

AQD5000-X Ambient Air Quality Monitoring System: Precision in Every Measurement



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Product Overview: The AQD5000-X is a state-of-the-art **ambient air quality monitoring system**, designed to meet the needs of urban air quality assessment and industrial emission pollution monitoring. This robust system offers **multi-parameter measurement capabilities**, tracking gases, particulate matter, and meteorological conditions simultaneously. With **real-time data transmission** to cloud platforms and **remote control via cloud**, the AQD5000-X ensures continuous and precise environmental monitoring, offering invaluable data to environmental agencies, industries, and municipalities. Its **affordable cost** makes it an ideal solution for agencies seeking comprehensive air quality monitoring without breaking the budget.

Key Benefits:

- **Comprehensive Monitoring:** Simultaneously tracks up to **9 gas parameters**, along with particle and meteorological measurements, providing a holistic view of air quality.

- **High Precision & Sensitivity:** Features **high-sensitivity sensors** that ensure accurate readings with detection limits as low as **ppb** levels.
- **24/7 Monitoring:** Operates continuously, ensuring that air quality is consistently tracked without interruptions.
- **Remote Access:** Real-time data upload to cloud platforms and remote control features allow for efficient and effective management from anywhere.
- **Low Maintenance & Cost-Effective:** Designed for low-cost operation with simple regular maintenance, ensuring minimal downtime and operational costs.

Product Advantages:

1. **Simultaneous Multi-Parameter Monitoring:** Capable of measuring **1-9 gas parameters** alongside particle and meteorological data, providing a comprehensive overview of air quality. Optional modules allow for customization based on your specific needs.
2. **High-Precision, High-Sensitivity Sensors:** The AQD5000-X uses **imported high-sensitivity sensors** that deliver **fast response times, high resolution, and excellent linearity**. Achieve detection down to the **ppb** level with unmatched accuracy.
3. **User-Friendly Interface:** Featuring a **7-inch color touch screen**, the system allows for **easy and intuitive data viewing**, enhancing usability for operators in various environments.
4. **Built for Harsh Environments:** Equipped with a **dust-proof, rain-proof, and temperature-resistant outdoor shield**, the AQD5000-X thrives in both **high and low-temperature environments**, ensuring consistent performance under all conditions.
5. **Advanced Flow Control:** Dual **flowmeters** ensure **precise gas flow control**, enhancing the **accuracy and consistency** of monitoring data, even in challenging environments.
6. **Flexible and Reliable Filtration:** The system is compatible with **high-temperature probes, oil removal, dust filtration, and water filtration** devices, ensuring **accurate detection** and extending device lifespan.
7. **Reliable 24/7 Operation:** With **continuous 24-hour operation**, the AQD5000-X offers **real-time data uploads, self-diagnosis, and automatic restarts** for non-stop monitoring.
8. **Long-Term Data Storage:** The system can store monitoring data for up to **two**

years, ensuring that you have historical data readily available for trend analysis and regulatory compliance.

- 9. Solar Power Compatibility:** Optional solar power supply ensures **sustainable operation** even in areas without access to a reliable electrical grid.
- 10. Customizable Output Options:** With **RS485, 4G DTU**, and **LORA (optional)** modules, the AQD5000-X supports **wireless communication** over long distances, making it suitable for **remote or large-scale monitoring applications**.
- 11. Real-Time Video Monitoring:** Optional **camera integration** allows for **remote dust concentration monitoring** and visual recording, adding an extra layer of data collection.
- 12. Low Maintenance & Cost:** Designed for **easy operation** and **low-maintenance**, the AQD5000-X reduces the need for costly service interventions, making it ideal for organizations with limited resources.

Technical Parameters:

- **Sampling Method:** Pump suction
- **Pump Flow Rate:** 0.5L/min (gas); 1.8L/min (particles/dust)
- **Monitoring Method:** Continuous automatic real-time monitoring
- **Display:** 7-inch color touch screen, adaptive display with automatic page turning
- **Signal Output:** RS485, 4G DTU (optional), LORA (optional)
- **Power Supply:** 220VAC, 0.1A
- **Working Current:** <100mA (Max)
- **Working Voltage:** Internal: 24VDC; External: 220V/50Hz AC
- **Operating Temperature:** -10°C to 55°C
- **Operating Humidity:** 0-95% RH
- **Alarm:** Sound and light alarm (optional)
- **Product Shell:** Anti-corrosion, UV-resistant, and impact-resistant
- **Installation:** Ceiling or wall-mounted
- **Dimensions:** 480×580×163mm (excluding external sensors, rainproof beams, and mounting brackets)
- **Weight:** 18kg
- **Product Composition:** Pre-processing system and monitoring factor analysis system
- **Filtration System:** Oil-water-dust filter with **glass fiber** and **PE material**

Measurement Ranges & Resolution:

Environmental Parameters:

- **Temperature:** -40°C ~ +120°C (Resolution: 0.1°C)
- **Humidity:** 0~99% RH (Resolution: 1% RH)
- **Wind Speed:** 0~20 m/s (Resolution: 0.1 m/s)
- **Wind Direction:** 0-360° (Resolution: 1°)
- **Air Pressure:** 0~120 KPa (Resolution: 1 KPa)
- **Light Intensity:** 0~200,000 Lux (Resolution: 1 Lux)
- **Noise:** 30 dB~130 dB (Resolution: 1 dB)

Gas Parameters:

- **Ozone (O₃):** 0-1000 ppb (Resolution: 1 ppb)
- **Sulfur Dioxide (SO₂):** 0-1000 ppb (Resolution: 1 ppb)
- **Nitrogen Dioxide (NO₂):** 0-1000 ppb (Resolution: 1 ppb)
- **Formaldehyde (CH₂O):** 0-5 ppm (Resolution: 0.01 ppm)
- **Carbon Monoxide (CO):** 0-20 ppm (Resolution: 0.001 ppm)
- **TVOC:** 0-5 ppm (Resolution: 0.001 ppm)

Particle Parameters:

- **PM_{2.5}, PM₁₀:** 0-1000 µg/m³ (Resolution: 1 µg/m³)

Customer Pain Points Addressed:

- **Accurate Data:** The AQD5000-X eliminates the uncertainty and inaccuracies often found with traditional air quality monitoring tools, providing reliable, real-time data for air quality management.
- **Continuous Monitoring:** Never worry about missing critical environmental data – the AQD5000-X offers **24/7 continuous monitoring** with automatic self-diagnosis

and data uploads.

- **Easy Setup & Low Maintenance:** Designed for **quick deployment** with minimal ongoing maintenance, reducing the complexity and cost of maintaining a robust air quality monitoring system.
- **Remote Access & Customization:** Whether you're managing multiple monitoring stations or require specific data points, the AQD5000-X allows for **remote management** and **customizable parameters** to suit diverse needs.

Ideal For:

- **Urban air quality monitoring** and **industrial emission assessments**
- **Environmental monitoring agencies, municipalities, and industries** seeking a **cost-effective** and **accurate** solution.

Looking for a **high-precision air quality monitoring system** that is **easy to operate**, **reliable**, and **cost-effective**? The AQD5000-X is the solution. **Contact us** today to learn how the AQD5000-X can transform your air quality monitoring.