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

## Hanging scale KERN HDB-N

## Practical hanging scale for rapid, mobile weighing

## 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)
- Ideal for rapid control in goods-in and goods-out
- Also essential in the private sector to determine the weight of fish, game, fruits, bicycle parts, suitcases etc.
- Hold function: For easy reading of the weighing result, the display can be "frozen" in different ways. Either automatically when the weighing value remains unchanged or manually by pressing the Hold key
- Hook, steel, can be hinged
- Peak load display (peak hold)

## **Technical data**

- · LCD display, digit height 12 mm
- Ready for use: Batteries included, 2×1.5 V AAA, operating time up to 180 h
- Further weighing units: kg, lb, N
- Permissible ambient temperature 5 °C/35 °C

## Accessories

• Tare pan with pan beam, details see Accessories, KERN CH-A01N



Model	Weighing capacity	Readability	Dimensions housing	Net weight	Option	
			W×D×H		DAkkS Calibr. Certificate	
	[Max]	[d]		approx.	DAkkS	
KERN	kg	g	mm	kg	KERN	
HDB 5K5N	5	5	72×25×105	0,20	963-127H	
HDB 10K10N	10	10	72×25×105	0,20	963-128H	







## **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:

• 6558.• 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.

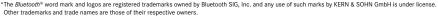
· Volume determination and measuring of magnetic susceptibility (magnetic

· 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

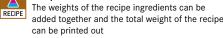
with computers, industrial controllers and other

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



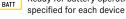
Protection against dust and water splashes IPxx:

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:

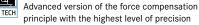
Pallet shipment:

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: