

Product Data

I-CO₂-T Series Carbon Dioxide Sensors with Temperature Sensor

Product Description

The I-CO₂-T transmitters monitor both the temperature and carbon dioxide (CO₂) levels in industrial and living environments. The concentration of CO₂ is a good indication of the indoor air quality (IAQ).

All units come with both a 4-20 mA and 0-10 VDC analog output. A resistive type temperature sensor is available with options including Override, Setpoint, and RJ-14 Communication Jack. By combining both the temperature and CO₂ sensors in one package, installation and maintenance is greatly simplified. The concentration of CO₂ is measured using a Single Beam Absorption Infrared Diffusion sampling method. The CO₂ transmitter is also equipped with a patented ABC Logic™ (Automatic Background Calibration) software. The ABC Logic™ software virtually eliminates the need for manual calibration in applications where the indoor CO₂ level drops to outside levels during unoccupied periods. The ABC Logic™ will not work properly in applications where the space is left unoccupied for less than 4 hours per day or where there are industrial sources of carbon dioxide. Upon initial installation, a warm up period of more than 2 minutes is required to get an accurate reading.

The I-CO₂-T series carbon dioxide transmitters are only offered in room configurations. The room transmitter will mount directly to a standard 2" x 4" junction box and is encased in a beige enclosure. All units come with a two year warranty.

Product Specifications

Supply Voltage	18 to 30 VAC, 50/60 Hz Half-Wave Rectified +18 to 42 VDC, Polarity Protected
Power Consumption	1.75 VA average power, 3.25 VA peak power
CO ₂ Measurement Range	0 to 2000 ppm
CO ₂ Output Signal	4 to 20 mA (RL max=500 Ohms) 0 to 10 VDC (source 100 mA, Sink 10 mA)
Accuracy @ 72°F (22°C)	+/- 100 ppm or +/- 7% whichever is greater
Stability	< 2% of FS over 15 years, Typical
Response Time	0 to 90% < 2 minutes
Operating RH Range	0% to 95% RH, non-condensing
Sensor Life	15 Years Typical
Operating Temperature Range	59 to 90°F (15 to 32°C)
Resistive Temperature Sensor	See Ordering Information on back
“Night Setback” Override	Shorts the temperature when depressed
Setpoint Option	See ordering Information on back
Agency Approvals	CE, FCC Port 15 Class B, CA Energy Commission

CO₂ w/ Temp



Attributes:

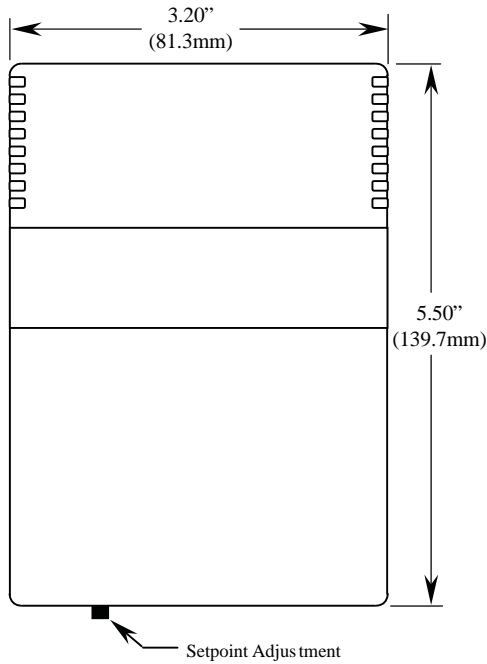
- **No Field Calibration (Self calibration)**
- **“After Hours” override option (Standard)**
- **RJ14 Communication Jack (Standard)**
- **CO₂ and Temp in one Enclosure**
- **Setpoint option (Optional)**

Applications:

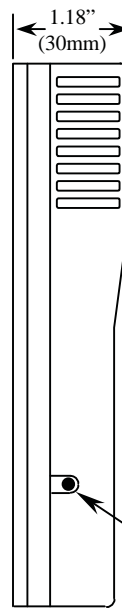
- **Office Buildings**
- **Schools**
- **Shopping Malls**
- **Auditoriums/Gymnasiums**
- **Restaurants**

Dimensions

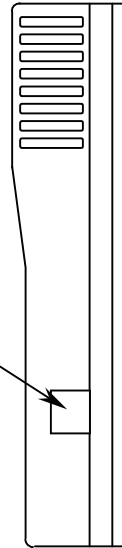
Front View



Left Side



Right Side



Ordering Information

Configuration
I-CO₂-T []

Temperature Sensor
-[]

Setpoint Value
-[]

↑	↑	↑
RSO-Room with Setpoint, Override and 6 pin RJ12 Jack	100 RTD (385)	400 Ohm
	1K RTD (385)	1K
	1K-NI (Nickle)	2K
	1.8K	3K
	2K RTD	5K
	3K	8.5K
	ASI (3K)	10K
	2252	20K
	5K	100K
	AN (10K-Type III)	
	CP (10K-Type II)	
	CSI (10K-CSI)	
	20K	
	100K	

***All Optional Series Offset Resistors must be Installed at the controller.**