Light meter

SV

SV 100

PROFESSIONAL MEASUREMENT

English Version

Exposure Meter User Manual

Version 1.0
2025-07
en
TSV-BA-e-2510

English

SAUTER SV

Light meter

Exposure Meter User Manual

Version 1.0 2025-07 English Version

Table of Contents:

1 Technical Data

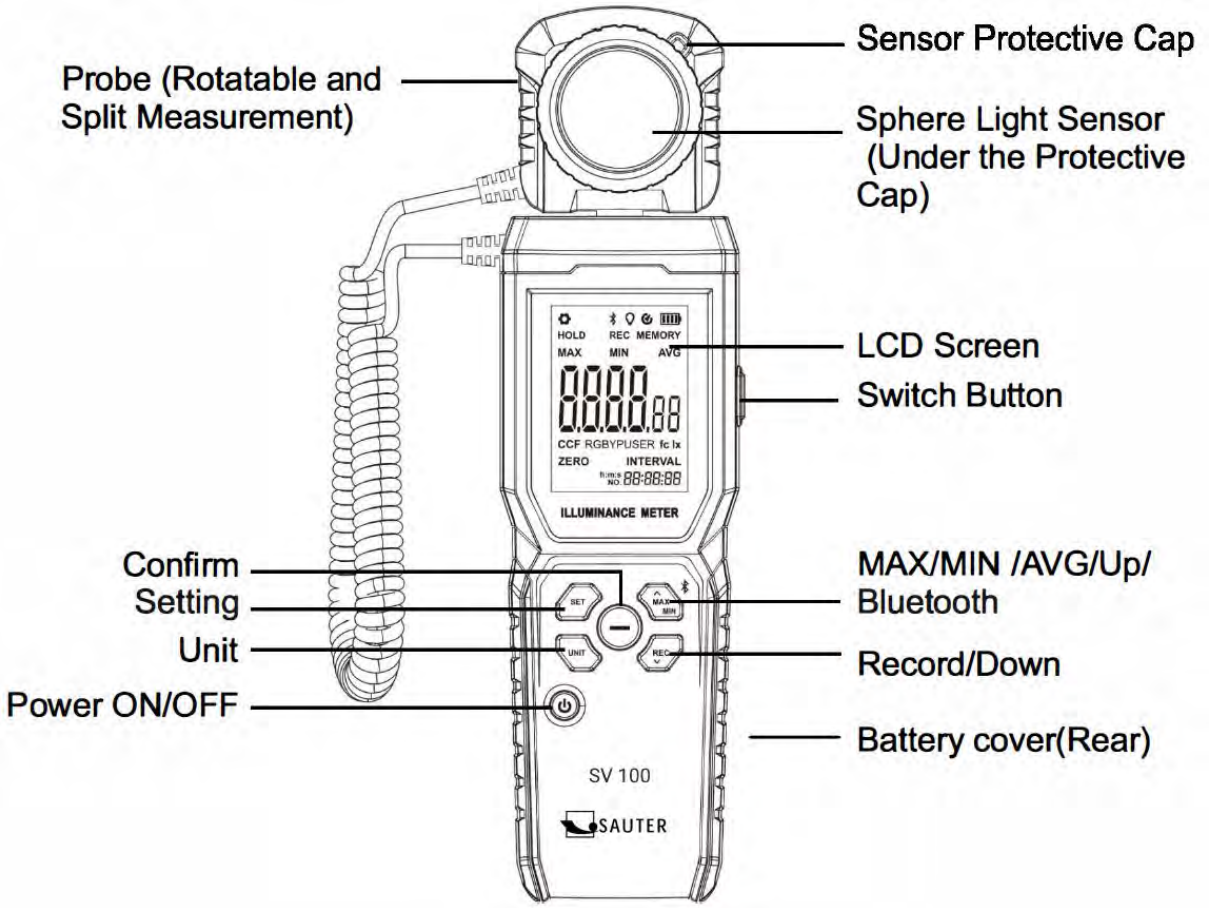
SAUTER Model	SV 100	
Range	0 – 400,000 lx	
Resolution	0–99.99 lx (99.99 fc) 100–999.9 IX (999.9 fc) 1,000–400,000 lx (37,160 fc)	0.011 lx (0.01 fc) 0.1 lx (0.1 fc) 1 lx (1 fc)
Accuracy	±3% calibration relative to a standard light source at 2856 K. ±6% for other visual light sources.	
Unit selector	Lx, fc, 1 fc = 10,764 lx	
Automatic range switch	✓	
MAX/MIN/AVG	✓	
Data hold function	✓	
Color correction factor (CCF)	✓	
Backlight	✓	
Bluetooth app	✓	
Data logging	99 sets	
Recording interval	1 to 59 seconds	
Probe measurement methods	Integrated (rotatable), split design	
Real-time	The time is automatically updated via manual adjustment or connection to a smartphone app.	
Overrange display	OL display	
Low battery indicator	Automatic shutdown when the low battery symbol flashes for 10 seconds	
Auto-off	Automatic shutdown if no operation occurs for 10 minutes (can be disabled)	
Battery	3 x AAA	
Battery life	Approx. 100 hours with backlight off	
Operating temperature and humidity	-10 °C to 50 °C, < 90% relative humidity (non-condensing)	
Storage temperature and humidity	-20 °C to 70 °C, < 90% relative humidity (non-condensing)	
Dimensions	235 x 64.5 x 40 mm	
Weight	Approx. 257 g without battery	

3 Device Overview

3.1 Scope of delivery

- Light meter
- User manual
- Carrying strap
- AAA batteries (3)
- Protective cap

3.2 Components



3.3 Buttons

Button		Short press	Long press
	Setting	Open/close menu	/
	Unit	Unit switch (lx/fx)	
	On/Off ON/OFF	Turn on/off Backlight	Turn on/off
	Confirm	Hold/Confirm	Enter/Exit Data set check
	MAX/MIN	MAX/MIN/AVG/UP	
	Data set	Data set/Down	
	Switch Button	Number key (Record Check/Time Setting)	

4 Basic Information (General)

4.1 General Information on Warnings

Warnings are used in this user manual to alert you to potential injuries or property damage in specific situations.

Signal word	Description of the
DANGER	Failure to follow the instructions will result in serious injury, permanent impairment (e.g., loss of limbs), or death to the user or third parties.
WARNING	Failure to follow the instructions may result in serious injury, permanent impairment (e.g., loss of limbs), or death of the user or third parties.
CAUTION	Failure to follow the instructions may result in minor injuries or temporary harm to the user or third parties (e.g., minor cuts).
NOTE	Failure to follow the instructions may result in property damage.

Symbols in warnings :

Symbol	Meaning
Warning symbol	Warning signs alert you to hazards that can lead to injury. The symbol indicates the type of hazard.
	Indicates general hazards or a hazardous area
	Warning of electrical voltage
	Warning of flammable substances
	Warning of explosive substances
	Warning regarding electrostatic-sensitive components

4.2 Intended use

Use the precision measuring instrument exclusively for determining color spectra and wavelengths. To use the device as intended, avoid drastic changes in the device's external environment during measurement, such as flickering ambient light and rapid temperature fluctuations. During measurement, hold the device steady, keep the

measurement aperture close to the object being measured, and avoid vibrations and movement. Keep the device clean and tidy.
After use, store the device and its accessories in the device box and store it properly. The device should be stored in a dry and cool environment.
If you have any questions, please contact SAUTER or visit our website at www.sauter.eu.

4.3 Improper Use

The measuring device must not be used for medical purposes.
Do not use the device in potentially explosive areas or for measurements in liquids or on live parts. This device is not waterproof and cannot be used in environments with high humidity or water mist. Prevent liquids, powders, or solid foreign objects such as water and dust from entering the measuring opening and the housing.
Unauthorized structural modifications, additions, or alterations to the device are prohibited. Unauthorized modifications may impair the accuracy of the device or even cause irreversible damage to it.

4.4 Warranty

The warranty is void if

- failure to comply with our specifications in the operating instructions
- Use outside the described applications
- Modifying or opening the device
- Mechanical damage and damage caused by media, liquids, or natural wear and tear
- Improper setup or electrical installation
- Improper assembly or electrical installation

5 Basic warnings and safety instructions

5.1 Follow the instructions in the user manual

Read the operating instructions carefully before commissioning/using the device, even if you already have experience with SAUTER devices. Always keep the instructions in close proximity to the device.

5.2 Staff training

The device may only be operated by persons who have read and understood the operating instructions, particularly the chapter on safety.

5.3 Safety

⚠ WARNING	
	**Read all safety instructions and guidelines.** Failure to follow the safety precautions and instructions may result in electric shock, fire, and/or serious injury. **Keep all safety instructions and guidelines for future reference.** ● Ensure that no persons or objects are ever located under the load, as they could be injured or damaged! ● Do not modify the design of the measuring device. This can lead to incorrect measurement results, safety-related defects, and destruction of the measuring device. ● Do not operate the device in or install it in potentially explosive rooms or areas. ● Do not operate the device in a corrosive atmosphere. ● Do not immerse the device in water. Do not allow liquids to enter the interior of the device. ● The device must only be used in a dry environment and under no circumstances in rain or at relative humidity levels exceeding the operating conditions. ● Protect the device from prolonged direct sunlight. ● Do not expose the device to strong vibrations. ● Do not remove any safety signs, stickers, or labels from the device. Keep all safety signs, stickers, and labels legible. ● Do not open the device.

⚠ WARNING	
	**Risk of injury from electric shock!** ● There is a risk of a short circuit if liquids enter the housing! ● Do not immerse the device or its accessories in water. Ensure that no water or other liquids enter the housing. ● Work on electrical components must only be performed by an authorized service provider!

⚠ WARNING

Choking hazard!
Do not leave packaging materials lying around carelessly. They could become a dangerous toy for children.
● The device is not a toy and does not belong in the hands of children.
● This device can be dangerous if used improperly or for purposes other than intended by untrained persons! Observe the qualification requirements for operating personnel!

⚠ WARNING

Electrostatically sensitive device!
● The device can be destroyed by electrostatic discharge. HF signal connections are particularly at risk.
● Please follow the handling instructions for electrostatic-sensitive components.

⚠ WARNING

If rechargeable or non-rechargeable batteries are used improperly, they may catch fire, explode, emit toxic fumes, or release corrosive liquids. Therefore, the following applies to rechargeable and non-rechargeable batteries:
● Protect from fire and heat.
● Never expose to high pressure or microwaves.
● Do not allow contact with liquids or chemicals.
● The electrical contacts of rechargeable batteries and rechargeable cells must never come into contact with metal objects or be short-circuited.
● Never modify rechargeable batteries, batteries, or chargers.
● Batteries must never be recharged.
● Never use or charge a defective, damaged, or deformed battery.
● Do not use power adapters that do not meet the technical specifications. This can shorten the battery's lifespan or even cause an electric shock, which may damage the device or cause a fire.
● If the device is not used for an extended period, the external power adapter should be unplugged to prevent the device from overheating and causing a fire.
● If you do not use the device for an extended period, you should charge it every two weeks; otherwise, the internal battery may be slightly damaged, rendering the device unusable.

CAUTION

● Keep a sufficient distance from heat sources.
● Do not use the device in environments with high humidity or water vapor.

NOTE

● To prevent damage to the device, do not expose it to extreme temperatures, extreme humidity, or moisture.
● Do not use harsh cleaning agents, abrasives, or solvents to clean the device.

6 Transport and Storage

Note

Improper storage or transport may damage the device. Follow the instructions for transporting and storing the device.

Transport

When transporting the device, use the carrying case included in the package to protect it from external factors.

Storage

Observe the following storage conditions when the device is not in use:

- dry and protected from frost and heat
- protected from dust in the carrying case
- the storage temperature complies with the technical specifications

Packaging/Return Shipping

Returns are only possible in accordance with the General Terms and Conditions. Keep all parts of the original packaging for any necessary return shipping.

- Only the original packaging may be used for return shipping.
- Before shipping, disconnect all connected cables and remove any loose or movable parts.
- Reattach all shipping restraints provided.
- Secure all parts to prevent them from shifting or being damaged.

7 Unpacking and Setup

7.1 Unpacking

In the event of a return, please follow the instructions in the “Packaging/Return Shipping” section.

Upon receipt of the device, you should first check that no damage occurred during transport and that the outer packaging, the housing, other parts, or even the device itself have not been damaged. If you discover any damage, please notify SAUTER GmbH immediately.

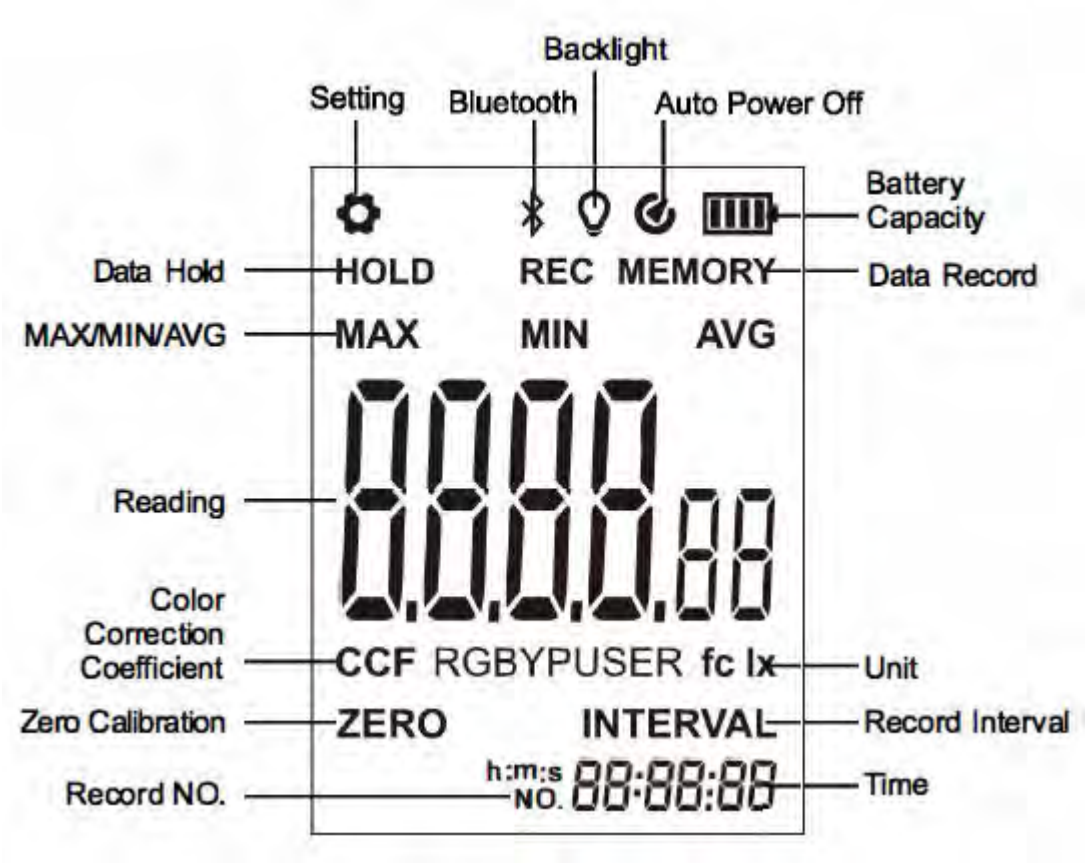
7.2 Initial Setup

To ensure the meter functions properly, insert the batteries into the device ( ).

8 Menu

8.1 LCD Display

After turning on the device, the start screen appears, which leads to the measurement screen:



8.2 Basic measurement Procedure

- Insert batteries
- Turn on the device and remove the sensor cover
- Set parameters
    - The real-time measurement interface is set by default. Skip this step if it is not needed
- Position the sensor and start the measurement
    - The probe is positioned horizontally. The sensor is facing upward, or its window is perpendicular to the measured light source
- Save the measurement values
    - Save up to 99 data sets. Skip this step if not required
- Turn off the sensor and close the protective cap.

8.3 Button operation

a. " " setting

Basic steps:

a) Briefly press the SET button to enter/exit the settings menu in the real-time measurement interface.

b) Briefly press the “MAX” button up or the “REC” button down to switch between the settings options.

c) Briefly press the "Confirm" button to select the option.

d) Briefly press the "MAX up" or "REC down" button to change the setting.

e) Briefly press the "Confirm" button to complete the process.

The specific settings are as follows:

1. Recording setting: Briefly press the “Confirm” button when “REC” appears on the screen and “REC/INTERVAL” begins to flash on the screen. Briefly or long-press the “MAX up” or “REC down” button to set the recording interval (max. 59 s), and briefly press the “Confirm” button to complete the process.

"INTERVAL" in the lower right corner of the screen flashes when you exit the settings menu, indicating that the recording interval has been set. Then briefly press the "REC" button; "REC" will begin to flash on the screen and recording will start automatically. Briefly press the "REC" button to pause recording during the interval, and press it again to resume.

If the recording interval is set to 0 s, INTERVAL will not be displayed in the real-time measurement interface. This is manual recording: Press “REC” once to record a single data point.

A maximum of 99 data sets can be recorded. When no further data sets are possible, the 99th data set is briefly displayed on the screen, then the menu automatically returns to the flashing “INTERVAL” screen. At this point, briefly press “REC” to display “FULL.”

2. Recording Check: When the recording function is turned off in the real-time measurement interface, press and hold the “Confirm” button to enter/exit the recording check. The individual digit of the recording number flashes. Briefly or long-press the “MAX up” or “REC down” button to check the data from 1 to 99 forward and backward. At this point, briefly press the “Switch” button to cycle through the flashing digits of the number and quickly check the data.

Notes: Press the "UP/DOWN" button to check the data from 01 to 99. Holding down the button does not allow for cyclic switching. Outside the range of 00 to 99, the flashing digit cycles between 0 and 9. For example, if the single digit is flashing by default: Press DOWN from 00 to cycle through 00-09-08-07.....00; press UP from 99 to cycle through 99-90-91-92.....99.

3. Resetting to factory settings: “SFr” appears on the screen. Briefly press the “Confirm” button, and the digit “n” will begin to flash. Then briefly press the “MAX up” or “REC down” button to switch to the flashing digit “Y.” Finally, briefly press the “Confirm” button to complete the process.

9 Maintenance, Care, and Disposal

Disconnect the device from the power supply before performing any maintenance, cleaning, or repair work.

9.1 Cleaning

Clean the device with a damp, soft, lint-free cloth. Make sure that no moisture penetrates the housing. Do not use sprays, solvents, alcohol-based cleaning agents, or abrasive cleaners; instead, moisten the cloth only with plain water.

9.2 Maintenance , and Repairs

Do not make any modifications to the device or install any replacement parts. Contact the manufacturer for repairs or device inspections.

9.3 Disposal

Old devices and accessories must not be disposed of with household waste.

The operator must dispose of the packaging and the device in accordance with applicable national or regional regulations at the place of use.

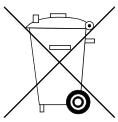
The device consists of various components and materials, such as

- Electronic components (circuit boards, electrical cables)
- Plastic (housing)
- Metal

Improper disposal of the device can have harmful effects on people and the environment.

Proper and environmentally friendly disposal can prevent harmful effects and recover raw materials.

Disposal of batteries:



Rechargeable batteries and batteries do not belong in household waste.

The operator must dispose of batteries and rechargeable batteries in accordance with the applicable national or regional laws of the place of use.

10 Battery Law

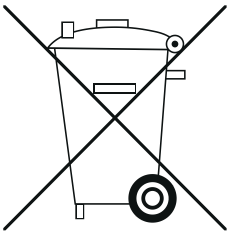
Notice pursuant to the Battery Act (BattG):

INFORMATION

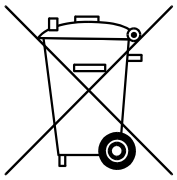
- The following information applies to Germany.

In connection with the sale of batteries and rechargeable batteries, we, as a retailer, are required by the Battery Act to inform end consumers of the following:

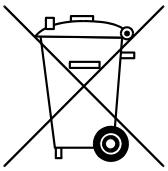
- End consumers are legally required to return used batteries and rechargeable batteries.
- Batteries and rechargeable batteries can be returned free of charge after use to municipal collection points or specialty retailers. The batteries/rechargeable batteries must have reached the end of their normal service life; otherwise, precautions must be taken to prevent short circuits.
- The return option is limited to batteries and rechargeable batteries that we currently carry or have carried in our product range, as well as to the quantity that end consumers typically dispose of.
- A crossed-out trash can symbol means that you must not dispose of batteries or rechargeable batteries in household waste. Old batteries or rechargeable batteries may contain harmful substances that can harm people and the environment if disposed of improperly.



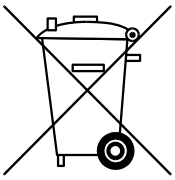
- Batteries containing hazardous substances are marked with a symbol consisting of a crossed-out trash can and the chemical symbol (Cd = cadmium, Hg = mercury, or Pb = lead) of the heavy metal responsible for the classification as a hazardous substance.



Cd



Hg



Pb