

AXLE LOAD SCALES

2017

PROFESSIONAL
MEASURING



KERN Pictograms

| | | | | | |
|--|---|--|---|--|---|
| | Internal adjusting: Quick setting up of the balance's accuracy with internal adjusting weight (motordriven). | | Piece counting: Reference quantities selectable. Display can be switched from piece to weight. | | Rechargeable battery pack: Rechargeable set. |
| | Adjusting program CAL: For quick setting up of the balance's accuracy. External adjusting weight required. | | Recipe level A: Separate memory for the weight of the tare container and the recipe ingredients (net total). | | 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 |
| | Memory: Balance memory capacity, e.g. for article data, weighing data, tare weights, PLU etc. | | Recipe level B: Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display. | | Mains adapter: 230V/50Hz in standard version for EU. On request GB, USA or AUS version available. |
| | Alibi memory: Electronic archiving of weighing results, complying with the 2009/23/EC standard. For details see page 199 | | 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. | | Power supply: Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, USA or AUS on request. |
| | Data interface RS-232: To connect the balance to a printer, PC or network. | | Totalising level A: The weights of similar items can be added together and the total can be printed out. | | Weighing principle: Strain gauges Electrical resistor on an elastic deforming body. |
| | RS-485 data interface: To connect the balance to a printer, PC or other peripherals. High tolerance against electromagnetic disturbance. | | Percentage determination: Determining the deviation in % from the target value (100 %). | | Weighing principle: Tuning fork A resonating body is electromagnetically excited, causing it to oscillate. |
| | USB data interface: To connect the balance to a printer, PC or other peripherals. | | 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 principle: Electromagnetic force compensation Coil inside a permanent magnet. For the most accurate weighings. |
| | Bluetooth* data interface: To transfer data from the balance to a printer, PC or other peripherals. | | Weighing with tolerance range: Upper and lower limiting values can be programmed individually for e.g. dosing, sorting and portioning | | Weighing principle: Single cell technology Advanced version of the force compensation principle with the highest level of precision. |
| | WLAN data interface: To transfer data from the balance to a printer, PC or other peripherals. | | Hold function: (Animal weighing program) When the weighing conditions are unstable, a stable weight is calculated as an average value. | | Verification possible: The time required for verification is specified in the pictogram. |
| | Control outputs (optocoupler, digital I/O): To connect relays, signal lamps, valves, etc. | | Protection against dust and water splashes IPxx: The type of protection is shown in the pictogram. For details see page 56. | | DAKkS calibration possible (DKD): The time required for DAKkS calibration is shown in days in the pictogram. |
| | Interface for second balance: For direct connection of a second balance. | | ATEX explosion protection: Suitable for use in hazardous industrial environments, in which there is explosion danger. The ATEX marking is specified for each device. | | Package shipment: The time required for internal shipping preparations is shown in days in the pictogram. |
| | Network interface: For connecting the scale to an Ethernet network. With KERN products you can use a universal RS-232/LAN converter. See page 166 | | Stainless steel: The balance is protected against corrosion. | | Pallet shipment: The time required for internal shipping preparations is shown in days in the pictogram. |
| | Wireless data transfer: between the weighing unit and the evaluation unit using an integrated radio module. | | Suspended weighing: Load support with hook on the underside of the balance. | | Warranty: The warranty period is shown in the pictogram. |
| | GLP/ISO log: The balance displays the weight, date and time, regardless of a printer connection. | | Battery operation: Ready for battery operation. The battery type is specified for each device. | | |
| | GLP/ISO log: With weight, date and time. Only with KERN printers, see "Accessories", see page 163. | | | | |



Balances & Test service catalogue

Provides a complete overview of the KERN line of balances, test weights, and services such as verification, calibration, etc.



Medical scales catalogue

Complete line of medical scales, from infant scales to patient scales, chair scales and adiposity scales, as well as hand grip dynamometers, chemist's balances and veterinary scales.



Microscopes & refractometers catalogue

Extensive range in the area of optical instruments, such as, for example, biological microscopes, stereo microscopes, metallurgical microscopes, polarisation microscopes as well as analogue and digital refractometers.



SAUTER measuring equipment catalogue

Test instruments for industry and commerce, such as force, coating thickness, material thickness and calibration service.



DAkkS calibration service brochure

Detailed information on topics pertaining to the calibration and verification of balances, test weights, and force measuring devices.

