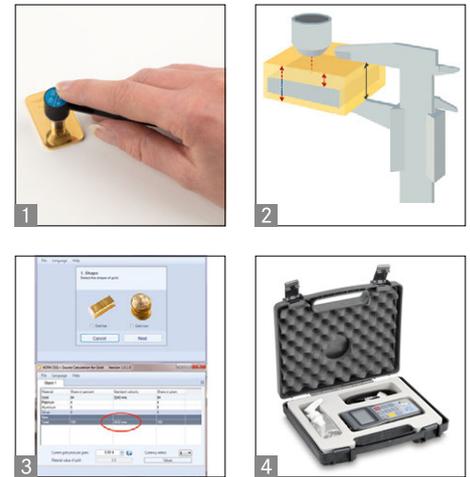


Gold tester SAUTER TN-GOLD



Ultrasonic measuring instrument for checking the authenticity of gold bars and coins

Features

- **1** You can use the TN-GOLD to determine whether gold or silver bars and coins are genuine or whether they contain a core of a different material
- The instrument measures the thickness of gold bars and gold coins using ultrasound
- **2** Process: Ultrasound waves are directed onto the test object using a sensor. The waves penetrate the test object, are then reflected from a surface opposite the object and then picked up again by the sensor. The measurement determined by this process will be compared with the material thickness as measured by a traditional calliper gauge. On the basis of the measurement given, false cores (Figure: grey) for example, those made of tungsten, lead, etc. can be easily identified, as the ultrasound reacts differently, compared with pure gold
- Selectable measuring units: mm, inch
- **3** SAUTER SSG software (included) can be used to calculate the sound velocity for various precious metal alloys. This makes it possible to determine whether coins or ingots contain false cores or whether they consist of one and the same material. Compatible with the following operating systems: Windows® 7/8/10
- Known additions in tested gold items – e.g. copper or silver – are compensated by the software
- In addition, the software determines the value of the gold item. The price of gold is polled on line continuously
- It is the only test process which measures right through the whole bar or the whole coin without interference and thereby guarantees the highest level of certainty
- Internal memory for up to 20 files (with up to 100 values per file)
- Base plate for adjustment incorporated
- **4** Delivered in a robust carrying case

Technical data

- Measuring 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 the batteries
- Net weight approx. 0,25 kg

Accessories

- Ultrasound contact gel, standard, can be reordered, approx. 60 ml, SAUTER ATB-US03
- External sensor, 7 MHz, Ø 6 mm, for thin test materials: Measuring range 0,75–80 mm (steel), SAUTER ATU-US02
- USB/PC connection cable, standard, SAUTER FL-A01
- Data transfer software, USB interface cable included, SAUTER ATU-04

STANDARD

CALBLOCK
 MEMORY
 USB
 ZERO
 BATT
 1 DAY

OPTION

SOFTWARE
 ISO
 +4 DAYS

Model	Measuring range [Max] mm	Readout [d] mm	Sensor	Sound velocity m/sec	Option	
					Factory calibration certificates	
SAUTER					KERN	
TN GOLD 80	0,75–80	0,01	7 MHz 6 mm	1000–9999	961-113	

Pictograms

 Adjusting program (CAL): For quick setting of the instrument's accuracy. External adjusting weight required	 WLAN data interface: To transfer data from the balance/measuring instrument to a printer, PC or other peripherals	 Protection against dust and water splashes IPxx: The type of protection is shown in the pictogram.
 Calibration block: Standard for adjusting or correcting the measuring device	 Data interface Infrared: To transfer data from the measuring instrument to a printer, PC or other peripheral devices	 ZERO: Resets the display to "0"
 Peak hold function: Capturing a peak value within a measuring process	 Control outputs (optocoupler, digital I/O): To connect relays, signal lamps, valves, etc.	 Battery operation: Ready for battery operation. The battery type is specified for each device
 Scan mode: Continuous capture and display of measurements	 Analogue interface: To connect a suitable peripheral device for analogue processing of the measurements	 Rechargeable battery pack: Rechargeable set
 Push and Pull: The measuring device can capture tension and compression forces	 Analog output: For output of an electrical signal depending on the load (e.g. voltage 0 V – 10 V or current 4 mA – 20 mA)	 Mains adapter: 230V/50Hz in standard version for EU. On request GB, AUS or USA version available
 Length measurement: Captures the geometric dimensions of a test object or the movement during a test process	 Statistics: Using the saved values, the device calculates statistical data, such as average value, standard deviation etc.	 Power supply: Integrated, 230V/50Hz in EU. More standards e.g. GB, AUS or USA on request
 Focus function: Increases the measuring accuracy of a device within a defined measuring range	 PC Software: To transfer the measurement data from the device to a PC	 Motorised drive: The mechanical movement is carried out by a electric motor
 Internal memory: To save measurements in the device memory	 Printer: A printer can be connected to the device to print out the measurement data	 Motorised drive: The mechanical movement is carried out by a synchronous motor (stepper)
 Data interface RS-232: Bidirectional, for connection of printer and PC	 Network interface: For connecting the scale/measuring instrument to an Ethernet network	 Fast-Move: The total length of travel can be covered by a single lever movement
 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.	 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	 Verification possible: The time required for verification is specified in the pictogram
 Profinet: Enables efficient data exchange between decentralised 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	 GLP/ISO record keeping: Of measurement data with date, time and serial number. Only with SAUTER printers	 DAKkS calibration possible: The time required for DAKkS calibration is shown in days in the pictogram
 Data interface USB: To connect the measuring instrument to a printer, PC or other peripheral devices	 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	 Factory calibration: The time required for factory calibration is specified in the pictogram
 Bluetooth* data interface: To transfer data from the balance/measuring instrument to a printer, PC or other peripherals	 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	 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

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