# Smart Air Quality Monitor & Controller



TVOC mg/m³

T 3.50

28℉

65%

550

PPM

CO2

PM1.0 µg/m³

16

PM2.5 µg/m³

26

| Inter-Connecting Humidfier | Inter-Connecting Air purifier/Fans/AC |
|---|---|
| Alarm-shutdown Threshold | Alarm Threshold |
| Up | Down |
| SET  AQI Value Set Button | ESC  Escape Key |
| Power/Enter Button | |
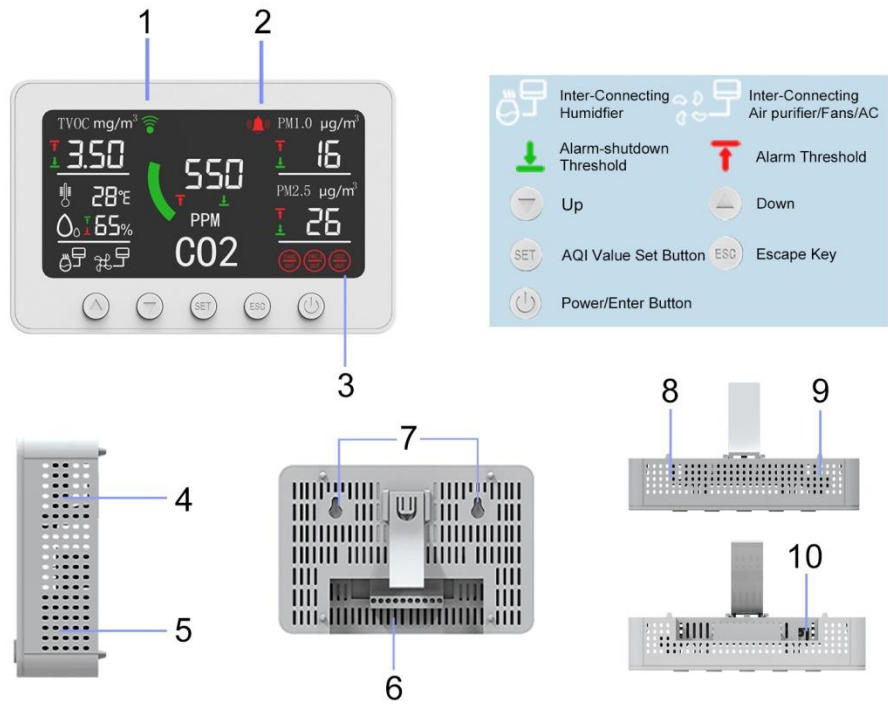
1. Wi-Fi Indicator

2. Alarm Indicator

3. TVOC/CO2/PM2.5 Signal Output

4. Buzzer Bit

5. Temp & Humidity Sensor

6. Electric relay/RS-485 signal port

7. Mounting Hole

8. CO2 NDIR Sensor

9. TVOC and Dust Laser Sensor

10. Charging Port

**PRODUCT PARAMETER**

Product Name: Smart Air Quality Monitor

Model Name: PT02

Color: Silver/Black/White

Temperature Measurement Range: -20°C~60°C; ±2 °C

Humidity Measurement Range: 5%~95%RH; ±5%RH

CO2 Measurement Range: 400-5000ppm, Resolution: 1ppm

CO2 Measurement Accuracy: ±50ppm or ±5% of reading

TVOC Measurement Range: 0～20mg/m3

PM1.0 Measurement Range: 0～500μg/m3

PM2.5 Measurement Range: 0～500μg/m3

Working Temperature: 0 °-50 °C

Working humidity: 0-95% (non-condensing)

Input Voltage: DC 12V/2A

Product Weight: Around 500g

Product Size: 180mm(L) * 39mm(W) * 119mm(H)

Single Output wiring: RS485/Relays for CO2, TVOC, PM1.0, PM2.5, and Humidity signal output


**PRODUCT OPERATION**

**1. Power Device On or Off**: Long-press the Power button to switch on/off the device.

**2. Wi-Fi setting: Please turn on the device first to set the Wi-Fi function:**

 I. Rapidly press the Power button three times in a row to turn on or off Wi-Fi. (If the Wi-Fi icon flashing on the device screen means it's On. And if there is no Wi-Fi icon shown on the screen means it's Off.)

 II. Rapidly press the Power button five times in a row to reset the Wi-Fi function. It will take about ten seconds.

**3. Switch the temperature display between Fahrenheit and Celsius:**
To change the temperature displayed to read Celsius instead of Fahrenheit (or Fahrenheit to Celsius):
I. Long press the Power button to switch it on.
II. Rapidly press the Power button two times in a row.

**4. Alarm Silence/Mute/Unmute function:** When any of the following AQI indexes (CO2, PM1.0, PM2.5, TVOC, and Humidity) reaches the Alarm Threshold, the unit alarm will be sounding for ten seconds, while the alarm icon keeps blinking until the values are down to the Alarm-shutdown Threshold. (The default alarm time is 10 seconds. You can reset it on APP.)
**Or you can choose to**
  I. Press the Power button one time in a row to silence the alarm.
  II. Long Press the "ESC" button to mute the alarm. And the alarm icon will be disappeared on the screen.
  III. Long Press the "ESC" button to unmute the alarm. And the alarm indicator will be displayed on the screen.

**5. Backlight adjustment:**
I. Press the "Set" button once for dark mode.
II. Press the "Set" button again for turning off the backlight.
III. Press the "Set" button once again for turning on the backlight.

**6. Manual CO2 Calibration setting: Please place the unit in the ventilated environment during the manual calibration.**
Rapidly press the "ESC" button three times in a row to calibrate CO2 values. The CO2 Logo will blink on the screen during the manual calibration. It takes about 3 minutes to complete the calibration. You can press the "ESC" button to cancel the manual calibration.

**7. Factory reset: Rapidly press the 'ESC' button five times in a row to resume the factory setting**
I. The default CO2 Alarm Threshold is 1500ppm, and the Alarm-shutdown Threshold is 1000ppm.
   The CO2 alarm setting range is 700 - 5000ppm.
II. The default TVOC Alarm Threshold is 6mg/m³, and the Alarm-shutdown Threshold is 3mg/m³.
   The TVOC alarm setting range is 1-19.9mg/m³.
III. The default PM2.5 Alarm Threshold is 75ug/m³, and the Alarm-shutdown Threshold is 35ug/m³.

The PM2.5 alarm setting range is 10-200ug/m³.

IV. The default PM1.0 Alarm Threshold is 45ug/m³, and the Alarm-shutdown Threshold is 25ug/m³.

The PM1.0 alarm setting range is 10-200ug/m³.

V. The default Humidity Alarm Threshold is 30%, and the Alarm-shutdown Threshold is 40%.

The Humidity alarm setting range is 15%-75%.

VI. The default Temperature Alarm Threshold is 38℃ (100℉), and the Alarm-shutdown Threshold is 30℃ (87℉). (Only setup in App)

The Temperature alarm setting range is 1℃ (34℉) -50℃ (122℉). (Only setup in App)


**8. How to set the threshold values of CO2/TVOC/PM2.5/PM2.5/Humidity in the device:**

**A.** The  icon stands for Alarm Threshold. The  icon stands for Alarm-shutdown Threshold.

I. If the AQI value is above the alarm threshold, the alarm will sound. The  and alarm icon will blink on the screen.

II. If the AQI value is below the alarm clearing threshold, the alarm icon stops blinking. And the  will flash for about ten seconds.

**B.** And you can reset the Threshold values:

I. Long press the "SET" button to enter the setting interface.

II. Press the "△" button to increase the Threshold values and press the "▽" button to decrease the Threshold values.

III. Press the Power button one time to switch the setting between the  and  in the same section.

IV. Press the "SET" button one time to move to the next section for setting.

V. Press the "ESC" button one time to quit the setting without saving.

VI. Long press the "SET" button to save the setting and quit.


**Areas of Application:**
**Home, Classroom, Office, Gym, Apartment, Hotel, etc.**

**NOTE**

1. To ensure the accuracy of the detection, allow the device to stand for 10 minutes. It should be put in a ventilated environment for 24 hours to automatically calibrate itself if the device is required to work in a confined space. Or you can choose the manual calibration.

2. Do not place the detector in heavily polluted environments (concentration of TVOC > 20mg/m3 or particle concentration > 500μg/m3) for a long time. Or it may cause damages to the sensor.

3. Do not place the monitor in an extreme environment such as high temperature or low temperature. This product does not protect against thunder, lightning, and rain. Make it used in a normal indoor environment.

3. Knocking, impacting, or disassembling the product may cause the detection to be inaccurate. Please keep the unit properly.

4. To wire RS485/Relays signal output, please find professionals to make the wiring connection with the guidance of the instruction book (please check it in the packaging box). Please be careful about the danger of electricity during wiring connection.

6. For the IoT solution between the PT02 model and other Smart devices such as fans, humidifiers, and CO2 generators, etc., please find the instruction book in the packaging box.

7. Try to avoid wearing perfumes and fragrances while using the product. That may impact your test results.

**WARNING**

1. Please keep the product unreachable for children and babies.
2. Please don't dismantle, modify, heating the product.
3. Avoid falling or heavy hitting.
4. Do not touch any part of the product with wet hands.
5. Do not allow the metal objects (like pins, keys) to contact terminals or plugs.
6. Do not cut, damage, or modify the power cord.