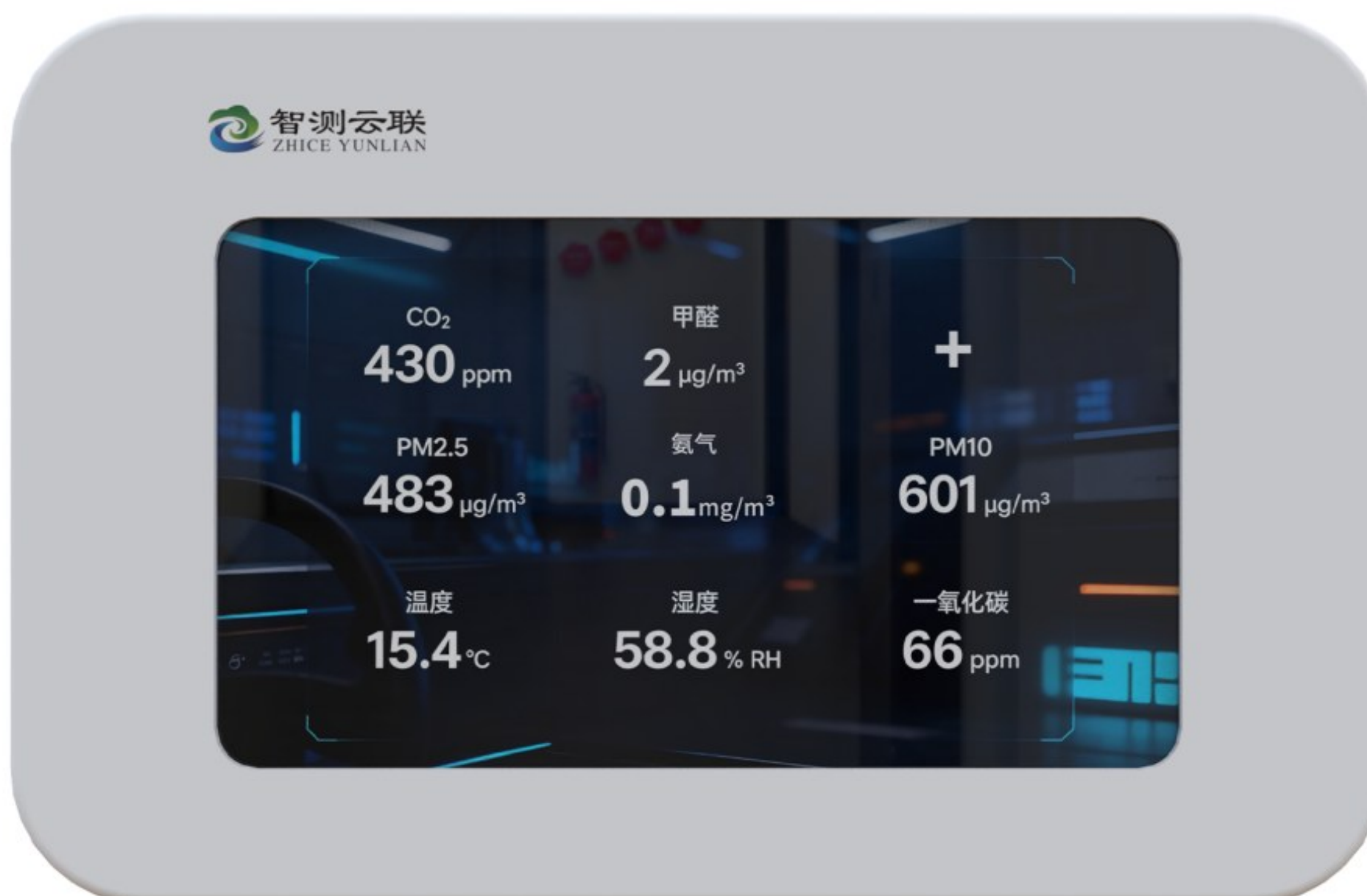




COMPOSITE INDOOR ENVIRONMENTAL MONITORING INSTRUMENT



Product Introduction

This is an integrated composite monitoring instrument incorporating Internet technology, sensor technology, embedded technology, data acquisition & storage technology and database technology. Equipped with a large display and user-friendly interface, covering nearly all key indicators of air quality.

Product Functions

- 1.Data Acquisition: Integrates multiple measurement parameters, supporting up to 11 simultaneous monitoring elements.
- 2.Data Storage: Stores real-time data and retains historical records. Equipped with power-off protection to prevent data loss during power failure.
- 3.Data Communication: Adopts a dedicated 485 circuit for stable communication, powered by a wide voltage range of 10~30V DC.
- 4.Wall-mounted design for easy installation, with 1-year warranty.





