

CO₂ - Temperature & Relative Humidity Transmitter



TR 9226



TR 9225



TR 9227

A Breakthrough In Simplicity And Cost!

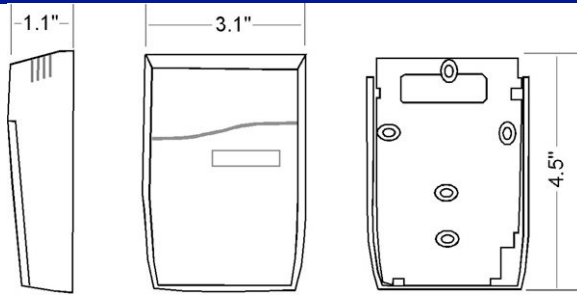
- ✓ Attractive wall mount case with display for CO₂, temperature relative humidity levels. Covered display version also available.
- ✓ Remote temperature and humidity probe provides high accuracy by eliminating case related temperature interference.
- ✓ Easy choice of voltage or current via jumper selection for CO₂ & temperature output.
- ✓ Humidity output provided via 0 - 10 V output and relay.
- ✓ Display, output range and scaling easily customized via a PC interface.
- ✓ Gold plated optical sensor ensures long-term durability and stability.
- ✓ Integrated temperature and humidity sensor eliminates proximity errors when calculating absolute humidity.
- ✓ Add on options for RS485, ModBUS® and LonWorks® twisted pair communication.
- ✓ Purposefully built for quality - designed and built using Internationally Certified ISO 9001 processes.

Why Active Ventilation Control With CO₂?

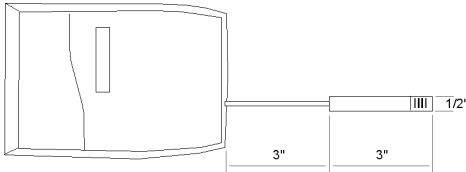
Ventilation control with CO₂ is a viable and energy efficient way of controlling ventilation to target cfm/person levels based on actual occupancy. This approach offers many advantages over the traditional approach of providing fixed ventilation based on maximum occupancy.

- ⇒ Reduce ventilation and energy costs in applications with variable occupancy.
- ⇒ In static occupancy applications, owner can continuously control ventilation rates to reflect current occupancy conditions.
- ⇒ Actively control ventilation to eliminate unintended over and under ventilation conditions resulting from post commissioning adjustment of outside air quantities.
- ⇒ Monitor and control zone ventilation efficiency and take advantage of using preconditioned transfer air from under occupied spaces for ventilation.
- ⇒ Documented CO₂ levels can provide ongoing verification that code-required ventilation rates are being maintained.

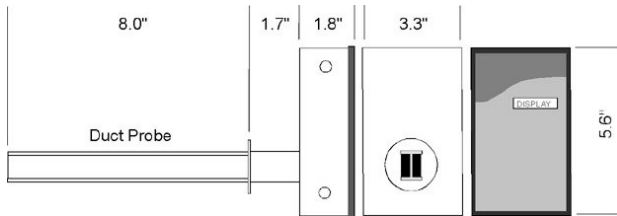
Wall: TR9225



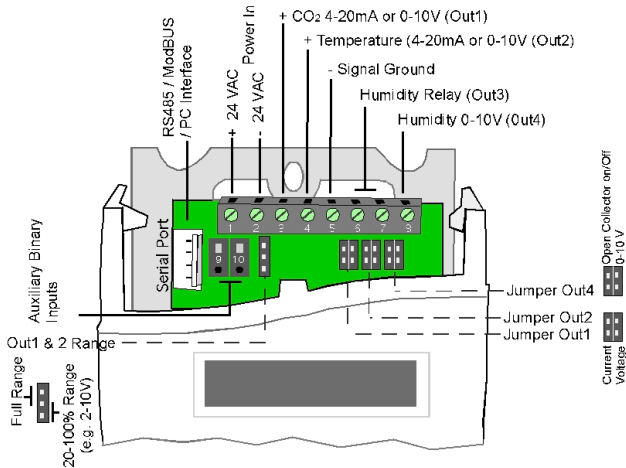
Wall Mount Humidity/Temperature Probe



Duct: TR9226 & TR9227 (without probe)



Wiring



CO₂ Temperature and Humidity Models

- TR9225-RH** Decorative Wall Mount (Hidden Display)
- TR9225-RH-L** Decorative Wall Mount w Display
- TR9226-RH-L** Aspiration Probe Duct Mount
- TR9227-RH-L** Splash Resistant Industrial/In Duct

Coming Soon: Dew Point & Mixing Ratio Options

Distributed By:

Global Controls, Inc.
 3008-B 16th Avenue West Seattle, WA 98119-2029
 Phone : (206) 282 - 4666 Toll Free : (800) 821 - 4863
 Fax : (206) 282 - 4888 E-Mail : info@global-controls.net
<http://www.global-controls.net>

Specifications

General

- Transmitter Rated Life:** 15 years
- Operating Conditions:** 32 to 122° F (0 to 50°C), 0 to 95% RH
- Storage Conditions:** -40 to 158° F (-40 to 70° C)

CO₂

- CO₂ Detection Method:** Gold Plated Non-Dispersive Infrared Optical Sensor with Automatic Baseline Correction for Self-Calibration. Diffusion Sampling.
- Certification:** CE, EMC89/336/EEC, CA Energy Commission
- CO₂ Measurement Range:** 0-2000 ppm (factory set), user adjustable to 3000 ppm
- CO₂ Accuracy:** +/- 1% of measurement range + 5% of measured value.

- Calibration:** Self Calibrating, Calibration Not Required
- Response Time:** T₉₀ = <2 minutes (diffusion)
- Output:** Out1, Jumper Selectable 4-20mA, 0-10V, 2-10V

Temperature

- Measurement Method:** Thermistor With Linear Output
- Measurement Range:** 32 to 120°F (0 to 50°C)
- Temperature Measurement Accuracy:** ± 0.9° F (± 0.5° C)
- Output:** Out2, Jumper Selectable 4-20mA, 0-10V, 2-10V

Humidity

- Measurement Method:** Solid Polymer Structure
- Measurement Range:** 0 to 100%
- Measurement Accuracy:** ± 2% RH
- Output:** Out3, Relay and Out4 :0-10V

Power

- Input:** 18-30 VAC, 50-60 hz (half-wave rectified)
- Average Power Consumption:** £ 3 Watts average

Outputs

- Adjustment:** All outputs including display values shown, measurement range, analog output range and relay set point can be easily adjusted by the user or your distributor using a Pcard the AirTest™ Interface(AI) program.
- Digital Display:** CO₂ Concentrations in ppm, Temperature in °F or °C, Humidity In % RH (Alternating every 2 seconds)
- Transmitter Outputs:** See Wiring Diagram
 CO₂ = Out1, Temp = Out2
 0 to 10 VDC R_{OUT} < 100 ohm, 0 to 5 VDC R_{LOAD} >5k ohm, or 4 to 20 mA R_{LOAD} < 500 ohm
 Humidity = Out3 Relay, 1mA/5V up to 1A/50VAC/24VAC
 Humidity = Out 4, 0 to 10 VDC R_{OUT} < 100 ohm
- Relay Option:** Isolated, NO, 1mA/5V up to 1A/50VAC/24VDC
- Lonworks® Option:** CO₂, Temperature, Humidity
- RS-485 Option:** Network capability for up to 30 units (Custom protocol: contact AirTest™ or Distributor for details).
- ModBUS® Option:** Contact AirTest for specifications.
- Add On Datalogger Option:** Plug in 2000 point Logger.

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.

