Mobile Leeb hardness tester SAUTER HMM

Advanced features for demanding applications

Features

- **1 Impact (rebound) sensor:** The bounce module is accelerated by a spring against the item being tested. Depending on how hard the object is, the kinetic energy of the module will be absorbed. The speed reduction will be measured and converted to Leeb hardness values.
- **External impact sensor** (Type D) included
- **Automatic recognition of the impact (rebound) sensor** connected to the HMM.
- **Mobility:** In comparison with stationary table-top devices and testing devices with an internal sensor, using the SAUTER HMM. offers the highest level of mobility and flexibility
- **All measurement directions possible (360°)** thanks to an automatic compensation function
- **2 Wireless IR printer** included for on-site printing of measurement protocols (battery operated), can be re-ordered, SAUTER AHN-02

- **3 Standard block for calibration** included (approx. 790 ± 40 HL)
- **4 Delivered in a hard carrying case**
- **Internal memory** for up to 9 data groups, with up to 9 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
- **Measurement value display:** Rockwell (B & C), Vickers (HV), Brinell (HB), Shore (HSD), Leeb (HL), tensile strength (MPa)
- **Automatic unit conversion**: The measuring result is automatically converted into all specified hardness units

Technical data

- Precision: 1 % at 800 HLD (± 6 HLD)
- Measuring range tensile strength: 375 – 2639 MPa (steel)
- Min. sample weight on a solid and stable support: 3 kg
- Minimum sample thickness: 8 mm

- Minimum sample radius (concave/convex): 50 mm (with support ring: 10 mm)
- Dimensions WxDxH 80x30x150 mm
- Mains adapter external standard
- Optional battery operation, batteries standard 3 x 1,5 V AAA, AUTO-OFF function to preserve the batteries, battery level indicator
- Net weight approx. 0,2 kg

Accessories

- **5 External impact sensor** Type DC. Short impact sensor for tests in holes or hollowed objects, SAUTER AHMO DC
- **Attachment rings** for secure positioning, SAUTER AHMR 01
- **Impact body,** SAUTER AHMO D01
- **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
- **Paper roll**, 1 piece, for SAUTER AHN-02, SAUTER ATU-US11

STANDARD

| CAL BLOCK | MEMORY | IR | STATISTIC | PRINT | BATT | 230 V | 1 DAY | 2 YEARS WARRANTY |

OPTION

| ISO +4 DAYS |

Model	Sensor	Measuring range	Readout		Option ISO Calibration Certificate	
		[Max] HL	[d] HL		ISO KERN	
SAUTER						
HMM.	Type D	170-960	1		961-131	

SAUTER Pictograms:

Adjusting program (CAL):
For quick setting of the balance's accuracy. External adjusting weight required.

Calibration block:
standard for adjusting or correcting the measuring device.

Peak hold function:
capturing a peak value within a measuring process.

Scan mode:
continuous capture and display of measurements.

Push and Pull:
the measuring device can capture tension and compression forces.

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

Focus function:
increases the measuring accuracy of a device within a defined measuring range.

Internal memory:
to save measurements in the device memory.

Data interface RS-232:
bidirectional, for connection of printer and PC.

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.

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.

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

PC Software:
to transfer the measurements from the device to a PC.

Printer:
a printer can be connected to the device to print out the measurements.

GLP/ISO record keeping:
of measurements with date, time and serial number. Only with SAUTER printers.

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:
Upper and lower limiting can be programmed individually, e.g. for sorting and dosing.

ZERO:
Resets the display to "0".

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

Rechargeable battery pack:
rechargeable set.

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

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 motorised drive.

Fast-Move:
the total length of travel can be covered by a single lever movement.

ISO Calibration:
The time required for ISO 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.

Warranty:
The warranty period is shown in the pictogram.

Your SAUTER specialist dealer: