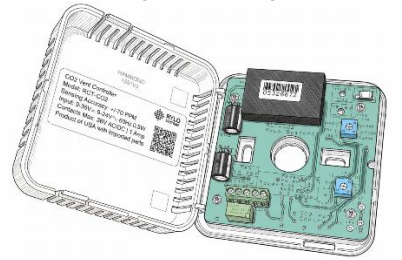
RYLO SYSTEMS

Instruction Guide for RCT-CO2 Sanobreeze Vent Controller

Product Overview

The Sanobreeze RCT-CO2 Ventilation Controller is designed to regulate ventilation based on CO2 levels in the air, ensuring fresh air exchange in buildings.



Intended Use

Suitable for conditioned indoor building environments. Not for use in areas with consistently high CO2 levels (e.g., green houses, industrial settings).

Not for safety critical applications.

Specifications

Size: 3.75 x 3.75 x 1 Inches

Input:

- 9-24V AC or 9-32V DC
- Power consumption: <0.5 watts

Output:

- Dry Contacts: Common (COM) to Normally Open (NO) & Normally Closed (NC)
- 1 amp max @ 36V AC or DC

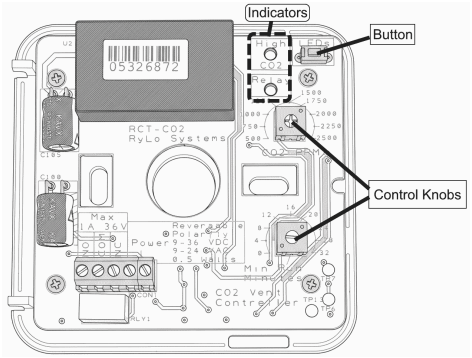
Configurable Parameters:

- CO2 Threshold: 500-2500 PPM
- Minimum run time after high CO2 trigger: 0-32 minutes

Environment and Lifetime:

- 35°F - 104°F Non-condensing
- Sensor accuracy: +/-70 PPM

Product Overview



Controls

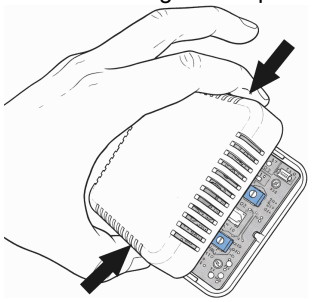
- **Button**: Toggles LED indicators on or off. Resets to off at power cycle.
- **CO2 PPM Knob**: Configures the setpoint for CO2 level.
- **Min Run Minutes**: Configures the minimum number of minutes the relay will stay latched after the CO2 PPM threshold is reached.

Indicators (Disabled at Powerup)

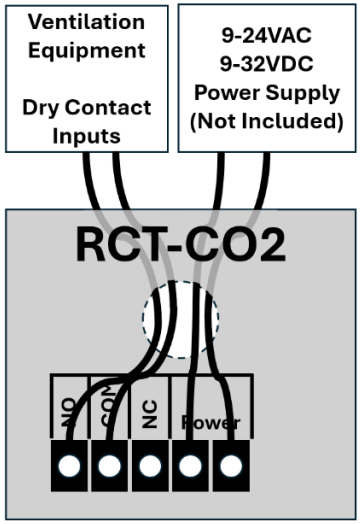
- **High CO2**: On when the ambient CO2 level is greater than the CO2 PPM setpoint.
- **Relay**: On when the relay outputs are in their latched state (COM and NO closed)

Installation Instructions

1) Turn off power
2) Identify install location
   - The sensor uses a blinking light to measure CO2 levels. Install it in a location where the light will not cause a disturbance.
   - Position the controller in a location where individuals are not frequently within 5 feet
   - Select an interior wall to prevent external airflow from affecting the wire guide hole
3) Mounting the controller
   - Install wall anchors into the wall
   - Squeeze clips on the top and bottom to swing cover open



   - Pull wire through rear knockout
   - Install screws through the vertical and horizontal slits, securing to the wall anchors
4) Wire the controller



Controller Configuration

CO2 Sensor Calibration

The RCT-CO2 controller calibrates the CO2 sensor over a period of days and then continuously for the life of the product. No customer interaction is required for calibration.

NOTE: The CO2 PPM will be less accurate for the first day or two.

Select CO2 Parts Per Million (PPM) Threshold

Adjust the 'CO2 PPM' knob to set an appropriate threshold for the building. Reference residential indoor CO2 PPM recommendations:

Health Canada	1,000 PPM average over 24 hours
American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE)	600 PPM above outdoor levels
National Institute for Occupational Safety and Health (NIOSH)	1,000 PPM

Select Minimum Runtime

Adjust the "Min Run Minutes" knob to set a duration to minimize disruption to occupants. A 15-minute setting is recommended.

Troubleshooting

1) The LEDs alternate blinking only at powerup. If this happens other times, check for inadequate power supply.
2) The LED indicators disable after power up. Enable by pressing the button.
3) Verify the measured CO2 level by gradually adjusting the "CO2 PPM" knob while observing the "High CO2" LED indicator. The measured CO2 level is when the LED changes state.
   - Individual's breath near sensor will increase CO2 level above ambient.
4) Verify the relay by ensuring it follows the LED indicator labeled 'Relay'.
5) The relay output is enforced to be off for a minimum of 30 seconds and enforced to be on for a minimum of the configured minutes based on the 'Min Run Minutes' knob.
6) Test relay and wiring: double click + 3 second hold the button. LEDs will blink at entrance to test mode. Button presses will toggle relay. Repeat double click + hold to exit.