



MLM 1050

Split illuminance meter

Instruction Manual



Particulars Furnished

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Part Number : 7603141
GTIN: 6298043998208



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Table of contents

I. Product Introduction -----	(02)
II. Product Features -----	(02)
III. Name and function of each component-----	(02)
IV. LCD display-----	(03)
V. Functional operation -----	(04)
VI. Parameters -----	(05)
VII. App Operation Instructions -----	(06)
VIII. Connection between host and PC -----	(11)

Product Introduction

A split illuminance meter is a professional instrument for measuring luminosity and brightness. It is applied in light intensity measurement for engineering, quality control, health prevention, and in diverse environments such as factories, schools, offices, traffic routes, and residential settings.

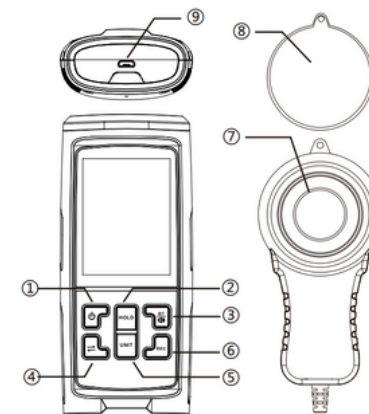
Product Features

This split-type illuminance meter provides illuminance measurement with current, maximum, minimum, and differential values; alarm function when illuminance exceeds the preset threshold; illuminance hold and temperature detection; Bluetooth mobile app and computer communication; and measurement statistics including integral, integral average, and data recording.

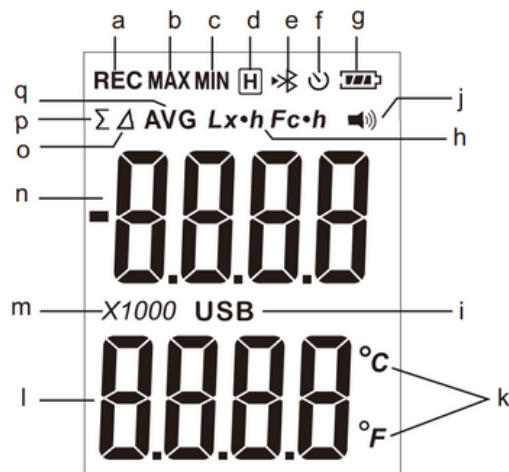
1. Switchable illuminance units (Lx/Fc) and temperature units (°C/°F).
2. Default alarm thresholds: high = 20,000; low = 0 (independent of unit).
3. Automatic range with sensitive response, capable of measuring low-light environments (<10 Lx).
4. Automatic power-off after prolonged inactivity, with restart capability.
5. Conversion: 1 Fc = 10.764 Lx.

Name and Function of Each Component

1. Switch
2. Hold / Zero Calibration
3. Bluetooth / Sound Alarm
4. Measurement Mode Switch
5. Illuminance Unit Switch
6. Record / Delete
7. Illuminance Head
8. Shading Cover
9. USB Charging Interface



LCD Display



- | | |
|-------------------------------|-----------------------|
| a. Data Recording | k. Temperature Units |
| b. Maximum Value | l. Temperature Value |
| c. Minimum Value | Display Area |
| d. Data Hold | m. Illuminance Value |
| e. Bluetooth | Multiplier |
| f. Timed Shutdown | n. Illuminance Value |
| g. Power and Charging Display | Display Area |
| h. Illuminance Units | o. Difference Display |
| i. USB Connection Status | p. Integral Value |
| j. Sound Alarm | q. Integral Average |

Note: When " " appears, charge the device promptly. Otherwise, measured values may be distorted and Bluetooth communication may be abnormal.

Functional Operation

1.Power On/Off

Short press [] to power on. The full-screen interface appears for 2 seconds, then enters real-time mode. After startup, long press Button for 1 second to shut down.

2.Data Hold

In the real-time or difference interface, short press [] to enter Hold mode; [H] appears at the top of the screen. Press again to return to the previous interface. In real-time mode, long press [] to calibrate the zero point.

3.Sound Alarm On/Off

In real-time mode, long press [] to display [] and activate the audible alarm. Long press again to disable it.

