



Features & Options

- VOC Alone or Temperature and Humidity Combination
- 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

Humans respire Volatile Organic Compounds (VOCs) as well as CO₂. The BAPI sensor is able to measure these VOCs and indicate 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. So using this sensor for Demand Controlled Ventilation is a way of achieving true indoor air quality, rather than 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.

The unit is available as VOC alone or with temp and humidity sensing, temp setpoint and override. The optional display alternates between the measured values. The VOC level is indicated as "Good, Fair or Poor" by LEDs on the front of the unit. A 60mm mounting base is also available to fit European style junction boxes.



**BAPI-Stat
"Quantum
Prime" VOC
Sensors**
(image at right
shown with
optional 60mm
mounting
base)

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: Standard 2"x4" junction box, European junction box or drywall mount (screws provided)

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

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

Operating Environment:

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

Material: ABS Plastic, Material Rated UL94 V-0

Start-Up Time: 15 minutes

Cover LED VOC/CO₂ Equivalent Level:

Good, Green < 1,000 ppm

Fair, Yellow = 1,000 to 1,500 ppm

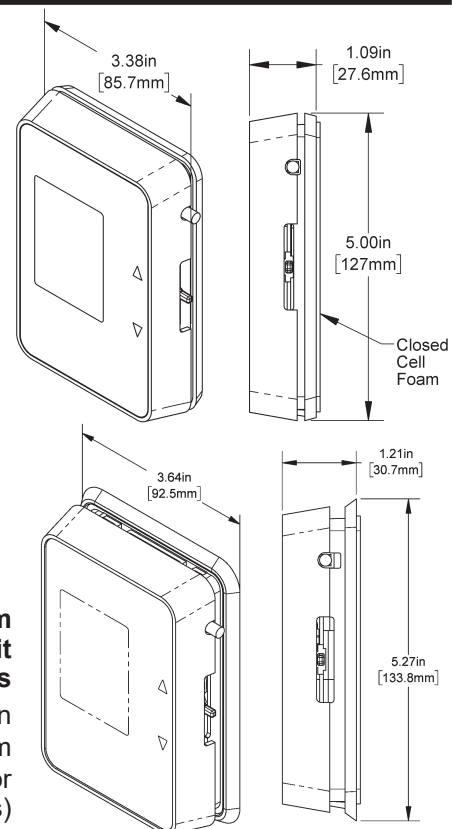
Poor, Red > 1,500 ppm

Agency: RoHS

Warranty Period: 5 years

BAPI-Stat "Quantum Prime" VOC Unit Dimensions

(bottom unit shown with optional 60mm mounting base for European wall boxes)





VOC Room Sensor, BAPI-Stat "Quantum Prime"

Submittal sheets without List Prices are available on our website at www.bapihvac.com

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:

Unit w/ Standard Mounting Base

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

Unit w/ 60mm Mounting Base

BA/BQP60(#1) - (#2) - (#3) - (#4) - (#5) - (#6)(#7) - (#8) - (#9)

#1: Display Style (required)

- FUnit with Display and °F indication ... \$35
- CUnit with Display and °C indication... \$35
- XUnit without Display

#2: VOC Output (required)

- AVOC 0 to 5V Output\$475
- BVOC 0 to 10V Output\$475

#3: Temperature Sensor (required)

- A1K Platinum RTD (385 curve)..... \$25
- B10K-2 Thermistor.....\$18
- C10K-3 Thermistor.....\$18
- D10K-3[11K] Thermistor.....\$18
- E20K Thermistor.....\$18
- F1.8K Thermistor.....\$18
- G1K Ω Nickel RTD\$65
- H3K Thermistor.....\$18
- XNo Temperature Sensor

#4: Humidity Output (required)

- A±2% Accuracy, Output of 0 to 5V..... \$80
- B±2% Accuracy, Output of 0 to 10V.... \$80
- XNo Humidity Output

#5: Setpoint Adjustment (required)

- 1.....Slider Setpoint Adjustment\$6
- XNo Setpoint Adjustment

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

#6: Setpoint Display Range (required)

- A-3 to +3
- B-5 to +5
- C50 to 90 °F or 10 to 32 °C
- D55 to 85 °F or 13 to 30 °C
- E60 to 80 °F or 15 to 27 °C
- F65 to 80 °F or 18 to 27 °C
- XNo 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
- XNo Setpoint Adjustment

#8: Occupant Override (required)

- JOverride as a Separate Output\$5
- NOverride in Parallel (//) with Sensor....\$5
- POverride in Parallel (//) with Setpoint..\$5
- XNo Override

#9: Optional Selections* (optional)

- ADifferential Ground
- BComm Jack C35.....\$10
- FTest and Balance Switch\$7.50

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

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

List Price: \$35 (°F Display) + \$475 (VOC Unit) + \$18 (Thermistor) + \$80 (Humidity) + \$6 (Setpoint) + \$5 (Override) = \$619 List

Your Number: BA/

