EM21 Embedded Indoor Air Quality Monitor

Focus on air quality detection and control for 15 years
Continuous innovation and development, accumulation of project application
Offering professional and high quality detectors

Tongdy

Air Quality Monitor

Various global projects with full life-cycle application experience

EM21- Embedded Installation Indoor Air Quality Monitor

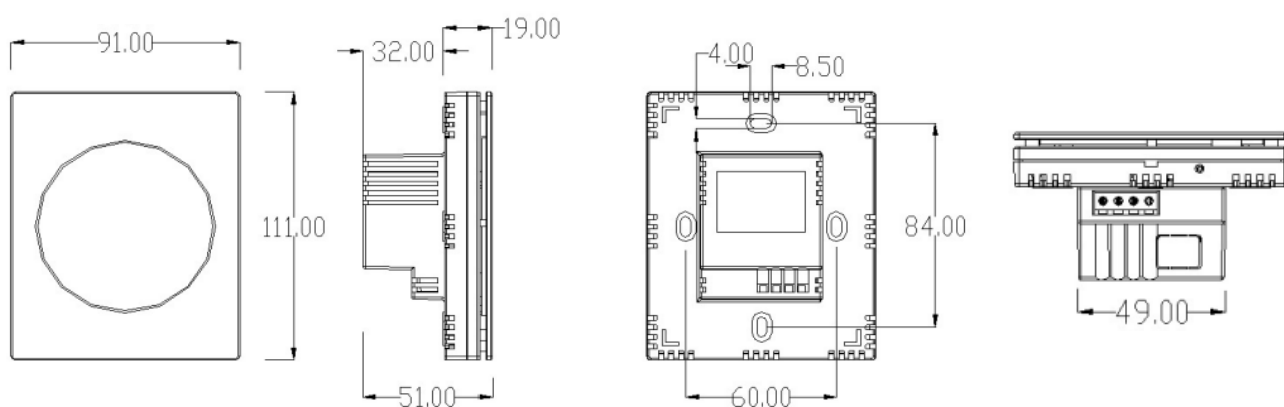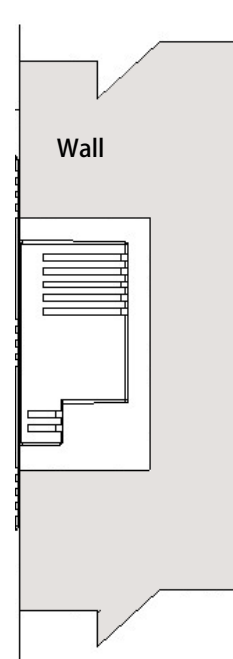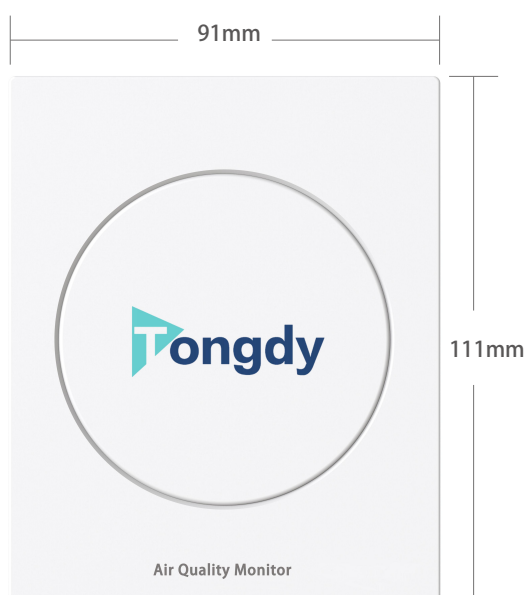## Professional Design in Commercial B-level

Detection Gas:	PM2.5, CO2,TVOC,Temperature,Humidity,HCHO
Communication interface:	RS485,WiFi, Ethernet(RJ45)
Power supply (optional):	24VAC /VDC± 10%,100~240VAC

Unique base-line algorithm and data compensation principle ensures measurements reliable and accurate in different environments
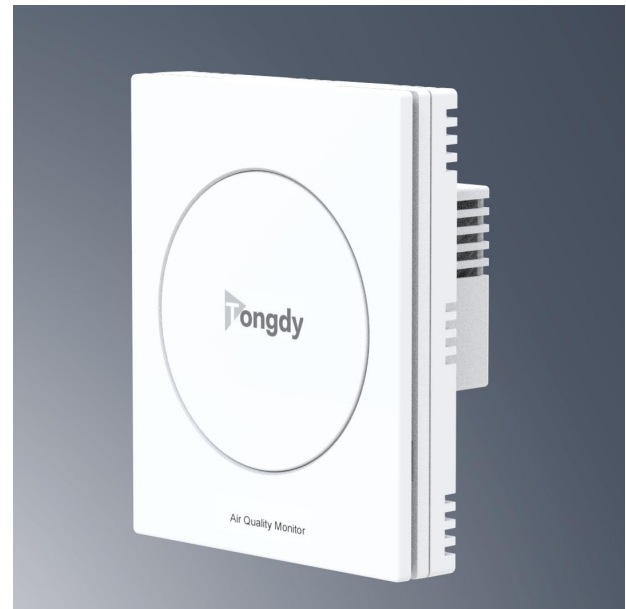
Wall-Embedded Installation
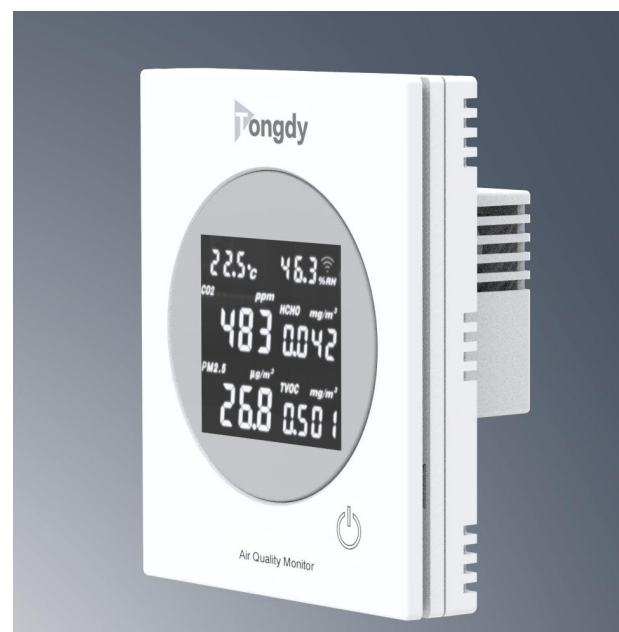# Applicable to tube box of Europe, American, and China standard

91mm

111mm

Tongdy

Air Quality Monitor

Wall

91.00

111.00

32.00 — 19.00

51.00

4.00 — 8.50

84.00

60.00

49.00

EM21 embedded installation
Indoor Air Quality Monitor
Simple and elegant type

- LED Tri-colored lights
- Visible air quality level
- Compact and simple design
- Gather real-time data and display history chart via a software platform

EM21 embedded installation
Indoor Air Quality Monitor
Screen display type

- Show the detailed air quality on the screen
- Display the real time values and 24-hour average of PM2.5, TVOC, CO2
- With on/off touch button to turn off /turn on screen
- The brightness of screen display is automatic adjusted , according with the ambient brightness. Both applicable for daytime and night.

Technology Specifications

	CO2	TVOC	PM2.5	Temp&RH	HCHO
Sensor	NDIR	Metal oxide semiconductor	Laser particle sensor Light scattering method	High-precision digital integrated Temperature and humidity sensor	Electrochemical Formaldehyde sensors
Measuring Range	400~5,000ppm	0.001~4.0mg/m^3	0~500μg /m^3	Temp: 0℃~60℃ Humidity:0~99%RH	0~0.6mg/m3
Output Resolution	1ppm	0.001mg/m^3	1μg/ m^3	Temp:0.01℃ Humidity:0.01%RH	0.001mg/m ^{3}
Accuracy	±50ppm + 3% of reading or 75ppm	<15%	<15%	Temp:±0.8℃ Humidity:±4.5%RH	±0.005mg/m 3 +5% of reading

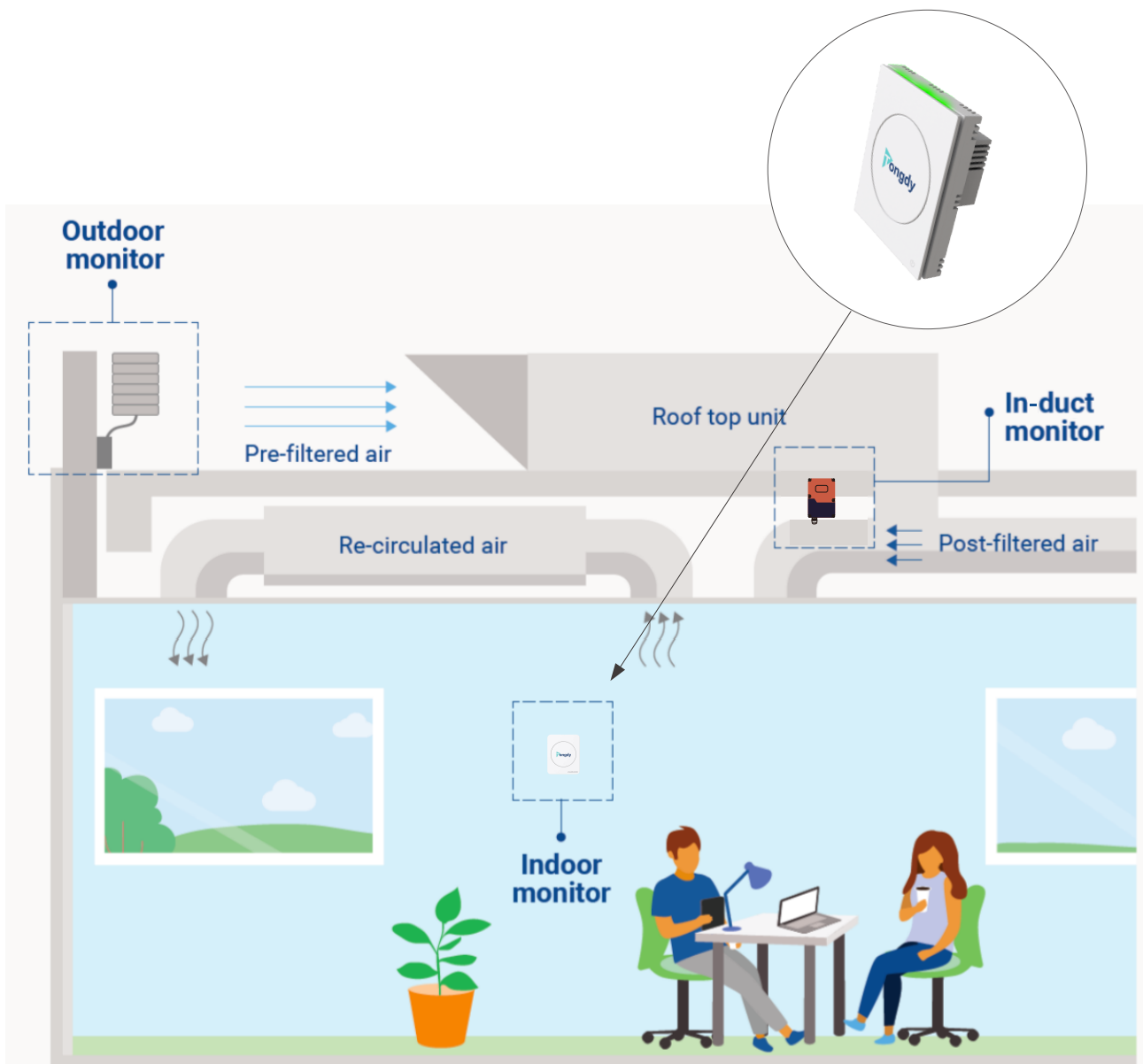| General Specifications				
Detection Parameters(max.)	PM2.5；CO2；TVOC；Temp&RH；HCHO		**Power Supply**	24VAC/VDC±10%,100~240VAC
Output (Optional)	RS485 (Modbus RTU) WIFI @2.4 GHz 802.11b/g/n RJ45 (Ethernet TCP) PoE power supply Optional		**Shell material and IP level**	PC fireproof material IP30
Operating Environment	Temp: 0~60℃ Humidity：0~99%RH		**Overall Dimension**	91.00mm*111.00mm*51.00mm
Storage Condition	0℃~50℃ 0~70%RH		**Installation standard**	Standard 86/50 pipe box (installation hole distance 60mm) American standard pipe box (installation hole distance 84mm)

Understand your air quality at all times

- View real-time and historical data through RS485 or cloud-based platform such as "MyTongdy", in computer or mobile APP
- Check out or download data to analyze your indoor air quality and identify the pollution source as frequently as you need
- Handle your indoor air quality by control the fresh air system or purification equipment automatically

www.mytongdy.com

Application scenarios

Widely used in commercial or residential spaces

Commercial Space   **School**   **Residential**   **Hotel**

Outdoor monitor

Pre-filtered air

Roof top unit

In-duct monitor

Re-circulated air

Post-filtered air

Indoor monitor

Models Guide

No.	Model	PM2.5	CO2	Temp&RH	TVOC	HCHO	Output	Display	Power Supply
1	EM21-B/S13C/D	•	•	•			RS485 (Modbus RTU or BACnet MS/TP)	B No display S with display	C: 24VAC/VDC D: 100~240VAC
2	EM21-B/S15C/D	•		•	•				
3	EM21-B/S17C/D	•	•	•		•			
4	EM21-B/S18C/D	•	•	•	•				
5	EM21-B/S23C/D	•	•	•			WiFi (MQTT)		
6	EM21-B/S25C/D	•		•	•				
7	EM21-B/S27C/D	•	•	•		•			
8	EM21-B/S28C/D	•	•	•	•				
9	EM21-B/S33C	•	•	•			Ethernet RJ45 (MQTT)		
10	EM21-B/S35C	•		•	•				
11	EM21-B/S37C	•	•	•		•			
12	EM21-B/S38C	•	•	•	•				

Provide the wall mounting EM21 with a surface mounted tube box(4 color selectabel)

We provide commercial air quality monitors
Including- indoor, in-duct, outdoor monitors
Help you build healthy indoor air quality

Tongdy