# **BALANCES & TEST SERVICE 2023**

COUNTING SCALES/COUNTING SYSTEMS

#### IoT-Line Counting scale KERN CKE



# Easy to use, self-explanatory counting scale with laboratory accuracy, ideal for the various possibilities of Industry 4.0 applications, highly accurate, counting, accuracy, counting resolution up to 360,000 points

## Features

- · Self-explanatory, graphic control panel, the workings steps can be understood immediately, even without operating instructions
  - no learning time = reduces costs
  - ideal for untrained users
  - visualised process avoids operating errors
- The 4 steps are carried out from left to right: Place the empty container onto the weighing plate and tare by pressing the TARE key Place the reference quantity for the goods to be counted into the container (5, 10, 20 or any number of pieces)
- Confirm the selected reference quantity by pressing the key (5, 10, 20 or any number of pieces)
- Pour in the goods to be counted. The number of pieces will immediately be shown in the display

- · Precise counting: The automatic reference weight optimisation of reference weight gradually improves the average piece weight value
- KERN Universal Port (KUP): permits the connection of an external KUP interface adapter, such as, for example, RS 232, USB, Bluetooth or Ethernet, for the exchange of data and control commands, without any installation outlav
- KERN Communication Protocol (KCP): The KCP permits searching and remote control of the balance using external control devices or computers. for details see page 8/9
- Two balances in one: Changes from counting mode to weighing mode at the touch of a key
- · Ring-shaped draught shield standard, only for models with weighing plate size Ø 81 mm, weighing space Ø×H 90×40 mm
- · Protective working cover included with delivery



- · Large backlit display, digit height 25 mm
- · Dimensions weighing surface W×D 130×130 mm, stainless steel
  - W×D 340×240 mm, stainless steel, see larger picture
- Overall dimensions W×D×H A, B 167×250×85 mm 350×390×120 mm
- Optional battery operation, 4× 1.5 V AA not included in scope of delivery, operating time up to 80 h
- Permissible ambient temperature -10 °C/40 °C

#### Accessories

- · Protective working cover, scope of delivery 5 items, for models with weighing plate size A, B, KERN YBA-A12S05
- C, KERN FKB-A02S05
- M Internal rechargable battery pack, operating time up to 48 h without backlight, charging time approx. 8 h, KERN YKR-01
- External data interface RS-232, Interface cable included, KERN YKUP-01
- · External data interface USB, Interface cable included, KERN YKUP-03
- WiFi interface adapter, KERN YKUP-05
- Extension-Box, KERN YKUP-13
- Further details, plenty of further accessories and suitable printers see Accessories

1	STANDARD											OPTION								
		羸	KCP	GLP		$\mathcal{C}$		Ę.		ВШ			\$	• 6556	$\stackrel{\bullet \longleftarrow \bullet}{\longleftrightarrow}$	8	((;-	a a a		DAkkS
	CAL EXT	KUP	PROTOCOL	PRINTER	PCS	UNIT	TOL	UNDER	BATT	MULTI	DMS	1 DAY	ET	RS 232	USB	BT 4.0	WIFI	LAN	ACCU	+3 DAYS

Model	Weighing capacity [Max]	Readability [d]	Smallest part weight [Normal]	Counting resolution	Net weight approx.	Weighing plate	Option DAkkS Calibr. Certificate DAkkS		
KERN	kg	g	g/piece	Points	kg		KERN		
CKE 360-3	0,36	0,001	0,01	360.000	1	A	963-127		
CKE 3600-2	3,6	0,01	0,1	360.000	1,8	В	963-127		
CKE 6K0.02	6	0,02	0,2	300.000	7	C	963-128		
CKE 8K0.05	8	0,05	0,5	160.000	7	C	963-128		
CKE 16K0.05	16	0,05	0,5	320.000	7	C	963-128		
CKE 16K0.1	16	0,1	1	160.000	7	C	963-128		
CKE 36K0.1	36	0,1	1	360.000	7	C	963-128		
CKE 65K0.2	65	0,2	2	325.000	7	C	963-129		



# **BALANCES & TEST SERVICE 2023**

KERN 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:

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.



• 888. •

RS 232

• 1998. •

RS 485

#### KERN Universal Port (KUP):

allows the connection of external KUP PCS interface adapters, e.g. RS-232, RS-485, SB, Bluetooth, WLAN, Analogue, Ethernet etc. for the exchange of data and control commands, without installation effort

#### Data interface RS-232:

To connect the balance to a printer, PC or network



To connect the balance to a printer, PC or other peripherals. Suitable for data transfer over large distances. Network in bus topology is possible

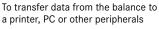
## USB data interface:

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



USB

## Bluetooth\* data interface:





## WiFi data interface:

To transfer data from the balance to a printer, PC or other peripherals

**Control outputs** \_0^0\_ SWITCH

(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:

license. Other trademarks and trade names are those of their respective owner

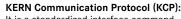
For direct connection of a second balance



KCP

#### Network interface: For connecting the scale to an

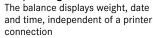
Ethernet network



It is a standardized interface command PROTOCOL set for KERN balances and other instruments, which allows retrieving and controlling all relevant parameters and functions of the device. KERN devices featuring KCP are thus easily integrated with computers, industrial controllers and other digital systems







#### GLP/ISO log: GLP

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



PRINTER

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

## Recipe level A:

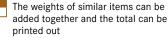
The weights of the recipe ingredients can be added together and the total weight of the recipe can be printed out



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



**Totalising level A:** 



Determining the deviation in % from

Percentage determination:

the target value (100 %)

%

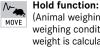
# B

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



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#### Protection against dust and water splashes IPxx:

The type of protection is shown in the pictogram.

Suspended weighing: Load support with hook on the UNDER

#### **Battery operation:**

underside of the balance

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



#### Rechargeable battery pack: Rechargeable set



#### Universal plug-in power supply: with universal input and optional input socket 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. 230 V 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



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

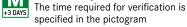


## Weighing principle: Single cell technology:

Advanced version of the force compensation principle with the highest level of precision



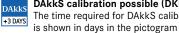
# Verification possible:



Factory calibration (ISO):

Package shipment:

Pallet shipment:



**ISO** 

1 DAY

2 DAYS

DAkkS calibration possible (DKD): The time required for DAkkS calibration

The time required for Factory calibration

The time required for internal shipping prepa-

The time required for internal shipping prepa-

rations is shown in days in the pictogram

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is shown in days in the pictogram