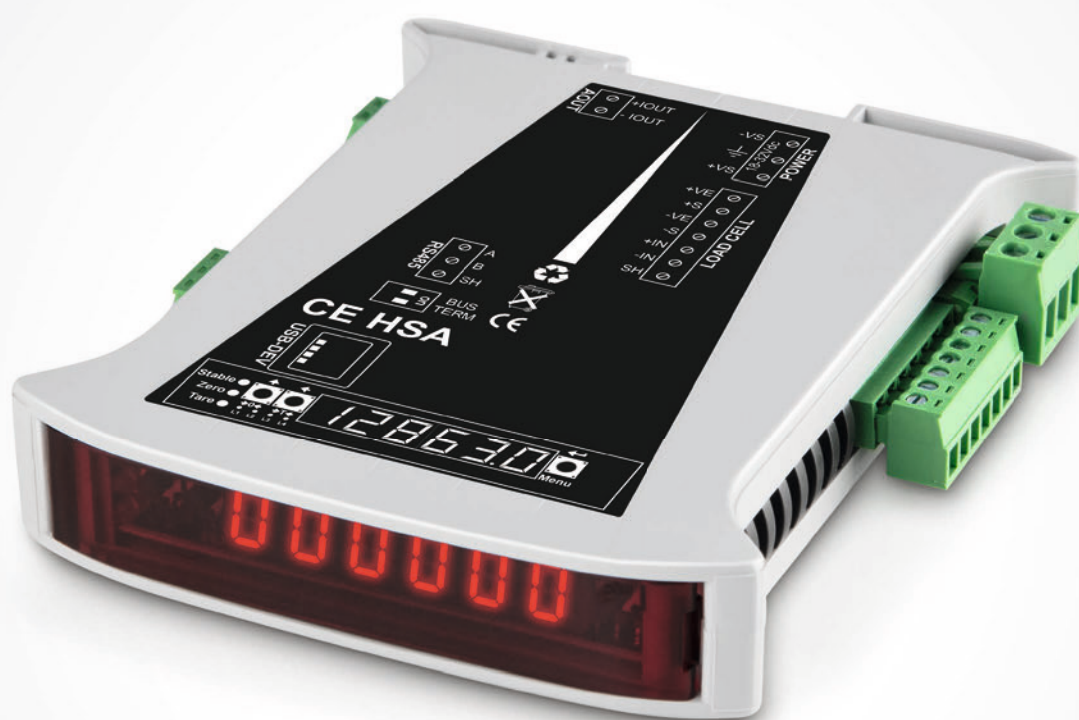


SYSTEM SOLUTIONS INDUSTRY 4.0, DISPLAY DEVICES

Industry | Laboratory | Quality Assurance



SAUTER Pictograms

 Adjusting program (CAL) For quick setting of the instrument's accuracy. External adjusting weight required	 Data interface USB To connect the measuring instrument to a printer, PC or other peripheral devices	 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	 Motorised drive The mechanical movement is carried out by an electric motor
 Calibration block Standard for adjusting or correcting the measuring device	 Bluetooth* data interface To transfer data from the balance/measuring instrument to a printer, PC or other peripherals		 Motorised drive The mechanical movement is carried out by a synchronous motor (stepper)
 Peak hold function Capturing a peak value within a measuring process	 WIFI data interface To transfer data from the balance/measuring instrument to a printer, PC or other peripherals	 GLP/ISO record keeping of measurement data with date, time and serial number. Only with SAUTER printers	 Fast-Move The total length of travel can be covered by a single lever movement
 Scan mode Continuous capture and display of measurements	 Data interface infrared To transfer data from the measuring instrument to a printer, PC or other peripheral devices	 Measuring units Weighing units can be switched to e.g. non-metric. Please refer to website for more details	 Conformity assessment Models with type approval for construction of verifiable systems
 Push and Pull The measuring device can capture tension and compression forces	 Control outputs (optocoupler, digital I/O) To connect relays, signal lamps, valves, etc.	 Measuring with tolerance range (limit-setting function) Upper and lower limiting can be programmed individually. The process is supported by an audible or visual signal, see the relevant model	 DAKkS calibration possible The time required for DAKkS calibration is shown in days in the pictogram
 Length measurement Captures the geometric dimensions of a test object or the movement during a test process	 Analogue interface To connect a suitable peripheral device for analogue processing of the measurements	 Protection against dust and water splashes IPxx The type of protection is shown in the pictogram cf. DIN EN 60529:2000-09, IEC 60529:1989 +A1:1999+A2:2013	 Factory calibration (ISO) The time required for factory calibration is specified in the pictogram
 Focus function Increases the measuring accuracy of a device within a defined measuring range	 Analogue output For output of an electrical signal depending on the load (e.g. voltage 0 V – 10 V or current 4 mA – 20 mA)	 Battery operation Ready for battery operation. The battery type is specified for each device.	 Package shipment The time required for internal shipping preparations is shown in days in the pictogram
 Internal memory To save measurements in the device memory	 Statistics Using the saved values, the device calculates statistical data, such as average value, standard deviation etc.	 ZERO Resets the display to “0”	 Pallet shipment The time required for internal shipping preparations is shown in days in the pictogram
 Data interface RS-232 Bidirectional, for connection of printer and PC	 PC Software To transfer the measurement data from the device to a PC	 Rechargeable battery pack Rechargeable set	
 Profibus For transmitting data, e.g. between scales, measuring cells, controllers and peripheral devices over long distances. Suitable for safe, fast, fault-tolerant data transmission. Less susceptible to magnetic interference	 Printer A printer can be connected to the device to print out the measurement data	 Integrated power supply unit Integrated, 230V/50Hz in EU. More standards e.g. GB, AUS or US on request	
 Profinet Enables efficient data exchange between decentralised peripheral devices (balances, measuring cells, measuring instruments etc.) and a control unit (controller). Especially advantageous when exchanging complex measured values, device, diagnostic and process information. Savings potential through shorter commissioning times and device integration possible	 Network interface For connecting the scale/measuring instrument to an Ethernet network		

*The *Bluetooth®* word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by KERN & SOHN GmbH is under license. Other trademarks and trade names are those of their respective owners.

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SAUTER Hotlines



Technical questions about our products?

You will find assistance here quickly: +49 7433 9933- ...

Service Hotline

for general technical questions about your SAUTER product

→ 199

SAUTER Measuring Instruments

for all technical questions concerning our SAUTER measuring instruments, test benches, force measuring accessories (clamps etc.), SAUTER software

→ 555

Industrial Scales

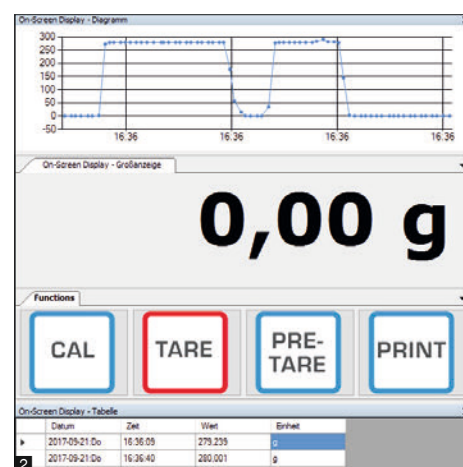
for all technical questions concerning our basic scales (laboratory & industry), pocket balances, school balances, bench scales, price-computing scales, platform scales, counting scales, counting systems, floor scales, pallet truck scales, crane scales, veterinary scales

→ 333

System Solutions Industry 4.0

for all technical questions concerning the interlocking of the latest information and communication technology with our scales, load cells and measuring devices as well as questions about KERN software

→ 200



Modern digital weighing transmitter for the rapid recording of weighing data and forwarding it to the most varied output channels such as tablets, networks, SPS controllers, etc. – ideal for operating balances in systems or conveyors

Features

- Simply connect a weighing platform or measuring cell, integrate the digital weighing transmitter into the network and start weighing
- For rapid transfer of weighing data to connected networks, computers, etc.
- USB and RS-232 data interface standard, Power supply via USB interface
- Transfer formats are freely configurable
- Functions: Weighing, taring
- Measuring frequency 10 Hz
- Easy configuration using the software supplied
- Robust plastic die-cast housing
- Suitable for wall mounting and DIN track mount
- Compatible with all KERN weighing platforms
- included with the delivery:
 - Digital weighing transmitter KERN YKV
 - USB cable incl. mains plug
 - DIN rail mounting bracket
 - Configuration software for adjusting and managing, enables the display and transfer of values, for example to a PC as well as conversion for different user programs such as SAP, Oracle etc.

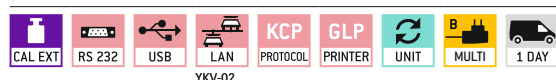
Technical data

- Overall dimensions W×D×H 100×140×36 mm
- Net weight approx. 0,35 kg
- Permissible ambient temperature -10 °C/40 °C

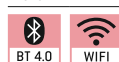
Accessories

- Bluetooth data interface, KERN YKV-A02, **€ 98,-**
- WiFi interface, KERN YKV-A01, **€ 98,-**
- BalanceConnection software for flexible measured value recording or transmission, compatible with Microsoft® Excel, Access and other applications, Scope of supplies: Download link for 1 license, KERN SCD-4.0-DL, **€ 210,-**

STANDARD



FACTORY



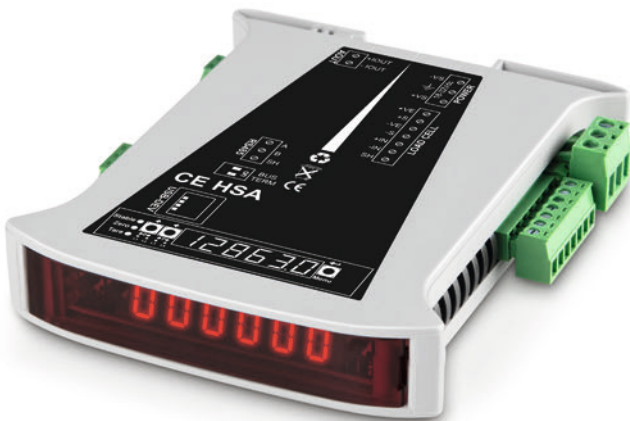
Model

Standard interfaces

Price
excl. of VAT
ex works
€

KERN

YKV-01	RS-232, USB	265,-
YKV-02	RS-232, USB, Ethernet	320,-



Compact display device (rail-mounted module) for installation in switch cabinets

Features

- Compact display unit for recording weighing data using strain gauge load cells
- It is particularly space-saving to install in switch cabinets
- Thanks to the many interface variants, the modules can be ideally integrated into existing infrastructures and systems
- The modules can be used either individually or as a Buslink system with a total of up to 332 DIN rail modules
- Configuration of the module conveniently via a connected PC with the suitable software (Download see *Internet*)
- Bright LED display for optical control and settings
- Time-saving G-Cal™ (Geographic Calibration) technology for fast and accurate calibration without weights conveniently over a network or the Internet worldwide

- Convenient communication via remote devices
- Backup and restore function via USB port
- Can handle various industrial protocols such as Ethernet IP, Modbus TCP, Modbus RTU, FINS, PROFIBUS DP and PROFINET (according to model)
- Extremely high measurement frequency possible, up to 1600 data records/second
- Internal resolution 24 Bit

Technical data

- 7 segment LED display, digit height 7,62 mm
- Dimensions W×D×H 120×101×23 mm
- Power supply 18-32 Vdc; 4 W max.
- Power supply load cell 5 Vdc
- Sensitivity 0,1 µV/d
- Adjustable nominal sensitivity 1; 1.5; 2; 2.5; 3 mV/V
- Input voltage unipolar @3mV/V: -1 mV to + 16 mV
- Input voltage bipolar @3mV/V: -16 mV to +16 mV