Your advantages

fast

- 24 hours delivery service – ordered today, on its way tomorrow
- Sales & service hotline available from 8:00 am to 6:00 pm

reliable

- 3 years warranty for balances over € 400,-
- Precision in weighing technology for more than 170 years

competent

- DAkkS accreditation DIN EN ISO/IEC 17025
- Certified QM system DIN EN ISO 9001:2008
- Authorisation for initial verification by the manufacturer 2014/31/EU
- Medical certifications DIN EN ISO 13485 and 93/42/EEC

versatile

- One-stop shopping: from pocket balances through to floor scales – everything from one supplier
- Find the product you want at lightning speed with the “Balance Quick-Finder” at www.kern-sohn.com

 **Order hotline**
+49 [0] 7433 9933-0

 **Service hotline**
+49 [0] 7433 9933-199

 **Calibration hotline**
+49 [0] 7433 9933-196

 **Our team of consultants will assist you**
from Monday to Friday
from 8:00 am to 6:00 pm

 **Online Shop**
www.kern-sohn.com

 **E-mail order**
info@kern-sohn.com

 **Fax order**
+49 [0] 7433 9933-146

 **www.kern-sohn.com**
Information on current product availability, product data sheets, user instructions, useful knowledge, technical glossary, images and much for you to download, practical topic areas, which will guide you to the right product in your industry as well as a clever test weight and balance search engine.

Axle load scales

Over the legal limit!

Axle load or wheel load scales are an ideal weighing solution for mobile weighing of trucks, trailers, small aircrafts etc. on a non-verified basis.

Mobile axle load scales are often used to give indicative measurements, in particular on building sites, during harvest time in the agricultural industry or in the field of traffic monitoring, in order to establish whether vehicles are overloaded or incorrectly loaded. If such measurements will show inconsistencies, a second measurement can be carried out on a verified vehicle scale.

Compared with fixed vehicle scales, axle load scales are usually more affordable. They do not require costly installation and with their compact dimensions and low weight they clearly score highly in terms of mobility.

Using the convenient software in the KERN axle load scales, individual axles can be weighed quickly and easily, one after another. When connected, the various weights at the individual wheels, the weight of the axle or the total weight of the vehicle can be displayed and transferred to the printer.

Thanks to its compact design with a depth of just 50 cm and the equalisation platforms, two axles can be weighed individually, even if they are installed to one another.

Alternatively the innovative design of the weighing pad allows 2 axles to be measured at the same time and the results to be added when these 2 axles are installed right next to each other. This double construction is also recommended for vehicles or trailers with exceptionally large wheels.

The modular construction of the KERN VHP facilitates enable a wide... wide range of different combinations and can therefore be adapted quickly to suit the on-site conditions:



Weighing of trucks, motor homes, trailers etc. for carrying out quick checks of axle weights in any location (Police), to detect and avoid incorrect loading or overloading



Weighing of tractors, trailers, trucks etc. for products and goods control at the point of receipt or dispatch in locations where there is no permanently installed vehicle scale or one is not available for financial reasons



Weighing of airplanes to calculate the loading scheme and determine the centre of gravity, to make sure that the permissible total weight is not exceeded and that the load is correctly distributed



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Quick-Finder Axle load scales

| Read-out | Weighing range | Model | Price excl. of VAT ex works € | Page |  DAYS |  CAL EXT |  IP |  ACCU |
|----------|----------------|------------------|-------------------------------|------|--|--|--|--|
| [d] | [Max] | KERN | | | For an explanation on the pictos, see the front flap | | | |
| 10 kg | 15000 kg | VHP 15T-2 | 5900,- | 130 | 2 | ● | ● | ● |
| 5 kg | 6000 kg | VHP 6T-3 | 5900,- | 130 | 2 | ● | ● | ● |

● = standard ○ = option

PREMIUM
★ ★ ★

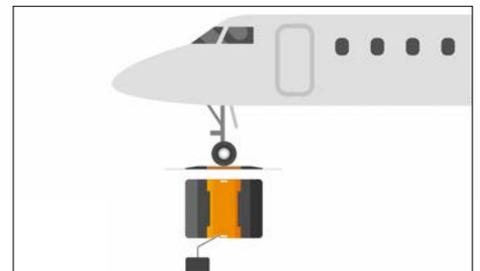
**%
SALE**

~~€ 6890,-~~
**now:
€ 5900,-**



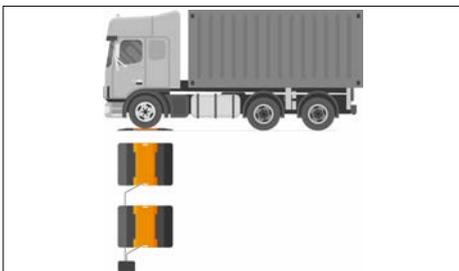
11

Modular axle load scale for the mobile monitoring of vehicles up to 15 tons



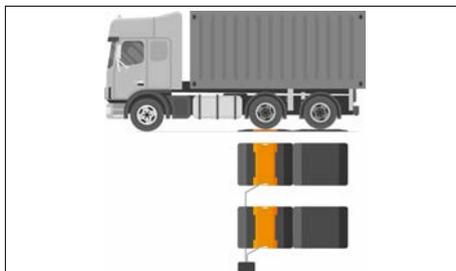
Weighing of airplanes

Order example: 1× display device VHP-T,
1× weighing pad KHP 3000V20LM,
2× ascending ramp VHP-A01



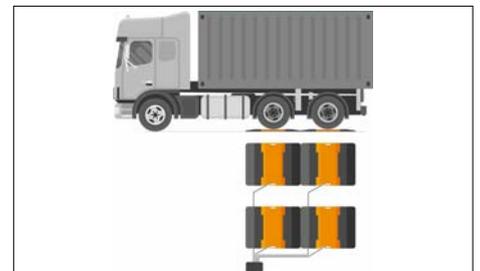
Asynchronous weighing of individual axles

Order example: standard package VHP 6T-3
or VHP 15T-2, see table on the right



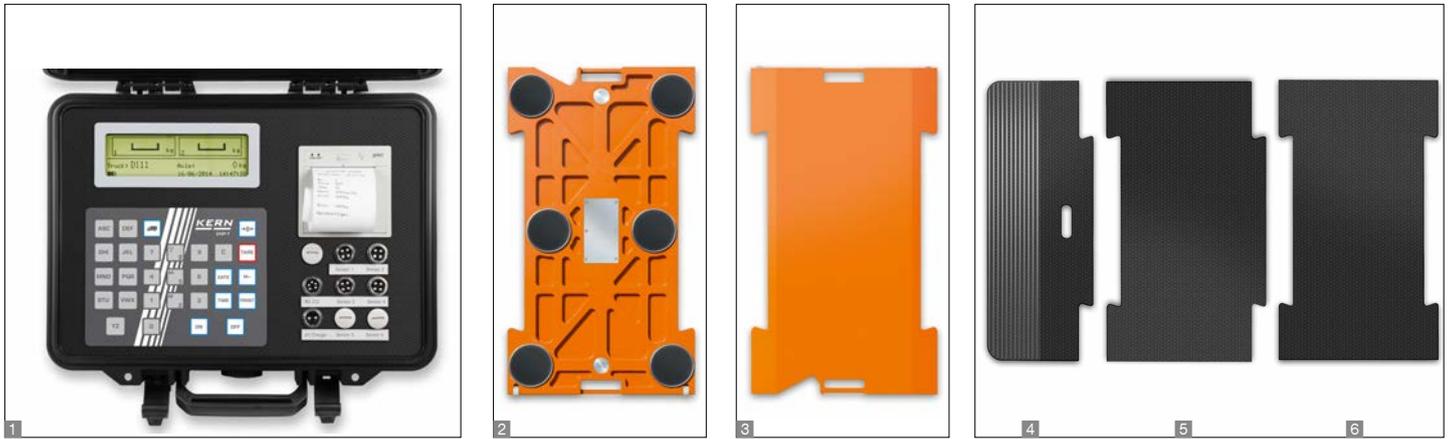
**Asynchronous weighing of double axles
which are installed next to each other,
using compensation pads**

Order example: standard package VHP 6T-3
or VHP 15T-2, see table on the right,
4× ascending ramp VHP-A01,
2× compensation pad VHP-A03



**Simultaneous weighing of double axles,
e.g. of a trailer**

Order example: standard package VHP 15T-2,
see table on the right, 4× ascending ramp
VHP-A01, 2× weighing pad KHP
75000V20LM



Features

- **Mobile axle load scale** for rapid monitoring of vehicles. Space-saving and affordable. Ideal for mobile police or customs checks, on landfill sites, gravel works, biogas plants etc.
- **1 Display device with integrated thermal transfer printer and rechargeable battery pack** in stable, lined transport case standard.
4 quick-release connectors to connect up to 4 weighing pads. The weighing results from the individual weighing pads can be issued individually or cumulatively. Display device can be re-ordered, KERN VHP-T, **€ 1900,-**
- **2 Weighing pad (wheel load plate) extremely resistant to bending because of its high material thickness.**
Particularly flat design, only 35 mm. Brackets for access ramps and spacer plates on both sides, and therefore quickly expendable
- 2 rollers and 2 handles for easy transport of the weighing pad
- 6 load cells, steel, silicone-coated, IP67
- Scope of supply:
- 2 weighing pads (wheel load plates)
- 4 access ramps
- 1 display device in stable transport case

