

CO₂ DETECTOR/INDICATOR

F2000IAQ-CO₂-3100/3101/5100/5101

CE Approval 

F2000IAQ-CO₂ detector/Indicator is used to monitor and alarm CO₂ level and room temperature. Relative humidity detection and display can be as an option. Other options can be provided to users: RS485 communication interface with independent address; one dry contact output to control a ventilation device.

Especial design for schools, kindergartens, office buildings, conference rooms, rest rooms as well as other public places

- ◆ **Built-in NDIR CO₂ module, 15 years long life.**
- ◆ **ABC Logic self calibration algorithm for CO₂ sensor.**
- ◆ **Real-time detect and display room CO₂ and temperature**
- ◆ **3 LED indicator lights following three different CO₂ ranges to indicate
ambiance ventilation situation: Optimal Ventilation; Poor Ventilation and Insufficient Ventilation.**
- ◆ **Optional humidity detection and display**

□ Features

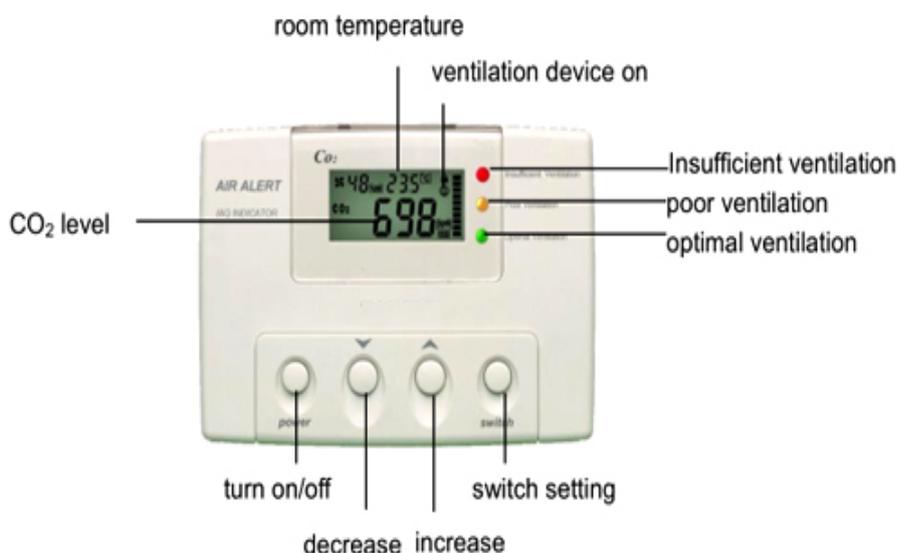
- ◆ Real-time detecting and display CO₂ level during 0ppm to 20,000ppm CO₂ range; Also detecting room temperature from 5 to 45°C
- ◆ Optional real-time humidity from 5%RH to 95%RH
- ◆ NDIR CO₂ sensor technology of infrared self diffusion, 15 years lifetime
- ◆ Self Calibration Algorithm makes it in using without calibration amending
- ◆ The three measured CO₂ ranges for 3-LED indicator lights selectable by end users
- ◆ LED's brightness adjustment
- ◆ Optional 1X dry contact output or one 0~10VDC output to control a ventilation device
- ◆ Easy preset CO₂ level for buzzer alert (optional)
- ◆ Optional RS485 interface to connect to a PC or another system (optional)

□ Specifications

Gas detected	Carbon Dioxide (CO ₂)
Sensing element	Non-Depressive Infrared Detector (NDIR)
Temperature sensor	NTC
Temperature correction	Self compensation
CO ₂ NDIR life	15 years
Consumption	3.5W/ Max, 2.5W/ Average
Accuracy@25°C(77°F)	±40ppm + 3% of reading
Stability	<2% of FS over life of sensor (15 yr typical)
Warm up time	2 hours (first time) 2 minutes (operation)
CO ₂ measuring range	0~5,000ppm(default), 0~2,000ppm programmable selection
CO ₂ setting & Display resolution	1ppm
Temperature measuring range	0~50°C(32~122°F)
Temperature setting range	5~45°C(41~113°F)
Option: 1X dry contact output	Rated currency for contact point: 2A 220VAC/30VDC, resistance load

Option: RS485 communication interface	9600/14400/19200(default)/28800/38400bps rates selectable by program, 15KV protection for static, independent address setting
Operation condition	0~50°C (32~122°F), 0~95%RH without condensing
Power supply	220VAC/110VAC or 24VAC 50/60HZ±10%
Weight	380g
Dimensions	130mm×90mm×40mm
Connections Interface	Locate in interface of connection
Installment standard	65mm×65mm or 2"×4" wire box
Wiring standard	Wire section area<1.5mm ²
Approval Standard	CE-Approval
Programming and selection	DIP switches inside and external push-buttons

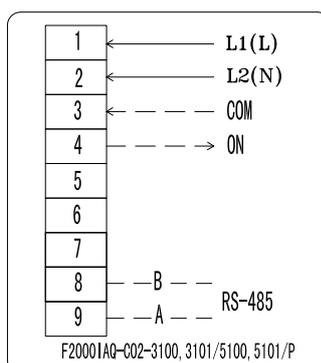
□ **Buttons and LCD**



□ **Shipping Information**

India. Ctn. Dim	135mm×95mm×55mm
Master Ctn. Qty	40
Master Ctn. Dim	44cm(L)×32cm(W)×32cm(H)
Master Ctn. Wt.	15 KG

□ **Wiring Diagram**



□ Model Guide

Gas Type	
CO ₂	Carbon Dioxide

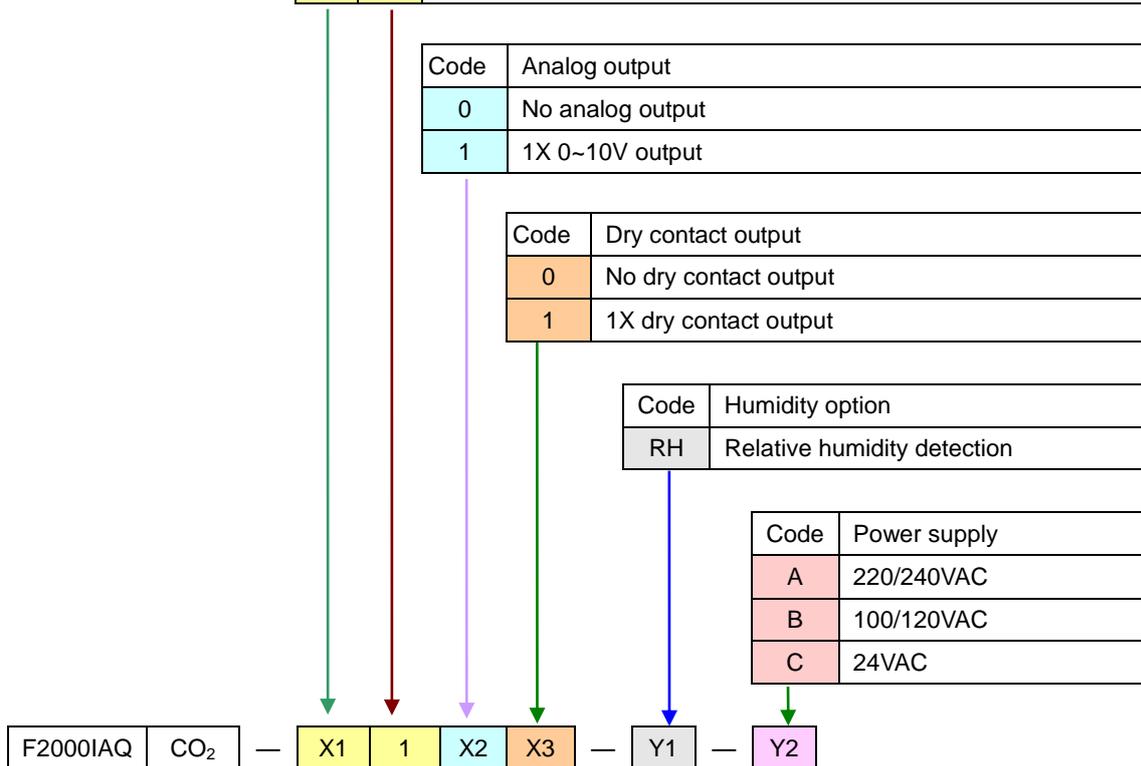
Code	Model	
3	1	Standard model (CO ₂ & temperature detection)
5	1	CO ₂ & temperature detection with RS-485 network communication

Code	Analog output
0	No analog output
1	1X 0~10V output

Code	Dry contact output
0	No dry contact output
1	1X dry contact output

Code	Humidity option
RH	Relative humidity detection

Code	Power supply
A	220/240VAC
B	100/120VAC
C	24VAC



Note: X2 + X3 ≤ 1

Example: F2000IAQ-CO₂-3100 indicates that it is a CO₂ indicator with temperature detection.