

## IoT-Line Precision platform scale KERN DS



FACE LIFT

EasyTouch



IoT ready



Precision industrial scale with laboratory accuracy, ideal for the various possibilities of Industrie 4.0 applications

### Features

- High-capacity precision balance, ideal for high volume or heavy samples to be weighed with a high degree of accuracy
- User guidance step by step on display by Yes/No dialogue
- Numerical subtraction of tare weight for known container weight. Useful for checking fill-levels
- Precise counting: The automatic reference weight optimisation of reference weight gradually improves the average piece weight value
- Freely programmable weighing unit, e.g. display direct in special units such as length of wire g/m, surface weight g/m<sup>2</sup>, or else
- 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 outlay, for details see page 8/9

- KERN Communication Protocol (KCP): The KCP permits searching and remote control of the balance using external control devices or computers
- Standardised, simplified concept of operation
- Protective working cover included with delivery

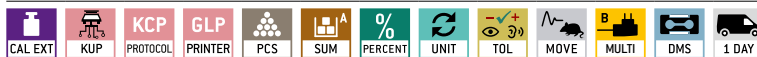
### Technical data

- Large backlit LCD display, digit height 21 mm
- Weighing plate dimensions, stainless steel
  - A W×D×H 228×228×95 mm
  - B W×D×H 308×318×75 mm
  - C W×D×H 500×400×125 mm, see larger picture
- Dimensions of display device W×D×H 225×115×60 mm
- Permissible ambient temperature -10 °C/40 °C

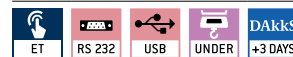
### Accessories

- Protective working cover over the display device, scope of delivery: 5 items, KERN DE-A12S05
- 1 Stand to elevate display device, height of stand approx. 480 mm, for models with weighing plate size A, B, KERN DE-A10 for models with weighing plate size C, KERN DS-A03
- Mount to fasten the display device to the platform, for models with weighing plate size B, C, KERN DE-A11N
- Wall mount for display device, KERN DS-A02
- 2 Set for underfloor weighing, consists of platform, bow, hook, only for models with weighing plate B, KERN DS-A01
- External data interface RS-232, Interface cable included, KERN YKUP-01
- External data interface USB, Interface cable included, KERN YKUP-03
- Extension-Box, KERN YKUP-13
- Further details, plenty of further accessories and suitable printers see Accessories

### STANDARD



### OPTION



Model	Weighing capacity [Max]	Readability	Smallest part weight [Normal]	Cable length of display device	Net weight	Resolution	Weighing plate	Option
KERN	kg	[d] g	[g/piece]	m	approx. kg	Points		DAKKS Calibr. Certificate KERN
DS 3K0.01S	3	0,01	0,1	2	4,2	300.000	A	963-127
DS 5K0.05S	5	0,05	0,1	2	4,2	100.000	A	963-127
DS 8K0.05	8	0,05	0,5	2	8	160.000	B	963-128
DS 10K0.1S	10	0,1	1	2	4,2	100.000	A	963-128
DS 16K0.1	16	0,1	1	2	8	160.000	B	963-128
DS 20K0.1	20	0,1	1	2	8	200.000	A	963-128
DS 30K0.1	30	0,1	1	2	8	300.000	B	963-128
DS 30K0.1L	30	0,1	1	0,6	10	300.000	C	963-128
DS 36K0.2	36	0,2	1	0,6	10	180.000	B	963-128
DS 36K0.2L	36	0,2	1	0,6	10	180.000	C	963-128
DS 60K0.2	60	0,2	2	0,6	10	300.000	C	963-129
DS 65K0.5	60	0,2	2	0,6	10	300.000	C	963-129
DS 100K0.5	100	0,5	5	0,6	10	200.000	C	963-129
DS 150K1	150	1	10	0,6	10	150.000	C	963-129



### 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.



### KERN Universal Port (KUP):

allows the connection of external KUP 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



### RS-485 data interface:

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



### Bluetooth\* data interface:

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



### WiFi 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.



### Analogue interface:

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



### Interface for second balance:

For direct connection of a second balance



### Network interface:

For connecting the scale to an Ethernet network



### KERN Communication Protocol (KCP):

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



### GLP/ISO log:

The balance displays weight, date and time, independent of a printer connection



### GLP/ISO log:

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



### Piece counting:

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



### Recipe level B:

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



### Totalising level A:

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



### Percentage determination:

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



### Weighing units:

Can be switched to e.g. nonmetric 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



### Protection against dust and water splashes IPxx:

The type of protection is shown in the pictogram.



### Suspended weighing:

Load support with hook on the underside of the balance



### Battery operation:

Ready for battery operation. The battery 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. 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:

The time required for verification is specified in the pictogram



### DAkkS calibration possible (DKD):

The time required for DAkkS calibration is shown in days in the pictogram



### Factory calibration (ISO):

The time required for Factory calibration is shown in days in the pictogram



### Package shipment:

The time required for internal shipping preparations is shown in days in the pictogram



### Pallet shipment:

The time required for internal shipping preparations is shown in days in the pictogram



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