SAUTER

EN

Industry — Laboratory — Quality Assurance

COATING THICKNESS MEASUREMENT

PROFESSIONAL MEASURING

180 YEARS since 1844 KERN & SOHN

24

SAUTER Pictograms

Adjusting program (CAL)
For quick setting of the instrument's accuracy. External adjusting weight required

Calibration block
Standard for adjusting or correcting the measuring device

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 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

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

Conformity assessment
Models with type approval for construction of verifiable systems

DAkkS calibration possible
The time required for DAkkS calibration is shown in days in the pictogram

Factory calibration (ISO)
The time required for factory calibration is specified in the pictogram

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

SAUTER Models A-Z

SAUTER Customer Consultants

With questions about our products and services, we will be happy to advise you:

Product Specialist Measuring Technology

Irmgard Russo
Tel. +49 7433 9933-208
info.sauter@kern-sohn.com

Product Specialist Measuring Technology

Helga Biselli
Tel. +49 7433 9933-188
info.sauter@kern-sohn.com

Product Specialist Measuring Technology

Ralf Gutbrod
Tel. +49 7433 9933-306
info.sauter@kern-sohn.com

Product Specialist Measuring Technology

Andreas Vossler
Tel. +49 7433 9933-243
info.sauter@kern-sohn.com

FR, Maghreb, GB, IE, IS, BE, LU

Maren Möwert
Tel. +49 7433 9933-132
Mobil +49 151 46143240
maren.moewert@kern-sohn.com

DK, SE, FI, NO, PL, LV, LT, EE

Mark Hauder
Tel. +49 7433 9933-310
Mobil +49 160 3378426
mark.hauder@kern-sohn.com

GR, CY, BG, HU, RO, SK, CZ, AL, Ex-Yugoslavia, CIS

Ariana Sevcenco
Tel. +49 7433 9933-203
Mobil +49 151 72434692
ariana.sevcenco@kern-sohn.com

North America, Africa, Asia, Middle East, Oceania, TR

Corinna Matthes
Tel. +49 7433 9933-215
Mobil +49 151 44568364
corinna.matthes@kern-sohn.com

Germany (PC 4, 7), NL

Taras Mikitisin
Tel. +49 7433 9933-143
Mobil +49 171 5590115
mikitisin@kern-sohn.com

SAUTER Hotlines

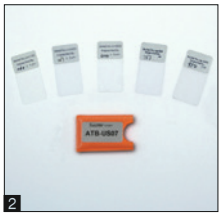
Technical questions about our products?
You will find assistance here quickly: **+49 7433 9933- ...**

Service Hotline **→199**
for general technical questions about your SAUTER product

SAUTER Measuring Instruments **→555**
for all technical questions concerning our SAUTER measuring instruments, test benches, force measuring accessories (clamps etc.), SAUTER software

Industrial Scales **→333**
for all technical questions concerning our basic scales (laboratory & industry), pocket balances, school balances, bench scales, price-computing scales, platform scales, counting scales, counting systems, floor scales, pallet truck scales, crane scales, veterinary scales

System Solutions Industry 4.0 **→200**
for all technical questions concerning the interlocking of the latest information and communication technology with our scales, load cells and measuring devices as well as questions about KERN software



4

Practical measuring device for measuring the thickness of layers for daily use

Features

- External sensor for difficult-to-access measuring points
- Base plate and calibration foils included
- 1 Delivered in a robust carrying case
- Offset-Accur: This function allows you to adjust the instrument precisely on the locally measured range by a two-point calibration. This results in a superior accuracy of 1 % (or less) of the measured value
- Selectable measuring units: µm, inch (mil)
- Auto-Power-Off
- Type F: Non-magnetic coatings on iron and steel
- Type N: Coatings on non-magnetic metals
- SAUTER TB 2000-0.1F: Specifically designed for the automobile industry, Precision: Standard 3 % of measured value

Technical data

- Measuring precision:
  - Standard: 3 % of measured value
  - Offset-Accur: 1 % of measured value
- Smallest sample surface (radius)
  Type F
  - Convex: 1,5 mm
  - Flat: 6 mm
  - Concave: 25 mm
  Type N
  - Convex: 3 mm
  - Flat: 6 mm
  - Concave: 50 mm
- Minimum thickness of base material: 300 µm
- Overall dimensions W×D×H 161×69×32 mm
- Battery operation, batteries standard (4×1.5 V AA)
- Net weight approx. 0,75 kg

Accessories

- 2 Calibration foils for increased measuring accuracy (covers the range from 20 up to 2000 µm, with < 3 % tolerance), SAUTER ATB-US07, **€ 115,–**
- 3 External sensor, Type F, SAUTER ATE 01, **€ 116,–**
- 4 External sensor, Type N, SAUTER ATE 02, **€ 125,–**

STANDARD

OPTION

Model	Measuring range	Readout	Test object	Price excl. of VAT ex works	Option Factory calibration certificate	
SAUTER	[Max] µm	[d] µm		€	KERN	€
TB 1000-0.1F	100 | 1000	0,1 | 1	Type F	**360,–**	961-110	159,–
TB 2000-0.1F	100 | 2000	0,1 | 1	Type N	**325,–**	961-110	159,–
TB 1000-0.1FN	100 | 1000	0,1 | 1	Combination instrument Type F / Type N	**455,–**	961-112	225,–

1

2

Robust measuring device for coating thickness – compact and easy to use

Features

- Ergonomic design for easy handling
- Data interface RS-232 as standard
- Base plate and calibration foils included
- 1 Delivered in a robust carrying case
- Offset-Accur: This function allows you to adjust the instrument precisely on the locally measured range by a two-point calibration. This results in a superior accuracy of 1 % (or less) of the measured value
- Selectable measuring units: µm, inch (mil)
- Type F: Non-magnetic coatings on iron and steel
- Type N: Coatings on non-magnetic metals

2 SAUTER TC 1250-0.1FN-CAR

- Specifically designed for the automobile industry
- Automatic recognition of measuring mode (F or N): “point and shoot”
- Simple and convenient 1-key operation

Technical data

- Measuring precision:
  - Standard: 3 % of measured value or ± 2,5 µm
  - Offset-Accur: 1% of measured value or ± 1 µm
- Smallest sample surface (radius)
  Type F
  - Convex: 1,5 mm
  - Flat: 13 mm
  - Concave: 80 mm
  Type N
  - Convex: 3 mm
  - Flat: 6 mm
  - Concave: 50 mm
- Minimum thickness of base material: 300 µm
- Overall dimensions W×D×H 125×65×26 mm
- Battery operation, batteries standard (4×1.5 V AAA)
- Net weight approx. 0,15 kg

Accessories

- Data transfer software, interface cable included, SAUTER ATC-01, **€ 100,–**
- Calibration foils for increased measuring accuracy (covers the range from 20 up to 2000 µm, with < 3 % tolerance), SAUTER ATB-US07, **€ 115,–**

STANDARD: CAL BLOCK, FOCUS, RS 232, ZERO, BATT, 1 DAY

OPTION: SOFTWARE, ISO +4 DAYS

Model	Measuring range	Readout	Test object	Price excl. of VAT ex works	Option Factory calibration certificate	
SAUTER	[Max] µm	[d] µm		€	KERN	€
TC 1250-0.1F	100 | 1250	0,1 | 1	Type F	**410,–**	961-110	159,–
TC 1250-0.1FN	100 | 1250	0,1 | 1	Combination instrument Type F / Type N	**520,–**	961-112	225,–
TC 1250-0.1FN-CAR	100 | 1250	0,1 | 1	Combination instrument Type F / Type N	**530,–**	961-112	225,–


1


2


3

Ergonomic design and external measuring head for highest ease of use

Features

- External sensor for difficult-to-access measuring points
- Data interface RS-232 as standard
- Base plate and calibration foils included
- 1 Delivered in a robust carrying case
- Offset-Accur: This function allows you to adjust the instrument precisely on the locally measured range by a two-point calibration. This results in a superior accuracy of 1 % (or less) of the measured value
- Selectable measuring units: µm, inch (mil)
- Auto-Power-Off
- Type F: Non-magnetic coatings on iron and steel
- Type N: Coatings on non-magnetic metals

Technical data

- Measuring precision:
  - Standard: 3 % of measured value or ± 2,5 µm
  - Offset-Accur: 1 % of measured value or ± 1 µm
- Smallest sample surface (radius)
  Type F
  - Convex: 1,5 mm
  - Flat: 6 mm
  - Concave: 50 mm
  Type N
  - Convex: 1,5 mm
  - Flat: 6 mm
  - Concave: 50 mm
- Minimum thickness of base material: 300 µm
- Overall dimensions W×D×H 131×65×28 mm
- Battery operation, batteries standard (4×1.5 V AAA)
- Net weight approx. 0,10 kg

Accessories

- Data transfer software, interface cable included, SAUTER ATC-01, **€ 100,–**
- Calibration foils for increased measuring accuracy (covers the range from 20 up to 2000 µm, with < 3 % tolerance), SAUTER ATB-US07, **€ 115,–**
- 2 External sensor, Type F, SAUTER ATE 01, **€ 116,–**
- 3 External sensor, Type N, SAUTER ATE 02, **€ 125,–**

STANDARD: CAL BLOCK, FOCUS, RS 232, ZERO, BATT, 1 DAY

OPTION: SOFTWARE, ISO +4 DAYS

Model SAUTER	Measuring range [Max] µm	Readout [d] µm	Test object	Price excl. of VAT ex works €	Option Factory calibration certificate KERN	 €
TE 1250-0.1F	100 | 1250	0,1 | 1	Type F	**410,–**	961-110	159,–
TE 1250-0.1N	100 | 1250	0,1 | 1	Type N	**450,–**	961-110	159,–
TE 1250-0.1FN	100 | 1250	0,1 | 1	Combination instrument Type F / Type N	**520,–**	961-112	225,–

PREMIUM ★★★

SAUTER TF

PREMIUM ★★★

SAUTER TG

1

Premium coating thickness gauge for paint layer, lacquer layer etc.

Features

- 1 LCD display, backlit, display of all information at a glance
- Offset-Accur: This function allows you to adjust the instrument precisely on the locally measured range by a two-point calibration. This results in a superior accuracy of 1 % (or less) of the measured value
- 2 different measuring modes: single measurement and scan mode for continuous measurement
- Mini Statistics Kit: displays the measured result, the average value and the max and the min value
- Internal data memory for up to 99 values
- Selectable measuring units: µm, inch (mil)
- Base plate and calibration foils included
- Data interface RS-232 as standard
- Delivered in a robust carrying case
- Type F: Non-magnetic coatings on iron and steel
- Type N: Coatings on non-magnetic metals

SAUTER TG

- External sensor for difficult-to-access measuring points

Technical data

- Measuring precision:
  - Standard: 3 % of measured value or ± 2,5 µm
  - Offset-Accur: 1 % of measured value or ± 1 µm
- Minimum thickness of base material: 300 µm
- Overall dimensions W×D×H 126×65×35 mm
- Battery operation, batteries standard (2×1.5 V AAA)
- Net weight approx. 0,10 kg

Accessories

- Data transfer software, interface cable included, SAUTER ATC-01, **€ 100,–**
- Calibration foils for increased measuring accuracy (covers the range from 20 up to 2000 µm, with < 3 % tolerance), SAUTER ATB-US07, **€ 115,–**
- SAUTER TG: External sensor, Type FN, SAUTER ATG 01, **€ 145,–**

STANDARD: CAL BLOCK · SCAN · FOCUS · MEMORY · RS 232 · STATISTIC · ZERO · BATT · 1 DAY

OPTION: SOFTWARE · ISO +4 DAYS

Model SAUTER	Measuring range [Max] µm	Readout [d] µm	Test object	Smallest sample surface (radius) mm	**Price excl. of VAT ex works** **€**	Option **Factory calibration certificate** KERN	 €
TF 1250-0.1FN	100 | 1250	0,1 | 1	Combination instrument Type F / Type N	F: Convex: 1,5/ Concave: 25	**600,–**	961-112	255,–
TG 1250-0.1FN	100 | 1250	0,1 | 1	Combination instrument Type F / Type N	N: Convex: 3/ Concave: 50	**600,–**	961-112	255,–

NEW

PREMIUM ★★★


1

2


3

New-generation measuring coating thickness gauge

Features

- Accurately determines the thickness of coats of paint or varnish on iron or non-iron base material
- Combination of magnetic and eddy current measuring methods enables particularly high levels of precision and flexibility. The base material is detected automatically
- Stable, reliable performance as well as non-destructive measuring
- Measuring range up to 2000 µm
- Low-wear sensor thanks to state-of-the-art technologies
- Single and two-point calibration
- Single and repeated measurements for pass/fail assessment. The three-colour LED display shows the current value attribute (green: qualified, red: below the limit value, yellow: above the limit value)
- 1 The display rotates automatically and makes it easier for the user to read the measured values from many different angles, or alternatively it can be locked in place manually
- Selection of functions with automotive mode, voice transmission, Bluetooth App and LED torch
- Bluetooth App included for communication and applications
- 2 Main application areas: Coating thickness measurement on metals in industry and research, for example in the automobile industry, metal processing, painting and inspection
- 3 Delivery in a practical box

Technical data

- Measuring precision: 2 % of [Max]
- Selectable measuring units: µm, inch (mil)
- With internal sensor
- Internal data memory for up to 55 sets of values and 60 cells per set
- Overall dimensions W×D×H 152×65×35 mm
- Net weight approx. 0,20 kg

