

## Display Devices (Rail-Mounted Module) KERN CE HSx



KERN CE HSA



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

### Features

- Compact display unit for recording weighing data using strain gauge load cells, e.g. in industrial applications
- Due to its small size, 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
- The configuration of the module can be carried out 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/s
- Internal resolution 24 Bit

### Technical data

- 7 segment LED display, digit height 7,62 mm
- Dimensions W×D×H 120×101×23 mm
- Permissible ambient temperature -10 °C / 40 °C
- 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

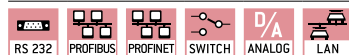
### Accessories

- Mains adapter for voltage supply to the KERN CE, can be fitted on the DIN rail, KERN CE HSS
- Large display with superior display size, KERN YKD-A02
- 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

### STANDARD



### OPTION



**Note:** Models optionally also available verified, please enquire

Model	Communication Interfaces	Digital I/O	Analogue output
<b>KERN</b>			
CE HSA*	USB	-	0/4-20/24 mA
CE HSAIO*	USB	3 input/4 output	0/4-20/24 mA
CE HSE*	USB, Ethernet	3 input/4 output	-
CE HSP*	USB, PROFIBUS	3 input/4 output	-
CE HSR*	USB, RS-232, RS-422	3 input/4 output	-
CE HSN	USB, PROFIBUS	3 input/4 output	-

■ \* ONLY WHILE STOCKS LAST

**CAL EXT**  
**Adjusting program (CAL)**  
 For quick setting of the instrument's accuracy. External adjusting weight required

**CAL BLOCK**  
**Calibration block**  
 Standard for adjusting or correcting the measuring device

**PEAK**  
**Peak hold function**  
 Capturing a peak value within a measuring process

**SCAN**  
**Scan mode**  
 Continuous capture and display of measurements

**PUSH/PULL**  
**Push and Pull**  
 The measuring device can capture tension and compression forces

**SCALE**  
**Length measurement**  
 Captures the geometric dimensions of a test object or the movement during a test process

**FOCUS**  
**Focus function**  
 Increases the measuring accuracy of a device within a defined measuring range

**MEMORY**  
**Internal memory**  
 To save measurements in the device memory

**RS 232**  
**Data interface RS-232**  
 Bidirectional, for connection of printer and PC

**PROFIBUS**  
**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

**PROFINET**  
**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

**USB**  
**Data interface USB**  
 To connect the measuring instrument to a printer, PC or other peripheral devices

**BT**  
**Bluetooth\* data interface**  
 To transfer data from the balance/measuring instrument to a printer, PC or other peripherals

**WIFI**  
**WIFI data interface**  
 To transfer data from the balance/measuring instrument to a printer, PC or other peripherals

**IR**  
**Data interface infrared**  
 To transfer data from the measuring instrument to a printer, PC or other peripheral devices

**SWITCH**  
**Control outputs (optocoupler, digital I/O)**  
 To connect relays, signal lamps, valves, etc.

**ANALOG**  
**Analogue interface**  
 To connect a suitable peripheral device for analogue processing of the measurements

**DUAL**  
**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)

**LAN**  
**Statistics**  
 Using the saved values, the device calculates statistical data, such as average value, standard deviation etc.

**SOFTWARE**  
**PC Software**  
 To transfer the measurement data from the device to a PC

**PRINT**  
**Printer**  
 A printer can be connected to the device to print out the measurement data

**LAN**  
**Network interface**  
 For connecting the scale/measuring instrument to an Ethernet network

**KCP PROTOCOL**  
**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 PRINTER**  
**GLP/ISO record keeping**  
 of measurement data with date, time and serial number. Only with SAUTER printers

**UNIT**  
**Measuring units**  
 Weighing units can be switched to e.g. non-metric. Please refer to website for more details

**TOL**  
**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

**IP**  
**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

**ZERO**  
**ZERO**  
 Resets the display to "0"

**BATT**  
**Battery operation**  
 Ready for battery operation. The battery type is specified for each device

**ACCU**  
**Rechargeable battery pack**  
 Rechargeable set

**230 V**  
**Plug-in power supply**  
 230V/50Hz in standard version for EU. On request GB, AUS or US version available

**230 V**  
**Integrated power supply unit**  
 Integrated, 230V/50Hz in EU. More standards e.g. GB, AUS or US on request

**ELECTRO**  
**Motorised drive**  
 The mechanical movement is carried out by an electric motor

**STEPPER**  
**Motorised drive**  
 The mechanical movement is carried out by a synchronous motor (stepper)

**FAST-MOVE**  
**Fast-Move**  
 The total length of travel can be covered by a single lever movement

**M**  
**Conformity assessment**  
 Models with type approval for construction of verifiable systems

**DAkkS +3 DAYS**  
**DAkkS calibration possible**  
 The time required for DAkkS calibration is shown in days in the pictogram

**ISO +4 DAYS**  
**Factory calibration (ISO)**  
 The time required for factory calibration is specified in the pictogram

**1 DAY**  
**Package shipment**  
 The time required for internal shipping preparations is shown in days in the pictogram

**2 DAYS**  
**Pallet shipment**  
 The time required for internal shipping preparations is shown in days in the pictogram

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