

MEASURING INSTRUMENTS & SYSTEM

AIM8000-OU Odor Monitoring System

DESIGNED FOR CONTINUOUS ONLINE MONITORING



AIM8000-OU is a versatile system based on an intelligent sensor array designed for monitoring air quality in both industrial and municipal areas where odor is a serious health and quality of life issue. Typical applications include wastewater treatment plants, landfills, chemical, petrochemical plants, agricultural processing plants etc.

The AIM8000-OU system detects odors and gaseous hydrogen sulfide, ammonia, VOCs in real time, showing the concentrations of targeted gases and compounds. The system may be expanded by adopting other sensors including five meteorological parameters and PM10/PM2.5/PM1 particles. Utilizing multiple systems, the customers may install a network to create odor dispersion profiles, thus providing immediate alerts through an optional wireless communication unit, reporting when thresholds are exceeded.

FEATURES & BENEFITS

- Utilizing multiple technologies/sensors for different odor compounds;
- Real-time odor plume display and atmospheric dispersion modeling;
- Optional weather data unit for monitoring of wind direction, wind speed, temperature, humidity, atmospheric pressure, and PM10/PM2.5/PM1 etc.;
- Optional wireless communication unit for network forming and remote data logging;
- Low power consumption, high reliability, and almost maintenance free;
- Eliminates on-site sampling and lab measurements, saving time of operations staff;
- Optimizes treatments such as odor neutralizing chemical use;
- Reporting and early warning to local communities, governments and EPA.

SPECIFICATIONS

Parameter	Range	Sensor	Resolution
Odor	0~100 OU/m ³	MOS	1 OU
H ₂ S	0~50 ppm	ECD	1.5 ppb
NH ₃	0~100 ppm	ECD	5 ppb
TVOC	0~20 ppm	PID	50 ppb
Particles	PM10: 0.01 µg/m ³ ~1500 mg/m ³	OPC	0.01 µg/m ³

Sampling flow range	0.25L/min ~ 1L/min
Typical system configuration	Array of 4 Metal Oxide Semiconductors (MOS), Photoionization Detector (PID), 2 Electrochemical Cells (ECD), Optical Particle Counter (OPC), Optional weather tower unit, Optional wireless communicating unit.
Repeatability	±5% of Full scale
Response time	MOS (OU) ≤ 10s, PID (TVOC) ≤ 10s, ECD (H ₂ S /NH ₃) ≤ 60s.
Working Temperature	-40~55°C
Humidity Range	10%-95% R.H. (no condensation)
Warm up time	300s
Power supply	110/220V AC, 60/50Hz, Power consumption less than 25w
Typical system weight	37 pounds or 17kg
Typical system size	20*18*9.5 inch or 510*460*240 mm
Typical Installation	Wall mounting or pipe mounting

Optional Weather Tower Unit (Five Meteorological Parameters)

Wind Speed	Principle	Ultrasonic Method	Atmospheric Humidity	Principle	Capacitance Method
	Range	0~60m/s		Range	0~100% R.H.
	Accuracy	±0.2m/s or 3% of reading, which is bigger.		Accuracy	±0.2% R.H.
	Resolution	0.1m/s		Resolution	0.1% R.H.
Wind Direction	Principle	Ultrasonic Method	Atmospheric Pressure	Principle	Piezoresistive Method
	Range	0~360°		Range	10~1100 kPa
	Accuracy	±3°		Accuracy	±0.5 kPa
	Resolution	0.1°		Resolution	0.1 KPa
Atmospheric Temperature	Principle	Diode Voltage Method			
	Range	-40~80 °C			
	Accuracy	±0.5 °C			
	Resolution	0.1 °C			



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