

# AQM 60

## Ambient Air Quality Monitor

### Overview

Air pollutants can be harmful to public health and the environment, especially near roadways where vehicles emit gases continually in a localized area. Monitoring air quality data near roadways can assist with pollution mapping and control; detecting emissions from traffic flow, in tunnels, and near construction projects; environmental impact assessments, urban land use planning and community health programs (alerting the public about poor air quality). The AQM 60 is a complete air quality monitoring system designed to measure a wide range of air quality parameters in a cost-effective, compact package.

The AQM 60 system measures many of the pollutants considered harmful by the EPA (Environmental Protection Agency) including: Nitrogen Dioxide (NO<sub>2</sub>); Ozone (O<sub>3</sub>); Carbon Monoxide (CO); Carbon Dioxide (CO<sub>2</sub>); and Particulate Matter (PM<sub>2.5</sub> and PM<sub>10</sub>). The AQM 60 integrates with RWIS (Road Weather Information System), advisory radio systems, and ITS software platforms to provide weather, traffic and air quality data on one system. This allows customers to not only mitigate and control pollutant levels, but also save costs by combining their weather and traffic monitoring with the air quality system.

### Benefits

- ▶ Site-specific air quality monitoring
- ▶ Air quality, weather and traffic data collected at one site
- ▶ Safer traveling environment for motorists
- ▶ Provides data for mitigation and control of pollutant levels
- ▶ Alert the public about poor air quality
- ▶ Cost-effective

### Applications

- ▶ Urban and remote roadways
- ▶ Traffic flow control
- ▶ Identification of air quality trouble spots
- ▶ Tunnel monitoring
- ▶ Airports (noise detection can be included)
- ▶ Before /after road construction or mitigation strategies
- ▶ Long term air quality trend analysis
- ▶ Short term environmental impact assessments
- ▶ Local community exposures: residential, schools, pedestrians, shopping centers



## Features

- ▶ Configure the system with up to six sensors to meet your needs
- ▶ Optional noise sensor
- ▶ Rapid real-time data sampling (2-minute)
- ▶ Large data storage capacity (>15 years)
- ▶ Data available in QTT software
- ▶ Modular design enables easy maintenance
- ▶ Remote diagnostic capabilities
- ▶ Weatherproof and compact enclosures



## Key Specifications

Sensors (most common)	NO <sub>2</sub> ; O <sub>3</sub> ; CO; CO <sub>2</sub> ; VOC; PM <sub>2.5</sub> and PM <sub>10</sub>		
Other Sensor Options	Noise and SO <sub>2</sub>		
Environmental Operating Range	-4°F to 140°F (-20°C to 60°C) with appropriate Thermal Management System (TMS)* 10 to 90% RH (non condensing)		
Power Requirements	12 VDC (power subject to configuration) AC power module 100 - 240 VAC		
Maintenance Checks Routine	3, 6 or 12 months (site dependent)		
Approvals	Electrical Safety and Conformity: CE; UL E215312 Gas Sensors: EN50082-1:1997; EN50081-1:1992; Part 15 FCC Rules; IPCA 610D Class2 Particle Monitor: Class I laser; IEC 60825-1:1998		
Sensor Modules**	<b>Gas</b>	<b>Range</b>	<b>Accuracy</b>
	Nitrogen Dioxide (NO <sub>2</sub> )	0 - 200 ppb	<± 0.010 ppm
	Ozone (O <sub>3</sub> )	0 - 150 ppb	<± 0.005 ppm
	Carbon Monoxide (CO)	0 - 25 ppm	<± 1 ppm
	Carbon Dioxide (CO <sub>2</sub> )	0 - 2000 ppm	< 40 ppm + 3%
	Volatile Organic Compounds (VOC)	0 - 25 ppm	<± 10%
	Particulate Matter (PM <sub>2.5</sub> and PM <sub>10</sub> )	0 - 2000 µg/m <sup>3</sup>	8% of NIOSH 0600

\*TMS is customized for the sensor configuration and the environmental conditions at each location.

\*\* Other sensor modules available upon request.



In partnership with:

**aeroQUAL**

Quixote Transportation Technologies, Inc.  
4021 Stirrup Creek Drive, Suite 100  
Durham, North Carolina 27703  
Toll Free: 800-325-7226  
Phone: 314-569-1002  
Fax: 314-569-3567  
www.qttinc.com

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