4.Measurement Mode Switching

In real-time mode, short press [] to cycle through: Normal → Difference (Δ) → Maximum (MAX) → Minimum (MIN) → Integral Value (Σ) → Integral Average (AVG). Long press [] to return to Normal mode.

5.Illuminance / Temperature Unit Switching

In real-time mode, short press [] to switch illuminance units (Lx/Fc). Long press [] to switch temperature units (°C/°F).

6.Record / Delete Data

In real-time mode, short press [] and [REC] flashes at the top left, indicating data recording. Short press again to stop. Long press [] to delete stored records.

7.Timed Shutdown On/Off

In real-time mode, short press [] to display [] in the upper right corner, enabling timed shutdown. Short press again to disable the function.

8. Bluetooth On/Off Settings

In real-time mode, short press the []. [] appears at the top of the screen.

- When [] flashes, Bluetooth is enabled.
- When [] remains steady, the device is connected.
- The first short press after connection disconnects Bluetooth.
- The second short press turns Bluetooth off.

9.Display

- **Difference (△):** Absolute value of the current reading minus the previous value.
- **Maximum Value (MAX):** Highest value recorded after a short press.
- **Minimum Value (MIN):** Lowest value recorded after a short press.
- **Integral (Σ):** Calculated by summing the average comparison values within 0.001 hour of unit time; maximum displayable value is 999999.
- **Integral Average (AVG):** Integral value divided by cumulative frequency.
- **Data Hold (H):** Stores the current reading.

10. Power-Off Memory

- Automatic shutdown function (1 min–99 min)
- Bluetooth switch
- Alarm sound switch
- Illuminance & temperature units (Lx/Fc & °C/°F)
- Maximum record capacity: 32,752; recording interval: 1 s–9,999 s

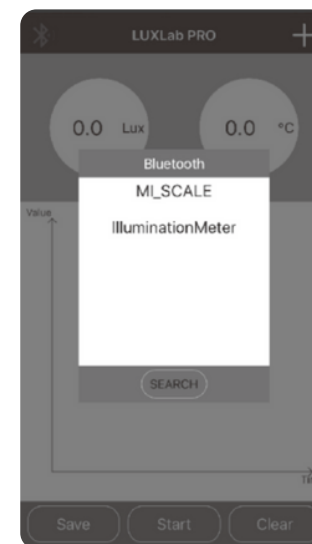
Parameters

illuminance probe		silicon photodiodes	
Illuminance range		0~200000Lx (0~18581Fc)	
gears	Gear range	resolution	error
1 gear	0~999.9Lx (0~92.894Fc)	0.1 Lx (0.01Fc)	±3%
2 gear	1000~9999Lx (93~929Fc)	1 Lx (0.1Fc)	±4%
3 gear	10000~99999Lx (929~9290Fc)	10 Lx (0.9Fc)	±4%
4 gear	100000~200000Lx (18581Fc)	100 Lx (9.3Fc)	±4%
Temperature range	-10°C~65°C (14°F~149°F)	0.1 °C (32°F)	± 1.5°C (35°F)

App Operation Instructions

1.App Main Interface

- On the homepage, tap the [➤] in the upper left corner.
- Select Search. When the device list displays Illumination Meter, tap the device name.
- When the prompt Connection Successful appears, the device is connected.
- If Connection Failed is displayed, tap Search again and reselect the device name.

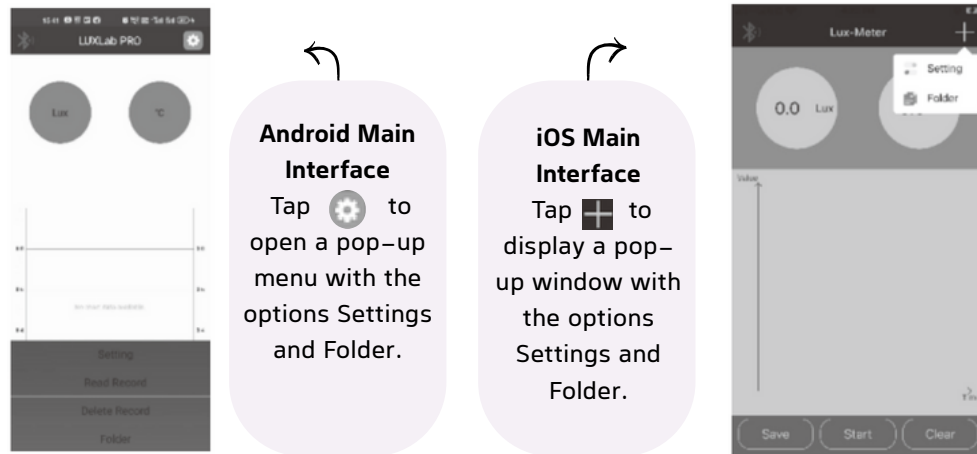


(2) After a successful connection, three buttons appear at the bottom of the page: Save, Start, and Clear.

