# **INSTALLATION INSTRUCTIONS**

## **CO2, Designer Series** Room CO2 Value sensor



#### **IMPORTANT WARNINGS**

- Only qualified trade installers should install this product
- This product is not intended for life-safety applications
- Do not install in hazardous or classified locations
- The installer is responsible for all applicable codes
- De-energize power supply prior to installation or service

## INSTALLATION

① IMPORTANT! Locate sensor in an area away from ventillation sources and heat generating equipment and appliances. Sensor should be mounted at light switch height in a vertical orientation. Use insulating material behind sensor to ensure reading accuracy.

NOTE: Do not install sensor in multi-gang electrical boxes with line voltage or other electrical devices.



#### PRODUCT APPLICATION LIMITATION:

Senva products are not designed for life or safety applications. Senva products are not intended for use in critical applications such as nuclear facilities, human implantable device or life support. Senva is not liable, in whole or in part, for any claims or damages arising from such uses.

## **INSTALLATION (CONTINUED)**

<sup>(2)</sup> Wire sensor according to the product labeling:



③Install sensor to low-voltage bracket using screws provided.

4 For voltage output operation, move jumper to 5v or 10v.

5V 📕 🔳 10V

<sup>(5)</sup> Install cover plate. To remove cover plate, gently pry apart from bottom slot using coin or flat-blade screwdriver.

TROUBLESHOOTING		
Symptom	Solution	
No output	Check wiring. Ensure power supply meets requirements.	
CO2 reading error	Verify control panel software is configured for correct out- put scaling.	
	Verify accuracy of test instru- ment. Observe installation and calibration guidelines	
	Install insulation behind sen- sor to prevent air flow from inside wall.	

### CALIBRATION

Senva CO2-VAL model sensors are factory calibrated to controlled test gasses. No field calibration is possible.

#### Automatic Calibration feature:

The sensor will automatically track low ambient CO2 levels and gradually make adjustments to compensate for sensor drift due to long-term aging of the IR light source. In applications where CO2 levels are continuously elevated, or spaces are occupied day and night, it is recommended to use our standard room CO2 sensor with selectable automatic calibration.



## SPECIFICATIONS

Power supply		12-30vdc/24vac <sup>(1)</sup> , 100mA max.
Outputs	Dual analog	3-wire 4-20mA and 0-5v/0-10v <sup>(2)</sup> (jumper)
Output scaling		0-2000ppm
Sensor Performance	Туре	Non-dispersive Infrared (NDIR)
	Accuracy	+/-40ppm, +/-3% of reading
	Response time	60 seconds to 90% reading
	Update rate	3 seconds
Operating Environment	Temperature	32 to 122°F (0-50°C)
	Humidity	0-95%RH, non-condensing
Enclosure	Material	ABS Plastic
	Dimensions (fits low-voltage bracket)	4.7"h x 2.9"w x 1.24"d (0.48" wall profile)

(1) One side of transformer secondary is connected to signal common. Dedicated transformer is recommended.(2) 15-30vdc/24vac power supply voltage required for 10 volt output.