



## Premium Durometer for hardness testing – now also with hardness comparison block included

### 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
- **1 SAUTER HK-DB.: Hardness comparison block**, hardness 760+/-30 HLD, included in delivery
- **2 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

#### STANDARD



#### OPTION



Model	Sensor	Measuring range	Readout	Test block	Option	
					Factory calibration certificates	
SAUTER		[Max] HL	[d] HL	Typ D/DC 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	

	<b>Adjusting program (CAL):</b> For quick setting of the balance's accuracy. External adjusting weight required.		<b>Control outputs (optocoupler, digital I/O):</b> to connect relays, signal lamps, valves, etc.		<b>Rechargeable battery pack:</b> rechargeable set.
	<b>Calibration block:</b> standard for adjusting or correcting the measuring device.		<b>Analogue interface:</b> to connect a suitable peripheral device for analogue processing of the measurements.		<b>Mains adapter:</b> 230V/50Hz in standard version for EU. On request GB, AUS or USA version available.
	<b>Peak hold function:</b> capturing a peak value within a measuring process.		<b>Statistics:</b> using the saved values, the device calculates statistical data, such as average value, standard deviation etc.		<b>Power supply:</b> Integrated, 230V/50Hz in EU. More standards e.g. GB, AUS or USA on request.
	<b>Scan mode:</b> continuous capture and display of measurements.		<b>PC Software:</b> to transfer the measurements from the device to a PC.		<b>Motorised drive:</b> The mechanical movement is carried out by an electric motor.
	<b>Push and Pull:</b> the measuring device can capture tension and compression forces.		<b>Printer:</b> a printer can be connected to the device to print out the measurements.		<b>Motorised drive:</b> The mechanical movement is carried out by a synchronous motor (stepper).
	<b>Length measurement:</b> captures the geometric dimensions of a test object or the movement during a test process.		<b>GLP/ISO record keeping:</b> of measurements with date, time and serial number. Only with SAUTER printers.		<b>Fast-Move:</b> the total length of travel can be covered by a single lever movement.
	<b>Focus function:</b> increases the measuring accuracy of a device within a defined measuring range.		<b>Measuring units:</b> Weighing units can be switched to e.g. non-metric at the touch of a key. Please refer to website for more details.		<b>DAkKS calibration possible:</b> The time required for DAkKS calibration is shown in days in the pictogram.
	<b>Internal memory:</b> to save measurements in the device memory.		<b>Measuring with tolerance range (limit-setting function):</b> Upper and lower limiting can be programmed individually. The process is supported by an audible or visual signal, see the relevant model		<b>Factory calibration:</b> The time required for factory calibration is specified in the pictogram.
	<b>Data interface RS-232:</b> bidirectional, for connection of printer and PC.		<b>ZERO:</b> Resets the display to "0".		<b>Package shipment:</b> The time required for internal shipping preparations is shown in days in the pictogram.
	<b>Data interface USB:</b> To connect the balance to a printer, PC or other peripheral devices.		<b>Battery operation:</b> Ready for battery operation. The battery type is specified for each device.		<b>Pallet shipment:</b> The time required for internal shipping preparations is shown in days in the pictogram.
	<b>Data interface Infrared:</b> To transfer data from the balance to a printer, PC or other peripheral devices.				

Your SAUTER specialist dealer: