B 167x250x85 mm
 - C 350x390x120 mm
- Optional battery operation, 6x1.5 V Size C not included in scope of delivery, operating time up to 40 h, for models with weighing plate size C
- Permissible ambient temperature 10 °C/40 °C

Accessories

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

STANDARD

CAL EXT	RS 232	PCS	UNDER	BATT	MULTI	DMS	1 DAY
---------	--------	-----	-------	------	-------	-----	-------

OPTION

ACCU	DAkKS	+3 DAYS
------	-------	---------

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	Kern Calibr. Certificate
KERN CKE 360-3	0,36	0,001	0,01	360.000	1	A	↓	963-127	
KERN CKE 2000-2	2	0,01	0,1	200.000	1,8	B	↓	963-127	
KERN CKE 3600-2	3,6	0,01	0,1	360.000	1,8	B	↓	963-127	
KERN CKE 6K0.02	6	0,02	0,2	300.000	7	C	↓	963-128	
KERN CKE 8K0.05	8	0,05	0,5	160.000	7	C	↓	963-128	
KERN CKE 16K0.05	16	0,05	0,5	320.000	7	C	↓	963-128	
KERN CKE 16K0.1	16	0,1	1	160.000	7	C	↓	963-128	
KERN CKE 36K0.1	36	0,1	1	360.000	7	C	↓	963-128	
KERN CKE 65K0.2	65	0,2	2	325.000	7	C	↓	963-129	
KERN CKE 65K0.5	65	0,5	5	130.000	7	C	↓	963-129	

↓ Price reduction



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.
- Printout of date and time for GLP and GMP compliant data logging

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

Technical data

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

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

Accessories

- **Protective working cover**, scope of delivery: 5 items, KERN KFB-A02S05
- **Stand** to elevate display device, Height of stand approx. 330 mm, KERN IFB-A01 Column height approx. 600 mm, for models with weighing plate size **D**, **E**, KERN IFB-A02
- **Rechargeable battery pack internal**, operating time up to 40 h, without backlight, charging time approx. 12 h, must be ordered at purchase, KERN KFB-A01
- **ESD drain** to protect against electrostatic discharge e.g. for electrostatically-charged weighing objects or people who work with the scale, KERN YGR-01
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD: CAL EXT, MEMORY, RS 232, KCP, GLP, INTERN, PCS, SUM, PERCENT, TOL, MULTI, DMS, 1 DAY

OPTION: DAKKS +3 DAYS

FACTORY: ACCU +3 DAYS, M IFS-M

Model	Weighing capacity [Max] kg	Readability [d] g	Verification value [e] g	Smallest part weight [Normal] g/piece	Counting resolution Points	Net weight approx. kg	Weighing plate	Option		
								Verification	DAkkS Calibr. Certificate	
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readability [d]										
IFS 6K-4S	3 6	0,1 0,2	-	1	60.000	4,6	A	-	-	963-128
IFS 10K-4	6 15	0,1 0,2	-	2	75.000	6	B	-	-	963-128
IFS 30K0.2DL	12 30	0,2 0,5	-	5	60.000	11	C	-	-	963-128
IFS 60K0.5D	30 60	0,5 1	-	10	60.000	10	C	-	-	963-129
IFS 60K0.5DL	30 60	0,5 1	-	10	60.000	12	D	-	-	963-129
IFS 100K-3	75 150	1 2	-	25	60.000	12	D	-	-	963-129
IFS 100K-3L	75 150	1 2	-	25	60.000	20	E	-	-	963-129
IFS 300K-3	150 300	2 5	-	50	60.000	22	E	-	-	963-129

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

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

IFS 6K-3SM	3 6	1 2	1 2	1	60.000	6	A	965-228	963-128
IFS 6K-3M	3 6	1 2	1 2	1	60.000	6	B	965-228	963-128
IFS 10K-3M	6 15	2 5	2 5	2	75.000	6	B	965-228	963-128
IFS 10K-3LM	6 15	2 5	2 5	2	75.000	10	C	965-228	963-128
IFS 30K-3M	15 30	5 10	5 10	5	60.000	10	C	965-228	963-128
IFS 60K-2M	30 60	10 20	10 20	10	60.000	11	C	965-229	963-129
IFS 60K-2LM	30 60	10 20	10 20	10	60.000	13	D	965-229	963-129
IFS 100K-2M	60 150	20 50	20 50	25	60.000	12	D	965-229	963-129
IFS 100K-2LM	60 150	20 50	20 50	25	60.000	22	E	965-229	963-129
IFS 300K-2M	150 300	50 100	50 100	50	60.000	22	E	965-229	963-129



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

Features

- **Self-explanatory graphic control panel**, the workings steps can be understood immediately, even without operating instructions
 - no learning time = reduces costs
 - ideal for untrained users
 - visualised process avoids operating errors
- The 4 steps are carried out from left to right:
 - 1 Place the empty container onto the weighing plate and tare by pressing the TARE key
 - 2 Place the reference quantity for the goods to be counted into the container (5, 10 or 20 pieces)
 - 3 Confirm the selected reference quantity by pressing the key (5, 10 or 20)
 - 4 Pour in the goods to be counted. The number of pieces will immediately be shown in the display
- **Precise counting:** The automatic reference weight optimisation of reference weight gradually improves the average piece weight value
- **Protective working cover** included with delivery

Technical data

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

Accessories

- **Protective working cover** over the display device, scope of delivery: 5 items, KERN DE-A12S05
- **Mount to fasten the display device** to the platform, KERN DE-A11N
- **5 Stand** to elevate display device, height of stand approx. 480 mm, can be reordered, KERN DE-A10
- **Rechargeable battery pack external**, operating time up to 30 h without backlight, charging time approx. 10 h, KERN KS-A01
- **Rechargeable battery pack internal**, operating time up to 30 h without backlight, charging time approx. 10 h, KERN KB-A01N
- **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						OPTION		
						B		

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 KERN	DAkks Calibr. Certificate
CDS 4K0.02	4	0,02	0,2	200.000	6	2	A	963-127	
CDS 15K0.05	15	0,05	0,5	300.000	8	2	B	963-128	
CDS 16K0.1	16	0,1	1	160.000	8	2	B	963-128	
CDS 30K0.1	30	0,1	1	300.000	8	2	B	963-128	
CDS 30K0.1L	30	0,1	1	300.000	10	0,6	C	963-128	
CDS 36K0.2L	36	0,2	2	180.000	10	0,6	C	963-128	
CDS 60K0.2	60	0,2	2	300.000	10	0,6	C	963-129	

Counting system KERN CCS

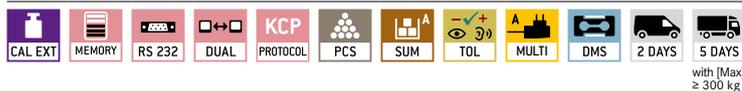


Accessories

- **2** KERN CFS: **Protective working cover**, scope of delivery: 5 items, KERN CFS-A02S05
- **3** **Rechargeable battery pack internal**, operating time up to 60 h without backlight, charging time approx. 12 h, KERN GAB-A04
- **4** **Signal lamp** for visual support of weighing with tolerance range, **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*

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

STANDARD



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

NEW New model

NEW



High-resolution counting system with EC type approval [M] to count the smallest parts in the largest quantities, counting resolution up to 300.000.000 points

Features

- The highly accurate KERN CCS counting system can replace a whole range of individual balances, efficiently and at a reasonable price
- Thanks to EC type approval [M], it is also suitable for use in verified applications
- The balances are connected to one another with an RS-232 Y-cable (KERN CCA-A01, included with delivery), 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, weighing space W×D×H 134×128×80 mm
- **Protective working cover** included with delivery

Quantity scale KERN IFS

- The high-accuracy quantity counting takes place on the weighing platform (= weighing bridge) KERN CCA. In this way even the smallest of parts can be counted in large volumes
- **Tough industry standard** suitable for use in harsh industrial applications
- **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.
- Printout of date and time for GLP and GMP compliant data logging
- **Precise counting:** The manual reference weight optimisation gradually improves the average value of the piece weight
- **Totalising** of pieces when counting
- **Aluminium Single-Point load cell** (1×3000 e), protection against dust and water splashes IP65

- **Protective working cover** included with delivery

Technical data

Reference scale KERN EWJ

- Overall dimensions (incl. draught shield) W×D×H 220×340×321 mm
- Dimensions weighing surface, stainless steel ø 120 mm
- Net weight approx. 3,2 kg
- Connection cable approx. 1,5 m

Quantity scale KERN IFS

- Weighing plate dimensions W×D×H, stainless steel
 - A 300×240×110 mm
 - B 400×300×120 mm, see larger picture
 - C 500×400×140 mm
 - D 650×500×140 mm

Accessories

- **Signal lamp** for visual support of weighing with tolerance range, KERN CFS-A03
- **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

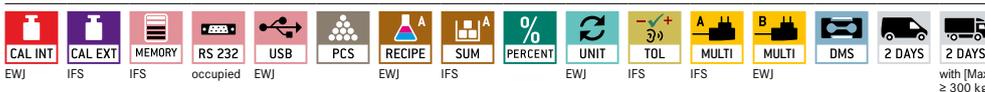
Reference scale KERN EWJ

- **Protective working cover,** scope of delivery: 5 items, KERN EWJ-A04S05
- **Rechargeable battery pack internal,** operating time up to 15 h without backlight, charging time approx. 4 h, KERN KFB-A01

Quantity scale KERN IFS

- **Protective working cover,** scope of delivery: 5 items, KERN KFB-A02S05
- **Rechargeable battery pack internal,** operating time up to 40 h, without backlight, charging time approx. 12 h, must be ordered at purchase, KERN KFB-A01
- Further details, plenty of further accessories and suitable printers see *Accessories*

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	Counting resolution Points	Smallest part weight [Normal] g/piece	Option	
								Verification	
KERN								M III KERN	
CCA 6K-5M	3 6	1 2	A	600	0,01	6.000.000	0,2		965-228-216
CCA 10K-5M	6 15	2 5	A	600	0,01	15.000.000	0,2		965-228-216
CCA 30K-5M	15 30	5 10	B	600	0,01	30.000.000	0,2		965-228-216
CCA 60K-5M	30 60	10 20	B	600	0,01	60.000.000	0,2		965-229-216
CCA 100K-5M	60 150	20 50	C	600	0,01	150.000.000	0,2		965-229-216
CCA 300K-5M	150 300	50 100	C	600	0,01	300.000.000	0,2		965-229-216

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 72  SXS ▶ Page 73	★★★
 SFB	★

PLATFORM SCALES WITH STAINLESS STEEL DISPLAY

	★★★★
 SFE  IXS	★★★
	★

INDUSTRIAL PLATFORM SCALES

	★★★★
 EOC  IFB  IOC  IFS  IFT	★★★
	★★
	★

PARCEL SCALES

	★★★★
 EOE  EOB  EOS  DE	★★★
	★★
	★

- ▷ **Industry 4.0: A wide range of (optional) data interfaces allows that it is easy to transfer weighing data**
- ▷ **Practical dual-range scale – high precision paired with large weighing capacities**
- ▷ **Protected against water splashes through IP65 rating**



HIGHLIGHT

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											
0,01	3	228×228×95	DS 3K0.01S	106	1				●							○
0,01	3	228×228×95	IKT 3K0.01S	108	1				●							○
0,05	5	228×228×95	DS 5K0.05S	106	1				●							○
0,05	8	308×318×75	DS 8K0.05	106	1				●							○
0,05	8	318×308×75	IKT 8K0.05	108	1				●							○
0,1	3	230×230×110	IFB 3K-4	103	1				●					●		○
0,1	6	315×308×75	IKT 6K0.1	108	1				●							○
0,1	10	228×228×95	DS 10K0.1S	106	1				●							○
0,1	16	315×308×75	DS 16K0.1	106	1				●							○
0,1	16	318×308×75	IKT 16K0.1	108	1				●							○
0,1	20	308×318×75	DS 20K0.1	106	1				●							○
0,1	30	308×318×75	DS 30K0.1	106	1				●							○
0,1	30	450×350×115	DS 30K0.1L	106	1				●							○
0,1	30	318×308×75	IKT 30K0.1	108	1				●							○
0,1	30	450×350×115	IKT 30K0.1L	108	1				●							○
0,2	6	230×230×110	IFB 6K-4S	103	1				●					●		○
0,2	6	300×240×110	IFB 6K-4	103	1				●					●		○
0,2	6	300×240×86	IXS 6K-4	106	1				●					●		○
0,2	6	300×240×100	IFT 6K-4	110	2*				●					●		○
0,2	12	318×308×75	IKT 12K0.2	108	1				●							○
0,2	36	308×318×75	DS 36K0.2	106	1				●							○
0,2	36	450×350×115	DS 36K0.2L	106	1				●							○
0,2	36	318×308×75	IKT 36K0.2	108	1				●							○
0,2	36	450×350×115	IKT 36K0.2L	108	1				●							○
0,2	60	450×350×115	DS 60K0.2	106	1				●							○
0,2	60	450×350×115	IKT 60K0.2L	108	1				●							○
0,2 0,5	6 15	318×308×88	DE 15K0.2D	98	1				●					●	●	○
0,2 0,5	6 15	300×300×110	EOC 10K-4	100	1				●					●		○
0,5	6	318×308×75	DE 6K0.5A	98	1				●					●	●	○
0,5	6	300×300×110	EOC 6K-4A	100	1				●					●		○
0,5	15	300×240×110	IFB 10K-4	103	1				●					●		○
0,5	15	400×300×128	IFB 10K-4L	103	1				●					●		○
0,5	15	300×240×86	IXS 10K-4	106	1				●					●		○
0,5	15	400×300×89	IXS 10K-4L	106	1				●					●		○
0,5	15	300×240×100	IFT 10K-4	110	2*				●					●		○
0,5	15	400×300×128	IFT 10K-4L	110	2*				●					●		○
0,5	30	318×308×75	IKT 30K0.5	108	1				●							○
0,5	65	450×350×115	DS 65K0.5	106	1				●							○
0,5	65	450×350×115	IKT 65K0.5L	108	1				●							○
0,5	100	450×350×115	DS 100K0.5	106	1				●							○
0,5	100	450×350×115	IKT 100K0.5L	108	1				●							○
0,5 1	15 30	300×300×110	EOC 30K-4S	100	1				●					●		○
0,5 1	15 35	318×308×88	DE 35K0.5D	98	1				●					●	●	○
0,5 1	15 35	500×400×120	EOC 30K-4	100	1				●					●		○
1	12	318×308×75	DE 12K1A	98	1				●					●	●	○
1	12	300×300×110	EOC 10K-3A	100	1				●					●		○
1	30	400×300×128	IFB 30K-3	103	1				●					●		○
1	30	400×300×89	IXS 30K-3	106	1				●					●		○
1	30	500×400×123	IXS 30K-3L	106	1				●					●		○
1	30	400×300×128	IFT 30K-3	110	2*				●					●		○
1	60	450×350×115	IKT 60K1L	108	1				●							○
1	150	450×350×115	DS 150K1	106	1				●							○
1	150	450×350×115	IKT 150K1L	108	1				●							○
1 2	3 6	318×308×75	DE 6K1D	98	1				●					●	●	○
1 2	3 6	300×300×110	EOC 6K-3	100	1				●					●		○
1 2	3 6	300×300×110	IOC 6K-3M	102	1			○	●					●		○
1 2	3 6	300×240×110	IFB 6K1DM	103	1			○	●					●		○
1 2	3 6	230×230×110	IFB 6K-3SM	103	1			○	●					●		○
1 2	3 6	300×240×86	IXS 6K-3M	106	1			○	●					●		○
1 2	30 60	318×308×88	DE 60K1D	98	1				●					●	●	○
1 2	30 60	522×406×98	DE 60K1DL	98	1				●					●	●	○
1 2	30 60	300×300×110	EOC 60K-3	100	1				●					●		○
1 2	30 60	500×400×120	EOC 60K-3L	100	1				●					●		○
2	6	300×240×110	SFE 6K-3NM	105	1			○	●					●	●	○
2	24	318×308×75	DE 24K2A	98	1				●					●	●	○
2	24	300×300×110	EOC 20K-3A	100	1				●					●		○
2	60	400×300×128	IFB 60K-3	103	1				●					●		○
2	60	500×400×130	IFB 60K-3L	103	1				●					●		○
2	60	400×300×89	IXS 100K-3	106	1				●					●		○
2	60	500×400×123	IXS 100K-3L	106	2*				●					●		○
2	60	400×300×128	IFT 60K-3	110	2*				●					●		○

* 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									
2	60	500×400×137	IFT 60K-3L	110	2*				●	●	●	●	●	●
2	120	450×350×115	IKT 120K2L	108	1				●	●	●	●		●
2	150	650×500×142	IKT 150K2XL	108	1				●	●	●	●		●
2 5	6 15	318×308×75	DE 15K2D	98	1				●	●	●	●	●	●
2 5	6 12	300×300×110	EOC 10K-3	100	1				●	●	●	●		●
2 5	6 15	300×240×110	IOC 10K-3M	102	1	○			●	●	●	●		●
2 5	6 15	400×300×110	IOC 10K-3LM	102	1	○			●	●	●	●		●
2 5	6 15	300×240×110	IFB 15K2DM	103	1	○			●	●	●	●		●
2 5	6 15	400×300×128	IFB 15K2DLM	103	1	○			●	●	●	●		●
2 5	6 15	300×240×86	IXS 10K-3M	106	1	○			●	○	●	●		●
2 5	6 15	400×300×89	IXS 10K-3LM	106	1	○			●	○	●	●		●
2 5	60 150	318×308×88	DE 150K2D	98	1				●	●	●	●	●	●
2 5	60 150	522×406×98	DE 150K2DL	98	1				●	●	●	●	●	●
2 5	60 150	300×300×110	EOC 100K-3	100	1				●	●	●	●		●
2 5	60 150	500×400×120	EOC 100K-3L	100	1				●	●	●	●		●
5	15	315×305×57	EOE 10K-3	95	1				●					●
5	15	315×305×57	EOB 15K5	96	1				●					●
5	15	300×240×110	SFE 10K-3NM	105	1	○			●			●		●
5	15	400×300×130	SFE 10K-3LNM	105	1	○			●			●		●
5	60	318×308×75	DE 60K5A	98	1				●	●	●	●	●	●
5	60	300×300×110	EOC 60K-3A	100	1				●	●	●	●		●
5	150	500×400×130	IFB 100K-3	103	1				●	●	●	●		●
5	150	650×500×142	IFB 100K-3L	103	1				●	●	●	●		●
5	150	500×400×123	IXS 100K-3	106	1				●	○	●	●		●
5	150	650×500×133,5	IXS 100K-3L	106	2*				●	○	●	●		●
5	150	500×400×137	IFT 100K-3	110	2*				●	●	●	●		●
5	150	650×500×142	IFT 100K-3L	110	2*				●	●	●	●		●
5	300	650×500×142	IKT 300K5XL	108	1				●	●	●	●		●
5 10	15 35	318×308×75	DE 35K5D	98	1				●	●	●	●	●	●
5 10	15 35	522×403×83	DE 35K5DL	98	1				●	●	●	●	●	●
5 10	15 35	300×300×110	EOC 30K-3	100	1				●	●	●	●		●
5 10	15 35	500×400×120	EOC 30K-3L	100	1				●	●	●	●		●
5 10	15 30	400×300×110	IOC 30K-3M	102	1	○			●	●	●	●		●
5 10	15 30	400×300×128	IFB 30K5DM	103	1	○			●	●	●	●		●
5 10	15 30	400×300×89	IXS 30K-2M	106	1	○			●	○	●	●		●
5 10	15 30	500×400×123	IXS 30K-2LM	106	1	○			●	○	●	●		●
5 10	150 300	522×406×98	DE 300K5DL	98	1				●	●	●	●	●	●
5 10	150 300	500×400×120	EOC 300K-3	100	1				●	●	●	●		●
10	30	300×240×110	SFE 30K-2NM	105	1	○			●			●		●
10	35	315×305×57	EOE 30K-2	95	1				●					●
10	35	315×305×57	EOB 35K10	96	1				●					●
10	120	318×308×75	DE 120K10A	98	1				●	●	●	●	●	●
10	120	500×400×120	EOC 100K-2A	100	1				●	●	●	●		●
10	300	650×500×142	IFB 300K-2	103	1				●	●	●	●		●
10	300	650×500×133,5	IXS 300K-2	106	2*				●	○	●	●		●
10 20	30 60	318×308×75	DE 60K10D	98	1				●	●	●	●	●	●
10 20	30 60	522×403×83	DE 60K10DL	98	1				●	●	●	●	●	●
10 20	30 60	300×300×110	EOC 60K-2	100	1				●	●	●	●		●
10 20	30 60	500×400×120	EOC 60K-2L	100	1				●	●	●	●		●
10 20	30 60	400×300×110	IOC 60K-2M	102	1	○			●	●	●	●		●
10 20	30 60	500×400×120	IOC 60K-2LM	102	1	○			●	●	●	●		●
10 20	30 60	400×300×128	IFB 60K10DM	103	1	○			●	●	●	●		●
10 20	30 60	500×400×130	IFB 60K10DLM	103	1	○			●	●	●	●		●
10 20	30 60	400×300×89	IXS 60K-2M	106	1	○			●	○	●	●		●
10 20	30 60	500×400×123	IXS 60K-2LM	106	1	○			●	○	●	●		●
20	60	315×305×57	EOE 60K-2	95	1				●					●
20	60	550×550×58	EOE 60K-2L	95	1				●					●
20	60	315×305×57	EOB 60K20	96	1				●					●
20	60	550×550×58	EOB 60K20L	96	1				●					●
20	60	400×300×130	SFE 60K-2NM	105	1	○			●			●		●
20	60	500×400×140	SFE 60K-2LNM	105	1	○			●			●		●
20	600	800×600×200	IFB 600K-2	103	2*				●	●	●	●		●
20 50	60 150	318×308×75	DE 150K20D	98	1				●	●	●	●	●	●
20 50	60 150	522×403×83	DE 150K20DL	98	1				●	●	●	●	●	●
20 50	60 150	650×500×89	DE 150K20DXL	98	1				●	●	●	●	●	●
20 50	60 150	300×300×110	EOC 100K-2	100	1				●	●	●	●		●
20 50	60 150	500×400×120	EOC 100K-2L	100	1				●	●	●	●		●
20 50	60 150	600×500×150	EOC 100K-2XL	100	1				●	●	●	●		●
20 50	60 150	950×500×60	EOC 100K-2XXL	100	1				●	●	●	●		●
20 50	60 150	500×400×120	IOC 100K-2M	102	1	○			●	●	●	●		●
20 50	60 150	650×500×150	IOC 100K-2LM	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										
20 50	60 150	500×400×130	IFB 150K20DM	103	1	○		●		●	●	●		○	
20 50	60 150	650×500×142	IFB 150K20DLM	103	1	○		●		●	●	●		○	
20 50	60 150	500×400×123	IXS 100K-2M	106	1	○		●		○	●	●		○	
20 50	60 150	650×500×133,5	IXS 100K-2LM	106	2*	○		●		○	●	●		○	
50	150	315×305×57	EOE 100K-2	95	1			●					●		
50	150	550×550×58	EOE 150K50L	95	1			●					●		
50	150	950×500×58	EOE 150K50XL	95	1			●					●		
50	150	315×305×57	EOB 150K50	96	1			●					●		
50	150	550×550×58	EOB 150K50L	96	1			●					●		
50	150	950×500×85	EOB 150K50XL	96	1			●					●		
50	150	950×500×58	EOS 150K50XL	97	1			●					●		
50	150	400×300×130	SFE 100K-2M	105	1	○		●			●		●		
50	150	500×400×140	SFE 100K-2LM	105	1	○		●			●		●		
50	150	650×500×140	SFE 100K-2XLM	105	1	○		●			●		●		
50 100	150 300	522×403×85	DE 300K50D	98	1			●		●	●	●	●	○	
50 100	150 300	650×500×89	DE 300K50DL	98	1			●		●	●	●	●	○	
50 100	150 300	500×400×120	EOC 300K-2	100	1			●		●	●	●	●	○	
50 100	150 300	600×500×150	EOC 300K-2L	100	1			●		●	●	●	●	○	
50 100	150 300	650×500×150	IOC 300K-2M	102	1	○		●		●	●	●	●	○	
50 100	150 300	650×500×142	IFB 300K50DM	103	1	○		●		●	●	●	●	○	
50 100	150 300	650×500×133,5	IXS 300K-2M	106	2*	○		●		○	●	●	●	○	
50 100	150 300	650×500×142	IFT 300K-2LM	110	2*			●	●	●	●	●	●	○	
100	300	315×305×57	EOE 300K100	95	1			●					●		
100	300	550×550×58	EOE 300K100L	95	1			●					●		
100	300	950×500×58	EOE 300K100XL	95	1			●					●		
100	300	315×305×57	EOB 300K100A	96	1			●					●		
100	300	550×550×58	EOB 300K100L	96	1			●					●		
100	300	950×500×58	EOB 300K100XL	96	1			●					●		
100	300	950×500×58	EOS 300K100XL	97	1			●					●		
100	300	650×500×140	SFE 300K-1LNM	105	1	○		●			●		●		
100 200	300 600	800×600×200	IOC 600K-1M	102	2*	○		●		●	●	●	●	○	
100 200	300 600	800×600×200	IFB 600K-1M	103	2*	○		●		●	●	●	●	○	

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

● = standard ○ = option

Did you know?

For determining the weight of goods e.g. on conveyor in production or dispatch lines, we offer a selection of different roller conveyor attachments for our platform scales. In this way you can convert your platform scale into a robust measuring system for rapid and flexible weight determination. For all details on this, please see page 182.



Roller conveyor KERN YRO



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

Features

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

Technical data

- Large LCD display, digit height 25 mm
- Weighing plate dimensions, steel, painted W×D×H
 - **A** 315×305×57 mm
 - **B** 550×550×58 mm, see larger picture
 - **C** 950×500×58 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

Accessories

- **Protective working cover**, 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
- **External universal mains adapter**, with universal input and optional input socket adapters for EU, GB, USA, KERN YKA-16

09

STANDARD

CAL EXT UNIT MOVE BATT MULTI DMS 1 DAY

OPTION

DAKKS +3 DAYS

Model	Weighing capacity [Max] kg	Readability [d] g	Reproducibility g	Weighing plate	Net weight approx. kg	Cable length approx. m	Option	
							DAKKS KERN	DAKKS Calibr. Certificate
KERN								
EOE 10K-3	15	5	5	A	4,0	1,8	963-128	
EOE 30K-2	35	10	10	A	3,8	1,8	963-128	
EOE 60K-2	60	20	20	A	3,8	1,8	963-129	
EOE 60K-2L	60	20	20	B	13	2,7	963-129	
EOE 100K-2	150	50	50	A	3,8	1,8	963-129	
EOE 150K50L	150	50	50	B	13	2,7	963-129	
EOE 150K50XL	150	50	50	C	18	2,7	963-129	
EOE 300K100	300	100	100	A	3,6	1,8	963-129	
EOE 300K100L	300	100	100	B	13	2,7	963-129	
EOE 300K100XL	300	100	100	C	18	2,7	963-129	



The bestsellers in parcel- and veterinary scales, also with XL-platform, and big weighing capacities

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** over the display device included with delivery
- **External universal mains adapter** included with delivery

Technical data

- Large LCD display, digit height 25 mm
- Weighing plate dimensions, stainless steel W×D×H
 - A** 315×305×57 mm
 - B** 550×550×58 mm, see larger picture
 - C** 950×500×58 mm
- Dimensions of display device W×D×H 235×114×51 mm
- Cable length of display device approx. 2 m
- Optional battery operation, 4×1.5 V AA not included in scope of delivery, operating time up to 60 h
- Permissible ambient temperature 5 °C/35 °C

Accessories

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

STANDARD

CAL EXT UNIT MOVE BATT MULTI DMS 1 DAY

OPTION

DAKKS +3 DAYS

Model	Weighing capacity [Max] kg	Readability [d] g	Reproducibility g	Linearity g	Net weight approx. kg	Weighing plate	Option	
							DAKKS Calibr. Certificate	DAKKS KERN
KERN								
EOB 15K5	15	5	5	± 10	3,8	A	963-128	
EOB 35K10	35	10	10	± 20	3,8	A	963-128	
EOB 60K20	60	20	20	± 40	3,8	A	963-129	
EOB 60K20L	60	20	20	± 40	12	B	963-129	
EOB 150K50	150	50	50	± 100	3,8	A	963-129	
EOB 150K50L	150	50	50	± 100	11	B	963-129	
EOB 150K50XL	150	50	50	± 100	17	C	963-129	
EOB 300K100A	300	100	100	± 200	3,8	A	963-129	
EOB 300K100L	300	100	100	± 200	12	B	963-129	
EOB 300K100XL	300	100	100	± 200	17	C	963-129	



The bestsellers in parcel- and veterinary scales, also with XL-platform, and big weighing capacities

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
- **Rollers and handle:** The scale can be easily transported using rollers and a handle and does not require much storage space
- **Protective working cover** over the display device included with delivery
- **Non-slip rubber mat** included with delivery
- **External universal mains adapter** included with delivery

Technical data

- Large LCD display, digit height 25 mm
- Weighing plate dimensions, stainless steel W×D×H 950×500×58 mm
- Dimensions of display device W×D×H 235×114×51 mm
- Cable length of display device approx. 0,8 m
- Optional battery operation, 4×1.5 V AA not included, operating time up to 60 h
- Permissible ambient temperature 5 °C/35 °C

Accessories

- **Protective working cover**, scope of delivery: 5 items, KERN EOB-A04BS05
- **Stand** to elevate display device, height of stand approx. 1000 mm, KERN EOB-A02B
- **Non-slip rubber mat** W×D×H 945×505×5 mm, KERN EOE-A01

09

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	Net weight approx. kg	Option	
						DAKkS KERN	DAKkS Calibr. Certificate
KERN EOS 150K50XL	150	50	50	± 100	17	963-129	
KERN EOS 300K100XL	300	100	100	± 200	17	963-129	



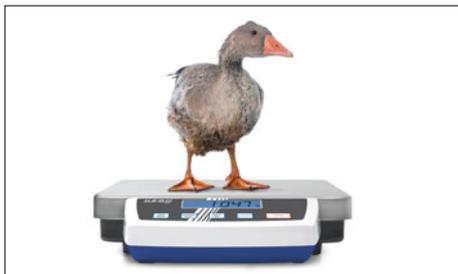


09

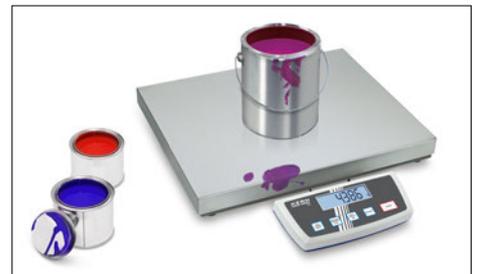
The long lasting story of success with dust and spray protected display device



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 mounted to the wall
- **1 Display device:** plastic, 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 W×D×H
 - A 318×308×75 mm
 - B 318×308×88 mm
 - C 522×406×98 mm, see larger picture
 - D 522×403×83 mm
 - E 650×500×89 mm
- Dimensions of display device, W×D×H 225×110×45 mm
- Optional battery operation, 9 V-Block not included in scope of delivery, operating time up to 12 h
- Permissible ambient temperature 5 °C/35 °C

Accessories

- **Protective working cover** over the display device, scope of delivery: 5 items, KERN DE-A12S05
- **Rechargeable battery pack internal**, 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, 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 | PCS | SUM | PERCENT | UNIT | MOVE | IP 65 | BATT | MULTI | DMS | 1 DAY

OPTION

ACCU | +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	DAkkS Calibr. Certificate KERN
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readability [d]										
DE 6K1D	3 6	1 2	1 2	± 3 6	40	1,4	4,8	A		963-128
DE 15K2D	6 15	2 5	2 5	± 6 15	100	1,4	4,8	A		963-128
DE 35K5D	15 35	5 10	5 10	± 15 30	100	1,4	4,8	A		963-128
DE 35K5DL	15 35	5 10	5 10	± 15 30	100	1,4	16	D		963-128
DE 60K10D	30 60	10 20	10 20	± 30 60	200	1,4	4,8	A		963-129
DE 60K10DL	30 60	10 20	10 20	± 30 60	200	1,4	16	D		963-129
DE 150K20D	60 150	20 50	20 50	± 60 150	400	1,6	5,0	A		963-129
DE 150K20DL	60 150	20 50	20 50	± 60 150	400	1,4	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
Dual-range balance with high resolution readability										
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
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



09

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



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 (check-weighing):** 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. Only possible through data interface RS-232, other interfaces on request

Technical data

- Large backlit LCD display, digit height 24 mm
- Weighing plate dimensions W×D×H
 - A 300×300×110 mm
 - B 500×400×120 mm, see larger picture
 - C 600×500×150 mm
 - D 950×500×60 mm
- Dimensions of display device W×D×H 268×115×80 mm
- Permissible ambient temperature -10 °C/40 °C

Accessories

- **Protective working cover**, scope of delivery: 5 items, KERN EOC-A01S05
- **Internal 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, **Benchtop stand incl. wall mount** for display device, KERN EOC-A04
- **Conversion of the display device**, to move the cable outlet to the front of the display device, ideal e.g. for subsequent wall installation of the display device (standard configuration ex works: rear outlet), Factory Option, delivery time + 2 working days, KERN KIB-M01

STANDARD



OPTION



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

NEW New model



Allround platform scale with a wide range of communication options and EC type approval [M]

Features

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

KERN devices with KCP to computers, industrial control systems and other digital systems. In a large number of cases the KCP is compatible with the MT-SICS protocol. Only possible through data interface RS-232, other interfaces on request

Technical data

- Large backlit LCD display, digit height 24 mm
- Weighing plate dimensions W×D×H
 - A 300×300×110 mm
 - B 400×300×110 mm
 - C 500×400×120 mm, , see larger picture
 - D 650×500×150 mm
 - E 800×600×200 mm
- Dimensions of display device W×D×H 260×115×70 mm
- Cable length of display device approx. 3 m
- Permissible ambient temperature -10 °C/40 °C

Accessories

- **Protective working cover**, scope of delivery: 5 items, KERN EOC-A01S05

- **1 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
- **2 Benchtop stand incl. wall mount** for display device, KERN EOC-A04
- **Rechargeable battery pack internal**, operating time up to 26 h with backlight, charging time approx. 3 h, KERN KFB-A01
- **USB data interface**, must be ordered at purchase, KERN KIB-A03
- **Bluetooth data interface**, must be ordered at purchase, KERN KIB-A04
- **WiFi interface** must be ordered at purchase, KERN KIB-A10
- **Ethernet data interface**, to connect an IP-based Ethernet network, 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
- **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
- **Conversion of the display device**, to move the cable outlet to the front of the display device, ideal e.g. for subsequent wall installation of the display device (standard configuration ex works: rear outlet), Factory Option, delivery time + 2 working days, KERN KIB-M01
- Note: In addition to the RS-232 data interface, which is integrated as standard, only one other data interface can be installed and operated

STANDARD															OPTION		FACTORY				
															+3 DAYS						

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

* Verification not in combination with KERN KIB-A02, KIB-A03, KIB-A04, KIB-A10



Accessories

- **Protective working cover**, scope of delivery: 5 items, KERN KFB-A02S05
- **Stand** to elevate display device, for models with weighing plate size
 - : Height of stand approx. 330 mm, KERN IFB-A01
 - : Height of stand approx. 600 mm, KERN IFB-A02
 - : Height of stand approx. 800 mm, **Stand** to elevate display device, height of stand approx. 800 mm, KERN BFS-A07
- **Rechargeable battery pack internal**, operating time up to 35 h, without backlight, charging time approx. 12 h, must be ordered at purchase, KERN KFB-A01
- **Bluetooth data interface** for wireless data transfer to PC or tablets, must be ordered at purchase, not in combination with verification, KERN KFB-A03
- Analogue module, e.g. for connection to Siemens SPS® controls, must be ordered at purchase, not possible in combination with signal lamp 0-10 V: KERN KFB-A04 4-20 mA: KERN KFB-A05
- **Signal lamp** 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
- **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
 - 230×230×110 mm, ■ 300×240×110 mm
 - 400×300×128 mm, ■ 500×400×130 mm
 - 650×500×142 mm, ■ 800×600×200 mm
- Dimensions of display device W×D×H 230×230×360 mm
- Cable length of display device approx. 3 m
- Permissible ambient temperature -10 °C/40 °C

STANDARD



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
IFB 3K-4	3	0,1	-	-	6	■	-	963-127	
IFB 6K-4S	6	0,2	-	-	6	■	-	963-128	
IFB 6K-4	6	0,2	-	-	6	■	-	963-128	
IFB 10K-4	15	0,5	-	-	6	■	-	963-128	
IFB 10K-4L	15	0,5	-	-	10	■	-	963-128	
IFB 30K-3	30	1	-	-	10	■	-	963-128	
IFB 60K-3	60	2	-	-	10	■	-	963-129	
IFB 60K-3L	60	2	-	-	14	■	-	963-129	
IFB 100K-3	150	5	-	-	11	■	-	963-129	
IFB 100K-3L	150	5	-	-	20	■	-	963-129	
IFB 300K-2	300	10	-	-	20	■	-	963-129	
IFB 600K-2	600	20	-	-	65	■	-	963-130	

Dual-range balance switches automatically to the next largest weighing capacity [Max] and readability [d]

IFB 6K-3SM	3 6	1 2	1 2	20 40	4,6	■		965-228	963-128
IFB 6K1DM	3 6	1 2	1 2	20 40	6	■		965-228	963-128
IFB 15K2DM	6 15	2 5	2 5	40 100	6	■		965-228	963-128
IFB 15K2DLM	6 15	2 5	2 5	40 100	10	■		965-228	963-128
IFB 30K5DM	15 30	5 10	5 10	100 200	10	■	Ⓢ	965-228	963-128
IFB 60K10DM	30 60	10 20	10 20	200 400	10	■		965-229	963-129
IFB 60K10DLM	30 60	10 20	10 20	200 400	13	■		965-229	963-129
IFB 150K20DM	60 150	20 50	20 50	400 1000	14	■		965-229	963-129
IFB 150K20DLM	60 150	20 50	20 50	400 1000	20	■		965-229	963-129
IFB 300K50DM	150 300	50 100	50 100	1000 2000	22	■		965-229	963-129
IFB 600K-1M	300 600	100 200	100 200	2000 4000	65	■		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

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
- KERN DS: **Freely programmable weighing unit**, e.g. display direct in special units such as length of wire g/m, surface weight g/m², or else
- **Protective working cover** included with delivery

Technical data

- Large backlit LCD display, digit height 18 mm
- Weighing plate dimensions, stainless steel W×D×H
 - A 228×228×95 mm
 - B 308×318×75 mm, see larger picture
 - C 450×350×115 mm
- Dimensions of display device W×D×H 225×115×60 mm
- Cable length of display device approx.
 - A, B 2 m
 - C 0,6 m
- Permissible ambient temperature 10 °C/40 °C

Accessories

- **Protective working cover** over the display device, scope of delivery: 5 items, KERN DE-A12S05
- **1 Stand** to elevate display device, for models with weighing plate size B, C, height of stand approx. 480 mm, KERN DE-A10
- **Mount to fasten the display device to the platform**, for models with weighing plate size B, C, can be reordered, KERN DE-A11N
- **Wall mount** for display device, KERN DS-A02
- **2 Set for underfloor weighing**, consists of platform, bow, hook, only for models with weighing plate B, KERN DS-A01
- **Rechargeable battery pack external**, operating time up to 30 h without backlight, charging time approx. 10 h, KERN KS-A01
- **Rechargeable battery pack internal**, operating time up to 30 h without backlight, charging time approx. 10 h, KERN KB-A01N
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD



OPTION



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

Platform scale with stainless steel display device KERN SFE



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

Features

- Platform scale protected to IP65 with stainless steel display device, for industrial applications, hygienic and easy to clean
- 1 Platform:** weighing plate stainless steel, painted steel base, silicone-coated aluminium load cell, protection against dust and water splashes IP65
- Display device:** stainless steel, protection against dust and water splashes IP65, flexible positioning, e.g. free-standing or mounted to the wall, for details see KERN KFE-TNM
- Weighing with tolerance range (check-weighing):** 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

Technical data

- Large backlit LCD display, digit height 22 mm
- Weighing plate dimensions, stainless steel W×D×H
 - A** 300×240×110 mm, see larger picture
 - B** 400×300×130 mm
 - C** 500×400×140 mm
 - D** 650×500×140 mm
- Dimensions of display device W×D×H 195×118×83 mm
- Cable length of display device approx. 3 m
- Rechargeable battery pack internal, operating time up to 35 h without backlight, charging time approx. 12 h
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Stand** to elevate display device, for models with weighing plate size
 - A-D:** Height of stand approx. 200 mm, Type **2** KERN SFE-A01
 - B-D:** Height of stand approx. 400 mm, Type **2** KERN SFE-A02
 - C-D:** Height of stand approx. 600 mm, Type **3** KERN SFE-A03
- Tare pan made of stainless steel**, ideal for weighing loose small parts, fruit, vegetables etc., W×D×H 370×240×20 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	Option			
							Verification		DAkkS Calibr. Certificate	
							M	KERN	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	10	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	10	B	↓	965-229	963-129	
SFE 60K-2LNM	60	20	20	400	14	C	↓	965-229	963-129	
SFE 100K-2NM	150	50	50	1000	10	B	↓	965-229	963-129	
SFE 100K-2LNM	150	50	50	1000	14	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	20	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.





09

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



Piece-counting function



Durable stainless steel weighing plate



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

Platform scale with stainless steel display device KERN IXS



Features

- **Tough industry standard** suitable for use in harsh industrial applications
- **1 Platform:** weighing plate stainless steel, painted steel base, silicone-coated aluminium load cell, protection against dust and water splashes IP65, Substruction in wing design, extremely resistant to bending
- **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

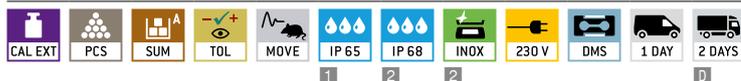
- Large backlit LCD display, digit height 55 mm
- Weighing plate dimensions, stainless steel W×D×H
 - A** 300×240×86 mm
 - B** 400×300×89 mm
 - C** 500×400×123 mm
 - D** 650×500×133,5 mm
- Dimensions of display device W×D×H 232×170×80 mm
- Cable length of display device approx. 2,5 m
- Permissible ambient temperature -10 °C/40 °C

Accessories

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

- **Rechargeable battery pack internal**, operating time up to 80 h without backlight, charging time approx. 12 h, must be ordered at purchase, Factory Option, 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, KERN YRO-01
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD



OPTION



FACTORY



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

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

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

PREMIUM



Alibi memory

- Ring memory for up to 49,152 measuring results (744 measuring results per day!)
- Saved measuring results cannot be changed or cleared. If the maximum memory capacity is reached, then the oldest value will be overwritten
- In addition to the measuring result, the date, time, tare value, a sequential number and the serial number of the balance are also saved.
- Saved measuring results can be searched and recalled easily
- The alibi memory can also be used for applications which do not require verification
- Complies with WELMEC 2.5



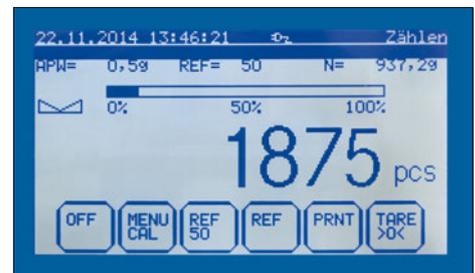
Touchscreen platform scale with enormous range of functions



Easy input of text and values
Using large keypad, e.g. up to 80 item descriptions, user name, packaging weights for tare containers etc.



80 memories for each mode
e.g. for Checkweighing, PRE-TARE, reference weight, target value when dispensing, item descriptions, user name, weights for tare containers, etc. Easy to enter using the large-scale keypad



Professional counting function
All relevant counting information at a glance, such as, e.g., reference weight, reference quantity, total count, total weight, tare container weight, available weighing capacity and much more

Features

- **Convenient recipe weighing:** 99 recipes with 10 components each can be stored in plain text. There is a function to adjust the other components if the initial weight was too high. The actual values and the desired values well as the proportionate percentages can be printed afterwards.
- **Multiplier function:** recipes with the ingredient weights recorded as percentage values can easily be replicated by entering a new target weight. The ideal solution for the preparation of larger containers, bulk packs etc.
- **Rapid function** for shortened stabilisation time with reduced readout
- **Control outputs (optocoupler, digital I/O)** to connect relays, signal lamps, valves etc. (35V/80mA)

Technical data

- Large backlit LCD touch display, digit height 18 mm, screen diagonal 5,8" (127×74 mm)
- Weighing plate dimensions, stainless steel W×D×H
 - A 228×228×95 mm
 - B 315×308×75 mm
 - C 450×350×115 mm
 - D 650×500×142 mm
- Dimensions of display device W×D×H 200×155×68 mm
- Cable length of display device approx., for models with weighing plate size
 - A 1 m
 - B, D 2 m
 - C 0,6 m
- Permissible ambient temperature 10 °C/40 °C

Accessories

- **Rechargeable battery pack external**, operating time up to 20 h without backlight, charging time approx. 10 h, KERN KS-A01
- **Signal lamp** for visual support of weighing with tolerance range, KERN IKT-A04
- **RS-232/Ethernet adapter** for connection to an IP-based Ethernet network, KERN YKI-01
- **RS-232/USB adapter**, to connect peripheral devices with USB connection, KERN AFH 12
- **Set for underfloor weighing**, consists of platform, bow, hook, only for models with weighing plate B, KERN DS-A01
- **Stand** to elevate display device, for models with weighing plate size B, C, height of stand approx. 480 mm, KERN IKT-A06
- **Wall mount** for display device, KERN IKT-A03
- **Suitable printers** see *Accessories*

Modes

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

Functions

- Capacity display with ①, ②, ⑤-⑦, ⑨-⑩
- Dispensing aid (-/+), with ③, ④
- Net/gross display, permanent, with ①, ③-⑤, ⑧-⑪
- Variable reference quantity, with ②
- Automatic reference optimisation, with ②
- PRE-TARE numerical or from the memory unit, with ①-⑦, ⑪
- Entering of item or batch description, operator etc., with ①-⑦, ⑪
- Freely programmable weighing unit, e.g. display direct in special units such as length of thread g/m, grammage g/m², or similar, with ⑨
- Date/time, with ①-⑪
- Statistical function, with ①
- GLP printout, with ①-⑪
- Individual formatting of up to 16 printer forms, recipes, operating mode master data in MS Excel, import via RS-232, for examples, see the internet, with ①-⑪

STANDARD



OPTION



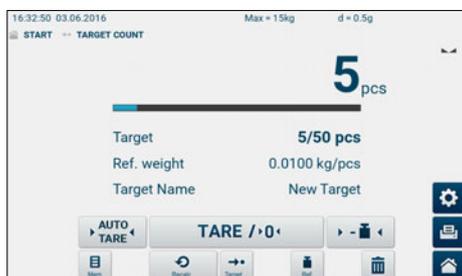
Model	Weighing capacity [Max] kg	Readability [d] g	Smallest part weight [Normal] g/piece	Net weight approx. kg	Weighing plate	Option	
						DAkKS Calibr. Certificate	DAkKS KERN
KERN							
IKT 6K0.1	6	0,1	1	8	B	963-128	
IKT 12K0.2*	12	0,2	2	8	B	963-128	
IKT 30K0.5	30	0,5	5	8	B	963-128	
IKT 60K1L	60	1	10	10	C	963-129	
IKT 150K2XL	150	2	20	20	D	963-129	
IKT 300K5XL	300	5	50	20	D	963-129	
IKT 3K0.01S	3	0,01	0,1	6	A	963-127	
IKT 8K0.05	8	0,05	0,5	8	B	963-128	
IKT 16K0.1	16	0,1	1	8	B	963-128	
IKT 30K0.1	30	0,1	1	8	B	963-128	
IKT 30K0.1L	30	0,1	1	10	C	963-128	
IKT 36K0.2*	36	0,2	2	8	B	963-128	
IKT 36K0.2L	36	0,2	2	10	C	963-128	
IKT 60K0.2L	60	0,2	2	10	C	963-129	
IKT 65K0.5L	65	0,5	5	10	C	963-129	
IKT 100K0.5L	100	0,5	5	10	C	963-129	
IKT 150K1L	150	1	10	10	C	963-129	

! *ONLY WHILE STOCKS LAST



09

KERN easytouch platform scale – the intuitive way to weight – now also as high resolution version with high-resolution display



Convenient piece-counting function

Standard use: Direct input of the reference quantity or the reference weight
 Professional use: Recall of items to be counted from the database with all relevant additional data such as piece weight, name, reference quantity, tare container weight, tolerances. Which means a super-fast sequence when counting: select item – load – count – done!



Fill-to-target function

Programmable target quantity or target weight. A signal will be displayed when the target value is reached



Convenient weighing with tolerance range (Checkweighing)

Standard use: Direct input of the tolerances in grams or percent
 Professional use: Recall of items from the database with all relevant additional data such as piece weight, name, reference quantity, tare container weight, tolerances. That leads to a super-fast sequence when portioning, dosing or sorting: Select item – load – check – done!



Features

- **High-quality, rapid processors** allow efficient, delay-free operation
- Thanks to the **intuitive touchscreen concept** and multi-lingual operation (DE, GB, FR, IT, ES, PT, NL, FI, PL, RUS, SE, CZ) the balance can be used easily by inexperienced users, straightaway. For the professional user, the balance provides convenient functions which permit a high level of individualisation and which thereby make operation significantly easier and quicker.
- Through a **large memory (256 MB)**, e.g. for item master data, weighing data etc. the balance is the ideal solution when working with a large range of goods or where there are high requirements for record keeping and documentation
- **1** Thanks to the high level of **connectivity** it is easy to connect USB sticks for data storage or data transfer to PCs, scales and networks using RS-232 or USB. This means that this range can be used for many different functions in Industry 4.0 applications
- **Convenient recipe weighing**
Standard use: Direct input of the recipe ingredients in grams or percent Professional use: Recall of items from the database with all relevant additional data such as target value, tolerances, name, tare container weight. That leads to a super-fast sequence when recipe-weighing:
select recipe – weigh – done!

- A graphic signal helps when dosing individual recipe ingredients. An information column on the lefthand edge of the screen allows you to see at a glance which ingredients have already been weighed (proportionately).
- **Multiplier function:** recipes and their ingredients can be multiplied at will at the press of a button, which is ideal for the production of larger containers, bulk packs etc.
- **2 Platform:** weighing plate stainless steel, painted steel base, silicone-coated aluminium load cell, protection against dust and water splashes IP65

Technical data

- Large backlit LCD touch display, digit height 12 mm, screen diagonal 7" (155×85 mm)
- Weighing plate dimensions W×D×H, stainless steel
 - A** 300×240×100 mm
 - B** 400×300×128 mm, see larger picture
 - C** 500×400×137 mm
 - D** 650×500×142 mm
- Dimensions of display device, W×D×H 252×152×133 mm
- Cable length of display device approx. 3 m
- Permissible ambient temperature -10 °C/40 °C

Accessories

- **Stand** to be screwed onto the platform, height of stand approx. 600 mm, KERN SFB-A01
- **Stand** to elevate display device, height of stand approx. 800 mm, KERN BFS-A07
- **Rechargeable battery pack internal**, operating time up to 80 h without backlight, charging time approx. 12 h, must be ordered at purchase, KERN GAB-A04
- **Software** for rapid and easy processing of the database at the PC (exporting, processing, importing), KERN SET-1.0

STANDARD



OPTION



Model	Weighing capacity [Max] kg	Readability [d] g	Reproducibility g	Linearity g	Net weight approx. kg	Weighing plate	Option	
							DAKKS Calibr. Certificate	
							DAKKS KERN	
IFT 6K-4	6	0,2	0,2	± 0,6	6	A	963-128	
IFT 10K-4	15	0,5	0,5	± 1,5	6	A	963-128	
IFT 10K-4L	15	0,5	0,5	± 1,5	9	B	963-128	
IFT 30K-3	30	1	1	± 3	9	B	963-128	
IFT 60K-3	60	2	2	± 6	9	B	963-129	
IFT 60K-3L	60	2	2	± 6	14	C	963-129	
IFT 100K-3	150	5	5	± 15	14	C	963-129	
IFT 100K-3L	150	5	5	± 15	22	D	963-129	
IFT 300K-2L	300	10	10	± 30	22	D	963-129	

1 ONLY WHILE STOCKS LAST!

Floor scales/Pallet scales/Drive-through scales

Robust aid for weighing large loads

KERN offers a carefully coordinated range from affordable entry level models, to practical built-in solutions, up to the top level verified models made of stainless steel. Their common feature is the long-lasting industrial quality as well as the high level of protection against dust and spray.

The installation, startup, and possible verification of floor, pallet, and drive-through scales require specialised knowledge, which is the basis for a successful sale. Please ask for our "Floor scale info sheet".

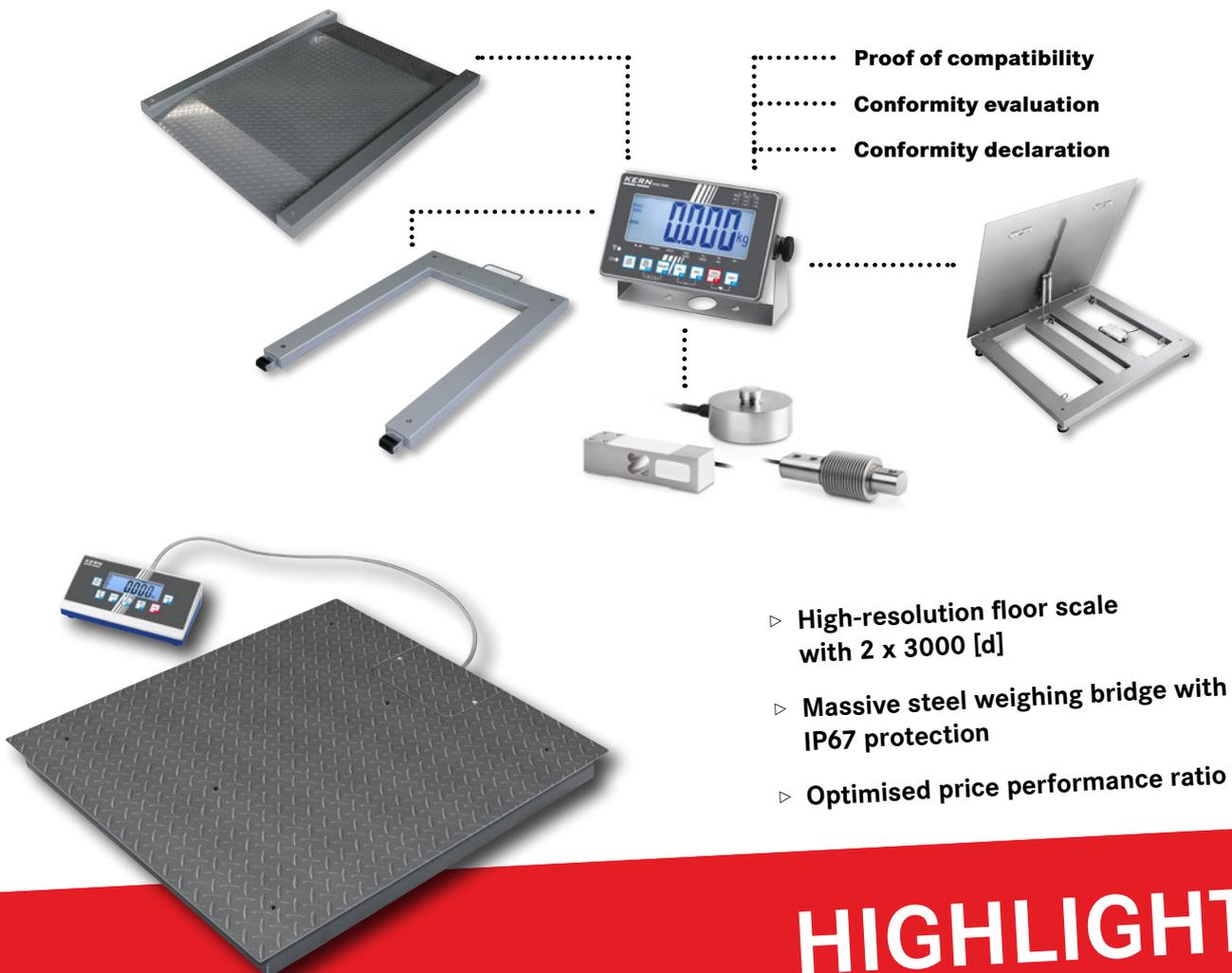
High-capacity scales – ideal for piece counting with large item quantities

The weighing ranges of bench counting scales are often not sufficient to count large quantities, units, palletised items etc. This is where high-performance counting systems are employed as these combine a high-precision reference balance with a high-capacity bulk scale, such as e.g. floor scales, pallet scales or drive-through scales. Your personal KERN customer consultant will be happy to help you setting up the right high-capacity counting system.

Individuality is the trump card – we create your ideal scale!

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

Of course we can also offer you the complete service and put the required scale combination together for you, including verification. All further details can be found from page 137 ff. or ask your personal customer service agent, he will be pleased to advise you



- **Proof of compatibility**
- **Conformity evaluation**
- **Conformity declaration**

- ▷ **High-resolution floor scale with 2 x 3000 [d]**
- ▷ **Massive steel weighing bridge with IP67 protection**
- ▷ **Optimised price performance ratio**

HIGHLIGHT

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

Readability [d] g	Weighing capacity [Max] kg	Weighing plate W×D×H mm	Model KERN	Page											
					For an explanation on the pictos, see front flap										
100	300	1050×1050×100	MWB 300K-1	123	2			●					●		●
100 200	300 600	1000×1000×108	BIC 600K-1S	115	2			●					●		
100 200	300 600	1200×1500×108	BIC 600K-1	115	2			●					●		
100 200	300 600	1000×1000×108	BID 600K-1DSM	116	2	○		●	●	●		●			
100 200	300 600	1200×1500×108	BID 600K-1DM	116	2	○		●	●	●		●			
100 200	300 600	1195×840×110	UID 600K-1DM	126	2	○		●	●	●	●	●		○	
200	600	1000×1000×108	BID 600K-1SM	116	2	○		●	●	●		●			
200	600	1200×1500×108	BID 600K-1M	116	2	○		●	●	●		●			
200	600	1000×1000×85	BFB 600K-1SNM	118	2	○		●	●	●		●			○
200	600	1500×1250×85	BFB 600K-1NM	118	2	○		●	●	●		●			○
200	600	1000×1000×85	BFA 600K-1SNM	120	2	○		●	○	●		●	●		○
200	600	1500×1250×85	BFA 600K-1NM	120	2	○		●	○	●		●	●		○
200	600	1000×1000×80	BFN 600K-1SM	121	2	○		●	○	●		●	●		
200	600	1000×1000×80	BXS 600K-1SM	122	2	○		●	○	●		●	●		○
200	600	1500×1250×80	BXS 600K-1M	122	2	○		●	○	●		●	●		○
200	600	800×120×100	UFA 600K-1S	124	2			●	●	●		●			○
200	600	1195×840×110	UID 600K-1M	126	2	○		●	●	●	●	●		○	
200	600	1190×840×90	UFB 600K200M	127	2	○		●	●	●		●			○
200	600	1195×840×110	UIB 600K-1	128	2			●				●			
200	600	840×1300×90	UFN 600K200IPM	129	2	○		●	○			●	●		○
200	600	1600×1200×80	NFB 600K200M	130	2	○		●	●	●		●			○
200	600	1800×1400×80	NFB 600K200LM	130	2	○		●	●	●		●			○
200	600	1600×1200×80	NFN 600K-1M	131	2	○		●	○	●		●	●		○
200 500	600 1500	1000×1000×108	BIC 1T-4S	115	2			●				●			
200 500	600 1500	1200×1500×108	BIC 1T-4	115	2			●				●			
200 500	600 1500	1000×1000×108	BID 1T-4DSM	116	2	○		●	●	●		●			
200 500	600 1500	1200×1500×108	BID 1T-4DM	116	2	○		●	●	●		●			
200 500	600 1500	1195×840×110	UID 1500K-1DM	126	2	○		●	●	●	●	●		○	
500	1500	1000×1000×108	BID 1T-4SM	116	2	○		●	●	●		●			
500	1500	1200×1000×108	BID 1T-4EM	116	2	○		●	●	●		●			
500	1500	1200×1500×108	BID 1T-4M	116	2	○		●	●	●		●			
500	1500	1500×1500×108	BID 1T-4LM	116	2	○		●	●	●		●			
500	1500	1000×1000×100	BFB 1T-4SNM	118	2	○		●	●	●		●			○
500	1500	1500×1250×90	BFB 1T-4NM	118	2	○		●	●	●		●			○
500	1500	1000×1000×95	BFA 1T-4SNM	120	2	○		●	○	●		●	●		○
500	1500	1500×1250×85	BFA 1T-4NM	120	2	○		●	○	●		●	●		○
500	1500	1000×1000×80	BFN 1T-4SM	121	2	○		●	○	●		●	●		
500	1500	1500×1250×80	BFN 1.5T0.5M	121	2	○		●	○	●		●	●		
500	1500	1000×1000×80	BXS 1.5T-4SM	122	2	○		●	○	●		●	●		○
500	1500	1200×120×100	UFA 1.5T0.5	124	2			●	●	●		●			○
500	1500	1195×840×110	UID 1500K-1M	126	2	○		●	●	●	●	●		○	
500	1500	1190×840×90	UFB 1.5T0.5M	127	2	○		●	●	●		●			○
500	1500	1195×840×110	UIB 1.5T-4	128	2			●				●			
500	1500	840×1360×90	UFC 1T-1M	128	2	○		●	○	●		●			○
500	1500	840×1300×90	UFN 1.5T0.5IPM	129	2	○		●	○			●	●		○
500	1500	1600×1200×80	NFB 1.5T0.5M	130	2	○		●	●	●		●			○
500	1500	1800×1400×80	NFB 1.5T0.5LM	130	2	○		●	●	●		●			○
500	1500	1600×1200×80	NFN 1.5T-4M	131	2	○		●	○	●		●	●		○
500 1000	1500 3000	1200×1500×108	BIC 3T-3	115	2			●				●			
500 1000	1500 3000	1500×1500×108	BIC 3T-3L	115	2			●				●			
500 1000	1500 3000	1200×1500×108	BID 3T-3DM	116	2	○		●	●	●		●			
500 1000	1500 3000	1500×1500×108	BID 3T-3DLM	116	2	○		●	●	●		●			
500 1000	1500 3000	1195×840×110	UID 3000K-0DM	126	2	○		●	●	●	●	●		○	
1000	3000	1200×1500×108	BID 3T-3M	116	2	○		●	●	●		●			
1000	3000	1500×1500×108	BID 3T-3LM	116	2	○		●	●	●		●			
1000	3000	1500×1250×85	BFB 3T-3NM	118	2	○		●	●	●		●			○
1000	3000	1500×1500×80	BFB 3T1LM	118	2	○		●	●	●		●			○
1000	3000	1500×1250×85	BFA 3T-3NM	120	2	○		●	○	●		●	●		○
1000	3000	1500×1500×85	BFA 3T-3LM	120	2	○		●	○	●		●	●		○
1000	3000	1500×1250×80	BFN 3T-3M	121	2	○		●	○	●		●	●		
1000	3000	1500×1250×80	BXS 3T-3M	122	2	○		●	○	●		●	●		○
1000	3000	1200×120×100	UFA 3T1	124	2			●	●	●		●			○
1000	3000	1200×120×100	UFA 3T-3L	124	2			●	●	●		●			○
1000	3000	1195×840×110	UID 3000K-0M	126	2	○		●	●	●	●	●		○	
1000	3000	1195×840×110	UIB 3T-3	128	2			●				●			
2000	6000	1500×1500×130	BFB 6T-3M	118	2	○		●	●	●		●			○
2000	6000	1500×1500×130	BFA 6T-3M	120	2	○		●	○	●		●	●		○
2000	6000	1200×160×100	UFA 6T-3	124	2			●	●	●		●			○
2000	6000	1200×160×100	UFA 6T-3L	124	2			●	●	●		●			○

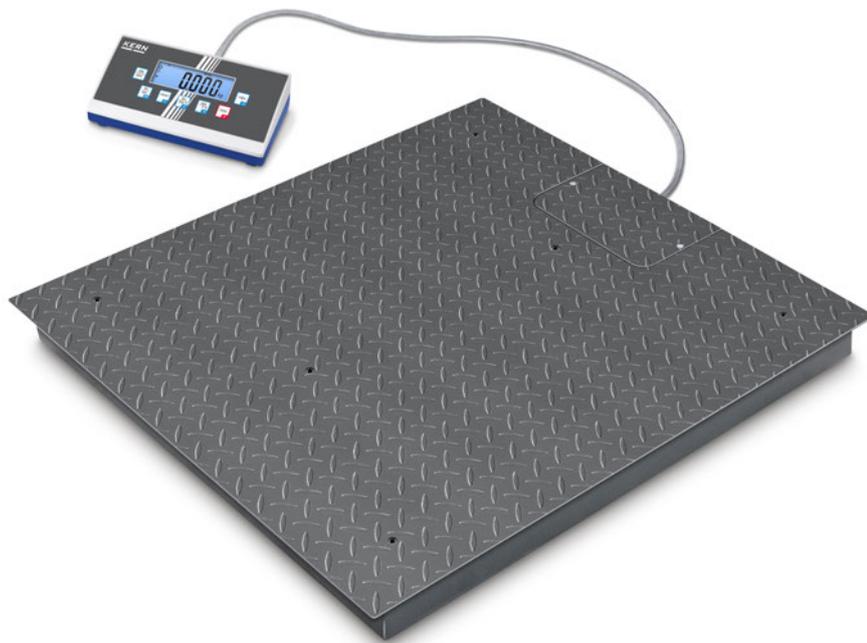


“

From goods receipt to production and shipping – KERN floor scales, pallet truck scales and crane scales can be used anywhere and are intuitive to use. With numerous clever functions they will help you to fulfil the increased demands of Industry 4.0 and carry out your processes in a more effective manner, with better use of resources.

”

*Florian Bächle,
Product Specialist Industrial scales*



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

Features

- **Weighing bridge:** out of anti-slip corrugated steel, 4 silicone-coated steel load cells, versatile supported, therefore especially shock absorbent, even against transverse forces, dust and spray protection IP67
- **Welded platform** with screw holes to lift the balance 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
- **Did you know?** Our floor scales are delivered in a robust wooden box. This protects the high-quality weighing technology from environmental influences and stresses during transportation. KERN – always one step ahead

Technical data

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

Accessories

- **Protective working cover** over display device, delivery quantity: 5 items, KERN EOB-A02S05
- **Pair of base plates** to fix the weighing bridge to the floor, KERN BIC-A07
- **Ascending ramp**, steel, powder coated, not included, 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
- **Stable pit frame**, steel, powder coated, 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

STANDARD

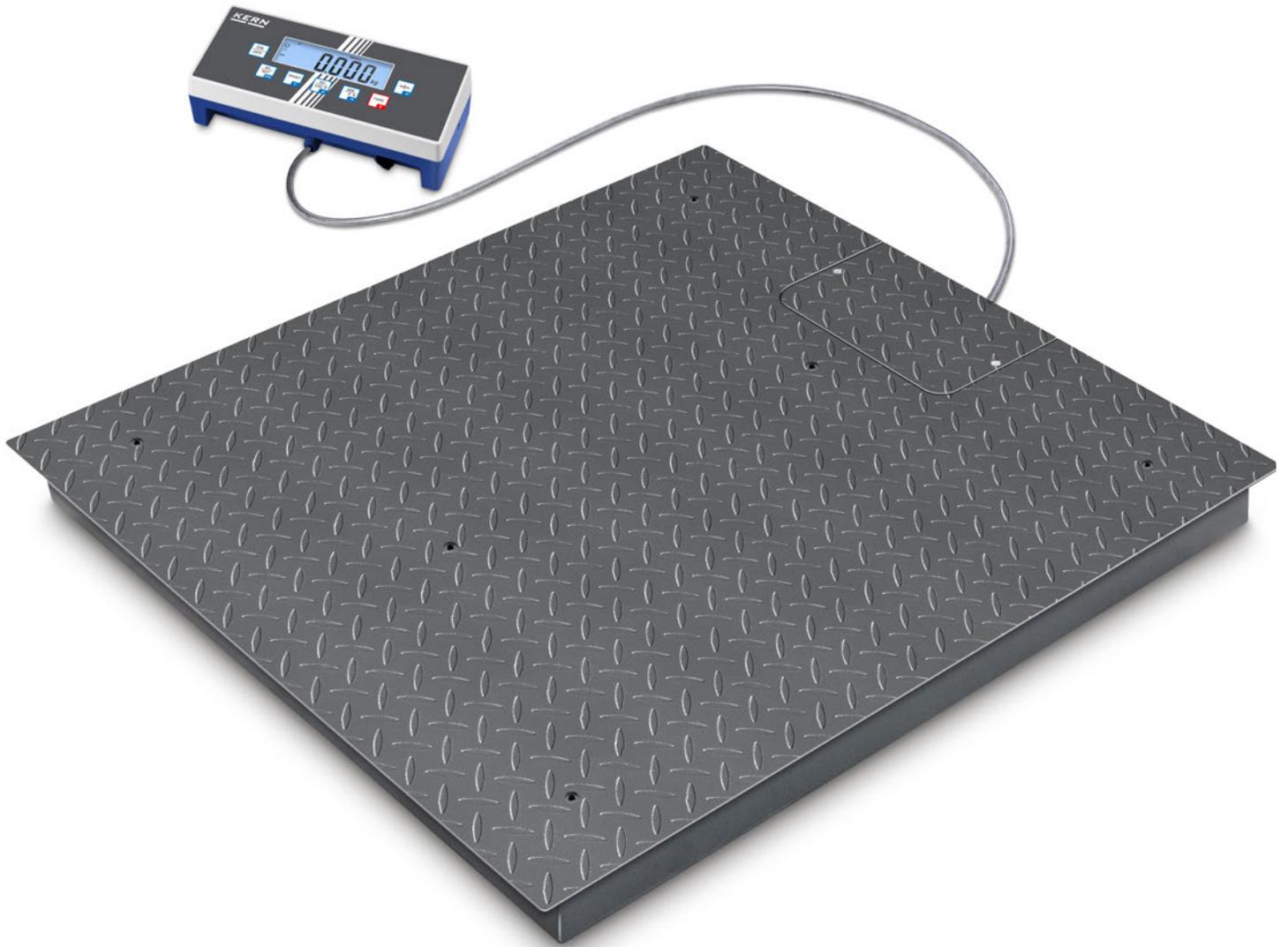
CAL EXT | UNIT | IP 67 | BATT | MULTI | DMS | 2 DAYS

OPTION

DAKKS +3 DAYS

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

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



10

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



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 Stable pit frame, to install the weighing bridge so you can drive straight on

Features

- **BID-D: Dual-range floor scales**, 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!
- **BID 1T-4EM:** Compact special size, especially for weighing europallets
- **1 Weighing bridge:** out of anti-slip corrugated steel, 4 silicone-coated steel load cells, dust and spray protection IP67
- **Welded platform** with screw holes to lift the balance for easy cleaning
- **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. Only possible through data interface RS-232, other interfaces on request

Technical data

- Large LCD display, digit height 25 mm
- Weighing plate dimensions WxDxH
 - A** 1000x1000x108 mm
 - B** 1200x1000x108 mm
 - C** 1200x1500x108 mm
 - D** 1500x1500x108 mm
- Dimensions of display device WxDxH 268x115x80 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
- **4 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, **Benchtop stand incl. wall mount** for display device, KERN EOC-A04
- **Rechargeable battery pack internal**, 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, not possible in combination with verification, 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, must be ordered at purchase, please ask for delivery time, KERN KIB-A10
- **Ethernet data interface**, to connect an IP-based Ethernet network, must be ordered at purchase, not in combination with verification, KERN KIB-A02
- **Signal lamp, including interface**, for visual support of weighing with tolerance range, Factory Option, KERN KIB-A06
- **Alibi memory**, including USB interface for exporting weighing results to external data media such as USB sticks, hard disks, etc. Not in connection with calibration, KERN KIB-A01
- **Verification plug**, for verified balances this enables you to separate the display device and platform without affecting the verification, e.g. for installing the scale in a packing and dispatch table, pit frame etc. at a later date. Please order this at the same time as you purchase your scale, KERN KIB-A12

Note:

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

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

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

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

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

FACTORY: (Icons for verification and calibration)

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
						M	KERN	DAkKS KERN
BID 600K-1SM	600	0,2	4	130	A	965-230	963-130	
BID 600K-1M	600	0,2	4	150	C	965-230	963-130	
BID 1T-4SM	1500	0,5	10	130	A	965-230	963-130	
BID 1T-4M	1500	0,5	10	75	C	965-230	963-130	
BID 1T-4EM	1500	0,5	10	65	B	965-230	963-130	
BID 1T-4LM	1500	0,5	10	80	D	965-230	963-130	
BID 3T-3M	3000	1	20	150	C	965-232	963-132	
BID 3T-3LM	3000	1	20	150	D	965-232	963-132	
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readability [d]								
BID 600K-1DSM	300 600	0,1 0,2	4	130	A	965-230	963-130	
BID 600K-1DM	300 600	0,1 0,2	4	150	C	965-230	963-130	
BID 1T-4DSM	600 1500	0,2 0,5	10	130	A	965-230	963-130	
BID 1T-4DM	600 1500	0,2 0,5	10	150	C	965-230	963-130	
BID 3T-3DM	1500 3000	0,5 1	20	150	C	965-232	963-132	
BID 3T-3DLM	1500 3000	0,5 1	20	150	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.

NEW New model

* Verification not in combination with KERN KIB-A02, KIB-A03, KIB-A04, KIB-A10



10

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



Weighing plate can be unscrewed
The weighing plate can be conveniently unscrewed for maintenance or cleaning purposes (weighing plate size **A**, **B**)



Easy levelling of the weighing bridge as well as access to the junction box from above



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

Floor scale KERN BFB



Features

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

Technical data

- Large backlit LCD display, digit height 52 mm
- Weighing plate dimensions W×D×H
 - A 1000×1000×85 mm
 - B 1500×1250×85 mm
 - C 1500×1500×80 mm
 - D 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

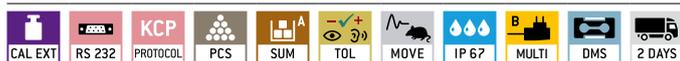
- **Protective working cover**, scope of delivery: 5 items, KERN KFB-A02S05
- **2 Stand** to elevate display device, height of stand approx. 800 mm, KERN BFS-A07
- **Pair of base plates** to fix the weighing bridge to the floor, for models with weighing plate size
 - A, B, C KERN BFS-A06N
 - D KERN BFS-A10
- **3 Ascending ramp**, steel, lacquered, not included, for models with weighing plate size
 - A KERN BFS-A01N
 - B KERN BFS-A02N
 - C KERN BFS-A09N
 - D KERN BFS-A11
- **4 Stable pit frame**, steel, lacquered, for models with weighing plate size
 - A KERN BFS-A03N
 - B KERN BFS-A04N
 - C KERN BFS-A08
- **Rechargeable battery pack internal**, 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, not possible in combination with RS-232 data interface, KERN KFB-A03
- **Analogue module**, must be ordered at purchase, not possible in combination with signal lamp
 - 0-10 V: KERN KFB-A04
 - 4-20 mA: KERN KFB-A05
- **Signal lamp** for visual support of weighing with tolerance range, 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

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

STANDARD



OPTION



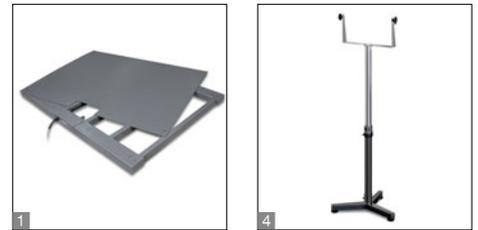
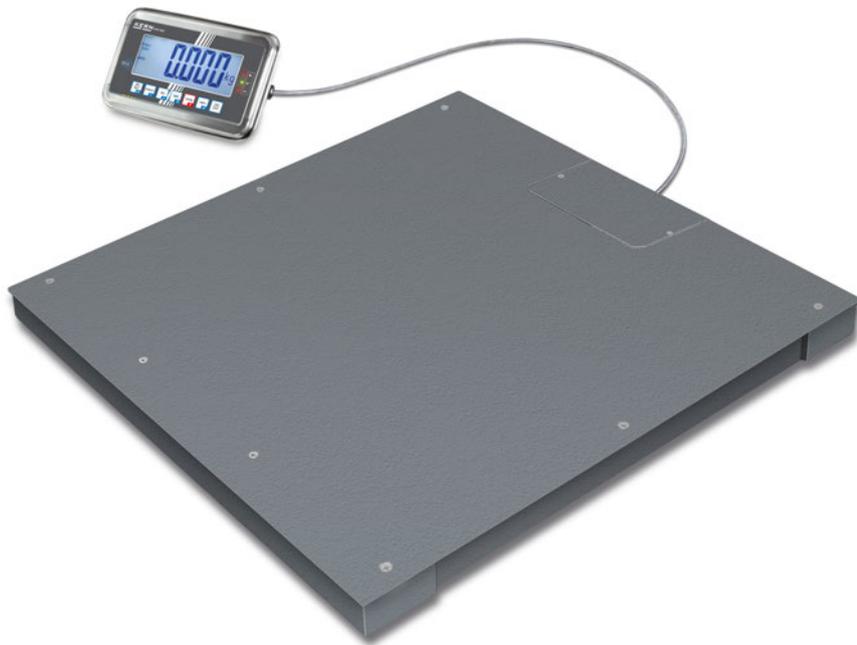
FACTORY



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
						M III KERN		DAkkS KERN
BFB 600K-1SNM	600	0,2	4	105	A	965-230		963-130
BFB 600K-1NM	600	0,2	4	135	B	965-230		963-130
BFB 1T-4SNM	1500	0,5	10	100	A	965-230	↓	963-130
BFB 1T-4NM	1500	0,5	10	135	B	965-230		963-130
BFB 3T-3NM	3000	1	20	135	B	965-232		963-132
BFB 3T1LM	3000	1	20	155	C	965-232		963-132
BFB 6T-3M	6000	2	40	210	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.





Weighing bridge with screwed-on weighing plate (IP67) and stainless steel display device (IP68), with EC type approval [M]

Features

- **Tough industry standard** suitable for use in harsh industrial applications
- **1 Weighing plate A, B screwed on from the top**, so it's easy to remove, hygienic and easy to clean
- **2 Weighing bridge:** steel, painted, weighing plate size C, D corrugated steel plate, welded, 4 silicone-coated steel load cells, dust and spray protection IP67. Weighing bridge can also be delivered as component without the display device, for details see KERN KFP-V20 IP67
- **Easy levelling of the weighing bridge** as well as **access to the junction box** from above
- **3 Display device:** stainless steel, protection against dust and water splashes IP65
- **Benchtop stand incl. wall mount** for display device as standard

Technical data

- Large backlit LCD display, digit height 52 mm
- Weighing plate dimensions W×D×H
 - A 1000×1000×85 mm
 - B 1500×1250×85 mm
 - C 1500×1500×80 mm
 - D 1500×1500×130 mm
- Dimensions of display device W×D×H 266×165×96 mm
- Cable length of display device approx. 5 m
- **Rechargeable battery pack internal**, operating time up to 35 h without backlight, charging time approx. 12 h
- Permissible ambient temperature -10 °C/40 °C

Accessories

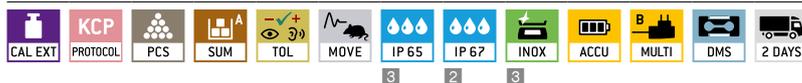
- **4 Stand** to elevate display device, height of stand approx. 800 mm, KERN BFS-A07

- **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
- **Ascending ramp**, steel, lacquered, for models with weighing plate size
 - A KERN BFS-A01N
 - B KERN BFS-A02N
 - C KERN BFS-A09
 - D KERN BFS-A11
- **Stable pit frame**, steel, lacquered, for models with weighing plate size
 - A KERN BFS-A03N
 - B KERN BFS-A04N
 - C KERN BFS-A08
 - D KERN BFS-A12
- **Rechargeable battery pack internal**, 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
- **Large display with superior display size**, only in combination with data interface KFN-A1, KERN YKD-A02
- **Cable with special length** 15 m, between display device and platform, for verified models which must be ordered at the time of purchase, KERN BFB-A03
- Further details, plenty of further accessories and suitable printers see *Accessories*

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

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

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
						M III KERN		DAkkS KERN
BFA 600K-1SNM	600	0,2	4	105	A	965-230		963-130
BFA 600K-1NM	600	0,2	4	135	B	965-230		963-130
BFA 1T-4SNM	1500	0,5	10	100	A	965-230		963-130
BFA 1T-4NM	1500	0,5	10	135	B	965-230		963-130
BFA 3T-3NM	3000	1	20	135	B	965-232		963-132
BFA 3T-3LM	3000	1	20	160	C	965-232		963-132
BFA 6T-3M	6000	2	40	210	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.

! ONLY WHILE STOCKS LAST



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, 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

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

Technical data

- Large backlit LCD display, digit height 52 mm
- Dimensions of display device W×D×H 266×165×96 mm
- Cable length of display device approx. 5 m
- Weighing plate dimensions W×D×H
 - A** 1000×1000×85 mm
 - B** 1500×1200×80 mm
- **Rechargeable battery pack internal**, operating time up to 35 h without backlight, charging time approx. 12 h
- Permissible ambient temperature -10 °C/40 °C

Accessories

- **4 Stand** to elevate display device, height of stand approx. 800 mm, KERN YKP-02
- **Pair of base plates** to fix the weighing bridge to the floor, KERN BFN-A03
- **5 Ascending ramp**, stainless steel, not included, for models with weighing plate size KERN BFN-A05 KERN BFN-A01
- **6 Stable pit frame**, stainless steel, for models with weighing plate size KERN BFN-A06 KERN BFN-A02
- **Data interface RS-232**, interface cable included, approx. 1,5 m, must be ordered at purchase, KERN KFN-A01
- **Cable with special length** 15 m, between display device and platform, for verified models which must be ordered at the time of purchase, KERN BFB-A03
- Further details, plenty of further accessories and suitable printers see *Accessories*

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

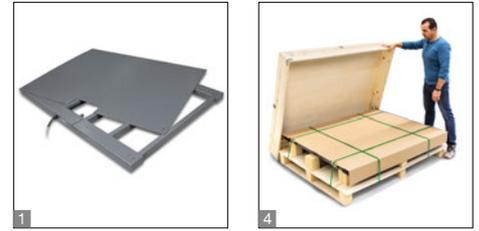
1 Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs

STANDARD										OPTION		FACTORY			
													+3 DAYS		+3 DAYS

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	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	135	B		965-230	963-130
BFN 3T-3M	3000	1	20	135	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.

1 ONLY WHILE STOCKS LAST



Weighing bridge with screwed-on weighing plate (IP67) and stainless steel display device (IP68), with EC type approval [M]

Features

- **Tough industry standard** suitable for use in harsh industrial applications
- **1 Weighing plate screwed on from the top**, so it's easy to remove, hygienic and easy to clean
- **2 Weighing bridge:** steel, painted, extremely resistant to bending due to material thickness, 4 silicone-coated steel load cells, dust and spray protection IP67.
- **Easy levelling of the weighing bridge** as well as **access to the junction box** from above
- **3 Display device:** stainless steel, protection against dust and water splashes IP68, for industrial applications, hygienic and easy to clean, integrated power supply
- **Benchtop stand incl. wall mount** for display device as standard
- **Totalising** of weights and piece counts
- 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

- **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 backlit LCD display, digit height 55 mm
- Weighing plate dimensions, steel, painted W×D×H
 - A** 1000×1000×80 mm
 - B** 1500×1250×80 mm
- Dimensions of display device W×D×H 232×170×80 mm
- Cable length of display device approx. 5 m
- Permissible ambient temperature -10 °C/40 °C

Accessories

- **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 BXS-A03

- **Ascending ramp**, steel, lacquered, for models with weighing plate size
 - A** KERN BXS-A01
 - B** KERN BXS-A02
- **Rechargeable battery pack internal**, operating time up to 80 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 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
- **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

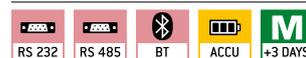
STANDARD



OPTION



FACTORY



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

1 ONLY WHILE STOCKS LAST

Drive-through scale KERN MWB



Compact and robust drive-through scale (IP65) – particularly mobile thanks to handle, castors and low dead weight

Features

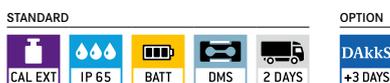
- Drive-through scale for rapid weighing of e.g. wire cage trolleys, shelf trolleys, container trolleys, storage trolleys, sack trucks, mobile containers, containers refuse etc.
- **1 Weighing bridge:** steel, lacquered, 4 silicone-coated aluminium load cells, protection against dust and water splashes IP65
- Secure and non-slip positioning with height-adjustable rubber feet
- **2** Level indicator to level the balance precisely
- **3** The scale can be easily transported using the two handles and two rollers and does not require much storage space
- **Hold function:** When the weighing conditions are unstable, a stable weight is calculated determining an average value
- **Wall mount for the display device,** as standard
- **Protective working cover** included with delivery

Technical data

- Large backlit LCD display, digit height 25 mm
- Overall dimensions, W×D×H 1050×1050×100 mm
- Platform height in the drive-through area: 50 mm
- Dimensions weighing surface W×D 800×800 mm
- Dimensions of display device W×D×H 200×130×60 mm
- Cable length of display device approx. 3 m
- Batteries included, 6×1,5 V AA, operating time up to 40 h
- Net weight approx. 55 kg

Accessories

- Protective working cover over the display device, scope of delivery: 5 items, KERN MBC-A06S05



Model	Weighing capacity	Readability	Option	
			DAkkS Calibr. Certificate	
KERN	[Max] kg	[d] kg	DAkkS KERN	
MWB 300K-1	300	0,1	963-129	



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

Features

- Flexible solution for weighing large, bulky or long items
- **High mobility:** thanks to rechargeable battery operation (optional), compact, lightweight construction, it is suitable for the use in several locations
- **1 Weighing beams:** steel, lacquered, 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
- **Sturdy handles** for transporting the weighing beams
- **2** KERN UFA-L: Each weighing beam has a roller and handle for easy transport of the scale
- **Display device:** for details see KERN KFB-TM
- **Benchtop stand incl. wall mount** for display device as standard
- **Totalising** of weights and piece counts
- **Protective working cover** included with delivery

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

Technical data

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

Accessories

- **Protective working cover**, scope of delivery: 5 items, KERN KFB-A02S05

- **3 Stand** to elevate display device, height of stand approx. 800 mm, KERN BFS-A07
- **Rechargeable battery pack internal**, operating time up to 35 h without backlight, charging time approx. 10 h, KERN KFB-A01
- **Bluetooth data interface** for wireless data transfer to PC or tablets, must be ordered at purchase, not in combination with verification, KERN KFB-A03
- Analogue module, must be ordered at purchase, not possible in combination with signal lamp
0-10 V: KERN KFB-A04
4-20 mA: KERN KFB-A05
- **4 Signal lamp** for visual support of weighing with tolerance range, not possible in combination with analogue module, KERN CFS-A03
- **5 Large display with superior display size**, KERN YKD-A02
- **Y-cable** for parallel connection of two terminal devices to the RS-232 interface on the scale, e.g. signal lamp and printer, KERN CFS-A04
- **Cable with special length** 15 m, between display device and platform, for verified models which must be ordered at the time of purchase, KERN BFB-A03
- Further details, plenty of further accessories and suitable printers see *Accessories*

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

STANDARD



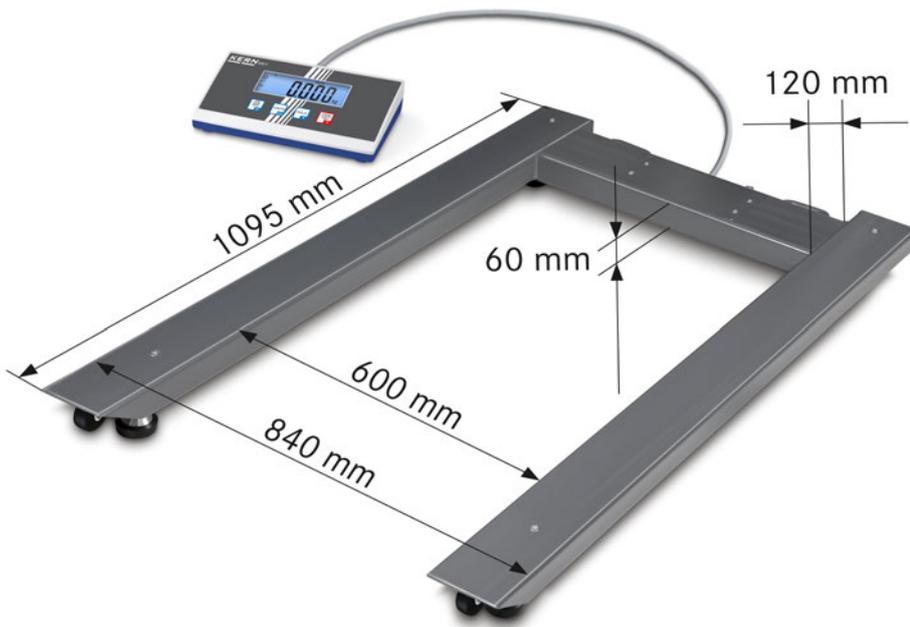
OPTION



FACTORY



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



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

Features

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

Technical data

- Large LCD display, digit height 25 mm
- Dimensions of display device W×D×H 235×115×52 mm
- Overall height including adjustable feet 110 mm
- Cable length of display device approx. 5 m
- Optional battery operation, 4×1.5 V AA not included in scope of delivery, operating time up to 60 h
- Net weight approx. 55 kg
- Permissible ambient temperature -10 °C/40 °C

Accessories

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

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

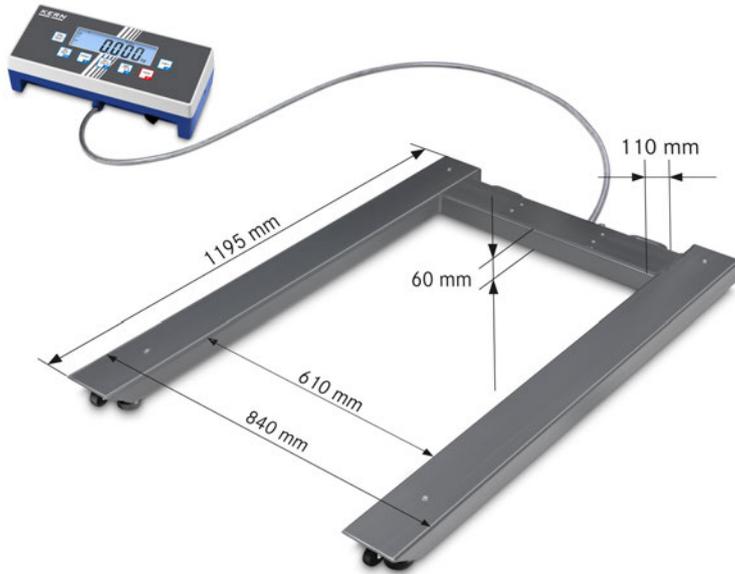
STANDARD



OPTION



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



- Cable length of display device approx. 5 m
- Net weight approx. 55 kg
- Permissible ambient temperature -10 °C/40 °C

Accessories

- **Protective working cover**, scope of delivery: 5 items, KERN EOC-A01S05
- **Rechargeable battery pack internal**, 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, not possible in combination with verification, KERN KIB-A03
- **Bluetooth data interface** for wireless data transfer to PC or tablets, must be ordered at purchase, not in combination with verification, KERN KIB-A04
- **WiFi interface** for wireless connection of the balance to networks and WiFi capable devices, such as tablets, laptops or smartphones, must be ordered at purchase, KERN KIB-A10
- **Ethernet data interface**, to connect an IP-based Ethernet network, 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, Factory Option, KERN KIB-A06
- **Alibi memory**, including USB interface for exporting weighing results to external data media such as USB sticks, hard disks, etc. Not in connection with calibration, KERN KIB-A01
- Further details, plenty of further accessories and suitable printers see *Accessories*

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

Features

- **NEW:** Dual-range floor scales, 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
- **Load support:** steel, powder coated, 4 silicone-coated aluminium load cells, 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
- 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. Only possible through data interface RS-232, other interfaces on request
- **Protective working cover** included with delivery

Technical data

- Large backlit LCD display, digit height 25 mm
- Dimensions of display device W×D×H 268×115×80 mm
- Overall height including adjustable feet 110 mm

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

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

STANDARD: CAL EXT, RS 232, KCP PROTOCOL, PCS, SUM, TOL, MOVE, IP 67, MULTI, DMS, 2 DAYS

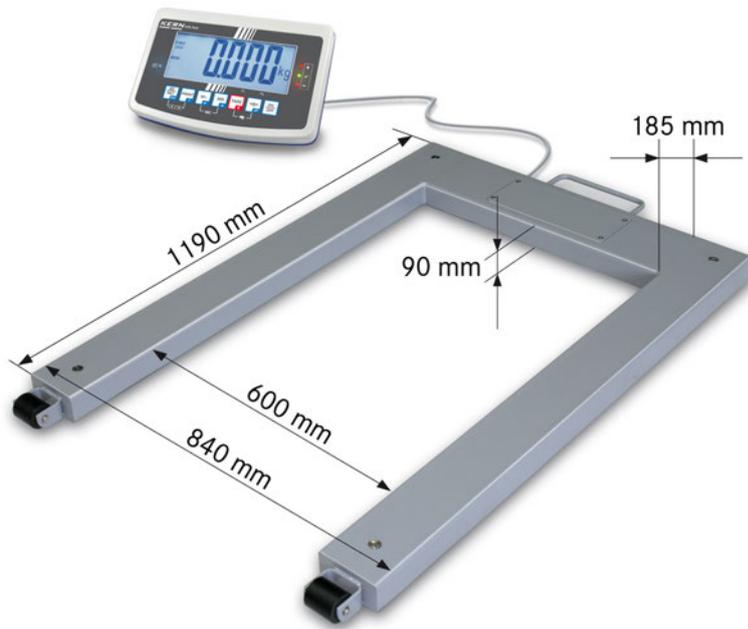
OPTION: ACCU, DAKKS +3 DAYS

FACTORY: ALIBI, USB, BT 4.0, WLAN, LAN, M +3 DAYS

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

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

* Verification not in combination with KERN KIB-A02, KIB-A03, KIB-A04, KIB-A10



Pallet scale with steel load support (IP67) and EC type approval [M]

Features

- **High mobility:** thanks to rechargeable battery operation (optional), compact, lightweight construction, it is suitable for the use in several locations
- **1 Load support:** steel, powder coated, 4 silicone-coated aluminium load cells, protection against dust and water splashes IP67, Weighing bridge can also be delivered as component without the display device, for details see KERN KFU-V20
- Low height of the load fork, ideal for low pallets
- Two wheels for easy transportation of the scale
- **Weighing with tolerance range (check-weighing):** 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 W×D×H 250×160×58 mm
- Overall height including adjustable feet 90 mm
- Cable length of display device approx. 5 m
- Net weight approx. 55 kg
- Permissible ambient temperature -10 °C/40 °C

Accessories

- **Protective working cover**, scope of delivery: 5 items, KERN KFB-A02S05
- **3 Stand** to elevate display device, height of stand approx. 800 mm, **Stand** to elevate display device, height of stand approx. 800 mm, KERN BFS-A07
- **Rechargeable battery pack internal**, operating time up to 35 h without backlight, charging time approx. 12 h, KERN KFB-A01
- **Bluetooth data interface** for wireless data transfer to PC or tablets, must be ordered at purchase, not in combination with verification, KERN KFB-A03

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

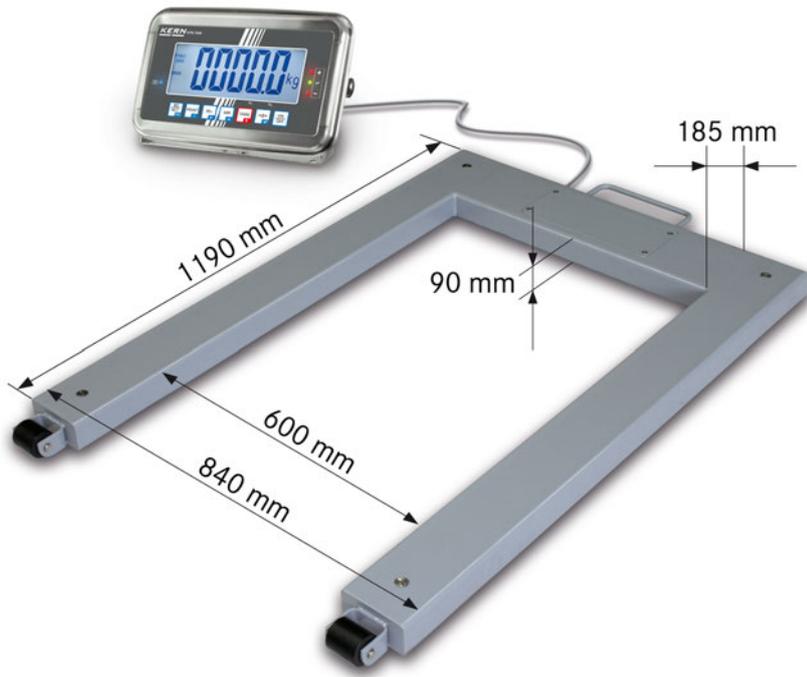


FACTORY



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

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



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

Features

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

Technical data

- Large backlit LCD display, digit height 52 mm
- Dimensions of display device W×D×H 266×165×96 mm
- Cable length of display device approx. 5 m
- Net weight approx. 55 kg
- Permissible ambient temperature -10 °C/40 °C

Accessories

- **4 Stand** to elevate display device, height of stand approx. 800 mm, KERN BFS-A07
- **Rechargeable battery pack internal**, 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, KERN KFN-A01
- **5 Signal lamp** for visual support of weighing with tolerance range, only in combination with data interface KFN-A1, KERN CFS-A03
- **6 Large display with superior display size**, only in combination with data interface KFN-A1, 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
- **Suitable printers** see *Accessories*

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

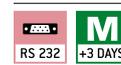
STANDARD



OPTION



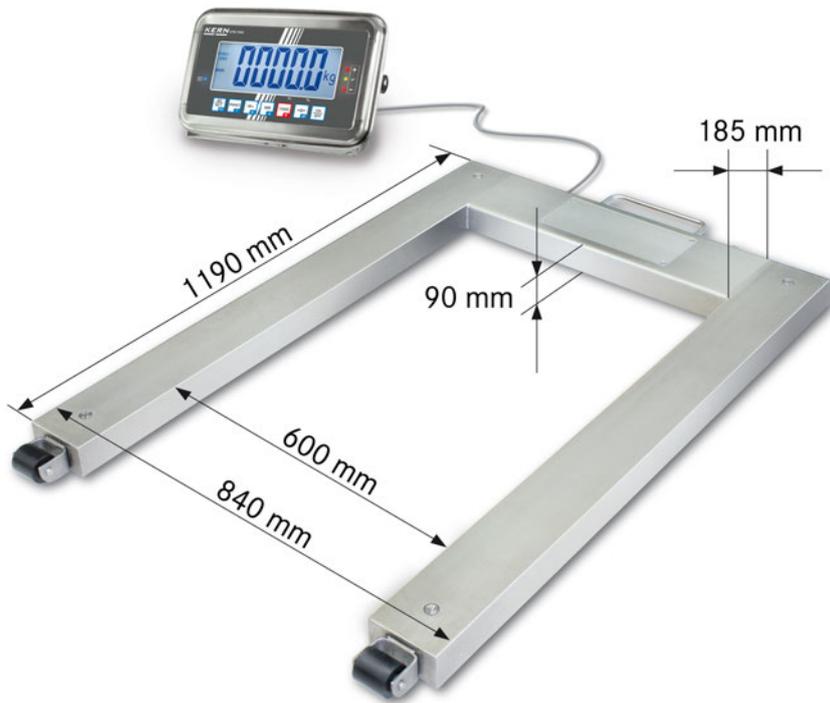
FACTORY



Model	Weighing capacity [Max] kg	Readability = Verification value [d] = [e] kg	Minimal load [Min] kg	Option		
				Verification	DAkKS Calibr. Certificate	
KERN UFC 1T-1M	1500	0,5	10	M III KERN 965-230	DAkKS 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.

! ONLY WHILE STOCKS LAST!



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

Features

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

Weighing with tolerance range (check-weighing): A visual and audible signal assists the rapid checking of items on pallets

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

Technical data

- Large backlit LCD display, digit height 52 mm
- Dimensions of display device WxDxH 266x165x96 mm
- Cable length of display device approx. 5 m
- Net weight approx. 55 kg
- Permissible ambient temperature -10 °C/40 °C

Accessories

- **4 Stand** to elevate display device, height of stand approx. 800 mm, KERN BFN-A04
- **Rechargeable battery pack internal**, operating time up to 35 h without backlight, charging time approx. 10 h, KERN GAB-A04
- **Data interface RS-232**, interface cable included, approx. 1,5 m, must be ordered at purchase, KERN KFN-A01
- **5 Large display with superior display size**, only in combination with data interface KFN-A1, KERN YKD-A02
- **Cable with special length** 15 m, between display device and platform, for verified models which must be ordered at the time of purchase, KERN BFB-A03
- Further details, plenty of further accessories and suitable printers see *Accessories*

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

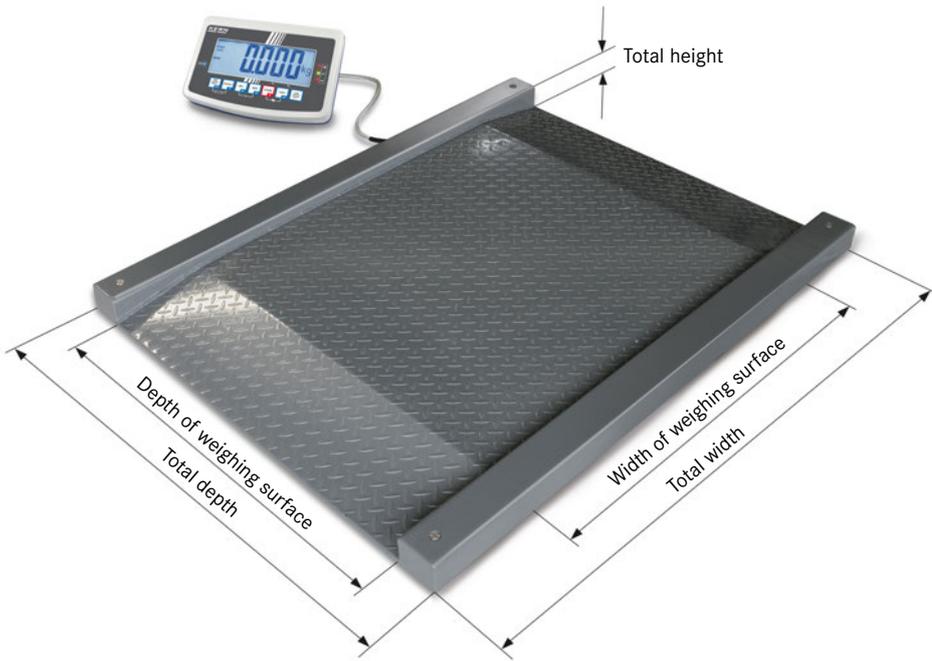
1 Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs

STANDARD										OPTION		FACTORY	
				2	1								

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





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

Features

- Drive-through scale for rapid weighing of e.g. wire cage trolleys, shelf trolleys, container trolleys, storage trolleys, sack trucks, transpallets, mobile containers, containers refuse etc.
- **Low platform height** and integrated access ramps on both sides facilitate access. No need for pit frame installation – which saves money
- **1 Weighing bridge:** out of anti-slip corrugated steel, 4 silicone-coated steel load cells, dust and spray protection IP67
- **Display device:** for details see KERN KFB-TM
- **Protective working cover** included with delivery
- **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
- Overall dimensions W×D×H
 - A** 1600×1200×80 mm
 - B** 1800×1400×80 mm
- Platform height in the drive-through area: 80 mm
- Dimensions weighing surface
 - A** W×D 1000×1000 mm
 - B** W×D 1200×1200 mm
- Dimensions of display device W×D×H 250×160×65 mm
- Cable length of display device approx. 5 m
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Protective working cover, scope of delivery: 5 items, KERN KFB-A02S05
- **3** Stand to elevate display device, height of stand approx. 800 mm, 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
- **Rechargeable battery pack internal**, operating time up to 35 h without backlight, charging time approx. 10 h, KERN KFB-A01
- Bluetooth data interface for wireless data transfer to PC or tablets, must be ordered at purchase, not in combination with verification, KERN KFB-A03
- Analogue module, must be ordered at purchase, not possible in combination with signal lamp 0-10 V: KERN KFB-A04 4-20 mA: KERN KFB-A05
- **4 Signal lamp** for visual support of weighing with tolerance range, 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 = Verification value [d] = [e] kg	Minimal load [Min] kg	Net weight approx. kg	Weighing plate	Option		
						Verification		DAkkS Calibr. Certificate
						M III KERN		DAkkS KERN
NFB 600K200M	600	0,2	4	130	A	965-230		963-130
NFB 600K200LM	600	0,2	4	165	B	965-230		963-130
NFB 1.5T0.5M	1500	0,5	10	130	A	965-230	↓	963-130
NFB 1.5T0.5LM	1500	0,5	10	155	B	965-230		963-130

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





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

Features

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

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

Technical data

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

Accessories

- **4 Stand** to elevate display device, height of stand approx. 800 mm, KERN BFN-A04
- **Pair of base plates** to fix the weighing bridge to the floor, KERN BFN-A03
- **Internal 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
- **5 Large display with superior display size**, only in combination with data interface KFN-A1, 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

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

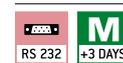
STANDARD



OPTION



FACTORY

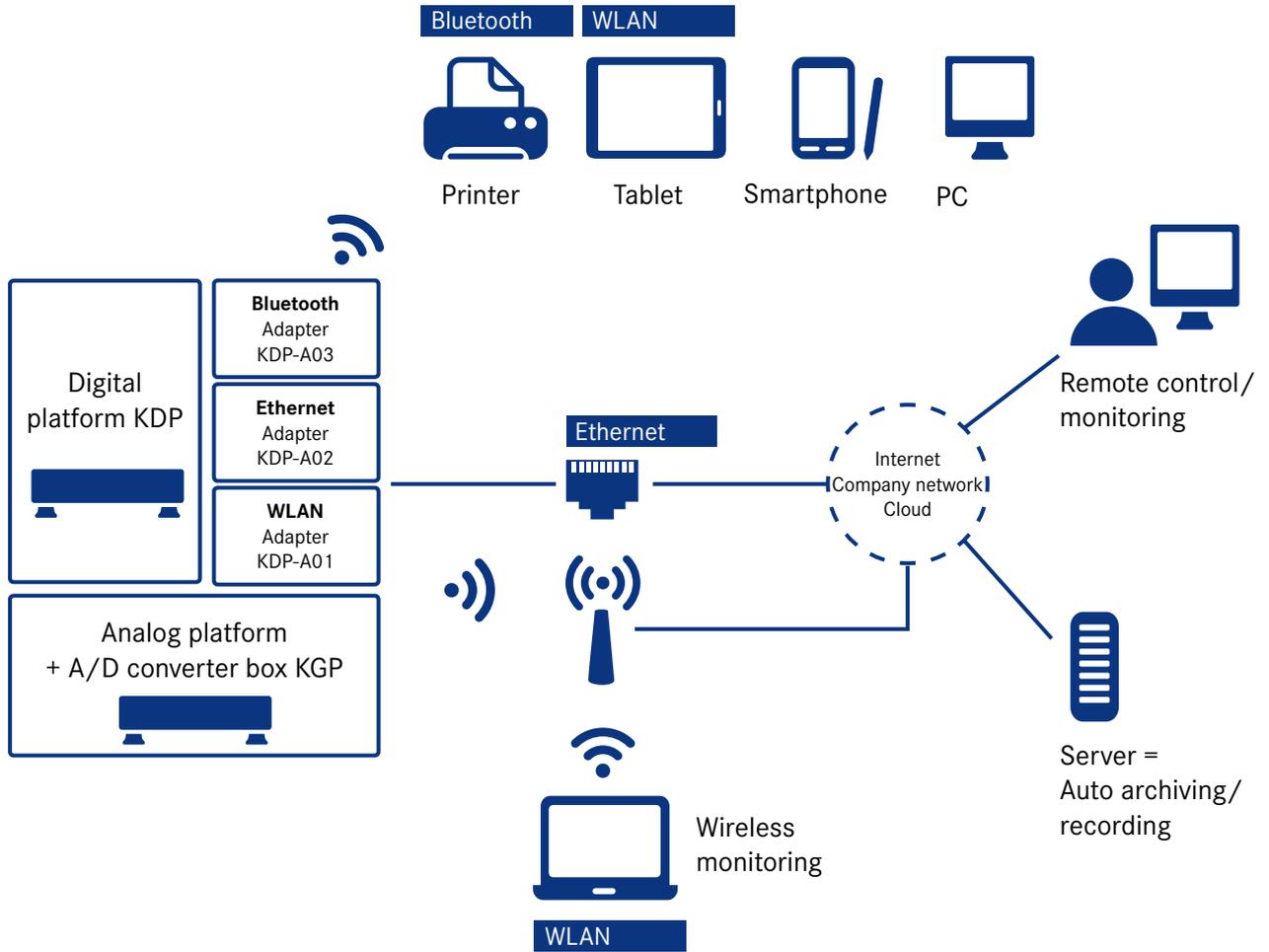


Model	Weighing capacity [Max] kg	Readability = Verification value [d] = [e] kg	Minimal load [Min] kg	Net weight approx. kg	Option		
					Verification	DAkkS Calibr. Certificate	
KERN						DAkkS	KERN
NFN 600K-1M	600	0,2	4	130	965-230	963-130	963-130
NFN 1.5T-4M	1500	0,5	10	125	965-230	963-130	963-130

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.



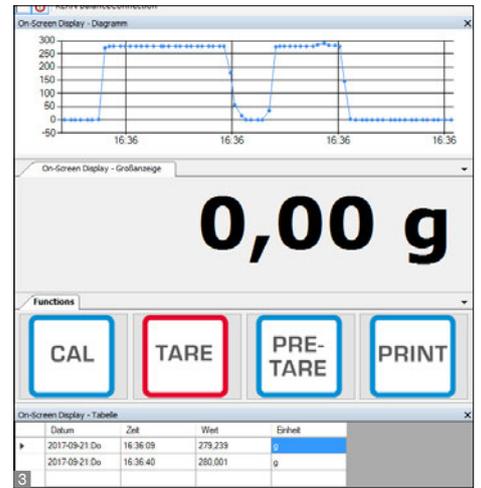
System solutions Industry 4.0



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 175/176.



Sim. to illustration



Robust industrial platform scale with A/D converter box, ideal for varied range of applications for Industry 4.0

Features

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

Included with delivery:

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

Technical Data

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

Accessories

- **Bluetooth data interface**, KERN YKV-A02
- **WiFi data interface**, KERN YKV-A01
- **Ethernet data interface** on request
- **2** **DIN rail mounting bracket** for KERN YKV, KERN YKV-A03
- **3** **Software BalanceConnection**, flexible recording or transfer of measurements, particularly to Microsoft® Excel or Access as well as transfer of this data to other Apps and programs. The displayed result can therefore be converted to any format for communication with the different user programs, such as, for example, e.g. SAP, for details see page 175, KERN SCD-4.0

STANDARD



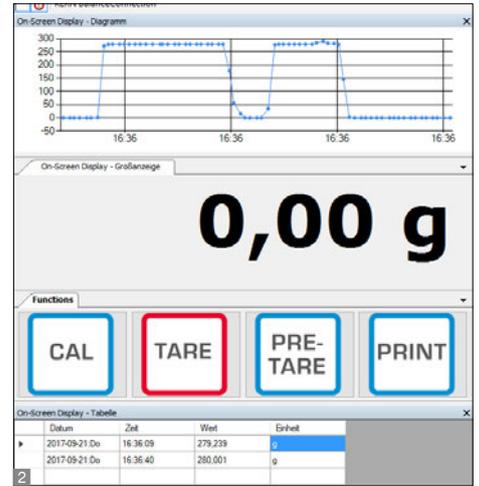
OPTION



FACTORY



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



Modern A/D converter 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 A/D converter box your weighing processes are ready for the requirements of Industry 4.0. Simply connect a weighing platform or measuring cell, integrate the A/D converter box 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
- Internal resolution 16 million divisions
- Measuring frequency 10 Hz
- Easy configuration using the software supplied
- Robust plastic die-cast housing
- **1** Suitable for wall mounting and DIN track mount
- Compatible with all KERN weighing platforms

Included with delivery:

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

Technical Data

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

Accessories

- **Bluetooth data interface**, KERN YKV-A02
- **WiFi data interface**, KERN YKV-A01
- **DIN rail mounting bracket** for KERN YKV, KERN YKV-A03
- **Software BalanceConnection**, flexible recording or transfer of measurements, particularly to Microsoft® Excel or Access as well as transfer of this data to other Apps and programs. The displayed result can therefore be converted to any format for communication with the different user programs, such as, for example, e.g. SAP, for details see page 175, KERN SCD-4.0

STANDARD

CAL EXT | RS 232 | USB | LAN | KCP | GLP | UNIT | 1 DAY

FACTORY

BT 4.0 | WLAN

YKV-02

Model	Standard interfaces
KERN	
YKV-01	RS-232, USB
YKV-02	RS-232, USB, Ethernet

NEW



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
-  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 supplied software
- Bright LED display for optical control and settings
- Time-saving G-Cal™ (Geographic Calibration) technology for fast and accurate calibration without weights conveniently over a network or the Internet worldwide
- Convenient communication via remote devices
- Backup and restore function via USB port
- Can handle various industrial protocols such as Ethernet IP, Modbus TCP, Modbus RTU, FINS and Profibus DP

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

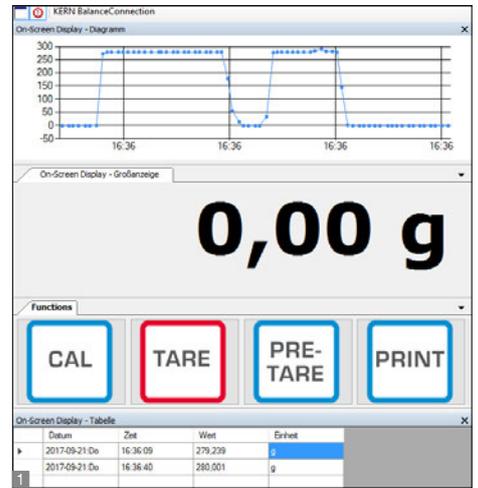
Technical Data

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

Accessories

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

Features	Model KERN			
	CE HSA	CE HSE	CE HSP	CE HSR
Power supply	18-32 Vdc; 4 W max.			
Load cell power supply	5 Vdc	5 Vdc	5 Vdc	5 Vdc
Sensitivity	0,1 µV/d	0,1 µV/d	0,1 µV/d	0,1 µV/d
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			
A/D Conversion speed	1600/s	1600/s	1600/s	1600/s
Max. load cell impedance	1200Ω	1200Ω	1200Ω	1200Ω
Min. load cell impedance	43,75 Ω	43,75 Ω	43,75 Ω	43,75 Ω
Max. no. of load cells 350 Ω	8	8	8	8
Max. no. of load cells 1000 Ω	22	22	22	22
Max. number of d	10.000	10.000	10.000	10.000
Display steps	1,2,5, 10,20,50,100,200	1,2,5, 10,20,50,100,200	1,2,5, 10,20,50,100,200	1,2,5, 10,20,50,100,200
Communication/Interfaces	USB	USB, Ethernet	USB, Profibus	USB, RS232/422
Analog output	0/4-20/24mA	-	-	-
Dimensions W×D×H	120×110×22 mm	120×110×22 mm	120×110×22 mm	120×110×22 mm
Net weight g	150	150	150	150



Universal weighing platforms for flexible connection into process chains

Features

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

and manage all relevant parameters and device functions. You can therefore simply connect KERN devices with KCP to computers, industrial control systems and other digital systems. In a large number of cases the KCP is compatible with the MT-SICS protocol

- **PRE-TARE function** for manual subtraction of a known container weight, useful for checking fill-levels
- **Freely programmable weighing unit**, e.g. display direct in special units such as length of thread g/m, paper weight g/m², or similar
- **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**, weighing space W×D×H 146×146×80 mm
- Included with delivery:
 - **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** Ø 105 mm
 - B** W×D 160×160 mm, see larger picture
- Weighing plate material
 - A** plastic, with conductive lacquer
 - B** stainless steel
- Overall dimensions W×D×H 165×166×75 mm (without draught shield)
- Cable length approx. 1,2 m
- Net weight approx. 1,2 kg
- Permissible ambient temperature 5 °C / 35 °C

Accessories

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

STANDARD						OPTION		FACTORY		

Model	Weighing capacity [Max] g	Read-out [d] g	Reproducibility g	Linearity g	Weighing plate mm	Options	
						DAkkS KERN	Calibr. Certificate
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	

Display devices/Platforms/Weighing bridges

Putting together individual weighing systems which cannot be verified

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

Assembly

KERN delivers the complete scale which is ready to use. Prices for assembly can be found in the "Assembly" price table. On request we can also produce a calibration certificate in accordance with DAkkS/DKD at an additional price, see page 210 ff.

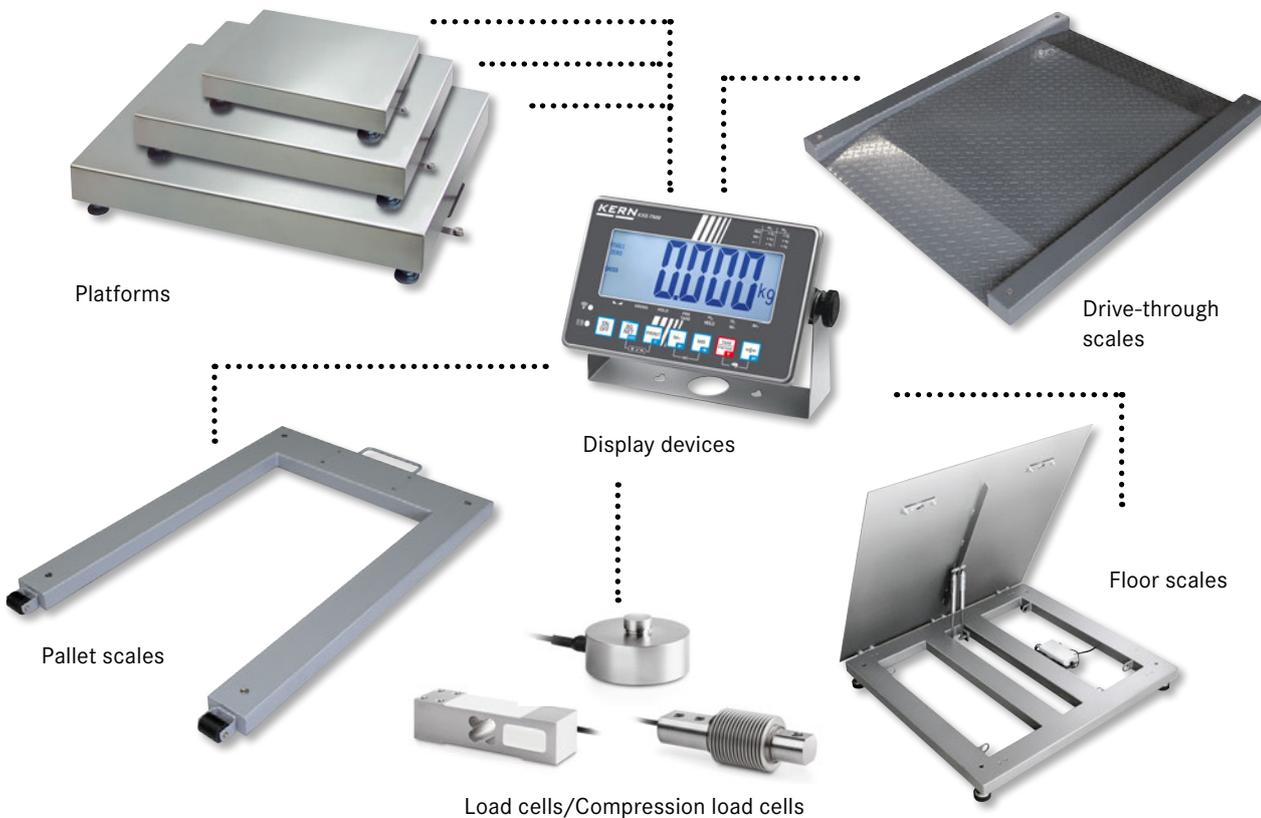
Putting together individual weighing systems which can be verified or are verified

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

In accordance with the European verification regulations, when assembling a display device with a weighing unit you must take the following notes into account:

- Only elements which can be verified with build-type approval or OIML test certificate can be combined into a weighing system which can be verified. With KERN these are labelled 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:

1. Proof of compatibility This is mandatory by law and includes testing by using build-type approvals, whether the connection values of the display device match the connection data of the weighing unit.	Weighing capacity	Model	
	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 with build-type approval		
up to 4 m extension	965-403	
up to 7 m extension	965-404	
up to 10 m extension	965-405	
Cable extensions for platform scales without build-type approval		
up to 4 m extension	920-403	
up to 7 m extension	920-404	
up to 10 m extension	920-405	
Setting an individual preload		
Balance with build-type approval	965-401	
Balance without build-type approval	920-406	
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	

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)		



1 KERN KFB-TM

Display device with large digits
– easy to read

2 KERN KFS-TM

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

Note

to see what options are offered by this display device, please see the KERN platform scale IFB on page 103

Note

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, ACCU, BT 2.0, ANALOG, M

STANDARD

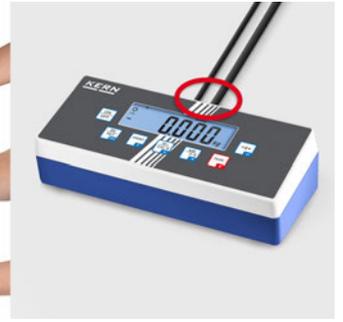
CAL EXT, MEMORY, RS 232, KCP, GLP, INTERN, PCS, SUM, PERCENT

STANDARD OPTION FACTORY

UNIT, TOL, MULTI, 1 DAY, ACCU, M

* not possible in combination with verification
** not possible in combination with signal lamp

Features	Model KERN	
	1 KFB-TM	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	99 item memories, totalising, printing of date and time
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 103	-
Analogue module	0–10V: KERN KFB-A04 ; 4–20 mA: KERN KFB-A05 ; see page 103	-
Signal lamp	CFS-A03	CFS-A03
Foot switch	-	-
Stand	BFS-A07, see page 103	BFS-A07, see page 86
Benchtop stand for display device/wall mount	yes/yes	yes/yes
Protective working cover	KFB-A02S05, see page 103,	KFB-A02S05, see page 86,
Rechargeable battery pack	KFB-A01, see page 103,	KFS-A01, see page 86,
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). KCP is a standardised interface command structure for KERN balances and other instruments which allows you to recall and manage all relevant parameters and device functions. You can therefore simply connect KERN devices with KCP to computers, industrial control systems and other digital systems. In a large number of cases the KCP is compatible with the MT-SICS protocol. Only possible through RS-232 data interface, other interfaces on request.

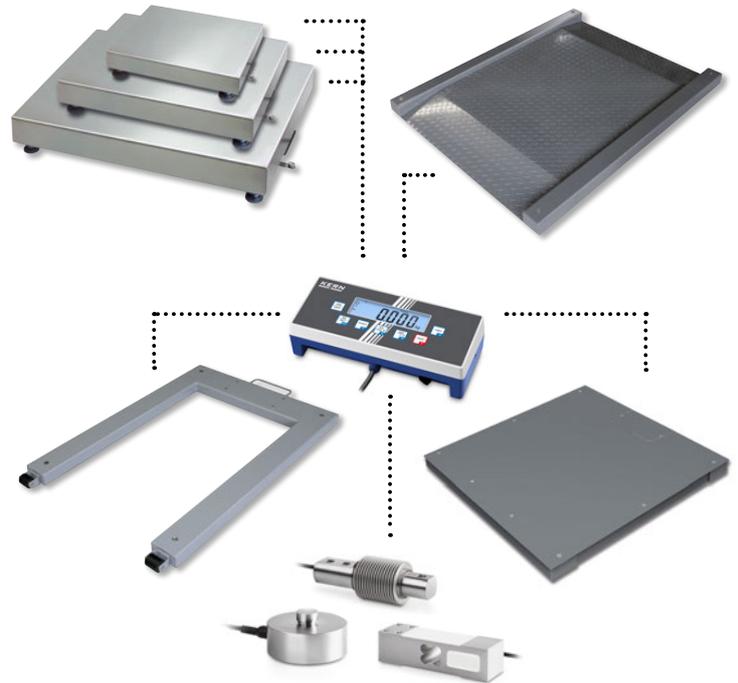
In the KERN product range you will find a large number of platforms, weighbridges etc. which you can combine with the KERN KIB-TM display device. Simply select the components, KERN will take care of the rest.

* Verification not in combination with KERN KIB-A02, KIB-A03, KIB-A04, KIB-A10

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

STANDARD												OPTION		FACTORY									
													**	**	**	**	**	**	*				

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



Note

to see what options are offered by this display device, please see the KERN platform scale IOC on page 102



4 KERN KFE-TM

Stainless steel display device with IP65 protection

5 KERN KFN-TM

Stainless steel display device with IP65 protection and superior display size

6 KERN KXS-TM

Stainless steel display device with IP68 protection and integrated power supply

Note

to see what options are offered by this display device, please see the KERN SFE platform scale on page 105

Note

to see what options are offered by this display device, please see the KERN SFB platform scale on page 72

Note

to see what options are offered by this display device, please see the KERN SXS platform scale on page 73

STANDARD

CAL EXT, SUM, TOL, MOVE, IP 65, INOX, ACCU

STANDARD FACTORY

C MULTI, 1 DAY, M

STANDARD

CAL EXT, KCP, PCS, SUM, TOL, MOVE, IP 65

STANDARD OPTION FACTORY

INOX, MULTI, 1 DAY, RS 232, ACCU, M

STANDARD

CAL EXT, PCS, SUM, UNIT, TOL, MOVE, IP 68

STANDARD

INOX, 230 V, 1 DAY

OPTION FACTORY

RS 232, RS 485, BT 2.0, ACCU, M

**

** not possible in combination with verification

Features	Model KERN 4 KFE-TM*	Model KERN 5 KFN-TM	Model KERN 6 KXS-TM
Display (segments)	6 digits	5 + 1/2 digits	6 digits
EC type approval	yes	yes	yes
Resolution verifiable	6000 e	6000 e	10000 e
Resolution non verifiable	30000 d	30000 d	30000 d
Weighing capacities	≤ 2	≤ 2	≤ 2
Weighing units	kg	kg	kg, g
Readability	1, 2, 5, 10, n	1, 2, 5, 10, n	1, 2, 5, 10, 50
Piece counting with reference	-	10, 20, 50, 100, 200	10, 20, 50, 100, 200
Display, digit height	Backlit LCD display, 22 mm	Backlit LCD display, 52 mm	Backlit LCD display, 55 mm
Additional functions	-	Totalising, HOLD function	PRE-Tare function, totalising, HOLD function, peak hold, zero-point memorisation
Strain gauge load cells	87 – 1200 Ω	87 – 1600 Ω	87 – 1600 Ω
Linearisation	2 points	2 points	2–7 points
Input voltage	12 V, 500 mA	12 V, 500 mA	220–240 V AC
Permissible ambient temperature	-10 °C/40 °C	-10 °C/40 °C	-10 °C/40 °C
Interface RS-232	-	KFN-A01, see page 72	KXS-A04
Interface RS-485	-	-	KXS-A01
Interface USB	-	-	-
Interface Bluetooth	-	-	KXS-A02 (balance ► PC)
Foot switch	-	-	KXS-A03
Stand	-	BFS-A07, see page 72	YKP-02
Benchtop stand for display device/wall mount	yes/yes	yes/yes	yes/yes
Protective working cover	-	-	-
Rechargeable battery pack	standard	GAB-A04	GAB-A04
Operating/charging time	up to 45 h/12 h	up to 35 h/12 h	bis zu 80 h/12 h
Dimensions Housing W×D×H	195×118×83 mm	266×165×96 mm	232×170×80 mm
Net weight	1 kg	2,6 kg	2,5 kg

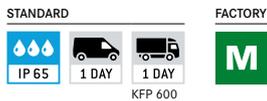
* ONLY WHILE STOCKS LAST!

Order Hotline: Go to back page of catalogue



1 KERN KFP-V20 IP65

Platform



- **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

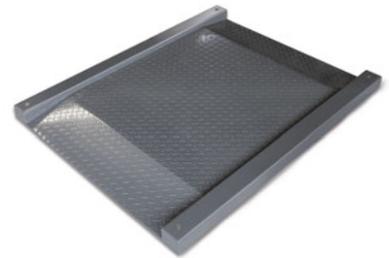
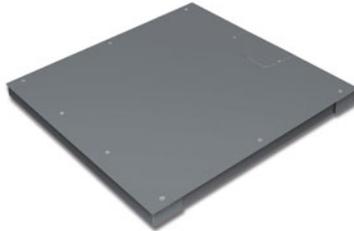
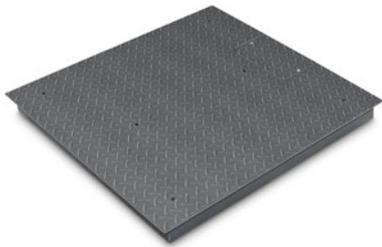
Platform



- **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	230×230×110
KFP 6V20M	6	0,2	1 2	40	2	3,6	230×230×110
KFP 6V20LM	6	0,2	1 2	40	2,5	6	300×240×110
KFP 15V20M	15	0,5	2 5	100	2	6	300×240×110
KFP 15V20LM	15	0,5	2 5	100	2,5	10	400×300×128
KFP 30V20SM	30	10	10	200	2,5	6	300×240×110
KFP 30V20M	30	1	5 10	200	2	10	400×300×128
KFP 60V20M	60	2	10 20	400	2	10	400×300×128
KFP 60V20LM	60	2	10 20	400	2	10	500×400×137
KFP 150V20M	150	5	20 50	1000	2	10	500×400×137
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	200	200	4000	2,5	46	800×600×150
2 Platform KXP-V20 IP65							
KXP 15V20M	15	0,5	2 5	100	3	3,2	300×240×90
KXP 6V20LM	6	0,2	1 2	40	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	400×300×89
KXP 30V20LM	30	1	5 10	200	3	18	500×400×123
KXP 60V20M	60	2	10 20	400	3	11	400×300×89
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



3 KERN KIP-V20M

Weighing bridge

STANDARD FACTORY

IP 67 1 DAY M

- Weighing bridge with non-slip chequer plate, lacquered, welded
- 4 Load cells, steel, silicone-coated, IP67, OIML-R60-approval for verification, class III, 3000 e
- Can be built in using pit frames (optional)
- Level indicator and levelling feet for precise levelling of the scale
- Easy access to the junction box from the top
- Comfortable levelling of the weighing bridge from the top
- Accessories page 116/117 (KERN BID)

4 KERN KFP-V20 IP67

Weighing bridge

STANDARD FACTORY

IP 67 1 DAY M

- 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 page 118/119 (KERN BFB)

5 KERN KFD-V20

Weighing bridge

STANDARD FACTORY

IP 67 1 DAY M

- Weighing bridge made of non-slip corrugated steel plate, lacquered, two access ramps integrated, extremely resistant to bending
- Extremely flat construction to facilitate access: access height only 45 mm
- 4 Load cells, alloy steel, silicone-coated, IP67, OIML-R60-approval class III, 3000 e
- Accessories page 130 (KERN NFB)



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	1250×1000×108
KIP 1500V20M	1500	500	500	10000	5	150	1500×1250×108
KIP 3000V20M	3000	1000	1000	20000	5	150	1500×1250×108
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	1500×1250×80
KFP 1500V20LNM	1500	500	500	10000	5	185	1500×1500×130
KFP 3000V20NM	3000	1000	1000	20000	5	135	1500×1250×80
KFP 3000V20LM	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
- **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)
- **NEW:** new model with short weighing beams, ideal for weighing compact items or animals in transport boxes
 ▶ KERN KFA-600V20S
- Accessories page 124 (KERN UFA)

7 KERN KFU-V20/V30

U-Weighing bridge

STANDARD
 IP 67
 INOX
 2 DAYS
 KFU-V30

FACTORY
 M

- Load range: painted steel (V20), stainless steel (V30) height 90 mm
- 4 load cells, alloy steel, silicone-coated, IP67, OIML-R60-approval for verification, class III, 3000 e
- 2 rollers and handle for easy transport of the scale
- Accessories KFU-V20 page 127 (KERN UFB)
- Accessories KFU-V30 page 129 (KERN UFN)

8 KERN KFP-V30

Platform

STANDARD
 IP 67
 2 DAYS

FACTORY
 INOX
 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	840×1300×90	
KFU 1500V20M	1500	500	500	10000	5	55	840×1300×90	
7 Stainless steel U-Weighing bridge KFU-V30								
KFU 600V30M*	600	200	200	4000	2,5	55	840×1300×90	↓
KFU 1500V30M*	1500	500	500	10000	2,5	55	840×1300×90	↓
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	

* ONLY WHILE STOCKS LAST!





9 KERN KFP-V40

Weighing bridge

STANDARD FACTORY

- 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 page 121 (KERN BFN)

10 KERN KFD-V40

Weighing bridge

STANDARD FACTORY

- 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 page 131 (KERN NFN)

Note

We will be happy to create custom products for you, such as, for example weighing plates with holes and hooks in place of handles, other weighing plate sizes, other materials (steel grades) and much more.



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	↓

ONLY WHILE STOCKS LAST!



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 measuring cell.

Of course, we can also supply you with the appropriate accessories such as load corners, pivot heads, display devices, junction boxes or the relevant calibration certificate at the same time.

Any special requests? Do you need special load cells, other capacities or cable lengths, individual force test benches or a special mount for your test item? No problem, our product specialist for force-measuring cells Mr Stefan Herrmann is available at any time to help you further and will work with you to develop a customised concept for your application.

FORCE MEASUREMENT

Load cell + SAUTER FL + Software



BALANCE MANUFACTURE

Load cell + KERN YKV + KERN Software BalanceConnection



BALANCE MANUFACTURE

Load cell + Junction Box + KERN YKV



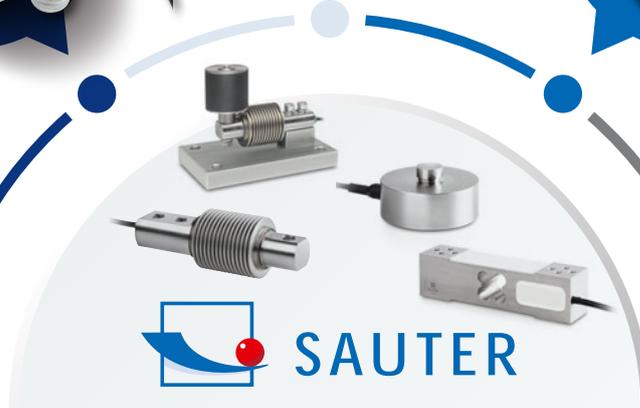
BALANCE MANUFACTURE

Load cell + display device



BALANCE MANUFACTURE

Load cell + Junction Box + display device



SAUTER Mess measuring cells – integration opportunities



CP P4

Single-point load cells made of anodised aluminium

STANDARD

- CE and RoHS compliant
- Accuracy class L
- 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

Single-point load cells made of anodised aluminium

STANDARD

- Accuracy in accordance with OIML R60 C3
- 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

- 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	
KERN	kg	
CP 300-0P4	0,3	
CP 600-0P4	0,6	

Model	Nominal load	
KERN	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	
KERN	kg	
CP 50-3P3	50	
CP 75-3P3	75	

! Tip: Further details and technical data sheet as well as extensive accessories see internet



CP P2

Single-point load cells of aluminium



- Accuracy in accordance with OIML R60 C3
- 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 P9

Single-point load cells of stainless steel



- Accuracy in accordance with OIML R60 C3
- Dust and spray protection to IP68/IP69K (in accordance with EN 60529), welded to create a hermetic seal
- Stainless steel
- Area of application: Measuring mass 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

12

Model	Nominal load	
KERN	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	

Model	Nominal load	
KERN	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	



Tip: Further details and technical data sheet as well as extensive accessories see internet



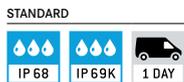
Fig. shows accessories, base plate 1 SAUTER CE Q30903 and bearings 2 SAUTER CE Q30904, for further accessories please visit our online shop



Fig. shows optional accessory load corner 3 SAUTER CE P4022

CB Q1 · CB Q2

Bending beam measuring 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: Measuring mass 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

Model	Nominal load	
KERN	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	

CB P1

Bending beam 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: Measuring mass 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

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

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

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 see internet



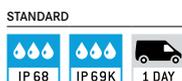
Fig. shows optional accessory load corner 1 SAUTER CE RQ35903



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: Measuring mass as well as compressive force in harsh environments
- Suitable for platform scales, weigh hoppers, flush-mounted floor scales and other weighing devices
- 6-wire connection
- Nominal sensitivity: 2 mV/V
- Note: EX version on request

CT P1 · CT P2

Shear beam 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: Measuring mass 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

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

12

Model	Nominal load	
KERN	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	

Model	Nominal load	
KERN	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	



Tip: Further details and technical data sheet as well as extensive accessories see internet



CK P1



CK P2



CK P3



CK P4



CJ P4



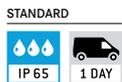
CJ P6



CJ P4PG

CK P1-4

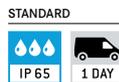
Miniature load cells made of aluminium



- Dust and spray protection to IP65 (in accordance with EN 60529)
- Aluminium
- High level of accuracy
- Suitable for small scales and kitchen scales and force-measuring devices
- 4-wire connection

CJ P

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



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

Model	Nominal load	
KERN	kg	
CK 600-0P1	0,6	
CK 1-0P1	1	
CK 2-0P1	2	
CK 3-0P1	3	
CK 5-0P1	5	
CK 6-0P1	6	
CK 300-0P2	0,3	
CK 600-0P2	0,6	
CK 1000-0P3	1	
CK 100-0P4	0,1	
CK 120-0P4	0,12	
CK 300-0P4	0,3	
CK 500-0P4	0,5	

Model	Number of connections	
KERN		
CJ P2	2	
CJ P4	4	
CJ P4PG	4	
CJ P6	6	
CJ P8	8	



Tip: Further details and technical data sheet as well as extensive accessories see internet

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 offers a carefully coordinated range from the affordable entry level model to the comfort model with removable battery pack.

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

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

Quick-Finder Pallet truck scales

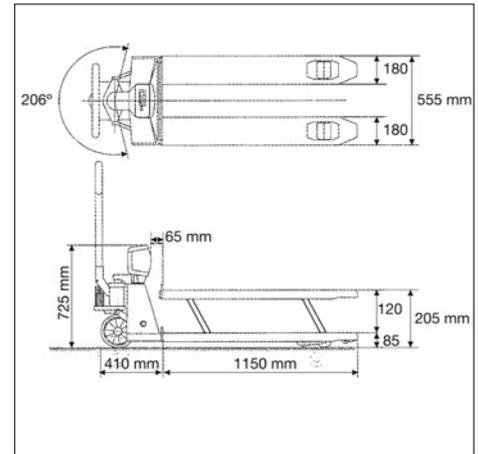
Readability [d] kg	Weighing capacity [Max] kg	Model	Page	 DAYS	 CAL EXT	 SUM	 IP	 BATT	 ACCU
1	2000	KERN VHB 2T1	153	2	●	●	●	●	○
For an explanation on the pictos, see front flap									

● = standard ○ = option



- ▷ The power pack in the dispatch department and the warehouse
- ▷ The display device is well-protected by a metal frame
- ▷ Optimised load rollers so that you can get over rough ground more easily and greater manoeuvrability

HIGHLIGHT



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, protection against dust and water splashes IP65
- **2 Load fork:** Protection against dust and water splashes IP67, temporary use in wet areas possible
- **Pivot range 206°**
- **Castors:** Solid rubber on aluminium rims
- **3 Load rollers:** Tandem tyres to overcome thresholds and obstacles more easily
- **Totalising** of weights
- **Ready for use:** Batteries included, 4×1.5 V AA, operating time up to 80 h

Technical data

- Large LCD display, digit height 28 mm
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Castors made of red polyurethane on aluminium rims. Ideal for light-coloured flooring as they leave less visible abrasive marks. Suitable for the current models of the pallet truck scale range KERN VHB (when retrofitting, please give the serial number of the pallet truck scale available when ordering), scope of delivery: 1 item, KERN VHB-A02

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

STANDARD



OPTION



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

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 balances are practical in maintenance and wear free.

Note

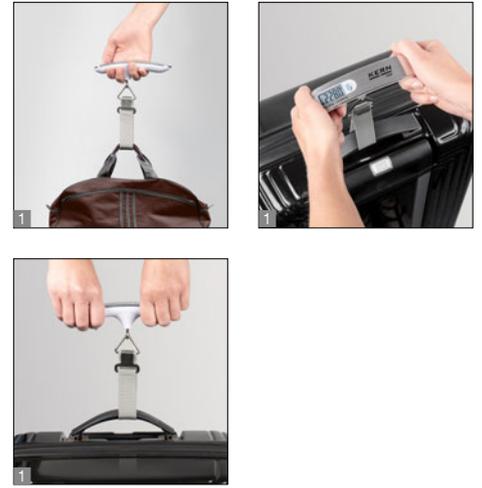
DAkkS calibration and conformity evaluation for crane scales up to 12 t



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.



- ▷ Triple-range scale: Ideal, when high maximum loads need to be weighed, but in the lower load range you still need high resolution. This means that three balances can be replaced with one – which saves space and money!
- ▷ Also available with high protection type IP67!
- ▷ NEW: Also available as version with calibration approval !



Ultra compact, digital luggage scale for rapid weighing of items of luggage and other suspended loads

Features

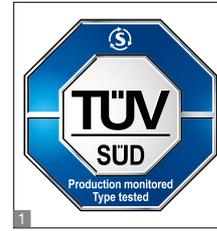
- This ergonomically-optimised luggage scale is perfectly suited for rapid, accurate checking of cases, bags, sports baggage, etc. The high maximum load means that there is sufficient safety reserve and can therefore also be used for weighing other, suspended loads
- **Ergonomic design** for easy handling
- Robust nylon fabric tape for secure fixing of the item to be weighed
- **Simple and convenient 1-key operation**
- Easy to toggle between units by a keypress
- **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 12 s. This leaves sufficient time to read the weight in peace

Technical data

- LCD display, digit height 9 mm
- Ready for use: Batteries included, 3V CR2032, operating time up to 20 h, AUTO-OFF function to preserve the battery, Battery level indicator on display
- **Note:** The models are only delivered in a set of 5 units. i.e. the price given in the table refers to a delivery of 5 items. Cannot be delivered individually. The calibration prices given here refer to calibration of a single balance

STANDARD				OPTION
UNIT	BATT	DMS	1 DAY	+3 DAYS

Model	Weighing capacity [Max] kg	Readability [d] g	Dimensions housing W×D×H mm	Net weight approx. kg	Quantity delivered (balance)	Option		Quantity delivered (DAkKS Calibr. Certificate)
						DAkKS KERN	DAkKS Calibr. Certificate	
HGA 50K-2S05	50	10	150×31×35	1,6	5	963-128		1



The classic among hand-held hanging scales – perfect for fast weighing of increased 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
- **Hook, steel**
- **Peak load display** (peak hold)

Technical data

- LCD display, digit height 11 mm
- **2 Tape measure**, extractable, length approx. 100 cm
- Ready for use: Batteries included, 9 V block, operating time up to 20 h
- Further weighing units: kg, lb, N
- Permissible ambient temperature 5 °C/35 °C

Accessories

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

STANDARD

CAL EXT UNIT MOVE BATT DMS 1 DAY

OPTION

DAkkS +3 DAYS

Model	Weighing capacity [Max] kg	Readability [d] g	Dimensions housing W×D×H mm	Net weight approx. kg	Option	
					DAkkS KERN	DAkkS Calibr. Certificate
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 hand hanging scale for fast and mobile weighing

Features

- **1** With the **TÜV certification mark**, the scales meet the requirements of the standard EN 13155 (Non-fixed load lifting attachments/ Breakage resistance) and EN 61010-1 (Electrical safety)
- Ideal for rapid control in goods-in and goods-out
- Also essential in the private sector to determine the weight of fish, game, fruits, bicycle parts, suitcases etc.
- **Hold function:** For easy reading of the weighing result, the display can be “frozen” in different ways. Either automatically when the weighing value remains unchanged or manually by pressing the Hold key
- **Hook, steel**, can be hinged
- **Peak load display** (peak hold)

Technical data

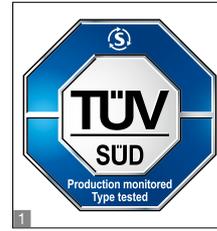
- LCD display, digit height 12 mm
- **Ready for use:** Batteries included, 2×1.5 V AAA, operating time up to 180 h
- Further weighing units: kg, lb, N
- Permissible ambient temperature 5 °C/35 °C

Accessories

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



Model	Weighing capacity [Max] kg	Readability [d] g	Dimensions housing W×D×H mm	Net weight approx. kg	Option	
					DAkkS Calibr. Certificate	
KERN					DAkkS KERN	
HDB 5K5N	5	5	72×25×105	0,20	963-127H	
HDB 10K10N	10	10	72×25×105	0,45	963-128H	



Comfortable hand-held suspension scale for fast and mobile weighing

Features

- High-capacity XL-version. The larger design creates space for a large handle, which enables even better handling especially with heavier loads
- **1** With the **TÜV certification mark**, the scales meet the requirements of the standard EN 13155 (Non-fixed load lifting attachments/ Breakage resistance) and EN 61010-1 (Electrical safety)
- Ideal for rapid control in goods-in and goods-out
- Also essential in the private sector to determine the weight of fish, game, fruits, bicycle parts, suitcases etc.
- **Hold function:** For easy reading of the weighing result, the display can be “frozen” in different ways. Either automatically when the weighing value remains unchanged or manually by pressing the Hold key
- **Hook, steel**, can be hinged
- **Peak load display** (peak hold)

Technical data

- LCD display, digit height 12 mm
- **Ready for use:** Batteries included, 2×1.5 V AAA, operating time up to 180 h
- Further weighing units: kg, lb, N
- Permissible ambient temperature 5 °C/35 °C

Accessories

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

STANDARD



OPTION



Model	Weighing capacity [Max] kg	Readability [d] g	Dimensions housing W×D×H mm	Net weight approx. kg	Option	
					DAkkS KERN	DAkkS Calibr. Certificate
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 suspension scale for increased 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: Carabiner (stainless steel)** with safety catch as standard
- **[Max] ≤ 200 kg: Hook (stainless steel)** standard

- **2** [Max] ≥ 0,5 t: Reinforced version for heavy loads. Snap link and Hook not included

Technical data

- LCD display, digit height 12 mm
- Hole diameter of load support, model with [Max] ≤ 200 kg: approx. 14 mm [Max] > 200 kg: approx. 16 mm
- **Ready for use:** Batteries included, 3×1.5 V AA, operating time up to 300 h

Accessories

Accessories for models with [Max] ≤ 20 kg

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

Accessories for models with [Max] ≥ 100 kg

- **3 Hook with safety catch**, cast steel, galvanised and lacquered, revolving. Scope of delivery: 2 shackles, 1 lacquered screw bolt, 1 hook, KERN YHA-06

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

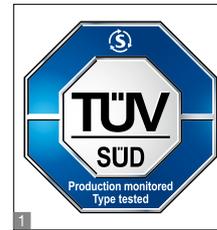
Accessories for models with [Max] ≥ 0,5 t

- **4 High-strength shackle**, hot-dipped galvanised cast steel bracket, bow shaped. Scope of delivery: 2 shackles with lacquered screw bolts, suitable for models KERN HCB with [Max] ≥ 0,5 t, KERN YSC-03

STANDARD					OPTION	
CAL EXT	UNIT	MOVE	BATT	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 KERN	DAKKS Calibr. Certificate
KERN						
HCB 20K10	20	10	82×43×153	0,60	963-128H	
HCB 50K20	50	20	82×43×153	0,60	963-128H	
HCB 50K100	50	100	82×43×153	0,60	963-128H	
HCB 99K50	99	50	82×43×153	0,60	963-129H	
HCB 100K200	100	200	82×43×153	0,60	963-129H	
HCB 200K100	200	100	82×43×153	0,60	963-129H	
HCB 200K500	200	500	82×43×153	0,60	963-129H	
HCB 0.5T-3	500	1000	82×43×153	0,30	963-130H	↓
HCB 1T-3	1000	2000	82×43×153	0,30	963-130H	↓





Robust and compact suspended scale with high degree of protection against dust and splash water

Features

- **1** With the **TÜV certification mark**, the scales meet the requirements of the standard EN 13155 (Non-fixed load lifting attachments/ Breakage resistance) and EN 61010-1 (Electrical safety)
- Housing stainless steel, IP65-protected against dust and water splashes
- Ideal for rapid control in goods-in and goods-out
- Also essential in the private sector to determine the weight of fish, game, fruits, bicycle parts, suitcases etc.
- **Hold function:** For easy reading of the weighing result, the display can be “frozen” in different ways. Either automatically when the weighing value remains unchanged or manually by pressing the Hold key
- **Peak load display** (peak hold), Measuring frequency 5 Hz
- **Carabiner (stainless steel)** with safety catch as standard
- **Hook (stainless steel)** standard

Technical data

- LCD display, digit height 12 mm
- Hole diameter of load support, model with [Max] ≤ 200 kg: approx. 14 mm [Max] > 200 kg: approx. 16 mm
- **2 Second display** on the rear of the balance
- Ready for use: Batteries included, 2×1.5 V AA, operating time up to 200 h

Accessories

Accessories for models with [Max] ≥ 100 kg

- **3 Hook with safety catch**, cast steel, galvanised and lacquered, revolving. Scope of delivery: 2 shackles, 1 lacquered screw bolt, 1 hook, KERN YHA-06
- **Snap link (stainless steel) with safety catch**, standard, opening approx. 15 mm. Can be reordered, KERN HCB-A01
- **Hook (stainless steel)**, opening approx. 25 mm, KERN HCB-A02

STANDARD

CAL EXT UNIT MOVE IP 65 INOX BATT 1 DAY

OPTION

DAkkS +3 DAYS

Model	Weighing capacity [Max] kg	Readability [d] g	Dimensions housing W×D×H mm	Net weight approx. kg	Option	
					DAkkS KERN	DAkkS Calibr. Certificate
KERN						
HCN 50K100IP	50	100	96×48×179	0,80	963-128H	
HCN 100K200IP	100	200	96×48×179	0,80	963-129H	
HCN 200K500IP	200	500	96×48×179	0,80	963-129H	



High-resolution hanging scale for loads up to 300 kg

Features

- **NEW: Fully-equipped crane scale** for low to medium load ranges. The solid design guarantees that extra level of safety (TÜV tested). Thanks to the large LCD display and the remote control which is delivered as standard, it can also be operated safely from a distance and results can be read off
- **1** With the **TÜV certification mark**, the scale meets the requirements of the standard EN 13155 (Non-fixed load lifting attachments/ Breakage resistance) and EN 61010-1 (Electrical safety)
- **High mobility:** thanks to battery operation, compact, lightweight construction, it is suitable for the 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
- Batterie charge status indication visualised through LED
- Large high-contrast display that is easy to read
- Standby function: display automatically switched off after 5 min without a change of load. Automatic activation with the touch of a key
- **Hook with safety catch**, revolving
- Shackle and safety catch made of nickel-plated steel
- **2** **Infrared remote control** standard. Range up to 20 m. All functions can be selected. W×D×H 65×24×100 mm. Batteries included

Technical data

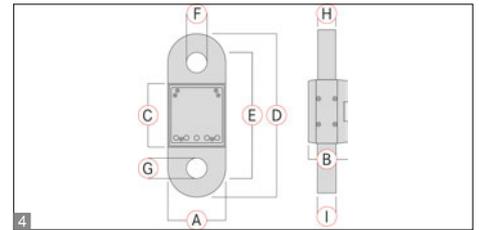
- Backlit LCD display, digit height 28 mm
- Batteries included, 4×1.5 V AA, operating time up to 100 h
- Precision: 0,2 % of [Max]
- Permissible ambient temperature 5 °C/35 °C

Accessories

- **Internal rechargeable battery pack** for load receptor, operating time up to 50 h without backlight, charging time approx. 12 h, KERN HCD-A01



Model	Weighing capacity [Max] kg	Readability [d] g	Net weight approx. kg	3 Dimensions							Option	
				A mm	B mm	C mm	D mm	E mm	F mm	G mm	DAkkS Calibr. Certificate	DAkkS KERN
KERN HCD 60K-2	60	20	0,85	150	79	97	276	250	26	18	963-129H	
KERN HCD 100K-2	150	50	0,85	150	79	97	276	250	26	18	963-129H	
KERN HCD 300K-1	300	100	0,85	150	79	97	276	250	26	18	963-129H	
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readability [d]												
KERN HCD 100K-2D	60 150	20 50	0,85	150	79	97	276	250	26	18	963-129H	
KERN HCD 300K-2D	150 300	50 100	0,85	150	79	97	276	250	26	18	963-129H	



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

Features

- **1** With the **TÜV certification mark**, the scale meets the requirements of the standard EN 13155 (Non-fixed load lifting attachments/ Breakage resistance) and EN 61010-1 (Electrical safety)
- With its high-quality finish, low weight and compact dimensions, this crane scale (tensile force gauge) is an essential device for industrial use, on building sites, in freight centres, ports etc.
- Because of its compact design it is also ideally suited for installation in systems where space is limited, etc.
- Ideally suited for determining weight quickly while loading and unloading
- **Peak load display** (peak hold)
- **Hold function:** For easy reading of the weighing result, the display can be “frozen” in different ways. Either automatically when the weighing value remains unchanged or manually by pressing the Hold key

- **Tare:** Resets the display to “0” when there is a load on the scale. Now removed or added loads are directly displayed

Technical data

- Large backlit LCD display, digit height 23 mm
- Material and design of housing/load support, models with [Max] ≤ 3 t: aluminium/stainless steel bearing [Max] > 3 t: steel/steel
- Rechargeable battery pack internal, operating time up to 30 h without backlight, charging time approx. 12 h
- Optional battery operation, 3×1.5 V AA not included in scope of delivery, operating time up to 40 h
- Precision: 0,2 % of [Max]
- Measuring frequency 60 Hz
- Further weighing units: kg, lb, N
- Permissible ambient temperature 5 °C/35 °C

Accessories

- **2 High-strength shackle**, hot-dipped galvanised cast steel bracket, bow shaped. Scope of delivery: 2 shackles with lacquered screw bolts, suitable for models with [Max] ≤ 5 t: KERN YSC-01 [Max] > 5 t: KERN YSC-02
- **3 Hook with safety catch**, cast steel, galvanised and lacquered, non-revolving. Scope of delivery: 2 shackles, 1 lacquered screw bolt, 1 hook, suitable for models with [Max] ≤ 1 t: KERN YHA-01 [Max] = 3 t: KERN YHA-02 [Max] = 5 t: KERN YHA-03 [Max] > 5 t: KERN YHA-04

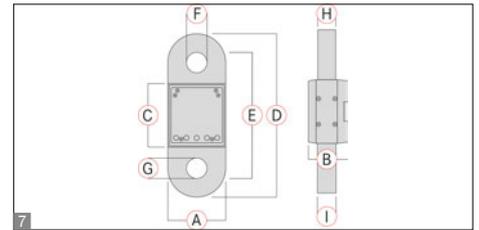
STANDARD

CAL EXT UNIT BATT ACCU MULTI DMS 1 DAY

OPTION

DAkkS +3 DAYS

Model	Weighing capacity [Max] kg	Readability [d] g	Net weight approx. kg	4 Dimensions					Option		
				A	B	C	D	F	DAkkS Calibr. Certificate		
				mm	mm	mm	mm	mm	DAkkS KERN		
KERN HFA 600K-1	600	200	1,8	90	30	55	255	27	↓	963-130H	
KERN HFA 1T-4	1000	500	1,8	90	30	55	255	27	↓	963-130H	
KERN HFA 3T-3	3000	1000	2,0	90	30	61	255	27	↓	963-132H	
KERN HFA 5T-3	5000	2000	4,0	90	30	61	255	30	↓	963-132H	
KERN HFA 10T-3	10000	5000	6	90	40	71	275	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 scale meets the requirements of the standard EN 13155 (Non-fixed load lifting attachments/ Breakage resistance) and EN 61010-1 (Electrical safety)
- With its high-quality finish, low weight and compact dimensions, this crane scale (tensile force gauge) is an essential device for industrial use, on building sites, in freight centres, ports etc.
- Because of its compact design it is also ideally suited for installation in systems where space is limited, etc.
- **Peak load display** (peak hold)
- **Hold function:** When the weighing value remains unchanged the weight indicated on the display is automatically “frozen” until the Hold key is pressed
- **Tare:** Resets the display to “0” when there is a load on the scale. Now removed or added loads are directly displayed

- **2** **Display device with integrated radio module**, which the user can carry around with him, thanks to the convenient hand strap **3**, standard. In this way the weighing data can always be read off the display device by the user, even when the user is a long way from the load receptor (force gauge) or under poor lighting conditions. Range up to 100 m, LCD display, digit height 23 mm, rechargeable battery pack internal, standard. Operating time up to 30 h without backlight, charging time approx. 12 h. Can be reordered, KERN HFC-A01
- Dimensions housing (display device) W×D×H 88×64×256 mm
- Net weight 0,4 kg

Technical data

- Large backlit LCD display, digit height 23 mm
- Material and design of housing/load support, models with
 [Max] ≤ 3 t: aluminium/stainless steel bearing
 [Max] > 3 t: steel/steel

- Optional battery operation, 3×1.5 V AA not included in scope of delivery, operating time up to 40 h
- Precision: 0,2 % of [Max]
- Measuring frequency 10 Hz
- Further weighing units: kg, lb, N
- Permissible ambient temperature 5 °C/35 °C

Accessories

- **4** **Rechargeable battery pack internal** for load support, operating time up to 30 h, without backlight, charging time approx. 12 h, KERN HFA-A01
- **5** **High-strength shackle**, hot-dipped galvanised cast steel bracket, bow shaped. Scope of delivery: 2 shackles with lacquered screw bolts, suitable for models with
 [Max] ≤ 5t: KERN YSC-01
 [Max] > 5t: KERN YSC-02
- **6** **Hook with safety catch**, cast steel, galvanised and lacquered, non-revolving. Scope of delivery: 2 shackles, 1 lacquered screw bolt, 1 hook, suitable for models with
 [Max] ≤ 1t: KERN YHA-01
 [Max] = 3t: KERN YHA-02
 [Max] = 5t: KERN YHA-03
 [Max] > 5t: KERN YHA-04

14

STANDARD

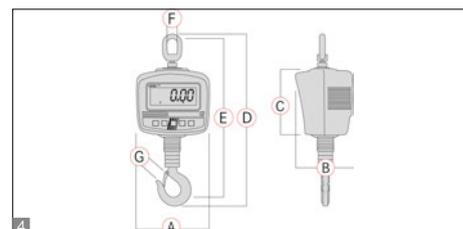
CAL EXT UNIT BATT ACCU MULTI DMS 1 DAY

load receptors only

OPTION

ACCU +3 DAYS

Model	Weighing capacity [Max] kg	Readability [d] g	Net weight approx. kg	7 Dimensions					Option		
				A	B	C	D	F	DAkKS Calibr. Certificate		
				mm	mm	mm	mm	mm	DAkKS	KERN	
HFC 600K-1	600	200	1,8	90	30	55	255	27	↓	963-130H	
HFC 1T-4	1000	500	1,8	90	30	55	255	27	↓	963-130H	
HFC 3T-3	3000	1000	2,2	90	30	61	255	27	↓	963-132H	
HFC 5T-3	5000	2000	4,0	90	30	61	255	30	↓	963-132H	
HFC 10T-3	10000	5000	6	90	40	71	275	40		963-133H	



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

Features

- **1** With the **TÜV certification mark**, the scale meets the requirements of the standard EN 13155 (Non-fixed load lifting attachments/ Breakage resistance) and EN 61010-1 (Electrical safety)
- **2** **Second display** on the rear of the balance
- **High mobility:** thanks to rechargeable battery operation, compact, lightweight construction, it is suitable for the use in several locations (production, warehouse, dispatch department etc.)
- **Hold function:** When the weighing value remains unchanged the weight indicated on the display is automatically "frozen" until the Hold key is pressed
- **Tare:** Resets the display to "0" when there is a load on the scale. Now removed or added loads are directly displayed
- **Hook with safety catch**, revolving
- Shackle and safety catch made of nickel-plated steel
- **3** **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, 1×12 V 23A

Technical data

- **Superior display size:** digit height 25 mm, bright backlight for easy reading of weighing results, even in poor lighting conditions
- Display device
- Dimensions housing W×D×H 162×123×390 mm
- Rechargeable battery pack internal, operating time up to 30 h without backlight, charging time approx. 14 h
- Precision: 0,2 % of [Max]
- Permissible ambient temperature 0 °C/40 °C

STANDARD

CAL EXT UNIT ACCU MULTI DMS 1 DAY

OPTION

DAkkS +3 DAYS

Model	Weighing capacity [Max] kg	Readability [d] g	Net weight approx. kg	4 Dimensions							Option	
				A mm	B mm	C mm	D mm	E mm	F mm	G mm	DAkkS Calibr. Certificate	DAkkS KERN
KERN HFB 150K50	150	50	2,2	163	126	158,5	390	358	26	25	963-129H	
KERN HFB 300K 100	300	100	2,2	163	126	158,5	390	358	26	25	963-129H	
KERN HFB 600K200	600	200	2,4	163	126	158,5	390	358	26	25	963-130H	



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

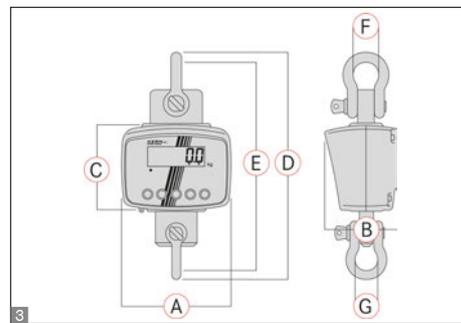


High mobility

thanks to rechargeable battery operation, compact, lightweight construction, it is suitable for the use in several locations (production, warehouse, dispatch department etc.)

