



Features & Options

- Automatic Barometric Pressure Compensation for Accurate Readings Regardless of Weather or Altitude
- Optional Temperature, Setpoint, Override and Humidity
- Models for Periodically or Continuously Occupied Areas
- Models that Meet California AB 841 When Connected to a Building Automation System (choose option N when ordering)

The BAPI CO₂ Sensor is an accurate and reliable way of incorporating demand controlled ventilation into a building’s HVAC strategy. It measures the CO₂ in a range of 0 to 2,000 ppm with a field selectable output of 0 to 5 or 0 to 10 VDC.

The Single Channel unit has been optimized for periodically unoccupied areas and features automatic background calibration over a long time period to reduce drift. The Dual Channel “24/7” unit has been optimized for continuously occupied areas and features a 3-point calibration process for enhanced accuracy and stability.

Barometric pressure changes can affect CO₂ sensors, even putting them outside of their specified accuracy. The BAPI unit has a built-in Barometric pressure sensor that continuously compensates the output for accurate readings despite the weather or altitude.

The CO₂ level is indicated by three LEDs on the front of the unit. A 60mm mounting base is available to fit European style junction boxes.



BAPI-Stat “Quantum Prime” CO₂ Sensors
(bottom unit shown with optional 60mm mounting base)

Specifications

Power for 0 to 5 VDC Outputs:

0 to 5V Outputs: 9 to 35 VDC @ 240 mA (9 to 24 VDC recomm.)

0 to 10V Outputs: 15 to 35 VDC @ 240 mA (15 to 24 VDC recomm.)

CO₂ Sensor: Single or Dual Channel Non-Dispersive Infrared (NDIR)

Humidity Sensor: Capacitive Polymer ±2% RH Accuracy

Temperature Sensor: Thermistor or RTD

Operating Environment:

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

Material: ABS Plastic, Material Rated UL94V-0

CO₂ Detection Range: 0 to 2,000 ppm

Start-Up Time: <2 Minutes

Response Time: <2 Minutes for 90% step change typical (after start-up)

CO₂ Accuracy (Single Channel Units):

400 to 1,250 ppm: ±30ppm or 3% of reading, whichever is greater

1,250 to 2,000 ppm: ±5% of reading + 30ppm

CO₂ Accuracy (Dual Channel “24/7” Units):

400 to 1,000 ppm: ±75 ppm • >1,000 ppm: ±10% of reading

CO₂ Drift Stability (Dual Channel “24/7” Units):

<5% of full scale over life of product.

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

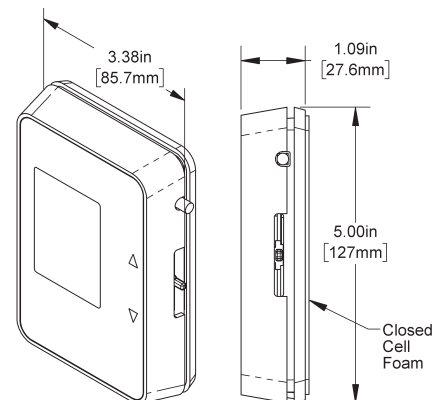
LED CO₂ Level Indicator:

Good, Green < 1,000 PPM (1,100 PPM when option “N” chosen)

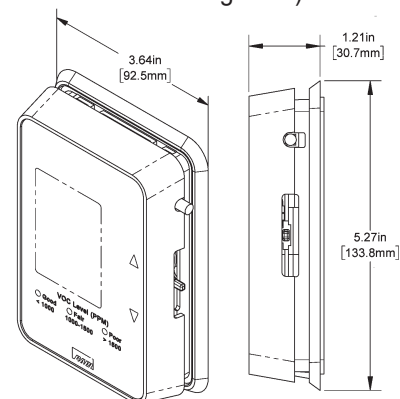
Fair, Yellow = 1,000 to 1,500 PPM (1,100 to 1,500 PPM when “N” chosen)

Poor, Red > 1,500 PPM

Agency: RoHS, California Title 24 and AB 841



Unit Dimensions
(bottom unit shown with 60mm mounting base)





Use the Option Selection Guide below to create your custom part number. Replace the number and parenthesis 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” CO₂ Sensor Option Selection Guide:

Unit w/ Standard Mounting Base

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

Unit w/ 60mm Mounting Base

BA/AQP60(#1) - (#2) - (#3) - (#4) - (#5) - (#6)(#7) - (#8) - (#9)

#1: Display Style (required)

- FUnit with Display and °F indication
- CUnit with Display and °C indication
- XUnit without Display

#2: CO₂ Output (required)

- ASingle Channel, 0 to 5V Output
- BSingle Channel, 0 to 10V Output
- CDual Channel, 0 to 5V Output
- DDual Channel, 0 to 10V Output

#3: Temperature Sensor (required)

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

#4: Humidity Output (required)

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

#5: Setpoint Adjustment (required)

- 1Slider Setpoint Adjustment
- 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.

#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)

- 000 to 5 V
- 100 to 10 V
- 400 to 1 K
- 600 to 10 KΩ
- 800 to 20 KΩ
- 814.75 K to 24.75 KΩ
- 826.19 K to 26.19 KΩ
- 8410 K to 30 KΩ
- XNo Setpoint Adjustment

#8: Occupant Override (required)

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

#9: Optional Selections* (optional)

- ADifferential Ground
- BComm Jack C35
- FTest and Balance Switch
- NLED Alert Level for California AB 841

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

Example Number: BA/AQP (F) - (A) - (B) - (A) - (1) - (F)(80) - (N)

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

Description: BAPI-Stat “Quantum Prime” CO₂ Sensor, °F Display, 0 to 5V Single Channel CO₂ 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/

