F2000IAQ-CO_2-30XX/50XX-SP Series
CO2 Controller with a build-in Indraft Pump & Outputs Option

Buttons, LCD and Wiring Diagrams

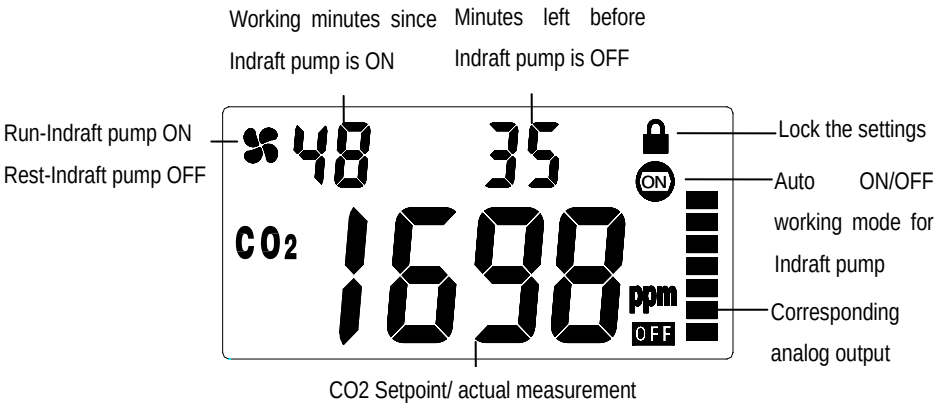
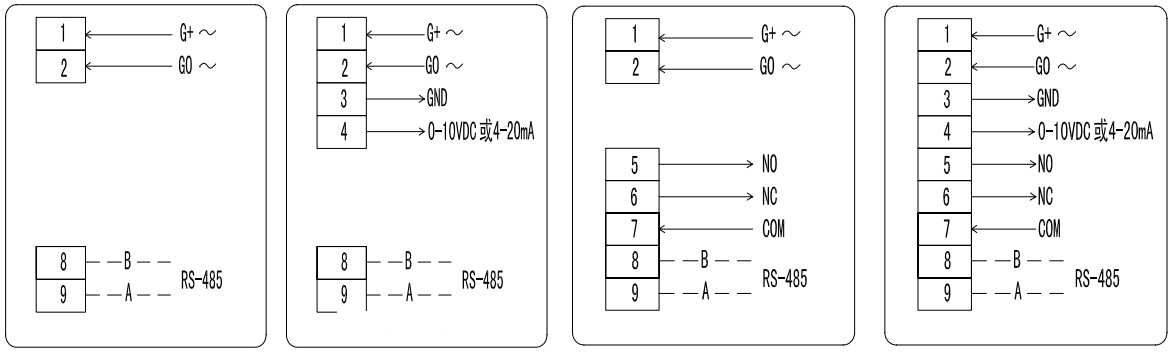
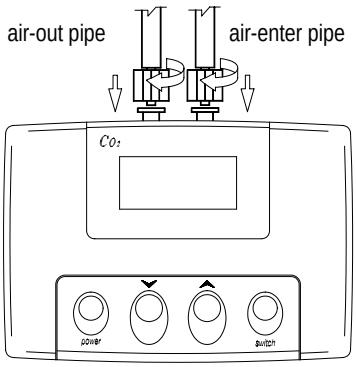


Fig.2 Wiring Diagrams



F2000IAQ-CO_2-3000/5000-SP | F2000IAQ-CO_2-3010/5010-V/A-SP | F2000IAQ-CO_2-3001/5001-SP | F2000IAQ-CO_2-3011/5011-V/A-SP

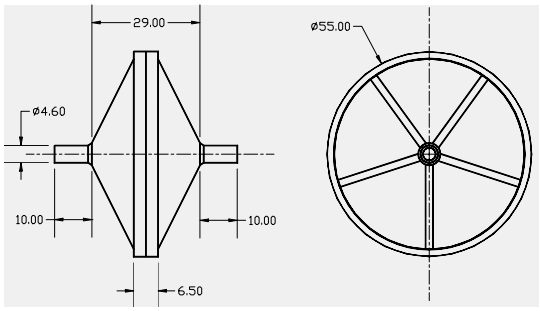
Connection



Fittings option

Filter with ¢ 55mm diameter and 0.45um filtration holes.

Made in USA.



Features

- CO2 integrative controller for carbon dioxide, with a build-in indraft pump and outputs option.
- Advance microprocessor control, response quickly, NDIR flow-in Infrared sensor in order to guarantee CO2 detection more precision.
- Long lifetime: 15 years for sensor, large application in order to reduce cost of operation
- Adopt Germany gas pump of non-gasoline minimize diaphragm link, which lifetime is more than 1000 hours. The old pump is replaceable by a new one easyly.
- Real time detects and displays the following items by LCD: CO2 concentration and condition of gas pump switch, etc.
- Adjustable flow value set up for indraft pump, if it would low flow, which would expand indraft pump lifetime.
- Programmed control for indraft pump switch self-circulation and collect gas in certain time, which can be use in different field.
- CO2 detection and control range: 0~20000ppm, 0~(1000~20000)ppm programmable set-up, 0~50000ppm can be customized.
- Output: 0，1～5VDC or 0，2～10VDC or 0，4～20mA analog output and dry contact relay output of adjustable set point.
- RS-485 communication interface, 15KV antistatic protection, independent address set-up.
- PC/ABS flame retardant housing
- Power supply: 24VAC/24VDC±20%

Applications

- Field of medication, industry, agriculture and food industry.
- CO2 concentration analyses for testing environment.
- Other special area where need CO2 concentration detection.

Specifications

Gas detected	Carbon Dioxide (CO_2)
Sensing element	Non-Dispersive Infrared Detector (NDIR) of America Telaire(GE)
Air pump element	Non-gasoline minimize diaphragm link gas pump, made in Germany
Temperature sensor	NTC
Temperature coefficient	0.2% FS/℃
Temperature correction	Self compensation
Power supply	24VAC,±20%.
Consumption	2.8 W Max
Accuracy@22℃(77℉)	±40ppm + 3% of reading
Stability	<2% of FS over life of sensor (15 yr typical)
Calibration interval	ABC Logic Self Calibration Algorithm, which can select turn on or turn off
Non linearity	<1% of FS
Altitude calibration	Programmable from 0-9,900m in 100m increments
Response Time	<2 minutes for 90% step change
Signal update	Every 2 seconds

Warm up time	<2 minutes (operational), 10 minutes (maximum accuracy)
CO_2 measuring range	0～20,000ppm. Which can set up 0 – (1000pmm – 20000ppm) by programmable 0～50,000ppm. Which can set up 0 – (1000pmm – 50000ppm) by programmable
CO_2 Display minimum resolution	1ppm
Self-circulation setup for indraft pump switch	ON：1～60min　　OFF：1～60min
Analog output	0，1～5VDC or 0，2～10VDC or 0，4～20mA analog full scope linearized output
ON/OFF outputs	1 way of dry contact output, Max contact point current is 2A（220VAC/30VDC）, resistance load in according with setup value for CO2 concentration.
Communication interface	RS-485, 9600/14400/19200(default)/28800 or 38400bps (programmable selection), 15KV antistatic protection, 3 independent base address, max network node 64
Flow value	320～680ml/min (adjustable)
Operation conditions	0~50°C(32~122°F); 0~95%RH, non condensing
Storage conditions	-40~70°C （-40~158°F）
NDIR life	15 years
Indraft pump life	More than 1000 hours
Net Weight	260g
Dimensions	130mm×90mm×40mm
In / out air pipe	PVC material，length 2×1.00 m，inside diameter ¢4.00 mm
Filter (selectable fittings)	¢55mm diameter,，0.45um filtration holes，made in America
Installment standard	65mm×65mm or 2”×4”wire box
Interface connections	9 terminals
Wiring standard	Wire section area<1.5mm² (2~9 terminals)
Approval Standard	ISO 9001
Programming and selection	Via build-in DIP switch and external push-buttons