KERN BALANCES & TEST SERVICES CATALOGUE 2019

IP protected bench scale KERN FFN









All-round bench scale, protected by stainless steel and IP65 rating, now also with EC type approval [M]

Features

FFN 15K5IPM

FFN 25K10IPM

- Il Ideal for the increased hygienic requirements in the food, pharmaceutical and chemical industries
- Your support in a **HACCP**-compliant quality system
- Ideal for the robust industrial applications
- **High mobility:** thanks to battery operation, compact, lightweight construction, it is suitable for the use in several locations (kitchen, sales office, cafeteria, Food industry-Laboratory etc.)
- Stainless steel design of the housing and weighing plate. Its smooth surfaces make it simple to clean
- Recessed grips on the underside of the scale for easy transportation

 Protection against dust and water splashes IP65 (only when using rechargeable battery pack)

Technical data

- Large backlit LCD display, digit height 25 mm
- Dimensions weighing surface, stainless steel, W×D 230×190 mm
- Overall dimensions W×D×H 230×300×130 mm
- Rechargeable battery pack internal, operating time up to 50 h without backlight, charging time approx. 12 h
- Net weight approx. 4,0 kg
- Permissible ambient temperature KERN FFN-N: 0 °C/40 °C KERN FFN-NM: -10 °C/40 °C

Accessories

965-228

965-228

963-128

963-128

• Tare pan made of stainless steel, ideal for weighing loose small parts, fruit, vegetables etc., W×D×H 370×240×20 mm, KERN RFS-A02

STANDARD								OPTION	FACTORY	
ī	\mathcal{C}	666	=		B			DAkkS	Μ	
CAL EXT	UNIT	IP 65	INOX	ACCU	MULTI	DMS	1 DAY	+3 DAYS	+3 DAYS	
		3								

15

25

5

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Model	Weighing capacity	Readability	Verification value	Minimal load		Option			
						Verification	DAkkS Calibr. Ce	DAkkS Calibr. Certificate	
	[Max]	[d]	[e]	[Min]		MIII	DAkkS		
KERN	kg	g	g	g	k	KERN	KERN		
FFN 1K-4N	1,5	0,2	-	-		-	963-127		
FFN 3K0.5IPN	3	0,5	-	-		-	963-127		
FFN 6K1IPN	6	1	-	-		-	963-128		
FFN 15K2IPN	15	2	-	-		-	963-128		
FFN 25K5IPN	25	5	-	-		-	963-128		
Note: F	or applications that r	equire verification, pl	ease order verificatio	on at the same time, i	nitial verification a	at a later date	e is not possible.		
	,	Verification at the fac	tory, we need to know	w the full address of t	the location of use	э.			
FFN 1K-4NM	1,5	0,5	0,5	10	96	55-227	963-127		
FFN 3K1IPM	3	1	1	20	96	5-227	963-127		
FEN 6K2IPM	6	2	2	40	06	5-228	063-128		

100

200

5

10

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PROTOCOL



Pictograms

Internal adjusting:

Quick setting up of the balance's accuracy with CAL INT internal adjusting weight (motordriven)

Adjusting program CAL:

For quick setting up of the balance's accuracy. External adjusting weight required



CAL EXT

Easy Touch:

Suitable for the connection, data transmission and control through PC, tablet or smartphone Memory:

Balance memory capacity, e.g. for article data, MEMORY weighing data, tare weights, PLU etc.

Alibi memory: Secure, electronic archiving of weighing results,

ALIBI

complying with the 2014/31/EU standard.



• 6534 •

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 RS 485 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



WLAN 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.

ANALOG

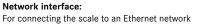
to connect a suitable peripheral device for analogue processing of the measurements

For direct connection of a second balance



Interface for second balance:

Analogue interface:





LAN

Wireless data transfer:

between the weighing unit and the evaluation unit using an integrated radio module

*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.

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-measurement in Europe.

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.

Range of services:

- · 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, GB, FR, IT, ES, NL, PL
- · Conformity evaluation and reverification of balances and test weights



GLP/ISO log:

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

KERN Communication Protocol (KCP):

It is a standardized interface command set for

KERN balances and other instruments, which

parameters and functions of the device. KERN

devices featuring KCP are thus easily integrated

with computers, industrial controllers and other

allows retrieving and controlling all relevant



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

Piece counting:

PCS

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

Recipe level A: **Å**^

The weights of the recipe ingredients can be RECIPE 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

name and target value of the recipe ingredients. User guidance through display, multiplier

function, adjustment of recipe when dosages

Recipe level C: Internal memory for complete recipes with



Totalising level A:

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

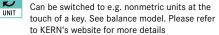
are exceeded or barcode recognition



Percentage determination:

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

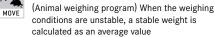
Weighing units: C



Weighing with tolerance range: ○ 3)

(Checkweighing) Upper and lower limiting can TOL be programmed individually, e.g. for sorting and dosing. The process is supported by an audible or visual signal, see the relevant model

M--Hold function:



Protection against dust and water splashes IPxx: 666 The type of protection is shown in the pictogram. IP

Stainless steel:

The balance is protected against corrosion

Suspended weighing:

Load support with hook on the underside of the balance

Battery operation:

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



ΙΝΟΧ

Rechargeable battery pack: Rechargeable set



Universal mains adapter:

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

Mains adapter:

230V/50Hz in standard version for EU. On 230 V 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



s T

Weighing principle: Tuning fork: A resonating body is electromagnetically

excited, causing it to oscillate

Weighing principle: Single cell technology:

The time required for verification is specified in

Advanced version of the force compensation

principle with the highest level of precision

The time required for DAkkS calibration is

The time required for internal shipping

The time required for internal shipping

preparations is shown in days in the pictogram

preparations is shown in days in the pictogram

Weighing principle: Electromagnetic force compensation

Verification possible:

Package shipment:

Pallet shipment:

DAkkS calibration possible:

shown in days in the pictogram

the pictogram

FORCE Coil inside a permanent magnet. For the most accurate weighings

SC TECH

Μ

+3 DAYS

DAkkS

+3 DAYS

1 DAY

2 DAYS

Impex Produkter AS

Gamle Drammensvei 107

Your KERN specialist dealer:

1363 Høvik

www.impex.no

info@impex.no

Tel.: 22 32 77 20