## **KERN BALANCES & TEST SERVICES 2022**



Crane scale KERN HFD



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. W×D×H 65×24×100 mm. Batteries included, 1× 12 V 23A

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# KERN

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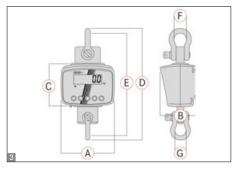
#### Features

- 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
- The models with IP add-on have special spray and dust protection to IP67 and because of this they are ideal for use in harsh environments
- 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
- 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



#### **Technical data**

- Superior display size: digit height 30 mm, bright backlight for easy reading of weighing results, even in poor lighting conditions
- Internal rechargeable battery pack, as standard, operating time up to 70 h without back light, charging time approx. 12 h. 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

- Internal rechargeable battery pack for load support, operating time up to 70 h without backlight, charging time approx. 12 h, KERN HFD-A04
- Charging station for external battery charging, scope of delivery: charging station, exchangeable battery, mains adapter, KERN HFD-A07
- 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, KERN HFD-A06

STANDARD	OPTION	FACTORY						
<b>i 666</b>					<b>.</b>	DAkkS	*	Μ
CAL EXT IP 67	ACCU	MULTI	DMS	1 DAY	2 DAYS	+3 DAYS	BT 4.0	+3 DAYS
HFD-IP					HFD-6T-3M			HFD-M

Model Weighing capacity		Readability Net		3 Dimensions					-			Option		
			weight								Verification		DAkkS Calibr. Certificate	
	[Max]	[d]	approx.	Α	В	С	D	E	F = G		MU		DAkkS	
KERN	kg	g	kg	mm	mm	mm	mm	mm	mm		KERN		KERN	
	Triple range balance switches automatically to the next largest weighing capacity [Max] and readibility [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	
		Protec	tion agains	t dust	and v	vater	splasł	nes IP	67					
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	
Not	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		965-130H		963-130H	
HFD 1T-4M 1500		500	9	194	129	145	421	383	50,8		965-130H		963-130H	
HFD 3T-3M 3000		1000	10	194	129	145	421	383	50,8		965-132H		963-132H	
HFD 6T-3M 6000		2000	15	194	129	145	477	426	68,3		965-132H		963-132H	
HFD 10T-3M 12000		5000	20	194	129	145	573	510	82,5		965-133H		963-133H	

## **KERN BALANCES & TEST SERVICES 2022**

#### **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.

#### Data interface RS-232: • 6550.•

To connect the balance to a printer, PC or RS 232 network



#### **RS-485 data interface:**

To connect the balance to a printer, PC or other peripherals. Suitable for datatransfer 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



ment in Europe

Range of services:

characteristics) for test weights

· Calibration of force-measuring devices

#### Network interface:

For connecting the scale to an Ethernet network



KCP

PROTOCOL

weight, date and time, regardless of a printer connection GLP/ISO log:

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

**KERN Communication Protocol (KCP):** 

It is a standardized interface command set for

KERN balances and other instruments, which

devices featuring KCP are thus easily integrated

with computers, industrial controllers and other

The balance displays serial number, user ID,

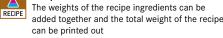
allows retrieving and controlling all relevant parameters and functions of the device. KERN

#### **Piece counting:**

digital systems GLP/ISO log:

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

#### Recipe level A:



#### Recipe level B:

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

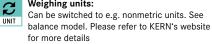
#### **Totalising level A:**

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

#### Percentage determination:

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

#### Weighing units:

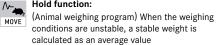




#### Weighing with tolerance range:

(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:





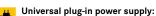
Protection against dust and water splashes IPxx:

The type of protection is shown 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

Load support with hook on the underside of the UNDER balance **Battery operation:** Ready for battery operation. The battery type is BATT specified for each device Rechargeable battery pack: Rechargeable set ACCU

Suspended weighing:



with universal input and optional input socket MULTI adapters for A) EU, CH, GB; B) EU, CH, GB, USA; C) EU. CH. GB. USA. AUS



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#### 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

DMS

#### Weighing principle: Strain gauges:

Electrical	resistor	on	an	elasti	c det	forming	bod	y



#### 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



#### The time required for verification is specified in the pictogram

DAkkS calibration possible (DKD): DAkkS

+3 DAYS

The time required for DAkkS calibration +3 DAYS is shown in days in the pictogram

#### Factory calibration (ISO):



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

is shown in days in the pictogram

#### Package shipment: The time required for internal shipping preparations



Your KERN specialist dealer:

Gamle Drammensvei 107

Impex Produkter AS

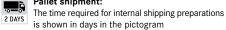
1363 HØVIK

www.impex.no

info@impex.no

Tel.: 22 32 77 20

#### Pallet shipment:



**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-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.

· Volume determination and measuring of magnetic susceptibility (magnetic

· Conformity evaluation and reverification of balances and test weights

· Database supported management of checking equipment and reminder service

· DAkkS calibration certificates in the following languages DE, EN, FR, IT, ES, NL, PL

· 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