

Smart IEQ Monitor

Indoor environmental sensors in a box, comes with IoT cloud function



I. Sensor Specifications (Monitor product code: WFSIEQMSD)

Basic Specifications

General Data

Detection Parameters	PM2.5; PM10; CO2; TVOC; Environment temperature &RH;
Output	RS485(Modbus RTU) WIFI
Operating Environment	Temperature: 0~50℃ Humidity : 0~99%RH
Storage Conditions	-10℃~50℃ Humidity : 0~95%RH (No condensation)
Power Supply	12~36VDC; or 100~240VAC
Overall Dimension	130mm(L) × 130mm(W) × 45mm (H)
Material of Shell & IP Level	PC/ABS fire-proof material / IP30
Certification Standard	CE

PM2.5/PM1 Data

Sensor	Laser particle sensor, Light scattering method
Measuring Range	PM2.5: 0~400 $\mu\text{g}/\text{m}^3$ PM10: 0~500 $\mu\text{g}/\text{m}^3$
Output Resolution	0.1 $\mu\text{g}/\text{m}^3$
Zero Point Stability	$\pm 5 \mu\text{g}/\text{m}^3$
Accuracy	10% of reading

Temperature and Humidity Data

Sensor	High precision digital integrated temperature and humidity sensor
Measuring Range	Temperature : 0°C~50°C / Humidity : 0~99%RH
Output Resolution	Temperature : 0.01°C / Humidity : 0.01%RH
Accuracy	Temperature : < ±0.5°C @25 °C Humidity : < ±3.0%RH (20%~80%RH)

CO₂ Data

Sensor	Non-Dispersive Infrared Detector (NDIR)
Measuring Range	0 ~ 2,000ppm (up to 0~5000ppm)
Output Resolution	1ppm
Accuracy	± 40ppm +3% of the indication

TVOC Data

Sensor	TVOC
Measuring Range	0~ 2.0mg/m ³
Output Resolution	0.001mg/m ³
Accuracy	± 0.02mg+10%of the indication

The sensor has no calibration feature. Measures are given as-is. Country of origin is China. Product is distributed and serviced by WOOFAA in Hong Kong.

Models Guide

Model	PM2.5	PM10	Temp/ RH	CO ₂	TVOC	12~36VDC Power supply	100~240VAC Power supply	Output
MSD-1618C	●	●	●	●	●	●		RS485 (Modbus RTU)
MSD-1618D	●	●	●	●	●		●	
MSD-1613C	●	●	●	●		●		
MSD-1613D	●	●	●	●			●	
MSD-1628C	●	●	●	●	●	●		WIFI
MSD-1628D	●	●	●	●	●		●	
MSD-1623C	●	●	●	●		●		
MSD-1623D	●	●	●	●			●	

II. Data Communication

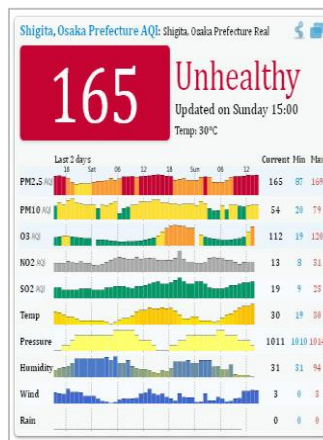
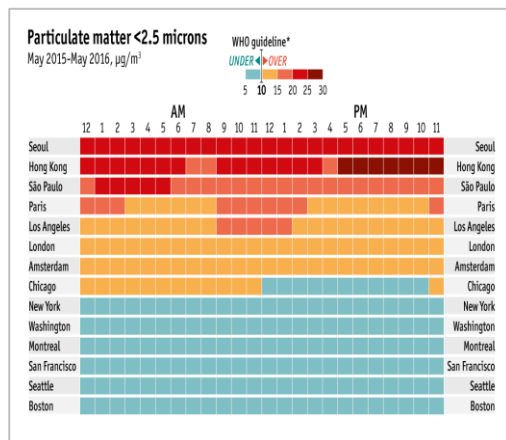
- Sensor setup has to be done by our engineers on-site.
- Local wifi connection has to be given in prior to sensor setup. Each sensor has unique device ID for our cloud platform connectivity.
- Data can be exported in CSV format per device on-request. Cloud data API port is not available.

III. Data Analytics

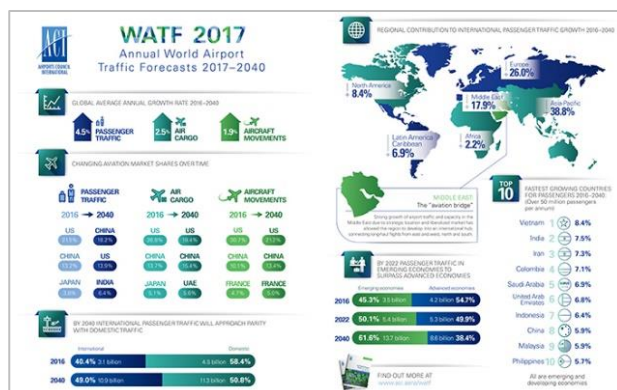
Cloud data is logged once the monitor put online. WOOFAA is providing analytics reporting service. We can consolidate data from cloud from multiple devices, sites and produce insights from our view as air quality specialists. This is an on-demand and contract-based service. Typical requests are weekly reporting on problematic IAQ scene for few months, or half-yearly for compliance to green building standards. Report template is customizable to suit your organization protocol.

Table of Contents	
INSTRUCTIONS	
This is the start of main body of the ASR, which should contain all the detailed technical information.	
Please:	
<ul style="list-style-type: none"> update Table of Contents, List of Tables and List of Figures on completion of report (select some text below - right click -> update field-Update Entire Table) include hyperlinks in the PDF version 	
Delete this box when the document is finished	
Executive Summary: Air Quality in Our Area	3
Air Quality in <Local Authority Name>	3
Actions to Improve Air Quality	6
Conclusions and Priorities	6
Local Engagement and How to get Involved	6
1 Local Air Quality Management	7
2 Actions to Improve Air Quality	7
2.1 Air Quality Management Areas	7
2.2 Progress and Impact of Measures to address Air Quality in <Local Authority Name>	6
2.3 PM ₁₀ - Local Authority Approach to Reducing Emissions and/or Concentrations	11
3 Air Quality Monitoring Data and Comparison with Air Quality Objectives and National Compliance	12
3.1 Summary of Monitoring Undertaken	12
3.1.1 Automatic Monitoring Sites	12
3.1.2 Non-Automatic Monitoring Sites	13
3.2 Individual Pollutants	13
3.2.1 Nitrogen Dioxide (NO ₂)	13
3.2.2 Particulate Matter (PM ₁₀)	14
3.2.3 Particulate Matter (PM _{2.5})	15
3.2.4 Sulphur Dioxide (SO ₂)	15
Appendix A: Monitoring Results	17
Appendix B: Full Monthly Diffusion Table Results for 2017	31
Appendix C: Supporting Technical Information / Air Quality Monitoring Data QA/QC	33
Appendix D: Map(s) of Monitoring Locations and AQMAs	34
Appendix E: Summary of Air Quality Objectives in England	35
Glossary of Terms	36
References	37
List of Tables	
Table 2.1 - Declared Air Quality Management Areas	4
Table 2.2 - Progress on Measures to Improve Air Quality	7
List of Figures	
No table of figures entries found	
Please delete List of Figures if not required.	

Text-based template: typical for annual filing or green building standard compliance reporting



Heatmap type for quick operational assessment. Our recommendations will be provided specific to your organizational context when we see actions are required.



Infographic type for quick overview on status and issues. Likely this is custom-made to each organization. Client will need to give us a draft on how they want us to consolidate and to present data. Then we will create the template and provide regular reports.