



# JAYESH TRADERS

**AIRATOM™**  
SMART SOLUTIONS

ISO 9001-2015

**MFG. OF GAS & AIR MONITORING DEVICES**

- Unit no 803, 8th floor Aggarwal millennium tower -1, Netaji Subhash place pitampura-34
- Block no C12 , building no 479 yamuna vihar delhi-53

GST no. - 07ANFPA0867R1ZN, contact no.- 9811258382 E-mail- [contact@airekart.com](mailto:contact@airekart.com), [www.airatom.in](http://www.airatom.in)

## CO2 Sensor 4-20ma output

### Potential applications:

- COLD STORAGE
- GRAIN STORAGE
- GREEN HOUSE
- AGRICULTURE
- MUSHROOM CULTIVATION

- Available models in RS485/Analog output with and without temperature and humidity  
- CO2 range available 0-5000 / 0-10,000



## Product Introduction

### Product summary

- 1 Real-time detect CO<sub>2</sub> level of indoor environment
- 2 NDIR infrared CO<sub>2</sub> sensor with Self-Calibration and up to 3-4 years lifetime
- 3 Humidity and temperature detection optional
- 4 Combined temperature and humidity sensor provide the highest accuracy in full range
- 5 Wall mounting with the external sensor probe with the higher accuracy of measurements
- 6 Providing one or three 0~10VDC or 4~20mA or 0~5VDC analog outputs

### Main technology indexes

DC power supply (default)	10 ~ 30V DC	
Maximum power consumption	Current output	1.2W
	Voltage output	1.2W
Resolution	0.1ug / m <sup>3</sup>	
Transmitter circuit operating temperature	-20 °C ~ + 60 °C, 0 % RH ~ 80% RH	
Measuring range	CO <sub>2</sub> Available Ranges	0 ~10,000 ppm 0 ~20,000 ppm
	Display	*Optional - LCD Display Included with extra cost
Response speed	≤ 9 0S	
Warm up time	≤ 2min	
output signal	Current output	4 ~ 20mA
load capacity	Voltage output	Output resistance ≤ 250 Ω
	Current output	≤ 600 Ω

## Equipment installation check

- transmitter equipment 1
- 24V / 2A power supply units 1 (optional)

## Wiring

### Power Connection

Wide voltage 10 ~ 30V DC power input. For 0-10V output type devices can only use 24V power supply.

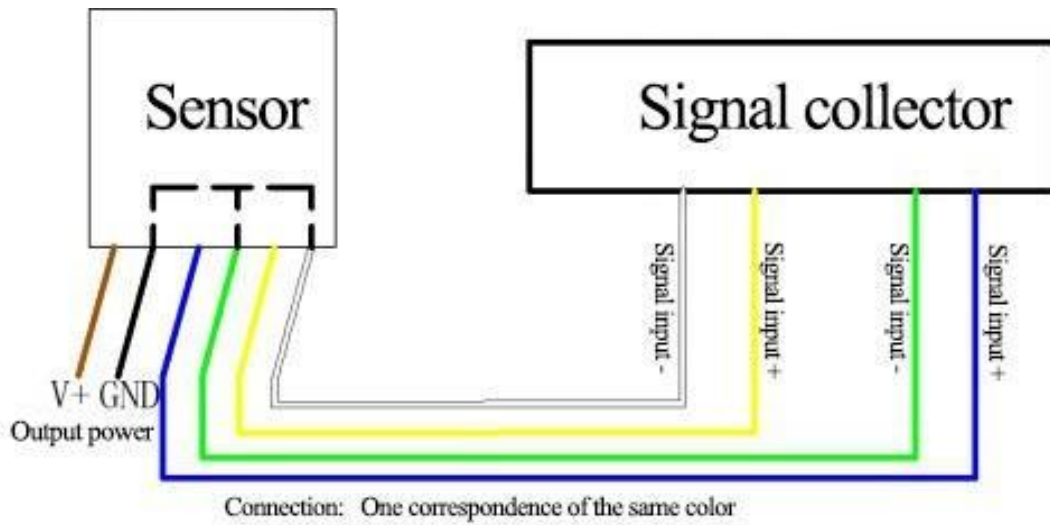
### Output Interface Terminal

Device is a independent standard analog output. At the same time to adapt to the three-line system and four-wire system.

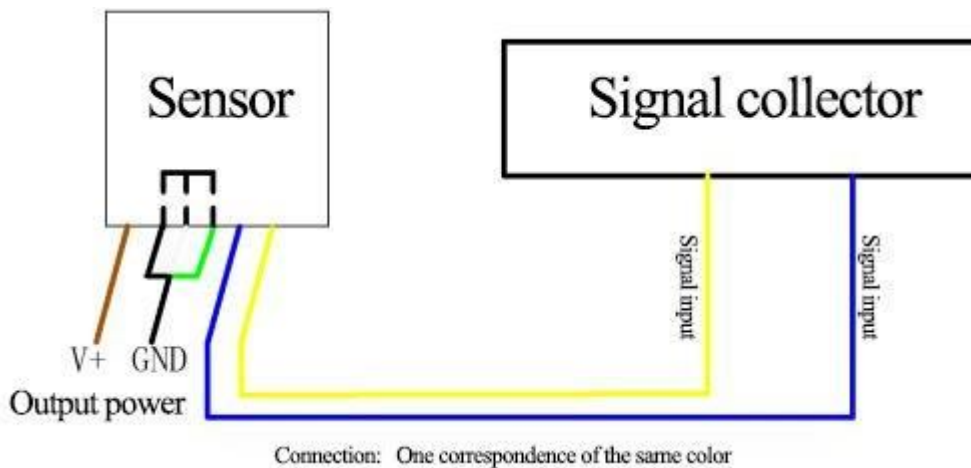
### Electrical Wiring

	Line color	Description
power supply	brown	Power is positive
	black	Negative power supply
Output	blue	Co2 positive signal
	green	Co2 negative signal
	Or yellow	Co2 positive signal
	Or white	Co2 negative signal

## 1.2 Wiring Examples



### Four - wire connection method



### Three - wire connection method

## Calculation Method

### voltage-converts the output signal calculation

Range 0 ~ 6000 ppm , 0-10V output to an example, when the output signal of 5V, the current calculation  $\text{co}_2$  range span 6000ug / m<sup>3</sup>, expressed by the signal voltage 10V,  $6000\text{ppm} / 10\text{V} = 600\text{ug} / \text{ppm}$ , i.e., the voltage corresponding to each change of 1V  $\text{co}_2$  change 600ppm. Measurement  $5\text{V}-0\text{V} = 5\text{V}$ .  $5\text{V} * 600\text{ppm} = 3000 \text{ ppm}$  . The current  $\text{co}_2$  to 3000 ppm.

## **Symptom: No output or output error**

possible reason:

- 1) PLC range calculation error corresponding to the error cause, please refer to the specifications of the first range portion.
- 2) Wiring or not the connection sequence of errors.
- 3) Supply voltage not (24V power supply for both type 0-10V).
- 4) the distance between the transmitter and the collector is too long, resulting in disturbance signal.
- 5) PLC collection port damage.
- 6) equipment damage.

## **Contact information**

### **JAYESH TRADERS.**

**Address: Unit no 803, 8th floor Aggarwal millennium tower -1, Netaji**

**Subhash place pitampura**

**Post code: 110053**

Phone: 9811258382 , 9891980860

Website: [www.airekart.com](http://www.airekart.com), [www.airatom.in](http://www.airatom.in)

Email : [contact@airekart.com](mailto:contact@airekart.com)

\*Note: product picture is only for reference , actual product may vary in physical appearance