

TC-700 Air Quality Detector



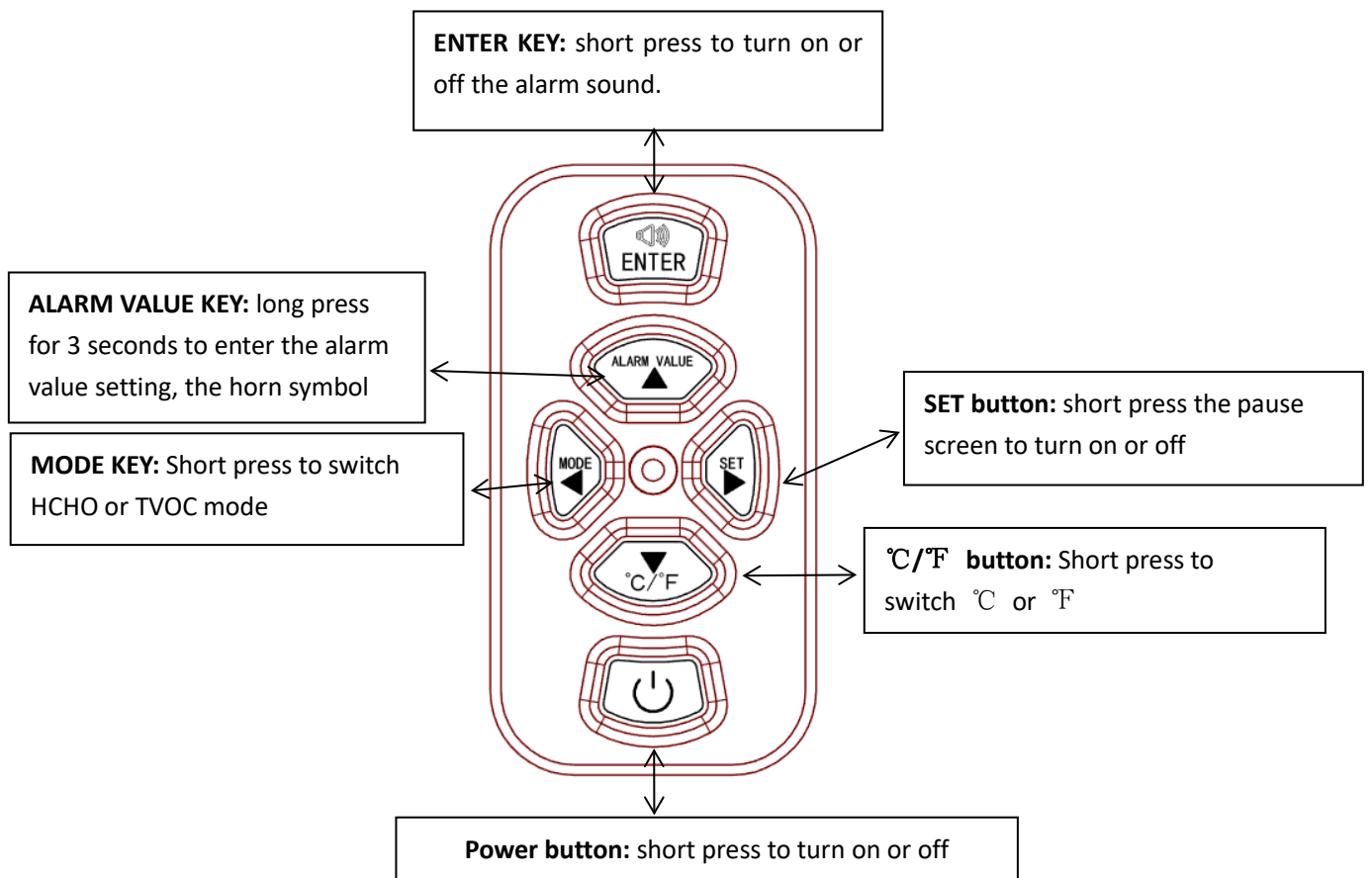
Features:

1. The sensor of the detector uses the principle of non-dispersive infrared (NDIR) to detect CO2 in the air.
2. 3.2-inch VA screen with larger viewing angle.
3. PM2.5 uses the principle of laser scattering, AQI detects environmental quality, PM2.5 and PM10 concentration.
4. Can detect TVOC and formaldehyde.
5. Temperature and humidity detection, using imported sensors.
6. Rechargeable lithium battery or a separate external USB power supply.
7. The service life of the sensor is more than 10 years.
8. High-precision sensors and imported chips.
9. Detector body is made of ABS material, non-slip and dust-proof silicone keyboard.

Specifications:

Measurement	CO ₂ , TVOC, HCHO, PM _{2.5} , PM ₁₀ , temperature, humidity, AQI
TVOC measuring range	0-2.000mg/m ³
CO ₂ measuring range	370-9999ppm
CO ₂ accuracy	±3% of readings of ±40PPM
HCHO measuring range	0-1.000mg/m ³
AQI measurement range	0-500ug/m ³
AQI accuracy	±10% (@100~500µg/m ³) ±10µg/m ³ (@0~100µg/m ³)
Temperature measurement range	-20-60°C
Temperature accuracy	±0.5°C
Humidity measurement range	0-100%RH
Humidity accuracy	±2%
PM ₁₀ measuring range	0-1000µg/m ³
PM ₁₀ accuracy	±10% (@100~500µg/m ³) ±10µg/m ³ (@0~100µg/m ³)
Particulate matter concentration range (PM _{2.5} standard value)	0-1000µg/m ³
PM _{2.5} accuracy	±10% (@100~500µg/m ³) ±10µg/m ³ (@0~100µg/m ³)
Single response time	≤1S
Working current	220mA
Preheat time	60S
Measurement interval (s)	4S
Operating temperature range	0-50°C
Operating humidity range	0-90%RH non
Supply battery	Configured with removable 3.7V/18650 battery or external 5V USB power supply
Standby time	2200mAh for >7 hours of continuous operation
Weight	269g
Size	140*134*33mm

Key Function:



Carbon dioxide calibration function: press and hold the ALARM VALUE button in the off state, and then press the power button to enter 400PPM calibration and display a countdown of 600 seconds Return directly to the main interface after completion

Carbon Dioxide Concentration Level:

400-450PPM (Excellent): The usual outdoor air level.

450-700PPM (good) typical value in a well-ventilated living space.

700-1000PPM (slight pollution) poorly ventilated living environment.

1000-2000PPM (moderately polluted) air level that is insufficient, drowsy, and enough to cause complaints.

2000-5000PPM (heavy pollution) stagnant, stale, sultry air level. It causes headaches and drowsiness, accompanied by lack of concentration, decreased concentration, rapid heartbeat, and slight nausea.

Exposure to more than 5000PPM (severe pollution) may cause severe hypoxia, resulting in permanent brain damage, coma or even death.

TVOC Concentration Level (mg/m³)

Very good: $\leq 0.6 \text{ mg/m}^3$

General: $> 0.6 \text{ mg/m}^3$; $\geq 1.6 \text{ mg/m}^3$

Not good: $> 1.6 \text{ mg/m}^3$

HCHO Concentration Level (mg/m³)

Very good: $\leq 0.08 \text{ mg/m}^3$

General: $> 0.08 \text{ mg/m}^3$; $\leq 0.12 \text{ mg/m}^3$

Not good: $> 0.12 \text{ mg/m}^3$

PM2.5 Concentration Level (mg/m³):

Excellent: 0-35

Good: 35-75

Light pollution: 75-115

Moderate pollution: 115-150

Severe pollution: 150-250

Serious pollution: 250-500

Common Problem Analysis:

1) Inaccurate data on the concentration of carbon dioxide in the air

Analysis 1: The concentration and content of the environment itself are not stable, keep it in the same place for a period during measurement

Analysis 2: There is debris, dirt in the sampling window of the carbon dioxide sensor, and the airflow ventilation window is blocked by something

Analysis 3: The carbon dioxide sensor has a deviation, and the equipment needs to be recalibrated

2) Inaccurate temperature and humidity

Analysis 1: Analysis of debris and dirt in the temperature and humidity sensor sampling window

Analysis 2: The ventilation window is blocked by something

3) Doesn't boot

Analysis 1: If the battery is dead or damaged, use the USB socket to supply power. If it can be turned on and there is a change in the power grid in the upper right corner, the battery is dead. If there is no change, only the OK icon is displayed, indicating that the battery is damaged.

Analysis 2: The +/- polarity of the battery is reversed. Please note that the battery without a protruding contact point is the "-" pole, and the one with a protruding contact point is the "+" pole.