Si-Box Data Collection Box

Weather Station RT1 Configuration Guide



Sineng Electric Co., Ltd.

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BOM:

Revision record

Revised content	Version	Revised by	Date of revision
New	A00	SN02635	2024/06/03

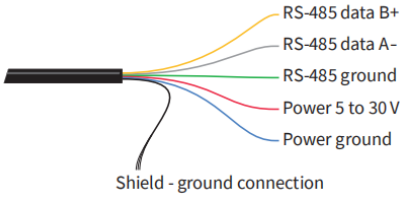
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1. Electrical wiring diagram

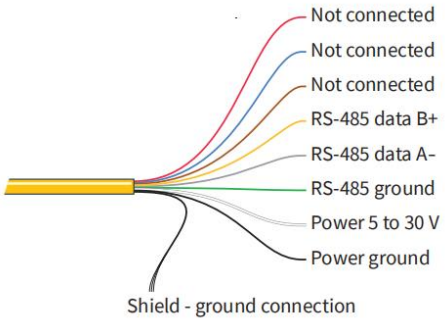
RT1_BY_3

Wire	Function	Connect with
Yellow	Modbus® RS-485	B/B`/+
Grey	Modbus® RS-485	A/A`/-
Green	Modbus® common / Ground	
Red	Power 5 to 30 VDC (12 V recommended) 60 mW max.	
Blue	Power ground	
Shield	Housing	Ground *
* Connect to ground if radiometer not grounded		

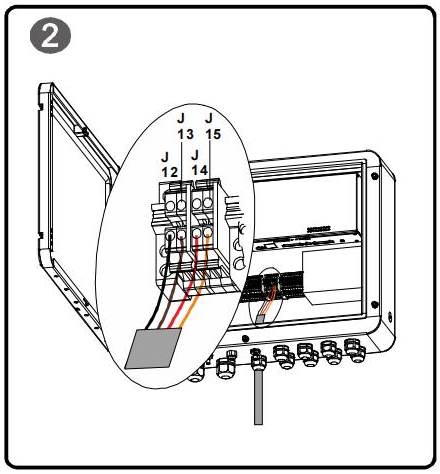


RT1_YY_3

Wire	Function	Connect with
Yellow	Modbus® RS-485	B/B`/+
Grey	Modbus® RS-485	A/A`/-
Green	Modbus® common / Ground	
White	Power 5 to 30 VDC (12 V recommended) 60 mW max.	
Black	Power ground	
Shield	Housing	Ground *
* Connect to ground if radiometer not grounded		



Si-Box J14(12V DC OUT) J15(GND) provides external DC12V power supply, which can be used for RT1 power supply.



2 Connecting Si-Box WEB

2.1 Operation preparation

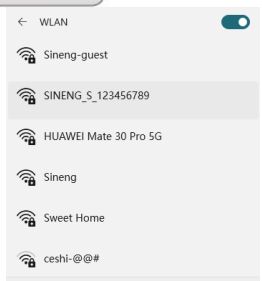
Prepare a computer,the browser needs to use Chrome(*Recommend*), Edge browser.

2.2 Connection equipment

The following two modes are supported:

1) Connect to the WiFi network provided by the Si-Box equipment. The default WIFI IP address is 192.168.7.1.
WiFi name generation rule: The serial number on the SINENG _ S _ splice is truncated to 9 digits from the tenth digit
For example, if the device serial number is a 300002022090700001, and the 9-digit number is intercepted from the 10th digit as the 090700001, the WiFi name of the current Si-Box is the SINENG_S_090700001
The password is fixed to the 12345678.
The serial number can be viewed on the product nameplate.



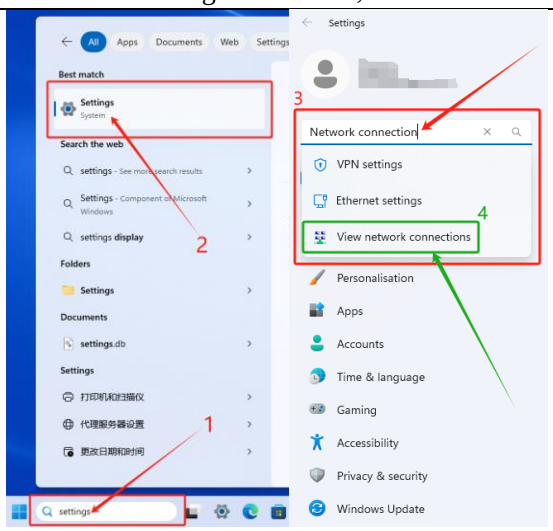


2) Si-Box ETH0 with Ethernet connection. Place the data collector on the same network segment as the device that needs to connect to view the Web page.

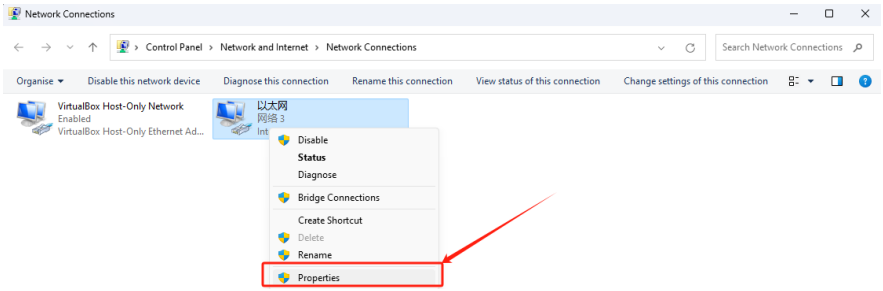
Network card ETH0 default address: 192.168.20.128 (can be seen through the nameplate)

Wired access to Si-Box needs to ensure that the computer is in the same network segment, and the computer IP needs to be changed to the IP of 20 network segments.

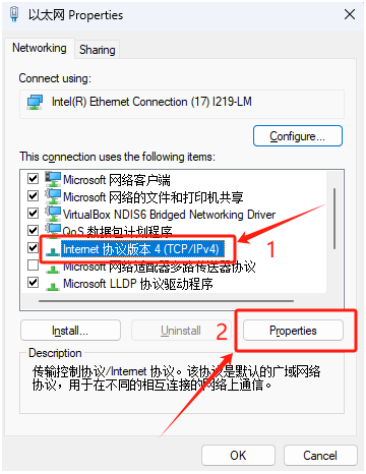
Open the settings, enter the ‘network connection’ into the search box, pop up to view the network connection and click Open



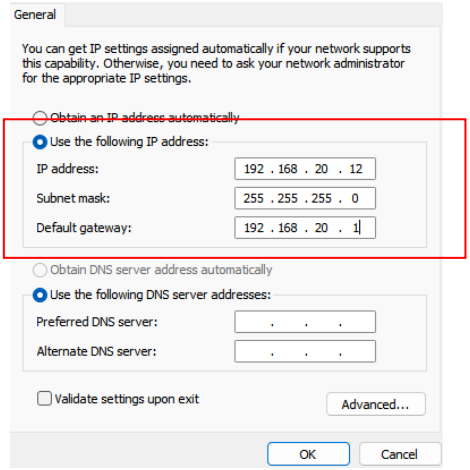
Right-click on Ethernet and select "Properties" to open Ethernet properties.



Select Protocol Version 4 (TCP/IPv4) and click on "Properties".



Configure the IP address, then click on "OK".