- Max. load cell impedance 1200 Ω
- Min. load cell impedance 43,75 Ω
- Max. no. of load cells 350 Ω: 8
- Max. no. of load cells 1000 Ω: 22
- Max. resolution d 10.000
- Display steps 1, 2, 5, 10, 20, 50, 100, 200
- Permissible ambient temperature -10 °C/40 °C

Accessories

- Mains adapter for voltage supply to the KERN CE, can be fitted on the DIN rail, KERN CE HSS, **€ 90,-**
- Large display with superior display size, KERN YKD-A02, **€ 310,-**
- For further accessories, such as load and load cells, torque sensors and weighing platforms (strain gauge based only) from the SAUTER and KERN range, see *internet*
- Further accessories such as DIN rail, housing as well as individual assembly, configuration, adjustment, etc. on request

Note: Models optionally also available verified, please enquire

STANDARD

CAL EXT

USB

UNIT

1 DAY

OPTION

RS 232

PROFIBUS

PROFINET

SWITCH

D/A

ANALOG

LAN

Model	Communication Interfaces	Digital I/O	Analog output	Price excl. of VAT ex works €
SAUTER				
CE HSAIO*	USB	3 input / 4 output	0/4-20/24 mA	920,-
CE HSP*	USB, PROFIBUS	3 input / 4 output	-	590,-
CE HSR*	USB, RS-232, RS-422	3 input / 4 output	-	560,-
CE HSN	USB, PROFINET	3 input / 4 output	-	830,-

* ONLY WHILE STOCKS LAST



Analogue weighing transmitter to amplify the DMS signal with current or voltage output (depending on model)

Features

- Output signal voltage or current
- Suitable for transfer to SPS, analogue measuring card etc.
- Integrated overvoltage protection
- Polarity reversal protection at the input and protection of the output
- CE WT1-Y4 and CE WT2-Y4: up to 4 sensors connectable without junction box
- Scope of delivery: weighing transmitter, connection plug for sensor, cable incl. plug for output signal and power supply
- 12V DC or 24V DC voltage source (depending on model) required (e.g. for 24V voltage source CE is HSS compatible)
- Compatible with all analogue SAUTER load cells and analogue KERN weighing platforms

Technical data

- Measuring range 0 - 20 mV
- Accuracy: $\leq \pm 0.1 \%$ F.S.
- Ambient temperature: -20 to +85 °C
- Overall dimensions WxDxH
CE WTY1: 110x45x32 mm, see larger picture
1 CE WTY2: 110x45x32 mm
2 CE WTY4: 110x45x32 mm

Accessories

- Mains adapter for power supply of the KERN CE (only for models with 24 V), KERN CE HSS, € 90,-

STANDARD

CAL EXT

D/A

IP 54

IP 65

1 DAY

Y1

Y2/Y4

Model	Sensor connections	Supply voltage	Output signal	Housing	Class of protection	Net weight approx. kg	Price excl. of VAT ex works €
SAUTER							
CE WT1-Y1	1	12V	analogue (4 - 20 mA)	Steel plate	IP54	0,25	175,-
CE WT2-Y1	1	24V	analogue (4 - 20 mA)	Steel plate	IP54	0,25	175,-
CE WT3-Y1	1	12V	analogue (0 +/-5V)	Steel plate	IP54	0,25	175,-
CE WT4-Y1	1	24V	analogue (0 +/-5V)	Steel plate	IP54	0,25	175,-
CE WT1-Y2	1	12V	analogue (4 - 20 mA)	Aluminium	IP65	0,50	270,-
CE WT2-Y2	1	24V	analogue (4 - 20 mA)	Aluminium	IP65	0,50	270,-
CE WT1-Y4	4	12V	analogue (4 - 20 mA)	Aluminium	IP65	0,85	350,-
CE WT2-Y4	4	24V	analogue (4 - 20 mA)	Aluminium	IP65	0,85	350,-

1 ONLY WHILE STOCKS LAST

The oldest Precision Balance Factory in Germany

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- Operating Instructions
- Descriptive Image and Video Material
- Useful KERN Services
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