# **MEASURING TECHNOLOGY & TEST SERVICE 2024**

Hardness testing of plastics (Shore)



Manual Shore Test Stand SAUTER TI











# Lever operated test stand for hardness testing with base plate made of glass

### Features

- ${\boldsymbol{\cdot}}$  For Shore hardness testing of plastics, leather etc.
- • Glass plate: high measurement accuracy by means of superior hardness of the glass plate
- 2 Mechanical construction: Robust design enables accurate measuring movements
- Is Level adjustment: For the precise levelling of the base plate, e.g. for the correction of inhomogeneous test objects
- 4 SAUTER TI-DL: with exchangeable longer column for use with digital hardness tester HD
- · Hardness tester is not included with delivery

- · Operation:
- 1. The SAUTER hardness testing device HB/HD is fitted in a suspended position
- 2. The test object is placed on the round testing table right under the durometer measuring tip
- 3. By pressing the lever down, the test weight will be released, and this then presses the measuring tip into the test object with its own weight (see test force hardness measurement)
- The accuracy of the displayed result is about 25 % higher than in a manual operated test

### Technical data

- Stroke length: 15 mm
- Base plate Ø 75 mm

STANDARD

Model	Hardness scales	Test force hardness measurement	Test object height	Overall dimensions	Net weight approx.	
			[Max]	$W \times D \times H$		
SAUTER		N	mm	mm	kg	
TI-AC	Shore A	10	60	150×200×330	5,0	_
TI-D	Shore D	50	60	150×200×400	8	_
TI-ACL	Shore A	10	290	150×200×580	6	_
TI-DL	Shore D	50	290	150×200×580	9	

# **MEASURING TECHNOLOGY & TEST SERVICE 2024**

**SAUTER Pictograms** 



Conformity assessment

Models with type approval

**DAkkS** calibration

The time required for

DAkkS calibration is shown

Factory calibration (ISO)

The time required for factory

calibration is specified in

Package shipment

The time required for

internal shipping prepara-

tions is shown in days in

the pictogram

the pictogram

the pictogram

Pallet shipment

The time required for

internal shipping prepara-

tions is shown in days in

in days in the pictogram

systems

possible

for construction of verifiable

M

DAkkS

+3 DAYS

ISO

1 DAY



# Adjusting program (CAL)

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



### **Calibration block**

Standard for adjusting or correcting the measuring



### 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



## **Profibus**

For transmitting data, e.g. between scales, measuring cells, controllers and peripheral devices over long distances. Suitable for safe, fast, fault-tolerant data transmission. Less susceptible to magnetic interference



### **Profinet**

Enables efficient data exchange between de-centralised peripheral devices (balances, measuring cells, measuring instruments etc.) and a control unit (controller). Especially advantageous when exchanging complex measured values, device, diagnostic and process information. Savings potential through shorter commissioning times and device integration possible



# Data interface USB

To connect the measuring instrument to a printer, PC or other peripheral devices



# Bluetooth\* data interface

To transfer data from the balance/measuring instrument to a printer, PC or other peripherals



### WIFI data interface

To transfer data from the balance/measuring instrument to a printer, PC or other peripherals



# 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



### Analogue output

For output of an electrical signal depending on the load (e.g. voltage 0 V - 10 V or current 4 mA - 20 mA)



#### 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



### **Network interface**

For connecting the scale/ measuring instrument to an Ethernet network



### **KERN Communication** Protocol (KCP)

It is a standardized interface command set for KERN balances and other instruments, which allows retrieving and controlling all relevant parameters and functions of the device. KERN devices featuring KCP are thus easily integrated with computers, industrial controllers and other digital systems



# 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. 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



#### Protection against dust and water splashes IPxx

The type of protection is shown in the pictogram cf. DIN EN 60529:2000-09, IEC 60529:1989 +A1:1999+A2:2013



#### **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



#### Plug-in power supply 230V/50Hz in standard

version for EU. On request GB, AUS or US version available



### Integrated power supply unit

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



The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by KERN & SOHN GmbH is under license Other trademarks and trade names are those of their respective owners