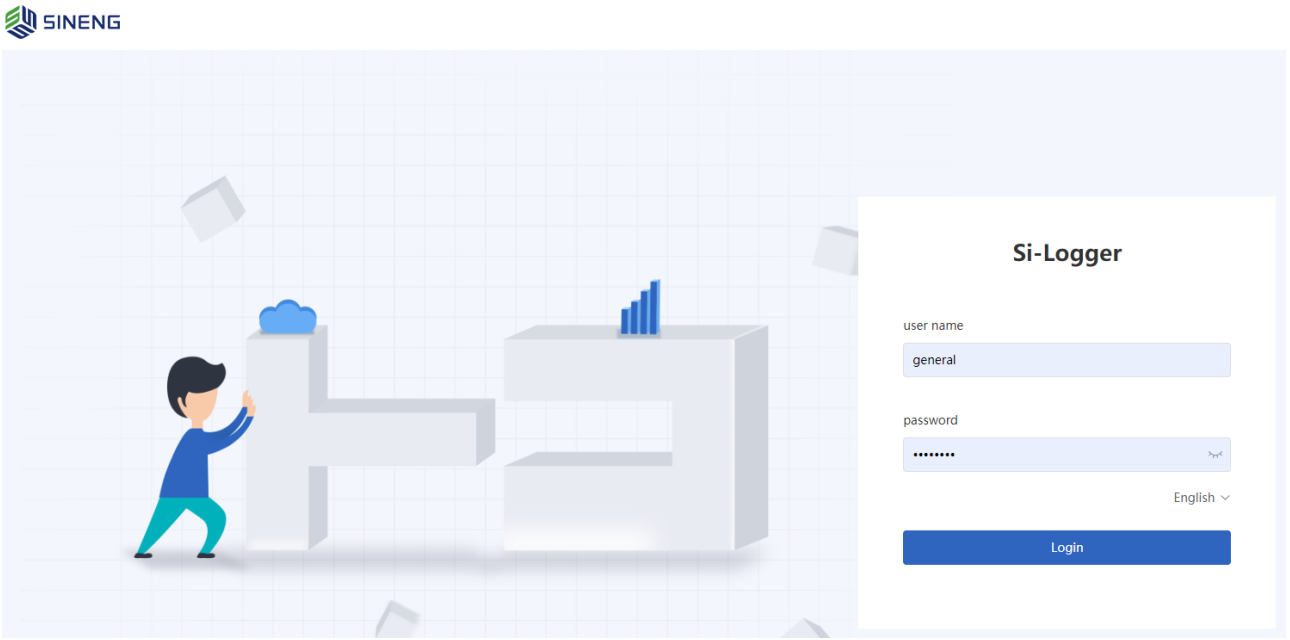


2.3 Login System

Web can be logged in and accessed after the system is powered on for about 3 minutes. Login account/password: general/12345678.

①If you use a cable to connect to ETH0 of Si-Box, enter http://192.168.20.128 in the browser, and then enter the account password and press enter to go to the system.

②If the Si-Box is connected through WiFi, enter http://192.168.7.1 in the browser, then enter the account password and press enter to go to the system Web.



