

Rev. 11/01/05

Features & Options

- Responds to Over 30 Different Contaminants
- Output is Recordable and Easily Imported into Standard Spreadsheet Packages for Analysis
- Saves on Energy Costs Through Demand-Based Control of Outside Air Intake
- Increases Worker Productivity Through Improved Comfort
- Allows Early Detection of Potential Air Quality Problems
- Makes a Facility More Attractive to Potential Tenants



**Room Mount
Air Quality Sensor**

One of the greatest concerns of today's facility managers is the health and safety of the occupants of their building, and Indoor Air Quality is a key factor. BAPI's Air Quality Sensors allow for continuous monitoring to help control the air quality of a facility. The sensors can be placed in individual rooms and in air ducts and can send data directly to the building management system. Information from the sensors can also be recorded over time by the building automation system and easily imported into standard spreadsheet packages for analysis. This type of "on-line" monitoring offers a number of important benefits including energy savings through demand-based control of outside air intake, improving and optimizing the air quality of the facility, identifying potential air quality problems in the early stages and demonstrating to existing and potential tenants your commitment to tenant satisfaction.

The BAPI Room Mount Air Quality Sensor utilizes a unique oxidizing element that varies in resistance with respect to the contaminant gases it contacts. The sensor is non-specific to any one gas. Instead, the output signal corresponds to the combined concentration of over 30 contaminant gases typically found in indoor environments (see chart on opposite page). This provides a much more accurate representation of the actual air quality than a CO₂ Sensor which senses only CO₂ and not the other contaminants that could be present.

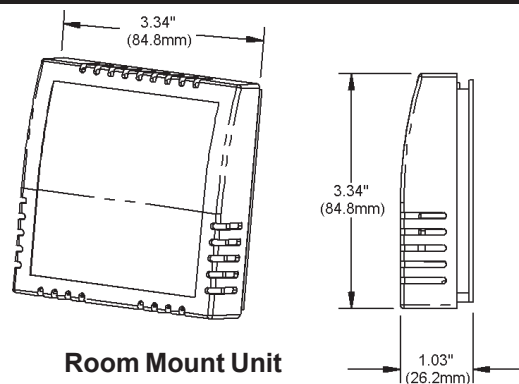
The principle purpose of the Air Quality Sensor is to control the amount of outside air introduced by a ventilation plant and thereby reduce energy consumption by eliminating the introduction of excess outside air into the system during periods of little or no occupancy. Besides the savings from demand-based control of outside air intake, on-line sensing also assures air quality throughout the facility and can help identify potential problem areas (such as contaminants from carpets, equipment, furnishings or chemicals) before they reach a critical stage. The facility manager can also analyze the recorded data from the sensors and adjust building processes for optimum air quality and occupant comfort.

Ordering Information

Part Number: BA/AQS-R-10 Room Mount Air Quality Sensor, 0-10 Volt output
BA/AQS-R-5 Room Mount Air Quality Sensor, 0-5 Volt output

Specifications

Signal:	0-10 VDC Representing 0-100% Air Pollution
Supply Voltage:	24 VAC (+10%, -50%) 24 DC (12V Min., 24V Max)
Power Consumption:	1 VA or less
Min. Load Resistance:	4 kΩ
Ambient Temp:	32° - 140°F
Storage Temp:	10° - 150°F
Humidity:	5 - 95% RH (<i>Non-Condensing</i>)
Housing Material:	Body - Lexan



Room Mount Unit



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What Contaminants Does the BAPI AQS Sense?

The BAPI Air Quality Sensor is a total contaminant sensor which means it is sensitive to over 30 contaminants that are typically found in indoor environments. The unit then sends an output signal which relates to the combined concentration of these contaminants.

The AQS responds to the following list of contaminants:

COMBUSTIBLES

Iso-Butane

Methane

Ethane

Propane

Ethylene

Hydrogen

Carbon Monoxide

Methyl Ether

OTHER CONTAMINANTSTobacco smoke, Alcohol,
Formaldehyde & Perfumes**LIQUIDS**

Acetone

Methanol

n-Pentane

n-Hexane

Benzene

Meth. Eth. Ketone

Dimethyl Amine

Ethanol

Methyl Acetate

FREONS

Various

OTHER GASES

Hydrogen Sulfide

Carbon Dioxide

Sulfur Dioxide

Chlorine

Ammonia

HYDROCARBONS

Vinyl Chloride

Methyl Chloride

Methylene Chloride

Ethylene Oxide

Acrylonitrile