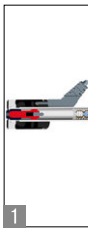
Mobile Leeb hardness tester SAUTER HMM · HMM-NP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Advanced features for demanding applications

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
- **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 **Standard block for calibration** included (approx. 790 ± 40 HL)
- 3 **Delivered in a robust 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
- **New:** SAUTER HMM-NP! This model has identical product features as the SAUTER HMM. model, but comes without the wireless infrared printer.
- **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 material thickness: 8 mm
- Minimum sample radius (concave/convex): 50 mm (with support ring: 10 mm)
- Dimensions W×D×H 80×30×150 mm
- SAUTER HMM.: External mains adaptor for printer, as standard
- Ready for use: Batteries included, 3× 1.5 V AAA, block, operating time up to 30 h, AUTO-OFF function to preserve battery life, Battery charge indicator
- Net weight approx. 0,2 kg

Accessories

- Connection cable, without impact sensor, SAUTER HMM-A02
- 5 **Attachment rings** for secure positioning, SAUTER AHMR 01
- 4 **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

OPTION

Model SAUTER	Sensor	Measuring range [Max] HL	Readout [d] HL		Option Factory calibration certificates KERN	
HMM.	Typ D	170–960	1	⬇	961-131	
HMM-NP	Typ D	170–960	1	⬇	961-131	

⬇

Pictograms

Adjusting program (CAL):
For quick setting of the instrument'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 measuring instrument to a printer, PC or other peripheral devices.

Data interface Infrared:
To transfer data from the measuring instrument 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 measurement data from the device to a PC.

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

GLP/ISO record keeping:
of measurement data 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 (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

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 electric motor.

Motorised drive:
The mechanical movement is carried out by a synchronous motor (stepper).

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

DAkkS calibration possible:
The time required for DAkkS calibration is shown in days in the pictogram.

Factory calibration:
The time required for factory calibration is specified 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.

Your KERN specialist dealer: