IoT-Line Display Device KERN KFC-TM









- · Simplified battery replacement through easilyaccessible housing. Particularly advantageous for models with optional verification, as the verification seal remains intact
- With Real Time Clock as standard: Enables you to log the weighing results with accurate time information. Even if the power supply is interrupted, the balance can continue to work with the correct time

#### Accessories

- · Stand to elevate display device, height of stand approx. 1040 mm, KERN BFS-A07
- Internal rechargeable battery pack, operating time up to 48 h without backlight, charging time approx. 8 h, KERN YKR-01
- · 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
- · Analogue module, KERN KUP-08
- · \*Extension box for connecting up to three interfaces in parallel, KERN KUP-13
- Memory module (alibi memory), KERN YMM-04
- · Signal lamp for visual support of weighing with tolerance range, connection is only possible in combination with KUP-01 (RS 232 interface), KERN CFS-A03

# Display device with up to three interfaces and optional verification

#### **Features**

- · Standardised, convenient KERN concept of operation, consistency across products in terms of design, menu structure, button functions, interface connection and interface protocol
- · Industry 4.0: Data and control commands can be exchanged through the KERN Universal Port using one interface, which can be connected to the housing, or through three parallel interfaces using the KUP Extension box
- The following interfaces are available as an option: RS-232, USB, Analogue module, Ethernet, WiFi, Bluetooth

- · Each interface can be set up separately, e.g.:
- Interface 1 (WiFi): Continuous sending to PC for documentation of a process
- Interface 2 (RS 232): Print stable weight
- Interface 3 (analogue module): Controlling a device when the target weight is reached
- · Available as an option with alibi memory for paperless archiving of weighing results. This also means the results of weighings with mandatory verification can be electronically evaluated and processed further
- Data query and remote control of the balance using a computer or CRM/ERP systems using the KERN Communication Protocol







































## **Features**

#### Model KERN KFC-TM Display (segments) 6 EU type approval yes 3.000 / 2 × 3.000 Resolution (verifiable) 100 - 999.999 Resolution (non verifiable) Weighing capacities single-range / 2 × multi-range / 2 × multi-division kg, g, lb, ffa, PCS, % | Verifiable: kg, g Weighing units Piece counting with reference 5, 10, 20, 50, n 50 mm Display, digit height 87 - 1100 Ω Strain gauge load cells Linearisation (points) 2/3/5 Input voltage 110 V - 240 V AC Accu operation time - without backlight 48 h Accu charging time Dimensions Housing W×D×H 220×145×65 mm Net weight -10°C/40°C Permissible ambient temperature











# 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 vlagus

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

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