

Temptop

**S1
Air Meter
User Manual**

Factors Affecting Air Quality



PM2.5 (Particulate Matter 2.5) refers to fine particles with diameter of 2.5 micrometers or less. Due to its tiny size, PM2.5 can be absorbed into bloodstream and the lungs, which may cause eye and nose irritation, cough, asthma, emphysema, lung disease, heart attacks, cancer and etc.



Temperature & Humidity may often be ignored however they do have a significant impact on individual's well-being, comfort, health and safety as well as your property. High humidity may lead to an increase in household air pollutants especially the biological contaminants such as molds, bacteria, viruses and dust mites; cold, low humidity may cause nosebleeds, skin and respiratory irritations, dyspnea, static electricity and etc.

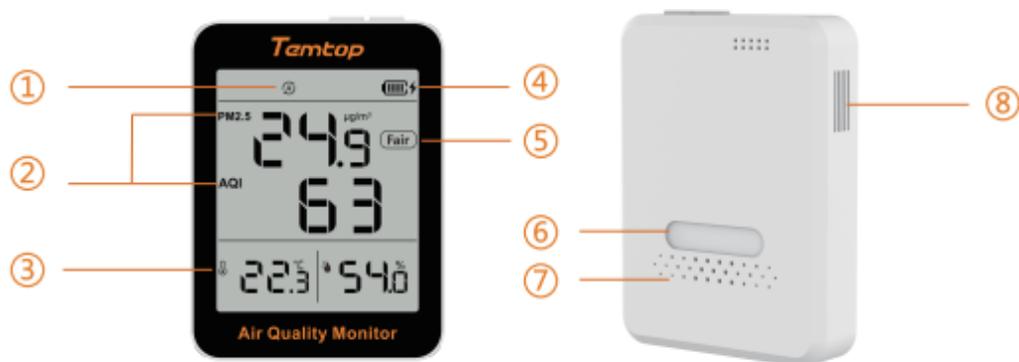


AQI (Air Quality Index) is a quick guide showing how clean or polluted the air is, using a range from 0 to 500, where higher index values indicate higher levels of air pollution and higher risks to health. There are six pollutants for AQI in US standard: PM2.5/10, O₃, SO₂, NO₂, CO, where Temtop only focus on PM2.5/10 and follows the US EPA Standards to compute AQI.

Important

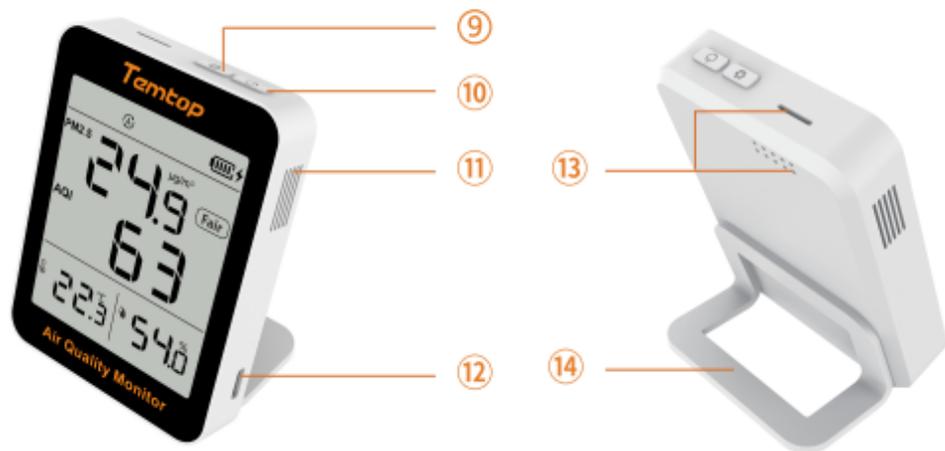
- ★ Do not place detector in heavily polluted environments for a long time; or it may cause damages to the sensor.
- ★ Do not use the detector in a humid environment for a long time to ensure the measurement accuracy.
- ★ Do not cover the vents of the detector, and do not let fluff enter the detector, otherwise the particle sensor may not work properly.
- ★ This product is only used to monitor the health of the indoor environment and cannot be used as a professional measurement tool.
- ★ Do not disassemble the device. In the event of a defect, please contact your dealer. The dealer will contact the Service Centre and can send the device in to be repaired, if necessary.
- ★ Children should only use the device under adult supervision. Keep packaging material, like plastic bags and plastic film, out of the reach of children, as they pose a choking hazard.

Overview



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- ① Work mode
 - ② PM2.5 & AQI level
 - ③ Temperature & Humidity level
 - ④ Battery level & Charging status
 - ⑤ Health level display area
-
- ⑥ Magnetic Back
 - ⑦ Vents
 - ⑧ Air inlet
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Overview



⑨ Mode button ⑩ Power button ⑪ Air outlet ⑫ USB port

⑬ Temperature and humidity detection port

⑭ Bracket

Specifications

Model	S1
PM2.5	Sensor: Laser PM sensor Measuring range: 0-999 $\mu\text{g}/\text{m}^3$ Resolution: 0.1 $\mu\text{g}/\text{m}^3$ Accuracy: $\pm 5 \mu\text{g}/\text{m}^3$ (0-50 $\mu\text{g}/\text{m}^3$) $\pm 10 \mu\text{g}/\text{m}^3$ (50-100 $\mu\text{g}/\text{m}^3$) $\pm 10\%$ (100-500 $\mu\text{g}/\text{m}^3$)
Temperature*	Measuring range: -10-60°C (14-140°F) Resolution: 0.1°C, Accuracy: $\pm 0.5^\circ\text{C}$ ($\pm 0.9^\circ\text{F}$)
Humidity	Measuring range: 0-99.9% RH Resolution: 0.1% RH, Accuracy: $\pm 3\%$ RH

- * When the product is charged, the temperature will have an error of $\pm 0.5^\circ\text{C}$, and it will recover in about 10 minutes after full charge.
When the temperature measurement environment suddenly changes, and the temperature difference is large, it may takes 3 to 5 minutes adaptation time.

Specifications

Dimension	3.5*2.7*0.7 (inches)
Battery Capacity	800mAh
Work Mode	Ⓐ Smart Mode (automatic) Ⓡ Real-time mode (about 1.5s) Ⓢ Interval Mode (5min) Ⓣ Power-saving Mode (30min)
Battery Life	Ⓐ about 22 days Ⓡ about 7 days Ⓢ about 25 days Ⓣ about 60 days
Input	5V/1A
Display	Segment code screen 3.3inches
Weight	About 110g
Operation Environment	-10-60°C/0-99.9%

Note: The above data are from Temtop Laboratory.

Operation

Warning!

- Indoor use: Keep the room/area airtight for 10 minutes to obtain more accurate results.
- If battery level shows , please charge the detector promptly to avoid effects during use (also chargeable when turned off).

1. On/Off

Press 3s to turn ON/OFF the S1 monitor.



2.Display

1. The S1 has four working modes, and you can switch the working mode by pressing the Mode button after power on.



Mode display

Mode Button:

- 1) Short press to switch between the work mode (4 different types)
- 2) Long press 2s to switch between the temperature unit ($^{\circ}\text{F}/^{\circ}\text{C}$)

Ⓐ Smart mode

Embedded sensor automatic control algorithm, taking into account the dynamic balance of data detection and product battery life, to provide users with a good experience!

Ⓡ Real-time mode

The particle data collection time is about 1.5 seconds when the AQM is just running, and it will be collected every 1 minute after running for 30 minutes. When the product is charging, the data will keep refreshing every 1.5 seconds.

- ⑤ Interval Mode (5min)
PM2.5 Sensor works every 5 minutes;
- ⑩ Power-saving Mode (30min)
PM2.5 Sensor works every 30 minutes;

Note: Temperature and humidity refresh data every 5 seconds.

2. S1 monitoring function



1) When the battery is displayed as  empty, please charge it in time, and the charging icon  will be displayed when charging.

2) When the battery power is extremely low, the battery icon  will flash 3 times and then shut down.

Air Quality Parameter for Reference

Status Pollutant	GOOD	FAIR	POOR
PM2.5 ($\mu\text{g}/\text{m}^3$)	0-12	12.1-55.4	> 55.4
AQI**	0-50	51-150	> 150

**Refers to EPA standards, with PM2.5 as the main responsible pollutant.

Multiple Mounting Choices



① Place Directly



② Tabletop Stand
(Bracket included)



③ Magnetic Back

FAQ

Q: Why is the PM2.5 reading constantly changing?

A: As PM2.5 concentration in the environment is changing all the time not only due to environmental factors like changes in airflow, humidity, wind direction and etc. but also due to common pollutant sources like smoking, cooking; exhaust emissions from vehicles, smoke from burning coal/chimneys/furnaces and etc. All these may influence the PM2.5 concentrations and give differences in the readings.

Q: Why is the test result abnormal ?

- A:
- ① Please check whether the air inlet or outlet is covered or liquid has entered.
 - ② Gently shake the detector during detection to increase the interaction with surrounding air.
 - ③ The sensor may be not recovered, Please place the detector outdoors for ventilation.

Q: Why data reading is unstable?

A: If the airflow in the current sampling space is in an unstable state, such as strong wind, the concentration of particulate matter in the air will be unevenly distributed, and will vary greatly with the surrounding airflow, resulting in large differences in measured values.

FAQ

Q: Why is the product data higher near the light source?

A: Our sensor uses the principle of light scattering, and the photosensitive element is close to the air inlet. If a strong light source is used to illuminate the position of the air inlet, it will interfere with the light signal and affect the data. Therefore, it is necessary to avoid direct glare from the air inlet.

Q: AQI/ PM2.5 and other values, why the measured value is inconsistent with the official announcement?

A: The AQI/PM2.5 shown on the display is a measurement of the space where the device is located. The measured value published on the Internet or official websites is the average value of several monitoring points, and each measurement point will be different. At the same time, according to the regulations of EPA and WHO, the AQI value is calculated based on the highest value among the five pollutants in the atmosphere on that day. In the past ten years, the local AQI in the United States has basically been calculated with the value of PM2.5/PM10, and sometimes with the value of O₃.

What's Included

- Detector x 1
- USB Cable x 1
- User Manual x 1
- Bracket or accessories set x 1

Warranty

Temtop warrants the included detector for 1 year from the date of original purchase. The item can be exchanged or returned within 30 days if the defect is not caused by artificial damage.

Item	Warranty Period
Detector	1 year included
Accessories	N/A

Before return or delivery for repair, please check if the following items are ready:

	Detector & Accessories	Complete Package	Proof of Purchase*	Gift (if any)
Return	✓	✓	✓	✓
Exchange	✓	✓	✓	
Repair	✓		✓	

*Including invoice, order number and etc.

Temtop warranty does NOT include:

- Malfunction or damages caused by artificial damage or modification.
- Other deliberate damages.
- Damage caused by natural events.

Temtop

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V1.1

Made in china