- **Start:** Begins real-time data acquisition and generates a line chart. Click again to stop.
- **Save:** Stores the real-time data currently displayed. When naming the file, the saved data can later be accessed in the Folder.
- **Clear:** Deletes previously read real-time data as well as the data currently displayed on the line chart.

(3) To access additional functions, tap the Settings button in the upper right corner. A dropdown menu with two options will appear: Setting and Folder.

- Setting: Opens the settings page, where device parameters can be configured.
- Folder: Opens the data folder, providing access to historical records, stored real-time data, and the history list.



2. Setup Page

The settings page is divided into two sections: Content Settings and Alarm Value Settings.

(1) Content Settings

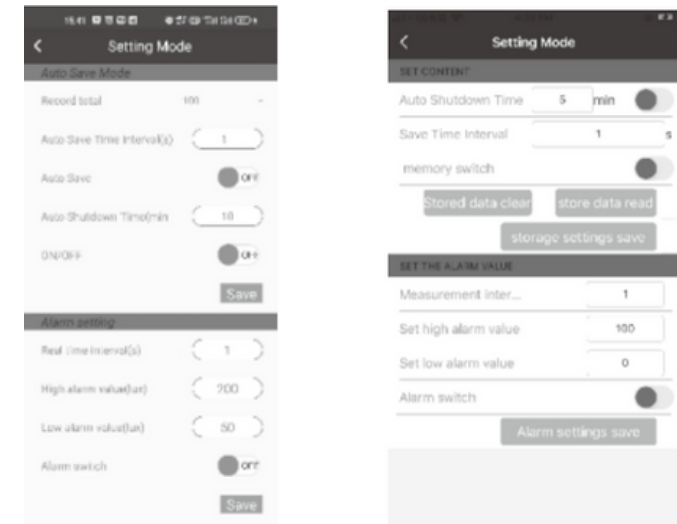
- Scheduled Shutdown: Enable the shutdown switch, set the desired time, then click Save Storage Settings to confirm.
- Stored Data Count: Displays the number of data records currently stored on the device. The label Occupied shows the percentage of total memory used.
- Storage Interval: Set the time interval for data storage, then click Save Storage Settings to apply.
- Data Storage Control: To start storage, enable the Storage Switch and click Save Storage Settings. To stop, disable the Storage Switch and confirm with Save Storage Settings again.

(1) Content Settings (continued)

- Clear Stored Data: Erases all data currently stored on the device.
- Read Stored Data: Transfers stored data from the device to the mobile phone for viewing.
- Save Settings: Saves scheduled shutdown time, shutdown state, storage interval, and switch state. Note: When the memory switch is enabled, the Read Data button is disabled. Data can only be read after the memory switch is turned off.

(2) Alarm Value Settings

- Measurement Interval: Defines the interval for acquiring real-time data from the device.
- High/Low Alarm Values: Allows custom configuration of alarm thresholds. Default high alarm = 10,000; maximum = 200,000. Default low alarm = 0. After adjustment, click Save Alarm Setting to confirm.
- Alarm Switch: Enables or disables the alarm function.
- Save Alarm Settings: Stores the configured high and low alarm thresholds.



