IoT-Line Precision Platform Scale KERN DS

Easy Touch

IoT ready

Precision industrial scale with laboratory accuracy, ideal for the diverse possibilities of Industry 4.0 applications

Features

- High-capacity precision balance, ideal for high volume or heavy samples to be weighed with a high degree of accuracy
- 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/m², or else
- KERN Universal Port (KUP): permits the connection of an external KUP interface adapter, such as, for example, RS-232, USB, Bluetooth, WiFi or Ethernet, for the exchange of data and control commands, without any installation outlay
- KERN Communication Protocol (KCP): The KCP permits searching and remote control of the balance using external control devices or computers
- 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 230×230×103 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

- Internal rechargeable battery pack, operating time up to 24 h with backlight, charging time approx. 8 h, KERN YKR-01
- Protective working cover over the display device, scope of delivery: 5 items, KERN DE-A12S05
- 1 Column to screw on to the platform for models with weighing plate size B, C, height of stand approx. 480 mm, KERN DE-A10 for models with weighing plate size C, height of stand approx. 600 mm, KERN DS-A03
- Mount to fasten the display device to the platform, for models with weighing plate size B, C, D, E, 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 KUP-01
- External data interface USB, interface cable included, KERN KUP-03
- External data interface Ethernet, KERN KUP-04
- External data interface WiFi, interface cable included, KERN KUP-05
- Bluetooth interface adapter, KERN KUP-06
- Extension box for connecting up to three interfaces in parallel, KERN KUP-13
- Further details, plenty of further accessories and suitable printers see *Accessories*

STANDARD

| CAL EXT | KUP | PROTOCOL (KCP) | PRINTER (GLP) | PCS | SUM | PERCENT | UNIT | MOVE | MULTI | DMS | 1 DAY |

OPTION

| ET | RS 232 | USB | BT 4.0 | WIFI | LAN | UNDER | ACCU | DAkkS +3 DAYS |

Model KERN	Weighing capacity [Max] kg	Readability [d] g	Smallest part weight (Normal) g/piece	Resolution Points	Cable length approx. m	Net weight approx. kg	Weighing plate	Options DAkkS Calibr. Certificate DAkkS KERN
DS 3K0.01S	3	0,01	0,1	300.000	2	4,2	A	963-127
DS 5K0.05S	5	0,05	0,1	100.000	2	4,2	A	963-127
DS 8K0.05	8	0,05	0,5	160.000	2	8	B	963-128
DS 10K0.1S	10	0,1	1	100.000	2	4,2	A	963-128
DS 16K0.1	16	0,1	1	160.000	2	8	B	963-128
DS 20K0.1	20	0,1	1	200.000	2	8	B	963-128
DS 30K0.1	30	0,1	1	300.000	2	8	B	963-128
DS 30K0.1L	30	0,1	1	300.000	0,6	19	C	963-128
DS 36K0.2	36	0,2	1	180.000	0,6	10	B	963-128
DS 36K0.2L	36	0,2	1	180.000	0,6	19	C	963-128
DS 60K0.2	60	0,2	2	300.000	0,6	19	C	963-129
DS 65K0.5	65	0,5	2	130.000	0,6	19	C	963-129
DS 100K0.5	100	0,5	5	200.000	0,6	19	C	963-129
DS 150K1	150	1	10	150.000	0,6	19	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

EasyTouch
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, WIFI, Analogue, Ethernet etc. for the exchange of data and control commands, without installation effort

RS-232 Data interface
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 intern
The balance displays weight, date and time, independent of a printer connection

GLP/ISO log Printer
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, US
C) EU, CH, GB, US, 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

Conformity Assessment
The time required for conformity assessment 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