



Product Data

A/CO2-010 Series

Carbon Dioxide Sensor
(0 to 10 VDC output)

Product Description

The A/CO2-010 room and duct transmitters monitor the carbon dioxide (CO₂) levels in industrial and office type environments. The concentration of CO₂ is a good indication of the overall indoor air quality (IAQ).

All units come with a 0-10 VDC analog output as well as the patented ABC Logic™ self-calibration system (Automatic Background Calibration). The concentration of CO₂ is measured using a Single Beam Absorption Infrared Diffusion or Flow Through sampling method depending on the mounting configuration. These units should not be used in environments such as greenhouses, wineries, breweries, or any other applications where industrial sources of CO₂ are present.

The concentration of CO₂ is measured using a Single Beam/Non-Dispersive Infrared (NDIR) Absorption sensing 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 a day or where there are industrial sources of CO₂. An optional three color LED is available for CO₂ level indication on the room version only. All room units include a 20K NTC thermistor for temperature monitoring.

The A/CO2-010 Series is covered by ACI's Two (2) Year Limited Warranty, which is located in the front of ACI'S SENSORS & TRANSMITTERS CATALOG or can be found on ACI's web site, which is: www.workaci.com.

Product Specifications

Supply Voltage	18 to 30 VAC RMS, 50/60 Hz or 18 to 42 VDC
Power Consumption	Duct: Typical, 1.65 W Peak, 0.65 W Avg. @ 42 VDC Room: 2.75 VA Peak, 1.75 VA Avg.
Measurement Range	0 to 2000ppm
Output Signal	CO₂ Duct: 0 to 10 VDC (100 Ohms output impedance) Room: 0 to 10VDC (100 Ohms output impedance) Digital RS-232 communication w/UIP Software
Temperature	20K NTC Thermistor
Accuracy	Duct: +/- 40 ppm +3% of Reading @ 72°F (22°C) Room: +/- 75 ppm @ 72°F (22°C)
Non-Linearity	< 1% of FS @ 72°F (22°C)
Stability	< 2% FS over life of sensor (15 Yrs Typical)
Temperature Dependence	0.2% of Full Scale per °C
Pressure Dependence	0.13% of reading per mm Hg
Response Time	Duct: 3 min. typical for 90% Step change Room: 3 to 5 min. typical for 90% Step Change
Operating Temp/ RH Range	32 to 122°F (0 to 50°C) / 0 to 95%, non-condensing
Sensor Coverage Area	7,500 sq. ft. maximum

Wiring Diagrams available at www.workaci.com

Carbon Dioxide



Attributes:

- 0 to 10VDC output
- No field calibration
- CO₂ level LED indication (Room Only)
- 15 year design life
- CE and FCC part 15 class B
- RoH's and WEEE compliant

Applications:

- Large office buildings
- Schools/gymnasiums
- Shopping malls

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TEMPERATURE

RELATIVE HUMIDITY

PRESSURE

CURRENT

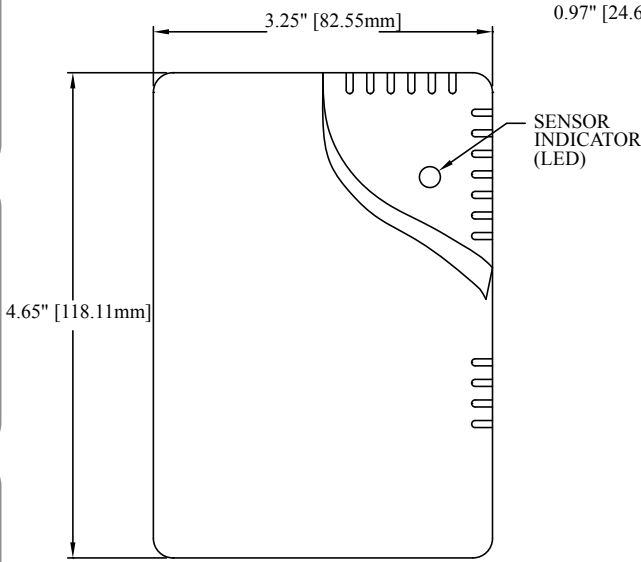
GAS SENSORS

ACCESSORIES

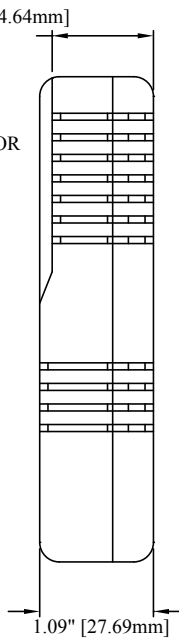
INTERFACE DEVICES

Dimensions

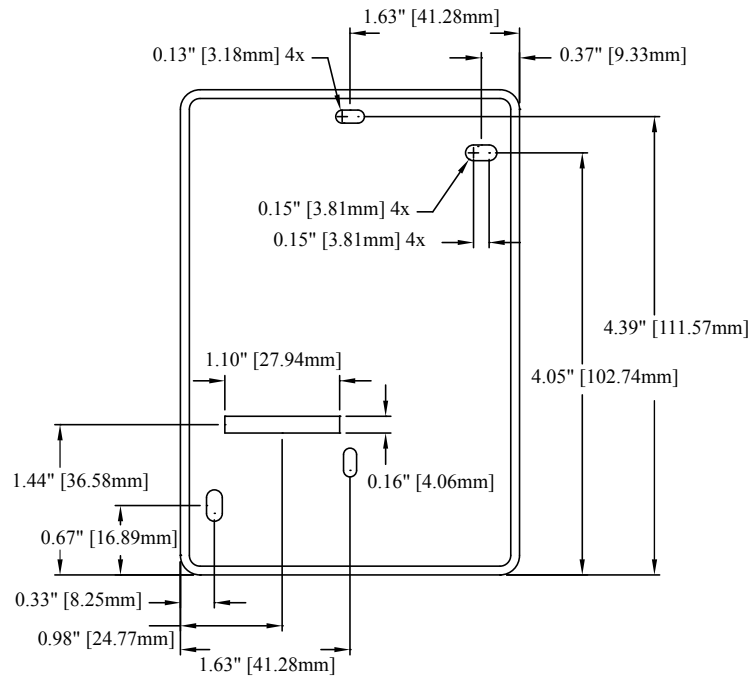
Front View:



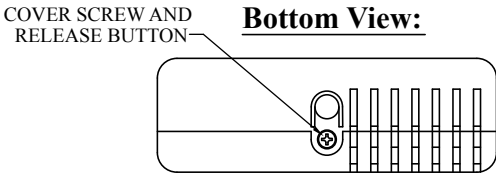
Right Side View:



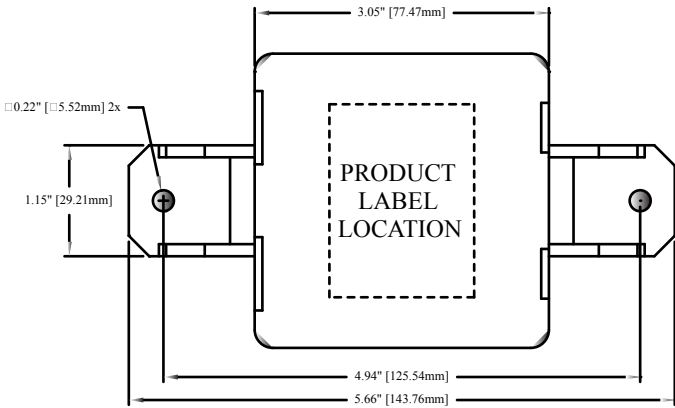
Back Plate, Front View:



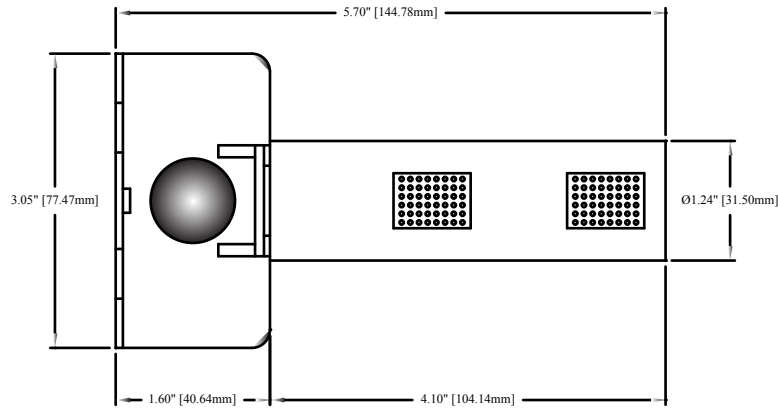
Bottom View:



Top View:



Right Side View:



Ordering Information

- | | |
|--------------------|--------------------------------------|
| Configuration | Displays |
| A/CO2-010-R (Room) | () -No LED Indication (Standard) |
| | (L) -Green/Yellow/Red LED Indication |
| | (Available on Room units only) |
| A/CO2-010-D (Duct) | |

Example: A/CO2-010-R or A/CO2-010-RL or A/CO2-010-D

2305 Pleasant View Road Middleton, WI 53562
 PH: (888) 967-5224 www.workaci.com

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