

## RSCO2T Range

CARBON DIOXIDE &  
TEMPERATURE SENSORS



BLANK VERSION

LED VERSION

DISPLAY SCREEN

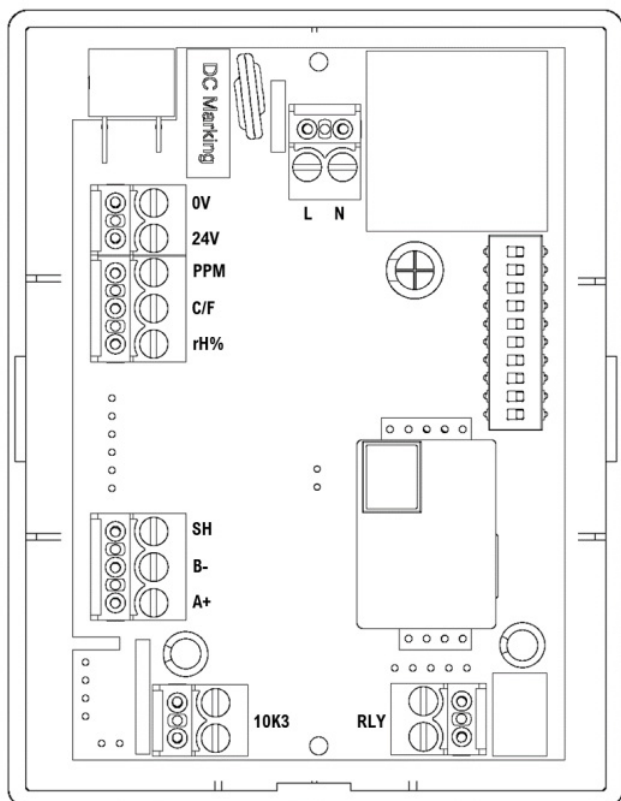
### Product Overview:

The RSCO2T Range: Featuring Carbon Dioxide & Temperature Sensors, designed to monitor and measure vital indoor air quality environmental parameters with precision and reliability. Engineered to be used across residential, public, commercial, and light industrial settings, these sensors offer digital & analog outputs and exceptional performance features.

### Key Features:

- Digital RS-485: Modbus RTU or BACnet MS/TP communication protocols
- Analog: 2x Linear 0-10V/2-10V CO<sub>2</sub> & Temperature.
- VFC Relay (CO<sub>2</sub>): 1x SPST 70mA Max

### Circuit Board Diagram:



#### CONNECTION

120V AC IN

24V AC/DC INPUT

ANALOG OUT/P

DIGITAL OUT/P

THERMISTOR

CO<sub>2</sub> VFC RELAY

#### LABEL

POWER LIVE IN

24V IN

+10V OUT

RS-485

10K3

RLY 70mA

#### TERMINATION

L (Line)  
N (Neutral)+24V  
0V (Common GND)PPM (CO<sub>2</sub> Sensor O/P)  
°C/F (Temperature O/P)A+  
B-  
SH (Shield)

(No Polarity)

(Open/Close Circuit)

## Technical Specifications

### Mechanical

Mounting	Wall Mounted
Entry	1/2" DIA Rear Entry
Size (W x H x D)	Display Screen - 3.38" x 4.48" x 1.3" / Blank & LED - 3.38" x 4.48" x 0.98"
Weight	0.35lb
Enclosure	ABS UL Flame retardant - IP40

### Electrical

24V AC/DC Power Rating	12-24VDC (11-32 VDC) / 24VAC, (20-27 VAC) 50-60Hz
110VAC Power Rating	Nominal 110VAC, (90-250V AC), 50-60H
Internal Fuse	Resettable PPTC 110VAC, 400mA
Communication	127 Units Max
Power Consumption	5W Max

### Environmental

Operating Temperature	14°F to 122°F / -10°C to 50°C
Storage	32-86°F / 0°C to 30°C
Room Humidity	0 to 95% RH (continuous) Non-Condensing
Atmospheric Pressure	80 to 110Pa
Altitude	<6562ft
Installation Cat (110V Voltage)	II (Class 2) Pollution Degree 2
Installation Cat (24V Voltage)	III (Class 3) Pollution Degree 2

### Inputs / Outputs

Analog Outputs	2 x Linear 0-10V/2-10V CO <sub>2</sub> & Temperature. Thermistor (10K3).
Digital Networks	BACnet MS/TP or MODBUS RTU (Parity: None Data bit: 8bit Stop bit: 1)
Relay Outputs	1 x SPST 70mA

### Cable Spec

Power	22 - 24 AWG
Analog Output	22 - 24 AWG
Relay	22 - 24 AWG
Digital Output	22 - 24 AWG twisted pair + ground, shielded cable with 120 Ω characteristic impedance.

### User Interface

Language	English
Optional Display	2.8" TFT
Indication	Green: Power (OK) / Yellow: Warning (Pre-Alarm) / Red: Danger (Alarm)

### Safety & EMC

Safety	IEC 61010-1
Electromagnetic Compatibility	FCC
Compliance	CE, EMC, RoHS, REACH and WEEE Compliant

### CO<sub>2</sub> Sensor (PPM)

Sampling: Diffusion Type  
 NDIR Indication Range: 400 - 5000ppm  
 Response: t<sub>90</sub> <120s  
 Calibration: ABC Logic Self Calibration  
 Warm Up Time: ~1 Minute  
 Accuracy: 5% FS @ 77°F  
 Lifespan: > 10 Years  
 Resolution: 1ppm

### Temperature (°F or °C)

Fully Calibrated  
 Normal Indication Range: 32-122°F  
 Response: t<sub>63</sub>% @ 77°F ~20s  
 Typical Excellent long term stability  
 Strong anti-interference  
 Warm Up Time: 1 minute  
 Accuracy: ±0.5° @ 50-113°F  
 Resolution: 0.1°