



Features & Options

- 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 (ACD) unit has been optimized for periodically unoccupied areas and features automatic background calibration over a long time period to reduce drift. The Dual Channel (DCD) "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 unit can be ordered as CO₂ alone, or with optional temp, temp setpoint, override and humidity. Optional indication of CO₂ level as "Good, Fair or Poor" is available as a three-color LED or as an arrow on the display.



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.)

Sensing Elements:

ACD Unit CO₂: Single Channel Non-Dispersive Infrared (NDIR)

DCD Unit CO₂: Dual Channel Non-Dispersive Infrared (NDIR)

Humidity: 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 ACD 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 DCD "24/7" Units):

400 to 1,000 ppm: ±75 ppm

>1,000 ppm: ±10% of reading

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

<5% of full scale over life of product.

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

LED CO₂ Level Indicator:

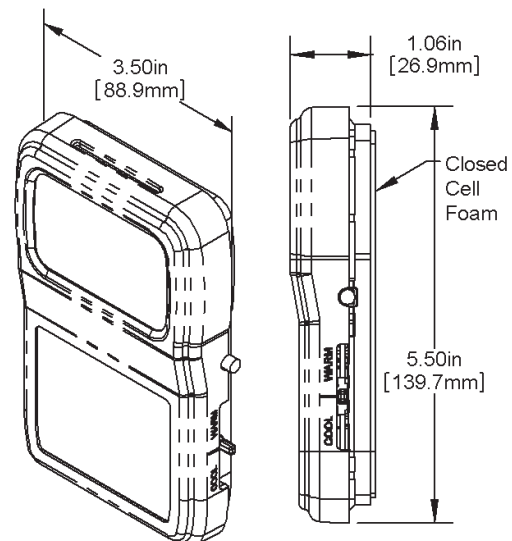
Good, Green < 1,000 PPM

Fair, Orange = 1,000 to 1,500 PPM

Poor, Red > 1,500 PPM

Agency: RoHS, Title 24 Requirements

Warranty Period: 5 Years





CO₂ Room Sensor, BAPI-Stat 3 Enclosure

E15

Air Quality Sensors

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

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.

CO₂ BAPI-Stat 3 Room Sensor Option Selection Guide:

BA/BS3 (#1) - (#2) - (#3) - (#4) (#5) - (#6) - (#7) - (#8) - (#9) - (#10)

#1: Display Style (required)

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

#2: CO₂ Output (required)

- ACD05..Single Channel, 0 to 5V Output.....\$475
- ACD10..Single Channel, 0 to 10V Output....\$475
- DCD05..Dual Channel, 0 to 5V Output\$505
- DCD10..Dual Channel, 0 to 10V Output\$505

#3: Humidity Output (Optional)

- H205.....±2% Accuracy, Output of 0 to 5V.....\$80
- H210.....±2% Accuracy, Output of 0 to 10V....\$80
- H212.....±2% Accuracy, Output of 2 to 10V....\$80

#4: Temp Setpoint Display Range (optional)

- A-3 to +3\$6
- B-5 to +5\$6
- C50 to 90 °F or 10 to 32 °C\$6
- D55 to 85 °F or 13 to 30 °C.....\$6
- E60 to 80 °F or 15 to 27 °C.....\$6
- F65 to 80 °F or 18 to 27 °C.....\$6

#5: Temp Setpoint Output Range (optional)

- 00.....0 to 5 V
- 10.....0 to 10 V
- 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

#6: Temp Setpoint Legend (optional)

- L6.....Cool/Warm
- L0.....No Legend

#7: Temperature Sensor (optional)

- 1375.....1K Platinum RTD (375 curve).....\$25
- 1.....1K Platinum RTD (385 curve).....\$25
- 18.....1.8K Thermistor\$18
- 3.....3K Thermistor\$18
- 102.....10K-2 Thermistor.....\$18
- 103.....10K-3 Thermistor.....\$18
- 10311....10K-3[11K] Thermistor.....\$18
- 20.....20K Thermistor\$18

#8: Occupant Override (required)

- J.....Override as a Separate Output\$5
- N.....Override in Parallel (//) with Sensor....\$5
- P.....Override in Parallel (//) with Setpoint..\$5
- Z.....No Override

#9: Communication Jack (optional)

- C35.....3.5 mm Phono Style Jack.....\$10

#10: Configuration

- (optional - Common Ground is default)
- DF.....Differential Ground

#11: CO₂ Level Indication (required)

- LED.....3 Color LED on Logo Plate
- ARWBlack Arrow on Display
- BNKNo LED or Arrow

Additional options are available for these units but not shown in this Selection Guide. Contact your BAPI representative for the complete list of options.

Example Number:

BA/BS3 (F) - (ACD05) - () - (F) (80) (L6) - (102) - (N) - () - (DF) - (ARW)

Actual Number (with parenthesis removed): BA/BS3F-ACD05-F80L6-102-N-DF-ARW

Description: BAPI-Stat 3, °F Display, 0 to 5V Single Channel CO₂ Output, 65 to 80 Temp Setpoint Display Range, 0 to 20K Temp Setpoint Output Range, Cool/Warm Legend, 10K-2 Thermistor Temperature Sensor, No Override, No Comm. Jack, Differential Ground Configuration, Black Arrow on Display CO₂ Level Indication

List Price:

\$35 (°F Display) + \$475 (Single Channel Unit) + \$6 (Temp Setpoint) + \$18 (Thermistor) = \$534 List

Your Number: BA/

