

We will help to combine industrial production with the latest information and communication technology, with the aim of improving quality, reducing costs and using time and resources more efficiently so that you are able to react to future requirements in a more flexible manner. You will benefit from our uniform data protocol combined with our BalanceConnection 4.0 data software, for details please see page 156.



Note: To connect to your network, you will need information from your network administrator. We recommend discussing connecting your device into your network with the administrator before you place your order.

If you order a KERN balance at the same time, then the interface cable is **free of charge** (please specify balance model).

KERN YKI-01

RS-232 / Ethernet adapter

Adapter to connect balances, force measuring devices etc. with an RS-232 interface 2 to an IP-based Ethernet network 11. The adapter allows direct integration of measuring devices into most company networks, with automatic configuration using DHCP or statistical IP allocation. You can access the current measuring data at any time from within the whole network, without having to use additional cables. The adapter supports a wide range of configurational options using the enclosed administration software or by the web interface. The driver delivered with the goods allows you to access the measuring device with existing, non-network-compatible applications using a virtual COM port. Compatible with KERN BalanceConnection software. DIN track mount 3 or free-standing.

Scope of delivery: RS-232 Ethernet adapter with 1x Port RS-232 **1**, mains adapter **4**, CD (driver, software, operating instructions), adhesive feet, (interface cable see page 155).

KERN YKI-01







Note: To connect to your network, you will need information from your network administrator. We recommend discussing connecting your device into your network with the administrator before you place your order. If you order a KERN balance at the same time, then the interface cable is free of charge (please specify balance model).



RS-232/Bluetooth-Adapter

dapter for the wireless connection of balances, force measuring devices etc. with an RS-232 interface to Bluetooth devices, such as Bluetooth printers (e.g. KERN YKC-01), tablets, laptops, Smartphones etc. In this way, where there is a physical separation or a large distance between the devices, the weighing data from one or several balances can be easily sent without cable and printed on a Bluetooth printer or transferred to a Bluetooth device (you would need the relevant software on the Bluetooth device, not included with the delivery). The compact adapter with its attractive design can usually be connected directly to the balance 1, e.g. an additional interface cable would not be necessary.

Bluetooth adapter will be powered by the balance (if compatible) or with the mains adapter which is supplied as standard 2. Range up to 100 m outside, depending on obstacles, such as, walls, the sensitivity and type of antenna of the receiver. Intersections of sending and receiving lines using the DCE/ DTE switch 3. Compatible with KERN BalanceConnection software.

Scope of delivery: RS-232/Bluetooth adapter, mains adapter (EU/UK/USA/AUS/CH) 2, USB-A to Mini-USB-B cable ■, gender changer **5**, driver CD, (interface cable see page 155).

KERN YKI-02



KERN YKI-03

RS-232/WLAN-Adapter

High-quality adapter for the wireless connection of balances, force measuring devices etc. with RS-232 interface to WLAN-enabled devices, such as tablets, laptops, Smartphones etc. In this way, where there is a physical separation or a large distance between the devices, the weighing data from one or several balances can be easily transferred without cable to a WLAN device or a network (relevant software on the WLAN device needed, not included in delivery). The adapter allows direct integration of measurement devices into most company networks, with automatic configuration using DHCP or statistical IP allocation. You can access the current measuring data at any time from within the whole network, without having to use additional cables. The adapter supports a wide range of configurational options using the enclosed administration software or by the web interface. The driver delivered with the goods allows you to access the measurement device with existing, non-network-compatible applications using a virtual COM port.

Compatible with KERN BalanceConnection **Software.** The adapter also has an Ethernet interface for a wired connection to an IP-based Ethernet network

. Thanks to the screw terminals 2, the power connection can be implemented individually using individual wires or using the robust, screw-in power connector 3. Large input voltage range from 12 V-48 V. Suitable for wall mounting and DIN track mount 4 or free-standing.

Scope of delivery: RS-232/WLAN adapter, mains adapter, network cable (1 m), driver CD, (interface cable see page 155).

KERN YKI-03

KERN 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



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



WLAN 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.



Interface for second balance: For direct connection of a second balance



IAN

Network interface: For connecting the scale to an Ethernet network



Wireless data transfer: between the weighing unit and the evaluation unit using an integrated radio module



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 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



Recipe level C: Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display, multiplier function, adjustment of recipe when dosages are exceeded or barcode recognition



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



UNIT

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



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.



Stainless steel: The balance is protected against corrosion



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, GB B) EU, GB, CH, USA C) EU, GB, CH, USA, AUS



Mains adapter: 230V/50Hz in standard version for EU. 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



DMS

Weighing principle: Strain gauges Electrical resistor on an elastic deforming body



Weighing principle: Tuning fork A resonating body is electromagnetically excited, causing it



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



+3 DAYS

DAkkS calibration possible (DKD): The time required for DAkkS 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 balance calibration.

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

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, GB, FR, IT, ES, NL, PL
- Conformity evaluation and reverification of balances and test weights

Your KERN specialist dealer:

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