Industrial platform scale KERN IOC



Allround platform scale with a wide range of communication options and EC type approval [M]

Features

- **Industry 4.0:** A wide range of (optional) data interfaces allows that it is easy to transfer weighing data to tablets, laptops, PCs, networks, Smartphones, printers, etc.
- **High mobility:** thanks to rechargeable battery operation (optional), compact, lightweight construction, it is suitable for the use in several locations (laboratory, production, quality control, commissioning etc.)
- **Platform:** weighing plate stainless steel, painted steel base, silicone-coated aluminium load cell, protection against dust and water splashes IP65
- Level indicator and levelling feet for precise levelling of the scale, fitted as standard, to give the most accurate weighing result
- Searching and remote control of the balance using external control devices or computers with the KERN Communication Protocol (KCP). KCP is a standardised interface command structure for KERN balances and other instruments which allows you to recall and manage all relevant parameters and device functions. You can therefore simply connect

KERN devices with KCP to computers, industrial control systems and other digital systems. In a large number of cases the KCP is compatible with the MT-SICS protocol. Only possible through data interface RS-232, other interfaces on request

Technical data

- Large backlit LCD display, digit height 24 mm
- Weighing plate dimensions $W{\times}D{\times}H$
- A 300×300×110 mm
- 400×300×110 mm
- 500×400×120 mm, , see larger picture
- D 650×500×150 mm
- 800×600×200 mm
- Dimensions of display device W×D×H 260×115×70 mm
- Cable length of display device approx. 3 m
- Permissible ambient temperature -10 °C/40 °C

Accessories

• **Protective working cover**, scope of delivery: 5 items, KERN EOC-A01S05





- **Stand** to elevate display device, height of stand approx. 330 mm, KERN EOC-A05
- Mount to fasten the display device to the platform, KERN EOC-A03
- Benchtop stand incl. wall mount for display device, KERN EOC-A04
- Rechargeable battery pack internal, operating time up to 26 h with backlight, charging time approx. 3 h, KERN KFB-A01
- USB data interface, must be ordered at purchase, KERN KIB-A03
- Bluetooth data interface, must be ordered at purchase, KERN KIB-A04
- WiFi interface must be ordered at purchase, KERN KIB-A10
- Ethernet data interface, to connect an IP-based Ethernet network, must be ordered at purchase, KERN KIB-A02
- Signal lamp, including interface, for visual support of weighing with tolerance range, must be ordered at purchase, KERN KIB-A06
- Verification plug, for verified balances this enables you to separate the display device and platform without affecting the verification, e.g. for installing the scale in a packing and dispatch table, pit frame etc. at a later date. Please order this at the same time as you purchase your scale, KERN KIB-A12
- Conversion of the display device, to move the cable outlet to the front of the display device, ideal e.g. for subsequent wall installation of the display device (standard configuration ex works: rear outlet), Factory Option, delivery time + 2 working days, KERN KIB-M01
- Note: In addition to the RS-232 data interface, which is integrated as standard, only one other data interface can be installed and operated

STANDARD									OPTION		FACTORY											
CAL EXT	RS 232	KCP PROTOCOL		PCS	SUM	% PERCENT	-√+ ⊙ ৢ৽ TOL		66		DMS	1 DAY	2 DAYS	ACCU	DAkkS +3 DAYS	ALIBI	USB	BT 4.0	() WLAN		+3 DAYS	
CALEAT	NO EDE	THOTOGOL	rinitizit	105	5011	rencent	TOL	HOTE	11 05	HIGEN	0113	TOAT	F	ACCO	15 DATS	, LEDI	050	51 4.0	TEAT		15 DATS	

Model	Weighing	Readability	Verification	Minimal load	Weighing plate	Option		Option		
	capacity		value			Verification		DAkkS Calibr. Certificate		
	[Max]	[d]	[e]	[Min]		MIII		DAkkS		
KERN	kg	g	g	g		KERN		KERN		
IOC 6K-3M	3 6	1 2	1 2	20 40	В	965-228		963-128		
IOC 10K-3M	6 15	2 5	2 5	40 100	А	965-228		963-128		
IOC 10K-3LM	6 15	2 5	2 5	40 100	С	965-228		963-128		
IOC 30K-3M	15 30	5 10	5 10	100 200	C	965-228		963-128		
IOC 60K-2M	30 60	10 20	10 20	200 400	C	965-229		963-129		
IOC 60K-2LM	30 60	10 20	10 20	200 400	D	965-229		963-129		
IOC 100K-2M	60 150	20 50	20 50	400 1000	D	965-229		963-129		
IOC 100K-2LM	60 150	20 50	20 50	400 1000	E	965-229		963-129		
IOC 300K-2M	150 300	50 100	50 100	1000 2000	E	965-229		963-129		
IOC 600K-1M	300 600	100 200	100 200	2000 4000	F	965-230		963-130		

 * Verification not in combination with KERN KIB-A02, KIB-A03, KIB-A04, KIB-A10

KERN & SOHN GmbH · Ziegelei 1 · 72336 Balingen · Germany · Tel. +49 7433 9933-0 · Fax +49 7433 9933-146 · www.kern-sohn.com · info@kern-sohn.com

KERN BALANCES & TEST SERVICES CATALOGUE 2020



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

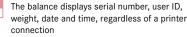


PCS

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

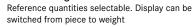
with computers, industrial controllers and other

allows retrieving and controlling all relevant

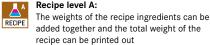
GLP/ISO log:

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:

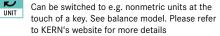
The weights of similar items can be added SUM together and the total can be printed out



Percentage determination:

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

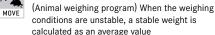
Weighing units: C

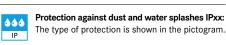


Weighing with tolerance range: ○ 3)

(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

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: