



## KERN EW-N Series Precision Balances for Measuring System User Guide

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**KERN EW-N Series Precision Balances for Measuring System User Guide**



The classic balance with robust tuning fork measuring system



## Features

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

## Technical data

- Large LCD display, digit height 17 mm
- Dimensions weighing surface, Stainless Steel  
A  $\varnothing$  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





- Protective working cover, scope of delivery:  
5 items, for models with weighing plate size  
A, B KERN EG-A05S05  
C KERN EG-A09S05
- Internal rechargeable battery pack, operating  
time up to 32 h without backlight, charging  
time approx. 12 h, for models with weighing  
plate size  
A, B KERN EG-A04  
C KERN EG-A06  
Note: If the 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  
  
158×130×78 mm, for models with weighing  
plate size A, KERN EG-A03
- Loop for underfloor weighing, for models  
with weighing plate size  
A, B KERN EG-A07  
C KERN EG-A08
- Minimum weight of sample, Further details  
see 207, KERN 969-103
- Equipment qualification, Further details see 208
- Further details, plenty of further accessories  
and suitable printers see *Accessories*

## STANDARD



## OPTION



## FACTORY



EG-N





















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										
EW 220-3NM	220	0,001	-	-	± 0,002	■	-		963-127	
EW 420-3NM	420	0,001	-	-	± 0,003	■	-		963-127	
EW 620-3NM	620	0,001	-	-	± 0,003	■	-		963-103	
EW 820-2NM	820	0,01	-	-	± 0,01	■	-		963-127	
EW 2200-2NM	2200	0,01	-	-	± 0,01	■	-		963-127	
EW 4200-2NM	4200	0,01	-	-	± 0,02	■	-		963-127	
EW 6200-2NM	6200	0,01	-	-	± 0,03	■	-		963-104	
EW 12000-1NM	12000	0,1	-	-	± 0,2	■	-		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.										
EG 220-3NM	220	0,001	0,01	0,02	± 0,002	■	965-216	■	963-127	
EG 420-3NM	420	0,001	0,01	0,02	± 0,003	■	965-216	■	963-127	
EG 620-3NM	620	0,001	0,01	0,1	± 0,004	■	965-201	■	963-103	
EG 2200-2NM	2200	0,01	0,1	0,5	± 0,01	■	965-216	■	963-127	
EG 4200-2NM	4200	0,01	0,1	0,5	± 0,02	■	965-216	■	963-127	

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## KERN BALANCES & TEST SERVICES 2022

<b>Internal adjusting:</b> Quick setting up of the balance's accuracy with internal adjusting weight (motordriven)	<b>KERN Communication Protocol (KCP):</b> 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	<b>Suspended weighing:</b> Load support with hook on the underside of the balance
<b>Adjusting program CAL:</b> For quick setting up of the balance's accuracy. External adjusting weight required		<b>Battery operation:</b> Ready for battery operation. The battery type is specified for each device
<b>Easy Touch:</b> Suitable for the connection, data transmission and control through PC or tablet.	<b>GLP/ISO log:</b> The balance displays serial number, user ID, weight, date and time, regardless of a printer connection	<b>Rechargeable battery pack:</b> Rechargeable set
<b>Memory:</b> Balance memory capacity, e.g. for article data, weighing data, tare weights, PLU etc.	<b>GLP/ISO log:</b> With weight, date and time. Only with KERN printers.	<b>Universal plug-in power supply:</b> with universal input and optional input socket adapters for A) EU, CH, GB; B) EU, CH, GB, USA; C) EU, CH, GB, USA, AUS
<b>Alibi memory:</b> Secure, electronic archiving of weighing results, complying with the 2014/31/EU standard.	<b>Piece counting:</b> Reference quantities selectable. Display can be switched from piece to weight	<b>Plug-in power supply:</b> 230V/50Hz in standard version for EU, CH. On request GB, USA or AUS version available
<b>Data interface RS-232:</b> To connect the balance to a printer, PC or network	<b>Recipe level A:</b> The weights of the recipe ingredients can be added together and the total weight of the recipe can be printed out	<b>Integrated power supply unit:</b> Integrated in balance, 230V/50Hz standard EU. More standards e.g. GB, USA or AUS on request
<b>RS-485 data interface:</b> To connect the balance to a printer, PC or other peripherals. Suitable for data transfer over large distances. Network in bus topology is possible	<b>Recipe level B:</b> Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display	<b>Weighing principle: Strain gauges:</b> Electrical resistor on an elastic deforming body

■ Weighing principle: Strain gauges

 <b>USB data interface:</b> To connect the balance to a printer, PC or other peripherals	guidance through display	 <b>Weighing principle: Tuning fork:</b> A resonating body is electromagnetically excited, causing it to oscillate
 <b>Bluetooth® data interface:</b> To transfer data from the balance to a printer, PC or other peripherals	 <b>Totalising level A:</b> The weights of similar items can be added together and the total can be printed out	 <b>Weighing principle: Electromagnetic force compensation:</b> Coil inside a permanent magnet. For the most accurate weighings
 <b>WiFi data interface:</b> To transfer data from the balance to a printer, PC or other peripherals	 <b>Percentage determination:</b> Determining the deviation in % from the target value (100 %)	 <b>Weighing principle: Single cell technology:</b> Advanced version of the force compensation principle with the highest level of precision
 <b>Control outputs (optocoupler, digital I/O):</b> To connect relays, signal lamps, valves, etc.	 <b>Weighing units:</b> Can be switched to e.g. nonmetric units. See balance model. Please refer to KERN's website for more details	 <b>Verification possible:</b> The time required for verification is specified in the pictogram
 <b>Analogue interface:</b> to connect a suitable peripheral device for analogue processing of the measurements	 <b>Weighing with tolerance range:</b> (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	 <b>DAkkS calibration possible (DKD):</b> The time required for DAkkS calibration is shown in days in the pictogram
 <b>Interface for second balances:</b> For direct connection of a second balance	 <b>Hold function:</b> (Animal weighing program) When the weighing conditions are unstable, a stable weight is calculated as an average value	 <b>Factory calibration (ISO):</b> The time required for Factory calibration is shown in days in the pictogram
 <b>Network interface:</b> For connecting the scale to an Ethernet network	 <b>Protection against dust and water splashes IPxx:</b> The type of protection is shown in the pictogram.	 <b>Package shipment:</b> The time required for internal shipping preparations is shown in days in the pictogram

## Your KERN specialist dealer:

KERN – Precision is our business

To ensure the high precision of your balance KERN offers you the the appropriate test weight in the international OIML error limit classes E1-M3 from 1 mg – 2500 kg. In combination with a DAkkS calibration certificate the best pre-requisite for proper balance calibration.

The KERN DAkkS calibration laboratory today is one of the most modern and bestequipped DAkkS calibration laboratories for balances, test weights and force-measurement in Europe.

Thanks to the high level of automation, we can carry out DAkkS calibration of balances, test weights and force-measuring devices 24 hours a day, 7 days a week.

## Range of services:

- DAkkS calibration of balances with a maximum load of up to 50 t
- DAkkS calibration of weights in the range of 1 mg – 2500 kg
- Volume determination and measuring of magnetic susceptibility (magnetic characteristics) for test weights
- Database supported management of checking equipment and reminder service
- Calibration of force-measuring devices
- DAkkS calibration certificates in the following languages DE, EN, FR, IT, ES, NL, PL
- Conformity evaluation and reverification of balances and test weights

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**Documents / Resources**



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EW-N Series, EG-N Series, EW-N Precision Balances for Measuring System, Precision Balances for Measuring System, Precision Balances, Balances, EW 220-3NM, EW 420-3NM, EW 620-3NM, EW 820-2NM