# SENSAPHONE®
REMOTE MONITORING SOLUTIONS

## SENSAPHONE CARBON DIOXIDE (CO2) SENSOR • FGD-0068-OD
Quick Installation Instructions

The Sensaphone Carbon Dioxide (CO2) sensor will allow you to monitor levels of Carbon Dioxide from 0-20,000 ppm with any Sensaphone that will accept a 4-20 Input signal. The FGD-0068-OD will require a 24VDC power supply to operate (Part No: FGD-0053).

Note on wiring: Use 22AWG shielded wiring for all connections (Sensaphone Part No. FGD-0010) and do not locate the device wires in the same conduit with wiring used to supply inductive loads such as motors. Disconnect the power supply before making any connections to prevent electrical shock or equipment damage. Make all connections in accordance with national and local codes.

Described below is the correct way to wire your Carbon Dioxide ($CO_2$) Sensor to your Sensaphone.

1. Remove the cover.
2. Verify the switch in the upper left corner on the sensor is in the "OUTPUT mA" position.
3. Connect the 24VDC Power Supply Positive (+) to the terminal marked PWR.
4. Connect the 24VDC Power Supply Negative (-) to the Sensaphone Zone Negative (-)
5. Connect the Sensaphone Zone Negative (-) to the terminal marked COM.
6. Connect a wire from the CO2 terminal to the Sensaphone Zone (+) positive terminal.
7. Replace the cover.
8. Program the Sensaphone zone (input) for a 4-20mA sensor type with a table range of 0-20,000.

**Introduction**

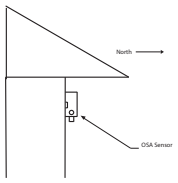
The CO2 transmitter uses Infrared Technology to monitor CO2 levels within a range of 0 – 20,000 ppm and outputs a linear 4-20 mA signal. Features include a back-lit LCD and user menu for easy installation

**Before Installation**

Read these instructions carefully before installing and commissioning the CO2 transmitter. Failure to follow these instructions may result in product damage. Do not use in an explosive or hazardous environment, with combustible or flammable gases, as a safety or emergency stop device or in any other application where failure of the product could result in personal injury. Take electrostatic discharge precautions during installation and do not exceed the device ratings.

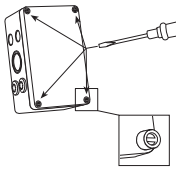
**Mounting**

Figure 1




Select a suitable mounting spot on an exterior wall where the CO2 sensor is best protected from direct exposure to sunlight, wind, etc. preferably on a north facing wall. Do not mount the sensor near opening windows, supply/exhaust air louvres or other known air disturbances. Avoid areas where the sensor is exposed to vibrations or rapid temperature changes. It is recommended that the enclosure be mounted so conduit or cable-gland connections be made on the bottom of the enclosure. See Figure 1.

Figure 2

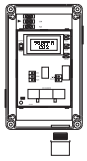


Remove the cover by using a standard or flat screwdriver to loosen the four screws as shown in Figure 2. As the screws are captive type, complete removal of the screw from the cover is not required.

On the bottom of the enclosure, remove one of the available knockouts by using a utility knife which allows for control wire access as shown in Figure 3. It is recommended that weatherproof conduit or cable gland fittings be used. See Figure 4.

Figure 3

Figure 4



The outside mount CO2 sensor installs directly on an exterior wall using the four integrated mounting holes provided on the enclosure. Select the best mounting technique based on the exterior wall material. The 4 mounting holes will facilitate a #10 size screw (Not supplied). Mount the base by screwing directly to the wall.

After the base is securely fastened to the exterior wall, connect conduit to conduit connector or feed cable through the cable gland and tighten.