



## Features & Options

- Automatic Air Pressure and Temperature Compensation
- Optimized for Continuously Occupied Areas

The BAPI CO<sub>2</sub> Duct Sensor is an accurate and reliable way of incorporating demand controlled ventilation. It measures CO<sub>2</sub> in ranges of 0 to 2,000, 0 to 5,000 and 0 to 50,000 ppm with a field selectable output of 0 to 5 or 0 to 10 VDC.

BAPI's Dual Channel "24/7" unit is optimized for continuously occupied areas and features a 3-point calibration process for enhanced accuracy and reliability.

Altitude and weather patterns can affect CO<sub>2</sub> 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 Duct unit samples duct air using an aspiration tube. The Rough Service unit features a ventilated BAPI-Box and is ideal for areas such as outdoor air plenums, equipment rooms, green houses and warehouses. For 0 to 2,000 ppm units, the CO<sub>2</sub> level is indicated as "Good, Fair or Poor" by three LED's on the front of the unit. If it reaches the top of the ppm range, the red LED will begin to flash.



Duct Sensor



Rough Service Sensor

## Specifications

### Power:

12 to 24 VDC, 240 mA • 18 to 24 VAC, 12 VA Peak

### Field Selectable Voltage Output:

0 to 5 or 0 to 10 VDC

**Termination:** 3 Terminals, 16 to 22 AWG

### Operating Environment:

32 to 122°F (0 to 50°C)

0 to 95%RH non-condensing

### CO<sub>2</sub> Sensing Element:

Dual Channel Non-Dispersive Infrared (NDIR)

### Unventilated BAPI-Box Enclosure Rating:

NEMA 4, IP66

**Enclosure Material:** Polycarbonate, UL94 V-0

### CO<sub>2</sub> Detection Range:

0 to 2,000, 0 to 5,000 and 0 to 50,000 ppm

**Start-Up Time:** <2 Minutes

### Response Time:

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

### LED CO<sub>2</sub> Level Indicator

(0 to 2,000 ppm units only):

Good, Green < 1,000 ppm

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

Poor, Red > 1,500 ppm

### CO<sub>2</sub> Accuracy:

400 to 1,000 ppm: ±75 ppm

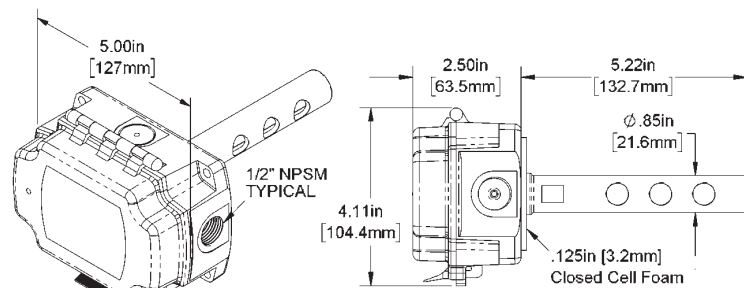
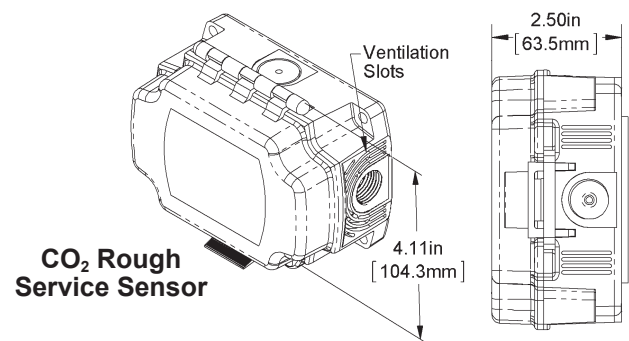
>1,000 ppm: ±10% of reading

### CO<sub>2</sub> Drift Stability:

<5% of full scale over life of product.

**Agency:** RoHS, CE, Title 24 Requirements

**Warranty Period:** 5 Years



CO<sub>2</sub> Duct Sensor





### Ordering Information

#### **DUAL CHANNEL "24/7" UNITS FOR CONTINUOUSLY OCCUPIED AREAS**

##### **BA/DCD05-D-BB**

Dual Channel "24/7" CO<sub>2</sub> Duct Sensor, 0 to 5V Output, 0 to 2,000 ppm Range

##### **BA/DCD05-V-BB**

Dual Channel "24/7" CO<sub>2</sub> Rough Service Sensor, 0 to 5V Output, 0 to 2,000 ppm Range

##### **BA/DCD10-D-BB**

Dual Channel "24/7" CO<sub>2</sub> Duct Sensor, 0 to 10V Output, 0 to 2,000 ppm Range

##### **BA/DCD10-V-BB**

Dual Channel "24/7" CO<sub>2</sub> Rough Service Sensor, 0 to 10V Output, 0 to 2,000 ppm Range

##### **BA/DCD05-5K-D-BB**

Dual Channel "24/7" CO<sub>2</sub> Duct Sensor, 0 to 5V Output, 0 to 5,000 ppm Range

##### **BA/DCD05-5K-V-BB**

Dual Channel "24/7" CO<sub>2</sub> Rough Service Sensor, 0 to 5V Output, 0 to 5,000 ppm Range

##### **BA/DCD10-5K-D-BB**

Dual Channel "24/7" CO<sub>2</sub> Duct Sensor, 0 to 10V Output, 0 to 5,000 ppm Range

##### **BA/DCD10-5K-V-BB**

Dual Channel "24/7" CO<sub>2</sub> Rough Service Sensor, 0 to 10V Output, 0 to 5,000 ppm Range

##### **BA/DCD10-50K-D-BB**

Dual Channel "24/7" CO<sub>2</sub> Duct Sensor, 0 to 10V Output, 0 to 50,000 ppm Range

##### **BA/DCD10-50K-V-BB**

Dual Channel "24/7" CO<sub>2</sub> Rough Service Sensor, 0 to 10V Output, 0 to 50,000 ppm Range

Your Number: BA/



### Associated Products

#### **BAPI VC350A or VC350A-EZ VOLTAGE CONVERTERS**

The CO<sub>2</sub> unit requires 240mA of current to operate correctly. If this is more current than can be provided by the controller power output, then the unit can be powered by a BAPI VC350A or VC350A-EZ Voltage Converter. See the Accessories section for more info.



**VC350A-EZ  
Voltage Converter**

