KERN BALANCES & TEST SERVICES CATALOGUE 2020



Display devices KERN KFB-TM · KFS-TM



KERN KFB-TM

Display device with large digits - easy to read



KERN KFS-TM

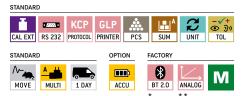
Professional indicator with 3 displays, also with EC type approval [M]

Note

to see what options are offered by this display device, please see the KERN platform scale IFB on page 103

Note

to see what options are offered by this display device, please see the KERN counting scale IFS on page 86



STANDARD T. % CAL EXT MEMORY RS 232 PROTOCOL INTERN PCS SUM STANDARD OPTION FACTORY C Э Μ UNIT TOL 1 DAY ACCU MULTI

* not possible in combination with verification

** not possible in combination with signal lamp

Features	Model KERN	Model KERN
	KFB-TM	KERN KFS-TM
Display (segments)	$5 + \frac{1}{2}$ digits	6 digits
EC type approval	yes	yes
Resolution verifiable	6000 e	3000 e
Resolution non verifiable	30000 d	60000 d
Weighing capacities	≤ 2	≤ 2
Weighing units	kg, lb	kg, g
Readability	1, 2, 5, 10, n	1, 2, 5, 10, n
Piece counting with reference	10, 20, 50, 100, 200	n
Display, digit height	Backlit LCD display, 52 mm	Backlit LCD displays, 13/16,5 mm
Additional functions	Totalising, HOLD function	99 item memories, totalising, printing of date and time
Strain gauge load cells	87 - 1600 Ω	87 - 1600 Ω
Linearisation	3 points	4 points
Input voltage	12 V, 500 mA	12 V, 500 mA
Permissible ambient temperature	-10 °C/40 °C	0 °C/40 °C
Interface RS-232	ves	ves
2. Interface RS-232, separate Y cable	CFS-A04	CFS-A04
Interface RS-485	-	-
Interface USB	-	-
Interface Bluetooth	KERN KFB-A03, see page 103	-
Analogue module	0-10V: KERN KFB-A04 ; 4-20 mA: KERN KFB-A05 ; see page 103	-
Signal lamp	CFS-A03	CFS-A03
Foot switch	-	-
Stand	BFS-A07, see page 103	BFS-A07, see page 86
Benchtop stand for display device/wall mount	yes/yes	yes/yes
Protective working cover	KFB-A02S05, see page 103,	KFB-A02S05, see page 86,
Rechargeable battery pack	KFB-A01, see page 103,	KFS-A01, see page 86,
Operating/charging time	up to 35 h/12 h	up to 40 h/12 h
operating/that ging time		
Dimensions Housing W×D×H	250×160×65 mm	260×150×65 mm

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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.

Data interface RS-232:

• 6550 • To connect the balance to a printer, PC or RS 232 network

RS-485 data interface:

• 6534 • 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:

Bluetooth* data interface:

To connect the balance to a printer, PC or other peripherals

₿ BT

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.

to connect a suitable peripheral device for ANALOG

analogue processing of the measurements Interface for second balance:

For direct connection of a second balance



Network interface:

Analogue interface:

For connecting the scale to an Ethernet network



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

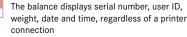


PCS

PROTOCOL

GLP/ISO log:

digital systems



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

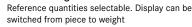
with computers, industrial controllers and other

allows retrieving and controlling all relevant

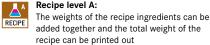
GLP/ISO log:

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

Piece counting:



Recipe level A:



Recipe level B:

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

Recipe level C: ∠^c



Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display, multiplier function, adjustment of recipe when dosages are exceeded or barcode recognition

Totalising level A:

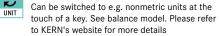
The weights of similar items can be added SUM together and the total can be printed out



Percentage determination:

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

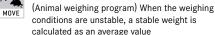
Weighing units: C

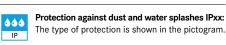


Weighing with tolerance range: ○ 3)

(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:





KERN

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



INOX

Rechargeable battery pack: Rechargeable set



Universal mains adapter:

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

Mains adapter:

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

(((1))) T-FORK

s T

Weighing principle: Tuning fork A resonating body is electromagnetically

excited, causing it to oscillate

Weighing principle: Electromagnetic force

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

SC TECH

Weighing principle: Single cell technology: Advanced version of the force compensation principle with the highest level of precision

Μ

Verification possible: The time required for verification is specified in

Package shipment:

Pallet shipment:

DAkkS calibration possible:

is shown in days in the pictogram

The time required for DAkkS calibration

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

the pictogram

+3 DAYS

DAkkS

+3 DAYS

1 DAY

2 DAYS

Your KERN specialist dealer: