

IP protected bench scale KERN FFN



All-round bench scale, protected by stainless steel and IP65 rating, now 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**
- **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

- **3 Protection against dust and water splashes IP65** (only when using rechargeable battery pack)

**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



OPTION



FACTORY



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
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	

## Pictograms

<p><b>Internal adjusting:</b> Quick setting up of the balance's accuracy with internal adjusting weight (motordriven)</p>	<p><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</p>	<p><b>Protection against dust and water splashes IPxx:</b> The type of protection is shown in the pictogram.</p>
<p><b>Adjusting program CAL:</b> For quick setting up of the balance's accuracy. External adjusting weight required</p>	<p><b>GLP/ISO log:</b> The balance displays serial number, user ID, weight, date and time, regardless of a printer connection</p>	<p><b>Stainless steel:</b> The balance is protected against corrosion</p>
<p><b>Easy Touch:</b> Suitable for the connection, data transmission and control through PC, tablet or smartphone</p>	<p><b>GLP/ISO log:</b> With weight, date and time. Only with KERN printers</p>	<p><b>Suspended weighing:</b> Load support with hook on the underside of the balance</p>
<p><b>Memory:</b> Balance memory capacity, e.g. for article data, weighing data, tare weights, PLU etc.</p>	<p><b>Piece counting:</b> Reference quantities selectable. Display can be switched from piece to weight</p>	<p><b>Battery operation:</b> Ready for battery operation. The battery type is specified for each device</p>
<p><b>Alibi memory:</b> Secure, electronic archiving of weighing results, complying with the 2014/31/EU standard.</p>	<p><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</p>	<p><b>Rechargeable battery pack:</b> Rechargeable set</p>
<p><b>Data interface RS-232:</b> To connect the balance to a printer, PC or network</p>	<p><b>Recipe level B:</b> Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display</p>	<p><b>Universal mains adapter:</b> with universal input and optional input socket adapters for A) EU, CH; B) EU, CH, GB, USA; C) EU, CH, GB, USA, AUS</p>
<p><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</p>	<p><b>Recipe level C:</b> 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</p>	<p><b>Mains adapter:</b> 230V/50Hz in standard version for EU. On request GB, USA or AUS version available</p>
<p><b>USB data interface:</b> To connect the balance to a printer, PC or other peripherals</p>	<p><b>Totalising level A:</b> The weights of similar items can be added together and the total can be printed out</p>	<p><b>Power supply:</b> Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, USA or AUS on request</p>
<p><b>Bluetooth* data interface:</b> To transfer data from the balance to a printer, PC or other peripherals</p>	<p><b>Percentage determination:</b> Determining the deviation in % from the target value (100 %)</p>	<p><b>Weighing principle: Strain gauges</b> Electrical resistor on an elastic deforming body</p>
<p><b>WLAN data interface:</b> To transfer data from the balance to a printer, PC or other peripherals</p>	<p><b>Weighing units:</b> 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</p>	<p><b>Weighing principle: Tuning fork:</b> A resonating body is electromagnetically excited, causing it to oscillate</p>
<p><b>Control outputs (optocoupler, digital I/O):</b> To connect relays, signal lamps, valves, etc.</p>	<p><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</p>	<p><b>Weighing principle: Electromagnetic force compensation</b> Coil inside a permanent magnet. For the most accurate weighings</p>
<p><b>Analogue interface:</b> to connect a suitable peripheral device for analogue processing of the measurements</p>	<p><b>Hold function:</b> (Animal weighing program) When the weighing conditions are unstable, a stable weight is calculated as an average value</p>	<p><b>Weighing principle: Single cell technology:</b> Advanced version of the force compensation principle with the highest level of precision</p>
<p><b>Interface for second balance:</b> For direct connection of a second balance</p>		<p><b>Verification possible:</b> The time required for verification is specified in the pictogram</p>
<p><b>Network interface:</b> For connecting the scale to an Ethernet network</p>		<p><b>DAkKS calibration possible:</b> The time required for DAkKS calibration is shown in days in the pictogram</p>
<p><b>Wireless data transfer:</b> between the weighing unit and the evaluation unit using an integrated radio module</p>		<p><b>Package shipment:</b> The time required for internal shipping preparations is shown in days in the pictogram</p>
		<p><b>Pallet shipment:</b> The time required for internal shipping preparations is shown in days in the pictogram</p>

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## 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 best-equipped DAkKS calibration laboratories for balances, test weights and force-measurement in Europe.

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

### 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, GB, FR, IT, ES, NL, PL
- Conformity evaluation and reverification of balances and test weights

## Your KERN specialist dealer: