

The SenseAire™ (PT-9250)
Measure CO₂, Ventilation Rate & Temperature
With Built-In Data Logging



The Complete Package For CO₂ & Ventilation Measurement



Now You Can Measure And Trend Log Fresh Air Ventilation In Every Zone

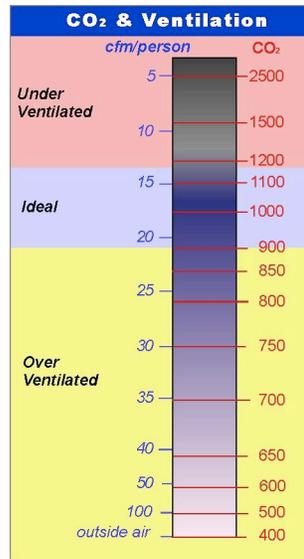
- ✓ Measures and displays CO₂ and temperature.
- ✓ Calculates and displays cfm/person ventilation rate based on inside/outside CO₂ differential.
- ✓ Built in data logging (2000 points). Provided with PC based graphing software. Data also easily exported to other PC programs.
- ✓ Rechargeable lithium-ion battery provides 12+ hours of operation.
- ✓ Includes, plug in 120V charger, 12 Volt car adaptor, sensor case with snap-on belt clip and PC interface cable with software.
- ✓ Color LED's can be programmed to provide quick indication of CO₂ concentration range.
- ✓ Overnight self-calibration feature will calibrate sensor to background CO₂ concentrations.
- ✓ Gold plated optical sensor ensures long-term durability and stability.
- ✓ Purposefully built for quality - designed and built using Internationally Certified ISO 9001 processes.

The SenseAire™ can help you better understand ventilation in a building and easily identify and solve problems related to fresh air ventilation.

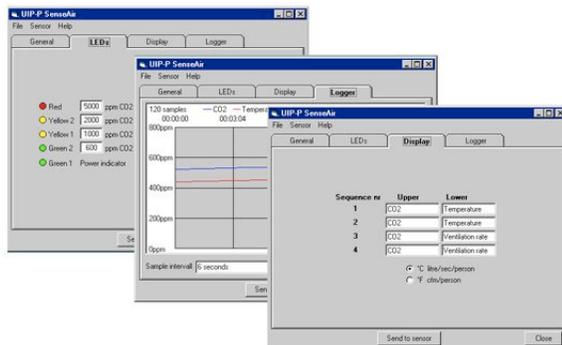
- ⇒ Measure zone level fresh air ventilation rates to determine if spaces are over or under ventilated.
- ⇒ Quantify opportunities for energy savings with CO₂ ventilation control.
- ⇒ Quickly investigate air quality problems to determine if lack of ventilation is an issue.
- ⇒ Quickly check to ensure a ventilation/mechanical system is working properly,
- ⇒ Trend log CO₂ and temperature concentrations over time to determine if occupancy profiles correspond to system operation time sequences.
- ⇒ Use as a verification tool to verify that new / retrofit equipment installations or air balance are providing optimum ventilation to each occupied zone.
- ⇒ Discover areas affected by combustion exhaust (CO₂ is a major byproduct of combustion).

The Relationship Between CO₂ & Ventilation

The relationship between indoor CO₂ levels and fresh air ventilation rates is well documented. Outside levels of CO₂ are very low (typically around 400 ppm) and are representative of outside air. Indoor levels are a dynamic measure of the number of people in a zone (exhaling CO₂) and the amount of low concentration outside air introduced to dilute contaminants. Once CO₂ levels have stabilized in a space, CO₂ concentrations can be correlated to the cubic-foot-of-air per-person (cfm/person) of outside air delivered to the space. This value is automatically calculated by the AirCorder™



Graphing & Interface Program



The PC Based Sensaire™ Interface Program allows for simple adjustment of display parameters. Also included is a easy to use graphing program that allows export of data to a text file so other programs can use the data.

Other AirTest CO₂ Products

AirTest™ also offers other portable monitors for industrial health and safety applications that include the PT-9450 CO₂ monitor (up to 4% CO₂) and the PT-1000 that can detect and warn of combustible gases.

AirTest also offers a complete range of stationary sensors for the measurement of a wide variety of gases as well as CO₂. CO₂ based products include:

- ⇒ CO₂ & Temperature Transmitters
- ⇒ Setback Thermostats with CO₂ & Economizer Control
- ⇒ CO₂, Temperature & Dew Point/Humidity Transmitters
- ⇒ VAV control based on CO₂ and Temperature.

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Specifications

General

CO₂ Detection Method: Gold Plated Non-Dispersive Infrared Optical Sensor

Certification: CE, EMC89/336/EEC,

Temperature Measurement: Thermistor With Linear Output
Flow-Through Port: Located on bottom of unit.

Weight: 5.0 oz (135 grams)

Operating Conditions: 32 to 122° F (0 to 50°C), 0 to 95% RH

Storage Conditions: -40 to 158° F (-40 to 70° C)

Performance

CO₂ Measurement Range: 0-2000 ppm (range is user adjustable).

CO₂ Accuracy: +/- 1% of measurement range + 5% of measured value.

Calibration: Overnight, sleep/self calibration mode.

Response Time: T₉₀ = <2 minutes (diffusion), 15 sec (flow rate of 0.2 l/min).

Temperature Measurement Accuracy: +/- 0.9° F (0.5° C)

Power

Input: 6 VDC @ 700mA/hr (120 VAC transformer included)

Battery: Rechargeable 3.6 V lithium-ion, (12+ hour operation on a full charge)

Outputs

Digital Display: Display parameters are user adjustable using the PC interface. Display values include CO₂ ppm, Temp in °F or °C, cfm/person or l/s/person ventilation rate. Display also shows battery level and data logger on/off.

Internal Data Logger: 2000 data points, data is timed stamped from first measurement. Activated by quick push of power button. Sampling interval selected via PC interface.

PC Interface Software: Windows® 95/98/NT compatible.

Allows for adjustment of LED indicators, display parameters, graphing of data logged values, export of data to text format, calibration. (A RS232 interface cable is provided with the AirCorder™).

Included With Every AirCorder™: 1 PT-9250 hand held CO₂ & temperature monitor sensor, soft cover case with snap-on belt clip, 120 VDC power converter/charger, PC interface software on CD, PC interface cable.



Covered By US Patents: 6194735, 6016203, other patents pending



AirTest™ Technologies Inc. specializes in the application of cost effective, state-of-the-art gas monitoring technology to ensure the comfort, security, health and energy efficiency of buildings.

AirTest™
 Sensors That Make Buildings Smart!