

CARBON DIOXIDE DETECTOR FOR INDOOR AIR QUALITY MONITORING



Features:

- Two Standard Ranges: 0-2000PPM and 0-5000PPM
- Digital Readout of PPM values
- SPST Relay output contact at a user adjustable setpoint
- 4-20mA output

Applications:

- Working environments
- Conference rooms
- Greenhouses
- Workout room/Gym
- HVAC/Ventilation

This state-of-the-art instrument measures Carbon Dioxide (CO2) concentrations in the parts per million (PPM) range and is ideal for applications ranging from conference rooms to home gyms.

Fresh air contains 350-400PPM CO2. Human respiration and combustion by-products from furnaces, fireplaces and household appliances can easily raise indoor levels above 2000PPM. With your CO2-2000 you can watch CO2 levels rise as people enter a room.

According to the National Institute of Occupational Safety and Health, increased levels of CO2 may contribute to "Sick Building Syndrome" and symptoms such as hyperventilation, headache, dizziness, shortness of breath, and drowsiness.

The CO2-2000 monitor provides a continuous, accurate reading of indoor CO2 levels, making it easy to maintain an optimum level of fresh air.

The CO2-2000 is easy to install and support. Measurement output is via a 4 - 20mA current loop or a 0-10V interface. A completely isolated power supply eliminates any ground loop or electrical interaction problems when multiple units are connected to the same controller. Low power consumption makes the CO2-2000 perfect for battery-operated or other power-sensitive applications.

The CO2-2000's single gas verification makes field calibration a snap, and its superior design means significantly longer calibration intervals.

Unlike other models, its simple user interface has no complicated menus: all maintenance and calibration operations are easily performed even on units with no LCD display

The CO2-2000's versatility is enhanced by options to satisfy most applications. The clear, bright 0.4" high LCD display option is readable from any angle for installations where local annunciation of the CO2 concentration is desired. For direct control applications the relay option can be configured to open or close above the setpoint and is easily adjusted in the field. For plenum sampling requirements, the popular duct option is easy to install.

CO2-2000 Carbon Dioxide detection & control unit

Operating principle	: Non-dispersive infrared (NDIR)
Gas sampling method	: Diffusion (Duct mounting kit optional)
Measurement range	: 0-2000PPM (0-5000PPM optional)
Power requirements	: 18 - 30V DC or 18-30Vrms AC (110V AC Transformer available)
Measurement accuracy	: $\pm 5\%$ of reading
Repeatability	: ± 20 PPM
Recommended calibration	: 2 years
Warm up time	: 1 minute
Power consumption	: Less than 1 watt
Operating temperature range	: 0-50° C (32-120° F)
Operating humidity range	: 5-95% RH, non-condensing
Voltage output (linear)	: 0-10V DC full scale standard - field adjustable
Current output (linear)	: 4-20mA (Loop : 400 Ω maximum)
Optional LCD display	: 4 digits, 0.4" high
Optional relay setpoint range	: 0 to full scale
Optional relay contact rating	: 3A @ 24V AC
Case Dimension	: 135mm x 135mm x 35mm (5.25" X 3.25" X 1.4")
Enclosure material	: Satin finish, high impact plastic

Technical Data:

Typical specifications

Supply, install and connect at locations shown on plans a required number Acme CO2-2000 CO2 Detection Units.

Units shall be state-of-the-art solid state instruments measuring CO2 concentrations in a range of 0-2000PPM (or optionally 0-5000PPM).

The Unit shall employ a Non-Dispersive Infrared sensor with no moving parts.

Standard unit shall be for diffusion type monitoring. OPTION: Unit shall be provided with a duct mounting kit should this method of monitoring be desired.

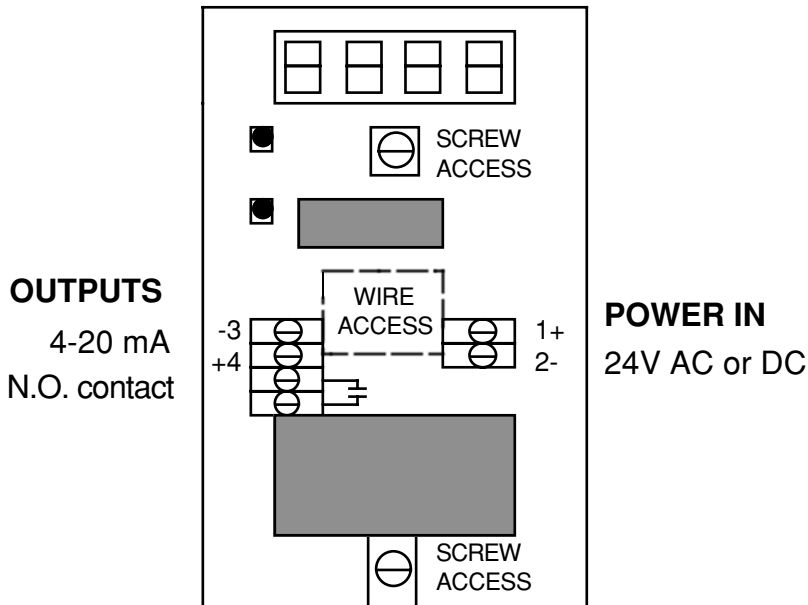
The unit shall have an accuracy of no greater than $\pm 5\%$ of reading and shall require calibration only at a 5-year interval.

The unit shall have a 4-20mA current and a 0-10V DC voltage output linear over its entire measuring range.

The unit shall have a normally open (N.O.) relay output contact factory set to close at 1000PPM. The relay shall have a contact rating 3A @ 24V AC.

The CO2-2000 shall be powered from a fused 24V AC circuit and shall not consume more than 1 watt at full load.

Typical wiring diagram



In the U.S.A.

ACME ENGINEERING PROD. INC.

Trimex Ind. Bldg., PMB #10

2330 State Route 11

Mooers, N.Y. 12958

Tel. : (518) 236-5659

Fax : (518) 236-6941

E-mail : info@acmeprod.com

In Canada

ACME ENGINEERING PROD. LTD.

5706 Royalmount Ave.,

Montreal, Quebec

H4P 1K5

Tel. : (514) 342-5656

Fax : (514) 342-3131

Internet : www.acmeprod.com



Represented by: