# **KERN BALANCES & TEST SERVICES 2022**

# KERN

### Drive-through scale KERN NFN



Stainless steel drive-through scale (IP68) with stainless steel display device (IP65), with EC type approval [M]

### Features

- Robust stainless steel drive-through scale for rapid weighing of e.g. laundry carts, container trolleys, roller containers, etc.
   Ideal for hospital laundry services, goods inwards, hospital kitchens, etc.
- Low platform height and integrated access ramps on both sides facilitate access. No need for pit frame installation – which saves money
- Ideal for the increased hygienic requirements in the food, pharmaceutical and chemical industries
- Weighing bridge: stainless steel, extremely resistant to bending due to material thickness, 4 welded stainless steel load cells, dust and spray protection IP68. Weighing bridge can also be delivered as component without the display device, for details see KERN KFD-V40
- Your support in a HACCP-compliant quality system
- Display device: for details see KERN KFN-TM
- Totalising of weights and piece counts
- Internal rechargeable battery pack included with delivery

 Did you know? Our floor scales are delivered in a robust wooden box. This protects the high-quality weighing technology from environmental influences and stresses during transportation. KERN – always one step ahead

### **Technical data**

- Large backlit LCD display, digit height 52 mm
- Overall dimensions W×D×H
  1600×1200×80 mm
- Platform height in the drive-through area: 80 mm
- Dimensions weighing surface W×D 1000×1000 mm
- Dimensions of display device W×D×H 266×165×96 mm
- Cable length of display device approx. 5 m
- Permissible ambient temperature -10 °C/40 °C







### Accessories

- Stand to elevate display device, height of stand approx. 800 mm, KERN BFN-A04
- Pair of base plates to fix the weighing bridge to the floor, KERN BFN-A03
- Internal rechargable battery pack, operating time up to 35 h without backlight, charging time approx. 12 h, KERN GAB-A04
- Data interface RS-232, interface cable included, approx. 1,5 m, must be ordered at purchase, KERN KFN-A01
- Bluetooth data interface, must be ordered at purchase, KERN KFB-A03
- Analogue module,
  - 0-10 V: KERN KFB-A04
  - 4-20 mA: KERN KFB-A05
- Is Large display with superior display size, only in combination with data interface KFN-A01, KERN YKD-A02
- Cable with special length 15 m, between display device and platform, for verified models which must be ordered at the time of purchase, KERN BFB-A03
- Further details, plenty of further accessories and suitable printers see Accessories

**Note:** For verified scales the weighing bridge must be fixed to the floor. Optionally, with an access ramp, a footplate pair or a pit frame

Shipment via freight forwarder. Please ask for dimensions, gross weight, shipping costs

Optionally configurable with IP68 display device on request, details see chapter 13



Model	Weighing capacity	Readability	Minimal load	Net weight		Option				
		= Verification value				Verification DAkkS Calib		DAkkS Calibr. Ce	r. Certificate	
	[Max]	[d] = [e]	[Min]	approx.		MIII		DAkkS		
KERN	kg	kg	kg	kg		KERN		KERN		
NFN 600K-1M	600	0,2	4	130		965-230		963-130		
NFN 1.5T-4M	1500	0,5	10	125		965-230		963-130		
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.										

# **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.

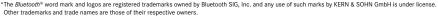
· Volume determination and measuring of magnetic susceptibility (magnetic

· 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

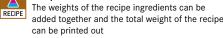
with computers, industrial controllers and other

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



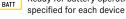
Protection against dust and water splashes IPxx:

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:

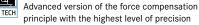
Pallet shipment:

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: