IoT-Line Counting Scale KERN CDS

Easy to use industrial counting scale for heavy loads, counting resolution up to 300,000 points, ideal for the diverse possibilities of Industry 4.0 applications

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:
  1 Place the empty container onto the weighing plate and tare by pressing the TARE key
  2 Place the reference quantity for the goods to be counted into the container (5, 10 or 20 pieces)
  3 Confirm the selected reference quantity by pressing the key (5, 10 or 20)
  4 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, 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
- Standardised, simplified concept of operation
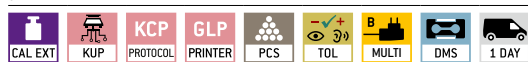- Protective working cover over the display device included with the delivery

Technical data

- 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, see larger picture
  C W×D×H 500×400×125 mm
- 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
- Internal rechargeable battery pack, operating time up to 48 h without backlight, charging time approx. 8 h, KERN YKR-01
- Mount to fasten the display device to the platform, for models with weighing plate size **B**, **C**, KERN DE-A11N
- **5** Stand to elevate display device
  Models with weighing plate size **B**: Height of stand approx. 480 mm, KERN DE-A10
  Models with weighing plate size **C**: Height of stand approx. 600 mm, KERN DS-A03
- **6** 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	KCP PROTOCOL	GLP PRINTER	PCS	TOL	B MULTI	DMS	1 DAY

OPTION

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

Model KERN	Weighing capacity [Max] kg	Readability [d] g	Smallest part weight (Normal) g/piece	Counting resolution Points	Net weight approx. kg	Cable length approx. m	Weighing plate	Options DAkkS Calibr. Certificate DAkkS KERN
CDS 4K0.02	4	0,02	0,2	200.000	8	2	A	963–127
CDS 15K0.05	15	0,05	0,5	300.000	8	2	B	963–128
CDS 16K0.1	16	0,1	1	160.000	8	2	B	963–128
CDS 30K0.1	30	0,1	1	300.000	8	2	B	963–128
CDS 30K0.1L	30	0,1	1	300.000	19	0,6	C	963–128
CDS 36K0.2L	36	0,2	2	180.000	19	0,6	C	963–128
CDS 60K0.2	60	0,2	2	300.000	19	0,6	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