







- Industrial counting scale with convenient decimal keypad for easy data entry - now also with EC type approval [M], counting resolution up to 75000 points
- **Features**
- · Tough industry standard suitable for use in harsh industrial applications
- Ergonomic display device with large keypad and high-contrast LCD display for easy entry and reading of, e.g., tare weights, reference weights, limit values etc.
- Three displays for weight display, reference weight, total pieces
- 100 item memories for master data such as reference weight, reference quantity, container weight (PRE-TARE) etc.
- · Printout of date and time for GLP and GMP compliant data logging

- Precise counting: The manual reference weight optimisation gradually improves the average value of the piece weight
- · Totalising of pieces when counting
- · Protective working cover included with delivery

# Technical data

- · Large backlit LCD displays, digit height 16,5 mm
- · Dimensions weighing surface, Stainless Steel
  - A 230×230×110 mm
  - **B** 300×240×110 mm **□** 400×300×120 mm

  - D 500×400×140 mm ■ 650×500×140 mm
- OPTION FACTORY

- · Dimensions of display device W×D×H 260×150×65 mm
- · Cable length of display device approx. 3 m
- Permissible ambient temperature -10 °C/40 °C

### **Accessories**

KERN IFB-A02

- · Protective working cover, scope of delivery: 5 items, KERN KFB-A02S05
- 11 Stand to elevate display device Height of stand approx. 330 mm, KERN IFB-A01 Height of stand approx. 600 mm, for models with weighing plate size D, E,
- · Internal rechargable battery pack, operating time up to 40 h, without backlight, charging time approx. 12 h, must be ordered at purchase, KERN KFB-A01
- · ESD drain to protect against electrostatic discharge e.g. for electrostatically-charged weighing objects or people who work with the scale, KERN YGR-01
- Further details, plenty of further accessories and suitable printers see Accessories

# STANDARD





































Weighing Model Readability Verification Smallest part Counting Net weight Weighing Option value resolution Verification **DAkkS Calibr. Certificate** capacity weight [Max] [e] [Normal] approx. MIII **DAkkS KERN** g/piece **Points** kg g kg g KERN **KERN** Dual-range balance switches automatically to the next largest weighing capacity [Max] and readibility [d] IFS 6K-4S 3 | 6 0,1 | 0,2 60.000 963-128 4,6 IFS 10K-4 6 | 15 2 75.000 В 963-128 0,1 | 0,2 IFS 30K0.2DL 12 | 30 5 60.000 11 963-128  $0,2 \mid 0,5$ C IFS 60K0.5D 30 I 60 0.5 I 1 10 60.000 10 С 963-129 IFS 60K0.5DL 30 | 60 0,5 | 1 10 60.000 12 D 963-129 75 | 150 IFS 100K-3 25 60.000 12 D 963-129 1 | 2 IFS 100K-3L 75 | 150 25 60.000 20 E 963-129 IFS 300K-3 150 | 300 2 | 5 50 60.000 Е 963-129 Note: For applications that require verification, please order verification at the same time, initial verification at a later date is not possible.

Verification at the factory, we need to know the full address of the location of use IFS 6K-3SM 965-228 3 | 6 1 | 2 1 | 2 60.000 Α 963-128 IFS 6K-3M 3 | 6 1 | 2 1 | 2 60.000 В 965-228 963-128 IFS 10K-3M 6 | 15 2 | 5 2 | 5 2 75.000 6 В 965-228 963-128 IFS 10K-3LM 6 | 15 2 | 5 2 | 5 2 75.000 10 965-228 963-128 IFS 30K-3M C 965-228 963-128 15 | 30 5 | 10 5 I 10 5 60.000 10 IFS 60K-2M 10 | 20 10 | 20 10 965-229 30 | 60 60.000 11 963-129 IFS 60K-2LM 10 60.000 13 965-229 963-129 30 | 60 10 | 20 10 | 20 IFS 100K-2M 60 | 150 20 | 50 25 60.000 12 D 965-229 963-129 20 | 50 60 | 150 20 | 50 20 | 50 25 60.000 22 965-229 963-129 IFS 100K-2LM Е IFS 300K-2M 150 | 300 50 | 100 50 | 100 50 60.000 22 Ε 965-229 963-129

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# **Pictograms**



### 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, tablet or smartphone.



### 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



### 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 serial number, user ID, weight, date and time, regardless of a printer



# 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 at the touch of a key. 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

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### 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 mains adapter:

with universal input and optional input socket adapters for A) EU, CH, GB; B) EU, CH, GB, USA; C) EU, CH, GB, USA, AUS



#### Mains adapter:

230V/50Hz in standard version for EU, CH. On request GB, USA or AUS version available



### Power supply:

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

# 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

The KERN DAkkS calibration laboratory today is one of the most modern and bestequipped DAkkS calibration laboratories for balances, test weights and force-measure-

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, EN, FR, IT, ES, NL, PL
- $\bullet$  Conformity evaluation and reverification of balances and test weights

# Your KERN specialist dealer:

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