



Features & Options

- New BAPI-Stat "Quantum Prime" Enclosure Style
- Automatic Barometric Pressure Compensation for Accurate Readings Regardless of Weather or Altitude
- Optional Temperature, Setpoint, Override and Humidity
- Models for Periodically Unoccupied or Continuously Occupied Areas

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 three-point calibration process for enhanced stability, accuracy and reliability.

Barometric pressure changes from altitude or weather patterns 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 of the installation.

The BAPI-Stat "Quantum Prime" unit can be ordered as CO₂ alone, or as a combination temperature and humidity sensor. The CO₂ 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" CO₂ Sensor with Optional Temperature Setpoint and Occupancy Override



Specifications

Power for 0 to 5 VDC Outputs:

9 to 35 VDC @ 240 mA (9 to 24 VDC recomm.)

Power for 0 to 10 VDC Outputs:

15 to 35 VDC @ 240 mA (15 to 24 VDC recomm.)

CO₂ Sensor:

Single Channel 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-O

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):

75ppm or 10% of reading (whichever is greater)

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

<5% of full scale over life of product.

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

LED CO₂ Level Indicator:

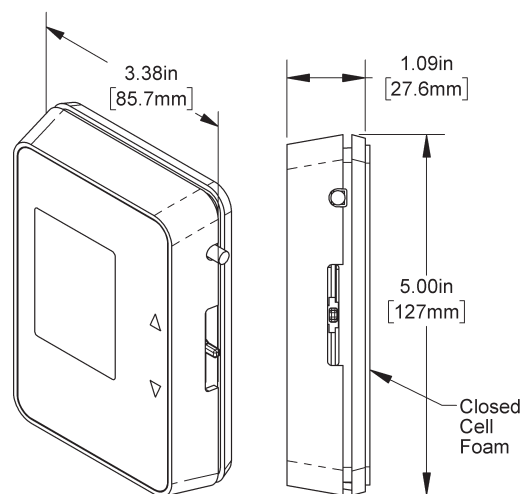
Good, Green < 1,000 PPM

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 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:

BA/AQP(**#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

*When more than one is selected, put in alphabetical order. Additional options and descriptions 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/

