



## Features & Options

- New BAPI-Stat “Quantum Prime” Enclosure Style
- VOC Alone or Temperature and Humidity Combination
- Achieves True Indoor Air Quality, Not Just CO<sub>2</sub> Dilution
- Output is Correlated to a CO<sub>2</sub> Value Allowing You to Ventilate Using ASHRAE’s CO<sub>2</sub>-Based VRP Algorithm

Humans respire Volatile Organic Compounds (VOCs) as well as CO<sub>2</sub>. The BAPI sensor is able to measure these VOCs and indicate when a space is occupied just as well as a CO<sub>2</sub> 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 CO<sub>2</sub> 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 CO<sub>2</sub> equivalent level. This lets you use ASHRAE’s CO<sub>2</sub>-based VRP schedule to ventilate.

The new BAPI-Stat “Quantum Prime” unit is available as a VOC sensor alone or as a combination temperature and humidity sensor. The optional display alternates between the measured values and is field adjustable between °F or °C. 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. The red LED will begin to flash when the unit exceeds 2,000ppm, indicating that fresh air needs to be brought in.



**BAPI-Stat “Quantum Prime” VOC Sensor with Optional Temperature Setpoint and Occupancy Override**



## Specifications

**Power:** (No AC Power)  
 0 to 5 VDC Output Units:  
 9 to 35 VDC @ 50 mA Max (9 to 15 VDC recommended)  
 0 to 10 VDC Output Units:  
 15 to 35 VDC @ 50mA Max (15 VDC recommended)

### Sensing Elements:

Humidity: Capacitive Polymer, ±2% RH Accuracy  
 VOCs: Micro-machined Metal Oxide

**Temp Sensor:** Thermistor or RTD

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

**VOC Detection Range:** 0 to 2,000 CO<sub>2</sub> PPM equivalent

**Response Time:** Less Than 60 Sec. (after Start-Up Time)

**Start-Up Time:** 15 minutes

### Operating Environment:

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

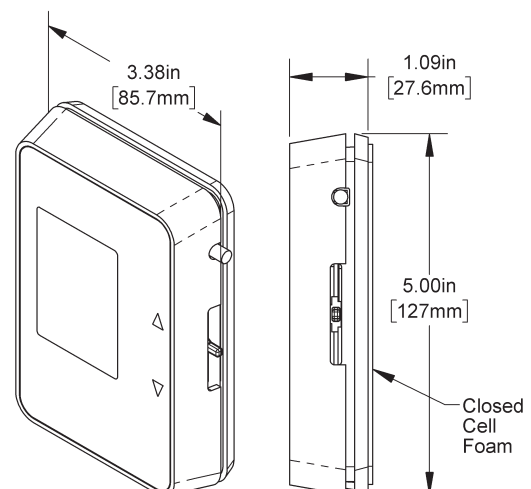
**Material:** ABS Plastic, Material Rated UL94V-0

### LED VOC/CO<sub>2</sub> Equivalent 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





Use the Option Selection Guide below to create your custom part number. Replace the number and brackets with the designator for each selection. Skip the designator and dashes for optional selections that are not required in your configuration.

### BAPI-Stat “Quantum Prime” VOC Sensor Option Selection Guide:

BA/ BQP( #1 ) - ( #2 ) - ( #3 ) - ( #4 ) - ( #5 ) - ( #6 ) ( #7 ) - ( #8 ) - ( #9 )

**#1: Display Style** (required)

- F .....Unit with Display and °F indication
- C .....Unit with Display and °C indication
- X .....Unit without Display

**#2: VOC Output** (required)

- A .....VOC 0 to 5V Output
- B .....VOC 0 to 10V Output

**#3: Temperature Sensor** (required)

- A .....1K Platinum RTD (385 curve)
- B .....10K-2 Thermistor
- C .....10K-3 Thermistor
- D .....10K-3[11K] Thermistor
- E .....20K Thermistor
- F .....1.8K Thermistor
- G .....1K Ω Nickel RTD
- H .....3K Thermistor
- X .....No Temperature Sensor

**#4: Humidity Output** (required)

- A .....±2% Accuracy, Output of 0 to 5V
- B .....±2% Accuracy, Output of 0 to 10V
- X .....No Humidity Output

**#5: Setpoint Adjustment** (required)

- 1 .....Slider Setpoint Adjustment
- X .....No Setpoint Adjustment

**#6: Setpoint Display Range** (required)

- A .....-3 to +3
- B .....-5 to +5
- C .....50 to 90 °F or 10 to 32 °C
- D .....55 to 85 °F or 13 to 30 °C
- E .....60 to 80 °F or 15 to 27 °C
- F .....65 to 80 °F or 18 to 27 °C
- X .....No Setpoint Adjustment

**#7: Setpoint Output Range** (required)

- 00 .....0 to 5 V
- 10 .....0 to 10 V
- 40 .....0 to 1 k
- 60 .....0 to 10 kΩ
- 80 .....0 to 20 kΩ
- 81 .....4.75 k to 24.75 kΩ
- 82 .....6.19 k to 26.19 kΩ
- 84 .....10 k to 30 kΩ
- X .....No Setpoint Adjustment

**#8: Occupant Override** (required)

- J .....Override as a Separate Output
- N .....Override in Parallel (//) with Sensor
- P .....Override in Parallel (//) with Setpoint
- X .....No Override

**#9: Optional Selections\*** (optional)

- A .....Differential Ground
- B .....Comm Jack C35
- F .....Test and Balance Switch

\*When more than one is selected, put in alphabetical order. Additional options and descriptions can be found on pg. 14

*Additional options are available for these units but not shown in this Selection Guide. Contact your BAPI representative for the complete list of options. Submittal sheets without List Prices can be downloaded from our website at [www.bapihvac.com](http://www.bapihvac.com)*

**Example Number:**

BA/BQP ( F ) - ( A ) - ( B ) - ( A ) - ( 1 ) - ( F ) ( 80 ) - ( N )

**Actual Number (with brackets removed):** BA/BQPF-A-B-A-1-F80-N

**Description:** BAPI-Stat “Quantum Prime” VOC Sensor, °F Display, 0 to 5V VOC Output, 10K-2 Thermistor Temperature Sensor, 0 to 5V Humidity Output, Slider Setpoint Adjustment, 65 to 80 Temp Setpoint Display Range, 0 to 20K Temp Setpoint Output Range, Override in Parallel with the temp sensor, No Additional Options

**Your Number:** BA/

