

Modbus Address Table

Address	Setting	Item	Type	R/W	Remarks
0x0000	400001	Read the solar radiation value	INT16	R	Function 3 to Read/ Function 6 to write
0x0001	400002	Station number modification method	INT16	W	

Modbus Byte Format Description

INT16 Read real-time values (Function03)

Protocol Format Description								
Definition	Address	Function	Start address		Number of data (Word)		16 CRC Code	
Master Instruction	Address	0x03	0x00	0x00	0x00	0x01	CRC0	CRC1
Definition	Address	Function	Data Bytes		Sensor data		16 CRC Code	
Slave Reply	Address	0x03	Number of data*2		ByteH	ByteL	CRC0	CRC1

Communication examples

Definition	Address	Function	Start address		Number of data (Word)		16 CRC Code	
Master Instruction	0x48	0x03	0x00	0x00	0x00	0x01	0x8A	0x53
Definition	Address	Function	Data Bytes		Sensor data		16 CRC Code	
Slave Reply	0x48	0x03	0x02		0x00	0x26	0x39	0x9E

The sensor measures the data 0x0026 (hexadecimal) and converts it to a decimal format of 38;
Then it means the radiation value is $38W/m^2$

Modbus Example

Address number modification method

For example, setting the address number to 72 (0x48) and changing it to 0x01:

✖After changing the station number, a restart is required

Definition	Address	Function	Start address		Register Value		16 CRC Code	
Master Instruction	0x48	0x10	0x00	0x01	0x00	0x01	0x5E	0x50

Reading radiation values

Definition	Address	Function	Start address		Number of data (Word)		16 CRC Code	
Master Instruction	0x48	0x03	0x00	0x00	0x00	0x01	0x8A	0x53

Definition	Address	Function	Data Bytes	Sensor data		16 CRC Code	
Master Instruction	0x48	0x03	0x02	0x00	0x26	0x39	0x9E

For example, if the measured sensor data 0x0026 (hexadecimal) is converted to a decimal format of 38, it indicates that the radiation value is $38W/m^2$

Troubleshooting

Exception category	Fault cause	Solution
The operation interface cannot be connected or does not display measurement results	Controller and power cord connection error	Reconnect the controller and wires
	Wire	Please contact us