Technical data

- Backlit LCD graphic display, digit height 10 mm
- Weighing plate dimensions, coated metal, WxDxH 900x500x35 mm
- Dimensions of display device WxDxH 370x280x160 mm
- Net weight for each weighing pad approx. 30,2 kg
- Net weight of each access ramp approx. 12 kg
- Net weight display device (case) approx. 9,2 kg
- Rechargeable battery pack internal, operating time up to 13 h without backlight, charging time approx. 12 h
- Cable length of display device approx. 10 m
- Permissible ambient temperature -40 °C/70 °C

Accessories

- **3 Weighing pad to expand the weighing system VHP**, steel, lacquered (orange), 2 rollers and 2 handles, dimensions WxDxH 900x500x35 mm, 1 piece, for model VHP 6T-3: [Max] = 3000 kg, [d] = 5 kg, KERN KHP 3000V20LM, **€ 2650,-**
VHP 15T-2: [Max] = 7500 kg, [d] = 10 kg, KERN KHP 7500V20LM, **€ 2650,-**

- **4 Ascending ramp**, extremely resistant rubber compound, dimensions WxDxH 900x250x35 mm, KERN VHP-A01, **€ 220,-**
- **5 Ramp extension**, extremely resistant rubber compound, dimensions WxDxH 900x545x35 mm, KERN VHP-A02, **€ 330,-**
- **6 Compensation pad**, extremely resistant rubber compound, dimensions WxDxH 900x545x35 mm, KERN VHP-A03, **€ 330,-**
- **Thermal receipt rolls**, 10 pieces, dimensions WxL 57x18000 mm, ø 51 mm, KERN RFS-A10, **€ 40,-**
- **DAkKS calibration certificate** (for both pads), see table. DAkKS calibration certificate for one pad, see page 192, KERN 963-132 respectively 963-133

Note: The standard scope of supplies (see technical data) can be expanded with further weighing pads, ramp extensions and balancing platforms (see accessories) and in this way the system can be adapted to cover a wide range of applications. Do you have any questions or special requests? Your KERN product specialist will be happy to help

STANDARD

CAL EXT UNIT IP 65 ACCU DMS 2 DAYS WARRANTY 3 YEARS

OPTION

DAkKS +3 DAYS



| Model | Weighing range [Max] kg | Readout [d] kg | Weighing pads included with delivery [Max] kg | Price excl. of VAT ex works € | Option | |
|-----------|-------------------------------|----------------------|---|--|---------------------------|--------|
| | | | | | DAkKS Calibr. Certificate | |
| | | | | | DKD KERN | € |
| VHP 6T-3 | 6000 | 5 | 2 x 3000 | 5900,- | 963-132A | 880,- |
| VHP 15T-2 | 15000 | 10 | 2 x 7500 | 5900,- | 963-133A | 1000,- |

Only while stocks last ! Price reduction



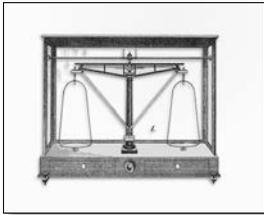
” **W**e will produce your ideal scale. Combine KERN display devices with platforms, weighing bridges or load receptors in accordance with your individual requirements. KERN will deliver the complete system to you – with DAkkS calibration certificate or conformity evaluation, if required.

“

*Fabian Brenner,
Technical Service*

Tradition and innovation for more than 170 years

An independent family business, KERN since already 7 generations is synonymous with quality and reliability in customer service.



► 1844

KERN is founded – precision balances are produced



► 1863

A proud Gottlieb Kern with his staff



► 1880

Pharmaceutical balance with Aesculap



► 1923

Inflation – KERN wages are paid with self printed currency



► 1980

The electronic balance ousts mechanical devices



► 1994

Accredited DKD laboratory (ISO 17025)



► 2000

New premises in Balingen



► 2002

Existing QM system certification in accordance with DIN EN ISO 9001:2000 standards



► 2007

Approval for the manufacture of medical products (DIN EN 13485 and 93/42/EEC)



► 2008

Authorisation for initial verification by the manufacturer (2009/23/EU)



► 2009

Approval for the manufacture and sale of height rods (DIN EN 13485 and 93/42/EEC)



► 2012

Verification point for non-automatic balances and test weights.

New customer portal www.kern-sohn.com goes live



► 2014

Expansion of the product range to include optical instruments (microscopes and refractometers)



► 2015

Inauguration of Ziegelei 2.0 with computer-controlled high-bay warehouse

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Balances, Test weights, DAkkS Calibration laboratory
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