

## 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×D×H
  - A 300×300×110 mm
  - B 400×300×110 mm
  - C 500×400×120 mm
  - D 650×500×150 mm
  - E 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
- **1 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
- **2 Benchtop stand incl. wall mount** for display device, **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, please ask for delivery time, KERN KIB-A10
- **Ethernet data interface**, to connect an IP-based Ethernet network, must be ordered at purchase, not in combination with KERN KIB-A03, KIB-A04, KIB-A10. KERN KIB-A02
- **Signal lamp, including interface**, for visual support of weighing with tolerance range, KERN KIB-A06
- **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

### STANDARD



### OPTION



### FACTORY



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

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

## Pictograms

<b>Internal adjusting:</b> Quick setting up of the balance's accuracy with internal adjusting weight (motordriven)	<b>KERN Communication Protocol (KCP):</b> It is a standardized interface command 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	<b>Protection against dust and water splashes IPxx:</b> The type of protection is shown in the pictogram.
<b>Adjusting program CAL:</b> For quick setting up of the balance's accuracy. External adjusting weight required	<b>GLP/ISO log:</b> The balance displays serial number, user ID, weight, date and time, regardless of a printer connection	<b>Stainless steel:</b> The balance is protected against corrosion
<b>Easy Touch:</b> Suitable for the connection, data transmission and control through PC, tablet or smartphone	<b>GLP/ISO log:</b> With weight, date and time. Only with KERN printers	<b>Suspended weighing:</b> Load support with hook on the underside of the balance
<b>Memory:</b> Balance memory capacity, e.g. for article data, weighing data, tare weights, PLU etc.	<b>Piece counting:</b> Reference quantities selectable. Display can be switched from piece to weight	<b>Battery operation:</b> Ready for battery operation. The battery type is specified for each device
<b>Alibi memory:</b> Secure, electronic archiving of weighing results, complying with the 2014/31/EU standard.	<b>GLP/ISO log:</b> With weight, date and time. Only with KERN printers	<b>Rechargeable battery pack:</b> Rechargeable set
<b>Data interface RS-232:</b> To connect the balance to a printer, PC or network	<b>Recipe level A:</b> The weights of the recipe ingredients can be added together and the total weight of the recipe can be printed out	<b>Universal mains adapter:</b> with universal input and optional input socket adapters for A) EU, CH; B) EU, CH, GB, USA; C) EU, CH, GB, USA, AUS
<b>RS-485 data interface:</b> To connect the balance to a printer, PC or other peripherals. Suitable for data transfer over large distances. Network in bus topology is possible	<b>Recipe level B:</b> Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display	<b>Mains adapter:</b> 230V/50Hz in standard version for EU. On request GB, USA or AUS version available
<b>USB data interface:</b> To connect the balance to a printer, PC or other peripherals	<b>Recipe level C:</b> 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	<b>Power supply:</b> Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, USA or AUS on request
<b>Bluetooth* data interface:</b> To transfer data from the balance to a printer, PC or other peripherals	<b>Totalising level A:</b> The weights of similar items can be added together and the total can be printed out	<b>Weighing principle: Strain gauges</b> Electrical resistor on an elastic deforming body
<b>WLAN data interface:</b> To transfer data from the balance to a printer, PC or other peripherals	<b>Percentage determination:</b> Determining the deviation in % from the target value (100 %)	<b>Weighing principle: Tuning fork:</b> A resonating body is electromagnetically excited, causing it to oscillate
<b>Control outputs (optocoupler, digital I/O):</b> To connect relays, signal lamps, valves, etc.	<b>Weighing units:</b> Can be switched to e.g. nonmetric units at the touch of a key. See balance model. Please refer to KERN's website for more details	<b>Weighing principle: Electromagnetic force compensation</b> Coil inside a permanent magnet. For the most accurate weighings
<b>Analogue interface:</b> to connect a suitable peripheral device for analogue processing of the measurements	<b>Weighing with tolerance range:</b> (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	<b>Weighing principle: Single cell technology:</b> Advanced version of the force compensation principle with the highest level of precision
<b>Interface for second balance:</b> For direct connection of a second balance	<b>Hold function:</b> (Animal weighing program) When the weighing conditions are unstable, a stable weight is calculated as an average value	<b>Verification possible:</b> The time required for verification is specified in the pictogram
<b>Network interface:</b> For connecting the scale to an Ethernet network		<b>DAKkS calibration possible:</b> The time required for DAKkS calibration is shown in days in the pictogram
<b>Wireless data transfer:</b> between the weighing unit and the evaluation unit using an integrated radio module		<b>Package shipment:</b> The time required for internal shipping preparations is shown in days in the pictogram
		<b>Pallet shipment:</b> The time required for internal shipping preparations is shown in days in the pictogram

\*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 best-equipped 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

## Your KERN specialist dealer: