



Features & Options

- Achieves True Indoor Air Quality, Not Just CO₂ Dilution
- Output is Correlated to a CO₂ Value Allowing You to Ventilate Using ASHRAE’s CO₂-Based VRP Algorithm
- BAPI-Stat “Quantum” Enclosure with 0 to 5 or 0 to 10 VDC Output

Humans respire Volatile Organic Compounds (VOCs) as well as CO₂. The BAPI sensor measures these VOCs and indicates when a space is occupied just as well as a CO₂ sensor.

The advantage of the VOC sensor is that it measures air contaminants from other sources besides respiration, such as building materials, cleaners, perfumes and furniture and carpet off-gassing. Using this sensor for Demand Controlled Ventilation then is a way of achieving true indoor air quality, rather than just CO₂ dilution.

A further benefit is that it requires no additional work on your part. That’s because the sensor converts the VOC reading to a CO₂ equivalent level. This lets you use ASHRAE’s CO₂-based VRP schedule to ventilate. (More information on the CO₂ equivalent output is available on our website or in the Application Notes at the end of this section of the catalog.)

The BAPI-Stat “Quantum” VOC Room Sensor features 0 to 5 VDC or 0 to 10 VDC output. The VOC level is indicated as “Good, Fair or Poor” by three discrete green, yellow and red LED’s on the front of the unit. If the output reaches 2,000 PPM, the red LED will begin to flash because it has hit its maximum output.



VOC Sensor in the BAPI-Stat “Quantum” Enclosure



Specifications

Power:

12 to 24 VDC, 35 mA Peak
18 to 24 VAC, 4 VA Peak

Measurement Range:

0 to 2,000 PPM CO₂ Equivalent

Selectable Output:

0 to 5 or 0 to 10 VDC > 4KΩ impedance

Sensing Element: Micro-machined Metal Oxide

Termination: 3 Terminals, 16 to 22 AWG

Wiring: 2 Pair

Operating Environment:

32 to 122°F (0 to 50°C)
5 to 95%RH non-condensing

Enclosure Material:

ABS Plastic, Material Rated UL94V-0

VOC Detection Range: 0 to 2,000 ppm CO₂ Equivalent

Start-Up Time: 15 Minutes

Response Time:

Less Than 2 Minutes (after Start-Up Time)

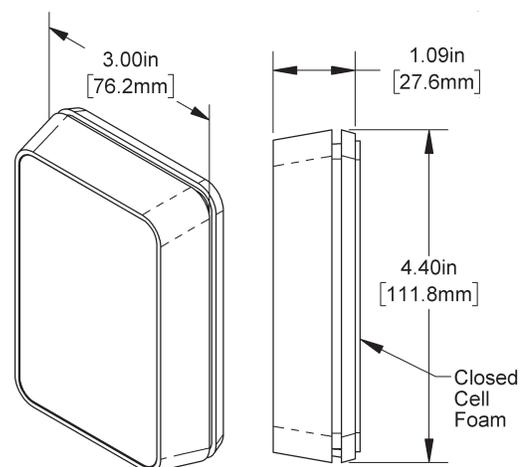
Mounting: 2”x4” J-Box or drywall – screws provided

LED VOC Level Indicator:

Good, Green < 1,000 PPM
Fair, Yellow = 1,000 to 1,500 PPM
Poor, Red > 1,500 PPM

Certifications: RoHS

Warranty Period: 5 Years





VOC Room Sensor, BAPI-Stat “Quantum”

D5

Rev. 03/10/17

Air Quality Sensors

Ordering Information: BAPI-Stat Quantum VOC Sensor

<u>Part #</u>	<u>Description</u>
BA/BQX-A.....	BAPI-Stat “Quantum” VOC Sensor, 0 to 5V Output
BA/BQX-B.....	BAPI-Stat “Quantum” VOC Sensor, 0 to 10V Output

