BALANCES & TEST SERVICE 2023

PRECISION BALANCES

<u>KERN</u>

Precision balances KERN EW-N · EG-N



The classic balance with robust tuning fork measuring system

Features

- KERN EG-N: Internal adjustment in the case of a change in temperature and time-controlled at defined intervals, guarantees high degree of accuracy and makes the balance independent of its location of use
- KERN EW-N: Adjusting program CAL for quick setting of the balance accuracy using an external test weight at an additional price, see *test weights*
- Stable temperature behaviour
- Short stabilisation time
- Shock proof construction
- High corner load performance
- Capacity display: A bargraph display lights up to show how much of the weighing range is still available

- GLP/ISO record keeping of weight values
- Totalising of pieces when counting
- · Protective working cover included with delivery

Technical data

- Large LCD display, digit height 17 mm
- Dimensions weighing surface
 Ø 118 mm, stainless steel, see larger picture
 W×D 170×140 mm, stainless steel
 W×D 180×160 mm, stainless steel
- Overall dimensions W×D×H (without draught shield) A, B 182×235×65 mm,
 C65×192×87 mm









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

Accessories

- Protective working cover, scope of delivery:
 5 items, for models with weighing plate size
 I KERN EG-A05S05
 KERN EG-A09S05
- Internal rechargeable battery pack, operating time up to 32 h without backlight, charging time approx. 12 h, for models with weighing plate size
 I KERN EG-A04
 KERN EG-A06
- Large glass draught shield with 3 sliding doors for easy access to the items being weighed.
 Weighing space W×D×H 150×140×130 mm, KERN EG-A03
- Loop for underfloor weighing, for models with weighing plate size , EKERN EG-A07
 KERN EG-A08
- Minimum weight of sample, smallest weight to be weighed, depending on the required process accuracy, only in combination with a DAkkS calibration certificate, KERN 969-103
- Equipment qualification: compliant qualification concept which includes the following validation services, Installation Qualification (IQ), Operating Qualification (OQ)
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD												OPTION				FACTORY		
CAL INT EG-N	CAL EXT EW-N	• 6000 • RS 232	GLP PRINTER	PCS	% PERCENT		-√+ ⊙ TOL	UNDER	230 V	(((U))) T-FORK	1 DAY	ET	ACCU		DAkkS +3 days	+3 DAYS EG-N		

Model	Weighing	Readability	Verification	Minimal load	Linearity	Weighing		Option
	capacity		value			plate	Verification	DAkkS Calibr. Certificate
	[Max]	[d]	[e]	[Min]			M	DAkkS
KERN	g	g	g	g	g		KERN	KERN
EW 220-3NM	220	0,001	-	-	± 0,002	A	-	963-127
EW 420-3NM	420	0,001	-	-	± 0,003	A	-	963-127
EW 620-3NM	620	0,001	-	-	± 0,003	A	-	963-103
EW 820-2NM	820	0,01	-	-	± 0,01	В	-	963-127
EW 2200-2NM	2200	0,01	-	-	± 0,01	C	-	963-127
EW 4200-2NM	4200	0,01	-	-	± 0,02	C	-	963-127
EW 6200-2NM	6200	0,01	-	-	± 0,03	C	-	963-104
EW 12000-1NM	12000	0,1	-	-	± 0,2	C	-	963-128

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

		vernicatio	in at the facto	ny, we need	to know the ful	i address of	the location of use.		
EG 220-3NM	220	0,001	0,01	0,02	± 0,002	A	965-216 🔳	963-127	
EG 420-3NM	420	0,001	0,01	0,02	± 0,003	A	965-216 🔳	963-127	
EG 620-3NM	620	0,001	0,01	0,1	± 0,004	A	965-201 🕕	963-103	
EG 2200-2NM	2200	0,01	0,1	0,5	± 0,01	C	965-216 🔳	963-127	
EG 4200-2NM	4200	0,01	0,1	0,5	± 0,02	C	965-216 🔳	963-127	

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KERN PICTOGRAMS





Internal adjusting:

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



Adjusting program CAL:

For quick setting up of the balance's accuracy. External adjusting weight required



Easy Touch:

Suitable for the connection, data transmission and control through PC or tablet.



Memory:

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



Alibi memory:

Secure, electronic archiving of weighing results, complying with the 2014/31/EU standard.



• 888. •

RS 232

• 1998. •

RS 485

KERN Universal Port (KUP):

allows the connection of external KUP interface adapters, e.g. RS-232, RS-485, SB, Bluetooth, WLAN, Analogue, Ethernet etc. for the exchange of data and control commands, without installation effort

Data interface RS-232:

To connect the balance to a printer, PC or network



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

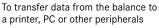
USB data interface:

To connect the balance to a printer, PC or other peripherals



USB

Bluetooth* data interface:





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SWITCH

WiFi 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.



Analogue interface:

to connect a suitable peripheral device for analogue processing of the measurements



Interface for second balance:

For direct connection of a second balance

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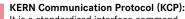
mLab



KCP

Network interface: For connecting the scale to an

Ethernet network



It is a standardized interface command PROTOCOL 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





PRINTER

The balance displays weight, date and time, independent of a printer connection

GLP/ISO log:

With weight, date and time. Only with KERN printers.



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

Recipe level A:

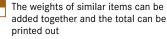
The weights of the recipe ingredients RECIPE can be added together and the total weight of the recipe can be printed out



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



Totalising level A:



Determining the deviation in % from

Percentage determination:

the target value (100 %)

%

B

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

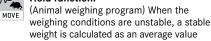


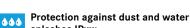
*The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by KERN & SOHN GmbH is under

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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

Hold function: M--





splashes IPxx: The type of protection is shown in the pictogram.

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

Battery operation:



Ready for battery operation. The battery type is specified for each device



Rechargeable battery pack: Rechargeable set



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



Plug-in power supply: 230V/50Hz in standard version for EU, CH.

On request GB, USA or AUS version available



Integrated power supply unit:

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



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



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



Weighing principle: Single cell technology:

Advanced version of the force compensation principle with the highest level of precision



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



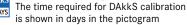
DAkkS calibration possible (DKD):

The time required for internal shipping prepa-

The time required for internal shipping prepa-

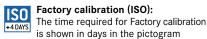
rations is shown in days in the pictogram

rations is shown in days in the pictogram



Package shipment:

Pallet shipment:



1 DAY

2 DAYS

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