3. Historical Data Page

1.Data Classification:

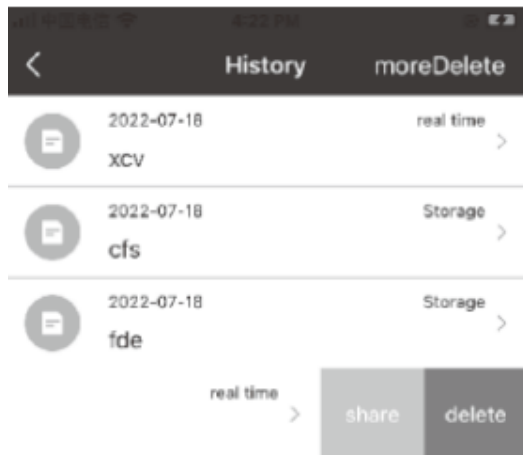
- Real-time data saved from the home page is marked with "Real Time" on the right side of the list.
- Data read from the device on the settings page is marked with "Storage".
- The left side of the list displays the date, time, and file name.

2.Bulk Deletion:

- Tap Delete More in the upper right corner to enable checkboxes next to each saved record.
- Select the desired records and tap Delete in the upper left corner to remove multiple entries simultaneously.

3.Slide Options (Per Data Group):

- Share: Exports the selected data for third-party use. Shared files can be viewed in Excel format.
- Delete: Removes the selected data entry individually (does not delete multiple files).



4. On the data details page, the saved data is displayed in a list, which is convenient for users to view The upper right corner of

@shows the number of data stored in the current data group.

@In the first line, when in "Save" mode, the serial number is displayed. In the "real-time" mode, the time displayed is the real-time display time.

@The second line is the numerical value of illuminance. What follows is the unit at the time of saving. If the unit is changed during use, it will also be displayed here.

@The third line is the temperature value/pattern (Note: The "temperature value" is displayed in real time, "Mode" is displayed in storage state).

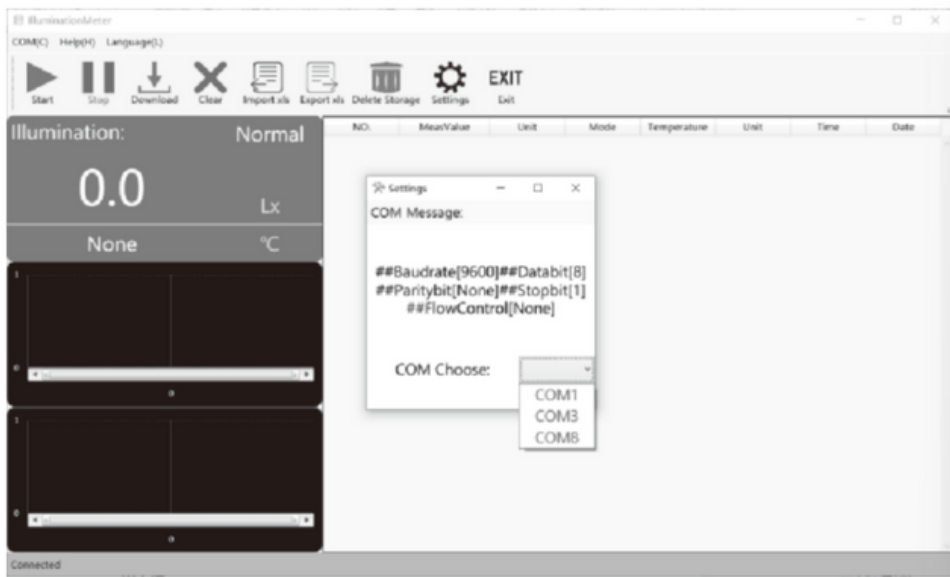


recordingTime	Illuminance	Temperature
14:44:33	36.6 Lux	26.1 °C
14:44:34	36.7 Lux	26.2 °C
14:44:35	36.9 Lux	26.0 °C
14:44:36	37.8 Lux	26.1 °C
14:44:37	37.4 Lux	26.0 °C
14:44:38	29.6 Lux	26.1 °C
14:44:39	37.6 Lux	26.1 °C
14:44:40	23.0 Lux	26.1 °C
14:44:41	37.9 Lux	26.1 °C
14:44:42	28.1 Lux	26.0 °C
14:44:43	39.7 Lux	26.1 °C
14:44:44	14.6 Lux	26.0 °C
14:44:45	38.6 Lux	26.1 °C
14:44:46	39.0 Lux	26.1 °C

Connection Between Host and PC

1. Instructions for Use

- Computer Requirements: Minimum 4 GB RAM, processor frequency 3 GHz or higher, operating system: 64-bit Windows 7 / Windows 10 / Windows 11.
- Serial Communication: Select the correct port before use. For real-time measurement, ensure the product is connected. The status “Connected” will appear in the lower-left corner. If “Ready” is displayed, the device is not connected.

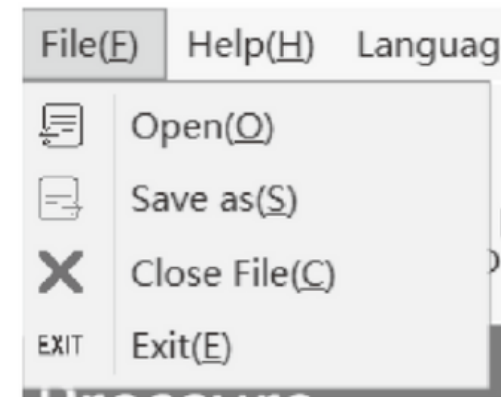


(3) When the icon is gray, the function is unavailable.

(4) A single computer can run multiple Illumination Meter applications simultaneously.

2. Menu Bar

- Documents:
- Use the shortcut Alt + F + Up/Down to navigate between options: Open → Save As → Close File → Exit. Press Enter to confirm a selection, or use mouse operation (see Figure 1).



(Figure 1)

(2) Help

Use the shortcut Alt + H + Up/Down to navigate options such as About and Help. Press Enter to confirm, or use mouse operation (see Figure 2).

(4) Language Switching

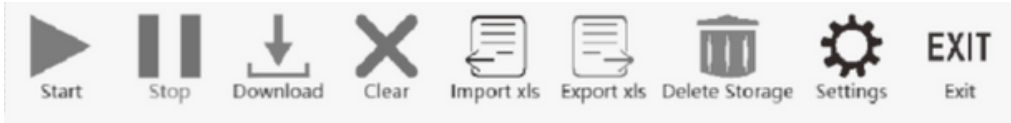
Use the shortcut Alt + L + Up/Down to switch between Simplified Chinese and English. Press Enter to confirm, or use mouse operation (see Figure 3).



(Figure 2)

(Figure 3)

3. Key bar



(1) Start

After the product is connected to the computer, click Start to initiate measurement and synchronize data to the computer in real time.

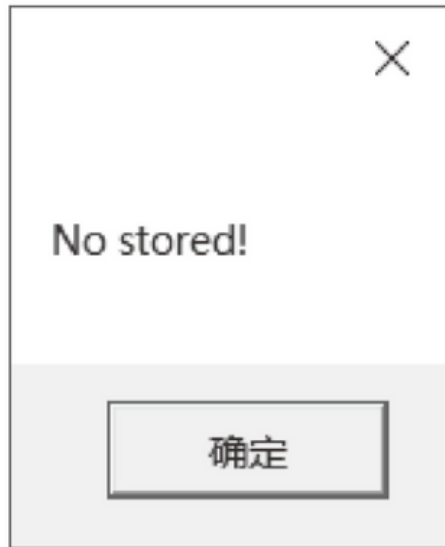
(2) Stop

Click Stop to terminate real-time measurement and end data transmission.

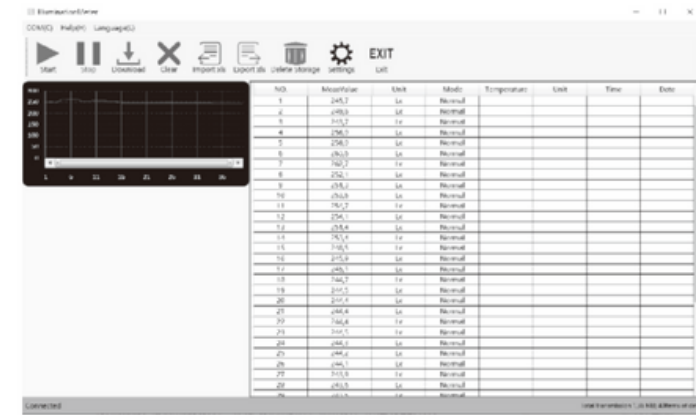
(3) Download

Used to transfer data stored on the device when it is not connected in real time.

- If no data is stored, "No Storage" is displayed (Figure 4-1).
- If data is stored, clicking Download displays the files in the Documents column.



