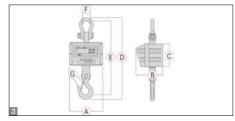


## Crane scale KERN HFO









# Robust industrial crane scale with EC type approval [M] perfect for high-capacity applications which require verification

## **Features**

- II 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, 2×1.5 V AAA

## **Technical data**

- · Superior display size: digit height 30 mm, bright with high contrast for easy reading of weighing results, even in poor lighting
- · Internal rechargeable battery pack, as standard, operating time up to 50 h without back light, charging time approx. 14 h
- Precision: 0, 2 % of [Max]
- Permissible ambient temperature 0 °C/40 °C

STANDARD















	M	
	$\mathbf{L}$	
+	3 DAYS	3

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

## **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, tablet or smartphone.



#### 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



#### Data interface RS-232:

To connect the balance to a printer, PC or network



#### 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



#### USB data interface:

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



#### Bluetooth\* data interface:

To transfer data from the balance to a printer, PC or other peripherals



## 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



## Network interface:

For connecting the scale to an Ethernet network



#### **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



#### GLP/ISO log:

The balance displays serial number, user ID, weight, date and time, regardless of a printer connection



## GLP/ISO log:

With weight, date and time. Only with KERN printers



#### Piece counting:

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



#### Recipe level A:

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



#### Recipe level B:

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



#### Totalising level A:

The weights of similar items can be added together and the total can be printed out



#### Percentage determination:

Determining the deviation in % from the target value (100 %)



# 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



## 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:

(Animal weighing program) When the weighing conditions are unstable, a stable weight is calculated as an average value



# Protection against dust and water splashes IPxx:

The type of protection is shown in the pictogram

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#### Suspended weighing:

Load support with hook on the underside of the balance



## **Battery operation:**

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



#### Rechargeable battery pack:

Rechargeable set



## 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



#### Mains adapter:

230V/50Hz in standard version for EU, CH. On request GB, USA or AUS version available



#### Power supply:

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 specified in the pictogram



## DAkkS calibration possible (DKD):

The time required for DAkkS calibration is shown in days in the pictogram



## Factory calibration (ISO):

The time required for Factory calibration is shown in days in the pictogram



## Package shipment:

The time required for internal shipping preparations is shown in days in the pictogram



## Pallet shipment:

The time required for internal shipping preparations is shown in days in the pictogram

# KERN - 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

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

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.

## . . .

- 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
- $\bullet$  Conformity evaluation and reverification of balances and test weights

## Your KERN specialist dealer:

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