

Ultrasonic thickness gauge SAUTER TN-US



Portable measuring device for ultrasonic material thickness testing

**Features**

- **External sensor**
- **Data interface USB**, standard (only for models with readout [d] = 0,01 mm)
- **Scan mode** (10 measurements per sec.) or single point measuring mode possible
- **Internal memory** for up to 20 files (with up to 100 values per file)
- **Selectable measuring units:** mm, inch
- **Delivered in a robust carrying case**

**Technical data**

- Precision: 0,5 % of [Max] ± 0,04 mm
- Dimensions W×D×H 74×32×150 mm
- Battery operation, batteries standard 2× 1.5 V AA, AUTO-OFF function to preserve batteries
- Net weight approx. 245 g

**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**, RS-232 interface cable included, SAUTER ATU-04
- **External sensor**, 2,5 MHz, ø 14 mm, for thick samples, in particular cast iron with rough upper surfaces: Measuring range 3–300 mm (steel), SAUTER ATU-US01

- **External sensor**, 7 MHz, ø 6 mm, for thin test materials: Measuring range 0,75–80 mm (steel), SAUTER ATU-US02
- **External sensor**, 5 MHz, ø 6 mm, SAUTER ATB-US01
- **External sensor**, 5 MHz, ø 10 mm, SAUTER ATU-US09
- **External sensor**, 5 MHz, ø 10 mm, transducer at an angle of 90°, SAUTER ATU-US10
- **External sensor**, 5 MHz, ø 12 mm, for hot test materials: Measuring range (steel) 3–200 mm at temperatures of up to 300 °C, SAUTER ATB-US02
- **Ultrasound contact gel**, standard, can be reordered, approx. 60 ml, SAUTER ATB-US03

STANDARD	OPTION

Model	Measuring range	Readout	Sensor	Sound velocity	Option	
					Factory calibration certificates	
SAUTER	[Max] mm	[d] mm		m/sec	KERN	
TN 80-0.1US.	0,75–80	0,1	7 MHz   ø 6 mm	1000–9999	961-113	
TN 230-0.1US.	1,2–230	0,1	5 MHz   ø 10 mm	1000–9999	961-113	
TN 300-0.1US.	3–300	0,1	2,5 MHz   ø 14 mm	1000–9999	961-113	
TN 80-0.01US.	0,75–80	0,01	7 MHz   ø 6 mm	1000–9999	961-113	
TN 230-0.01US.	1,2–200   230	0,01   0,1	5 MHz   ø 10 mm	1000–9999	961-113	
TN 300-0.01US.	3–200   300	0,01   0,1	2,5 MHz   ø 14 mm	1000–9999	961-113	

## Pictograms

 <b>Adjusting program (CAL):</b> For quick setting of the instrument's accuracy. External adjusting weight required.	 <b>Control outputs (optocoupler, digital I/O):</b> to connect relays, signal lamps, valves, etc.	 <b>Battery operation:</b> Ready for battery operation. The battery type is specified for each device.
 <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>Rechargeable battery pack:</b> rechargeable set.
 <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>Mains adapter:</b> 230V/50Hz in standard version for EU. On request GB, AUS or USA version available.
 <b>Scan mode:</b> continuous capture and display of measurements.	 <b>PC Software:</b> to transfer the measurement data from the device to a PC.	 <b>Power supply:</b> Integrated, 230V/50Hz in EU. More standards e.g. GB, AUS or USA on request.
 <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 measurement data.	 <b>Motorised drive:</b> The mechanical movement is carried out by a electric motor.
 <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 measurement data with date, time and serial number. Only with SAUTER printers	 <b>Motorised drive:</b> The mechanical movement is carried out by a synchronous motor (stepper).
 <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>Fast-Move:</b> the total length of travel can be covered by a single lever movement.
 <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>DAkkS calibration possible:</b> The time required for DAkkS calibration is shown in days in the pictogram.
 <b>Data interface RS-232:</b> bidirectional, for connection of printer and PC.		 <b>Factory calibration:</b> The time required for factory calibration is specified in the pictogram.
 <b>Data interface USB:</b> To connect the measuring instrument to a printer, PC or other peripheral devices.		 <b>Package 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 measuring instrument to a printer, PC or other peripheral devices.	 <b>ZERO:</b> Resets the display to "0".	 <b>Pallet shipment:</b> The time required for internal shipping preparations is shown in days in the pictogram.

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