Solid shackles, non-revolving

Radio remote control standard. Range up to 20 m. All functions can be selected (excl. ON/OFF). W×D×H 65×24×100 mm. Batteries included, 1× 12 V 23A



Features

- **NEW:** 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
- Supports you in SOLAS-compliant weighing of your cargoes
- **NEW:** The models with **IP** add-on have special protection against dust and water splashes to IP67 and because of this they are ideal for use in harsh environments
- **1** With the **TÜV certification mark**, the scales meet the requirements of the standard EN 13155 (Non-fixed load lifting attachments/ Breakage resistance) and EN 61010-1 (Electrical safety)
- **Because of its stable construction and robust design**, it is ideal for continuous use in industrial environment
- **Hold function:** When the weighing value remains unchanged the weight indicated on the display is automatically “frozen” until the Hold key is pressed
- **Tare:** Resets the display to “0” when there is a load on the scale. Now removed or added loads are directly displayed

Technical data

- **Superior display size:** digit height 30 mm, bright backlight for easy reading of weighing results, even in poor lighting conditions
- Rechargeable battery pack internal, operating time up to 70 h without backlight,, 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

- **Rechargeable battery pack internal** for load support, operating time up to 70 h, without backlight, charging time approx. 12 h, KERN HFD-A04
- **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, HFD-A06

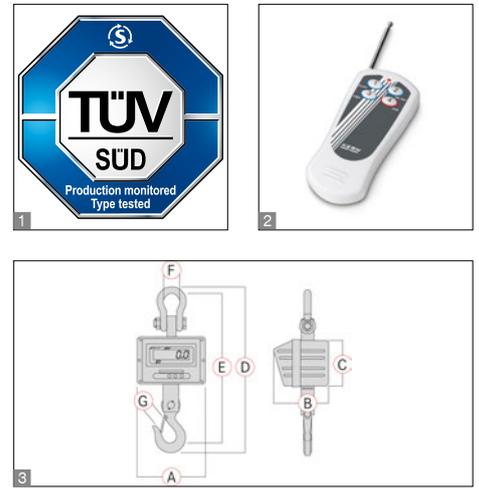
STANDARD OPTION FACTORY

CAL EXT
 IP 67
 ACCU
 MULTI
 DMS
 1 DAY
 DAkkS +3 DAYS
 BT 4.0
 M +3 DAYS HFD-M

Model	Weighing capacity [Max] kg	Readability [d] g	Net weight approx. kg	3 Dimensions							Option		
				A	B	C	D	E	F = G	Verification 	DAkkS Calibr. Certificate		
											mm	mm	mm
Triple range balance switches automatically to the next largest weighing capacity [Max] and readability [d]													
HFD 600K-1	150 300 600	50 100 200	9	194	129	145	421	383	50,8		-	-	963-130H
HFD 1T-4	300 600 1500	100 200 500	9	194	129	145	421	383	50,8		-	-	963-130H
HFD 3T-3	600 1500 3000	200 500 1000	10	194	129	145	421	383	50,8		-	-	963-132H
HFD 6T-3	1500 3000 6000	500 1000 2000	15	194	129	145	477	426	68,3		-	-	963-132H
HFD 10T-3	3000 6000 12000	1000 2000 5000	20	194	129	145	573	510	82,5		-	-	963-133H
Protection against dust and water splashes IP67													
HFD 600K-1IP	150 300 600	50 100 200	9	194	129	145	421	383	50,8		-	-	963-130H
HFD 1T-4IP	300 600 1500	100 200 500	9	194	129	145	421	383	50,8		-	-	963-130H
HFD 3T-3IP	600 1500 3000	200 500 1000	10	194	129	145	421	383	50,8		-	-	963-132H
HFD 6T-3IP	1500 3000 6000	500 1000 2000	15	194	129	145	477	426	68,3		-	-	963-132H
HFD 10T-3IP	3000 6000 12000	1000 2000 5000	20	194	129	145	573	510	82,5		-	-	963-133H
Note: For applications that require verification, please order verification at the same time, initial verification at a later date is not possible.													
Verification at the factory, we need to know the full address of the location of use.													
HFD 600K-1M	600	200	9	194	129	145	421	383	50,8		On request		963-130H
HFD 1T-4M	1500	500	9	194	129	145	421	383	50,8		On request		963-130H
HFD 3T-3M	3000	1000	10	194	129	145	421	383	50,8		On request		963-132H
HFD 6T-3M	6000	2000	15	194	129	145	477	426	68,3		On request		963-132H
HFD 10T-3M	12000	5000	20	194	129	145	573	510	82,5		On request		963-133H

New model





Robust industrial crane scale with luminous 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

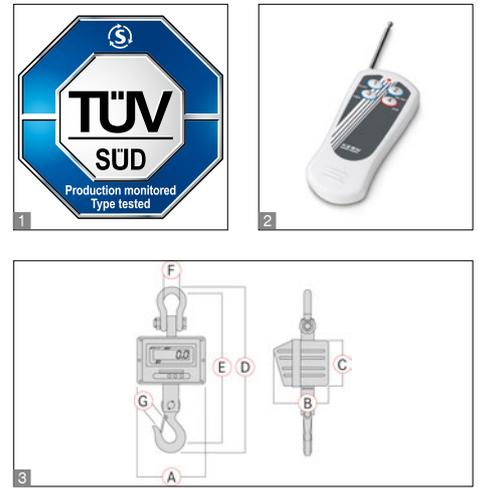
- **High resolution readability:** Readability [d] for 5 sec increased by one decimal place at the touch of a key, only for models with EC type approval
- **Hold function:** When the weighing value remains unchanged the weight indicated on the display is automatically “frozen” until the Hold key is pressed
- **Tare:** Resets the display to “0” when there is a load on the scale. Now removed or added loads are directly displayed
- **Hook with safety catch**, revolving
- **2 Radio remote control** standard. Range up to 20 m. All functions can be selected (excl. ON/OFF). W×D×H 48×10×95 mm. Batteries included, 1×12 V 23A

Technical data

- Superior display size: digit height 30 mm, bright with high contrast for easy reading of weighing results, even in poor lighting conditions
- Rechargeable battery pack internal, 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	DAKKS KERN	
HFM 1T0.1	1000	100	14	270	175	200	610	540	68	40	963-130H	
HFM 3T0.5	3000	500	16	270	175	200	610	540	74	40	963-132H	
HFM 5T0.5	5000	500	24	300	190	230	730	650	74	55	963-132H	
HFM 10T1	10000	1000	34	300	190	230	840	750	92	60	963-133H	



Robust industrial crane scale with calibration approval [M] – perfect for heavy-duty, custody transfer applications

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

- **High resolution readability:** Readability [d] for 5 sec increased by one decimal place at the touch of a key, only for models with EC type approval
- **Hold function:** When the weighing value remains unchanged the weight indicated on the display is automatically “frozen” until the Hold key is pressed
- **Tare:** Resets the display to “0” when there is a load on the scale. Now removed or added loads are directly displayed
- **Hook with safety catch**, revolving
- **2 Radio remote control** standard. Range up to 20 m. All functions can be selected (excl. ON/OFF). W×D×H 48×10×95 mm. Batteries included, 1×12 V 23A

Technical data

- Superior display size: digit height 30 mm, bright with high contrast for easy reading of weighing results, even in poor lighting conditions
- Rechargeable battery pack internal, 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 FACTORY

CAL EXT ACCU MULTI DMS 1 DAY 2 DAYS DAKkS +3 DAYS M +3 DAYS

Model	Weighing capacity [Max] kg	Readability [d] g	Net weight approx. kg	3 Dimensions							Option		
				A mm	B mm	C mm	D mm	E mm	F mm	G mm	Verification	DAkkS Calibr. Certificate	
KERN												DAkkS KERN	
HFO 1.5T0.5M	1500	500	16	270	175	200	610	540	60	35	965-130H	963-130H	
HFO 3T1M	3000	1000	17	270	175	200	610	540	80	47	965-132H	963-132H	
HFO 6T2M ⁴	6000	2000	30	300	190	230	730	650	80	54,4	965-132H	963-132H	

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.

Accessories

Printers



Second display



Weighing table



Ioniser



Stands



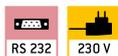
Interface adapter



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. FLP/GMP compliant print form available as standard. Language versions: DE, GB, 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

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

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

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



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, GB, 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
- Note: Please order the matching paper roll with it, see accessories
- Not suitable for KERN PFB range as well as KERN moisture analyzers 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
- Note: Please order the matching label roll with it, see accessories
- Not suitable for KERN CPB, RPB, CFS, IFS, CCS, BFS, KFS-TM ranges, counting scales

Price printer without interface cable, KERN YKE-01

Accessories

- Paper roll (1 pc.), Dimensions labels:
W×D 73×61 mm, 100 labels, KERN YKE-A02
W×D 105×48 mm, 45 labels, KERN YKE-A03

Individual header data:

For printers **KERN 911-013, YKN-01, YKB-01N and YKE-01 (in combination with YKI-02)** the free software **KERN SHM-01** 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



NEW



NEW

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 with automatic paper cutter

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 automatic paper cutter, an interchangeable interface and you will be impressed by how easy it is to replace the paper and belt

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
- 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 label 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 and an external signal bleep, 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, USB 2.0
- Interface cable not included with delivery
- Dimensions housing B×T×H 140×199×146 mm
- Not suitable for KERN DAB, DBS, DLB, FKT, RFE ranges
- Direct printing from mobile devices possible with ePOS technology

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

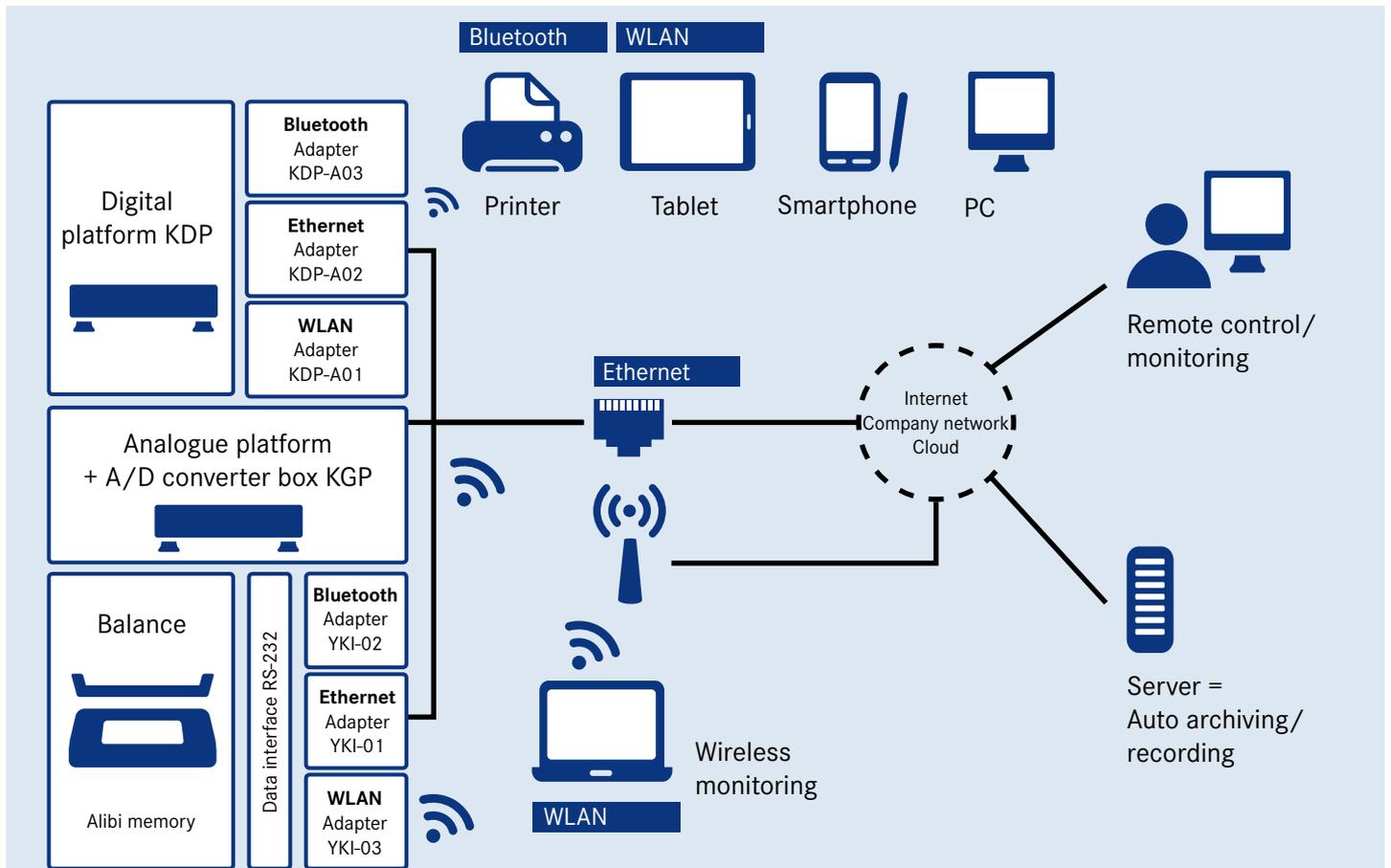
For direct connection to a printer or PC, cable length approx. 1.5 m.
The interface parameters can be set using the balance keypad.

Note

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

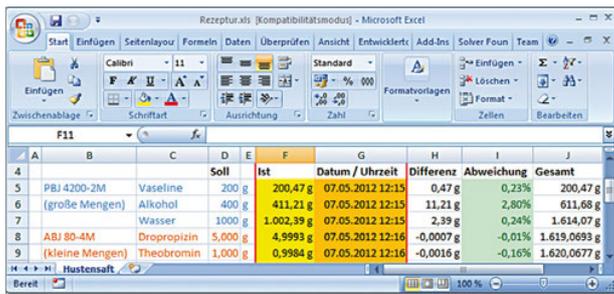
Printer, ...	PC, YKI-01/-02/-03 KERN	911-013, YKB-01N, YKN-01 KERN	YKE-01 KERN	YKG-01, YKH-01 KERN	YKS-01 KERN
Balance					
440, 572, 573, ALJ-AM, ALS-A, ALT-B, CDS, CKE, DE-D, DS, EMB-V, FCB, FKA, FKB, FKC, FKB-A, FKT, IKT, KB, PCB, PCD, PLJ-A, PLJ-F, PLS-A, PLS-F, PLE, PLT, KDP				572-926	
BAN, BKN, BXS, IXS, KXS-TM, SXS				KXS-A04i (Factory Option) on	
EOC, IOC, BID, KIB-T, KIB-TM				EOC-A12	
YKV-01, KGP	572-926			-	
ABJ-NM, ABS-N				ACS-A01	
BFA, BFB, BFN (until year of construction 2019), GAB-N, GAB-P, GAT, IFB, KFB-TM, KFN-TM, NFB, NFN (until year of construction 2019) PFB, SFB, UFA, UFB, UFC, UFN				CFS-A01	
BFS, CCS, CFS, CPB, EWJ, KFS-TM, KFT-TM, IFS (from year of production 2015), IFT, PFB, PFB-M, RPB				CFS-A01	-
ABT-NM, PBJ, PBS				770-926	
DBS, DLB				572-926	-
ABP, DAB, KFS-T, MLS-D				MLB-A05	-
ADB, ADJ, AEJ-CM, AEJ-NM, AES-C, AES-N, CCP, PNJ, PNS				MLB-A05	
HFT				KFF-A01	
EG-N, EW-N				474-926	
CCA				CCA-A01	

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

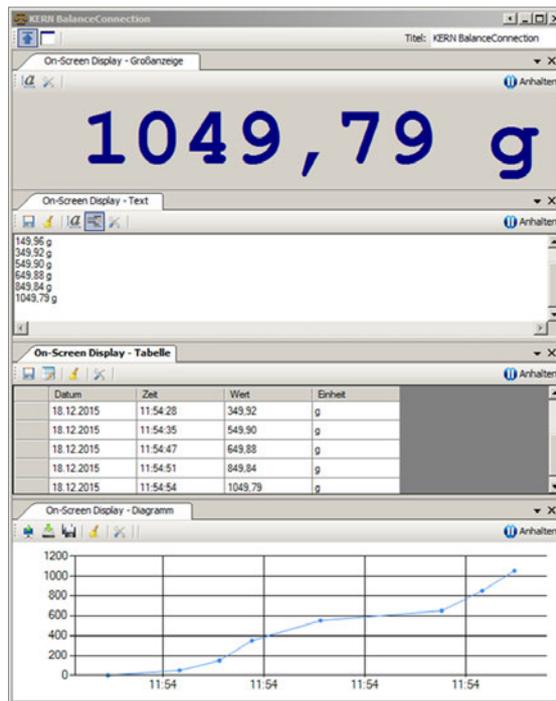


We will help to combine industrial production with the latest information and communication technology, with the aim of improving quality, reducing costs and using time and resources more efficiently so that you are able to react to future requirements in a more flexible manner. You will benefit from our uniform data protocol combined with our BalanceConnection 4.0 data software, for details please see page 175/176.

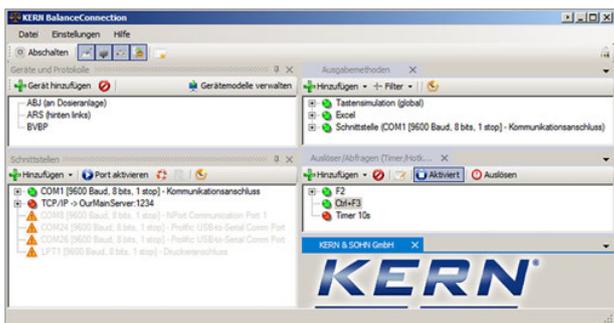
KERN Software BalanceConnection SCD-4.0



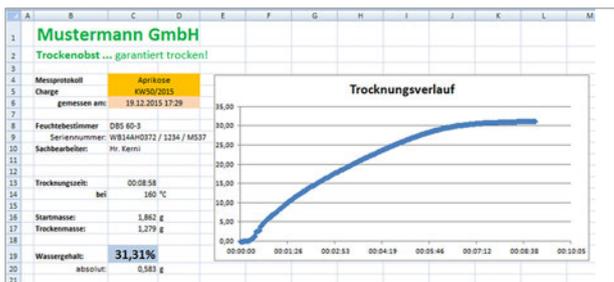
Easy transfer and editing of measuring results e.g. in Microsoft® Excel



Different on-screen displays with export function



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



Measurement report with line chart showing a moisture analysis

Note
 Do you have any questions? The team from our Industry 4.0 centre of expertise will be happy to help: e-mail: ITsupport@kern-sohn.com
 Or download a free demo version of the BalanceConnection software: <http://balanceconnection.kern-sohn.com/demo>

Flexible recording or transfer of measurements, particularly to Microsoft® Excel or Access

Features

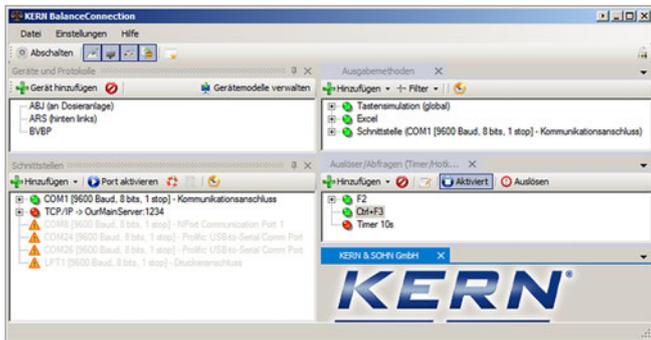
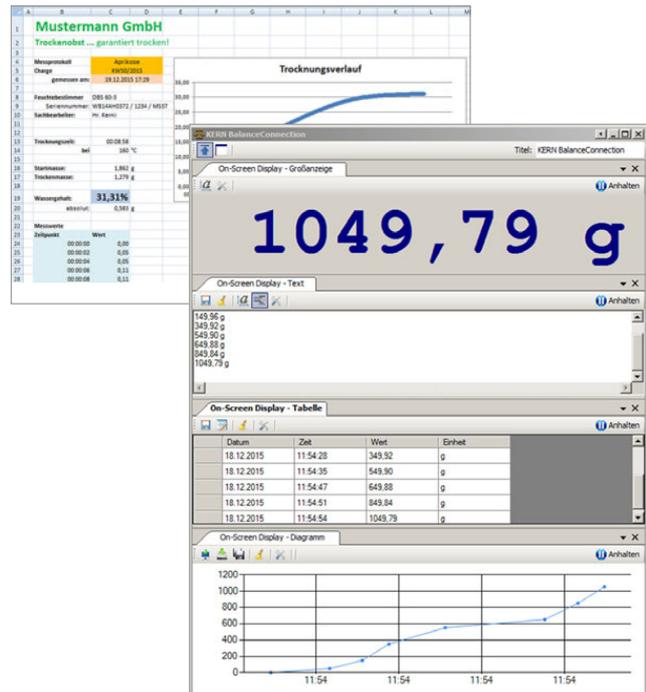
- For operating systems Windows XP, Vista, 7, 8, 8.1, 10
- Supports balances measuring devices with RS 232, RS 485, Bluetooth, LAN or WLAN network (TCP/UDP/IP)
- Highly flexible formatting of the output (any order, formatting and rounding), particularly recording of date and time for every value transferred, 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 analyzer), histogram, etc.

Benefits

- Typing errors during e.g. manual transfer are avoided
- Automatic recording, e.g. for long-term tests
- GLP-compliant lab software
- Can be used across different branches and applications
- Also available as a cost-optimised package with 5 licenses, **you save more than 30 %!**
- Also available immediately as a download license
- Scope of supplies: 1 CD, 1 license, KERN SCD-4.0
- Scope of supplies: 1 CD, 5 licenses, KERN SCD-4.0-S05
- Scope of supplies: Download link for 1 license, KERN SCD-4.0-DL

	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	400 g	411,21 g	07.05.2012 12:15	11,21 g	2,80%	611,68 g
6	(große Mengen) Alkohol	1000 g	1.002,39 g	07.05.2012 12:15	2,39 g	0,24%	1.614,07 g
7	8 ABJ 80-4M Wasser	5,000 g	4,9993 g	07.05.2012 12:16	-0,0007 g	-0,01%	1.619,0693 g
8	(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
- Supports balances measuring devices with RS 232, RS 485, Bluetooth, LAN or WLAN 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 analyzer), 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
- GLP-compliant lab software
- Can be used across different branches and applications
- Also available as a cost-optimised package with 5 licenses, **you save more than 30 %!**
- Also available immediately as a download license
- Scope of supplies: 1 CD, 1 License KERN SCD-4.0-PRO
- Scope of supplies: 1 CD, 5 Licenses KERN SCD-4.0-PRO5
- 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 1 to an IP-based Ethernet network 2. 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 174),

KERN YKI-01



STANDARD



RS-232/WLAN-Adapter KERN YKI-03

High-quality adapter for the wireless connection of balances, force measuring devices etc. with RS-232 interface to WLAN-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 WLAN device or a network (relevant software on the WLAN 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.

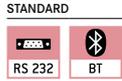
Scope of delivery: RS-232/WLAN adapter, mains adapter, network cable (1 m), driver CD, (interface cable see page 174),

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 (e.g. KERN YKC-01), 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 174),

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, CPB-N, GAB-N, GAB-P, IFB, 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, signal lamp etc.

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 174

Scope of delivery: Converter cable, CD with driver,

KERN AFH 12



**Stand (tripodal)
KERN YKP-01**

stable and robust, to elevate display device, stainless steel, height-adjustable, large three-legged adjustable foot, height of stand approx. 750–1000 mm, Factory Option.

Suitable for series BFA, BBB, BFN, BBN, KEN-TM, NFN, SFB (from weighing plate size W×D 500×400 mm), UFN,

KERN YKP-01



**Stand (tripodal)
KERN YKP-02**

stable and robust, to elevate display device, stainless steel, height-adjustable, large three-legged adjustable foot, height of stand approx. 750–1000 mm, Factory Option.

Suitable for series BFB, BXS, BFS, BFA, BBB, BBN, BKN, IFS, IFB, KFE-TM, KXG-TM, KXS-TM, KEN-TM, NFB, NBB, SFE, UFA, UFB, UFC,

KERN YKP-02



**Protective dust cover
KERN ABS-A08**

For protection from dust and light.

Suitable for all KERN analytical balances and precision balances with glass draught shield,

KERN ABS-A08



**Tare pan
KERN RFS-A02**

Made of stainless steel, which makes cleaning easy and hygienic. Ideal for weighing loose screws, small parts, fruit, vegetables, cheese, etc.

- W×D×H 370×240×20 mm
- Net weight approx. 524 g

KERN RFS-A02



**Tare pan with pan beam
KERN CH-A01N**

Made of stainless steel. Ideal for weighing loose small parts, fruit, vegetables etc. Max. load 30 kg. Removable tare pan which makes cleaning easy and hygienic.

- Suitable for models KERN CH 15K20, HCB 20K10, HCN 20K50IP, HDB-N, HDB-XL
- Dimensions: tare pan, \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-A01A



**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



STANDARD



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 W×D×H
115×100×60 mm (Adjustable foot retracted),
115×110×80 mm (Adjustable foot folded out)
- Net weight approx. 0,31 kg
- Mains connection 100–240 V, 50/60 Hz,
AC power supply, DC 12 V, 500 mA, output,

KERN YBI-01A

Weighing table KERN YPS-03

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

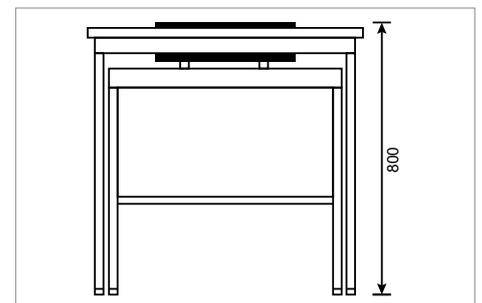
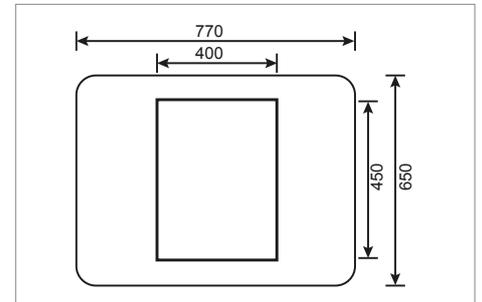
The YPS-03 weighing table consists of:

- a heavy, polished granite slab (34 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 easy and hygienic to clean

- Suitable for all KERN analytical balances with total dimensions $\leq W \times D$ 270×410 mm
- Total dimensions W×D×H
768×648×800 mm (Height adjustable)
- Dimensions granite slab, W×D×H
270×410×115 mm
- Net weight approx. 62 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





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	



TIPS FROM THE EXPERTS

As well as our balances and test services, we can offer you an extensive range of professional measuring technology and testing technology as a comprehensive range of test services.

We will offer you reliable quality at fair prices and with the shortest delivery times. Our product specialists will give you professional advice, will work with you to find the right product and will provide comprehensive support after the purchase too.



Stefan Herrmann, Product Manager
SAUTER measuring equipment

#4 “New: High-quality load cells for force and mass measurement”

Accuracy classes with rated loads from 300g to 50t and protection classes up to IP69K are now available in the SAUTER product range. For which project whatsoever, whether to build individual weighing systems, for installation in silos and storage containers or shelves for continuous inventory, for special applications in mechanical engineering or any kind of test stands – SAUTER offers a suitable measuring cell.

Of course, we also supply the right accessories, such as load corners, rod ends, evaluation units, junction box or the appropriate calibration certificate.

Special wishes? Special load cells, other capacities or cable lengths, individual dynamometers or a special receptacle for your test object? No problem, our product specialist “Load cells”, Mr. Stefan Herrmann, will be pleased to help you at any time and work with you to develop an individual concept for your application.

All load cells and measuring instruments can be found in the new SAUTER catalogue 2020 for measuring technology and test services

BALANCE MANUFACTURE

Load cell + Junction Box + KERN YKV



BALANCE MANUFACTURE

Load cell + display device



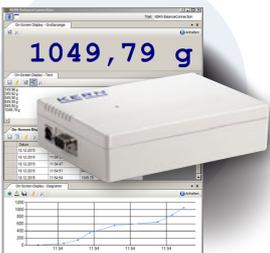
FORCE MEASUREMENT

Load cell + SAUTER FL + Software



WAAGENBAU

Load cell + KERN YKV + KERN Software BalanceConnection



BALANCE MANUFACTURE

Load cell + Junction Box + display device



SAUTER Mess measuring cells – integration opportunities

Test weights

Weights yesterday and today

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

Adjustment or calibration?

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

Testing, the right way!

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

As the appropriate test weight is only classed as checking equipment according to ► **ISO 9000ff** if it has the relevant proof of accuracy, all KERN test weights come with an appropriate ► **DAkkS-calibration certificate**. For further details, see the calibration service section on page 210.

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**

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

- E1 Test weights for customers who require a high degree of accuracy for the most demanding applications. For high-resolution balances with $d > 1,000,000$ Use recommended with DAkkS calibration certificate only.
- E2 Most accurate test weights for high resolution analytical balances of verification class I $\geq 100,000$ 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 or adjustment 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, wooden boxes 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.



All the security you need!

„KERN Safety Sets“ which have been specially developed and put together and contain the right test weights to test and monitor your balance. This “KERN Safety Set” contains one test weight for testing the upper end of the weighing range of your balance and one test weight for testing the lower end. As an option, the “KERN Safety Set”

has space for another test weight, for testing your balance at a weight which is relevant for you. Useful accessories which have been selected to suit that particular “KERN Safety Set”, such as, for example, special gloves, tweezers, weight grips, brushes, etc. will assist you in handling your test weights properly. Stored in the practical protective case next to your balance, you can check and ensure the high precision of your balance at any time.

Just ask our test weight product specialist, he will be happy to recommend the right “KERN Safety Set” for your balance. You can also find the matching “KERN Safety Set” for each model on the Internet



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 can mark or etch your weights to your specifications. 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.



Our KERN weight cases at a glance:

↓

Plastic box
for individual weights

Aluminium protected box
for individual weights

Wooden box, lined
for individual weights

Plastic case
for weight sets

Aluminium protected case
for weight sets

Wooden case, lined
for weight sets

It's your choice!
To protect your test weights we can offer you an appropriate box. If there are no legal or normative specifications, then you have the choice between plastic, aluminium protected or wood. The available boxes are shown as a symbol in the test weight tables on the following pages. In this way you have all the materials, versions, sizes and prices at a glance, listed in a concise way.

It's so easy to order your suitable test weight

1. According to your safety requirements or the specifications of your QM system, you select the test weight with the appropriate weight value and the required tolerance.
2. We offer many weights in different designs, giving you complete freedom to decide which test weights you want to use for your application. It goes without saying that all our test weights comply with the OIML R111:2004 directive.
3. To protect your high-quality test equipment, we offer you cases in various designs. From low-priced plastic cases to aluminium protected boxes to classic, high-quality wooden cases.
4. A DAkkS calibration certificate - the auditor's favourite! With this certificate you provide the standard-compliant proof of all important values of your test equipment and are on the safe side when operating and testing your measuring equipment.

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	€
1 g	0,03	316-01	31,-	317-01	45,-	317-020-400	4,50	317-010-600	14,-	317-010-100	26,-	962-331	26,-
2 g	0,04	316-02	33,-	317-02	48,-	317-020-400	4,50	317-020-600	14,-	317-020-100	26,-	962-332	26,-
5 g	0,05	316-03	35,-	317-03	51,-	317-030-400	4,50	317-030-600	14,-	317-030-100	26,-	962-333	26,-
10 g	0,06	316-04	37,-	317-04	54,-	317-040-400	4,50	317-040-600	14,-				26,-
20 g	0,08	316-05	42,-	317-05	62,-	317-050-400	4,50						
		316-06	45,-	317-06	72,-								

1.	2.	3.	4.	
Weight sets	ECO shape in plastic case	ECO shape in aluminium protected case	ECO shape in wooden case	DAkkS certificate
	KERN	KERN	KERN	KERN
1 mg - 500 mg	328-22* 175,-	328-226** 195,-	328-22* 175,-	962-450 100,-
1 mg - 50 g	325-024 395,-	325-026 445,-	325-022 450,-	962-401 167,-
1 mg - 100 g	325-034 430,-	325-036 475,-	325-032 480,-	962-402 178,-
1 mg - 200 g	325-044 520,-	325-046 560,-	325-042 560,-	962-403 199,-
500 g	325-054 580,-	325-056		

Selection of the appropriate test weight for your balance

A balance can never be more accurate than the test weight used to adjust it, it all depends on its tolerance. The accuracy of the test weight should correspond to the readout [d] of the balance, or rather be better. Nominal weight value is shown in adjust mode "CAL" in the balance display. Given a choice, the heaviest weight is the most suitable for accurate measurement.

Once accuracy and nominal weight value are specified, the suitable test weight is selected according to the tolerances "Tol" of the individual accuracy classes E2 - M3, see column "Tol ± mg" at the respective weight and table at page 188.

Example:

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

- The accuracy of the required test weight is determined by readout [d]: max. tolerance ± 10 mg.
- Displayed weight size on "CAL" mode: 1000 g or 2000 g. The required test weight has a 2 kg weight size.
- Suitable test weights with ± 10 mg tolerance and 2 kg weight size, can be found in accuracy class F1. KERN-No 326-12, see page 194.

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



Test weight →	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	Knob shape with lifting knob, finely turned brass
Features ↓						
Conforms to OIML:R111	yes	yes	yes	yes	yes	yes
Available classes	E1, E2	E2	F1	F1	F2, M1	M1, M2, M3
Upper surface	polished	polished	polished	polished	finely turned	finely turned
Material	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Brass
Adjusting cavity	no	no	yes	yes, from 50 g, readjustment can only be carried out by KERN	yes, from 20 g	yes, from 20 g
Marking (Milligram weights, generally none)	no	E2: None	Nominal value, etched	Nominal value, etched	F2: Class + nominal value, etched; M1: Class + nominal value, adopted	Class + nominal value, adopted
Verification possible	yes	yes	yes	no	yes	yes, M1 only
Checking equipment for verification purposes	approved	approved	approved	approved	approved	approved, M1 only
Ideal as checking equipment in QM systems (e.g. ISO 9000 ff)	yes	yes	yes	yes	yes	yes
Benefits	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Affordable test weight for commercial and industrial scales • Ideal shape of the top for good grip

Composition table, valid for all KERN 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	10	20	20	50	100	200	200	500	1	2	2	5	10	
Weight set ↓	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	mg	g	g	g	g	g	g	g	g	g	g	g	g	g	g	kg	kg	kg	kg	kg
1 mg-500 mg	Total weight												1,11 g																		
1 mg-50 g													111,11 g																		
1 mg-100 g													211,11 g																		
1 mg-200 g													611,11 g																		
1 mg-500 g													1.111,11 g																		
1 mg-1 kg													2.111,11 g																		
1 mg-2 kg													6.111,11 g																		
1 mg-5 kg													11.111,11 g																		
1 mg-10 kg													21.111,11 g																		

The key points from the OIML norm R111:2004

OIML (Organisation Internationale de Metrologie Legale) has established the exact metrological requirements for weights in verified applications in approx. 100 states all over the world. The OIML recommendation R111 (2004 Edition) for weights relates to sizes 1 mg – 5000 kg. Statements are made on the accuracy, materials, geometric shape, marking and storage of the weights.

Error limits for weights of classes E1 to M3

The error limit classes are in fixed hierarchical levels in the proportion of 1:3, where E1 is the most accurate and M3 is the least accurate weight class. When testing weights with other weights, the correct test class is the next highest class.

Error limit classes (= tolerances)

The values given in the table below (tolerances ± ... mg) are the respective permitted fabrication tolerances. They are to be equal to the ► **measuring uncertainty** of the weight, if no ► **DAkkS calibration certificate** is available.

Conventional mass

The problem is the air buoyancy, which makes the weight appear lighter. In order to avoid this “distortion” in daily use, all weights are adjusted to the unit specifications as given in R111, e.g. it is accepted that: material density of the weights is 8000 kg/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 ± mg”						
	E1	E2	F1	F2	M1	M2	M3
1 mg	± 0,003 mg	± 0,006 mg	± 0,020 mg	± 0,06 mg	± 0,20 mg	-	-
2 mg	± 0,003 mg	± 0,006 mg	± 0,020 mg	± 0,06 mg	± 0,20 mg	-	-
5 mg	± 0,003 mg	± 0,006 mg	± 0,020 mg	± 0,06 mg	± 0,20 mg	-	-
10 mg	± 0,003 mg	± 0,008 mg	± 0,025 mg	± 0,08 mg	± 0,25 mg	-	-
20 mg	± 0,003 mg	± 0,010 mg	± 0,03 mg	± 0,10 mg	± 0,3 mg	-	-
50 mg	± 0,004 mg	± 0,012 mg	± 0,04 mg	± 0,12 mg	± 0,4 mg	-	-
100 mg	± 0,005 mg	± 0,016 mg	± 0,05 mg	± 0,16 mg	± 0,5 mg	± 1,6 mg	-
200 mg	± 0,006 mg	± 0,020 mg	± 0,06 mg	± 0,20 mg	± 0,6 mg	± 2,0 mg	-
500 mg	± 0,008 mg	± 0,025 mg	± 0,08 mg	± 0,25 mg	± 0,8 mg	± 2,5 mg	-
1 g	± 0,010 mg	± 0,03 mg	± 0,10 mg	± 0,3 mg	± 1,0 mg	± 3,0 mg	± 10 mg
2 g	± 0,012 mg	± 0,04 mg	± 0,12 mg	± 0,4 mg	± 1,2 mg	± 4,0 mg	± 12 mg
5 g	± 0,016 mg	± 0,05 mg	± 0,16 mg	± 0,5 mg	± 1,6 mg	± 5,0 mg	± 16 mg
10 g	± 0,020 mg	± 0,06 mg	± 0,20 mg	± 0,6 mg	± 2,0 mg	± 6,0 mg	± 20 mg
20 g	± 0,025 mg	± 0,08 mg	± 0,25 mg	± 0,8 mg	± 2,5 mg	± 8,0 mg	± 25 mg
50 g	± 0,03 mg	± 0,10 mg	± 0,3 mg	± 1,0 mg	± 3,0 mg	± 10 mg	± 30 mg
100 g	± 0,05 mg	± 0,16 mg	± 0,5 mg	± 1,6 mg	± 5,0 mg	± 16 mg	± 50 mg
200 g	± 0,10 mg	± 0,3 mg	± 1,0 mg	± 3,0 mg	± 10 mg	± 30 mg	± 100 mg
500 g	± 0,25 mg	± 0,8 mg	± 2,5 mg	± 8,0 mg	± 25 mg	± 80 mg	± 250 mg
1 kg	± 0,5 mg	± 1,6 mg	± 5,0 mg	± 16 mg	± 50 mg	± 160 mg	± 500 mg
2 kg	± 1,0 mg	± 3,0 mg	± 10 mg	± 30 mg	± 100 mg	± 300 mg	± 1 000 mg
5 kg	± 2,5 mg	± 8,0 mg	± 25 mg	± 80 mg	± 250 mg	± 800 mg	± 2 500 mg
10 kg	± 5,0 mg	± 16 mg	± 50 mg	± 160 mg	± 500 mg	± 1 600 mg	± 5 000 mg
20 kg	± 10 mg	± 30 mg	± 100 mg	± 300 mg	± 1 000 mg	± 3 000 mg	± 10 g
50 kg	± 25 mg	± 80 mg	± 250 mg	± 800 mg	± 2 500 mg	± 8 000 mg	± 25 g
100 kg	-	± 160 mg	± 500 mg	± 1 600 mg	± 5 000 mg	± 16 g	± 50 g
200 kg	-	± 300 mg	± 1 000 mg	± 3 000 mg	± 10 g	± 30 g	± 100 g
500 kg	-	± 800 mg	± 2 500 mg	± 8 000 mg	± 25 g	± 80 g	± 250 g
1 000 kg	-	± 1 600 mg	± 5 000 mg	± 16 g	± 50 g	± 160 g	± 500 g
2 000 kg	-	-	± 10 g	± 30 g	± 100 g	± 300 g	± 1 000 g
5 000 kg	-	-	± 25 g	± 80 g	± 250 g	± 800 g	± 2 500 g



PREMIUM⁺ WEIGHTS

Note: Our highly-accurate OIML test weights are also available **PREMIUM⁺ 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⁺ 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

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-
22)



Milligram weight
set in aluminium
protected box, lined
(308-226)



Aluminium protected case, lined, for weight
sets, knob shape



Wooden case, lined, for weight sets,
knob shape

Class E1 · Milligram weights, wire shape, stainless steel

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

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, polished stainless steel

Plastic case *Aluminium protected case

Weight set	Aluminium protected case, knob shape	Wooden case, knob shape	DAkkS certificate Initial calibration*	DAkkS certificate Recalibration
	KERN 	KERN 	KERN	KERN
1 mg - 500 mg	308-426***	308-42**	962-250	962-250 R
1 mg - 50 g	303-026	303-02	963-201	962-201 R
1 mg - 100 g	303-036	303-03	963-202	962-202 R
1 mg - 200 g	303-046	303-04	963-203	962-203 R
1 mg - 500 g	303-056	303-05	963-204	962-204 R
1 mg - 1 kg	303-066	303-06	963-205	962-205 R
1 mg - 2 kg	303-076	303-07	963-206	962-206 R
1 mg - 5 kg	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	304-026	304-02	963-215	962-215 R
1 g - 100 g	304-036	304-03	963-216	962-216 R
1 g - 200 g	304-046	304-04	963-217	962-217 R
1 g - 500 g	304-056	304-05	963-218	962-218 R
1 g - 1 kg	304-066	304-06	963-219	962-219 R
1 g - 2 kg	304-076	304-07	963-220	962-220 R
1 g - 5 kg	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: Aluminium 1 mg – 5 mg/German silver 10 mg – 500 mg

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, polished stainless steel

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, polished stainless steel

Test weight material: Polished stainless steel/German Silver, Individual weights: polished stainless steel.

*Plastic case **Aluminium protected case

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 188 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, compact shape/
knob shape



Aluminium protected case, lined,
for weight sets ECO shape/
knob shape



Wooden case, lined,
for weight sets ECO shape/
knob shape

Test weights class F1

Class F1 · Milligram weights, flat polygonal sheet

Test weight material: Aluminium 1 mg – 5 mg/German silver 10 mg – 500 mg

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, polished stainless steel

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, stainless steel polished

Block weight material: stainless steel polished

Weight	Tol +/- mg	Dimensions $\varnothing \times H$	Block weight, stainless steel	Aluminium protected case	DAkkS certificate
			KERN	KERN 	KERN
5 kg	25	145×68×96	326-36	346-060-600	962-443
10 kg	50	193×96×117	326-37	346-070-600	962-444
20 kg	100	233×115×145	326-38	346-080-600	962-445
50 kg	250	295×158×191	326-39	346-090-600	962-446

Class F1 · Test weights, stainless steel polished, stackable

Test weight material: stainless steel polished

Weight	Tol +/- mg	Test weight, stainless steel	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

Test weights class F1

Class F1 · Weight sets, ECO shape, polished stainless steel

Test weight material: Polished stainless steel/German Silver, Individual weights: polished stainless steel.

*Plastic case

**Aluminium protected case

Weight sets	ECO shape in plastic case	ECO shape in aluminium protected case	ECO shape in wooden case	DAkkS certificate
	KERN 	KERN 	KERN 	KERN
1 mg - 500 mg	328-22*	328-226**	328-22*	962-450
1 mg - 50 g	325-024	325-026	325-022	962-401
1 mg - 100 g	325-034	325-036	325-032	962-402
1 mg - 200 g	325-044	325-046	325-042	962-403
1 mg - 500 g	325-054	325-056	325-052	962-404
1 mg - 1 kg	325-064	325-066	325-062	962-405
1 mg - 2 kg	325-074	325-076	325-072	962-406
1 mg - 5 kg	325-084	325-086	325-082	962-407
1 mg - 10 kg	-	325-096	325-092	962-408
1 g - 50 g	326-024	326-026	326-022	962-415
1 g - 100 g	326-034	326-036	326-032	962-416
1 g - 200 g	326-044	326-046	326-042	962-417
1 g - 500 g	326-054	326-056	326-052	962-418
1 g - 1 kg	326-064	326-066	326-062	962-419
1 g - 2 kg	326-074	326-076	326-072	962-420
1 g - 5 kg	326-084	326-086	326-082	962-421
1 g - 10 kg	-	326-096	326-092	962-422

Class F1 · Weight sets, knob shape, polished stainless steel

Test weight material: Polished stainless steel/German Silver, Individual weights: polished stainless steel.

*Plastic case

**Aluminium protected case

Weight sets	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	328-22*	328-226**	328-22*	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 polyagonal sheet



Individual weights/Weight sets, knob shape



Block weight, stainless steel



Test weights (10 – 50 kg), finely turned stainless steel KERN 337-141 ff, optional: Wooden box



Plastic box, lined, for individual weights ≤ 200 g



Plastic box, lined, for individual weights ≥ 500 g



Aluminium protected box, lined, for individual weights



Wooden box, not lined for individual weights ≤ 500 g



Wooden box, not lined, for individual weights ≥ 1 kg



Milligram weight set in plastic box (338-22)



Milligram weight set in aluminium protected box, lined (338-226)



Plastic case, lined, for weight sets knob shape



Aluminium protected case, lined, for weight sets knob shape



Wooden case, for weight sets knob shape

Test weights class F2

Class F2 · Milligram weights, flat polygonal sheet

Test weight material: Aluminium 1 mg – 5 mg/German Silver 10 mg – 500 mg

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, 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, finely turned stainless steel

Test weight material: Finely turned stainless steel

Weight	Tol +/- mg	Test weight, stainless steel	Aluminium protected box	Wooden box
		KERN	KERN 	KERN 
10 kg	300	337-141	346-070-600	337-141-200
20 kg	800	337-151	346-080-600	337-151-200
50 kg	250	337-161	346-090-600	337-161-200

Class F2 · Block weights, stainless steel glass bead blasted

Block weight material: stainless steel glass bead blasted

Weight	Tol +/- mg	Block weight, stainless steel	Aluminium protected case	Wooden case
		KERN	KERN 	KERN 
5 kg	80	336-36	346-060-600	-
10 kg	300	336-37	346-070-600	337-141-200
20 kg	800	336-38	346-080-600	337-151-200
50 kg	250	336-39	346-090-600	337-161-200

Class F2 · Weight sets, knob shape, finely turned stainless steel

Test weight material: Milligramm weights Aluminium/German Silver, individual weights stainless steel.

*Plastic case

**Aluminium protected case

Weight	Knob shape in plastic case 	Knob shape in aluminium protected case 	Knob shape in wooden case 	DAkkS certificate
1 mg - 500 mg	KERN 338-22*	KERN 338-226**	KERN 338-22*	KERN 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



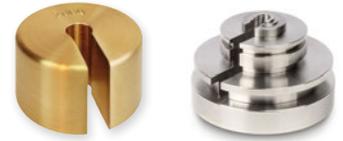
Milligram weights, flat polygonal sheet



Individual weights/Weight sets, knob shape, finely turned stainless steel or finely turned brass



Hook weights, finely turned brass (stainless steel, on request)



Slotted weights, finely turned brass or finely turned stainless steel (on request)



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, stainless steel or finely turned brass



Aluminium protected case, lined, for weight sets, knob shape, stainless steel or finely turned brass



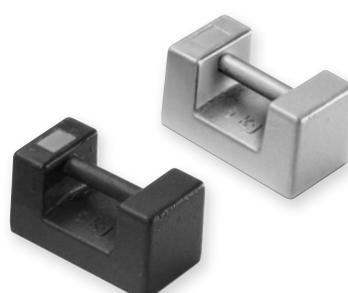
Wooden case, for weight sets, knob shape, stainless steel or finely turned brass



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 brass



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



Test weights class M1

Class M1 • Milligram weights, flat polygonal sheet

Test weight material: Aluminium 1 mg – 5 mg/German silver 10 mg – 500 mg

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, finely turned brass or stainless steel

Weight	Tol +/- mg	Individual weight, brass	Individual weight, stainless steel	Plastic box	Aluminium protected box	Wooden box	DAkkS certificate
		KERN	KERN	KERN 	KERN 	KERN 	KERN
1 g	1,0	347-41	347-01	347-030-400	317-010-600	337-010-200	962-631
2 g	1,2	347-42	347-02	347-030-400	317-020-600	337-020-200	962-632
5 g	1,6	347-43	347-03	347-030-400	317-030-600	337-030-200	962-633
10 g	2,0	347-44	347-04	347-050-400	317-040-600	337-040-200	962-634
20 g	2,5	347-45	347-05	347-050-400	317-050-600	337-050-200	962-635
50 g	3,0	347-46	347-06	347-070-400	317-060-600	337-060-200	962-636
100 g	5,0	347-47	347-07	347-070-400	317-070-600	337-070-200	962-637
200 g	10	347-48	347-08	347-080-400	317-080-600	337-080-200	962-638
500 g	25	347-49	347-09	347-090-400	317-090-600	337-090-200	962-639
1 kg	50	347-51	347-11	347-110-400	317-110-600	337-110-200	962-641
2 kg	100	347-52	347-12	347-120-400	317-120-600	337-120-200	962-642
5 kg	250	347-53	347-13	347-130-400	317-130-600	337-130-200	962-643
10 kg	500	347-54	347-14	347-140-400	317-140-600	337-140-200	962-644

Class M1 • Block weights, lacquered cast iron or stainless steel

Block weight material: cast iron or stainless steel, surface and edges refined

Weight	Tol +/- g	Block weight, cast iron	Block weight, stainless steel	Aluminium protected case	DAkkS certificate
		KERN	KERN	KERN 	KERN
5 kg	0,25	346-86	346-06	346-060-600	962-643
10 kg	0,50	346-87	346-07	346-070-600	962-644
20 kg	1,00	346-88	346-08	346-080-600	962-645
50 kg	2,50	346-89	346-09	346-090-600	962-646

Class M1 • ECO Block weights, lacquered cast iron

ECO Block weight material: cast iron, surface and edges machined

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

Test weights class M1

Class M1 · Test weights, stainless steel, stackable

Test weight material: finely turned stainless steel

Weight	Tol +/- g	Test weight, stainless steel	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, lacquered cast iron, stackable

Designed to be lifted with forklift trucks or cranes, delivery time is approx. 4 weeks

Dimensions: see internet

Weight	Tol +/- g	Heavy duty weight, cast iron	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, for example, stainless steel and in other forms, for example, discs or individual weight containers, please ask for details.

Class M1 · Weight sets, knob shape, finely turned brass or stainless steel

Test weight material: Milligramm weights Aluminium/German silver, individual weights finely turned brass or stainless steel.

*Plastic case

**Aluminium protected case

Weight	Knob shape, finely turned brass, in plastic case	Knob shape, finely turned stainless steel, in plastic case	Knob shape, finely turned brass, in wooden case	Knob shape, finely turned stainless steel, in wooden case	Knob shape, finely turned, brass, in aluminium protected case	Knob shape, finely turned stainless steel, in aluminium protected case	DAkkS certificate
	KERN 	KERN 	KERN 	KERN 	KERN 	KERN 	KERN
1 mg - 500 mg	348-22*	348-22*	348-22*	348-22*	348-226**	348-226**	962-650
1 mg - 50 g	343-424	343-024	343-42	343-02	343-426	343-026	962-601
1 mg - 100 g	343-434	343-034	343-43	343-03	343-436	343-036	962-602
1 mg - 200 g	343-444	343-044	343-44	343-04	343-446	343-046	962-603
1 mg - 500 g	343-454	343-054	343-45	343-05	343-456	343-056	962-604
1 mg - 1 kg	343-464	343-064	343-46	343-06	343-466	343-066	962-605
1 mg - 2 kg	343-474	343-074	343-47	343-07	343-476	343-076	962-606
1 mg - 5 kg	343-484	343-084	343-48	343-08	343-486	343-086	962-607
1 mg - 10 kg	-	-	343-49	343-09	343-496	343-096	962-608
1 g - 50 g	344-424	344-024	344-42	344-02	344-426	344-026	962-615
1 g - 100 g	344-434	344-034	344-43	344-03	344-436	344-036	962-616
1 g - 200 g	344-444	344-044	344-44	344-04	344-446	344-046	962-617
1 g - 500 g	344-454	344-054	344-45	344-05	344-456	344-056	962-618
1 g - 1 kg	344-464	344-064	344-46	344-06	344-466	344-066	962-619
1 g - 2 kg	344-474	344-074	344-47	344-07	344-476	344-076	962-620
1 g - 5 kg	344-484	344-084	344-48	344-08	344-486	344-086	962-621
1 g - 10 kg	-	-	344-49	344-09	344-496	344-096	962-622

Test weights class M1

Class M1 · Hook weights, finely turned brass

Weight	Tol +/- mg	Hook weight, brass	Plastic box, lined	DAkkS certificate
		KERN	KERN 	KERN
1 g	1,0	347-416	347-030-400	962-631
2 g	1,2	347-426	347-030-400	962-632
5 g	1,6	347-436	347-030-400	962-633
10 g	2,0	347-446	347-050-400	962-634
20 g	2,5	347-456	347-050-400	962-635
50 g	3,0	347-466	347-070-400	962-636
100 g	5,0	347-476	347-090-400	962-637
200 g	10,0	347-486	347-090-400	962-638
500 g	25,0	347-496	347-110-400	962-639
1 kg	50,0	347-516	347-120-400	962-641
2 kg	100,0	347-526	347-130-400	962-642
5 kg	250,0	347-536	347-140-400	962-643
10 kg	500,0	347-546	-	962-644



Note

Stainless steel hook weights, on request

Class M1 · Slotted weights, finely turned brass

Weight	Tol +/- mg	Slotted weight, brass	Plastic box, lined	DAkkS certificate
		KERN	KERN 	KERN
1 g	1,0	347-415	347-030-400	962-631
2 g	1,2	347-425	347-030-400	962-632
5 g	1,6	347-435	347-030-400	962-633
10 g	2,0	347-445	347-030-400	962-634
20 g	2,5	347-455	347-080-400	962-635
50 g	3,0	347-465	347-080-400	962-636
100 g	5,0	347-475	347-090-400	962-637
200 g	10	347-485	347-090-400	962-638
500 g	25	347-495	347-110-400	962-639
1 kg	50	347-515	347-130-400	962-641
2 kg	100	347-525	347-130-400	962-642
5 kg	250	347-535	347-140-400	962-643
10 kg	500	347-545	347-140-400	962-644

Class M1 · Beam bars, for fixing slotted weights

Own weight beam bar	Maximum total load ⁽¹⁾	Largest slotted weight possible	Material	Beam bar	DAkkS certificate
				KERN	KERN
10 g	200 g	100 g	Aluminium	347-445-100*	962-634
100 g	2 kg	1 kg	Brass	347-475-100**	962-637
500 g	20 kg	10 kg	Brass	347-495-100***	962-639
1 kg	40 kg	10 kg	Brass	347-515-100***	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"

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, finely turned brass



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



Plastic case, lined, for weight sets knob shape, stainless steel or finely turned brass



Aluminium protected case, lined, for weight sets knob shape, finely turned brass, *not appropriate for cast iron weights



Wooden case, for weight sets knob shape, finely turned brass



Wooden block, for weight sets knob shape, lacquered cast iron

Class M2 · Individual weights, knob shape, finely turned brass

Weight	Tol +/- mg	Individual weight, knob shape	Plastic box, lined	Aluminium protected box	Wooden box	DAkkS certificate
		KERN	KERN 	KERN 	KERN 	KERN
1 g	3	357-41	347-030-400	317-010-600	337-010-200	962-631
2 g	4	357-42	347-030-400	317-020-600	337-020-200	962-632
5 g	5	357-43	347-030-400	317-030-600	337-030-200	962-633
10 g	6	357-44	347-050-400	317-040-600	337-040-200	962-634
20 g	8	357-45	347-050-400	317-050-600	337-050-200	962-635
50 g	10	357-46	347-070-400	317-060-600	337-060-200	962-636
100 g	16	357-47	347-070-400	317-070-600	337-070-200	962-637
200 g	30	357-48	347-080-400	317-080-600	337-080-200	962-638
500 g	80	357-49	347-090-400	317-090-600	337-090-200	962-639
1 kg	160	357-51	347-110-400	317-110-600	337-110-200	962-641
2 kg	300	357-52	347-120-400	317-120-600	337-120-200	962-642
5 kg	800	357-53	347-130-400	317-130-600	337-130-200	962-643
10 kg	1600	357-54	347-140-400	317-140-600	337-140-200	962-644

Class M2 · Block weights, lacquered cast iron

Block weight material: cast iron, surface and edges refined

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

Class M2 · ECO Block weights, lacquered cast iron

ECO Block weight material: lacquered cast iron

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

Class M2 · Weight sets, knob shape, finely turned brass

Weight	Knob shape, in aluminium protected case	Knob shape, in wooden case	DAkkS certificate
	KERN 	KERN 	KERN
1 g - 50 g	354-426	354-42	962-615
1 g - 100 g	354-436	354-43	962-616
1 g - 200 g	354-446	354-44	962-617
1 g - 500 g	354-456	354-45	962-618
1 g - 1 kg	354-466	354-46	962-619
1 g - 2 kg	354-476	354-47	962-620
1 g - 5 kg	354-486	354-48	962-621
1 g - 10 kg	354-496	354-49	962-622

Test weights classes M3

Class M3 · Individual weights, knob shape, finely turned brass

Weight	Tol +/- mg	Individual weight, knob shape	Plastic box, lined	Aluminium protected box	Wooden box	DAkkS certificate
		KERN	KERN 	KERN 	KERN 	KERN
1 g	10	367-41	347-030-400	317-010-600	337-010-200	962-631
2 g	12	367-42	347-030-400	317-020-600	337-020-200	962-632
5 g	16	367-43	347-030-400	317-030-600	337-030-200	962-633
10 g	20	367-44	347-050-400	317-040-600	337-040-200	962-634
20 g	25	367-45	347-050-400	317-050-600	337-050-200	962-635
50 g	30	367-46	347-070-400	317-060-600	337-060-200	962-636
100 g	50	367-47	347-070-400	317-070-600	337-070-200	962-637
200 g	100	367-48	347-080-400	317-080-600	337-080-200	962-638
500 g	250	367-49	347-090-400	317-090-600	337-090-200	962-639
1 kg	500	367-51	347-110-400	317-110-600	337-110-200	962-641
2 kg	1000	367-52	347-120-400	317-120-600	337-120-200	962-642

Class M3 · Individual weights, knob and cylindrical shape, 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, lacquered cast iron

Block weight material: cast iron, surface and edges refined

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

Class M3 · ECO Block weights, lacquered cast iron

ECO Block weight material: lacquered cast iron

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

Class M3 · Weight sets, knob and cylindrical shape, brass and 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



1 not appropriate for cast iron weights



Gloves
cotton, 1 pair. Help to protect the test weights when being used daily, from grease from fingers, damp etc.

KERN
317-280



Gloves
leather/cotton, 1 pair. Help to protect the test weights when being used daily, from grease from fingers, damp etc.

KERN
317-290



Premium gloves
Nylon, 1 pair. Particularly elastic, one size fits all, with special fingertip coating to ensure a safe grip. Helps to protect the test weights in everyday use from grease from fingers, damp etc.

KERN
317-281



Dusting brush
to clean the weights

KERN
318-270



Bellows
for cleaning weights

KERN
318-271



Microfibre cloth
for cleaning weights

KERN
318-272

Boxes for individual weights



For weights ≤ 500 g, OIML class E1 - F1
For weights ≥ 1 kg, OIML class E1 - F1

Case material: Wood, lined, suitable for single weights, KERN-Nr. 307, 316, 317, 326, 327



For weights ≤ 500 g, OIML class F2 - M3
For weights ≥ 1 kg, OIML class F2 - M3

Case material: Wood, suitable for single weights, KERN-Nr. 337, 347, 357, 367
*not suitable for cast iron weights



For test weights ≥ 10 kg, OIML class F1 - M1

Case material: Wood, suitable for single weights, KERN-Nr. 327, 337, 347
*not suitable for cast iron weights

Wooden box, lined
for single weights E1 - F1

For weights	KERN	
mg	338-090-200	
1 g	317-010-100	
2 g	317-020-100	
5 g	317-030-100	
10 g	317-040-100	
20 g	317-050-100	
50 g	317-060-100	
100 g	317-070-100	
200 g	317-080-100	
500 g	317-090-100	
1 kg	317-110-100	
2 kg	317-120-100	
5 kg	317-130-100	
10 kg	317-140-100	
20 kg	317-150-100	
50 kg	317-160-100	

Wooden box,
for single weights F2 - M3

For weights	KERN	
mg	338-090-200	
1 g	337-010-200	
2 g	337-020-200	
5 g	337-030-200	
10 g	337-040-200	
20 g	337-050-200	
50 g	337-060-200	
100 g	337-070-200	
200 g	337-080-200	
500 g	337-090-200	
1 kg	337-110-200	
2 kg	337-120-200	
5 kg	337-130-200	
10 kg	337-140-200	
20 kg	337-150-200	
50 kg	337-160-200	

Wooden box
for test weights F1 - M1

For weights	KERN	
10 kg	337-141-200	
20 kg	337-151-200	
50 kg	337-161-200	



For weights ≤ 5 kg, OIML class E1 - M3

Case material: Aluminium protected, lined, suitable for single weights, KERN-Nr. 307, 316, 317, 326, 327, 337, 347, 357, 367
*not suitable for cast iron weights

Aluminium protected box, lined
for individual weights, knob and compact shape, class E1 - M3

For weights	KERN	
Individual weight, mg	317-009-600	
1 g	317-010-600	
2 g	317-020-600	
5 g	317-030-600	
10 g	317-040-600	
20 g	317-050-600	
50 g	317-060-600	
100 g	317-070-600	
200 g	317-080-600	
500 g	317-090-600	
1 kg	317-110-600	
2 kg	317-120-600	
5 kg	317-130-600	



For weights ≤ 10 kg, OIML class E1 - M3

Case material: Aluminium protected, lined, suitable for single weights, KERN-Nr. 307, 316, 317, 326, 327, 337, 347, 357, 367
*not suitable for cast iron weights

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-Nr. 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	

Carrying cases/boxes for individual weight sets

Individual weight sets:

You can create your own "tailor-made" individual weight sets yourself. KERN will customise your own personal wooden box/plastic carrying case. The largest individual weight which will fit is given in the table.

Sample order:

Your individual weight set:
1 × 50 g, 2 × 100 g, 1 × 500 g, 2 × 1 kg, 1 × 2 kg.

The correct individual box is **KERN-Nr. 313-080-400** (plastic) or **KERN-Nr. 315-070-100** (wood)



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.

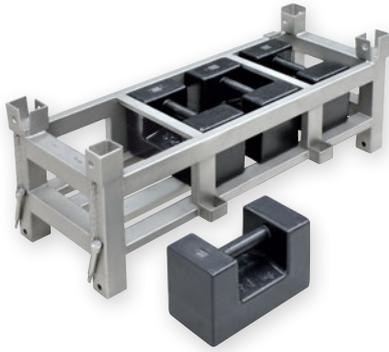
Plastic case for weight sets
with standard denomination classes E1 - M3, not appropriate for cast iron weights

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

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 carriers for block weights or other test weights



Individual weight carriers for testing high capacity floor scales, pallet scales, pallet truck scales, crane scales, etc. This can also be used for storing the weights. This means the weight container and the weights can be placed on the scale in one go, saving time and money.

The weight container can be calibrated to OIML accuracy classes M1 – M3. On request, KERN will make you a “tailor-made” weight carrier to your specifications.

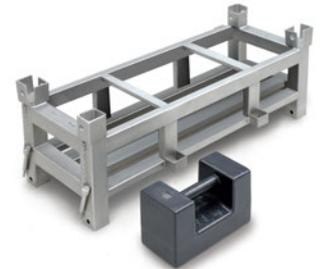
Example:

9 block weights	each 50 kg, class M1 =	450 kg
1 weight container	each 50 kg, class M1 =	50 kg
Total		= 500 kg

Weight containers for rectangular weights or other test weights, 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

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

DAkkS Calibration Service and Verification service



The DAkkS (German accreditation body)

The DAkkS is the national accreditation body of the Federal Republic of Germany. According to Regulation (EC) No. 765/2008 and the Accreditation Body Act (AkkStelleG), the DAkkS acts in the public interest as the sole service provider for accreditation in Germany.

In order to be able to fulfil its sovereign accreditation tasks, the DAkkS was entrusted by the Federal Government. As an entrusted body, the DAkkS is subject to federal supervision.

Only an accredited calibration laboratory can issue a DAkkS calibration certificate. This defines not only the measuring method as well as the measuring result, but also gives information on tracing the test medium to national standards and the relevant uncertainty of measurement.

- ▶ **You are certified to ...**
ISO 9001, QS 9000, GLP, GMP, TS16949
- ▶ **You need ...**
to control your measuring equipment
- ▶ **Our solution ...**
DAkkS calibration certificate; (traceability, measuring uncertainty, internationally recognised)

KERN – Precision is our business

The KERN calibration laboratory for electronic balances and weights has been accredited by DKD since 1994 and today is one of the most modern and best-equipped DKD calibration laboratories for balances, test weights and force measurement in Europe.

Thanks to the high level of automation, we can carry out DAkkS calibration of balances, test weights and force-measuring devices 24 hours a day, 7 days a week.

