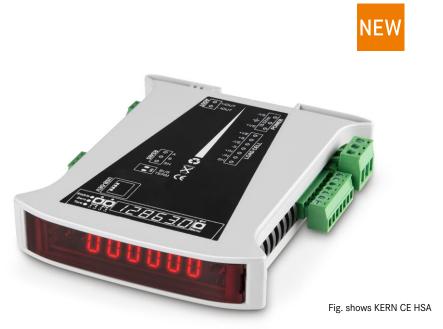
KERN BALANCES & TEST SERVICES CATALOGUE 2020



Display device (rail-mounted module) KERN CE Hx











Super 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
- A 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 supplied software
- 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 and Profibus DP

- Extremely high measurement frequency possible, up to 1600 data records/s
- Internal resolution 24 Bit

Technical Data

- · LCD display, digit height 7,6 mm
- Dimensions W×D×H 101×120×22,5 mm
- Permissible ambient temperature -10 °C/40°C

Accessories

 Mains adapter for power supply of the KERN CE HS, mountable on DIN rail, KERN CE HSS

5 Vd 0,1 µ mV/V 1; 1. V -1 m	2 Vdc; 4 W max. c iV/d 5; 2; 2.5; 3 mV/V V to +16 mV	CE HSP 18-32 Vdc; 4 W max. 5 Vdc 0,1 μV/d 1; 1.5; 2; 2.5; 3 mV/V -1 mV to +16 mV -16 mV to +16 mV	CE HSR 18-32 Vdc; 4 W max. 5 Vdc 0,1 μV/d 1; 1.5; 2; 2.5; 3 mV/V -1 mV to +16 mV -16 mV to +16 mV
5 Vd 0,1 µ mV/V 1; 1. V -1 m nV -16 r	c iV/d 5; 2; 2.5; 3 mV/V V to +16 mV nV to +16 mV	5 Vdc 0,1 μV/d 1; 1.5; 2; 2.5; 3 mV/V -1 mV to +16 mV	5 Vdc 0,1 μV/d 1; 1.5; 2; 2.5; 3 mV/V -1 mV to +16 mV
0,1 µ mV/V 1; 1. V -1 m	NV/d 5; 2; 2.5; 3 mV/V V to +16 mV mV to +16 mV	0,1 µV/d 1; 1.5; 2; 2.5; 3 mV/V -1 mV to +16 mV	0,1 µV/d 1; 1.5; 2; 2.5; 3 mV/V -1 mV to +16 mV
mV/V 1; 1. V -1 m mV -16 r	5; 2; 2.5; 3 mV/V V to +16 mV nV to +16 mV	1; 1.5; 2; 2.5; 3 mV/V -1 mV to +16 mV	1; 1.5; 2; 2.5; 3 mV/V -1 mV to +16 mV
V -1 m mV -16 r	V to +16 mV nV to +16 mV	-1 mV to +16 mV	-1 mV to +16 mV
mV -16 r	nV to +16 mV		
		-16 mV to +16 mV	-16 mV to +16 mV
1600)/c		
1000)/s	1600/s	1600/s
1200	Ω	1200Ω	1200Ω
43,7	5 Ω	43,75 Ω	43,75 Ω
8		8	8
22		22	22
10.0	00	10.000	10.000
100,200 1,2,5	5,10,20,50,100,200	1,2,5,10,20,50,100,200	1,2,5,10,20,50,100,200
USB	Ethernet	USB, Profibus	USB, RS232/422
		-	
	<110×22 mm	120×110×22 mm	120×110×22 mm
m 120		150	150
	USB, - m 120>	USB, Ethernet	USB, Ethernet USB, Profibus

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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



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



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.



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



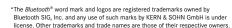
Network interface:

For connecting the scale to an Ethernet network



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



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



MOVE

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, 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:

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

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.

- · 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: