

RSCO2T Range

CARBON DIOXIDE &
 TEMPERATURE SENSORS



BLANK VERSION

LED VERSION

DISPLAY SCREEN

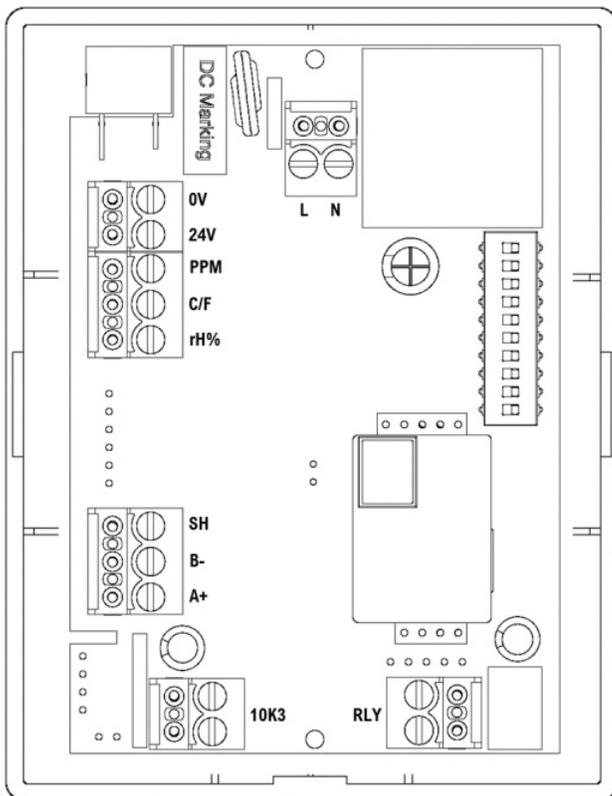
Product Overview:

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 CO2 & Temperature.
- VFC Relay (CO2): 1x SPST 70mA Max

Circuit Board Diagram:



CONNECTION	LABEL	TERMINATION
230V AC IN	POWER LIVE IN	L (Line) N (Neutral)
24V AC/DC INPUT	24V IN	+24V 0V (Common GND)
ANALOG OUT/P	+10V OUT	PPM (CO2 Sensor O/P) °C/F (Temperature O/P)
DIGITAL OUT/P	RS-485	A+ B- SH (Shield)
THERMISTOR	10K3	(No Polarity)
CO2 VFC RELAY	RLY 70mA	(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	0.16kg
Enclosure	ABS UL Flame retardant - IP40

Electrical

24V AC/DC Power Rating	12-24VDC (11-32 VDC) / 24VAC, (20-27 VAC) 50-60Hz
230VAC Power Rating	Nominal 230VAC, (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 (230V 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 CO2 & 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

Lanugage	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

CO2 Sensor (PPM)

Sampling: Diffusion Type
 NDIR Indication Range: 400 - 5000ppm
 Response: t90 <120s
 Calibration: ABC Logic Self Calibration
 Warm Up Time: ~1 Minute
 Accuracy: 3% FS @ 77°F
 Lifespan: > 10 Years
 Resolution: 1ppm

Temperature (°F or °C)

Fully Calibrated
 Normal Indication Range: 32-122°F
 Response: t63% @ 77°F ~20s
 Typical Excellent long term stability
 Strong anti-interference
 Warm Up Time: 1 minute
 Accuracy: ±0.3° @ 50-113°F
 Resolution: 0.1°