Do you have any further requests or questions on this matter? We would be pleased to help you or visit us on the web

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? Operator control the use of checking equipment and periodic recalibration time intervals themselves

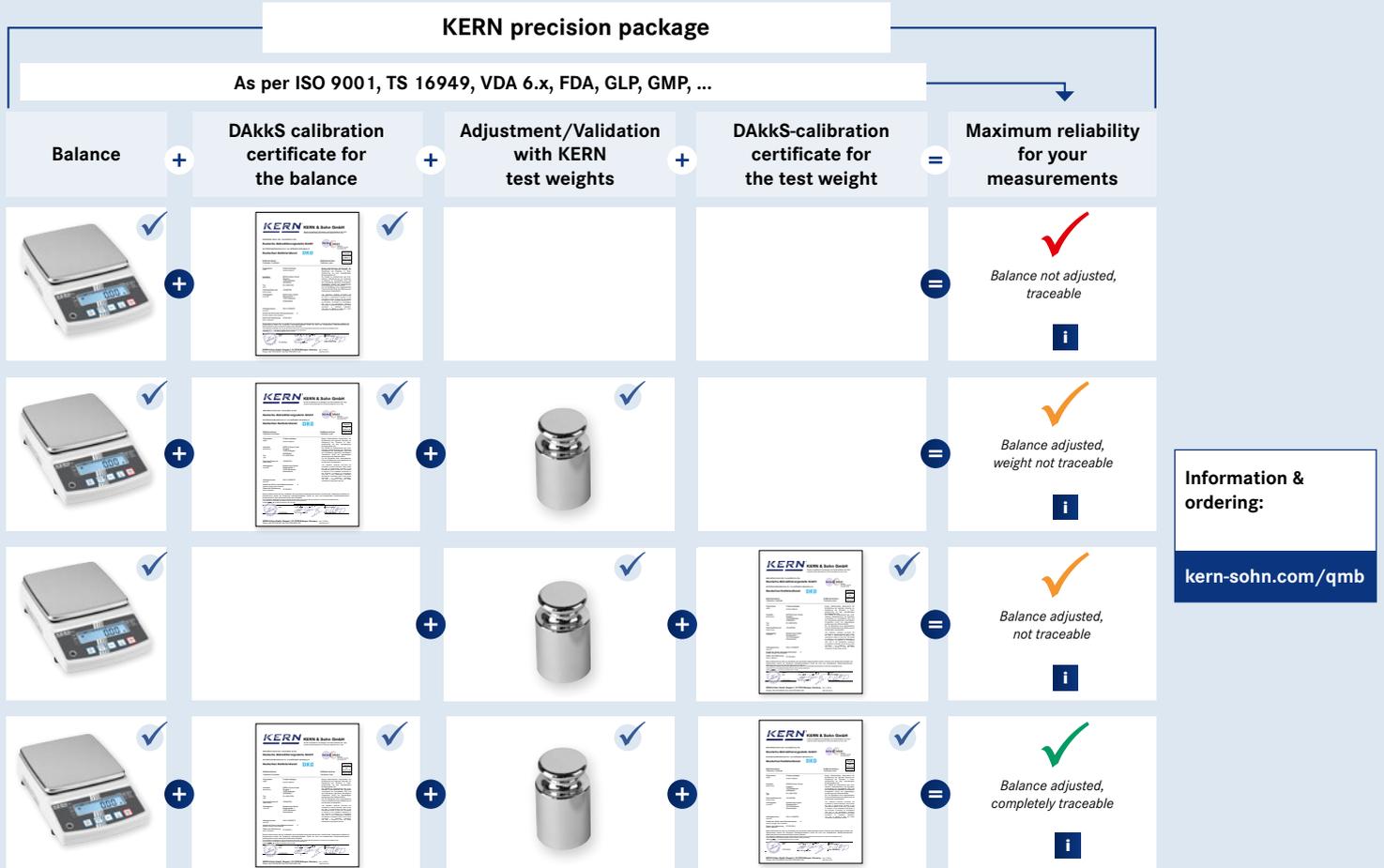
Range of services:

- 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?



The KERN calibration laboratory (D-K-19408-01-00)

KERN has a highly-automated DAkkS laboratory with accreditation to DIN EN ISO/IEC 17025 in the field of balances, test weights and force measurement. By using the most modern calibration technology with high-end calibration robots in fully air-conditioned laboratories, the measurement uncertainty and process times are reduced to a minimum, and also the quality of the calibration is increased.

As an accredited and certified calibration service provider with decades of experience, KERN offers you an extensive range of services, which will leave no demand unfulfilled. The accreditation applies to the extent specified in the appendix to the certificate D-K-19408-01-00.

We offer the following services:

Waagen:

- ▶ DAkkS calibration up to 50 t
- ▶ Minimum sample weight (in use)
- ▶ Usage accuracy
- ▶ Adjustment at the location of installation
- ▶ Certificate of conformity
- ▶ Equipment qualification:
 - > Installation qualification (IQ)
 - > Function qualification (OQ)
 - > Performance qualification (PQ)
 - > Maintenance qualification (MQ)

Weights:

- ▶ DAkkS calibration up to 2.5 t (OIML classes E1 – M3)
- ▶ Volume determination for OIML class E1
- ▶ Measuring of sensitivity (magnetic characteristics)

Force:

- ▶ DAkkS calibration up to 5 kN

Factory calibration for:

- ▶ Force-measuring devices
 - ▶ Hardness
 - ▶ Layer thickness
 - ▶ Material thickness
 - ▶ Temperature of moisture analysers
- Authorised verification point for balances and weights (initial verification and re-verification)

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 recalibrate your balance every 6 months and with normal (weekly) use, every 12 months.

THE ADVANTAGES OF USING THE KERN IN-HOUSE CALIBRATION:

- + **Short calibration time:** Test time in the laboratory is only four working days
- + **Competence:** Calibration laboratory, which complies with the highest standards in the area of metrology
- + **Independent management** of the recalibration calendar for your individual measuring instrument is possible
- + **Cross-brand service:** Measuring devices from any manufacturer can be calibrated independently
- + **Repair:** Any necessary repairs can be carried out immediately, if you wish



a) 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.

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



b) 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.

KERN KERN & Sohn GmbH
 Älteste europäische Feinwaagen und Gewichtesfabrik seit 1844
 Oldest European Manufacturer of Precision Balances since 1844

akkreditiert durch die / accredited by the
Deutsche Akkreditierungsstelle GmbH
 als Kalibrierlaboratorium im / as calibration laboratory in
Deutschen Kalibrierdienst DKD

Kalibrierschein
 Calibration Certificate

Gegenstand
 Object

Präzisionswaage
 Precision Balance

Hersteller
 Manufacturer

Typ
 Type

Fabrikate/Serien-Nr.
 Serial number

Kalibrierzeichen
 Calibration mark

Sample
 D-K-
 19408-01-00
 2014-05

Dieser Kalibrierschein dokumentiert die Rückführung auf nationale Normale zur Darstellung der Einheiten in Übereinstimmung mit dem internationalen Einheitensystem (SI). Die DAkKS ist Unterzeichner der multilateralen Übereinkommen der European co-operation for Accreditation (EA) und der International Laboratory Accreditation Cooperation (ILAC) zur gegenseitigen Anerkennung der Kalibrierdienste. Für die Einhaltung einer angemessenen Erst- und Wiederholkalibrierung ist

Hersteller
 Mustermann GmbH

Messergebnisse / Measurement results

1. Wiederholbarkeit / Repeatability

Messung Measuring	Prüflast Load	Waagenanzeige Indication
No. 1	500 g	499,999 g
No. 2	500 g	499,999 g
No. 3	500 g	500,000 g
No. 4	500 g	500,000 g
No. 5	500 g	500,000 g

Standardabweichung: $s = 0,0006$
 Standard deviation:

2. Richtigkeit / Linearity

Prüflast Load	Waagenanzeige Indication
100 g	100,000 g
200 g	200,000 g
300 g	300,001 g
500 g	500,000 g
600 g	600,001 g

3. Außermittige Belastung / Eccentricity

Position Position	Prüflast Load	Waagenanzeige Indication
No. 1	500 g	500,000 g
No. 2	500 g	499,999 g
No. 3	500 g	500,001 g
No. 4	500 g	500,001 g
No. 5	500 g	500,001 g

Messunsicherheit U / Measuring uncertainty U

Last Load	Abweichung Error	Erweiterungs- faktor k Coverage factor	Unsicherheit Uncertainty	relative Messunsicherheit Rel. uncertainty
100 g	0,000 g	2,38	0,0016 g	0,00154 %
200 g	0,000 g	2,32	0,0016 g	0,00078 %
300 g	0,001 g	2,24	0,0017 g	0,00053 %
500 g	0,000 g	2,12	0,0018 g	0,00036 %
600 g	0,001 g	2,08	0,0020 g	0,00032 %

Darstellung im Diagramm / Representation as chart

Nettobelastung / Net-Load in g

Verwendungsgenauigkeit G / Usage accuracy G

Diagramm der Verwendungsgenauigkeit / Graph of usage accuracy:

$$G = 0,0013 \text{ g} + 8,72 \cdot 10^{-6} \cdot m_w$$

m_w = Nettoanzeige bei zunehmender Belastung
 net display with increasing load

Last / Load in g

rel. Meßunsicherheit

Nettobelastung

Mindestwaage / Minimum weight of sample

DAkKS calibration certificate for balances (extract)

- 1 Official document
- 2 Item to be calibrated
- 3 Traceability, see page 225

- 4 Identification/Applicant
- 5 Metrological component
- 6 Uncertainty of measurement, see page 225

- 7 Application accuracy, see page 223
- 8 Minimum weight of sample (additional price)

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 internet)	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. 202)	962-116	
Express shipping: Express supplement for guaranteed delivery on the next working day (if ready for shipment before 12:00 noon)	in GER only	

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

Minimum weight of sample (in use)

What is the lightest item you can weigh on your balance, while still achieving accurate and reliable weighing results? What exactly is the limit?

The KERN minimum sample weight protocol accounts for the established minimum sample weight of your balance and its location of installation and use with the relative measuring uncertainty. With various safety coefficients and required weighing accuracy (process accuracy), depending on standard or quality-related requirements on the balance being used.

The higher the selected safety coefficient, the higher the safety when using the balance in a particular process. Typical perturbations when using the balance e.g. small fluctuations in temperature are taken into account. In easily predictable conditions in a professional environment of use, KERN recommends a safety coefficient of 3. For critical processes, a correspondingly higher factor should be selected. The minimum sample weight protocol contains a diagram as well as a table, from which you can ascertain the minimum sample weight for your balance, depending on the process.

Adjustment at the location of installation

Why?

Adjustment at the location of installation is necessary, as the measuring results of balances depend on the local gravitational force (gravitational acceleration) and therefore depend on the location of use. KERN can carry this out just before shipping at the factor, individually to suit the location of installation.

What are the advantages of carrying out adjustment at the location of installation?

- The balance gives reliable measurement results at the location of installation.
- No time-consuming on-site adjustment necessary.
- You do not need a Service Engineer or any additional weights.
- The balance is ready for immediate use.

Pricing table for adjustment at the location of installation

Weighing capacity	KERN	
[Max] ≤ 5 kg	961-247	
[Max] > 5 - 50 kg	961-248	
[Max] > 50 - 350 kg	961-249	
[Max] > 350 - 1500 kg	961-250	
[Max] > 1500 - 2900 kg	961-251	
[Max] > 2900 - 6000 kg	961-252	
[Max] > 6000 - 12000 kg	961-253	

For adjustment to the location of installation you need the value for gravitational acceleration at the location of installation, which KERN can calculate using the point of use. The procedure is suitable for balances with a resolution of <60,000 d. For higher resolutions we recommend a balance with an internal adjusting weight or adjustment with a calibrated adjusting weight at the location of installation.

Certificate of conformity

With a certificate of conformity you get a statement about whether the balance meets your defined requirements.

In conjunction with a DAkkS calibration certificate it serves as documented proof that the balance fulfils the required process demands. When doing this the process owner for the balance can select from different temperature specifications – depending on its individual requirements:

Conformity evaluation on the basis of the:	KERN		
Usage accuracy*	relative	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 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.



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 qualification or training for equipment qualification, please feel free to contact us at **+49 7433 9933-136**



KERN & Sohn GmbH
Älteste europäische Feinwaagen und Gewichtfabrik seit 1844
 Oldest European Manufacturer of Precision Balances since 1844

akkreditiert durch die / accredited by the
Deutsche Akkreditierungsstelle GmbH
als Kalibrierlaboratorium im / as calibration laboratory in the
Deutschen Kalibrierdienst DKD



Kalibrierschein
Calibration certificate

Kalibrierzeichen
Calibration mark

G1-123
D-K-19408-01-00
2014-05

Gegenstand Object	Gewichtssatz, 1 mg - 1 kg Klasse E2	Dieser Kalibrierschein dokumentiert die Rückführung auf nationale Normale zur Darstellung der Einheiten in Übereinstimmung mit dem Internationalen Einheitensystem (SI).
Hersteller Manufacturer	Set of weights, 1 mg - 1 kg Class E2 KERN & Sohn GmbH Ziegelei 1 D-72336 Balingen Germany	Die DAkkS ist Unterzeichner der multilateralen Übereinkommen der European co-operation for Accreditation (EA) und der International Laboratory Accreditation Cooperation (ILAC) zur gegenseitigen Anerkennung der Kalibrierscheine.
Typ Type	313-052	Für die Einhaltung einer angemessenen Frist zur Wiederholung der Kalibrierung ist der Benutzer verantwortlich.
Fabrikate/Serien-Nr. Serial number	G123456789	This calibration certificate documents the traceability to national standards, which realize the units of measurement according to the International System of Units (SI).
Auftraggeber Customer	Mustermann GmbH Teststr. 1 42446 Musterstadt Deutschland	The DAkkS is signatory to the multilateral agreements of the European co-operation for Accreditation (EA) and of the International Accreditation (ILAC).

Auftragsnummer 2014-123456789

Kalibrierverfahren:
Calibration method

Die Kalibrierung erfolgte durch Vergleich mit den Bezugsnormalen des Kalibrierlaboratoriums nach der Substitutionsmethode mit Auftriebskorrektur.
The calibration ensued through comparison with the reference standards of the calibration laboratory using the substitution method with air buoyancy correction.

Umgebungsbedingungen:
Ambient conditions

Die Kalibrierung wurde bei folgenden Umgebungsbedingungen ausgeführt:
The calibration was carried out under the following ambient conditions:

	von from	bis to	Unsicherheit uncertainty
Temperatur (°C) temperature	22,9	24,1	0,1
rel. Luftfeuchte (%) relative humidity	48,5	53,4	2,0
Luftdruck (hPa) air pressure	942,5	948,5	0,3

Referenzgewichte:
Standard weights

G1-123-D-K-19408-01-00-2014-05

Material / angenommene Dichte:
Material / assumed density

Nennwert nominal value	Dichte density	Unsicherheit uncertainty	Material material	Form shape
1 mg - 500 mg	7950 kg/m ³	140 kg/m ³	Edelstahl Stainless steel	Draht Wire
1 g - 1 kg	8000 kg/m ³	100 kg/m ³	Edelstahl Stainless steel	Knopf Cylindrical form

Messergebnisse:
Measurement results:

Nennwert nominal value	Kennzeichnung marking	konventioneller Wägewert conventional mass	Unsicherheit k=2 uncertainty	Fehlergrenze max. perm. error	Klasse* class*
1 mg		1 mg + 0.0010 mg	0.0020 mg	± 0.0060 mg	E2 ✓
2 mg		2 mg + 0.0005 mg	0.0020 mg	± 0.0060 mg	E2 ✓
2 mg	*	2 mg + 0.0016 mg	0.0020 mg	± 0.0060 mg	E2 ✓
5 mg		5 mg + 0.0010 mg	0.0020 mg	± 0.0060 mg	E2 ✓
10 mg		10 mg + 0.0009 mg	0.0020 mg	± 0.0080 mg	E2 ✓
20 mg		20 mg - 0.001 mg	0.003 mg	± 0.010 mg	E2 ✓
20 mg	*	20 mg + 0.001 mg	0.003 mg	± 0.010 mg	E2 ✓
50 mg		50 mg + 0.001 mg	0.004 mg	± 0.012 mg	E2 ✓
100 mg		100 mg + 0.001 mg	0.005 mg	± 0.016 mg	E2 ✓
200 mg		200 mg + 0.002 mg	0.006 mg	± 0.020 mg	E2 ✓
200 mg	*	200 mg + 0.003 mg	0.006 mg	± 0.020 mg	E2 ✓
500 mg		500 mg + 0.005 mg	0.006 mg	± 0.025 mg	E2 ✓
1 g		1 g + 0.002 mg	0.010 mg	± 0.030 mg	E2 ✓
2 g		2 g + 0.002 mg	0.013 mg	± 0.040 mg	E2 ✓
2 g	*	2 g + 0.002 mg	0.013 mg	± 0.040 mg	E2 ✓
5 g		5 g + 0.010 mg	0.016 mg	± 0.050 mg	E2 ✓
10 g		10 g - 0.007 mg	0.020 mg	± 0.060 mg	E2 ✓
20 g		20 g + 0.005 mg	0.026 mg	± 0.080 mg	E2 ✓
20 g	*	20 g + 0.015 mg	0.026 mg	± 0.080 mg	E2 ✓
50 g		50 g + 0.02 mg	0.03 mg	± 0.10 mg	E2 ✓
100 g		100 g + 0.01 mg	0.05 mg	± 0.16 mg	E2 ✓
200 g		200 g + 0.05 mg	0.10 mg	± 0.30 mg	E2 ✓
200 g	*	200 g - 0.00 mg	0.10 mg	± 0.30 mg	E2 ✓
500 g		500 g + 0.10 mg	0.26 mg	± 0.80 mg	E2 ✓
1 kg		1 kg + 0.1 mg	0.5 mg	± 1.6 mg	E2 ✓

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 188), 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

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



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	972-000	
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 111:2004	E2 with verification certificate		F1/F2 with verification certificate		M1 with verification certificate	
	Nominal value ↓	KERN	KERN	KERN	KERN	KERN
1 mg	952-351		952-451		952-651	
2 mg	952-352		952-452		952-652	
5 mg	952-353		952-453		952-653	
10 mg	952-354		952-454		952-654	
20 mg	952-355		952-455		952-655	
50 mg	952-356		952-456		952-656	
100 mg	952-357		952-457		952-657	
200 mg	952-358		952-458		952-658	
500 mg	952-359		952-459		952-659	
1 g	952-331		952-431		952-631	
2 g	952-332		952-432		952-632	
5 g	952-333		952-433		952-633	
10 g	952-334		952-434		952-634	
20 g	952-335		952-435		952-635	
50 g	952-336		952-436		952-636	
100 g	952-337		952-437		952-637	
200 g	952-338		952-438		952-638	
500 g	952-339		952-439		952-639	
1 kg	952-341		952-441		952-641	
2 kg	952-342		952-442		952-642	
5 kg	952-343		952-443		952-643	
10 kg	952-344		952-444		952-644	
20 kg	952-345		952-445		952-645	
50 kg	952-346		952-446		952-646	
1 mg-500 mg	952-350		952-450		952-650	
1 mg-50 g	952-301		952-401		952-601	
1 mg-100 g	952-302		952-402		952-602	
1 mg-200 g	952-303		952-403		952-603	
1 mg-500 g	952-304		952-404		952-604	
1 mg-1 kg	952-305		952-405		952-605	
1 mg-2 kg	952-306		952-406		952-606	
1 mg-5 kg	952-307		952-407		952-607	
1 mg-10 kg	952-308		952-408		952-608	
1 g-50 g	952-315		952-415		952-615	
1 g-100 g	952-316		952-416		952-616	
1 g-200 g	952-317		952-417		952-617	
1 g-500 g	952-318		952-418		952-618	
1 g-1 kg	952-319		952-419		952-619	
1 g-2 kg	952-320		952-420		952-620	
1 g-5 kg	952-321		952-421		952-621	
1 g-10 kg	952-322		952-422		952-622	

KERN verification delivery time	
Standard verification service Class E2 - M1	6 working days

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

Preparation of weights (e.g. cleaning, etc.)

Single weight	969-008R
Weight set	969-009R

Subsequent services are carried out after confirmation

Continued overhaul of weights (e.g. wet-cleaning, markings, repair, special packaging, adjustment E2 ...)	969-005R
---	----------

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

Verification after adjustment or substitution, per weight

Class E2	969-310R
Class F1/F2	969-410R
Class M1	969-610R

Verification prices for balances	Reverification
	KERN
Accuracy class I (precision balances) ¹⁾	
[Max] ≤ 5 kg ¹⁾	950-101R
[Max] > 5 kg ¹⁾	950-102R
Accuracy class II (precision balances) ¹⁾	
[Max] ≤ 5 kg ¹⁾	950-116R
[Max] > 5 kg - 50 kg ¹⁾	950-117R
[Max] > 50 kg - 350 kg ¹⁾	950-118R
Accuracy class III-IV ¹⁾	
Bench scales and industrial scales (excl. crane scales)	
[Max] ≤ 5 kg ¹⁾	950-127R
[Max] > 5 kg - 50 kg ¹⁾	950-128R
[Max] > 50 kg - 350 kg ¹⁾	950-129R
[Max] > 350 kg - 1500 kg ¹⁾	950-130R
[Max] > 1500 kg - 2900 kg ¹⁾	950-131R
[Max] > 2900 kg - 6000 kg ¹⁾	950-132R
Crane scales	
[Max] > 50 kg - 350 kg ¹⁾	950-129HR
[Max] > 350 kg - 1500 kg ¹⁾	950-130HR
[Max] > 1500 kg - 2900 kg ¹⁾	950-131HR
[Max] > 2900 kg - 6000 kg ¹⁾	950-132HR
[Max] > 6000 kg - 12000 kg ¹⁾	950-133HR

¹⁾ Processing time 4 working days, ²⁾ Processing time 15 working days, ¹⁾²⁾ Preparation of reverification of balances, 969-006R

The force gauge

Accredited calibration with DAkkS calibration certificate for force gauges

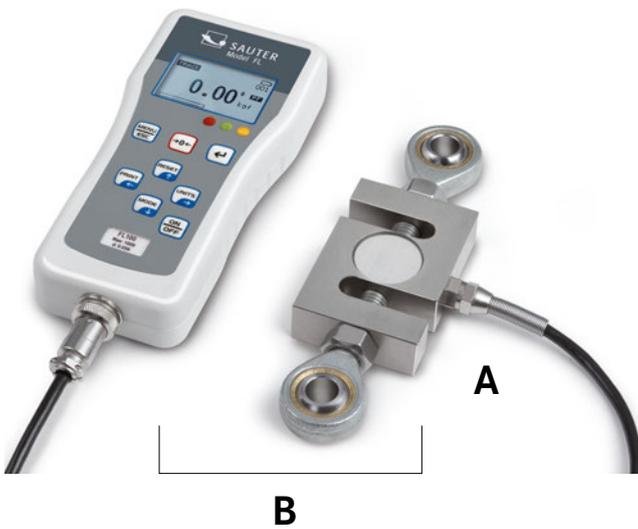
The KERN calibration laboratory is at your side when you need to calibrate DAkkS reliably.

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:

Force transducer (mV/V)

Situation B:

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

You can find further information on this topic

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.

akkreditiert durch die / accredited by the
Deutsche Akkreditierungsstelle GmbH

als Kalibrierlaboratorium im / as calibration laboratory in the
Deutschen Kalibrierdienst DKK

Deutsche
Akkreditierungsstelle
für Kalibrierung

Sample
Dkk-
19405-01-00
2017-05

Kalibrierschein
Calibration certificate

Gegenstand
Objekt: Kraftmessgerät
Kraftmessgerät
Max 500 N, d = 0,1 N

Hersteller
Manufacturer: Sauter GmbH
Zöglerstr. 1
72230 Balingen
Deutschland

Typ
Type: FH 500

Fabrikat-/Serien-Nr.
Serial number: ZH11110671

Auftraggeber
Customer: Mustermann GmbH
Musterstr.

Dieser Kalibrierschein dokumentiert die Rückführung auf nationale Normale zur Darstellung der Einheiten in Übereinstimmung mit dem Internationalen Einheitensystem (SI).
Die DAkkS ist Unterzeichner der multilateralen Übereinkommen der European co-operation for Accreditation (EA) und der International Laboratory Accreditation Cooperation (ILAC) zur gegenseitigen Anerkennung der Kalibrierscheine.
Für die Einhaltung einer angemessenen Frist zur Wiederholung der Kalibrierung ist der Benutzer verantwortlich.

Messwerte (Zugkraft) / Measurement results (tension force)

Ausrichtung rotation	Ausgangsposition / initial position		120°				240°	
	R1	R2	R3	R4	R5	R6		
Kraft force	0,0 N	0,0 N	0,0 N	0,0 N	0,0 N	0,0 N	0,0 N	0,0 N
100,0 N	-99,8 N	-99,8 N	-99,8 N	-99,8 N	-99,8 N	-99,8 N	-99,8 N	-99,8 N
200,0 N	-199,6 N	-199,6 N	-199,6 N	-199,6 N	-199,6 N	-199,6 N	-199,6 N	-199,6 N
300,0 N	-299,4 N	-299,4 N	-299,4 N	-299,4 N	-299,4 N	-299,4 N	-299,4 N	-299,4 N
400,0 N	-399,2 N	-399,2 N	-399,2 N	-399,2 N	-399,2 N	-399,2 N	-399,2 N	-399,2 N
500,0 N	-499,0 N	-499,0 N	-499,0 N	-499,0 N	-499,0 N	-499,0 N	-499,0 N	-499,0 N
0 N	0,0 N	0,0 N	0,0 N	0,0 N	0,0 N	0,0 N	0,0 N	0,0 N

Messergebnisse (Zugkraft) / Measured values (tension force)

Aus den oben aufgeführten Messwerten ergeben sich die folgenden Messergebnisse:
The following measurement results are calculated using the measured values above:

rel. Kalibrierabweichung: 0,000 %
rel. Nullpunktabweichungen: 0,000 % (R1), 0,000 % (R2), 0,000 % (R3/R4), 0,000 % (R5/R6)

Kraft force	arith. Mittelwert average	rel. Wiederhol- präzision b/ Wiederholbarkeit	rel. Vergleichs- präzision b/ reproducibility	rel. Umkehrspanne * hysteresis
100,0 N	-99,8 N	0,000 %	0,000 %	0,000 %
200,0 N	-199,6 N	0,000 %	0,000 %	0,000 %
300,0 N	-299,4 N	0,000 %	-0,033 %	-0,017 %
400,0 N	-399,2 N	0,000 %	-0,025 %	-0,013 %
500,0 N	-499,0 N	0,000 %	0,000 %	0,000 %

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

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:					
963-161V (R)	≤ 500 N		963-161V (R)	≤ 500 N	
963-162V (R)	≤ 2 kN		963-162V (R)	≤ 2 kN	
963-163V (R)	≤ 5 kN		963-163V (R)	≤ 5 kN	
Compression force:					
963-261V (R)	≤ 500 N		963-261V (R)	≤ 500 N	
963-262V (R)	≤ 2 kN		963-262V (R)	≤ 2 kN	
963-263V (R)	≤ 5 kN		963-263V (R)	≤ 5 kN	
Tensile and Compression force:					
963-361V (R)	≤ 500 N		963-361V (R)	≤ 500 N	
963-362V (R)	≤ 2 kN		963-362V (R)	≤ 2 kN	
963-363V (R)	≤ 5 kN		963-363V (R)	≤ 5 kN	

Situation B: Complete force gauge (in N) ^{*2}					
ISO 376 (8 stages)			DKD-R 3-3 (5 stages, sequence A)		
KERN	Measuring range		KERN	Measuring range	
Tensile force:					
963-161I (R)	≤ 500 N		963-161 (R)	≤ 500 N	
963-162I (R)	≤ 2 kN		963-162 (R)	≤ 2 kN	
963-163I (R)	≤ 5 kN		963-163 (R)	≤ 5 kN	
Compression force:					
963-261I (R)	≤ 500 N		963-261 (R)	≤ 500 N	
963-262I (R)	≤ 2 kN		963-262 (R)	≤ 2 kN	
963-263I (R)	≤ 5 kN		963-263 (R)	≤ 5 kN	
Tensile and Compression force:					
963-361I (R)	≤ 500 N		963-361 (R)	≤ 500 N	
963-362I (R)	≤ 2 kN		963-362 (R)	≤ 2 kN	
963-363I (R)	≤ 5 kN		963-363 (R)	≤ 5 kN	

Factory calibration for force

Situation A: Force transducer (voltage ratio, in mV/V) ^{*1,2}			Situation B: Complete force gauge (in N) ^{*2}		
KERN	Measuring range		KERN	Measuring range	
Tensile force:					
961-161V (R)	≤ 500 N		961-161 (R)	≤ 500 N	
961-162V (R)	≤ 2 kN		961-162 (R)	≤ 2 kN	
961-163V (R)	≤ 5 kN		961-163 (R)	≤ 5 kN	
961-164V (R)	≤ 20 kN		961-164 (R)	≤ 20 kN	
961-165V (R)	≤ 50 kN		961-165 (R)	≤ 50 kN	
961-166V (R)	≤ 120 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)	≤ 120 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)	≤ 120 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 120 kN
- 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.

KERN	Physical unit	Measuring range	
Factory calibration			
961-161 (O)	Force: Tension	≤ 500 N	
961-162 (O)	Force: Tension	≤ 2 kN	
961-163 (O)	Force: Tension	≤ 5 kN	
961-164	Force: Tension	≤ 20 kN	
961-165	Force: Tension	≤ 50 kN	
961-166	Force: Tension	≤ 120 kN	
961-261 (O)	Force: Compression	50 – 500 N	
961-262 (O)	Force: Compression	≤ 2 kN	
961-263 (O)	Force: Compression	≤ 5 kN	
961-264(O)	Force: Compression	≤ 20 kN	
961-265(O)	Force: Compression	≤ 50 kN	
961-266(O)	Force: Compression	≤ 120 kN	
961-361 (O)	Force: Tens. and Comp.	≤ 500 N	
961-362 (O)	Force: Tens. and Comp.	≤ 2 kN	
961-363 (O)	Force: Tens. and Comp.	≤ 5 kN	
961-364 (O)	Force: Tens. and Comp.	≤ 20 kN	
961-365 (O)	Force: Tens. and Comp.	≤ 50 kN	
961-366 (O)	Force: Tens. and Comp.	≤ 120 kN	
961-167	Force (for digital dynamometer KERN MAP)	≤ 130 kg	
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	Mass (Mechanical balances/ spring balances)	≤ 5 kg	
961-101	Mass (Mechanical balances/ spring balances)	> 5 – 50 kg	
961-102	Mass (Mechanical balances/ spring balances)	> 50 – 350 kg	
961-103	Mass (Mechanical balances/ spring balances)	> 350 – 1500 kg	
961-120	Torque wrench test devices	1 Nm - 200 Nm	
Additional services			
962-116	Express service with 48 hour delivery		

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

O = no interface (applies to Sauter devices without an interface and also devices from other manufacturers)

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. See also 2014/34/EU as well as 1999/92/EU.

B**Balances which are verified/not approved for verification**

Metrologically almost identical. For verified balances certain details are regulated by law, e.g. software changes and additional markings.

C**CAL**

Adjusting the balance is triggered with an external test weight by using the CAL key on the key pad or on the touch display of the display device or the CAL menu option. This will guarantee the consistent high accuracy of the balance.

Calibration of measurement equipment

Determination of the precision of a measurement value without intervention in the measurement system. Example: to check a balance you load a ▶ **test weight** upon it. The term "Calibrating" was formerly also used for ▶ **Adjusting**.

Calibration Certificate DKD/DAkkS

See product group 17 "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 17 "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 16 "Test weights"

F

FACTORY

These options can only be carried out at KERN factory.

FORCE = Electromagnetic force compensation



A counterforce is created by means of a coil in a permanent magnet. This counterforce is the same as the load of the weight being measured on the scale and therefore equalising. The measured value is calculated via the change in the coil current.

G

GLP = Good Laboratory Practice

► **ISO/GLP**

Gravitational acceleration

► **Gravitational force**

Gravitational force

very important influence for precise electronic balances. Due to the varying influence balances have to be ► **adjusted at the location of use.**

H

HACCP

= **Hazard Analysis and Critical Control Points (HACCP)** The HACCP concept is a preventative system, which is designed to guarantee the safety of foodstuffs EC regulation 852/2004 mandates the use of the HACCP concept for all companies which are involved in production, processing and sales of foodstuffs.

I

ISO 9000ff/DIN EN ISO 9000ff

Quality Management System in the form of a DIN Norm for quality assurance in a factory.

ISO calibration/ISO certificate = factory calibration certificate

Testing measurement devices for accuracy in accordance with a procedure which is recognised, but not accredited.

ISO/GLP record keeping



Quality Assurance Systems demands record keeping of weighing results and correct adjusting of the balance, giving details of date, time and balance identification. The easiest way to obtain this documentation is by means of a connected printer.

J

Junction Box

For connection and simple corner adjustment of several load cells.

L

Linearity/Precision

Greatest deviation of the weight displayed of a balance with regard to the value of the respective test weight in terms of plus and minus across the whole weighing range.

M

Minimum load [Min]

Lower limit of the verifiable weighing range. Is marked on the verification mark. The function of the balance is also given below the minimum load.

Minimum sample weight

Indicates the smallest weight which can be determined, depending on the process accuracy required.

N

Newton

Newton (N) is the unit for physical force values. A Newton is the force required to accelerate a 1 kg mass at rest to a speed of 1 m/s within one second.

Notified body

Neutral and independent, predominantly government bodies, which are formally appointed by the EC. They are engaged in the field of verification for conformity evaluations (initial verification) and type-approval test within the scope of type approvals.

O

Optimisation of reference weight (when piece counting)

See product group 08 "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 08 "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 17 “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 17 “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.