(Figure 4-1)



(Figure 4-2)

(4) **Clear:** Deletes recorded data.

(5) **Input XLS:** Imports files in .xls format only.

(6) **Output XLS:** Exports data in .xls format. The output path can be customized, and the file can be opened in Excel.

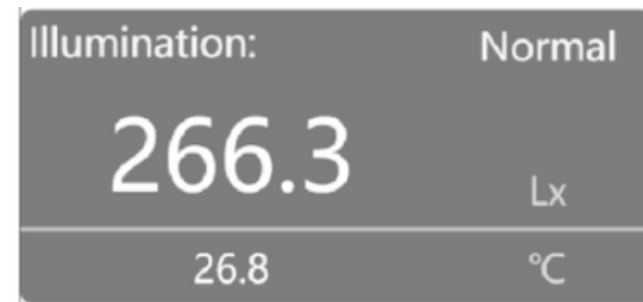
(7) **Delete Storage:** Erases all stored data from the meter.

(8) **Setting:** Reads the instrument's configuration and opens the settings page. If no update occurs, click again.

(9) **Exit:** Closes the software.

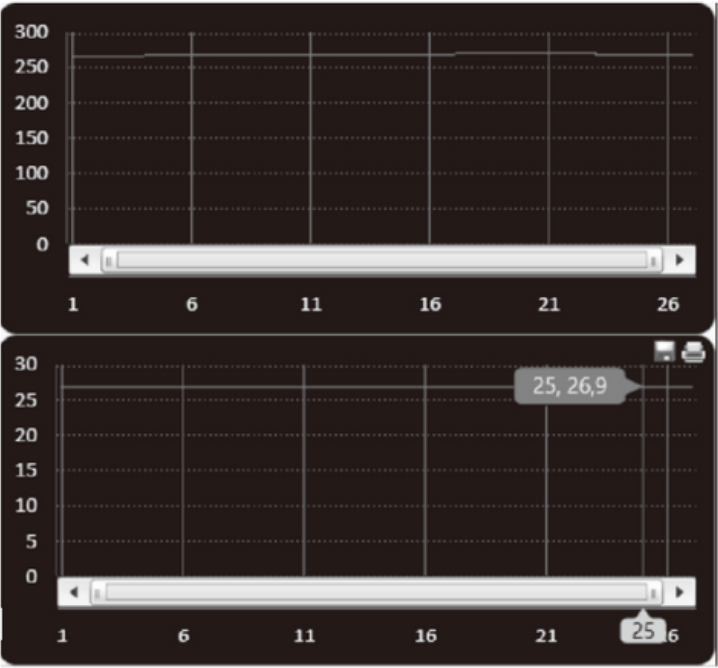
4. Measurement Display

When measurement begins, click Start to record data in real time (see Figure 5). Click Stop to end the measurement.



(Figure 5)

5.line chart:



(Picture above image below)

- (1) The X-axis represents the sampling data serial number. The upper Y-axis shows the illuminance value, and the lower Y-axis shows the temperature value.
- (2) Illuminance and temperature units correspond to the units selected on the product during real-time measurement.
- (3) When the mouse pointer moves to the interface, Save and Print icons appear in the upper right corner. Use the mouse wheel (middle key) to zoom in or out.

6. Tabular Interface

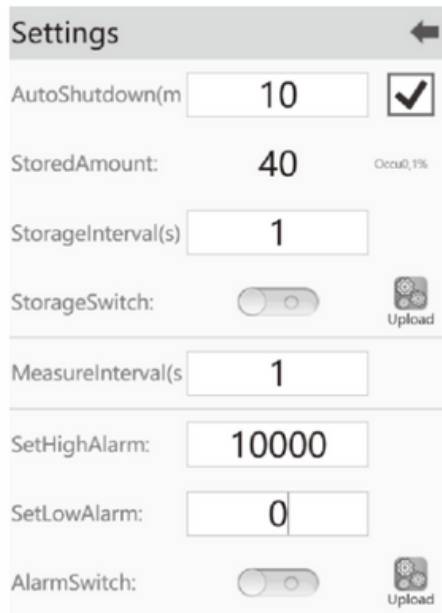
- 1.The table updates with each data transmission, displaying: illuminance value, illuminance unit, mode, temperature value, temperature unit, computer time, and computer date.
- 2.Time and Date fields correspond to the current computer system time and date.
- 3.Column width can be adjusted by dragging with the mouse.
- 4.To save table data, click Output in the button bar, select the desired path, and assign a file name.

NO.	Meas,value	Unit	Mode	Temperature	Unit	Time	Date
3	264.9	Lx	Normal	26.9	°C	16:24:58	07/06/2022
4	263.9	Lx	Normal	26.9	°C	16:24:59	07/06/2022
5	262.2	Lx	Normal	26.9	°C	16:25:00	07/06/2022
6	262.1	Lx	Normal	26.9	°C	16:25:01	07/06/2022
7	262.2	Lx	Normal	26.9	°C	16:25:02	07/06/2022
8	262.4	Lx	Normal	26.9	°C	16:25:03	07/06/2022
9	262.3	Lx	Normal	26.9	°C	16:25:04	07/06/2022
10	261.8	Lx	Normal	26.9	°C	16:25:05	07/06/2022
11	261.3	Lx	Normal	26.9	°C	16:25:06	07/06/2022
12	261.4	Lx	Normal	26.9	°C	16:25:07	07/06/2022
13	262.3	Lx	Normal	26.9	°C	16:25:08	07/06/2022
14	266.1	Lx	Normal	26.9	°C	16:25:09	07/06/2022
15	268.1	Lx	Normal	26.9	°C	16:25:10	07/06/2022
16	268.3	Lx	Normal	26.9	°C	16:25:11	07/06/2022
17	269.7	Lx	Normal	26.9	°C	16:25:12	07/06/2022
18	265.9	Lx	Normal	26.9	°C	16:25:13	07/06/2022
19	260.1	Lx	Normal	26.9	°C	16:25:14	07/06/2022
20	259.0	Lx	Normal	26.9	°C	16:25:15	07/06/2022
21	262.5	Lx	Normal	26.9	°C	16:25:16	07/06/2022
22	259.1	Lx	Normal	26.9	°C	16:25:17	07/06/2022
23	255.6	Lx	Normal	26.9	°C	16:25:18	07/06/2022
24	256.5	Lx	Normal	26.9	°C	16:25:19	07/06/2022
25	260.2	Lx	Normal	26.8	°C	16:25:20	07/06/2022
26	262.1	Lx	Normal	26.9	°C	16:25:21	07/06/2022
27	263.4	Lx	Normal	26.9	°C	16:25:22	07/06/2022
28	263.3	Lx	Normal	26.9	°C	16:25:23	07/06/2022
29	263.3	Lx	Normal	26.9	°C	16:25:24	07/06/2022
30	263.4	Lx	Normal	26.9	°C	16:25:25	07/06/2022

7. Setup Interface

- 1.Automatic Shutdown: Must be enabled before setting. Range: 1–99 minutes. Click  to save to the instrument.
- 2.Stored Data: Maximum capacity 32,752 records. Recording time = interval (1–999 s) × number of records. Enable the recording switch, then click Upload to store settings.
- 3.Online Measurement Interval: Adjustable range 1–999 s. This setting is applied automatically, no upload required.

- (4) Set the alarm value within 0.0–200000 (unit-independent). Enable the switch and click Upload to save to the meter.
- (5) Before entering a new setting value, delete the existing value in the box. Otherwise, an error message will occur.



The screenshot shows a 'Settings' screen with a back arrow at the top. It contains several configuration options:

- AutoShutdown(m)**: A numeric input field with the value '10' and a checked checkbox.
- StoredAmount:**: A numeric input field with the value '40' and a small text label 'Occu0, 1%' to its right.
- StorageInterval(s)**: A numeric input field with the value '1'.
- StorageSwitch:**: A toggle switch that is currently turned off, with an 'Upload' button (gear icon) to its right.
- MeasureInterval(s)**: A numeric input field with the value '1'.
- SetHighAlarm:**: A numeric input field with the value '10000'.
- SetLowAlarm:**: A numeric input field with the value '0'.
- AlarmSwitch:**: A toggle switch that is currently turned off, with an 'Upload' button (gear icon) to its right.

8. Status Bar

- Displays the connection status between the product and the computer

(1) Unconnected products:

Connected

(2) Connected products:

Disconnected