

Rev. 01/19/18

Features & Options

- Corresponds to ASHRAE's Occupancy-Based DCV Algorithm
- Quick Response Sensor with Aspiration Tube or Ventilated BAPI-Box
- 0 to 5 VDC or 0 to 10 VDC Output

Humans respire Volatile Organic Compounds (VOCs) as well as CO₂. The BAPI sensor measures these VOCs and indicates 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. Using this sensor for Demand Controlled Ventilation then is a way of achieving true indoor air quality, rather than just 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.

BAPI's VOC Duct Sensor samples duct air using an aspiration tube. Moving air from the duct enters the tube, is forced into the BAPI-Box enclosure and exits through the other half of the tube. As long as there is air movement in the duct, air is continuously exchanged.

The Rough Service unit features a ventilated BAPI-Box and is ideal for rough service areas such as outdoor air plenums, equipment rooms, attics, green houses and warehouses.



VOC Duct (top) and Rough Service Sensors

Ordering Information/Part Numbers

ALC/VOC05-D-BB VOC Duct Unit, 0 to 5 VDC Output, BAPI-Box Enclosure

ALCVOC10-D-BB VOC Duct Unit, 0 to 10 VDC Output, BAPI-Box Enclosure

ALC/VOC05-V-BB VOC Rough Service Unit, 0 to 5 VDC Output, Ventilated BAPI-Box Enclosure

ALCVOC10-V-BB VOC Rough Service Unit, 0 to 10 VDC Output, Ventilated BAPI-Box Enclosure

Specifications

Power:

12 to 24 VDC, 50 mA Peak
18 to 24 VAC, 1.5 VA Peak

Analog Outputs:

0 to 5VDC or 0 to 10VDC, >10KΩ impedance
VOC Contaminants: 0 to 2,000 PPM CO₂ Equivalent

Sensing Element: VOCs: Micro-machined Metal Oxide

VOC Detection Range: 0 to 100%

Response Time: Less Than 60 Seconds

Start-Up Time: 15 minutes

Operating Environment:

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

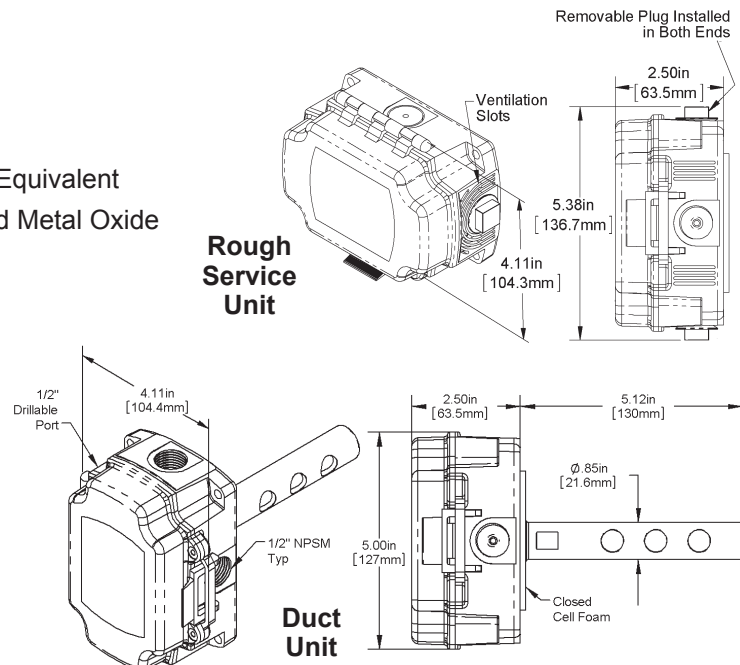
Enclosure Rating:

Unventilated BAPI-Box: NEMA 4, IP66

Encl. Material: Polycarbonate, UL94 V-O

Certifications: RoHS

Warranty: 5 Years



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