Product Data

A/CO2-T Series
Carbon Dioxide Sensors with Temperature Sensor

CO_2 w/ Temp

Product Description

The A/CO_2-T transmitters monitor both the temperature and carbon dioxide (CO_2) levels in industrial and living environments. The concentration of CO_2 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 CO_2 sensors in one package, installation and maintenance is greatly simplified. The concentration of CO_2 is measured using a Single Beam Absorption Infrared Diffusion sampling method. The CO_2 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 CO_2 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 A/CO_2-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.

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

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

Wiring Diagrams available
C0000114 Rev. 2.pdf

DISPLAYS

TEMPERATURE

RELATIVE HUMIDITY

PRESSURE

CURRENT

AIR QUALITY

ACCESSORIES

Dimensions

Front View

3.20"
(81.3mm)

5.50"
(139.7mm)

Setpoint Adjustment

Left Side

1.18"
(30mm)

6 Pin RJ14
Communication Jack

"After Hours" N/O
Override Pushbutton
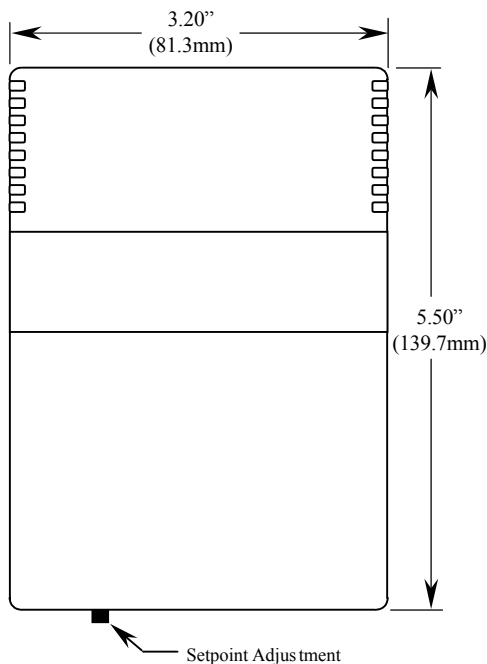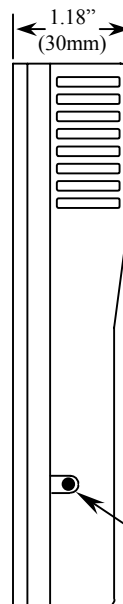
Right Side

Ordering Information

Configuration	Temperature Sensor	Setpoint Value
A/CO$_2$-T [ ]	**-[ ]**	**-[ ]**

RO-Room with Override and 6 pin RJ12 Jack
RSO-Room with Setpoint, Override and 6 pin RJ12 Jack

100 RTD (385)
1K RTD (385)
1K-NI (Nickle)
1.8K
2K RTD
 3K
 ASI (3K)
 2252
 5K
 AN (10K-Type III)
 CP (10K-Type II)
 CSI (10K-CSI)
 20K
 100K

400 Ohm
 1K
 2K
 3K
 5K
 8.5K
 10K
 20K
 100K

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

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