

# JNC

## Single Detector

SD



V2.0

# Catalogue

|                                                                     |           |
|---------------------------------------------------------------------|-----------|
| <b>PART 1. PRODUCT INTRODUCTION .....</b>                           | <b>3</b>  |
| 1-1 Product Introduction .....                                      | 3         |
| 1-2 Product Notes .....                                             | 3         |
| <b>PART 2.PRODUCT DESCRIPTION .....</b>                             | <b>4</b>  |
| 2-1 Product Features .....                                          | 4         |
| 2-2 Product Size (mm) .....                                         | 4         |
| <b>PART 3.PRODUCT SPECIFICATION.....</b>                            | <b>5</b>  |
| 3-1 Product Specifcaiton .....                                      | 5         |
| 3-2 SD Measuring Range.....                                         | 6         |
| <b>PART 4.PRODUCT ILLUSTRATE .....</b>                              | <b>8</b>  |
| 4-1 Equipment Component Location Description .....                  | 8         |
| 4-2 Wiring Instructions .....                                       | 8         |
| <b>PART 5.WEB SERVICE INSTRUCTIONS .....</b>                        | <b>9</b>  |
| 5-1 Open the SD web page.....                                       | 9         |
| 5-2 Front page.....                                                 | 11        |
| 5-3 Equipment control.....                                          | 12        |
| 5-4 Settings .....                                                  | 13        |
| 5-5 Basic Settings.....                                             | 14        |
| 5-6 IP Settings .....                                               | 15        |
| 5-7 WiFi Settings .....                                             | 16        |
| 5-8 Control Settings.....                                           | 18        |
| 5-9 Communication Settings .....                                    | 19        |
| 5-10 Display Settings.....                                          | 20        |
| 5-11 Inverses.....                                                  | 20        |
| 5-12 Calibration Settings .....                                     | 21        |
| <b>PART 6.MODBUS COMMUNICATION PROTOCOL FORMAT DESCRIPTION.....</b> | <b>22</b> |
| 6-1 INT16 Read Instant Value (Function 04) .....                    | 22        |
| 6-2 Float Read Instant Value (Function 04) .....                    | 23        |
| <b>PART 7.MODBUS TABLE .....</b>                                    | <b>24</b> |
| 7-1 Modbus Table of instant time values.....                        | 24        |
| <b>REVISION HISTORY.....</b>                                        | <b>35</b> |
| <b>ABOUT US.....</b>                                                | <b>35</b> |

## PART 1.PRODUCT INTRODUCTION

### 1-1 Product Introduction

This product can be used as a tool for fixed-point monitoring or inspection of home or public indoor environments. It has a wall-mounted and portable design. It has keen and accurate detection and intelligent data management capabilities, allowing you to instantly grasp the indoor environment air where you are. This product has 9 measurement items to choose from, including temperature, humidity, CO<sub>2</sub>, PM<sub>2.5</sub>, O<sub>2</sub>, formaldehyde, CO, TVOC, O<sub>3</sub> and PM<sub>10</sub>, and can be monitored in real time through the browser, allowing you to instantly understand where you are. Indoor ambient air quality. This product is very suitable for use in homes, cars, schools, offices, stations, airports, hospitals, art galleries and other places that require environmental monitoring.

### 1-2 Product Notes

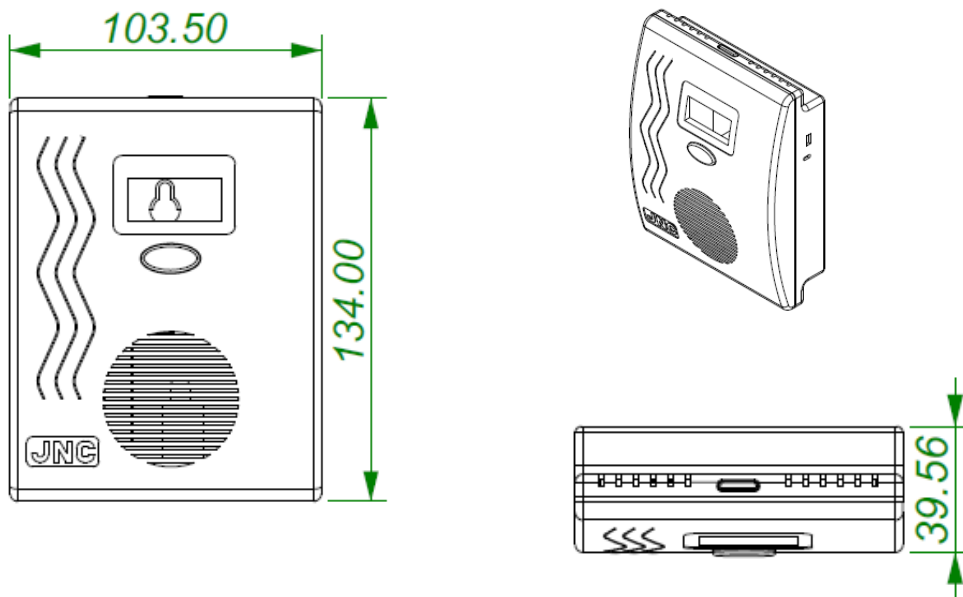
1. Please do not use it in areas with high vibration or strong electromagnetic interference to avoid product damage, ERROR, and measurement errors.
2. Before performing any repair or maintenance, please remove the power cord to prevent personal injury or product damage caused by accidental contact with the power supply.
3. When installed in a polluted environment with conductive substances (such as metal dust, water, etc.), appropriate sealing measures should be taken.
4. If any component or module of the product has been removed or disassembled, please do not operate it anymore and contact our company as soon as possible.
5. When installed in a polluted environment with conductive substances (such as metal dust, water, etc.), appropriate ventilation, effective filtration or sealing measures should be taken.
6. Our company is not responsible for any impact or damage caused to the reliability of this product due to improper use in accordance with this operating manual or exceeding the application or usage environment conditions described in the specifications of this product.
7. Avoid installing this product with electrical appliances that generate heat within 1 meter below, thus affecting the accuracy of the temperature and humidity of this product.
8. Avoid installing this product within 1 meter of human activities, as it may affect humidity.
9. This product is a precision instrument. Users should not disassemble it by themselves or use corrosive liquids to contact the surface of the instrument to avoid damage.
10. Do not perform live wiring, check that the wiring is correct before powering on.

## PART 2.PRODUCT DESCRIPTION

### 2-1 Product Features

- Make your Intelligent home with JNC SD device
- SD is a single gas sensor. According to your request, you are able to choose the type of detection which you need, plug and play.
- If you need to improve the air quality, you can also use WiFi to wirelessly connect to JNC's cloud socket or cloud fresh air system for improvement.
- Industrial-grade sensors are accurate in measurement but expensive. Although they are needed for life safety and people's livelihood, they are not affordable for ordinary families. SD is produced with high measurement standards of industrial instruments and can be applied to family life and protection the health and life of your family.
- SD is a DIY gas early warning machine.
- The gas type and value can be displayed, and the measurement type can be selected: TEMP/Humidity/CO2/PM2.5/HCHO/CO/TVOC/O3/PM10/O2 °
- Abnormal buzzer warning and reset button
- The browser can monitor, and it don't need to download App and back-end server.
- It can be used for mobile and continuous monitor.
- The new functions can be quickly upgrade by Wi-Fi.
- Built-in with a rechargeable battery, it lasts for 4 hours
- Applicable places: homes, cars, schools, offices, stations, airports, hospitals, art galleries and other places that require environmental monitoring.

### 2-2 Product Size (mm)



## PART 3.PRODUCT SPECIFICATION

### 3-1 Product Specificalton

| Model               | SD                                                                                                                                                                                                       |                                                           |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Power               | Adapter                                                                                                                                                                                                  | ◆AC Input : 100~240V(50/60Hz) ◆DC output : 5V, maximum 2A |
|                     | Equipment                                                                                                                                                                                                | ◆DC Input : 5V ◆Power consumption : ≤3W                   |
| Environment         | 0~50℃ · 0%~95%(non-condensing)                                                                                                                                                                           |                                                           |
| Display Panel       | 0.96 inch LCD · Display measurement name,numerical value and unit.                                                                                                                                       |                                                           |
| Communication       | Communication interface                                                                                                                                                                                  | RS-485(Optional Bluetooth communication) · Wi-Fi          |
|                     | Communication protocol                                                                                                                                                                                   | Modbus RTU · Modbus TCP                                   |
| Physical Conditions | Dimension (mm)                                                                                                                                                                                           | 104x135x40 (W x H x D) (UNIT:mm)                          |
|                     | Weight                                                                                                                                                                                                   | 128g                                                      |
|                     | Installation                                                                                                                                                                                             | Wall mounting /Portable /Desktop                          |
| Housing             | Material                                                                                                                                                                                                 | ABS                                                       |
| Certificate         | FCC Part 15:Subpart B Class B CISPR 22:2008 Class B ·<br>EN55022:2010:Class B · EN55032:2012:Class B · EN61326-1:2013 · IEC61000-4-<br>2:2008 ·<br>IEC61000-4-8:2009 · IEC61000-4-3:2006+A1:2007+A2:2010 |                                                           |

## 3-2 SD Measuring Range

| Item detection principle            | Range                     | T90   | Operating Temp | Resolution             |            | Accuracy                              | Environmental equilibrium time |
|-------------------------------------|---------------------------|-------|----------------|------------------------|------------|---------------------------------------|--------------------------------|
| Temp<br>(Resistance)                | -40~125°C                 | <60S  | -20~60°C       | 0.1°C                  |            | ±0.4°C                                | 10min                          |
| RH<br>(Capacitive)                  | 0~100%                    | <60S  | -20~60°C       | 0.1%                   |            | ±3%                                   | 10min                          |
| CO <sub>2</sub><br>(Infrared)       | 0~10,000ppm               | <120S | 0~50°C         | 1ppm                   |            | ±30ppm±3% of Reading                  | 10sec                          |
| PM2.5<br>(Laser)                    | 0~1000µg / m <sup>3</sup> | <90S  | -10~65°C       | 0.1µg / m <sup>3</sup> |            | ±10µg / m <sup>3</sup> ±5% of Reading | 5min                           |
| HCHO<br>(Electrochemical)           | 0.01~2.00ppm              | <120S | -10~50°C       | 0.01ppm                |            | ≤±0.02ppm±2% of Reading               | 10min                          |
| CO<br>(Electrochemical)             | 0~100ppm                  | <180S | 0~50°C         | 0.1ppm                 |            | ±5ppm                                 | 10min                          |
| TVOC<br>(Semiconductor)             | 0~60ppm                   | <90 S | 0~40°C         | Range                  | Resolution | ±10%                                  | 5min                           |
|                                     |                           |       |                | <2.008ppm              | 1ppb       |                                       |                                |
|                                     |                           |       |                | <11.11ppm              | 6ppb       |                                       |                                |
|                                     |                           |       |                | <60ppm                 | 32ppb      |                                       |                                |
| O <sub>3</sub><br>(Semiconductor)   | 0.01~2.00ppm              | <120S | 0~40°C         | 0.01ppm                |            | ±10%                                  | 10min                          |
| PM10<br>(Algorithm)                 | 0~1200µg / m <sup>3</sup> | <90S  | -10~65°C       | 0.1µg / m <sup>3</sup> |            | ±10µg / m <sup>3</sup> ±5% of Reading | 5min                           |
| O <sub>2</sub><br>(Electrochemical) | 0-30%                     | <60S  | -10~55°C       | 0.05%                  |            | ±1% of Reading                        | 5min                           |

|                                            |          |       |          |         |      |       |
|--------------------------------------------|----------|-------|----------|---------|------|-------|
| <b>NH<sub>3</sub></b><br>(Electrochemical) | 0-100ppm | <60S  | -10~50°C | 0.01ppm | ±2%  | 5min  |
| <b>H<sub>2</sub>S</b><br>(Electrochemical) | 0~100ppm | <60S  | -10~50°C | 0.01ppm | ±2%  | 5min  |
| <b>NO<sub>2</sub></b><br>(Electrochemical) | 0-20ppm  | <60S  | -0~50°C  | 0.01ppm | ±2%  | 5min  |
| <b>SO<sub>2</sub></b><br>(Electrochemical) | 0-20ppm  | <60S  | -0~50°C  | 0.01ppm | ±2%  | 5min  |
| <b>CH<sub>4</sub></b><br>(Semiconductor)   | 0-100ppm | <90 S | 0°C~40°C | 0.1ppm  | ±10% | 10min |

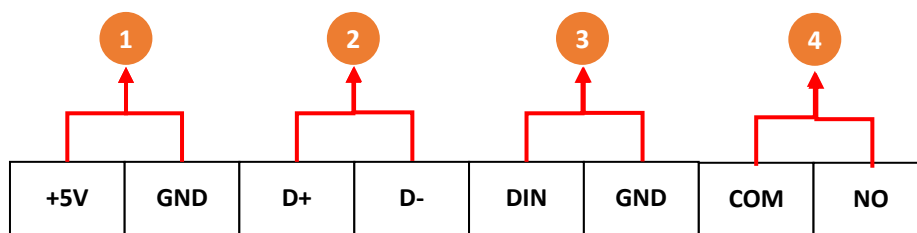
## PART 4.PRODUCT ILLUSTRATE

### 4-1 Equipment Component Location Description



| Code | Name/icon         | Function Description                                                                                                                                                                                                                |
|------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | Channel value     | Display current instant time value                                                                                                                                                                                                  |
| 2    | Button            | Press and hold to view IP and current firmware version<br>※If you continue to press and hold for 10 seconds when turning on the equipment, the system will initialize and the SD will be restored to the original factory settings. |
| 3    | Switch            | Switch                                                                                                                                                                                                                              |
| 4    | Wall hanging hole | Wall mounting fixing holes                                                                                                                                                                                                          |
| 5    | Power outlet      | Use 5V power supply and Micro USB jack                                                                                                                                                                                              |
| 6    | Fixing bracket    | Fixed tripod                                                                                                                                                                                                                        |

### 4-2 Wiring Instructions



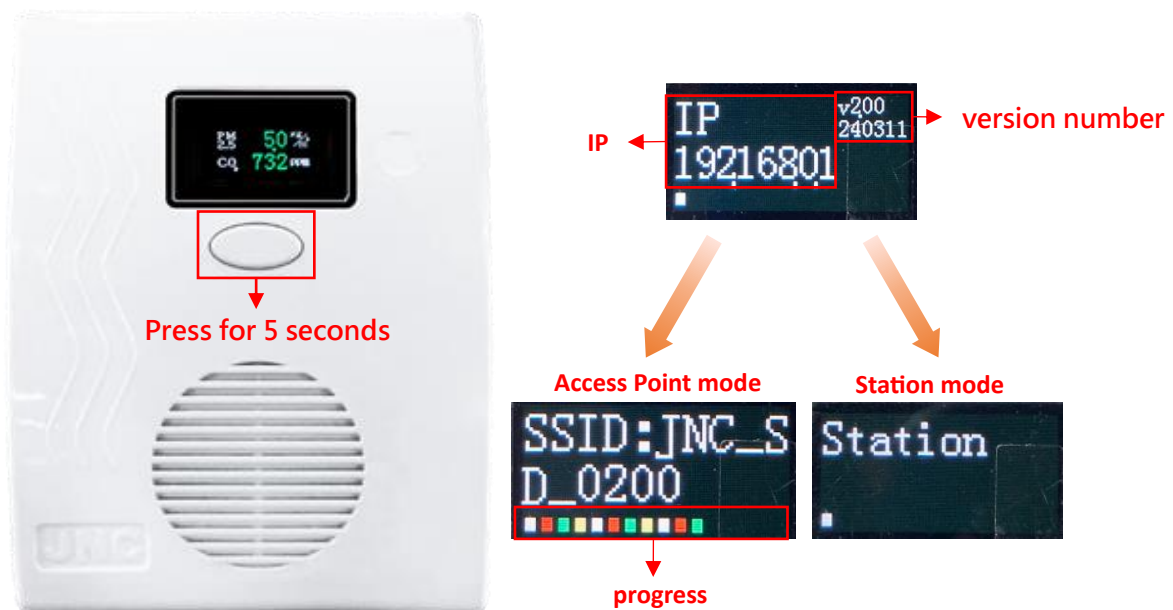
| Code | Name/icon | Function Description |
|------|-----------|----------------------|
| 1    | +5V/GND   | Power 5VDC           |
| 2    | D+/D-     | RS-485 communication |
| 3    | DIN/GND   | DI input             |
| 4    | COM/NO    | Relay                |

## PART 5.WEB SERVICE INSTRUCTIONS

### 5-1 Open the SD web page

#### 5-1-1 View IP, version number and Wi-Fi mode

Press and hold the center button for 5 seconds and release



#### Switch back to Access Point mode

- Access Point mode (default)
- Station mode

※If it is in Station mode, please follow the steps below to temporarily switch back to Access Point mode.

1. Turn off the SD power.
  2. Press and hold the center button and turn on the power.
  3. When the screen lights up (about 5 seconds), release the center button.
    - ※ If you continue to press and hold for 10 seconds, the progress bar will be full, the system will initialize, and the SD will be restored to the original factory settings.
  4. After the SD starts, you can check the IP again.
- ※ If you restart without changing the settings, the SD will return to Station mode.

## 5-1-2 Search for SD Wi-Fi and connect

※ Wi-Fi default is: JNC\_SD\_XXXX

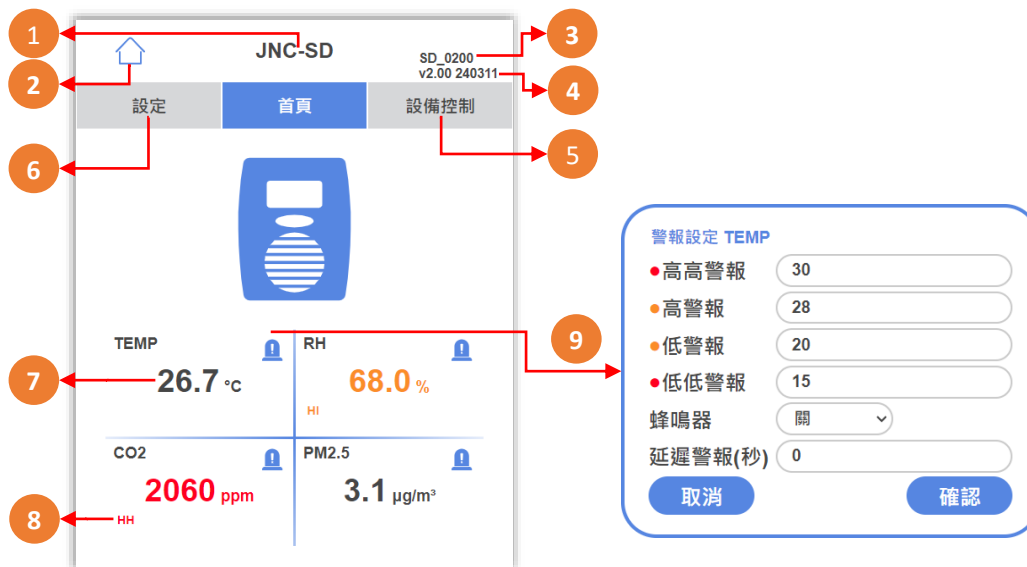


## 5-1-3 Enter the SD IP in the browser to open the SD homepage

※ IP default is: 192.168.0.1

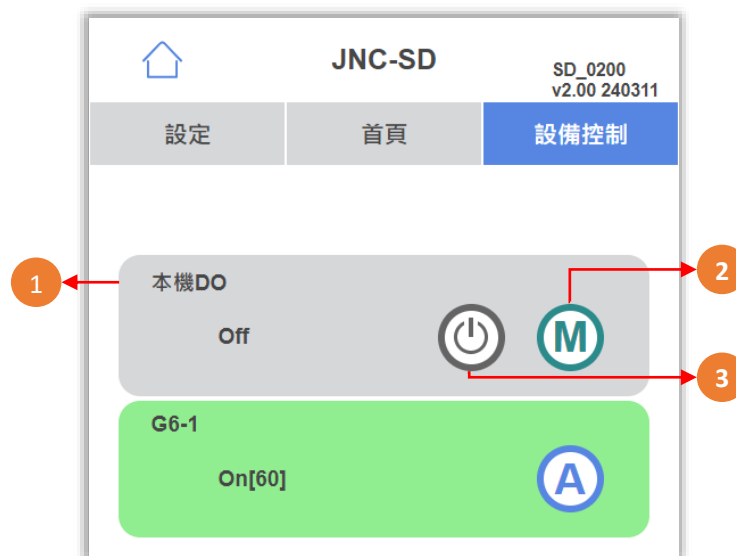


## 5-2 Front page



| Code | Name/icon           | Function Description                                                                                                     |
|------|---------------------|--------------------------------------------------------------------------------------------------------------------------|
| 1    | Name                | SD device custom name.                                                                                                   |
| 2    | Return to home page | Return to the SD web page home page.                                                                                     |
| 3    | Serial number       | SD device serial number.                                                                                                 |
| 4    | Version number      | SD device version number.                                                                                                |
| 5    | Equipment control   | Control and view the switch status of the SD device's local DO (digital output) and external device DO (digital output). |
| 6    | Settings            | Basic, IP, Wifi, Control, Communication, Screen, Inverses, Calibration settings.                                         |
| 7    | Instant value       | Displays the instant time value of the optional sensor.                                                                  |
| 8    | Alarm status        | HH(High High Alarm)/HI(High Alarm)/LO(Low Alarm)/LL(Low Low Alarm) °                                                     |
| 9    | Alarm settings      | Set optional sensor alarm thresholds.                                                                                    |

## 5-3 Equipment control



| Code | Name/icon                  | Function Description                                                                                                     |
|------|----------------------------|--------------------------------------------------------------------------------------------------------------------------|
| 1    | DO status                  | Control and view the switch status of the SD device's local DO (digital output) and external device DO (digital output). |
| 2    | Manual automatic switching | Switch DO (digital output) control mode: M (manual)/A (automatic).                                                       |
| 3    | Manual switch              | DO (digital output) manual control: on/off.                                                                              |

## 5-4 Settings



| Code | Name/icon              | Function Description                                                                                                                                                                                           |
|------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | Basic settings         | Set a custom name for the SD device and display it at the top of the web page.<br>Set a password to prevent unauthorized persons from changing settings.                                                       |
| 2    | IP settings            | Set the SD device IP address.                                                                                                                                                                                  |
| 3    | Wifi settings          | To set the Wi-Fi mode, you can select Access Point or Station: <ul style="list-style-type: none"> <li>● Access Point:SD has Wifi and can be connected</li> <li>● Station: SD connect to Wifi device</li> </ul> |
| 4    | Control settings       | Set the SD device local DO (digital output) and external device DO (digital output) control.                                                                                                                   |
| 5    | Communication settings | Set Modbus, G6/H6 voltage.                                                                                                                                                                                     |
| 6    | Screen settings        | Set the SD screen channel display order and switching interval.                                                                                                                                                |
| 7    | Inverses               | You can set the address where data is sent to the JNC cloud platform.                                                                                                                                          |
| 8    | Calibration settings   | Manually calibrate instant time values based on selected sensor.                                                                                                                                               |

## 5-5 Basic Settings

← 返回

基本設定

—名稱設定—

1 ← 設備名稱 JNC-SD 設定

—密碼設定—

2 ← 啟用 ☐

3 ← 新密碼

4 ← 確認密碼

設定

| Code | Name/icon        | Function Description                                                                |
|------|------------------|-------------------------------------------------------------------------------------|
| 1    | Device name      | Set a custom name for the SD device and display it at the top of the web page.      |
| 2    | Enable           | Enable the password feature to prevent unauthorized persons from changing settings. |
| 3    | New Password     | Enter new password.                                                                 |
| 4    | Confirm Password | Confirm password again.                                                             |

## 5-6 IP Settings

The screenshot displays the 'IP 設定' (IP Settings) interface. It features a 'Return' button at the top left. The interface is divided into two main sections: 'Access Point' and 'Station'. The 'Access Point' section includes fields for IP (192.168.0.1), Mask (255.255.255.0), Starting address (192.168.0.100), and End address (192.168.0.254). The 'Station' section includes fields for Connection type (STATIC), IP (192.168.5.197), Mask (255.255.240.0), Gateway (192.168.0.253), and Dns (8.8.8.8). A 'Mac' field with the value F0:45:DA:EB:02:00 is also present. A red arrow points from the 'Mac' field to the 'Station' section.

| Code | Category         | Name/icon              | Function Description |
|------|------------------|------------------------|----------------------|
| 1    | Access Point     | Access Point Mode IP ◦ |                      |
| 2    |                  | IP                     | SD device IP address |
| 3    |                  | Mask                   | Subnet mask          |
| 4    |                  | Starting address       | IP starting address  |
| 5    |                  | End address            | IP end address       |
| 6    | Station          | Station Mode IP ◦      |                      |
| 7    |                  | Connection type        | DHCP/STATIC ◦        |
| 8    |                  | IP                     | IP address           |
| 9    |                  | Mask                   | Subnet mask          |
| 10   |                  | Gateway                | Default gateway      |
| 11   |                  | Dns                    | DNS server           |
| 12   | Address settings | Mac                    | SD Mac code          |

- Access Point mode: Allows the SD device to act like a wireless network base station, allowing other devices (such as mobile phones) to connect to your SD device to use the network.
- Station mode: Allows the SD device to bridge to other wireless networks (such as school Wi-Fi) like a mobile phone or computer, allowing the SD device to enter the local network.

## 5-7 Wifi Settings

### 5-7-1 Access Point Mode

[< 返回](#)



WiFi 設定

模式種類

網路名稱  
SSID

密碼

加密格式

Access Point

SD有Wifi可被連接

JNC\_SD\_0200

abcd1234

WPA/WPA2

設定

| Code | Name/icon         | Function Description                                                                                                                                                                       |
|------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | Mode type         | You can choose Access Point or Station: <ul style="list-style-type: none"> <li>● Access Point: SD has Wifi and can be connected</li> <li>● Station: SD connected to Wifi device</li> </ul> |
| 2    | Network name SSID | Set the Wi-Fi name of the SD device                                                                                                                                                        |
| 3    | Password          | Set the Wi-Fi password of the SD device                                                                                                                                                    |
| 4    | Encryption        | Set the SD device's Wi-Fi encryption settings (Open, WEP, WPA, WPA/WPA2).                                                                                                                  |

## 5-7-2 Station Mode

WiFi 設定

模式種類: Station

SD 連接到 Wifi 設備上

網路名稱 SSID: OfficeWiFi

密碼: .....

加密方式: WPA/WPA2

設定

| 選擇                               | SSID       | 加密模式     | 訊號 |
|----------------------------------|------------|----------|----|
| <input checked="" type="radio"/> | OfficeWiFi | WPA/WPA2 | 4  |
| <input type="radio"/>            | Hotspot    | Open     | 1  |
| <input type="radio"/>            | GuestWiFi  | WPA/WPA2 | 2  |

取消 確定

| Code | Name/icon         | Function Description                                                                                                                                                                   |
|------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | Mode type         | You can choose Access Point or Station: <ul style="list-style-type: none"> <li>Access Point: SD has Wifi and can be connected</li> <li>Station: SD connected to Wifi device</li> </ul> |
| 2    | Network name SSID | The name of the Wi-Fi the SD device wants to bridge to.                                                                                                                                |
| 3    | Scanning          | Scan surrounding Wi-Fi. After selecting OK, the network name SSID and encryption method will be automatically brought in.                                                              |
| 4    | Password          | The Wi-Fi password the SD device wants to bridge to.                                                                                                                                   |
| 5    | Encryption        | Wi-Fi encryption settings (Open, WEP, WPA, WPA/WPA2) to which the SD device is to be bridged.                                                                                          |

※If the device bridge fails and cannot be connected again, it must be [switched back to Access Point mode](#).

## 5-8 Control settings

控制設定

設備

G6-1

功能設定

啟用

☒

連線種類

Rtu

站號

1

設備名稱

G6-1

設備種類

G6C

按鈕控制

開

控制設定

TEMP

RH

CO2

PM2.5

控制邏輯

大於關閉數值後緩開

最大開度

強 (High)

關閉延遲(秒)

0

確認

TEMP

啟用

☒

全開數值

30

關閉數值

25

取消

確認

| Code | Name/icon        | Function Description                                                                                                                                                                                                                                   |
|------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | Equipment        | Set four groups of external device DO (digital output) and one group of local DO (digital output).                                                                                                                                                     |
| 2    | Enable           | Select whether to enable the selected DO (digital output) control.                                                                                                                                                                                     |
| 3    | Connection type  | The connection type can be Modbus Rtu/Tcp.                                                                                                                                                                                                             |
| 4    | Station No       | Set the Modbus Rtu station number (ID, address) of the external device.                                                                                                                                                                                |
| 5    | IP               | Set the Modbus Tcp IP of the external device.                                                                                                                                                                                                          |
| 6    | Device name      | Customize the external device DO (digital output) name.                                                                                                                                                                                                |
| 7    | Equipment type   | Select the control type (socket switch control/socket opening control/haze removal full heat exchanger switch control/haze removal full heat exchanger opening control/G6S-bt/G6C/DC480), and select haze removal full heat exchanger opening control. |
| 8    | Control settings | Set whether the external device enables the selected sensor in automatic mode, and the sensor's full on and off values.                                                                                                                                |
| 9    | Maximum opening  | To control the maximum opening, only socket opening control, haze removal full heat exchanger opening control, G6S-bt, G6C, DC480 and other devices have this function.                                                                                |

## 5-9 Communication Settings

[< 返回](#)



鮑率

設定

— Modbus 設定 —

站號

TCP(server) ☒

CRC 啟用

設定

— G6 / H6 輸出 (0 ~ 10 伏特) —

弱

中

強

恢復原廠設定

設定

| Code | Name/icon                     | Function Description                      |
|------|-------------------------------|-------------------------------------------|
| 1    | Baud rate                     | RS485 transmission rate (Baud rate).      |
| 2    | Station No                    | SD's Modbus station number (ID, address). |
| 3    | TCP(server) CRC enabled       | Modbus TCP plus CRC protection.           |
| 4    | G6 / H6 output (0 ~ 10 volts) | G6/H6 output voltage setting.             |

## 5-10 Display Settings

[< 返回](#)



螢幕設定

顯示數量

頻道1

頻道2

頻道3

頻道4

切換時間(秒)

| Code | Name/icon                | Function Description                                   |
|------|--------------------------|--------------------------------------------------------|
| 1    | Display quantity         | SD screen channel shows the number.                    |
| 2    | Channel 1~4              | The SD screen shows the sensor sequence.               |
| 3    | Switching time (seconds) | The SD screen displays the channel switching interval. |

## 5-11 Inverses

[< 返回](#)



Inverse

啟用 ☐

Addr

Port

| Code | Name/icon | Function Description                                                  |
|------|-----------|-----------------------------------------------------------------------|
| 1    | Enable    | You can set the address where data is sent to the JNC cloud platform. |
| 2    | Addr      | JNC cloud platform address.                                           |
| 3    | Port      | JNC cloud platform connection port.                                   |

## 5-12 Calibration Settings

◀ 返回

校正設定

頻道TEMP  
即時值26.9 °C

手動校正

增益值1  
偏移量0

設定

五段校正

| No. | 起始值 | 結束值 | 增益值 | 偏移量 |
|-----|-----|-----|-----|-----|
| 1   |     |     | 1   | 0   |
| 2   |     |     | 1   | 0   |
| 3   |     |     | 1   | 0   |
| 4   |     |     | 1   | 0   |
| 5   |     |     | 1   | 0   |

設定

高低點校正

低點校正  
高點校正

| Code | Name/icon            | Function Description                                                         |
|------|----------------------|------------------------------------------------------------------------------|
| 1    | Channel              | You can select the sensor channel to be calibrated.                          |
| 2    | Instant value        | Displays the instant time value of the sensor.                               |
| 3    | Gain value           | Make calibration by multiplying.                                             |
| 4    | Offset               | Make calibration in an additive manner.                                      |
| 5    | Five-step correction | The sensing value curve is corrected with fifth-order gain value and offset. |
| 6    | Lows                 | The sensor is low-point calibrated to a known standard.                      |
| 7    | High Point           | The sensor is high-point calibrated to a known standard.                     |

## PART 6.MODBUS COMMUNICATION PROTOCOL FORMAT

### DESCRIPTION

#### 6-1 、INT16 Read Instant Value (Function 04)

| Protocol format description |                          |          |                   |      |                       |       |             |      |
|-----------------------------|--------------------------|----------|-------------------|------|-----------------------|-------|-------------|------|
|                             | Equipment station number | Function | Starting address  |      | Number of data (Word) |       | 16 CRC code |      |
| Host command                | Address                  | 0x04     | 0x00              | 0x01 | 0x00                  | 0x01  | CRC0        | CRC1 |
|                             | Equipment station number | Function | Data bytes        |      | Sensor data           |       | 16 CRC code |      |
| Reply from machine          | Address                  | 0x04     | Number of data *2 |      | ByteL                 | ByteH | CRC0        | CRC1 |

#### Communication Examples:

| Protocol format description |                          |          |                  |      |                       |      |             |      |
|-----------------------------|--------------------------|----------|------------------|------|-----------------------|------|-------------|------|
|                             | Equipment station number | Function | Starting address |      | Number of data (Word) |      | 16 CRC code |      |
| Host command                | 0x01                     | 0x04     | 0x00             | 0x01 | 0x00                  | 0x01 | 0x60        | 0x0A |
|                             | Equipment station number | Function | Data bytes       |      | Sensor data           |      | 16 CRC code |      |
| Reply from machine          | 0x01                     | 0x04     | 0x02             |      | 0x02                  | 0x8F | 0xF8        | 0xD5 |

Convert the sensor data bit 0x028F (hexadecimal) to decimal format to be

655. Since Value/10, the real-time value of humidity (RH) is 655/10=65.5%.

## 6-2 、Float Read Instant Value (Function 04)

| Protocol format description |                          |          |                   |      |                       |       |             |      |
|-----------------------------|--------------------------|----------|-------------------|------|-----------------------|-------|-------------|------|
|                             | Equipment station number | Function | Starting address  |      | Number of data (Word) |       | 16 CRC code |      |
| Host command                | Address                  | 0x04     | 0x10              | 0x02 | 0x00                  | 0x02  | CRC0        | CRC1 |
|                             | Equipment station number | Function | Data bytes        |      | Sensor data           |       | 16 CRC code |      |
| Reply from machine          | Address                  | 0x04     | Number of data *2 |      | ByteL                 | ByteH | CRC0        | CRC1 |

## Communication Examples:

| Protocol format description |                          |          |                  |      |                       |      |           |             |      |
|-----------------------------|--------------------------|----------|------------------|------|-----------------------|------|-----------|-------------|------|
|                             | Equipment station number | Function | Starting address |      | Number of data (Word) |      |           | 16 CRC code |      |
| Host command                | 0x01                     | 0x04     | 0x10             | 0x02 | 0x00                  |      | 0x02      | 0xD1        | 0xE3 |
|                             | Equipment station number | Function | Data bytes       |      | Sensor data           |      |           | 16 CRC code |      |
| Reply from machine          | 0x01                     | 0x04     | 0x04             |      | 0x28                  | 0xF6 | 0x42<br>3 | 0xE6        | 0x7D |

In the slave reply, you can see that the "sensor data" is 0x28F6 4283. Replace the low word "42 83" to the front and the high word "28 F6" to the back, then it will be "42 83 28 F6", and then directly Convert Float to 65.58, and the instant value of humidity (RH) is 65.58%.

Please refer to the online conversion tool :

<https://gregstoll.com/~gregstoll/floattohex/>

## PART 7.Modbus Table

### 7-1 Modbus Table of instant time values

| Function 04 to Read |           |                                          |       |     |                                                                                                     |
|---------------------|-----------|------------------------------------------|-------|-----|-----------------------------------------------------------------------------------------------------|
| Address             | Set value | Item                                     | Type  | R/W | Remarks                                                                                             |
| 0x0000              | 300001    | Channel 1 instant value (Value/10)       | INT16 | R   | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0001              | 300002    | Channel 2 instant value (Value/10)       | INT16 | R   | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0002              | 300003    | Channel 3 instant value (Value/10)       | INT16 | R   | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0003              | 300004    | Channel 4 instant value (Value/10)       | INT16 | R   | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0004              | 300005    | Channel 5 instant value (Value/10)       | INT16 | R   | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0005              | 300006    | Channel 6 instant value (Value/10)       | INT16 | R   | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0006              | 300007    | Channel 7 instant value (Value/10)       | INT16 | R   | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0007              | 300008    | Channel 8 instant value (Value/10)       | INT16 | R   | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0008              | 300009    | Channel 1 Alarm Status                   | INT16 | R   |                                                                                                     |
| 0x0009              | 300010    | Channel 2 Alarm Status                   | INT16 | R   |                                                                                                     |
| 0x000A              | 300011    | Channel 3 Alarm Status                   | INT16 | R   |                                                                                                     |
| 0x000B              | 300012    | Channel 4 Alarm Status                   | INT16 | R   |                                                                                                     |
| 0x000C              | 300013    | Channel 5 Alarm Status                   | INT16 | R   |                                                                                                     |
| 0x000D              | 300014    | Channel 6 Alarm Status                   | INT16 | R   |                                                                                                     |
| 0x000E              | 300015    | Channel 7 Alarm Status                   | INT16 | R   |                                                                                                     |
| 0x000F              | 300016    | Channel 8 Alarm Status                   | INT16 | R   |                                                                                                     |
| 0x0010              | 300017    | Channel 1 instant value (Float low word) | FLOAT | R   | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0011              | 300018    | Channel 1 instant value (Float high)     | FLOAT | R   | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |

|        |        | word)                                     |       |   |                                                                                                     |
|--------|--------|-------------------------------------------|-------|---|-----------------------------------------------------------------------------------------------------|
| 0x0012 | 300019 | Channel 2 instant value (Float low word)  | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0013 | 300020 | Channel 2 instant value (Float high word) | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0014 | 300021 | Channel 3 instant value (Float low word)  | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0015 | 300022 | Channel 3 instant value (Float high word) | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0016 | 300023 | Channel 4 instant value (Float low word)  | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0017 | 300024 | Channel 4 instant value (Float high word) | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0018 | 300025 | Channel 5 instant value (Float low word)  | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0019 | 300026 | Channel 5 instant value (Float high word) | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x001A | 300027 | Channel 6 instant value (Float low word)  | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x001B | 300028 | Channel 6 instant value (Float high word) | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x001C | 300029 | Channel 7 instant value (Float low word)  | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x001D | 300030 | Channel 7 instant value (Float high word) | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x001E | 300031 | Channel 8 instant value (Float low word)  | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x001F | 300032 | Channel 8 instant value (Float high word) | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0030 | 300049 | Temperature instant value (Value/10)      | INT16 | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0031 | 300050 | Humidity instant value (Value/10)         | INT16 | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0032 | 300051 | CO <sub>2</sub> instant value (Value/10)  | INT16 | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |

|        |        |                                                    |       |   |                                                                                                     |
|--------|--------|----------------------------------------------------|-------|---|-----------------------------------------------------------------------------------------------------|
| 0x0033 | 300052 | PM2.5 instant value<br>(Value/10)                  | INT16 | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0034 | 300053 | HCHO instant value<br>(Value/10)                   | INT16 | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0035 | 300054 | CO instant value<br>(Value/10)                     | INT16 | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0036 | 300055 | TVOC instant value<br>(Value/10)                   | INT16 | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0037 | 300056 | O <sub>3</sub> instant value<br>(Value/10)         | INT16 | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0038 | 300057 | PM10 instant value<br>(Value/10)                   | INT16 | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0039 | 300058 | O <sub>2</sub> instant value<br>(Value/10)         | INT16 | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x003A | 300059 | NH <sub>3</sub> instant value<br>(Value/10)        | INT16 | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x003B | 300060 | H <sub>2</sub> S instant value<br>(Value/10)       | INT16 | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x003C | 300061 | NO <sub>2</sub> instant value<br>(Value/10)        | INT16 | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x003D | 300062 | SO <sub>2</sub> instant value<br>(Value/10)        | INT16 | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0080 | 300129 | Temp. instant value<br>(Float low word)            | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0081 | 300130 | Temp. instant value<br>(Float high word)           | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0082 | 300131 | Humidity instant value<br>(Float low word)         | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0083 | 300132 | Humidity instant value<br>(Float high word)        | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0084 | 300133 | CO <sub>2</sub> instant value<br>(Float low word)  | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0085 | 300134 | CO <sub>2</sub> instant value<br>(Float high word) | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0086 | 300135 | PM2.5 instant value<br>(Float low word)            | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0087 | 300136 | PM2.5 instant value                                | FLOAT | R | The returned value -999 (0xFC19) indicates that the                                                 |

|        |        |                                                     |       |   |                                                                                                     |
|--------|--------|-----------------------------------------------------|-------|---|-----------------------------------------------------------------------------------------------------|
|        |        | (Float high word)                                   |       |   | sensor is warming up or the sensor is abnormal.                                                     |
| 0x0088 | 300137 | HCHO instant value<br>(Float low word)              | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0089 | 300138 | HCHO instant value<br>(Float high word)             | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x008A | 300139 | CO instant value<br>(Float low word)                | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x008B | 300140 | CO instant value<br>(Float high word)               | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x008C | 300141 | TVOC instant value<br>(Float low word)              | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x008D | 300142 | TVOC instant value<br>(Float high word)             | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x008E | 300143 | O <sub>3</sub> instant value<br>(Float low word)    | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x008F | 300144 | O <sub>3</sub> instant value<br>(Float high word)   | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0090 | 300145 | PM10 instant value<br>(Float low word)              | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0091 | 300146 | PM10 instant value<br>(Float high word)             | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0092 | 300147 | O <sub>2</sub> instant value<br>(Float low word)    | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0093 | 300148 | O <sub>2</sub> instant value<br>(Float high word)   | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0094 | 300149 | NH <sub>3</sub> instant value<br>(Float low word)   | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0095 | 300150 | NH <sub>3</sub> instant value<br>(Float high word)  | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0096 | 300151 | H <sub>2</sub> S instant value<br>(Float low word)  | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0097 | 300152 | H <sub>2</sub> S instant value<br>(Float high word) | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0098 | 300153 | NO <sub>2</sub> instant value<br>(Float low word)   | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x0099 | 300154 | NO <sub>2</sub> instant value<br>(Float high word)  | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |

|        |        |                                                    |       |   |                                                                                                     |
|--------|--------|----------------------------------------------------|-------|---|-----------------------------------------------------------------------------------------------------|
| 0x009A | 300155 | SO <sub>2</sub> instant value<br>(Float low word)  | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x009B | 300156 | SO <sub>2</sub> instant value<br>(Float high word) | FLOAT | R | The returned value -999 (0xFC19) indicates that the sensor is warming up or the sensor is abnormal. |
| 0x00FE | 300255 | Device power-on time<br>(Long low word)            | INT32 | R |                                                                                                     |
| 0x00FF | 300256 | Device power-on time<br>(Long high word)           | INT32 | R |                                                                                                     |

## Function 03 to Read/Function 06 to write

| Address | Set value | Item                                       | Type   | R/W | Remarks |
|---------|-----------|--------------------------------------------|--------|-----|---------|
| 0x0000  | 400001    | Name                                       | UINT16 | R   |         |
| 0x0001  | 400002    | Name                                       | UINT16 | R   |         |
| 0x0002  | 400003    | Name                                       | UINT16 | R   |         |
| 0x0003  | 400004    | Version                                    | UINT16 | R   |         |
| 0x0004  | 400005    | AI Number of channels                      | UINT16 | R/W |         |
| 0x0005  | 400006    | DO Number of channels                      | UINT16 | R/W |         |
| 0x0010  | 400017    | Station No                                 | UINT16 | R/W |         |
| 0x0011  | 400018    | Baud rate                                  | UINT16 | R/W |         |
| 0x0012  | 400019    | Native DO manual automatic                 | UINT16 | R/W |         |
| 0x0013  | 400020    | LED display interval                       | INT16  | R/W |         |
| 0x0014  | 400021    | Wifi restart interval<br>(Float high word) | FLOAT  | R/W |         |
| 0x0015  | 400022    | Wifi restart interval<br>(Float low word)  | FLOAT  | R/W |         |
| 0x0016  | 400023    | Wifi Connection type                       | UINT16 | R/W |         |
| 0x0017  | 400024    | Wifi IP                                    | UINT16 | R/W |         |
| 0x0018  | 400025    | Wifi Ip                                    | UINT16 | R/W |         |
| 0x0019  | 400026    | Wifi IP                                    | UINT16 | R/W |         |
| 0x001A  | 400027    | Wifi IP                                    | UINT16 | R/W |         |
| 0x001B  | 400028    | Wifi Mask                                  | UINT16 | R/W |         |
| 0x001C  | 400029    | Wifi Mask                                  | UINT16 | R/W |         |
| 0x001D  | 400030    | Wifi Mask                                  | UINT16 | R/W |         |
| 0x001E  | 400031    | Wifi Mask                                  | UINT16 | R/W |         |
| 0x001F  | 400032    | Wifi Gateway                               | UINT16 | R/W |         |
| 0x0020  | 400033    | Wifi Gateway                               | UINT16 | R/W |         |

|        |        |                   |        |     |                                |
|--------|--------|-------------------|--------|-----|--------------------------------|
| 0x0021 | 400034 | Wifi Gateway      | UINT16 | R/W |                                |
| 0x0022 | 400035 | Wifi Gateway      | UINT16 | R/W |                                |
| 0x0023 | 400036 | Wifi Mac          | UINT16 | R/W |                                |
| 0x0024 | 400037 | Wifi Mac          | UINT16 | R/W |                                |
| 0x0025 | 400038 | Wifi Mac          | UINT16 | R/W |                                |
| 0x0026 | 400039 | Wifi Mac          | UINT16 | R/W |                                |
| 0x0027 | 400040 | Wifi Mac          | UINT16 | R/W |                                |
| 0x0028 | 400041 | Wifi Mac          | UINT16 | R/W |                                |
| 0x0040 | 400065 | SD system name1   | UINT16 | R/W |                                |
| 0x0041 | 400066 | SD system name 2  | UINT16 | R/W |                                |
| 0x0042 | 400067 | SD system name 3  | UINT16 | R/W |                                |
| 0x0043 | 400068 | SD system name 4  | UINT16 | R/W |                                |
| 0x0044 | 400069 | SD system name 5  | UINT16 | R/W |                                |
| 0x0045 | 400070 | SD system name 6  | UINT16 | R/W |                                |
| 0x0046 | 400071 | SD system name 7  | UINT16 | R/W |                                |
| 0x0047 | 400072 | SD system name 8  | UINT16 | R/W |                                |
| 0x0048 | 400073 | SD system name 9  | UINT16 | R/W |                                |
| 0x0049 | 400074 | SD system name 10 | UINT16 | R/W |                                |
| 0x004A | 400075 | SD system name 11 | UINT16 | R/W |                                |
| 0x004B | 400076 | SD system name 12 | UINT16 | R/W |                                |
| 0x004C | 400077 | SD system name 13 | UINT16 | R/W |                                |
| 0x004D | 400078 | SD system name 14 | UINT16 | R/W |                                |
| 0x004E | 400079 | SD system name 15 | UINT16 | R/W |                                |
| 0x004F | 400080 | SD system name 16 | UINT16 | R/W |                                |
| 0x0050 | 400081 | SD MAC name 1     | UINT16 | R/W | Format 0xAABB<br>AA=2 · BB=1   |
| 0x0051 | 400082 | SD MAC name 2     | UINT16 | R/W | Format 0xAABB<br>AA=4 · BB=3   |
| 0x0052 | 400083 | SD MAC name 3     | UINT16 | R/W | Format 0xAABB<br>AA=6 · BB=5   |
| 0x0053 | 400084 | SD MAC name 4     | UINT16 | R/W | Format 0xAABB<br>AA=8 · BB=7   |
| 0x0054 | 400085 | SD MAC name 5     | UINT16 | R/W | Format 0xAABB<br>AA=10 · BB=9  |
| 0x0055 | 400086 | SD MAC name 6     | UINT16 | R/W | Format 0xAABB<br>AA=12 · BB=11 |
| 0x0056 | 400087 | SD MAC name 7     | UINT16 | R/W | Format 0xAABB                  |

|        |        |                                                                               |        |     |                                  |
|--------|--------|-------------------------------------------------------------------------------|--------|-----|----------------------------------|
|        |        |                                                                               |        |     | AA=14 · BB=13                    |
| 0x0057 | 400088 | SD MAC name 8                                                                 | UINT16 | R/W | Format 0xAABB<br>AA=16 · BB=15   |
| 0x0058 | 400089 | The local DO corresponds to the AI1 opening value                             | INT16  | R   | Value/(10^AI?.<br>decimal point) |
| 0x0059 | 400090 | The local DO corresponds to the AI2 opening value                             | INT16  | R   | Value/(10^AI?.<br>decimal point) |
| 0x005A | 400091 | The DO of this machine corresponds to the AI3 opening value                   | INT16  | R   | Value/(10^AI?.<br>decimal point) |
| 0x005B | 400092 | The DO of this machine corresponds to the AI4 opening value                   | INT16  | R   | Value/(10^AI?.<br>decimal point) |
| 0x005C | 400093 | The DO of this machine corresponds to the AI1 shutdown value                  | INT16  | R   | Value/(10^AI?.<br>decimal point) |
| 0x005D | 400094 | The DO of this machine corresponds to the AI2 shutdown value                  | INT16  | R   | Value/(10^AI?.<br>decimal point) |
| 0x005E | 400095 | The local DO corresponds to the AI3 closed value                              | INT16  | R   | Value/(10^AI?.<br>decimal point) |
| 0x005F | 400096 | The DO of this machine corresponds to the AI4 closed value                    | INT16  | R   | Value/(10^AI?.<br>decimal point) |
| 0x0060 | 400097 | The local DO corresponds to the AI1 opening value (Float low word)            | FLOAT  | R   |                                  |
| 0x0061 | 400098 | The local DO corresponds to the AI1 opening value (Float high word)           | FLOAT  | R   |                                  |
| 0x0062 | 400099 | The local DO corresponds to the AI2 opening value (Float low word)            | FLOAT  | R   |                                  |
| 0x0063 | 400100 | The local DO corresponds to the AI2 opening value (Float high word)           | FLOAT  | R   |                                  |
| 0x0064 | 400101 | The DO of this machine corresponds to the AI3 opening value (Float low word)  | FLOAT  | R   |                                  |
| 0x0065 | 400102 | The DO of this machine corresponds to the AI3 opening value (Float high word) | FLOAT  | R   |                                  |
| 0x0066 | 400103 | The DO of this machine corresponds to the AI4 opening value (Float low word)  | FLOAT  | R   |                                  |
| 0x0067 | 400104 | The DO of this machine corresponds to the AI4 opening value (Float high word) | FLOAT  | R   |                                  |
| 0x0068 | 400105 | The DO of this machine corresponds to the AI1 shutdown value (Float low word) | FLOAT  | R   |                                  |
| 0x0069 | 400106 | The DO of this machine corresponds to the AI1 shutdown value                  | FLOAT  | R   |                                  |

|        |        | (Float high word)                                                              |        |     |                                       |
|--------|--------|--------------------------------------------------------------------------------|--------|-----|---------------------------------------|
| 0x006A | 400107 | The DO of this machine corresponds to the AI2 shutdown value (Float low word)  | FLOAT  | R   |                                       |
| 0x006B | 400108 | The DO of this machine corresponds to the AI2 shutdown value (Float high word) | FLOAT  | R   |                                       |
| 0x006C | 400109 | The local DO corresponds to the AI3 closed value (Float low word)              | FLOAT  | R   |                                       |
| 0x006D | 400110 | The local DO corresponds to the AI3 closed value (Float high word)             | FLOAT  | R   |                                       |
| 0x006E | 400111 | The DO of this machine corresponds to the AI4 closed value (Float low word)    | FLOAT  | R   |                                       |
| 0x006F | 400112 | The DO of this machine corresponds to the AI4 closed value (Float high word)   | FLOAT  | R   |                                       |
| 0x0101 | 400258 | Unit                                                                           | UINT16 | R/W |                                       |
| 0x0102 | 400259 | type                                                                           | UINT16 | R/W |                                       |
| 0x0103 | 400260 | high high alarm value                                                          | INT16  | R/W | Value/(10 <sup>^</sup> decimal point) |
| 0x0104 | 400261 | high alarm value                                                               | INT16  | R/W | Value/(10 <sup>^</sup> decimal point) |
| 0x0105 | 400262 | low alarm value                                                                | INT16  | R/W | Value/(10 <sup>^</sup> decimal point) |
| 0x0106 | 400263 | low low alarm value                                                            | INT16  | R/W | Value/(10 <sup>^</sup> decimal point) |
| 0x0107 | 400264 | Alert insensible zone                                                          | INT16  | R/W |                                       |
| 0x0108 | 400265 | Alarm delay                                                                    | INT16  | R/W |                                       |
| 0x0109 | 400266 | high high alert Realy                                                          | INT16  | R/W |                                       |
| 0x010A | 400267 | high alert Realy                                                               | INT16  | R/W |                                       |
| 0x010B | 400268 | low alert Realy                                                                | INT16  | R/W |                                       |
| 0x010C | 400269 | low low alert Realy                                                            | INT16  | R/W |                                       |
| 0x010D | 400270 | Gain value                                                                     | INT16  | R/W | Value/(10000)                         |
| 0x010E | 400271 | Offset                                                                         | INT16  | R/W | Value/(10 <sup>^</sup> decimal point) |
| 0x0130 | 400305 | High high point alarm value (Float low word)                                   | FLOAT  | R/W |                                       |
| 0x0131 | 400306 | High high point alarm value (Float high word)                                  | FLOAT  | R/W |                                       |
| 0x0132 | 400307 | high alarm value (Float low word)                                              | FLOAT  | R/W |                                       |
| 0x0133 | 400308 | high alarm value (Float high word)                                             | FLOAT  | R/W |                                       |
| 0x0134 | 400309 | low alarm value (Float low word)                                               | FLOAT  | R/W |                                       |

|        |        |                                                  |       |     |                                                                                                                                                 |
|--------|--------|--------------------------------------------------|-------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------|
| 0x0135 | 400310 | low alarm value (Float high word)                | FLOAT | R/W |                                                                                                                                                 |
| 0x0136 | 400311 | low low alarm value (Float low word)             | FLOAT | R/W |                                                                                                                                                 |
| 0x0137 | 400312 | low low alarm value (Float high word)            | FLOAT | R/W |                                                                                                                                                 |
| 0x0138 | 400313 | Gain value (Float low word)                      | FLOAT | R/W |                                                                                                                                                 |
| 0x0139 | 400314 | Gain value (Float high word)                     | FLOAT | R/W |                                                                                                                                                 |
| 0x013A | 400315 | Offset (Float low word)                          | FLOAT | R/W |                                                                                                                                                 |
| 0x013B | 400316 | Offset (Float high word)                         | FLOAT | R/W |                                                                                                                                                 |
| 0x0170 | 400369 | Maximum original value                           | INT16 | R/W | Value/(10 <sup>^</sup> decimal point)                                                                                                           |
| 0x0171 | 400370 | Minimum original value                           | INT16 | R/W | Value/(10 <sup>^</sup> decimal point)                                                                                                           |
| 0x0172 | 400371 | Corresponding numerical maximum value            | INT16 | R/W | Value/(10 <sup>^</sup> decimal point)                                                                                                           |
| 0x0173 | 400372 | Corresponding numerical minimum                  | INT16 | R/W | Value/(10 <sup>^</sup> decimal point)                                                                                                           |
| 0x1000 | 404097 | DO channel switch                                | INT16 | R/W |                                                                                                                                                 |
| 0x1001 | 404098 | DO channel output                                | INT16 | R/W |                                                                                                                                                 |
| 0x1002 | 404099 | The voltage value output by the fresh air blower | INT16 | R/W | Value/10<br>The following are the preset voltage values for fresh air blower intensity<br>Strong: 7.6V<br>Medium: 6.0V<br>Weak: 4.4V<br>Off: 0V |
| 0x1003 | 404100 | DO channel manual automatic                      | INT16 | R/W |                                                                                                                                                 |
| 0x1004 | 404101 | DO channel output reverse                        | INT16 | R/W |                                                                                                                                                 |
| 0x1005 | 404102 | DO channel controls AI channel                   | INT16 | R/W | 0bit => AI1<br>1bit => AI2<br>2bit => AI3<br>3bit => AI4                                                                                        |
| 0x1010 | 404113 | DO channel opens value for AI1                   | INT16 | R/W | Value/(10 <sup>^</sup> AI1 decimal point)                                                                                                       |
| 0x1011 | 404114 | DO channel close value to AI1                    | INT16 | R/W | Value/(10 <sup>^</sup> AI1 decimal point)                                                                                                       |
| 0x1012 | 404115 | DO channel opening value for AI2                 | INT16 | R/W | Value/(10 <sup>^</sup> AI2 decimal point)                                                                                                       |
| 0x1013 | 404116 | DO channel close value to AI2                    | INT16 | R/W | Value/(10 <sup>^</sup> AI2 decimal point)                                                                                                       |
| 0x1014 | 404117 | DO channel opening value for AI3                 | INT16 | R/W | Value/(10 <sup>^</sup> AI3 decimal point)                                                                                                       |

|        |        |                                                       |       |     |                              |
|--------|--------|-------------------------------------------------------|-------|-----|------------------------------|
| 0x1015 | 404118 | DO channel close value to AI3                         | INT16 | R/W | Value/(10^AI3 decimal point) |
| 0x1016 | 404119 | DO channel opening value for AI4                      | INT16 | R/W | Value/(10^AI4 decimal point) |
| 0x1017 | 404120 | DO channel close value to AI4                         | INT16 | R/W | Value/(10^AI4 decimal point) |
| 0x1020 | 404129 | DO channel opens value for AI1<br>(Float low word)    | FLOAT | R/W |                              |
| 0x1021 | 404130 | DO channel opens value for AI1<br>(Float high word)   | FLOAT | R/W |                              |
| 0x1022 | 404131 | DO channel close value to AI1<br>(Float low word)     | FLOAT | R/W |                              |
| 0x1023 | 404132 | DO channel close value to AI1<br>(Float high word)    | FLOAT | R/W |                              |
| 0x1024 | 404133 | DO channel opening value for AI2<br>(Float low word)  | FLOAT | R/W |                              |
| 0x1025 | 404134 | DO channel opening value for AI2<br>(Float high word) | FLOAT | R/W |                              |
| 0x1026 | 404135 | DO channel close value to AI2<br>(Float low word)     | FLOAT | R/W |                              |
| 0x1027 | 404136 | DO channel close value to AI2<br>(Float high word)    | FLOAT | R/W |                              |
| 0x1028 | 404137 | DO channel opening value for AI3<br>(Float low word)  | FLOAT | R/W |                              |
| 0x1029 | 404138 | DO channel opening value for AI3<br>(Float high word) | FLOAT | R/W |                              |
| 0x102A | 404139 | DO channel close value to AI3<br>(Float low word)     | FLOAT | R/W |                              |
| 0x102B | 404140 | DO channel close value to AI3<br>(Float high word)    | FLOAT | R/W |                              |
| 0x102C | 404141 | DO channel opening value for AI4<br>(Float low word)  | FLOAT | R/W |                              |
| 0x102D | 404142 | DO channel opening value for AI4<br>(Float high word) | FLOAT | R/W |                              |
| 0x102E | 404143 | DO channel close value to AI4<br>(Float low word)     | FLOAT | R/W |                              |
| 0x102F | 404144 | DO channel close value to AI4<br>(Float high word)    | FLOAT | R/W |                              |
| 0x1050 | 404177 | DO channel IP1                                        | INT16 | R/W |                              |
| 0x1051 | 404178 | DO channel IP2                                        | INT16 | R/W |                              |
| 0x1052 | 404179 | DO channel IP3                                        | INT16 | R/W |                              |
| 0x1053 | 404180 | DO channel P4                                         | INT16 | R/W |                              |
| 0x1054 | 404181 | DO channel type                                       | INT16 | R/W |                              |

|        |        |                                  |       |     |  |
|--------|--------|----------------------------------|-------|-----|--|
| 0x1055 | 404182 | DO channel station number        | INT16 | R/W |  |
| 0x1056 | 404183 | DO channel Function              | INT16 | R/W |  |
| 0x1057 | 404184 | DO channel address               | INT16 | R/W |  |
| 0x1058 | 404185 | DO channel read interval         | INT16 | R/W |  |
| 0x1059 | 404186 | DO channel opening command value | INT16 | R/W |  |
| 0x105A | 404187 | DO channel close command value   | INT16 | R/W |  |
| 0x1060 | 404193 | DO channel name 1                | INT16 | R/W |  |
| 0x1061 | 404194 | DO channel name 2                | INT16 | R/W |  |
| 0x1062 | 404195 | DO channel name 3                | INT16 | R/W |  |
| 0x1063 | 404196 | DO channel name 4                | INT16 | R/W |  |
| 0x1064 | 404197 | DO channel name 5                | INT16 | R/W |  |
| 0x1065 | 404198 | DO channel name 6                | INT16 | R/W |  |

### Function 01 to Read/ Function 05 to Write

| Address | Set value | Item                          | Type  | R/W | Remarks |
|---------|-----------|-------------------------------|-------|-----|---------|
| 0x0000  | 000001    | Native DO status              | INT16 | R   |         |
| 0x0001  | 000002    | External DO1 status           | INT16 | R   |         |
| 0x0002  | 000003    | External DO2 status           | INT16 | R   |         |
| 0x0003  | 000004    | External DO3 status           | INT16 | R   |         |
| 0x0004  | 000005    | External DO4 status           | INT16 | R   |         |
| 0x0005  | 000006    | Local buzzer                  | INT16 | R   |         |
| 0x0006  | 000007    | Native DO manual automatic    | INT16 | R   |         |
| 0x0007  | 000008    | External DO1 manual automatic | INT16 | R   |         |
| 0x0008  | 000009    | External DO2 manual automatic | INT16 | R   |         |
| 0x0009  | 000010    | External DO3 manual automatic | INT16 | R   |         |
| 0x000A  | 000011    | External DO4 manual automatic | INT16 | R   |         |

## REVISION HISTORY

| Version | Revision date | Revision description                 | Maintenance person |
|---------|---------------|--------------------------------------|--------------------|
| V1.14   | 2023/09/28    | Update new format.cover.Modbus Table | Xiao Jing zhou     |
| V2.0    | 2024/03/12    | Update SD web page screen            | lis                |
|         |               |                                      |                    |
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