

Exhaust Air Integration - Duct Mount

Desert Aire's SelectAire™ natatorium dehumidifier can vary the volume of outside air and exhaust air based on the level of contaminants within the pool room. The key to this integration is the use of a Volatile Organic Compounds (VOC) sensing element that can detect when interior levels of chemicals are present such as chloramines. This provides a similar methodology as the use of CO₂ sensors in general ventilation applications for the pool environment. Now there is the ability to optimize the volume of exhaust air required with the energy cost of doing so and insure a suitable pool environment for the occupants.

The VOC duct sensor samples duct air using an aspiration tube. Moving air from the duct enters the tube, is forced into the enclosure and exits through the other half of the tube. As long as there is air movement in the duct, air is continuously exchanged.

Sensor Specifications

Power: 15 to 35 VDC @ 50 mA

Power Sensing Element: VOCs: Micro-machined Metal Oxide Quick Response Sensor through Aspiration Tube

Analog Outputs: 0 to 10VDC, (>10KΩ impedance)

VOC Contaminants: 0 to 2,000 PPM CO₂ Equivalent

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

Dimension: 4.91"H x 3.21"W x 1.20"D

(124.6 x 81.5 x 30.5 mm)

Enclosure Rating: NEMA 4

Enclosure Material: Polycarbonate, UL94 V-0

VOC Duct Sensor

Certifications: RoHS

Warranty Period: Two years from manufacture date



Figure 1 - Duct Mounted VOC Sensor

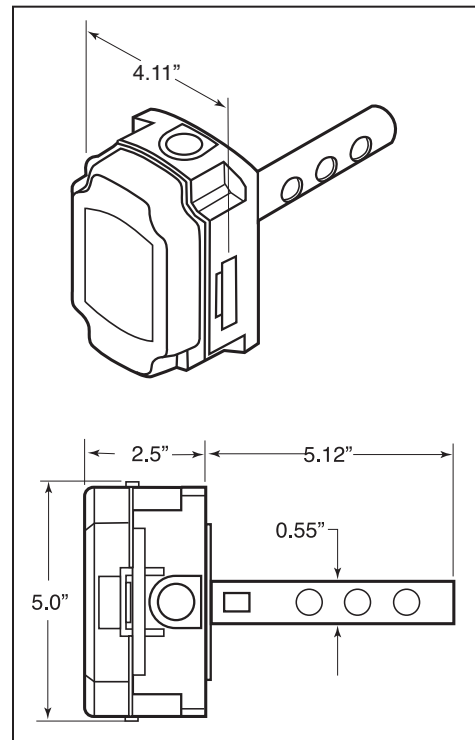


Figure 2 - Duct Sensor Dimensions

Providing Peace of Mind to Your Pool Room

Exhaust Air Integration - Wall Mount

Desert Aire's SelectAire™ natatorium dehumidifier can vary the volume of outside air and exhaust air based on the level of contaminants within the pool room. The key to this integration is the use of a Volatile Organic Compounds (VOC) sensing element that can detect when interior levels of chemicals are present such as chloramines. This provides a similar methodology as the use of CO₂ sensors in general ventilation applications for the pool environment. Now there is the ability to optimize the volume of exhaust air required with the energy cost of doing so and insure a suitable pool environment for the occupants.

Sensor Specifications

Power: 15 to 35 VDC @ 50 mA

Power Sensing Element: VOCs: Micro-machined Metal Oxide

Analog Outputs: 0 to 10VDC, (>10KΩ impedance)

VOC Contaminants: 0 to 2,000 PPM CO₂ Equivalent

VOC Detection Range: 0 to 100%

Response Time: Less Than 2 Minutes

Start-Up Time: 15 minutes

Operating Environment: 32 to 122°F (0 to 50°C)

0 to 95%RH non-condensing

Dimension: 4.50"H x 2.86"W x 1.06"D

(114.3 x 72.7 x 26.9 mm)

Enclosure Material: ABS Plastic, UL94 V-0

Certifications: RoHS

Warranty Period: Two years from manufacture date



Figure 1 - Wall Mounted VOC Sensor

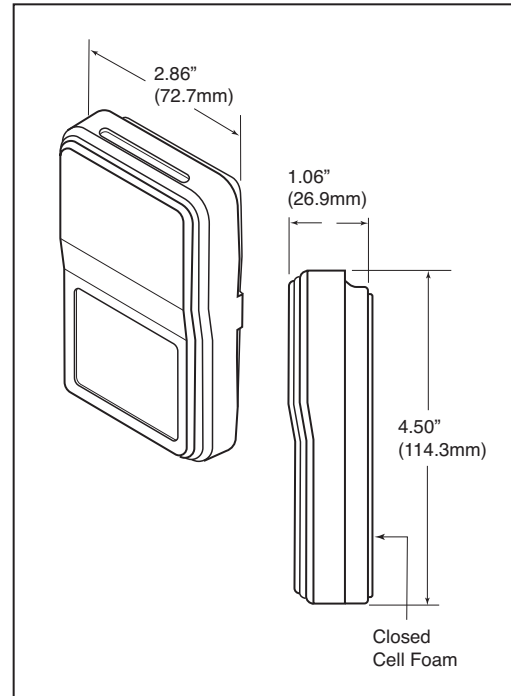


Figure 2 - Wall Sensor Dimensions