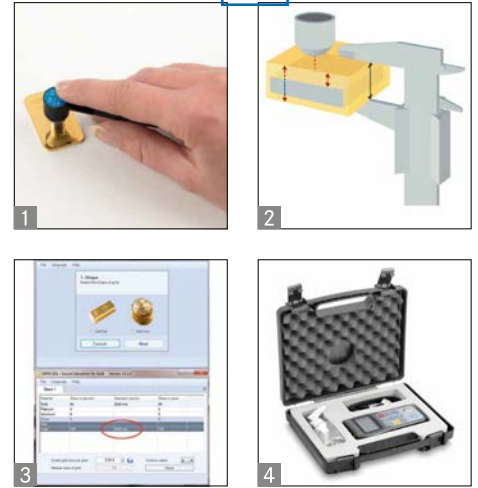


NEW



## Ultrasound measuring instrument for testing the authenticity of gold and other precious metals

### 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** Using the SAUTER SSG software (included), you can determine whether the test item is genuine or contains a false core – and you can be very confident of the result
- 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
- **Data interface USB**, standard
- **4** **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× 1.5V AA, AUTO-OFF function to preserve the batteries
- Net weight approx. 245 g
































### Accessories

- **External sensor**, 5 MHz, Ø 6 mm, SAUTER ATB-US01
- **Ultrasound contact gel**, standard, can be reordered, approx. 60 ml, SAUTER ATB-US03
- **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
- **External sensor**, 7 MHz, Ø 6 mm, for thin test materials: Measuring range 0,75–80 mm (steel), SAUTER ATU-US02



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

Datasheet\_TN-GOLD\_V1

|                                                                                    |                                                                                                                         |                                                                                     |                                                                                                                                                                                                             |                                                                                       |                                                                                                                     |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
|    | <b>Adjusting program (CAL):</b><br>For quick setting of the balance's accuracy. External adjusting weight required.     |    | <b>Control outputs (optocoupler, digital I/O):</b><br>to connect relays, signal lamps, valves, etc.                                                                                                         |    | <b>Rechargeable battery pack:</b><br>rechargeable set.                                                              |
|    | <b>Calibration block:</b><br>standard for adjusting or correcting the measuring device.                                 |    | <b>Analogue interface:</b><br>to connect a suitable peripheral device for analogue processing of the measurements.                                                                                          |    | <b>Mains adapter:</b><br>230V/50Hz in standard version for EU. On request GB, AUS or USA version available.         |
|    | <b>Peak hold function:</b><br>capturing a peak value within a measuring process.                                        |    | <b>Statistics:</b><br>using the saved values, the device calculates statistical data, such as average value, standard deviation etc.                                                                        |    | <b>Power supply:</b><br>Integrated, 230V/50Hz in EU. More standards e.g. GB, AUS or USA on request.                 |
|    | <b>Scan mode:</b><br>continuous capture and display of measurements.                                                    |    | <b>PC Software:</b><br>to transfer the measurements from the device to a PC.                                                                                                                                |    | <b>Motorised drive:</b><br>The mechanical movement is carried out by an electric motor.                             |
|    | <b>Push and Pull:</b><br>the measuring device can capture tension and compression forces.                               |    | <b>Printer:</b><br>a printer can be connected to the device to print out the measurements.                                                                                                                  |    | <b>Motorised drive:</b><br>The mechanical movement is carried out by a synchronous motor (stepper).                 |
|    | <b>Length measurement:</b><br>captures the geometric dimensions of a test object or the movement during a test process. |    | <b>GLP/ISO record keeping:</b><br>of measurements with date, time and serial number. Only with SAUTER printers.                                                                                             |    | <b>Fast-Move:</b><br>the total length of travel can be covered by a single lever movement.                          |
|    | <b>Focus function:</b><br>increases the measuring accuracy of a device within a defined measuring range.                |    | <b>Measuring units:</b><br>Weighing units can be switched to e.g. non-metric at the touch of a key. Please refer to website for more details.                                                               |    | <b>DAkkS calibration possible:</b><br>The time required for DAkkS calibration is shown in days in the pictogram.    |
|   | <b>Internal memory:</b><br>to save measurements in the device memory.                                                   |   | <b>Measuring with tolerance range (limit-setting function):</b><br>Upper and lower limiting can be programmed individually. The process is supported by an audible or visual signal, see the relevant model |   | <b>Factory calibration:</b><br>The time required for factory calibration is specified in the pictogram.             |
|  | <b>Data interface RS-232:</b><br>bidirectional, for connection of printer and PC.                                       |  | <b>ZERO:</b><br>Resets the display to "0".                                                                                                                                                                  |  | <b>Package shipment:</b><br>The time required for internal shipping preparations is shown in days in the pictogram. |
|  | <b>Data interface USB:</b><br>To connect the balance to a printer, PC or other peripheral devices.                      |  | <b>Battery operation:</b><br>Ready for battery operation. The battery type is specified for each device.                                                                                                    |  | <b>Pallet shipment:</b><br>The time required for internal shipping preparations is shown in days in the pictogram.  |
|  | <b>Data interface Infrared:</b><br>To transfer data from the balance to a printer, PC or other peripheral devices.      |                                                                                     |                                                                                                                                                                                                             |                                                                                       |                                                                                                                     |

**Your SAUTER specialist dealer:**