



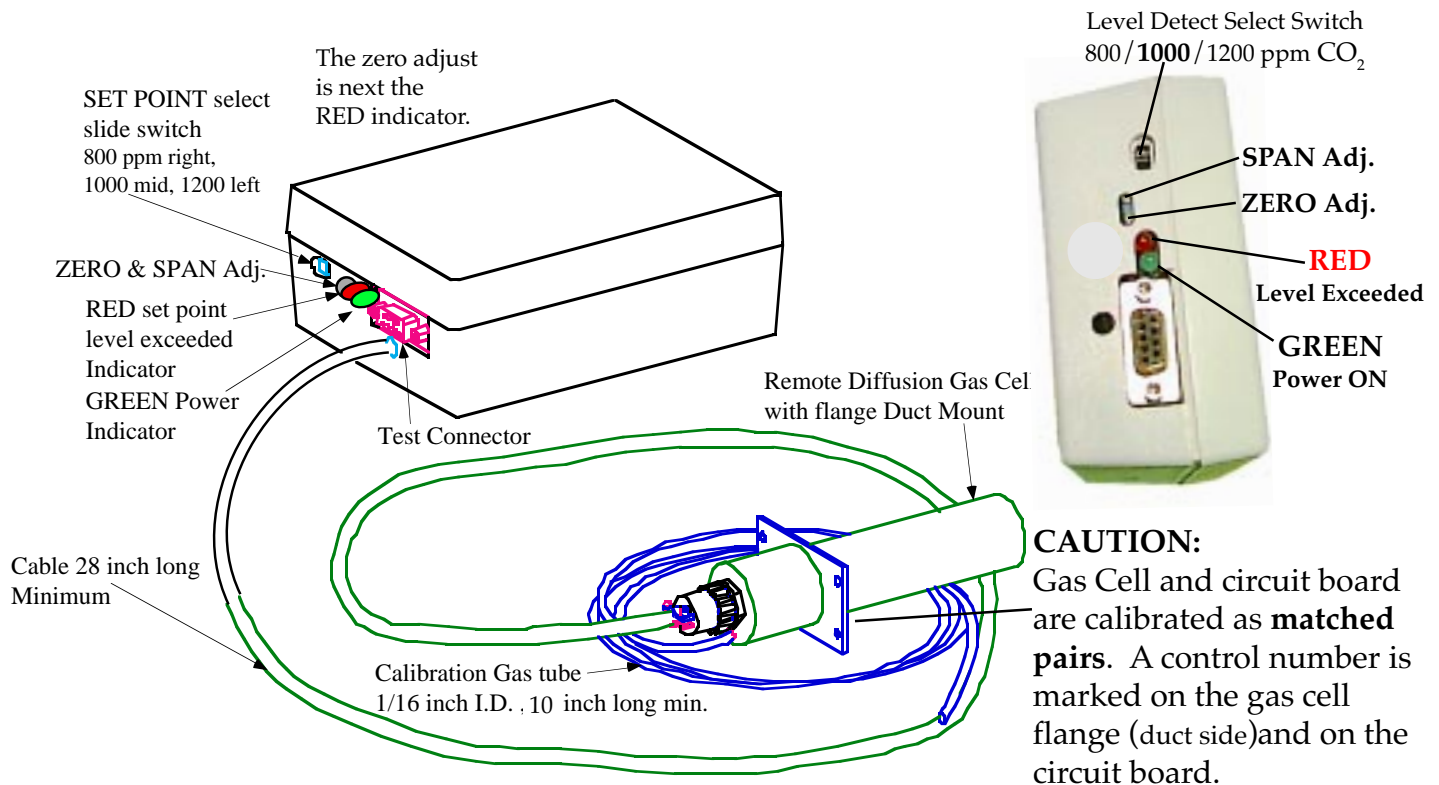
# The CO<sub>2</sub> DUCT-STAT™ Indoor Air Quality Sensor (IAQ) Model 6289C

## Features:

### The Ideal IAQ CO<sub>2</sub> Sensor with long term low maintenance operation

- No moving parts infrared sensor
- Convenient 24 VAC or DC operation
- Smallest, most compact size available
- Remote sensor for easy duct mounting
- Precision Calibration Gas Kit available
- No pump or particulate filters required
- Diffusion gas sampling - duct flange mount
- Adjustable set point SPDT control relay
- Linear 0-5 VDC and 4-20 mA outputs
- LED's indicate power on and relay activation
- Fast warm up to fully stabilized operation
- Calibration gas port easily accessible
- Calibrate without removing cover
- **Test Connector** installed as an **Option**

## Model 6289C



## Application:

### HVAC

- Hospitals
- Offices
- Schools
- Theaters
- Indoor Sports Arenas

The **VALTRONICS** Model 6289C is a non-dispersive infrared carbon dioxide monitor for use as an indoor air quality sensor. It produces a control signal proportional to carbon dioxide concentration. This control signal is then used to provide remote control of the outdoor air dampers, thereby controlling the fresh air intake or varying the ventilation rates while still maintaining safe indoor air quality.



# VALTRONICS

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PPM CO <sub>2</sub>	Output V	Max	Min	4-20 mA	Max	Min
0	0.000	0.125	-0.125	4.00	4.4	3.6
50	0.125	0.250	0.000	4.40	4.80	4.00
100	0.250	0.375	0.125	4.80	5.20	4.40
150	0.375	0.500	0.250	5.20	5.60	4.80
200	0.500	0.625	0.375	5.60	6.00	5.20
250	0.625	0.750	0.500	6.00	6.40	5.60
300	0.750	0.875	0.625	6.40	6.80	6.00
350	0.875	1.000	0.750	6.80	7.20	6.40
400	1.000	1.125	0.875	7.20	7.60	6.80
450	1.125	1.250	1.000	7.60	8.00	7.20
500	1.250	1.375	1.125	8.00	8.40	7.60
550	1.375	1.500	1.250	8.40	8.80	8.00
600	1.500	1.625	1.375	8.80	9.20	8.40
650	1.625	1.750	1.500	9.20	9.60	8.80
700	1.750	1.875	1.625	9.60	10.00	9.20
750	1.875	2.000	1.750	10.00	10.40	9.60
800	2.000	2.125	1.875	10.40	10.80	10.00
850	2.125	2.250	2.000	10.80	11.20	10.40
900	2.250	2.375	2.125	11.20	11.60	10.80
950	2.375	2.500	2.250	11.60	12.00	11.20
1000	2.500	2.625	2.375	12.00	12.40	11.60
1050	2.625	2.756	2.494	12.40	12.82	11.98
1100	2.750	2.888	2.613	12.80	13.24	12.36
1150	2.875	3.019	2.731	13.20	13.66	12.74
1200	3.000	3.150	2.850	13.60	14.08	13.12
1250	3.125	3.281	2.969	14.00	14.50	13.50
1300	3.250	3.413	3.088	14.40	14.92	13.88
1350	3.375	3.544	3.206	14.80	15.34	14.26
1400	3.500	3.675	3.325	15.20	15.76	14.64
1450	3.625	3.806	3.444	15.60	16.18	15.02
1500	3.750	3.938	3.563	16.00	16.60	15.40
1550	3.875	4.069	3.681	16.40	17.02	15.78
1600	4.000	4.200	3.800	16.80	17.44	16.16
1650	4.125	4.331	3.919	17.20	17.86	16.54
1700	4.250	4.463	4.038	17.60	18.28	16.92
1750	4.375	4.594	4.156	18.00	18.70	17.30
1800	4.500	4.725	4.275	18.40	19.12	17.68
1850	4.625	4.856	4.394	18.80	19.54	18.06
1900	4.750	4.988	4.513	19.20	19.96	18.44
1950	4.875	5.119	4.631	19.60	20.38	18.82
2000	5.000	5.250	4.750	20.00	20.80	19.20



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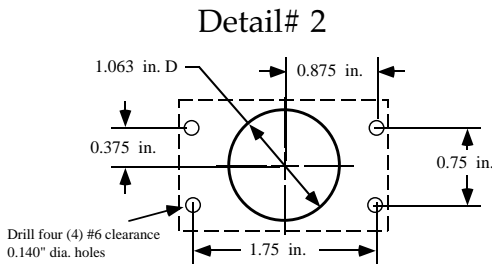
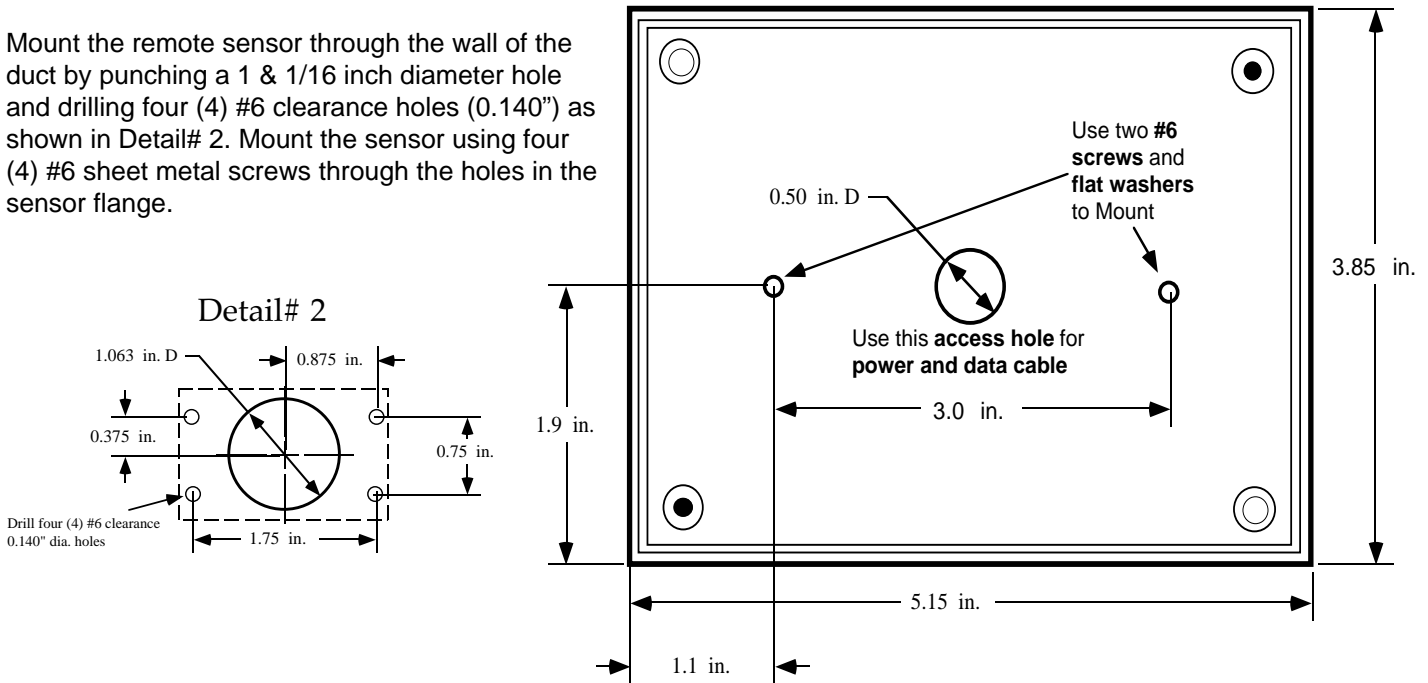
Using 22 AWG to 14 AWG (20 AWG typical) wire connected to terminal block TB1 (see diagram below), pull the power, signal, and relay contact wires (you only need to wire the functions that you want to use) through the 0.50 inch access hole.

**MOUNTING on the wall and wiring:**

Remove the back cover of the unit using a broad bladed flat screwdriver to pry the cover near the two black press fit type studs.

Locate the control unit on a flat mounting surface. The area should be about 5.25 x 4 inches. Drill two 0.093 inch diameter (<sup>3</sup>/<sub>32</sub>) holes using the drawing below as a guide. Mount the enclosure using two #6 screws and flat washers through the 0.125 inch diameter holes on either side of the 1/2 inch diameter cable access hole.

Mount the remote sensor through the wall of the duct by punching a 1 & 1/16 inch diameter hole and drilling four (4) #6 clearance holes (0.140") as shown in Detail# 2. Mount the sensor using four (4) #6 sheet metal screws through the holes in the sensor flange.



Using 22 AWG to 14 AWG (20 AWG typical) wire connected to terminal block TB1 (see diagram below and block diagram on right), pull the power, signal, and relay contact wires (you only need to wire the functions that you want to use) through the 0.50 inch access hole. See the Model 6289C Installation Guide for more detailed instructions. CAUTION: DO NOT connect external power in the 4-20 mA current loop.

See Application Notes A25, A26, A27, and A41 for information about preventive maintenance and building commissioning.

