



#### **Features**

- · Measures all metal samples (> 3 kg, thickness > 8 mm)
- External impact sensor standard (Type D)
- · Mobility: In comparison with stationary table-top devices and testing devices with an internal sensor, using the SAUTER HK-D. offers the highest level of mobility and flexibility
- All measurement directions possible (360°) thanks to an automatic compensation function
- II SAUTER HK-DB.: Hardness comparison block, hardness 760+/-30 HLD, included in
- Delivered in a sturdy carrying case
- · Measurement value display: Rockwell (Type A, B, C), Vickers (HV), Shore (HS), Leeb (HL), Brinell (HB)
- Internal memory for up to 600 data groups, with up to 32 values per group forming the average value of the group
- · Mini statistics function: displays the measured result, the average value, the impact direction, date and time
- · USB interface, included
- · Automatic unit conversion: The measuring result is automatically converted into all specified hardness units

- · Measuring with tolerance range (limit-setting function): Upper and lower limiting can be programmed individually. The process is supported by an audible and visual signal.
- Matrix display: Backlit multi-function display for all relevant functions at a glance
- Robust metal housing

### **Technical data**

- Precision: ± 1 % at 800 HLD
- Minimum sample radius (concave/convex): 50 mm (with support ring: 10 mm)
- · Minimum sample material thickness: 8 mm
- · The lowest weight of the test item on solid support unit: 3 kg
- Dimensions W×D×H 132×82×31 mm
- Permissible ambient temperature -10 °C/40 °C
- · Battery operation, batteries not standard 2× 1.5V AA, operating time up to 200 h
- · Net weight approx. 0,45 kg







#### **Accessories**

- · Plug-In for data transfer of measuring data from the measuring instrument and transfer to a PC, e.g. in Microsoft Excel®, SAUTER AFI-1.0
- · Data transfer software, KERN SCD-4.0
- Support rings for secure positioning, SAUTER AHMR 01
- Impact body Type D, net weight approx. 5,5 g, hardness ≥ 1600 HV, tungsten carbide, Impact ball Ø 3 mm, in accordance with the standard ASTM A956-02, SAUTER AHMO D01
- External impact sensor Type C. Low energy sensor: requires only 25 % impact energy compared to type D, for testing tiny or light objects or the surface of hardened layer, SAUTER AHMR C
- External impact sensor Type D, SAUTER AHMR D
- External impact sensor Type D+15. Slim front section for holes, grooves or re-entrant surfaces, SAUTER AHMR D+15
- External impact sensor Type DL, for very narrow surfaces (Ø 4,5 mm), SAUTER AHMR DL
- External impact sensor Type G. High energy sensor: 900 % impact energy compared to type D, SAUTER AHMR G
- Connection cable SAUTER HMO-A04
- 3 Test block Type D/DC, Ø 90 mm (± 1 mm), net weight < 3 kg, hardness range 790 ± 40 HL, SAUTER AHMO D02 630 ± 40 HL, SAUTER AHMO D03 530 ± 40 HL, SAUTER AHMO D04
- · Factory calibration certificates for SAUTER AHMO D02, AHMO D03, AHMO D04, SAUTER 961-132





















HK-D							
Model	Sensor	Measuring range	Readout	Test block		Option	
					Fac	Factory calibration certificates	
		[Max]	[d]	Typ D/DC			
SAUTER		HL	HL	approx. 800 HL		KERN	
HK-D.	Typ D	170-960	1	not standard		961-131	
HK-DB	Typ D	170-960	1	standard		961-131	

# **SAUTER Pictograms:**





#### Adjusting program (CAL):

For quick setting of the balance's accuracy. External adjusting weight required.



# Control outputs

#### (optocoupler, digital I/O):

to connect relays, signal lamps, valves, etc.



#### Rechargeable battery pack:

rechargeable set.



PEAK

#### Calibration block:

Peak hold function:

measuring process.

standard for adjusting or correcting the measuring device.



#### Analogue interface:

to connect a suitable peripheral device for analogue processing of the measurements.



#### Mains adapter:

230V/50Hz in standard version for EU. On request GB, AUS or USA version available.



#### Statistics:

using the saved values, the device calculates statistical data, such as average value, standard deviation etc.



## Power supply:

Integrated, 230V/50Hz in EU. More standards e.g. GB, AUS or USA on request.



### Motorised drive:

The mechanical movement is carried out by a electric motor.



SCAN

# Scan mode:

Push and Pull:

continuous capture and display of measurements.

capturing a peak value within a



PRINT

# PC Software:

Printer:

to transfer the measurements from the device to a PC.

a printer can be connected to the

device to print out the measurements.



Motorised drive: The mechanical movement is carried out

by a synchronous motor (stepper).

DAkkS calibration possible:

is shown in days in the pictogram.



#### Length measurement:

and compression forces.

captures the geometric dimensions of a test object or the movement during a test process.

the measuring device can capture tension



### GLP/ISO record keeping:

of measurements 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.



MEMORY

#### Focus function:

Internal memory:

to save measurements

in the device memory.

increases the measuring accuracy of a device within a defined measuring range.



#### Measuring units:

Weighing units can be switched to e.g. non-metric at the touch of a key. Please refer to website for more details.



# 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

+3 DAYS

#### Factory calibration:

The time required for factory calibration is specified in the pictogram.

The time required for DAkkS calibration



#### Data interface RS-232:

bidirectional, for connection of printer and PC.



Resets the display to "0".



### 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.



#### Data interface USB:

To connect the balance to a printer, PC or other peripheral devices.



## Data interface Infrared:

To transfer data from the balance to a printer, PC or other peripheral devices.



# **Battery operation:**

Ready for battery operation. The battery type is specified for each device.

