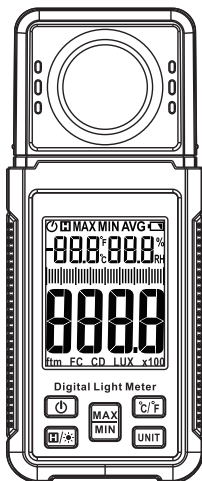




# Alpha Elettronica S.r.l.

User manual (rev. 1)

## 98-832 Digital Light Meter



Imported by Alpha Elettronica S.r.l.  
Strada Antolini, 2/A - 43044 Collecchio (PR) - Italia  
Made in China

## **1 - Introduction**

Please read this installation guide carefully before using the product. This manual provides basic information regarding safe use, installation instructions, and proper operation of the device. The device described in this manual is intended only for the purpose for which it was specifically designed. Any other use is considered improper and dangerous. Keep this instruction sheet.

## **2 - Description**

It is a complete instrument for monitoring environmental conditions.

It accurately measures illuminance up to 200,000 Lux. Ideal for domestic, industrial, and photographic environments.

Compact, reliable, and easy to use. It is equipped with an illuminance sensor, one for temperature, and one for ambient humidity. It is suitable for accurately assessing lighting conditions both indoors and outdoors. It features a large digital display for quick measurement results.

Designed for a variety of applications, such as designing and evaluating lighting for a home or office, lighting for plant growth, and maintenance of industrial equipment.

## **3 - Definitions**

- One lux (lx) corresponds to the illuminance on a surface of one square meter over which a luminous flux of one lumen is uniformly distributed. Equivalently, it is the illuminance on a plane perpendicular

to the rays of a point source with an intensity equal to one candela placed one meter away.

- A foot-candle (fc) is the illuminance on a surface of one square foot produced by a luminous flux of one lumen per square foot, or equivalently by a point source of 1 candela placed 1 foot away (1 fc = 10.7639 lx).






#### **4 - Safety information**

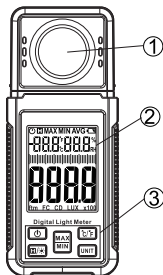
To avoid personal injury, damage to the instrument or the object under test, users should pay attention to the following safety tips.

- This instruction manual contains safety information and warnings.
- Please read the contents carefully and strictly observe all warnings and precautions.
- Inspect the instrument before each use and do not use if it is damaged.
- Follow the instructions when performing tests.
- Do not open the instrument or modify the internal wiring.
- Do not use the instrument with the battery cover removed or the case open.
- Replace the battery when the low battery indicator appears to avoid erroneous measurements.
- Remove the battery if not used for a long time.
- Pay attention to the polarity when replacing the batteries.
- Do not use the instrument in high temperature, high humidity, flammable, explosive and strong electromagnetic environments.

- If there is any abnormality or malfunction in the instrument, the user must stop using it.
- During measurement, do not touch the photodiode sensor to avoid damaging it with electrostatic discharges or contaminants.
- Use a soft cloth to clean the instrument case.
- Do not use abrasives or solvents, cause corrosion of the instrument.
- This device is not a toy: keep out of reach of children and pets.


## 5 - Product overview

- ① Protective shield light sensor
- ② Display LCD
- ③ Function key
-  Power On/Off key
-  Data Hold / backlight key
-  Max / Min key
-  Temperature unit selection key (°C / °F)
-  Unit selection key (Lux / Foot-candle)



## 6 - Measurement operations



### Taking measurements

1. Press the  button to turn on.
2. Remove the protective cap from the sensor
3. Place the sensor horizontally at the measurement point.
4. Read the brightness level on the display.




Note: If “OL” appears on the display, it indicates out of range.

Caution: To protect the sensor from scratches, keep the protective cap on the sensor when the unit is not in use.

### Data Hold

1. Press the  button to freeze the displayed reading. The “H” icon will appear on the display.
2. Press the  button again to return to normal operation.


### MAX/MIN function

1. Press the  button once to set the meter to MAX/MIN mode. The meter will display the highest reading recorded while the function is active. The “MAX” icon will appear on the display.
2. Press the  button again to display the lowest reading recorded while the function is active. The “MIN” icon will appear on the display.
3. To toggle between MAX and MIN readings press the  button again.
4. To exit MAX/MIN mode and return to normal real-time display, press and hold (2 seconds) the








button until the MAX/MIN icons disappear.


## Unit of measurement

Press the  button to select the unit of measurement. "LUX" or "FC" will appear on the display.

## Automatic power on/off

1. Press the  button to turn on the instrument.
2. Press the button  again to turn it off.
3. The instrument features an auto-off function to conserve battery power. After 10 minutes, the instrument automatically turns off.
4. While holding down the  button, turn on the instrument by pressing , automatic power off will be deactivated. The  icon will disappear.

## Backlight function

Press and hold the  button for about 2 seconds to turn on the backlight, then press and hold  again to turn it off.

## 7 - General characteristics

- Display: 2.2" LCD, monochrome, backlit, 4 digits, maximum reading 200000.
- LUX measurement range: 1000, 10000, 200000
- FC measurement range: 100, 1000, 20000
- Measurement range resolution: 0,1/1/100 lx  
0,01/0,1/1 fc
- Accuracy:  $\pm(3\% + 5 \text{ digits})$  with 2854K incandescent lamps.  $\pm(6\% + 5 \text{ digits})$  with other sources.
- Cosine angle deviation characteristics:  $30^\circ \pm 2\%$ ;  $60^\circ \pm 6\%$ ;  $80^\circ \pm 25\%$

- Sensor: silicon photodiode and spectral response filter
- Measurement frequency: approx. 2 times / sec
- Spectral range: 320~730nm
- Operating conditions: 0~40°C, <80%RH
- Operating altitude: <2000m
- Storage conditions: -10~50°C, <80%RH
- Auto power off: 10 minutes
- Power supply: 3x 1.5V AAA batteries (not included)
- Dimensions: 142 x 58 x 28mm
- Net weight (without batteries): 136 g
- Shell material: ABS
- IP protection class: IP40

### **Temperature measurement**

- Range: -20,0°C~60,0°C (-4,0°F~140,0°F)
- Precision: 0,0°C~45,0°C (32°F~113°F)  
±1,0°C/2,0°F
- Other: ±1,5°C/3,0°

### **Humidity measurement**


- Range: 0,0% ~99,9%RH
- Precision: 20%~80%:±5,0%RH
- Other: ±6,0%RH

Note: The 98-832 instrument is optimized for measuring ambient light. When measuring direct white LED light, a coefficient of 0.99 must be applied. For example, if the value displayed on the instrument is 535.5 Lux, the actual value of this white LED light is  $535.5 \times 0.990 = 530.145$  Lux.

## **8 - Package contents**

Luxmeter, bag, user manual.

## **9 - Replacing the batteries**

When the  symbol appears on the display, the battery voltage is low and the batteries need to be replaced.

To replace the batteries, follow the steps below:

1. Turn off the instrument.
2. Remove the battery compartment cover.
3. Remove the old batteries.
4. Insert the new batteries.
5. Close the battery compartment cover.

## **Technical note**

Alpha Elettronica S.r.l. reserves the right to make technical/dimensional changes to improve the features and the performance of the product without prior note.

## **Limitation of liability**

The installation, use and maintenance of the digital luxmeter item code 98-832 (hereinafter referred to as the “device”) are the sole responsibility of the user. Alpha Elettronica s.r.l. is not responsible for any direct or indirect damages resulting from the use or malfunction of the device. Alpha Elettronica s.r.l. declines all responsibility if the device is damaged due to human factors that cause damage, injury or loss. Alpha Elettronica s.r.l. declines all responsibility for damage or injury resulting from improper use or failure to maintain the device. Alpha



Elettronica s.r.l. is not responsible for any type of damage, whether direct or indirect, moral, incidental, special or consequential, such as loss of data, business interruption or financial damage. The liability of Alpha Elettronica s.r.l. is limited to the purchase price of the device. It is advisable to carefully follow the instructions provided in the manual. It is important to comply with local regulations and follow the specific instructions for installation and use.

### **Warranty**

This device is covered by a 24 months warranty from the purchase date in case of any defect on the materials or during the production. The warranty is not valid in case of improper use or misuse or alteration of any kind. The product must be returned to the retailer in order to arrange the repair. The warranty is valid only in case the damaged product is sent back with the invoice or receipt.

### **Product conformity - CE compliance**

This equipment carries the CE mark and complies with the following directives:

Directive 2014/30/EU for Electromagnetic Compatibility.

Directive 2011/65/EU, 2015/863/EU on the restriction of the use of hazardous substances in electronic devices (RoHS).

Directive 2012/19/EU on waste electrical and electronic equipment (WEEE).

For more information visit the website [www.alphaelettronica.com](http://www.alphaelettronica.com)

The user is prohibited from making changes or modifications of any kind to the device. Variations or modifications will cancel the conformity of the product in relation to the above standards.

### **Instructions for the disposal**

According to the Directive 2012/19/EU (Legislative Decree 49/2014 EN62321:2009) and European Law 2018 - Law 3 May 2019, n. 37, the mark of the crossed bin on the product indicates that at the end of its life this product must be handled separately from household waste. It must be disposed of in a responsible manner to a collection point in order to enter the recycling process. For any information about the collecting points please contact the local authority or the local recycling areas.

Scan the QR code to access the product page.

