Tongdy

OUT-STANDING AIR QUALITY SOLUTIONS

Help you build and maintain a healthy indoor environment

Multi-sensor monitors for indoor air quality

Tongdy sensing technology, located in Beijing China, has been focused on air quality detection and control for 15 years.

With the strong product development and design capabilities, the air quality monitors of Tongdy have been used in a lot of projects around the world.

Our global customers

Air quality monitors for business

We provide air quality monitors in business level for Indoor，in-duct and outdoor air quality detection. They are working together for all round and accurate analysis of indoor air quality, quantitative assessment of indoor air pollution.

Why “Tongdy Multi-sensor” ?

Exclusive innovative calibration algorithm

Proprietary technology, the effective calibration method to support higher data accuracy in different environments

Unique professional multi-sensor module with flexible selection of sensing parameters

Special multi-sensor module with the sealed cast aluminum structure and up to six sensors inside

Continuous R&D investment and product quality control

Tongdy continues to invest in R&D and services to ensure the reliability and innovation of air quality products

Real-time gathering data and analyzing historical data improves and optimize your indoor air quality

“MyTongdy” data platform will help you reading and analyzing data of your air quality on PC or mobile APP

The expert of air quality monitoring

Tongdy has 16 years experience of air quality monitoring and provides commercial grade air quality monitors and data platform

Our Multi-sensor monitors with up to ten sensing parameters selection

MSD

Indoor Air Quality Monitor

PM2.5 | PM10 | CO2 | TVOC | CO | Temp.&RH | Ozone or HCHO

Reset B class

Long Life

LED Tri-colored lights

Cloud-based

High Data Accuracy

High Stability

Automatic constant air volume control

WELL

PMD

In-Duct Air Quality Detector with up to Eight Sensors

PM2.5 | PM10 | CO2 | TVOC | HCHO | CO | Ozone | Temperature | Humidity

Reset B grade

Reset B class

Cloud-based

Special pitot tube

High Data Accuracy

Easy to clean filter mesh

Automatic constant air volume control

TF9

Outdoor Air Quality Detector

PM2.5 | PM10 | CO2 | TVOC | HCHO | CO | Ozone | Temperature | Humidity | NO2 | SO2

High Reliable

UV-resistant

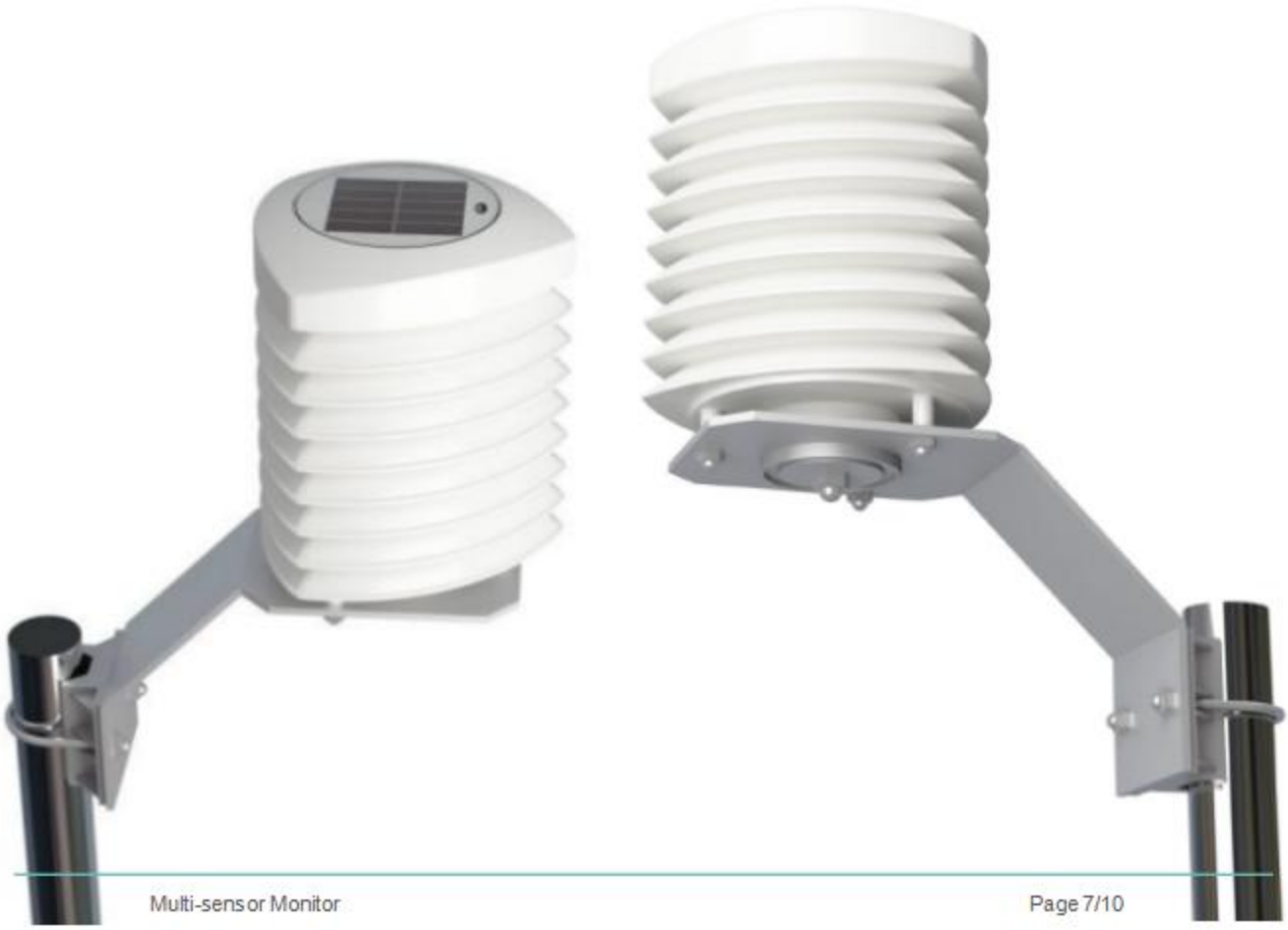
Wi-Fi

Ethernet

RS - 485

Modbus®

BACnet



TSP-18

Indoor Multi-sensor Monitor

PM2.5 CO2 TVOC Temperature Humidity

Tri-colored lights

Convenient installation

optional
Screen display optional

Lower price

WiFi

RS485

EM21

Wall embedded or wall surface mounting Indoor Air Quality Monitor

PM2.5 | CO2 | TVOCs | HCHO | Temperature | Humidity

Optional

Screen display

Simple and Compact

Wall-Embedded or wall mounting

Reset B class

Tri-colored lights

WiFi

Ethernet

RS485



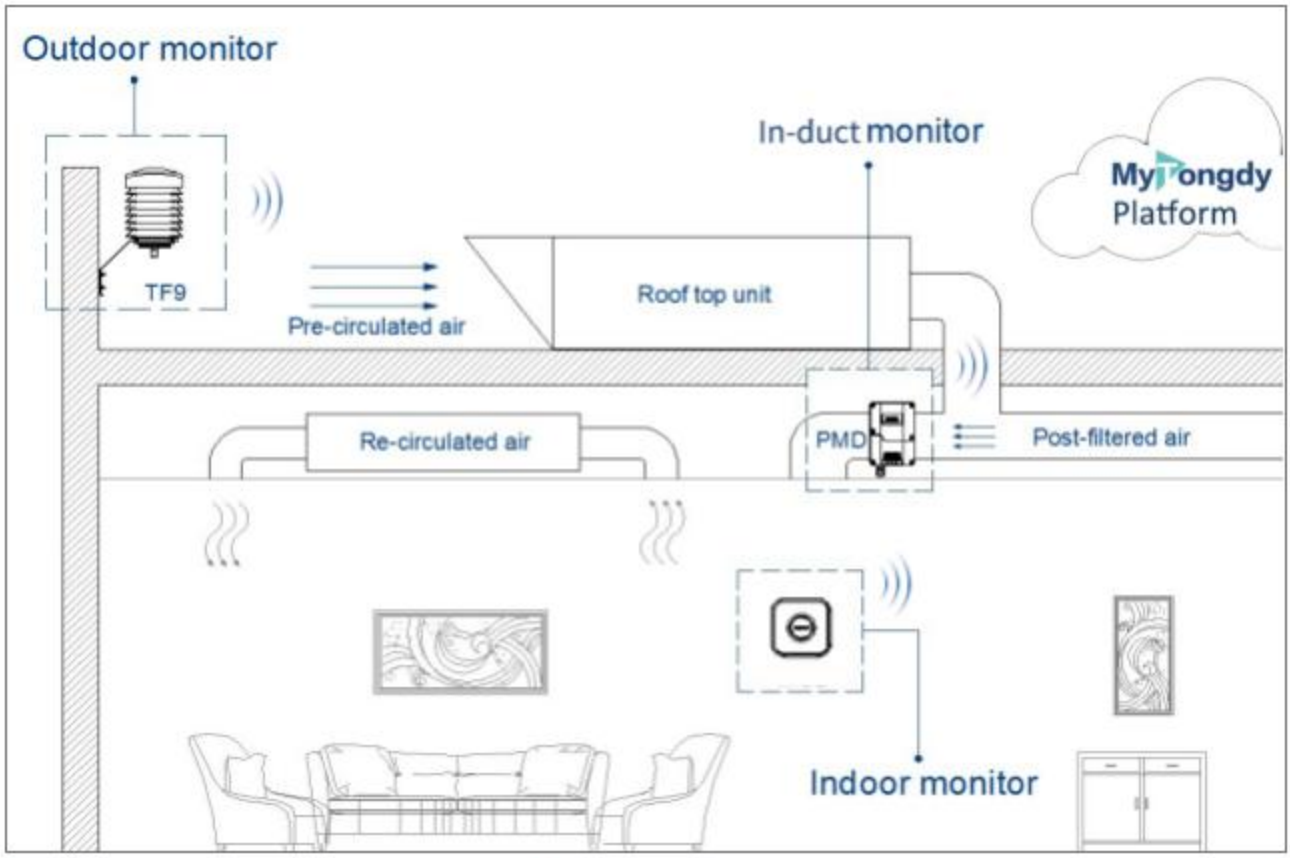


	Indoor	In-duct	Outdoor	Indoor	Indoor
Installation	Ceiling mounting/ wall mounting	Duct mounted	Pole mounted or outdoor wall mounting	Wall mounting	Wall embedded Mounting or Wall surface mounting
Gas sensor	PM2.5, PM10, CO2, TVOC, HCHO, Ozone Temperature and Humidity	PM2.5, PM10, CO2, TVOC, HCHO, CO, Ozone, Temperature and Humidity	PM2.5, PM10, CO2, TVOC, HCHO, CO,NO2 SO2, Ozone Temp. & humidity	PM2.5, CO2, TVOC, Temp. and Humidity	PM2.5, CO2, TVOC, HCHO, Temperature and Humidity
Wi-Fi	•	•	•	•	•
Ethernet RJ45	•	•	•	•	•
RS485 (BACNet MS/TP)	•	•	•		
RS485 (Modbus RTU)	•	•	•	•	•
Extra RS485	•	•	•		
Power Supply	12~28VDC 18~27VAC or 100~240VAC POE switch power supply	12~28VDC 18~27VAC or 100~240VAC POE switch power supply	12-24VDC (connect with a 100~240VAC/ 1A power adaptor)	24VAC±10%, or 18~24VDC	12~28VDC/ 18~27VAC, 100~240VAC PoE switch power supply
Dimension	Length:130mm Width:130mm Height45mm	Length: 180mm Width: 125mm Height 65.5mm	Width: 190mm Total Height: 362~482 mm	Length: 94mm Width: 116.5mm Height: 36mm	Length: 91.00mm Width:111.00mm Height 51.00mm
Weight	400g	850g	2.35kg~2.92Kg	170g	210g
Cloud storage	•	•	•	•	•

User friendly and professional data platform "MyTongdy"

Your benefit from " MyTongdy"

- Gathering real-time data of air quality
- View and download history data and curves



Tongdy

PGX Amazing Indoor Environment Monitor

Sensor Monitoring

Supports up to 12 sensing parameters, aligning with the latest application trends: CO_2, PM2.5, PM10, PM1, TVOC, Temperature, RH, TVOC, Carbon Monoxide, Illuminance, Noise,Atmospheric Pressure.

Sensor Modules

Modular design for easy disassembly and replacement of sensors (PM, CO, HCHO).

Unique Display

- High-resolution color display with customizable interface options.
- Real-time data display with key parameters prominently highlighted.
- Data curve visualization.
- AQI and primary pollutant information.
- Day and night modes.
- Clock synchronized with the network time.

Data Interface

- Various interface options: WiFi, Ethernet, RS485, 4G, and LoRaWAN.
- Dual communication interfaces are available(network interface + RS45)

Various Protocols Selectable

- Support MQTT,Modbus RTU, Modbus TCP, BACnet-MSTP, BACnet-IP, Tuya, Qlear or other customized protocols.

Data logger Inside

- Local data storage for 3 to 12 months of data based on monitoring parameters and sampling intervals.
- Supporting local data download via the Bluetooth app.

PGX

Network Configuration

Offer three convenient network setup options:

- Wi-Fi Hotspot: PGX generates a Wi-Fi hotspot, allowing connection and access to an embedded webpage for network configuration.
- Bluetooth:Configure the network using the Bluetooth app.
- NFC: Use the app with NFC for quick, touch-triggered network setup.

Power Supply Options

12~36V DC
100~240V AC
PoE 48V
5V Adapter (USB Type-C)

Super Display

- Real time display multiple monitoring data, primary key data.
- Monitoring data changes color dynamically based on concentration levels for clear and intuitive visualization.
- Display a curve of any data with selectable sampling intervals and time periods.
- Display primary pollutant data and its AQI.

Super Features

- Flexible operate: Connects to cloud servers for data comparing， curve display and analysis.Also Operates independently on-site without relying on external data platforms.
- Can choose to synchronize the display of smart TV and PGX for some special areas such as independent areas.
- With its unique remote services, PGX can perform corrections and fault diagnoses over the network.
- Exclusive support for remote firmware updates and customizable service options.
- Dual-channel data transmission through both network interface and RS485.

Applications

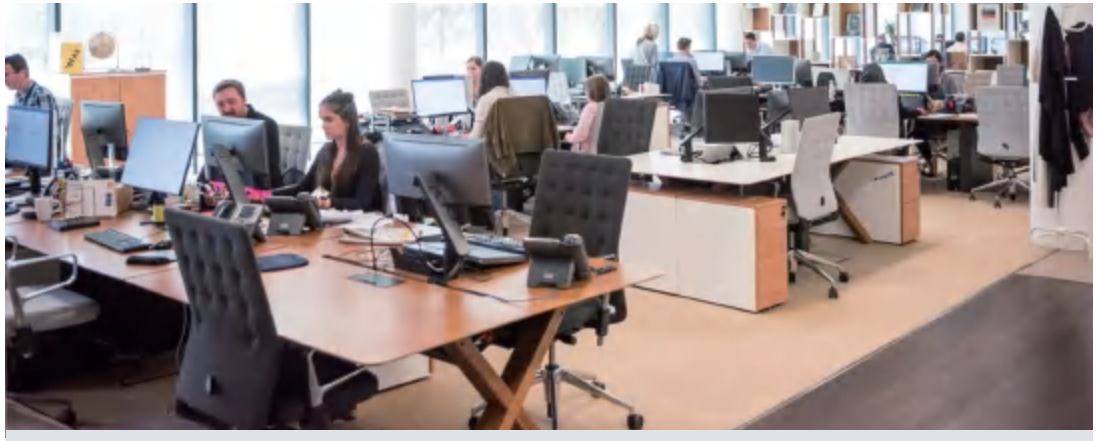
Reception halls

High-end residential properties

Offices

Library

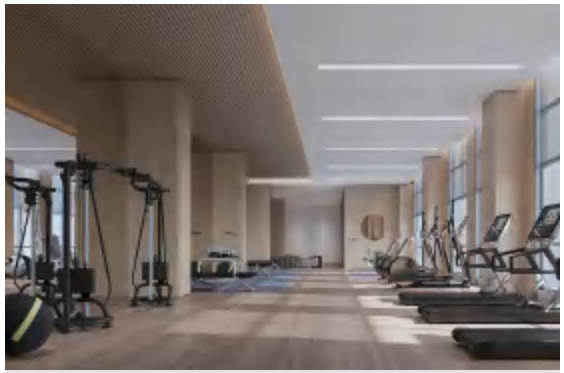
Luxury stores



Commercial buildings

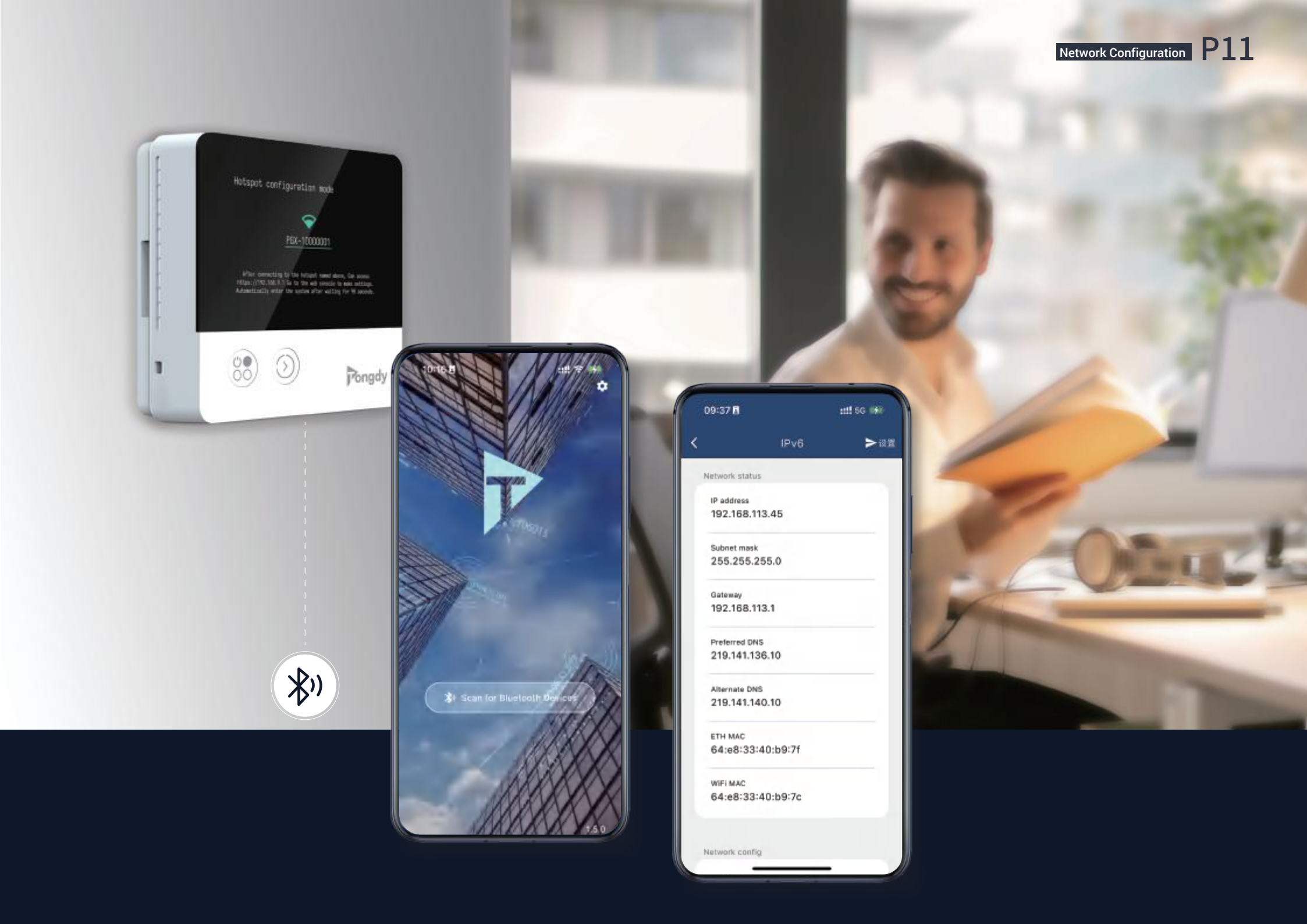
Shopping malls

Meeting rooms



Fitness centers

Clubs


Hotspot configuration mode
PEK-10000001
Pongdy
10:16
Scan for Bluetooth Devices
09:37
IPv6
Network status
IP address
192.168.113.45
Subnet mask
255.255.255.0
Gateway
192.168.113.1
Preferred DNS
219.141.136.10
Alternate DNS
219.141.140.10
ETH MAC
64:e8:33:40:b9:7f
WiFi MAC
64:e8:33:40:b9:7c
Network config


Data
Charts
Network
System
Pongdy


26.52 ℃ 47.85 %RH
10:20
CO2 ppm
primary pollutant PM2.5/24h
AQI 39
0453
453 CO2 ppm
26 PM1 µg/m³
27 PM2.5 µg/m³
29 PM10 µg/m³
0.051 TVOC mg/m³
0.008 CH2O mg/m³
Pongdy


26.52 ℃ 47.85 %RH Atm 1013 hPa
10:20
PM2.5 µg/m³
primary pollutant PM2.5/24h
AQI 39
0027
453 CO2 ppm
26 PM1 µg/m³
27 PM2.5 µg/m³
29 PM10 µg/m³
0.259 TVOC mg/m³
0.008 CH2O mg/m³
Pongdy


PM2.5 µg/m³
10/9
1 Hour
100
66
33
0
00:00
12:00
23:00
Pongdy


Network
Wi-Fi
Status: Connected
MAC Address: 64:e8:33:40:b9:7c
IPv4 Address: 192.168.1.115
IPv6 Address: FE80::6608::33FF::FE40::B97C
Wi-Fi SSID: Test
AP SSID: PGX-10000001
Gateway: 192.168.1.1
Pongdy


System
v12090
English
Color scheme
Same color for I&S data
Show AQI
Relay control CO2
ON setpoint: 1800 OFF setpoint: 2000
Device ID: PGX-10000001
Device time: 2024/10/14 13:50
Pongdy

PGX Super Indoor Environment Monitor

Indoor Environmental Monitoring

Monitor up to 12 parameters simultaneously

Comprehensive Data Presentation

Real-time monitoring data display, data curve visualization, AQI and primary pollutant display.
Multiple display media including web, App, and smart TV.

Powerful Function Options

Equipped with five communication interfaces and seven communication protocols
Support internal data storage with Bluetooth download
Remote firmware upgrade and customization

Remote Analysis and Management

Cloud-based data colletion , platform data analysis and comparison.
Remote calibration of monitoring data and PGX fault diagnosis

Specifications

Power Supply	12~36VDC, 100~240VAC, PoE (for RJ45 interface), USB 5V (Type C)
Communication Interface	RS485, Wi-Fi (2.4 GHz, supports 802.11b/g/n), RJ45 (Ethernet TCP protocol), LTE 4G, LoRaWAN (Supported regions: RU864, IN865, EU868, US915, AU915, KR920, AS923-1~4)
Communication Protocol	MQTT, Modbus-RTU, Modbus-TCP, BACnet-MS/TP, BACnet-IP, Tuya, Qlear, or other custom protocols
Data Logger Inside	• Storage frequency ranges from 5 minutes to 24 hours. • For example, with data from 5 sensors, it can store records for 78 days at 5-minute intervals, 156 days at 10-minute intervals, or 468 days at 30-minute intervals. Data is downloadable via a Bluetooth app.
Operating Environment	• Temperature: -10~50°C • · Humidity: 0~99% RH
Storage Environment	• Temperature: -10~50°C • Humidity: 0~70%RH
Enclosure Material and Protection Level Class	PC/ABS (Fireproof) IP30
Dimensions /Net Weight	91.00mm × 111.00mm × 51.00mm / 295g
Mounting Standard	• Standard 86/50 type junction box (mounting hole size: 60mm); • US standard junction box (mounting hole size: 84mm); • Wall mounting with adhesive.

Sensor Parameters

	CO_2	TVOC	PM2.5	PM10	PM1.0	Temperature & Humidity
Sensor Type	NDIR (Non-Dispersive Infrared)	Metal Oxide Semiconductor	Laser Particle Sensor	Laser Particle Sensor	Laser Particle Sensor	Digital Integrated Temperature and Humidity Sensor
Measurement Range	400 ～5,000ppm	0.001 ～ 4.0 mg/m³	0 ～ 1000 μg/m³	0 ～ 1000 μg/m³	0 ～ 500 μg/m³	-10℃ ~ 50℃, 0 ~ 99% RH
Output Resolution	1ppm	0.001 mg/m³	1 μg/m³	1 μg/m³	1 ug/m³	0.01 ℃, 0.01% RH
Accuracy	±50 ppm + 3% of reading or 75 ppm	<15%	±5 μg/m³ + 15% @ 1 ～ 100 μg/m³	±5 μg/m³ + 15% @ 1 ～ 100 μg/m³	±5 ug/m² + 10% @ 0 ~ 100 ug/m³ ±5 ug/m² + 15% @ 100 ~ 500 ug/m³	±0.6℃ , ±4.0%RH

	Noise	Illumination	HCHO (Formaldehyde)	CO (Carbon Monoxide)	Atmospheric Pressure
Sensor	Frequency Range: 100 ～ 10K Hz	Measurement Range: 0.96 ～ 64,000 lx	Electrochemical Formaldehyde Sensor	Electrochemical CO Sensor	MEMS Nano Sensor
Measurement Range	Sensitivity: –36 ± 3 dBFS	Measurement Accuracy: ±20%	0.001 ～ 1.25 mg/m³ (1ppb ～ 1000ppb @ 20℃)	0.1 ~ 100 ppm	260 hPa ~ 1260 hPa
Output Resolution	Acoustic Overload Point:130 dBSPL	Incandescent/Fluorescent Light Sensor Output Ratio: 1	0.001 mg/m³ (1ppb @ 20℃)	0.1 ppm	1 hPa
Accuracy	Signal–to–Noise Ratio: 56 dB(A)	Low Light (0 lx) Sensor Output: 0 + 3 count	0.003 mg/m³ + 10% of reading (0 ～ 0.5 mg/m³)	±1 ppm (0~10 ppm)	±50 Pa