Accessories

- Calibration foils for increased measuring accuracy (covers the range from 20 up to 2000 µm, with < 3 % tolerance), SAUTER ATB-US07, **€ 115,–**

STANDARD

PEAK | SCAN | MEMORY | STATISTIC | BT | UNIT | TOL | ACCU | 1 DAY

Model		Measuring range	Readout	Sensor types	Price excl. of VAT ex works
SAUTER		[Max] µm	[d] µm		€
JCT 100	NEW	2000	0,1	FE | NFE	445,–

NEW **New model**

Sauter GmbH
c/o KERN & SOHN GmbH
Ziegelei 1
72336 Balingen
Germany
Tel. +49 7433 9933-0
info@sauter.eu
www.sauter.eu

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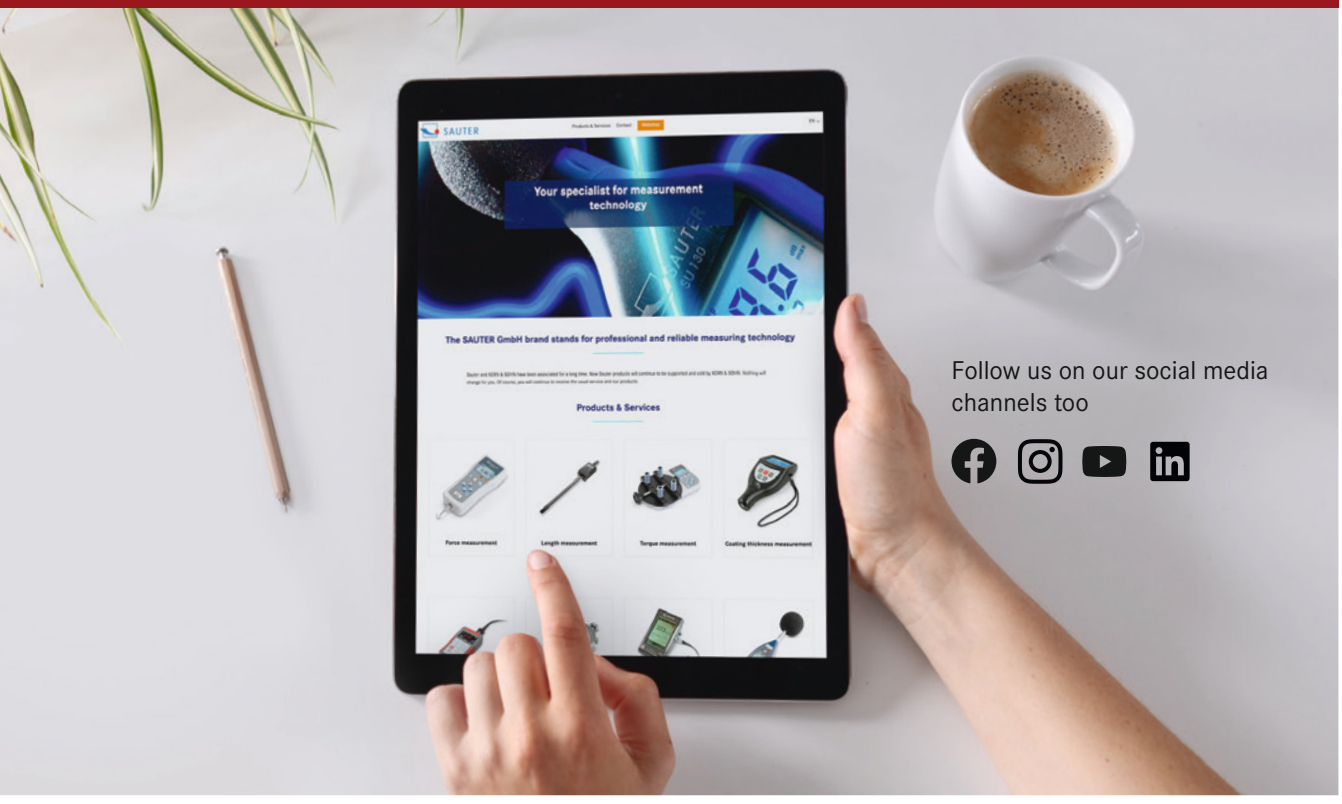
- → KERN Dealer Portal
- → Practical Filter and Search Functions



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Zertifiziertes DQS MED Managementsystem

CONFORMITY ASSESSMENT ACCORDING TO NAWID: 2014/31/EU

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MITTELSTAND GLOBAL HEALTH MADE IN GERMANY