Ultrasonic thickness gauges SAUTER TN-EE

SAUTER

PREMIUM ★★★

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Portable measuring device for ultrasonic material thickness testing in Echo-Echo principle

Features

- **External sensor**
- **Data interface RS-232**, standard
- **1** Delivered in a hard carrying case
- **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
- Two measuring modes to determine material thickness:
  - Pulse-echo mode
  - Echo-echo mode
- Determining the actual thickness of materials regardless of any coating which might be present. In this way, the wall thickness of pipes, for example can be determined in a non-destructive manner, i.e. without having to remove the coating
- Echo-echo measurements are only possible with the measuring head included as part of the delivery (ATU-US12, see accessory)

Technical data

- Precision: 0,5 % of [Max] ± 0,04 mm
- Dimensions WxDxH 74x32x150 mm
- Battery operation, batteries standard 2 x 1.5 V AA, AUTO-OFF function to preserve the batteries
- Net weight approx. 245 g
- Maximum thickness of coating (paints, lacquers or similar coatings which shall be eliminated): 3 mm

Accessories

- **Software**, interface cable included, SAUTER ATU-04
- **External sensor**, 5 MHz, Ø 12 mm, for echo-echo measuring, SAUTER ATU-US12
- **Ultrasound contact gel**, standard, can be reordered, approx. 60 ml, SAUTER ATB-US03
- **RS-232/USB adapter**, SAUTER AFH 12
- **5 steel calibration blocks** without wooden box, SAUTER ATU-06
- **5 steel calibration blocks** with wooden box, SAUTER ATU-09

STANDARD

CAL BLOCK | MEMORY | RS 232 | →0← ZERO | BATT | 1 DAY | 2 YEARS WARRANTY

OPTION

SOFTWARE | ISO +4 DAYS

Model	Measuring range Echo-echo	Measuring range Pulse-echo	Readout [d]	Sensor	Sound velocity		Option ISO Calibration Certificate	
SAUTER	mm	mm	mm		m/sec		ISO KERN	
TN 30-0.01EE	3 - 30	0,65 - 600	0,01	5 MHz | Ø 12 mm	1000 – 9999		961-113	
TN 60-0.01EE	3 - 60	0,65 - 600	0,01	5 MHz | Ø 12 mm	1000 – 9999		961-113	

SAUTER Pictograms:

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

Data interface Infrared:
To transfer data from the balance to a printer, PC or other peripheral devices.
`IR`

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

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

Control outputs (optocoupler, digital I/O):
to connect relays, signal lamps, valves, etc.
`SWITCH`

Rechargeable battery pack:
rechargeable set.
`ACCU`

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

Analogue interface:
to connect a suitable peripheral device for analogue processing of the measurements.
`ANALOG`

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

Scan mode:
continuous capture and display of measurements.
`SCAN`

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

Power supply:
Integrated, 230V/50Hz in EU. More standards e.g. GB, AUS or USA on request.
`230 V`

Push and Pull:
the measuring device can capture tension and compression forces.
`PUSH/PULL`

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

Motorised drive:
The mechanical movement is carried out by a motorised drive.
`MOTOR`

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

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

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

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

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

ISO Calibration:
The time required for ISO calibration is shown in days in the pictogram.
`ISO +4 DAYS`

Internal memory:
to save measurements in the device memory.
`MEMORY`

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.
`UNIT`

Package shipment:
The time required for internal shipping preparations is shown in days in the pictogram.
`1 DAY`

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

Measuring with tolerance range:
Upper and lower limiting can be programmed individually, e.g. for sorting and dosing.
`TOL`

Pallet shipment:
The time required for internal shipping preparations is shown in days in the pictogram.
`1 DAY`

Data interface USB:
To connect the balance to a printer, PC or other peripheral devices.
`USB`

ZERO:
Resets the display to "0".
`ZERO`

Warranty:
The warranty period is shown in the pictogram.
`2 YEARS WARRANTY`

Your SAUTER specialist dealer: