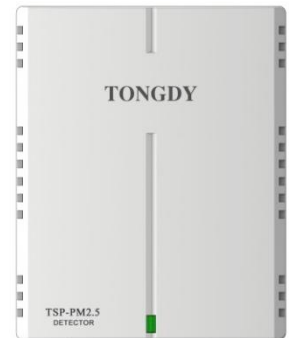


TSP-18 Indoor Air Quality Detector

—Designed for indoor air quality detection

- *Experienced in designing IAQ products for 15 years, with powerful performance guaranteed*
- *Real-time indoor air quality detection, single or combined measurement selection: PM2.5/PM10, CO2, TVOC, Temperature and RH*
- *3-color light indicates the range of the main measurement*
- *OLED display optional*
- *Suitable for schools, offices, hotels and residential projects to analyze indoor air quality, and to control ventilation systems*
- *Modbus RS485 or WiFi communication interface*



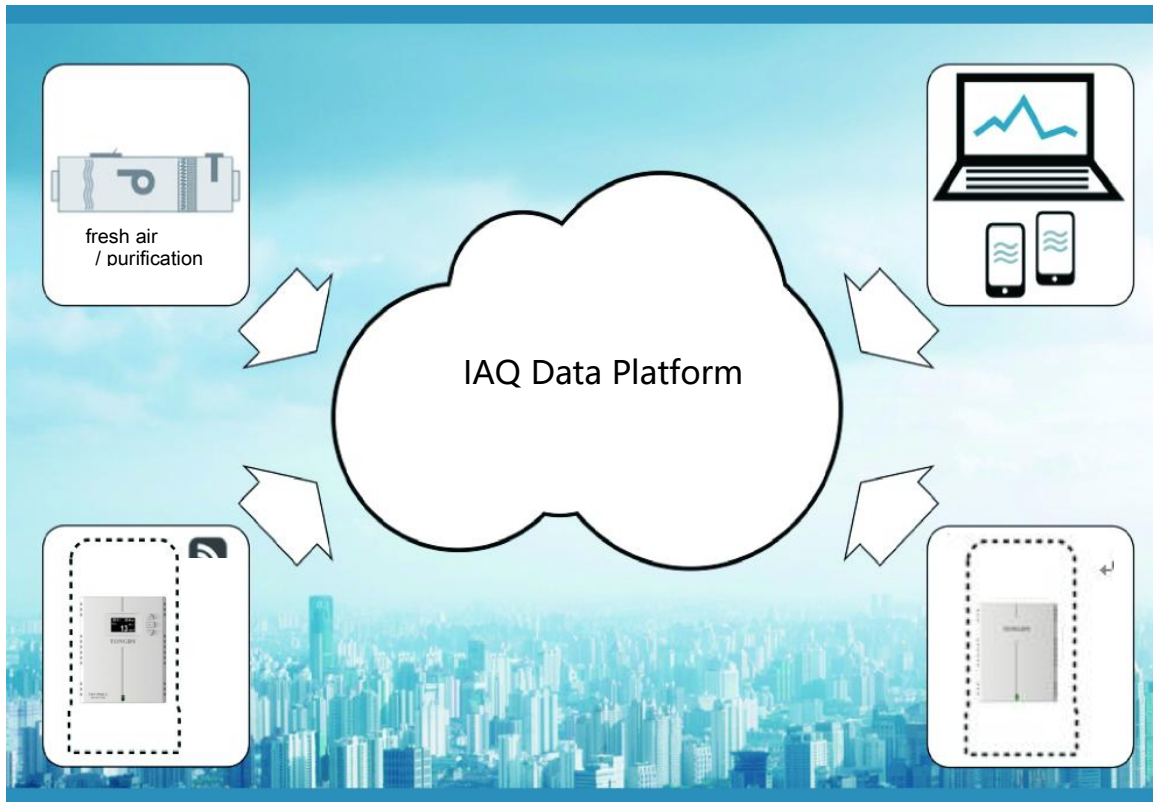
Features

- 7-24 hours online real-time IAQ detection
- Real-time output of PM2.5/PM10, CO2, TVOC and Temperature & humidity data, single or combined measurement selection
- A special correction algorithm inside to ensure the TVOC measurements not be affected as environmental change
- Modbus RS485 or WIFI interface
- 3-color lights indicates the three ranges of main measurement
- Optional OLED display IAQ measurements
- Wall mounting with 24VAC/VDC power supply
- Used in all old and new buildings
- Provides carbon monoxide and ozone detectors of TSP series for more gases detection
- Over 15 years' application experience of IAQ products in global market
- CE approved

Applications

- Schools , hotels, offices and other public places
- Smart home systems
- Residential projects
- Air quality monitoring in other public places
- All ventilation systems

Monitoring System Illustration



Specifications

General Data	
Detection Parameter	PM2.5/PM10; CO2; TVOC; Temperature & Humidity Single or multiple
Output	RS485 (Modbus RTU) WIFI @2.4 GHz 802.11b/g/n
Operating Environment	Temperature: -20-60°C Humidity : 0-99%RH
Storage condition	-5°C-50°C Humidity : 0-70%RH (No condensation)
Power supply	24VAC±10%, or 18-24VDC
Overall Dimension	94mm(L)×116.5mm(W)×36mm(H)
Material of Shell & IP Level	PC/ABS fire-proof material / IP30

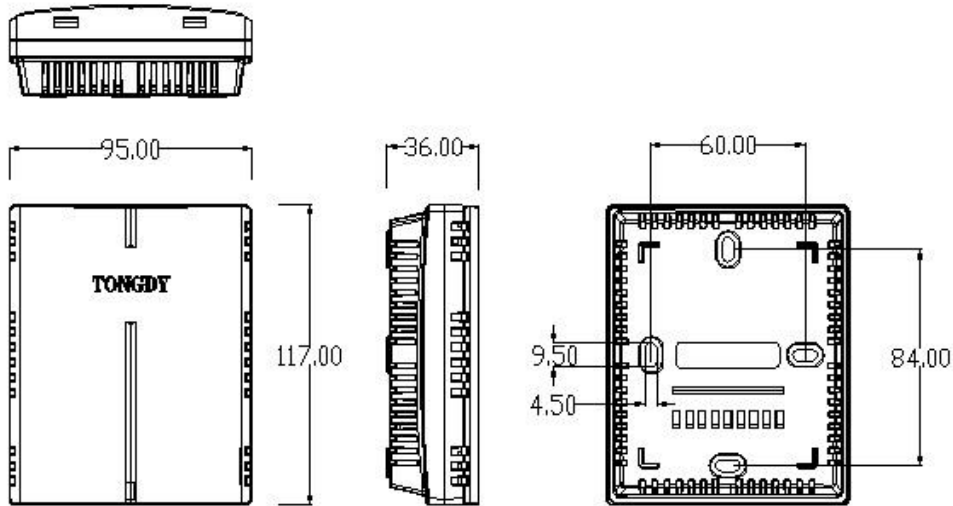
Installation	Concealed installation: 65mm×65mm wire box Surface mounted: provide a mounting bracket
PM2.5/PM10 Data	
Sensor	Laser particle sensor, Light scattering method
Measuring Range	PM2.5: 0-500ug/m3 PM10: 0-500ug/m3
Output Resolution	1ug/m3
Accuracy	PM2.5: $\pm 2\mu\text{g}/\text{m}^3 + 15\% \text{ of reading}$ (0-300 $\mu\text{g}/\text{m}^3$, 10%-60%RH, @25 $^{\circ}\text{C}$) PM10: $\pm 2\mu\text{g}/\text{m}^3 + 20\% \text{ of reading}$ (10%-60%RH, @25 $^{\circ}\text{C}$)
CO₂ Data	
Sensor	Non-Dispersive Infrared Detector (NDIR)
Measuring Range	400-5000ppm
Output Resolution	1ppm
Accuracy	$\pm 50\text{ppm} + 3\% \text{ of reading}$ or $\pm 75\text{ppm}$ (Whichever is bigger)
TVOC Data	
Sensor	TVOC module
Measuring Range	0.001-4.00mg/m3
Output Resolution	0.001mg/m3
Accuracy	$\pm 0.05\text{mg}/\text{m}^3 + 12\% \text{ of reading}$ (0-2mg/m3, 10%-80%RH @25 $^{\circ}\text{C}$)
Temperature and Humidity Data	
Sensor	High precision digital integrated temperature and humidity sensor
Measuring Range	Temperature : 0-60 $^{\circ}\text{C}$ / Humidity : 0-99%RH
Output Resolution	Temperature : 0.01 $^{\circ}\text{C}$ / Humidity : 0.01%RH
Accuracy	Temperature : $\pm 0.8^{\circ}\text{C}$ @25 $^{\circ}\text{C}$ Humidity: $\pm 4.5\% \text{RH}$ (20%-80%RH)

Models Guide

Model	PM2.5	Temp. &RH	CO2	TVOC	Interface
TSP-1811C	●	●			RS485 (Modbus RTU BACnet MS/TP)
TSP-1814C			●		
TSP-1813C	●	●	●		
TSP-1816C		●	●		
TSP-1818C	●	●	●	●	
TSP-1821C	●	●			WIFI @2.4 GHz 802.11b/g/n
TSP-1824C			●		
TSP-1823C	●	●	●		
TSP-1826C		●	●		

TSP-1828C	●	●	●	●	
-SL after above items	OLED display screen				

Installation and Wiring



Installation bracket diagram (for surface mounted of TSP-18)

