



Tongdy MSD-18 IAQ PM2.5 PM10 CO2 TVOC HCHO Monitoring System

High-accuracy Multi-sensor IAQ Detector
MSD - Commercial Grade for Intelligent & Green Buildings



Manufacture warranty period: 12 months

Descriptions

Real-time collecting indoor air quality data of intelligent buildings/green buildings, also collecting outdoor data or official release data, upload the data to Cloud through monitoring analysis platform. Read and analyze the data using computer or cell phone. Achieve multi-parameter and all-direction real-time monitoring and assessment of indoor air quality, and use it to control building ventilation and air conditioning system, etc.

- Rigorous design, professional test and calibration for the commercial grade indoor air quality detector.
- High performance with REST and WELL/LEAD Certificate, able to replace expensive professional instrument, coordinate well with data collection and analysis system, make multipoint real time monitoring placement easy to achieve
- Suitable for smart building, smart home system, air quality data collection system, green building evaluation system, ventilation system.

Applications

- Online real-time detecting indoor air quality
- Green Building Assessment
- BAS and HVAC systems
- Smart Home System
- Fresh Air Controlling System
- Building Energy Saving Reconstruction and Assessment System
- Classroom, office, exhibition hall, shopping mall, any public places



Features

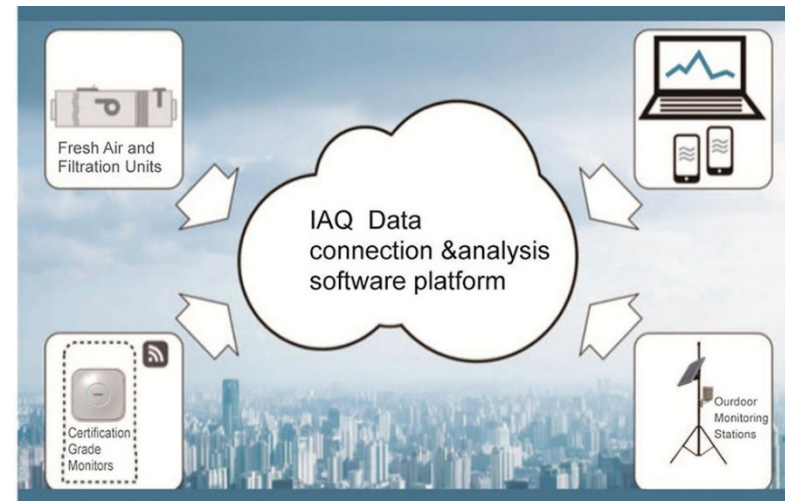
- 24-hour online real-time detecting indoor air quality, upload measurement data.
- The special and core multi-sensor module is inside, which is designed for the commercial grade monitors. The whole sealed case aluminum structure ensures the stability of detection and improves the anti-jamming capability.
- Unlike other particle sensors, with a built-in large flow bearing blower and the control technology of automatic constant flow, MSD has the much higher and long-term operation stability and life, of course more accuracy.
- Providing multiple sensors such as PM2.5, PM10, CO2, TVOC, HCHO, temperature and humidity.
- Using own patent technologies to minimize the influence from ambient temperature and humidity to measured values.
- Two power supply selectable: 18~2VDC or 100~240VAC
- Communication interface is optional: RS485 Modbus, WIFI, RJ45 Ethernet.
- Supply an extension TTL/RS485 port for pre-set or correction the measurements.
- Three-colour light ring indicating different level of indoor air quality; the light ring can be turned off.
- Ceiling mounting and wall mounting with the tasteful appearance in different decoration styles.
- Simple structure and installation, make even ceiling mounting easy and convenient.

- RESET certified as the grade B monitor for Green Building Assessment and Certification.
- Over 12-year experience in IAQ product design and production, abundantly applied in European and American market, mature technology, good manufacturing practise and high quality ensured.

Model Guide:

Model	PM2.5	PM10	Temp/RH	CO2	TVOC	HCHO	Output	Extension Port
MSD-1823D	●	●	●	●			WIFI	TTL or RS485
MSD-1828D	●	●	●	●	●			TTL or RS485
MSD-1829D	●	●	●	●	●	●		None

* D: 100 ~ 240VAC Power supply.





Specification:

- **PM2.5/PM10 Data**
 - Sensor: Laser particle sensor, Light scattering method
 - Measuring Range: PM2.5: 0~800 $\mu\text{g}/\text{m}^3$, PM10: 0~800 $\mu\text{g}/\text{m}^3$
 - Output Resolution: 0.1 $\mu\text{g}/\text{m}^3$
 - Zero Point Stability: $\pm 3\mu\text{g}/\text{m}^3$
 - Accuracy: 10% of reading (25°C, 10%~60%RH)
- **Temperature and Humidity Data**
 - Sensor: High precision digital integrated temperature and humidity sensor
 - Measuring Range: Temperature : -20°C~60°C / Humidity : 0~99%RH
 - Output Resolution: Temperature : 0.01°C / Humidity : 0.01%RH
 - Accuracy: Temperature : $<\pm 0.5^\circ\text{C}@25^\circ\text{C}$ / Humidity : $<\pm 3.0\% \text{RH}$ (20%~80%RH)
- **CO2 Data**
 - Sensor: Non-Dispersive Infrared Detector (NDIR)
 - Measurement Range: 0 ~ 5,000ppm
 - Output Resolution: 1ppm
 - Accuracy: $\pm 40\text{ppm} + 3\%$ of reading (25°C, 10%~60%RH)
- **TVOC Data**
 - Sensor: TVCO
 - Measuring Range: 0~3.5mg/m³
 - Output Resolution: 0.001mg/m³
 - Accuracy: $\pm 0.05\text{mg} + 10\%$ of reading (25°C, 10%~60%RH)

- **HCHO Data**
 - Sensor: Electrochemistry Formaldehyde sensor
 - Measuring Range: 0~3.5mg/m³
 - Output Resolution: 0.001mg/m³
 - Accuracy: $\pm 0.05\text{mg} + 10\%$ of reading (25°C, 10%~60%RH)
- **General Data**
 - Detection Parameters(max.): PM2.5/PM10, CO2, TVOC, Temperature & RH, HCHO
 - Output:
 - RS485/RTU (Modbus)
 - RJ45/TCP (Ethernet) with an extra TTL/RS485 interface
 - WiFi @2.4 GHz 802.11b/g/n with an extra TTL/RS485 interface
 - Operating Environment: Temperature: 0~50°C / Humidity : 0~99%RH
 - Storage Conditions: -10°C~50°C / 0~95%RH (No condensation)
 - Power supply: 18~24VDC or 100~240VAC
 - Overall Dimension: 130mm(L) x 130mm(W) x 45mm(H)
 - Material of Shell: PC/ABS fire-proof material
 - **IP Level: IP20**
 - Standard Approval: CE-Approval



