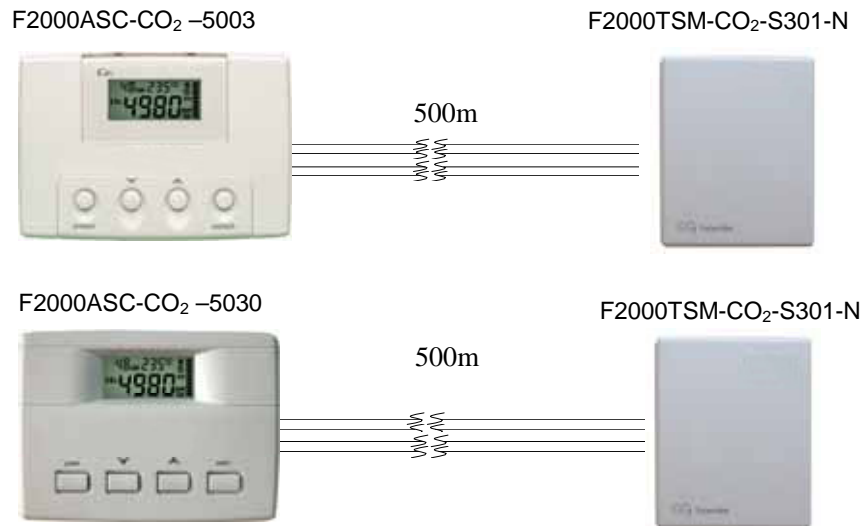


# F2000ASC-CO2 SPLIT CONTROL UNIT

Ambiance CO2 + Humidity + Temperature Real Time Detection  
with Three On/Off Outputs or Three Analog Outputs

CE Approval 

F2000ASC-CO2 Split Control Unit is composed by two parts as below figure.



## □ Features

### Features of Controller (F2000ASC-CO<sub>2</sub>)

- ◆ Network function with RS-485 communication interface, 15KV anti-static protection. It 's used with the sensor box (F2000TSM-CO<sub>2</sub>-S301-N) together
- ◆ Real time monitor and control CO<sub>2</sub>+temperature+humidity with LCD display
- ◆ Preset CO<sub>2</sub> level, humidity and temperature , also lock the operation buttons by end users.
- ◆ Specially provide the altitude calibration
- ◆ Provide 3 x relay on/off outputs to control CO<sub>2</sub> level and humidity and temperature (F2000ASC-CO<sub>2</sub>-5003).
- ◆ Provide 3 x analog outputs (0~10VDC) wide range linearization outputs to correspond with carbon dioxide and humidity and temperature measurements (F2000ASC-CO<sub>2</sub>-5030)
- ◆ PC/ABS flame retardant housing

### Features of Sensor Box (F2000TSM-CO<sub>2</sub>-S301-N)

Integrate CO<sub>2</sub>, humidity and temperature sensors in a box. Non-Dispersive Infrared Detector (NDIR) CO<sub>2</sub> sensor, which can ensure CO<sub>2</sub> detection and control more precision with 15 years long lifetime  
ABC Logic Self-calibration available for almost all application places.

Detection and control CO<sub>2</sub> range selectable:

0 ~ 20000ppm or 0~50000ppm

Humidity range: 5 ~ 99%RH; temperature range:  
0 ~ 50

Provide altitude calibration function to end users  
RS-485 network communication interface with 15KV anti-static protection makes it connecting with the F2000ASC- CO<sub>2</sub>-5003 controller together.  
PC/ABS flame retardant housing

## □ Application

- ◆ Greenhouses, seed cultivate and other relative agriculture establishments
- ◆ Food refresh and storage
- ◆ Other places where need remote detection and control CO<sub>2</sub> level, humidity and temperature
- ◆ Separate controller and sensors makes the sensors being installed in the places where people cannot enter but need real time detection CO<sub>2</sub> level, humidity and temperature

## □ Specifications

Gas sensor	Non-Dispersive Infrared Detector (NDIR) arbon Dioxide sensor
Accuracy@25 (77 )	±40ppm + 3% of reading (@22 )
Stability	<2% of FS over life of sensor (15 yr typical)
Calibration interval	ABC_Logic Self Calibration
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	48 hours (first time) 10 minutes (normal operation)
CO <sub>2</sub> measuring range	0 ~ 20,000ppm or 0 ~ 50,000ppm selectable
CO <sub>2</sub> setting & Display resolution	1ppm
Temperature sensor	NTC
Humidity sensor	HS series capacitive sensor
Temperature dependence	0.2% FS/
Temperature correction	Self compensation
Temperature measuring/ setting range	0 ~ 50 (32 ~ 122 )/ 5 ~ 45 (41 ~ 113 )
Humidity measuring/setting range	0 ~ 99%RH / 5 ~ 95%RH
Relay outputs	3Xrelay on/off outputs to control CO <sub>2</sub> device/fan and humidity device and temperature device
Analog outputs	3Xanalog outputs (0~10VDC) to control CO <sub>2</sub> device/fan and humidity device and temperature device
Communication interface	RS-485, 19200(default) 15KV antistatic protection
Flow rates	Diffusion version 80 ~ 120 cc/min
Operation conditions	0~50 (32~122 ); 0~95%RH, non condensing
Storage conditions	-40~70 (-40~158 )
NDIR CO <sub>2</sub> sensor lifetime	15 years
Power supply	24VAC/24VDC
Net weight	F2000ASC- CO <sub>2</sub> -5003: 290g, F2000ASC- CO <sub>2</sub> -5030: 250g F2000TSM- CO <sub>2</sub> -S301-N: 210g
Dimensions	F2000ASC- CO <sub>2</sub> -5003 : 130mmx90mmx40mm F2000ASC-CO <sub>2</sub> -5030 : 120mmx90mmx24mm F2000TSM- CO <sub>2</sub> -S301-N : 100mmx80mmx28mm
Installment standard	65mmx65mm or 2"x4"wire box
Approval Standard	CE-Approval
Selection of setup	DIP switch inside and button outside

## □ Models

Model	Description
F2000ASC-5003-20 (with F2000TSM- CO <sub>2</sub> -S301-N )	Environment CO <sub>2</sub> + humidity + temperature detection, 3 XON/OFF relay outputs to control a CO <sub>2</sub> generator/ ventilation system as well as humidity and temperature device. CO <sub>2</sub> detection range: 0~20,000ppm (programmable setting , default:0~2,000ppm)

F2000ASC-5003-50 (with F2000TSM- CO <sub>2</sub> -S301-N)	Environment CO <sub>2</sub> + humidity + temperature detection, 3 XON/OFF relay outputs to control a CO <sub>2</sub> generator/ventilation system as well as humidity and temperature device. CO <sub>2</sub> detection range: 0~50,000ppm (programmable setting , default:0~50,000ppm)
F2000ASC-5030-20 (with F2000TSM- CO <sub>2</sub> -S301-N)	Environment CO <sub>2</sub> + humidity + temperature detection, provide 3 x 0~10VDC wide range linearization outputs corresponding with CO <sub>2</sub> measurement and humidity and temperature. CO <sub>2</sub> range: 0~20,000ppm (programmable setting, default:0~2,000ppm)
F2000ASC-5030-50 (with F2000TSM- CO <sub>2</sub> -S301-N)	Environment CO <sub>2</sub> + humidity + temperature detection, provide 3 x 0~10VDC Wide range linearization outputs corresponding with measurement CO <sub>2</sub> and humidity and temperature. CO <sub>2</sub> range: 0~50,000ppm (programmable setting, default:0~50,000ppm)

□ Wiring Diagrams