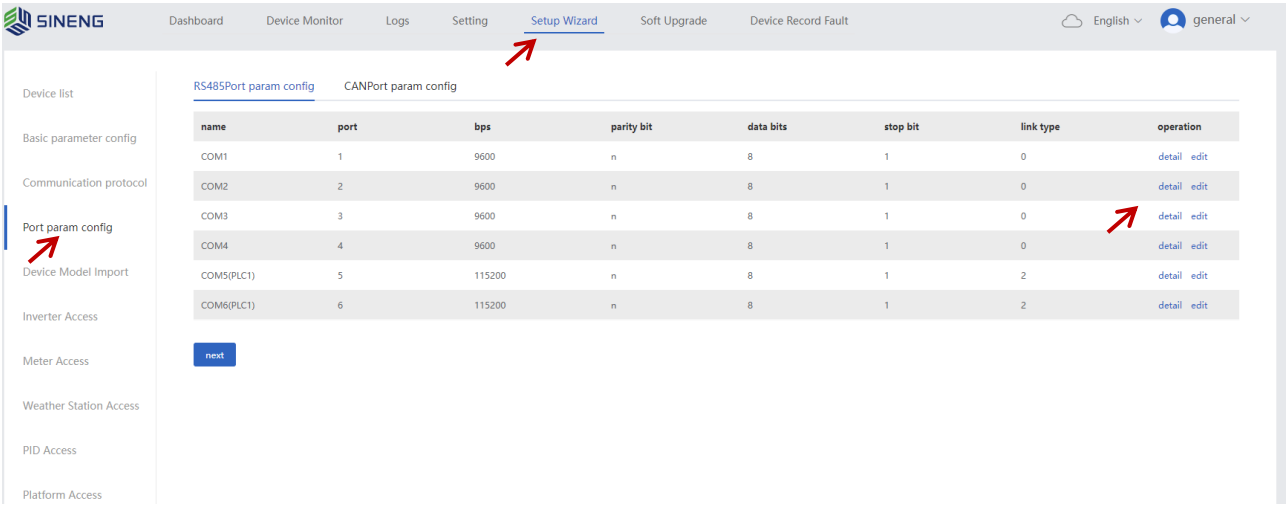
2. Communication parameter setting

RT 1 default communication parameters. Modbus ID: 1, RS-485 default parameters: baud rate 19200, 8-bit data, odd parity (even), 1stop bit.

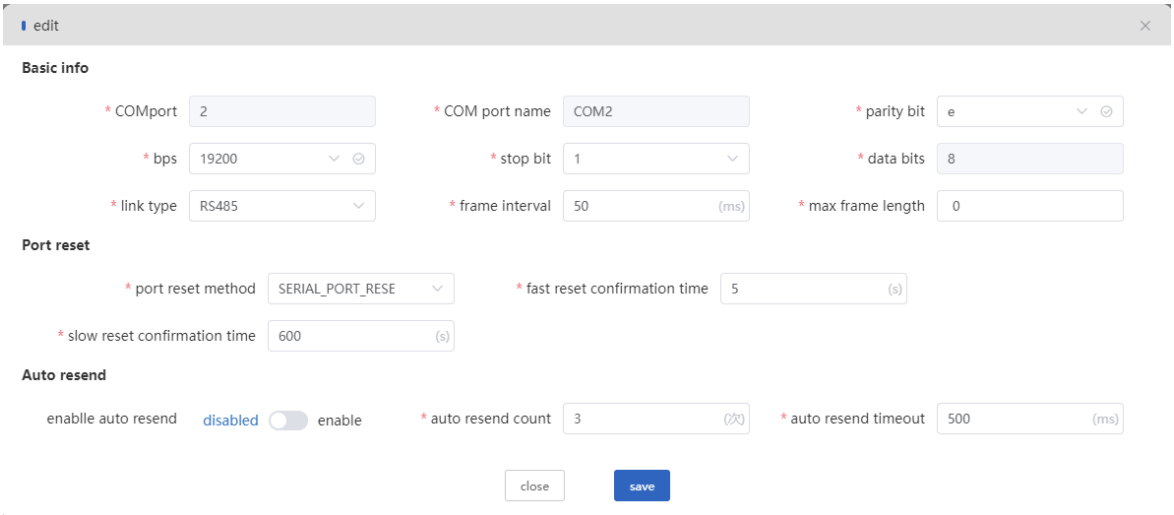
Set Si-Box communication parameters via web to match RT1.

Open the web (see the web user manual for details)

Setup Wizard-> Port Parameter Config-> Edit (select and configure the corresponding port parameters according to the actual access port of RT1).



Modify the port parameters as follows: Baud rate is 19200, 8-bit data is odd parity (even), and 1stop bit. Click the'Save 'button.



3. RT 1 access

Setup Wizard-> Weather Station Access-> Add

Fill in the device name, port number and slave address. According to the actual access port and parameter settings of RT1, the factory slave address of RT1 is 1. Leave the rest of the parameters as default. Click the Save button to complete the addition of the weather station.