Application Scenarios



Hospitals/ Rehabilitation Wards



Classrooms / Indoor Sports Venues



Public Areas of Office Buildings



Residences / Hotels



Work shops



Laboratories





Product Specifications

Item	Specifications
Temperature Compensation	Available
DC Power Supply (Default)	DC 10-30V
Maximum Power Consumption	1.5W (at 24V DC supply)
Operating Environment	Temperature: -10℃ ~ 55℃; Humidity: 0 ~ 95% RH, non-condensing For TSP parameter: Temperature: -10℃ ~ 55℃; Humidity: 0 ~ 70% RH
Signal Output	RS485 output (standard Modbus-RTU protocol)
Housing Material	ABS; special housing customization available upon request
Installation Method	Wall-mounted, ceiling-mounted

In addition to the above elements, you may select any three gas types from the options below:

Model Selection Guide

Code	Sub-model	Description
A	PM2.5 / PM10	—
T	TSP	Total Suspended Particulates
B	Temperature	Air temperature
B	Humidity	Air humidity
C	Atmospheric Pressure	0 ~ 120kPa
D	Illuminance	0 ~ 200,000 Lux
E	TVOC	Total Volatile Organic Compounds, 0 ~ 60000ppb, resolution 1ppb
F	Carbon Dioxide	CO ₂ range: 0 ~ 5000ppm
G	Formaldehyde (5P)	CH ₂ O range: 0 ~ 5ppm
H	Ozone (10P)	O ₃ range: 0 ~ 10ppm
RH	Odor (High-precision, 5P)	Range: 0 ~ 5ppm

Note: Odor and CO2 cannot be selected simultaneously.
The electrochemical type, semiconductor type and high-precision type of odor cannot be selected at the same time.

Measurement Parameters

Unless otherwise specified, all specifications below are measured under the following environmental conditions: ambient temperature 20°C, relative humidity 50%RH, 1 atmospheric pressure, and the concentration of the measured gas does not exceed the full range of the sensor.

Detection Parameter	Range	Resolution	Accuracy	Warm-up Time
PM2.5	0~1000 µg/m³	1 µg/m³	Particle counting efficiency: 50% @ 0.3 µm, 98% @ ≥0.5 µm PM2.5 accuracy: ±3% FS (@100 µg/m³, 25°C, 50% RH)	≤ 2 min
PM10	0~1000 µg/m³	1 µg/m³	Particle counting efficiency: 50% @ 0.3 µm, 98% @ ≥0.5 µm PM10 accuracy: ±3% FS (@100 µg/m³, 25°C, 50% RH)	≤ 2 min
TSP	0~20000 µg/m³	1 µg/m³	±25% or ±40 µg/m³, whichever is greater (@1000 µg/m³, 25°C, 50% RH)	≤ 2 min
Temperature	-40°C ~ +120°C (Default: -40°C ~ +80°C)	0.1°C	±0.5°C (at 25°C)	-
Humidity	0%RH ~ 100%RH	0.1%RH	±3%RH (60%RH, 25°C)	-
Atmospheric Pressure	0~120 kPa	0.1 kPa	±0.15 kPa (@25°C, 101 kPa)	-
Illuminance	0 ~ 200,000 Lux	1 Lux	±7% (at 25°C)	-
TVOC	0~60000 ppb	1 ppb	Typical accuracy: 8% FS (@ C ₂ H ₆ O, 0.5 ppm, 25°C, 50% RH)	-
Carbon Dioxide (CO ₂)	0~5000 ppm	1 ppm	±(50 ppm + 3% F·S)	2 min (ready for use) 10 min (maximum accuracy)
Formaldehyde (CH ₂ O)	0~5 ppm	0.01 ppm	Accuracy: ±5% FS (@1 ppm, 25°C, 50% RH)	≥ 5 min
Ozone (O ₃)	0~10 ppm	0.01 ppm	Accuracy: ±6% FS (@5 ppm, 25°C, 50% RH)	≥ 5 min
Oxygen (O ₂)	0~25% Vol	0.1% Vol	±2% FS	≥ 5 min
Hydrogen Sulfide (H ₂ S)	0~100 ppm	1 ppm	±2 ppm or ±10%	≥ 5 min
Methane (CH ₄)	0~100% LEL	1% LEL	±5% FS	≥ 5 min
Carbon Monoxide (CO)	0~1000 ppm	1 ppm	±5 ppm or ±10%	≥ 5 min
Nitrogen Dioxide (NO ₂)	0~20 ppm	0.1 ppm	±5% FS	≥ 5 min
Sulfur Dioxide (SO ₂)	0~20 ppm	0.1 ppm	±5% FS	≥ 5 min
Hydrogen (H ₂)	0~1000 ppm	1 ppm	±5% FS	≥ 5 min
Ammonia (NH ₃)	0~100 ppm	1 ppm	±8%	≥ 5 min
Noise	30~130 dB	0.1 dB	±0.5 dB (reference sound level: 94 dB @ 1 kHz)	-
Odor (Electrochemical Type)	0~5 ppm	0.001 ppm	Typical accuracy: ±10% FS (@ H ₂ S, 5 ppm)	≥ 5 min
Odor (High-precision Type)	0~5 ppm	0.001 ppm	Typical accuracy: ±5% FS (@ H ₂ S, 500 ppb)	≥ 5 min
Odor (Semiconductor Type)	0.03~3 ppm	0.001 ppm	±13% FS (@ C ₂ H ₆ O, 5 ppm, 20°C, 65%RH)	≥ 60 min

Note: For TSP, TVOC, formaldehyde, ozone and odor parameters, the performance data above are obtained under test conditions using our company's test system and software.

For continuous product improvement, we reserve the right to modify design functions and specifications without prior notice.

