KERN BALANCES & TEST SERVICES 2022

KERN

Crane scale KERN HFM



Robust industrial crane scale with bright LED display for optimum reading in unfavourable ambient conditions

Features

- 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
- 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
- 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

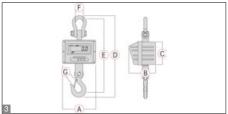
Technical data

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

STANDARD)					OPTION
))	DAkkS
CAL EXT	ACCU	MULTI	DMS	1 DAY	2 DAYS	+3 DAYS
					4	

Model	Weighing	Readability	Net weight	I Dimensions									
	capacity										DAkkS Calibr. Certificate		
	[Max]	[d]	approx.	А	В	С	D	E	F	G	1	DAkkS	
KERN	kg	g	kg	mm	mm	mm	mm	mm	mm	mm		KERN	
HFM 1T0.1	1000	100	14	270	200	175	610	540	68	40		963-130H	
HFM 3T0.5	3000	500	16	270	200	175	610	540	74	40		963-132H	
HFM 5T0.5	5000	500	24	300	230	190	730	650	74	55		963-132H	
HFM 10T1	10000	1000	34	300	230	190	840	750	92	60		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: 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:

KERN – Precision is our business

For direct connection of a second balance



balance calibration.

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

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.

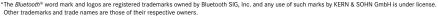
· Volume determination and measuring of magnetic susceptibility (magnetic

· 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





KCP

PROTOCOL

GLP/ISO log: GI P With weight, date and time. Only with KERN PRINTER printers.

Piece counting:

connection

digital systems GLP/ISO log:

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

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

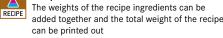
with computers, industrial controllers and other

The balance displays serial number, user ID,

weight, date and time, regardless of a printer

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

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:

Η' 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:

Can be switched to e.g. nonmetric units. See UNIT 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 MOVE conditions are unstable, a stable weight is calculated as an average value



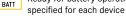
Protection against dust and water splashes IPxx:

The type of protection is shown in the pictogram.

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

Battery operation:







Ready for battery operation. The battery type is

Rechargeable battery pack: Rechargeable set



Universal plug-in power supply:

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



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

1	DMS

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:

DAkkS calibration possible (DKD):

is shown in days in the pictogram

Factory calibration (ISO):

Package shipment:

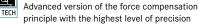
Pallet shipment:

The time required for DAkkS calibration

The time required for Factory calibration

The time required for internal shipping preparations

The time required for internal shipping preparations



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

М +3 DAYS

DAkkS

+3 DAYS

ISO

+4 DAYS

1 DAY

ò

2 DAYS

Your KERN specialist dealer: