

G6-S controller RS485 protocol

1. Communication interface RS485

Communication serial port configuration: 8 data bits, 1 stop bit, no check, baud rate: 9600bps

Communication protocol: MODBUS RTU

Supported commands: 0X03 0X06 0X10

2. 485 communication protocol

Read single/multiple register data command: 0x03

Host computer sends command format:

Device address code	Function code	Register start address	Number of registers (pcs)	CRC check code
0xXX	0x03	0XXXXX	0XXXXX	0XXXXX

The lower computer (device) response command format:

Device address code	Function code	Data length (bytes)	Register value	CRC checksum
0xXX	0x03	0xXX	0XXXXX.....	0XXXXX

Write single register data command: 0x06

Command format sent by host computer:

Device address code	Function code	Register address	Register value	CRC check code
0xXX	0x06	0XXXXX	0XXXXX	0XXXXX

The lower computer (device) response command format:

Device address code	Function code	Register address	Register value	CRC check code
0xXX	0x06	0XXXXX	0XXXXX	0XXXXX

Write single/multiple register data command: 0x10

Command format sent by the host computer:

Device address code	Function code	Register start address	Number of registers (pcs)	Data length (bytes)	Register value	CRC check code
0xXX	0x10	0XXXXX	0XXXXX	0xXX	0XXXXX... 0XXXXX	0XXXXX

The lower computer (device) response command format:

Device address code	Function code	Register start address	Number of registers (pcs)	CRC check code
0xXX	0x10	0XXXXX	0XXXXX	0XXXXX

Note:

- 1) Data length represents the total number of bytes of valid data in the register, that is: data length = number of registers x 2
- 2) During the communication process, high byte first and low byte last in all data, and low byte first and high byte last in the CRC check.
- 3) Note: The host computer can only read or write the data in the register address in the table below. Please do not read or write the register address data not in the table below.

Register Description:

Register Address	Function	Register Value Range (2 bytes)	Status Description	Attributes	Remarks
0x0000	Fan motor address	0x0000-0x00FF	1-247 address	read	Default 1
0x0001	Indoor PM2.5 value		0-999	read	
0x0002	Indoor CO2 value		0-2000	read	
0x0003	Indoor VOC value		1-99 correspond to 0.1--9.9ppm	read	
0x0004	Indoor temp.		Read temperature value: 0℃~99℃	read	
0x0005	Indoor humidity		read humidity value:0—99%RH	read	
0x0006	reserve	reserve	reserve	read	reserve
0x0007	reserve	reserve	reserve	read	reserve
0x0008	reserve	reserve	reserve	read	reserve
0x0009	Filter working time	0-8640	Hours (hour)	read	
0x000A	Indoor PM10 value		0-999	read	
0x000B	reserve	reserve	reserve	read	
0x000C	reserve	reserve	reserve	read	
0x000D	reserve	reserve	reserve	read	

0x000E	reserve		reserve	read	
0x000F	reserve	reserve	reserve	read	
0x0010	Power on/off	0x0000 0x0001	0x0000 power off 0x0001 power on	read/write	
0x0011	Fan working mode	0x0000 0x0001 0x0002	0x0000 Manual 0x0001 Auto 0x0002 Timing	read/write	
0x0012	Valve	0x0000 0x0001	0x0000 Close valve 0x0001 Open valve	read/write	
0x0013	Fan speed in manual mode	0x0000 0x0001 0x0002 0x0003	0x0000 stop 0x0001 low speed 0x0002 medium speed 0x0003 high speed	read/write	
0x0014	reserve	reserve	reserve	read/write	
0x0015	Clear filter working time	0x5AA5	Data: Write 0x5AA5 to clear the filter working time, others are invalid	write	