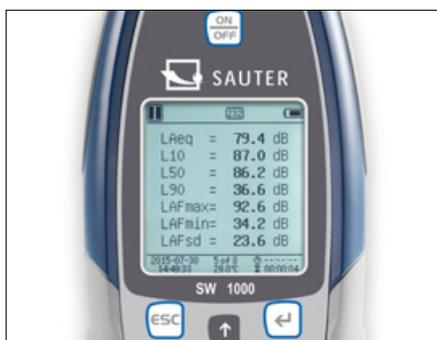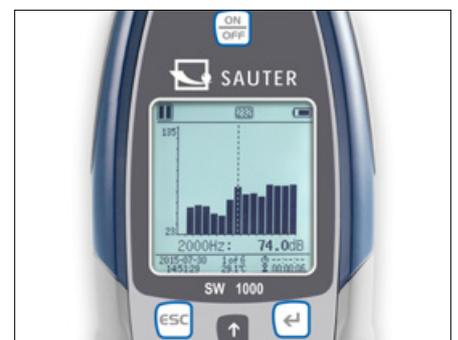Sound level meter SAUTER SW

PREMIUM
★★★

First-class professional Class I, Class II sound level meter

Data logging function with date and time in the device...

... and data transfer using MicroSD (4G) memory card (included in delivery), RS-232 or USB

Different sound pressure levels can be selected, such as, Laeq, LcPeak, LaF, LaFMax, LaFMin, SD, SEL, E

Sound level meter SAUTER SW

Features

- Ideal for measurements for workplaces outdoor, e.g. at airports, on building sites, in road traffic etc. with wide frequency access
- Modern microcontroller architecture for increased stability and accuracy
- A specially-developed algorithm permits a compliant dynamic range of more than 120 dB! (SW 1000: > 123 dB; SW 2000: > 122 dB)
- Three profiles and 14 user-defined measurements can be calculated in parallel with different frequency and time weighting
- LN statistics and display of the graph showing the progression of time
- User-defined integral interval measurement up to a maximum of 24 hours is possible
- Frequency weighting (filter) A, B, C, Z
- Time interval during measurement: F (fast), S (slow), I (pulse)
- Freely-definable limits for the output of an optical alarm signal
- Peak Hold function to capture peak value
- Octave function for targeted sound analysis, can be expanded to 1/3 octave through the purchase of a licence
- TRACK function with graphic display of a measurement
- Calibration mode (with optional calibrator)
- Trigger mode: external start/stop of measurement via 3.5 mm connector
- Automatic measurement for timer function is possible
- Operating languages: EN, DE, FR, ES, PT
- ❷ Option of fitting a stand on the rear of the housing, ¼" thread
- ❶ Delivery in robust transport case

Technical data

- Applicable standards:
  - IEC61672-1:2014-07
  - GB/T3785.1–2010
  - 1/1 Octave in accordance with IEC 61260:2014
- ½" microphone
- Output (direct or alternating current) AC (max 5 VRMS), DC (10 mV/DB)
- Mains operation as standard
- Battery operation possible, 4×1.5 V AA not included, operating time up to 10 h
- Overall dimensions W×D×H 300×80×36 mm
- Permissible ambient temperature -10 °C/50 °C
- Net weight approx. 0,40 kg

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-2.0
- ❷ Stand, W×D×H 430×90×90 mm, 1250×750×750 mm (moved out), SAUTER SW-A05
- SD-memory card, storage capacity 4 GB, SAUTER SW-A04
- Foam protective cover, SAUTER SW-A03
- ❸ Calibrator for regular adjustment of the sound level meter, class 1, as well as testing the linearity of sound level meters
  - Applicable standards: IEC60942:2003 Class 1, ANSI S1.40-1984, GB/T 15173-1994.
  - Output frequency 1 kHz (+/- 0,5 %)
  - Output of acoustic pressure, can be selected at 94 dB or 114 dB (± 0.3 dB)
  - Distortion factor < 2 %
  - Stabilisation time < 10 s
  - Permissible ambient temperature range -10 °C/50 °C
  - The calibrator is designed for ½" as well as ¼" microphones (adapter included in the delivery) in accordance with the IEC 61094-4 standard
  - Battery operation, 2× 1.5 V AA, not standard, operating time up to 40 hours Dimensions W×D×H 70×70×48 mm
  - Net weight approx. 137 g, SAUTER BSWA-01
  - Factory calibration certificate, for calibrator, SAUTER 961-291
  - DAkkS calibration certificate, for calibrator, SAUTER 963-291
- Expansion of the octave band to 1/3 octave, SAUTER SW-A10

STANDARD									OPTION		
PEAK	MEMORY	RS 232	USB	ANALOG	STATISTIC	BATT	230 V	1 DAY	TOL	SOFTWARE	ISO +10 DAYS / DAkkS

Model	Accuracy class	Measuring range Linear [Min]-[Max] dB	Readout [d] dB	Frequency range [Min]-[Max] kHz	Sensitivity mV/Pa	Option **DAkkS** calibration certificate DAkkS KERN	Option **Factory** calibration certificate KERN
SAUTER							
SW 1000	1	20-134	0,1	0,01-20	50	963-281	961-281
SW 2000	2	25-136	0,1	0,02-12,5	40	963-281	961-281

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

WLAN 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

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)

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 USA version available

Integrated power supply unit:
Integrated, 230V/50Hz in EU. More standards e.g. GB, AUS or USA 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

Verification possible:
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:
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