

# HT1312 RTU TERMINAL



## Product Manual

## OVERVIEW

SENTEC HT1312 RTU (remote measurement and control terminal) can realize the monitoring and control of remote equipment working condition. Compared with the similar RTU, it has larger storage capacity, stronger computing function, strong communication networking ability, excellent environmental index characteristics, and can adapt to all kinds of harsh working environment.

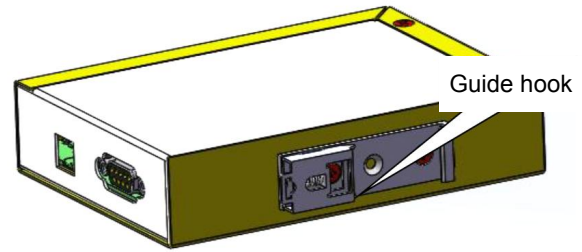
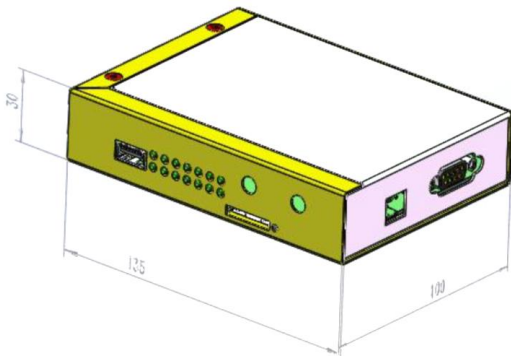
## FEATURES

- High performance and high reliability embedded low-power hardware platform is adopted to ensure the stability and wide temperature operation of the product;
- Support ModbusRTU / ASCII / TCP and other communication protocols;
- With RS-232, RS-485, Ethernet and other communication interfaces;
- Optional built-in GPRS, CDMA, 433, WiFi and other communication modules;
- The watchdog and data power-off protection function can save the set parameters and historical data for a long time;
- Industrial standard design, DIN rail installation mode, convenient for field installation;
- High quality industrial components, high-level electrical design and high-density integrated circuit structure make the device have excellent electrical isolation and electromagnetic shielding performance, greatly improving the anti-interference performance and reliability guarantee of the device;
- The working temperature is - 40 ~ 85 ° C, and the relative humidity of air is ≤ 95%, which is suitable for various outdoor harsh environments.

## SPECIFICATION

ITEMS	TECHNICAL PARAMETER
RS-485 interface	1
RS-232 interface	1
Ethernet interface	1
USB interface	1
SIM interface	1
Communication protocol	Modbus RTU/ASCII/TCP, customizable instrument protocol
Data transmission	GPRS / CDMA, Ethernet, WiFi, 433M, PLC, RS-485 / RS-232 and other options
Working power supply	24V DC
Power consumption	≤2W
Working temperature	-40°C ~ +80°C
Working humidity	≤95%
Size	100(W)*135(L)*30(H)mm
Weight	900g

**APPEARANCE & INSTALLATION**



The boundary dimension of RTU remote measurement and control terminal is 100 (W) 135 (L) 30 (H) mm, as shown in the figure above:

RTU remote measurement and control terminal adopts guide rail installation mode, which can be installed on standard DIN guide rail.

**COMMUNICATION PARAMETERS**

1. RS232 default rate: 9600 8n1
2. RS485 default rate: 9600 8n1
3. Ethernet default IP and port: 192.168.10.100 7000 protocol TCP

**INSTRUMENT DATA STORAGE ADDRESS TABLE**

Multi group instruments access the data stored in RTU according to the following deposit definitions:

Register address	Instrument number	Storage type	Instrument group number
44620-44621	Serial number 1	Single-precision floating-point	Group number 1
44622-44623	Serial number 2	Single-precision floating-point	
44624-44625	Serial number 3	Single-precision floating-point	
44626-44627	Serial number 4	Single-precision floating-point	
44628-44629	Serial number 5	Single-precision floating-point	
44630-44631	Serial number 6	Single-precision floating-point	
44632-44633	Serial number 7	Single-precision floating-point	
44634-44635	Serial number 8	Single-precision floating-point	
44636-44651	Number 1-Number 8	Single-precision floating-point	Group number 2
44652-44667	Number 1-Number 8	Single-precision floating-point	Group number 3
44668-44683	Number 1-Number 8	Single-precision floating-point	Group number 4
44684-44699	Number 1-Number 8	Single-precision floating-point	Group number 5
44700-44715	Number 1-Number 8	Single-precision floating-point	Group number 6
44716-44731	Number 1-Number 8	Single-precision floating-point	Group number 7
44732-44747	Number 1-Number 8	Single-precision floating-point	Group number 8
44748-44763	Number 1-Number 8	Single-precision floating-point	Group number 9
44764-44779	Number 1-Number 8	Single-precision floating-point	Group number 10

### LED INDICATOR DESCRIPTION

The status of the indicator light is described as follows:

LED LAMP	STATE SPECIFICATION
POWER	The power indicator is always on when the power supply is normal
RUN	Blinking when CPU is working normally
RX RS232	RS232 receives the indication and the received data indicator flashes
TX RS232	RS232 send indicator, send data indicator flashes
RX RS485	RS485 receives the indication, and the received data indicator flashes
TX RS485	RS485 sending indication, sending data indicator flashing
Line	GPRS on line
Link	USB link on
DWN	On when downloading program updates
4G signal component	4G wireless received signal strength indication

### IMPORTANT NOTES

1. The grounding terminal of RTU shell must be reliably grounded;
2. The change of RTU working power supply shall not exceed its input range;
3. If smoke, abnormal sound or peculiar smell are found, please disconnect the power supply immediately;
4. If there is any problem, the user can not dismantle the device at will, and it must be handled by the technical personnel of the manufacturer or the qualified maintenance personnel trained by the manufacturer. Note that it is not allowed to plug and unplug the plug-in with power. In order to prevent static damage to the chip, do not touch the chip by hand

### SIMPLE FAULT MAINTENANCE GUIDE

In case of RTU failure, before maintenance, the user can conduct simple inspection according to the key points in the table below. If the failure is not eliminated, please contact us.

Fault phenomenon	Cause analysis	Treatment method
Power indicator is not on	Loose input terminal of working power supply	Retighten the power terminals
	PCB power failure	Replace RTU
Operation indicator does not flash	Program crash	Power on again after power off or use configuration software "reset" function
Unable to communicate with master station	Improper setting of communication parameters	Reset uplink communication parameters

### AFTER SALE SERVICES

The warranty period of this product is one year under the condition that the user completely complies with the requirements of the instructions, the use method is correct and no one is responsible for damage.