

Instruction Manual SN

DIGITAL LUX METER



Thank you for buying a SAUTER Lux Meter. We hope you are pleased with your high quality instrument and its functional range. Although this Lux Meter is a complex and delicate instrument, its ruggedness will allow many years of use if you will care for an appropriate operation and maintenance.

If there are any queries, wishes or helpful suggestions, do not hesitate to call our service number.

Table of contents

1. Features
2. General specifications
3. Front panel description
4. Operation instructions
5. Battery check and replacement
6. Spectral sensitivity characteristics
7. Maintenance
8. Examples of recommended illumination
9. Declaration of Conformity

1. Features

- * Precise and easy readout
- * High accuracy in measuring and excellent operation
- * LSI- circuit use provides high reliability and durability
- * Permits a wide range of light measurements
- * Low battery indicator
- * Adjusting "Zero" automatically
- * LCD display provides low power consumption, even at high ambient light
- * A separate light sensor allows the user to perform measurements at an optimum position.

2. General specifications

Ranges: 1- 100,000 Lux (3 ranges)
 2,000 Lux range: reading x 1
 20,000 Lux range: reading x 10
 100,000 Lux range: reading x 100

Repeatability: $\pm 2\%$

Temperature Characteristic: $\pm 0.1d / ^\circ C$

Test rate: 2 times/ sec.

Photo detector: one silicone photo diode with filter

Operation temperature: $0^\circ C$ to $40^\circ C$ ($32^\circ F$ - $104^\circ F$)

Operation humidity: 0 ~ 70% RH

Storage temperature: $-10^\circ C$ to $50^\circ C$ ($14^\circ F$ - $40^\circ F$)

Storage humidity: 0 ~ 80% RH

Over-input: indication of "1" (2,000 Lux / 20,000 Lux)

Indication of "OVER" (100,000 Lux)

Dimensions: 106 x 57 x 26 mm (photo detector)

130 x 72 x 30 mm (meter body)

150 cm (photo detector lead)

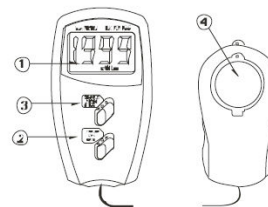
Weight: 170 g

Power supply: one 9V battery, consumption currently

Approx. 2 mA

Accessories: Instruction manual, battery, carrying case

3. Front panel description




1. LCD display
2. Turn on/ off, value hold
3. Range select button
4. Photo detector

4. Operation instructions

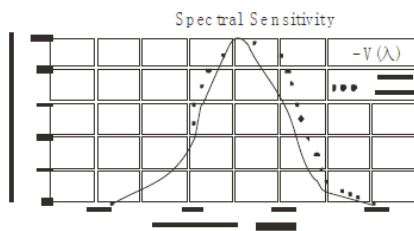
1. First the battery has to be connected, then the button "ON" has to be pressed.
2. The range selection switch has to be pressed to the desired range.
3. The photo detector cap has to be removed and faced to the light source in a horizontal position.
4. Now the test value can be read from the display.
5. Over range means: if the instrument only displays "1" in the LCD, the input signal has been too strong and a higher range should be selected.
6. Data-Hold mode: the HOLD- key (also ON/OFF-key) has to be pressed to select the HOLD mode. In this case, the instrument stops all further measurements and the test value with hold on the LCD. If the button HOLD is pressed again, the hold value will be cancelled.
7. When the measurement is completed, the photo detector cap has to be put on again and the power has to be turned off.

Instruction Manual SN

5. Battery check and replacement

1. If in the left corner of the LCD display the symbol  appears, it is necessary to replace one 9V battery.
2. After turning off the meter, the battery cover has to be pressed and pushed at the same time in the direction of the arrow to open it.
3. The battery has to be disconnected from the instrument and replaced with a standard 9V transistor battery.
4. The battery cover has to be reinstalled.

6. Spectral sensitivity characteristics



7. Maintenance

1. The white plastic disc on the top of the detector should be cleaned with a damp cloth from time to time and if necessary.
 2. The instrument may not be stored when temperature or humidity is excessively high.
 3. The reference level, as the marker on the face plate, is on the top of the photo detector globe.
 4. The calibration interval for the photo detector will vary according to operational conditions, but generally the sensitivity decreases in direct proportion to the product of luminous intensity by the operational time.
- In order to maintain the basic accuracy of the instrument, a periodical calibration is recommended.

8. Examples of recommended illumination

Locations	Lux
OFFICE	
Conference, Reception room	200 ~ 750
Clerical work	700 ~ 1,500
Typing drafting	1,000 ~ 2,000
SCHOOL	
Auditorium, Indoor Gymnasium	100 ~ 300
Class room	200 ~ 750
Laboratory Library Drafting room	500 ~ 1,500
HOSPITAL	
Sickroom, Warehouse	100 ~ 200
Medical Examination room	300 ~ 750
Operating room	750 ~ 1,500
Emergency Treatment	750 ~ 1,500
FACTORY	
Packing work, Entrance passage	150 ~ 300
Visual work at production line	300 ~ 750
Inspection work	750 ~ 1,500
Electronic parts assembly line	1,500 ~ 3,000
HOTEL	
Public room, Cloakroom	100 ~ 200
Reception, Cashier	220 ~ 1,000
STORE	
Indoors Stairs Corridor	150 ~ 200
Show window, Packing table	750 ~ 1,500
Forefront of show window	1,500 ~ 3,000

9. Declaration of Conformity



SAUTER GmbH
 D-72336 Balingen
 E-Mail: info@sauter.eu

Tel: 0049-[0]7433-9976-174
 Fax: 0049-[0]7433-9976-285
 Internet: www.sauter.eu

Konformitätserklärung

Declaration of conformity for apparatus with CE mark
 Konformitätserklärung für Geräte mit CE-Zeichen
 Déclaration de conformité pour appareils portant la marque CE
 Declaración de conformidad para aparatos con marca CE
 Dichiarazione di conformità per apparecchi contrassegnati con la marcatura CE


English	We hereby declare that the product to which this declaration refers conforms to the following standards.
Deutsch	Wir erklären hiermit, dass das Produkt, auf das sich diese Erklärung bezieht, mit den nachstehenden Normen übereinstimmt.
Français	Nous déclarons avec cette responsabilité que le produit, auquel se rapporte la présente déclaration, est conforme aux normes citées ci-après.
Español	Manifiestamos en la presente que el producto al que se refiere esta declaración está de acuerdo con las normas siguientes
Italiano	Dichiariamo con ciò che il prodotto al quale la presente dichiarazione si riferisce è conforme alle norme di seguito citate.

Digital Light Meter: SAUTER SN 100K

Mark applied	EU Directives	Standards
CE	EMV, EMC	EN 61326-1:1997, EN 55022
		EN 61000-4-2/-3

Date: 15.03.2011

Signature:



SAUTER GmbH
 Management

SAUTER GmbH, Tieringer Str. 11-15, 72336 Balingen, Tel: +49 (0) 7433 9976 174, Fax: +49 (0) 7433 9976 285