HENGKO®

Humidity and Temperature Sensor

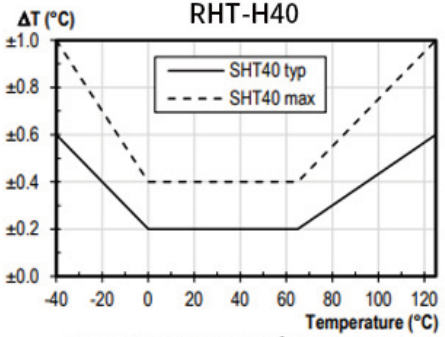
HENGKO Technology Co., Ltd.

China • Shenzhen

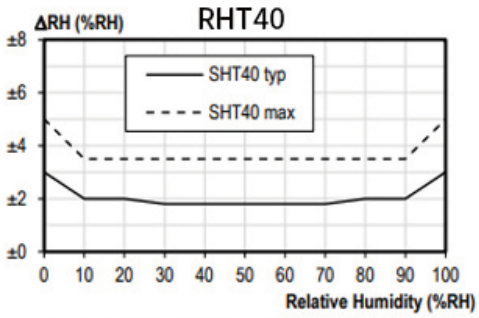
HENGKO TEMPERATURE AND HUMIDITY PROBE DATA SHEET

Model	Humidity Accuracy(%RH)	Temperature (℃)	Voltage Supply(V)	Interface	Relative Humidity Range(RH)	Temperature Range
RHT-H40	±1.8 @ 0-100% RH	±0.2 @ 0-65 ℃	1.08 ~ 3.6	I²C	0-100%	-40 ~ 125 ℃
RHT-H30	±2.0 @ 10-90% RH	±0.2 @ 0-65 ℃	2.15 ~ 5.5	I²C	0-100%	-40 ~ 125 ℃
RHT-H31	±2.0 @ 0-100% RH	±0.2 @ 0-90 ℃	2.15 ~ 5.5	I²C	0-100%	-40 ~ 125 ℃
RHT-H35	±1.5 @ 0-80% RH	±0.1 @ 20-60 ℃	2.15 ~ 5.5	I²C	0-100%	-40 ~ 125 ℃
RHT-H20	±3.0 @ 20-80% RH	±0.3 @ 5-60 ℃	2.1 ~ 3.6	I²C	0-100%	-40 ~ 125 ℃
RHT-H21	±2.0 @ 20-80% RH	±0.1 @ 5-60 ℃	2.1 ~ 3.6	I²C	0-100%	-40 ~ 125 ℃
RHT-H25	±1.8 @ 10-90% RH	±0.1 @ 5-60 ℃	2.1 ~ 3.6	I²C	0-100%	-40 ~ 125 ℃
RHT-H85	±1.5 @ 0-80% RH	±0.1 @ 20-50 ℃	2.15 ~ 5.5	I²C	0-100%	-40 ~ 125 ℃

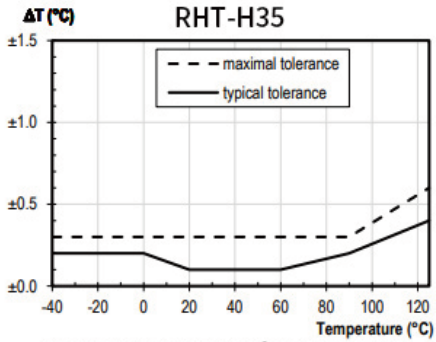
Note：HENGKO Provides RHT-H serious probe to help you can choose our temperature humidity transmitter /control /sensor/data logger and other products that to meet your measurement in different enviroment.



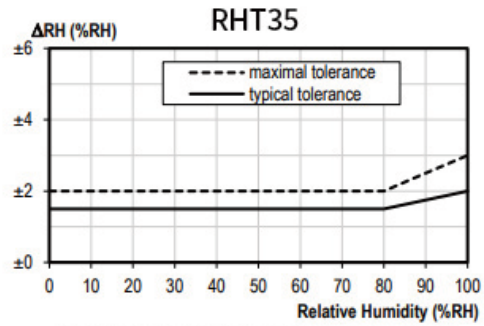
Temperature accuracy of RHT-H40 sensor



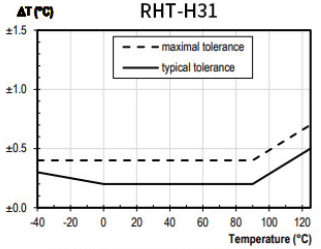
Tolerance of RH at 25°C for RHT-H40



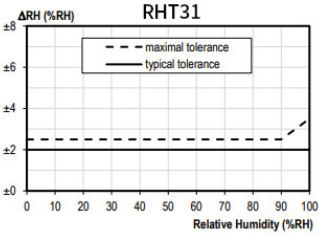
Temperature accuracy of RHT-H35 sensor



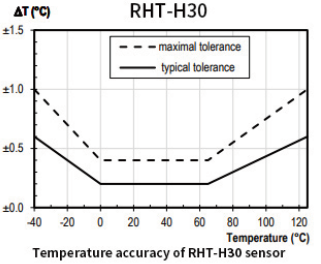
Tolerance of RH at 25°C for RHT-H35



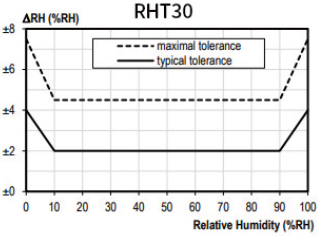
Temperature accuracy of RHT-H31 sensor



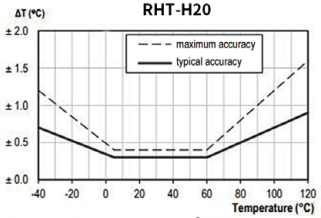
Tolerance of RH at 25°C for RHT-H31



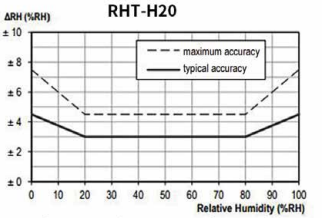
Temperature accuracy of RHT-H30 sensor



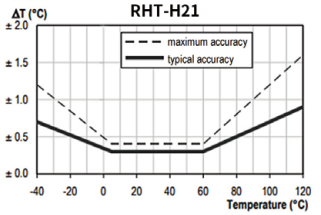
Tolerance of RH at 25°C for RHT-H30



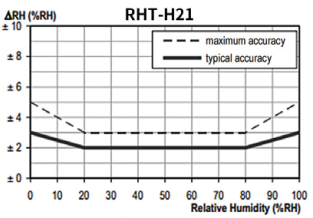
Temperature accuracy of RHT-H20 sensor



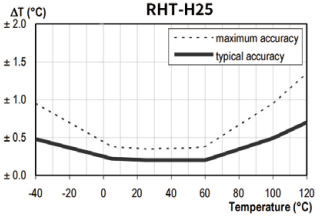
Tolerance of RH at 25°C for RHT-H20



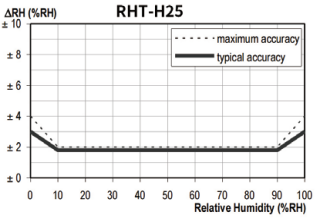
Temperature accuracy of RHT-H21 sensor



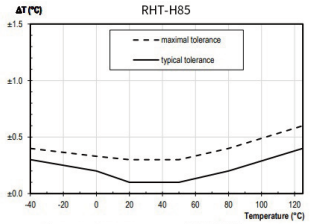
Tolerance of RH at 25°C for RHT-H21



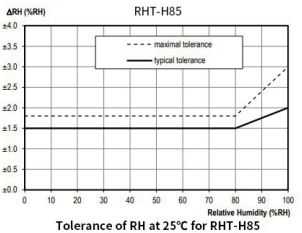
Temperature accuracy of RHT-H25 sensor



Tolerance of RH at 25°C for RHT-H25



Temperature accuracy of RHT-H31 sensor



Tolerance of RH at 25°C for RHT-H85

APPLICATION

ABOUT US

HENGKO Technology Co., Ltd., established in 2008, is committed to R&D and manufacturing of temperature & humidity measuring instruments and industrial design of temperature and humidity monitoring systems.

We provide excellent temperature and humidity IOT monitoring control system solutions, hand-held temperature and humidity calibration meter, wireless temperature and humidity data logger, dew-point sesensor, temperature and humidity transmitter, temperature and humidity sensor, temperature and humidity probe, temperature and humidity sensor module, temperature and humidity sensor housing,etc. Meanwhile, we have a wide range of industry solutions so as to meet all kinds of customer needs and provide one-stop products and services. In addition, we pay close attention to the development trend of temperature and humidity sensor worldwide and maintains long-term cooperative relations with customers from the Netherlands, Finland, Germany,the United Kingdom, the United States and other areas.

HENGKO adheres to the business philosophy "customer first" and focuses on providing customers with excellent products and helping them maintain a leading competitive advantage in the market. We look forward to forming a stable and extensive strategic partnership with friends from all walks of life and create a better future together.

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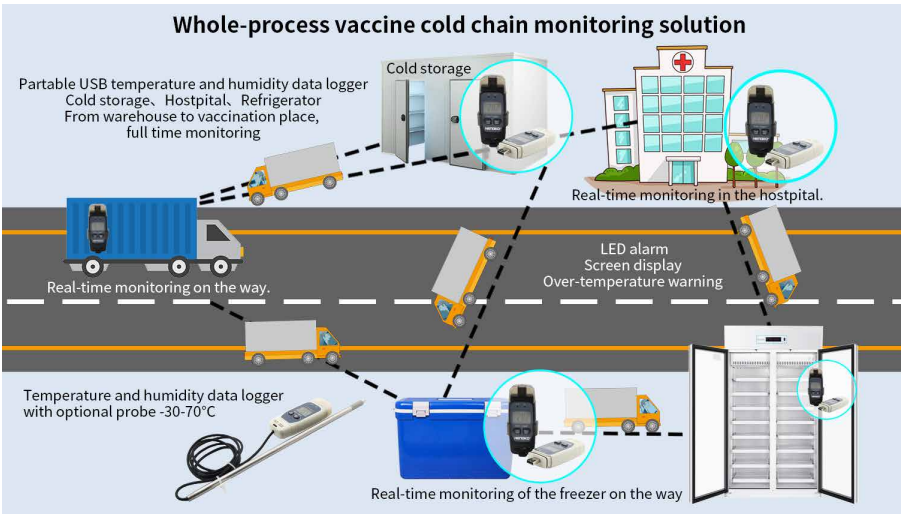
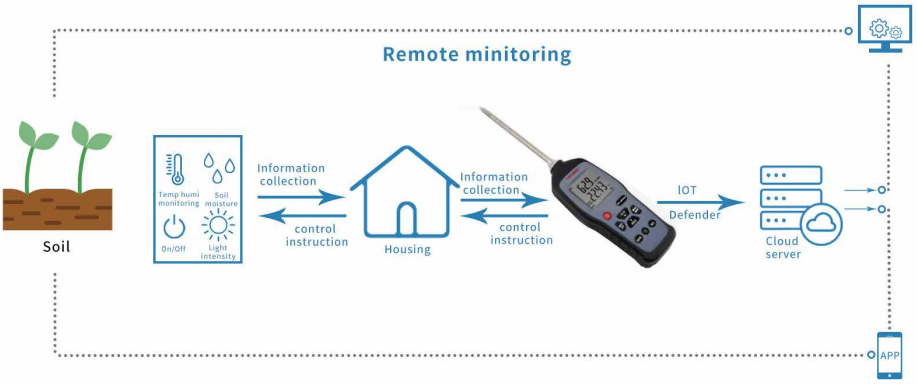
Temperature and humidity IOT solution/monitoring system





HT802P Temperature and Humidity Sensor

Features:

★ Imported measuring unit, accurate measurement, wide range
★ Short response time, high accuracy, excellent long-term stability
★ A variety of output optional
★ LCD display
★ Exquisite design, easy to install
★ Built-in/ external probe
★ Professional EMC design, suitable for harsh electromagnetic environment

Application:

Stable indoor environment, HVAC,Livestock farm, Indoor swimming pool,Machine room monitoring, Greenhouse, Weather staintion, Base station,Warehouse, etc

HT802P, 4-20mA or RS485 output with two channels, is a temperature and humidity sensor with a site display. It is made of a digital temperature and humidity module and Low-power MCU, which have the advantage of fast response, high precision and excellent steady.

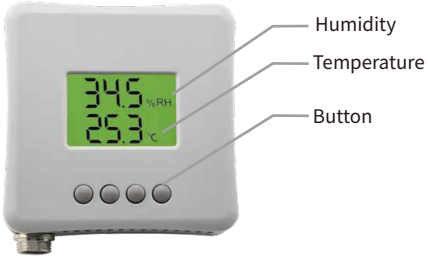
Technology Datas

Output :
1、4-20mA (built-in), RHTx chip,four-wire system
2、4-20mA , RHTx chip four-wire system
3、RS485 / Modbus-RTU Communication
RHTx chip four-wire system

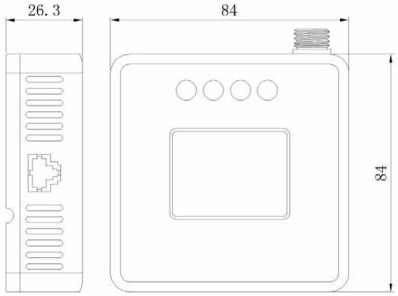
Accuracy :
Humidity: ±2% RH (10% RH - 90% RH)
Temperature:±0.1°C(,25 °C)

Measurement range:
Display range:
Temperature: -20~85°C
Humidity: 0~100%RH
Output range:
Temperature: (4~20mA)/(-20~60)°C
Humidity: (4~20mA)/(0~100)%RH

Environment temperature range :
(-20~85)°C
Environment Humidity range :
(10~95)%RH
Power : 12V
Load capacity : RL≤(Vs-11)/0.02(Ω)
Working voltage (VS) : DC (11~30)V
Working current : ≤50mA
Dimensions : 85mm×85mm×27mm
Installation :
The product can be fixed installation, can also be wall mounted installation
Supporting software ×1



Note:
Buttons just used for RS485 output, setting baud rate and address



HT802W Temperature and Humidity Transmitter

Features:

★ Imported measuring unit, accurate measurement, wide range;
★ Short response time, high accuracy, good stability;
★ A variety of analog signal output is optional;
★ All-in-one or split probe optional;
★ With excellent waterproof wall mount shell

Application:

Agricultural Greanhouse,Flower and Plants,Cultivation Greenhouse, Agricultural Field,
Electronic Equipment Production Line and Other Occasions Requiring Illumination Monitoring.

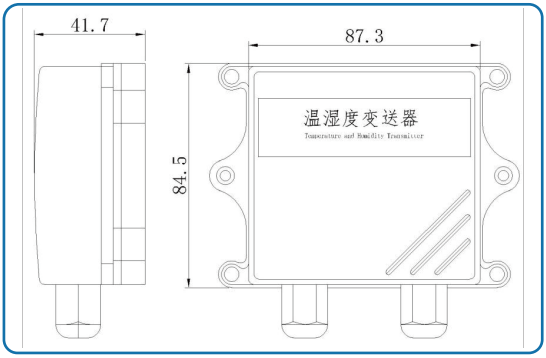
Technology Datas

Output : RS485/ Modbus-RTUcommunication、
4-20mA 、0-5V、0-10V

Accuracy:
Humidity : ±2%RH(10%RH~90%RH,25°C)
Temperature : ±0.2°C (0~65°C)
Probe operating temperature: -40 ~ 120°C
Probe operating temperature: 0-100%RH

Power : 12V
Maximum power consumption: 0.4W
Long-term stability:
Temperature: ⩽0.1°C/ y
Humidity: ⩽1%/ y

Operating temperature of transmitter circuit : -40 ~ 60°C、0-80%RH



Device List

Temperature and humidity transmitter	×1
12V/1A waterproof power supply (optional)	×1
Expansing screws	×2
Self-tapping screws	×2
Supporting software	×1
certificate, warranty card, calibration report, etc	

HT802X Temperature and Humidity Transmitter

Features:

★ Imported measuring unit, accurate measurement, wide range
★ Short response time, high accuracy, good stability
★ LCD display
★ All-in-one or split probe optional
★ With excellent waterproof wall mount shell

Application:

Communication base station, Electronic control cabinet, Production site, Warehouse, Machine room, Greenhouse, Animal husbandry, Drug storage, etc. Split temperature and humidity transmitters, with IP65 high sealing porous stainless steel housing, canbe used in a harsh environment, such as open-air, dust environment, high humidity environment, corrosive environment, etc.

Technology Datas

Output : RS485/Modbus-RTU communication、4-20mA、0-5V、0-10V

Power : 12V(9-30)DC

Maximum power consumption:0.4W

Accuracy :

Humidity: ±2% RH (10% RH - 90% RH, 25 °C)

Temperature: ±0.2°C (0~65°C)

Long-term stability :

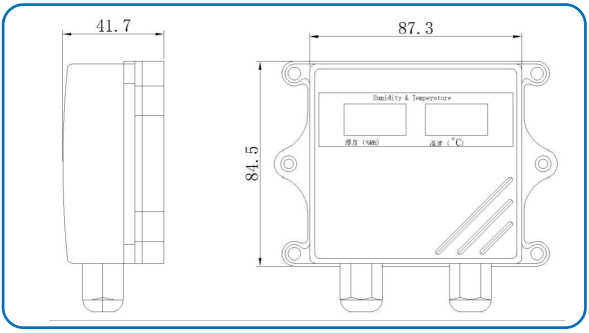
Temperature:≤0.1°C/Y

Humidity:≤1%/Y

Probe operating temperature : -40 ~ 120°C

Probe operating temperature : 0-100%RH

Operating temperature of transmitter circuit : -40 ~ 60°C、0-80%RH



Device List

Temperature and humidity transmitter	×1
12V/1A waterproof power supply (optional)	×1
Expansing screws	×2
Self-tapping screws	×2
Supporting software	×1

certificate, warranty card, calibration report, etc

HT802C Temperature and Humidity Sensor

Features:

★ It can detect temperature, humidity and dew point at the same time

★ Imported measuring unit, accurate measurement, wide range

★ Short response time, high accuracy, good stability

★ HD LCD display

★ Built-in or external probe is optional

Application:

HVAC, weather station, Testing and Measurement, Automation, Medical treatment, Humidifier, HVAC, Library, Heater, Constant temperature and humidity chamber, Incubator, Oven, Workshop, Laboratory, Harsh environments such as acid, alkali, corrosion,high temperature, high pressure, etc

Technology Datas

Output : RS485/ Modbus-RTU communication

Power :12V

Measuring range :-20-80°C、0-99.9%RH

Accuracy :

Humidity : ±2%RH(10%RH~90%RH,25°C)

Temperature : ±0.2°C (25°C)

Dew point range : -60~60°C (-76~140°F)

Device List

Temperature and Humidity Transmitter	×1
Fixed base	×1
Punching size card	×1
User manual	×1
Fixed materials	×1
4-pin cable	×1
Supporting software	×1

HT600 Series Integrated Temperature and Humidity Transmitter

(RHT-H3X/4X series chip are optional)

HT605 IP67

HT606 IP67

HT607 (M20×1.5 male thread) IP67

Applications:

Cold storage temperature and humidity data collection, Vegetable greenhouses, Animal breeding, Industrial environment monitoring, Granary temperature and humidity monitoring, Various environmental temperature and humidity data collection and control, etc.

Features:

- ★ Imported measuring unit, accurate measurement, wide range
- ★ Original ultra-small and high integrated temperature and humidity sensor module
- ★ It can detect temperature, humidity and dew point at the same time
- ★ High precision, low power consumption, good consistency
- ★ Stainless steel shell, excellent protection performance
- ★ 4.5V~30V ultra-wide voltage input

Technology Datas

Output : RS485/Modbus-RTU communication

Accuracy :

Humidity : ±2%RH(10%RH~90%RH,25°C)

Temperature :±0.2°C (25°C)

Operating voltage (VS) : DC 4.5V~24V

Measuring range : -30~80°C、0~99.9%RH

(Non-condensation) power polarity protection, with anti-reverse connection function

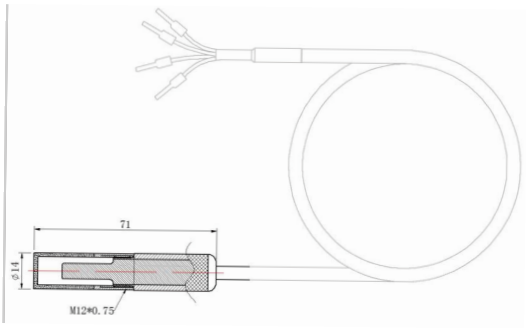
Device List

Intelligent temperature and humidity sensor	×1
User manual	×1
Supporting software	×1

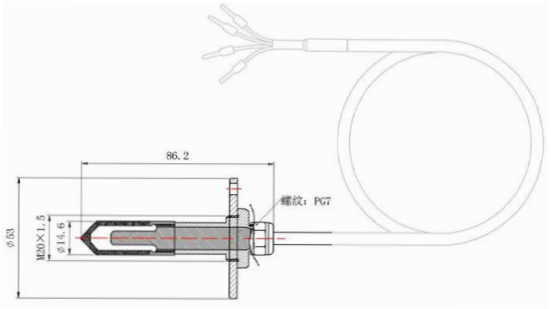
HT800 Series Integrated Temperature and Humidity Transmitter

(RHT-H3X/4X series chip are optional)

HT800



HT801P IP67



Description:

HT-800/ HT-801/HT-801P series temperature and humidity transmitter adopts SHT series temperature and humidity sensor imported from Sensirion Switzerland. It can collect temperature and humidity data simultaneously. The collected temperature and humidity signal datas and dew point datas can be output through RS485 / Modbus - RTU communication, this product can be networked with PLC, man-machine screen, DCS and various configuration softwares so as to realize temperature and humidity data acquisition.

HT800 Series Integrated Temperature and Humidity Transmitter

(RHT-H3X/4X series chip are optional)

Technical Datas :

★ Original ultra-small and high integrated temperature and humidity sensor module, easy to install, convenient for system networking and wiring;
★ High acquisition accuracy, good consistency;
★ Standard Modbus-RTU protocol, can easily realize the interface between PLC, man-machine screen, DCS and various configuration softwares;
★ Communications protection : RS485 communication signal output interface adopts double over-voltage and over-current protection;
★ 4.5V~30V ultra-wide voltage input;
★ Power polarity protection : with anti-reverse connection function.

Applications:

cold storage temperature and humidity data collection, vegetable greenhouses, animal breeding, industrial environment monitoring, granary temperature and humidity monitoring, various environmental temperature and humidity data collection and control, etc.

Technology Datas

Output : RS485/Modbus-RTU communication
Accuracy :
Humidity : ±2%RH(10%RH~90%RH,25°C)
Temperature : ±0.2°C (25°C)
Working voltage (VS) : DC 4.5V~24V
Measuring range : -30~80°C、0~99.9%RH
Dew point range : -60~80°C (-76~176°F)

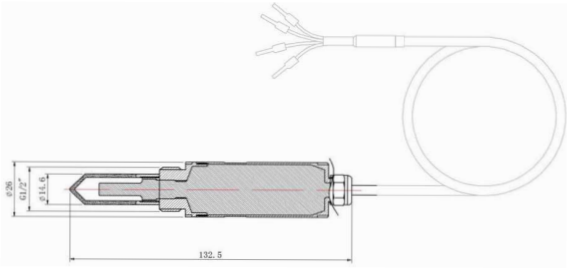
(Non-condensation) power polarity protection, with anti-reverse connection function

Device List

Intelligent temperature and humidity sensor	×1
User manual	×1
Supporting software	×1

HT608 Integrated Temperature and Humidity Transmitter

(RHT-H3X/4X series chip are optional)



Features:

★ Simultaneous measurement of ambient temperature, dew point temperature and wet bulb temperature
★ Integrated large capacity FLASH chip, large capacity storage
★ Ultra-low power consumption to meet the needs of long time measurement
★ On-board CR2450 wide warm button battery
★ With professional software, data can be downloaded and professionally analyzed
★ Original ultra-small and integrated high temperature and humidity sensor module, an simple installation, convenient for system networking and wiring

Technology Datas

Output : RS485/Modbus-RTU communication,
To achieve temperature and humidity data acquisition, it can be networked with PLC, man-machine screen, DCS and various configuration software, etc.

Accuracy :
Humidity : ±1.5%RH(0%RH~80%RH,25°C)
Temperature : ±0.1°C (25°C)

Dew point range : -60~80°C (-76~176°F)

Wet bult range : -20 ~ 60 °C (-4 ~ 140 °F)

Operating voltage (VS) : DC 4.5V~12V

Measuring range: -30~80°C、0~99.9%RH

Baud rate : 15200pbs

Storage capacity : 65000 data

Power polarity protection,
with anti-reverse connection function

Device List

Intelligent temperature and humidity sensor	×1
User manual	×1
Supporting software	×2
CR2450 button battery	×1

HT803 Intelligent Digital Temperature and Humidity Controller

Features:

★ Circuit chip control stability
★ High sensitivity, accurate measuring
★ Anti-paint design, not easy to wet
★ Not easy to aging, prolong the use time

Application:

HVAC,Refrigeration,Heaters,Ovens,Factory Workshops,Mechanical Equipment Laboratories, etc.

Technology Datas:

Output : Switching value,
RS485/Modbus-RTU communication

Overall power consumption : < 2W

Measuring range : 0~99.9%RH,0°C~123°C

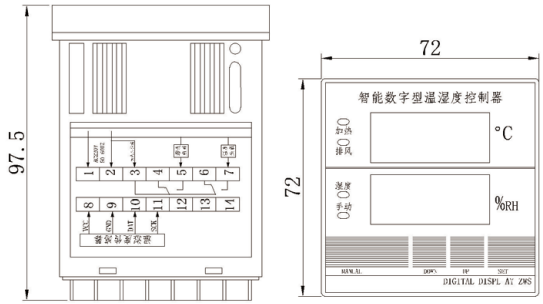
Working voltage : 220V ±15% 50-60HZ、DC12V

Accuracy :

Humidity : ±3%RH

Temperature : ±0.3°C

Humidity range : 0~99.9%RH



Device List

Temperature and humidity controller	×1
Copy of product manual	×1
Mounting bracket	×1

RHT Temperature and Humidity Sensor Probe series

（RHT-H30、RHT-H31、RHT-H35、RHT-H40、RHT-H41、RHT-H45）

Model No.	Image
HT-P101	Temperature and humidity probe with both aviation plugs
HT-P102	Temperature and humidity probe with single aviation plug
HT-P103	Temperature and humidity probe with waterproof cable gland(hexagonal)
HT-P104	**IP67** Temperature and humidity probe with waterproof cable gland(Knurling)
HT-P105	Temperature and humidity probe with Shrink sleeve

RHT Temperature and Humidity Sensor with Stainless Steel Extension Tube

（RHT-H30、RHT-H31、RHT-H35、RHT-H40、RHT-H41、RHT-H45）

Model No.	Image	Tube length(mm)
HT-E062	Temperature and humidity probe with ss extension tube and waterproof cable gland(Φ5 cable)	63 92 127 132 150 177 182 ••• *It usually used in sensor probe with ss extension tube
HT-E063	Temperature and humidity probe with SS extension tube with hexagon thread	
HT-E064	Temperature and humidity probe with SS extension tube and knurled nut waperproof cable gland	
HT-E065	Temperature and humidity probe with SS extension tube and hexahon male thread	
HT-E066	Temperature and humidity probe with SS extension tube	
HT-E067	Temperature and humidity probe with SS extension tube and hexagon male thread	
HT-301		

Sensor can be coated with waterproof paint for better waterprofness.
If you have any special requirements,welcome to consult our sales representatives.

Temperature and humidity sensor housings

Model No.	Connector/Thread Type	Specification (mm)	Image
Flat Head with Female Thread(Made of Stainless steel)			
HK64MCN	M6*1.0 female thread	OD10*ID6*H22.7	
HK64MBNL	M8*0.75 female thread	OD10*ID7*H25	
HK64MDNL	M8*1.25 female thread	OD10*ID7*H25	
HK85U5/16N	5/16-32 UNEF female thread	OD9.5*ID7*H25.5	
HK86MAN	M10*0.5 female thread	OD11.9*ID8.2*H21.0	
HK96MBN	M10*0.75 female thread	OD12*ID9*H30	
HK96MCN	M10*1.0 female thread	OD12*ID9*H30	
HK96MCNL	M10*1.0 female thread	OD12*ID9*H35	
HK59MBN	M12*0.75 female thread	OD13.8*ID11*H30	
HK59MCN	M12*1.0 female thread	OD13.8*ID11*H30	
HK66MBN	M12*0.75 female thread	OD13.8*ID11*H40	
HK66MCN	M12*1.0 female thread	OD13.8*ID11*H40	
HK66MEN	M12*1.5 female thread	OD13.8*ID11*H38.5	
HK97MCN	M14*1.0 female thread	OD17.3*ID12.4*H32	
HK82MDN	M14*1.25 female thread	OD17.5*ID13.6*H42	
HK83MCN	M16*1.0 female thread	OD18*ID14.2*H45	
HK83MEN	M16*1.5 female thread	OD18*ID14.2*H45	
HK78MCN	M19*1.0 female thread	OD20*ID16*H50	
HK78MEN	M18*1.5 female thread	OD20*ID16*H50	
HK35G3/4N	G 3/4" female thread	OD28.6*ID23.6*H50	
HK36MCN	M27*1.0 female thread	OD30*ID26*H50	
HK37MCN	M30*1.0 female thread	OD33.5*ID28.5*H50	
HK38G1/1N	G 1" female thread	OD36.7*ID30*H55	
HK99MCN	M30*1.0 female thread	OD35.5*ID30.5*H40	

Temperature and Humidity Sensor Housings

Model No.	Connector/Thread Type	Specification (mm)	Image
Flat Head with Female Thread(Made of Alloy)			
HSY4MCN	M10.5*1.0 female thread	OD14*ID10.5*H40	
HSY3MCN	M10*1.0 female thread	OD12*ID10*H36	
HSY2MBN	M12*0.75 female thread	OD14*ID11*H40	
HSY1MBN	M12*1.25 female thread	OD15*ID11*H40	
Cone Head with Female Thread(Made of Stainless steel)			
HK20MCN	M10*1.0 female thread	OD12*ID8.4*H37	
HK20MCNL	M10*1.0 female thread	OD12*ID8.4*H42	
HK94MBN	M12*0.75 female thread	OD14.6*ID11*H41	
HK94MBNL	M12*0.75 female thread	OD14.6*ID11*H47.5	
HK94MCN	M12*1.0 female thread	OD14.6*ID11*H41	
Cone Head with Male Thread (Made of Stainless steel)			
HK94MCU	M12*1.0 male thread	OD14.6*ID10*H40	
HK20MCU	M10.5*1.0 male thread	OD12*ID8.4*H34.3	
HK20G1/8U	G 1/8" male thread	OD12*ID7.4*H37	
HK103MBU	M6*0.75 male thread	OD12*ID4*H21	
HK103MCU	M6*1.0 male thread	OD12*ID4*H21	
Flat Head with Male Thread(Made of Stainless steel)			
HK47G1/8U	G 1/8" male thread	OD12*ID7.4*H31	
HK47MCU	M10*1.0 male thread	OD12*ID8.4*H28	
HK104MCU	M20*1 .0 male thread	OD22.2*ID14.8*H44	
HK88MCU	M20*1 .0 male thread	OD22*ID17.6*H54	
HK98G3/8U	G 3/8" male thread	OD20*ID15.6*H63	
HK35G3/4U	G 3/4" male thread	OD28.6*ID22.6*H40	
HK45MEU	M4*1.5 male thread	OD17*ID10*H69	

HK-J9A10X Series USB Temperature and Humidity Data Logger

Features:

★Compact and portable
★ Large capacity storage
★Ultra low consumption design
★ Sampling time can be set
★ USB interface to transmit data
★ Powerful graphics data analysis software

Device List:

Data recorder
CR2450 button cell
Mounting bracket (optional)
Software CD(optional)
Operation manual

Application:

Greenhouse cultivation, laboratory, drug storage,Cold chain transportation, fresh cold storage, archives,Environmental test chamber, museum, etc

HK-J9A101 USB Temperature Data Logger

Main specifications:

Temperature range: -20~60℃(-4~140°F)
Error value(typ.):±0.5℃
Storage capacity: 32000 data
Configuration:
Smart Logger softwarel

HK-J9A102 USB Temperature and Humidity Data Logger

Main specifications:

Temperature range: -20~60℃(-4~140°F)
Error value(typ.):±0.5℃
Humidity range: 0~99.9%RH
Error value(typ.):±3.2%RH
Storage capacity: 32000 data
Configuration:
Smart Logger software

HK-J9A103 USB Temperature and Humidity Data Logger

Main specifications:
Temperature range: -30~70°C(-22~158°F)
Error value(typ.): ±0.5°C
Humidity range: 0-99.9%RH
Error value(typ.): ±3.2%RH
Storage capacity: 65000 datas
Configuration:
Smart Logger software

HK-J9A105 USB Temperature and Humidity Data Logger(High precision)

Main specifications:
Temperature range: -30~70°C(-22~158°F)
Error value(typ.): ±0.5°C
Humidity range: 0-99.9%RH
Error value(typ.): ±3.2%RH
Storage capacity: 65,000 datas
Configuration:
Smart Logger software

HK-J9A20X Series PDF Temperature and Humidity Data Logger

Features:

★ Large capacity storage
★ USB interface to transmit data
★ Sampling time can be set
★ Powerful graphics data analysis software
★ High precision measurement
★Ultra low energy consumption design
★Automatic generation of PDF reports

Device List:

Data recorder
CR2450 button cell
Mounting bracket (optional)
Software CD(optional)
Operation manual

Application : Greenhouse cultivation, Laboratory, Drug storage, Cold chain transportation, Fresh cold storage, Archives, Environmental test chamber, Museums, etc

HK-J9A203 PDF Temperature Data Logger

Main specifications:
Temperature range: -20~60℃(-4~140°F)
Error value(typ.):±0.5℃
Storage capacity: 16000 datas

HK-J9A205 PDF Temperature and Humidity Data Logger(High precision)

Main specifications:
Temperature range: -30~70℃(-22~158°F)
Error value(typ.):±0.5℃
Humidity range: 0-99.9%RH
Error value(typ.):±3.2%RH
Storage capacity: 16000 datas

HK-J8A102 Hand-held Temperature and Humidity Meter

Features:

★ Reserved IoT function
★ Data recording and USB interface
★ Temperature unit of °C, °F can be switched
★ Maximum and minimum value measurement function
★ High precision temperature and humidity sensor probe, stable and accurate reading
★ Simultaneous measurement of ambient temperature, dew point temperature and wet bulb temperature
★ Ultra-low power consumption, can be connected with 9V DC power supply, to meet the needs of long time measurement

Application :

Greenhouse cultivation, Laboratory,Forage,Bran,Granary, Fresh cold storage, Environmental test chamber, etc

Main specifications:

Data storage: 99
Temperature range: -40~125°C
Humidity range: 0-99.9%RH
Dew point range : -60~80°C (-76~176°F)
Wet bult range :-20 ~ 60 °C (-4 ~ 140 °F)
Can measure the ambient temperature, dew point temperature and wet bulb t-emperature Simultaneously

Device List:

Temperature and humidity meter	×1
Copy of instruction manual	×1
USB cable	×1
9V 6F22 battery	×1
Supporting software	×1

HK-J8A102 Handheld Temperature and Humidity Calibration Instrument . It is an industrial grade, high precision temperature and relative humidity measuring instrument . The meter is powered by a 9V battery with an external high-precision probe.With the function of measuring humidity, temperature, dew point temperature and wet bulb temperature, it can easily deal with the accurate measurement of temperature and humidity in various occasions.The demand . This product is the ideal choice for temperature and humidity measurement in laboratory, industry and engineering.

HK-J8A103 Handheld Temperature and Humidity Calibrated Meter

1 : Sensor and protective cover

2 : Display

3 : Power switch

4 : ℃ and °F unit selection switch

5 : dew point temperature/wet bulb temperature/ambient temperature selection

6 : Data storage

7 : Record button

8 : maximum and minimum button

9 : Data hold button/backlight

10 : Data calls

HK-J8A103, accurate measurement of ambient relative humidity & temperature, save the data and upload to the software for displaying/analyzing, is a steady performance high precision Handheld temperature and humidity calibrated meter.99 data storage makes it realize the on-site temperature and humidity data collection of a real-time display without a computer. It has the advantage of high precision measurement, portable and easy to use, is an ideal selection of on-site checking and calibration.

Product Parameter

Data storage: 99 strokes
Temperature range: -40~125°C
Humidity range: 0-99.9%RH
Dew point range : -60~80°C (-76~176°F)
Wet bult range :-20 ~ 60 °C (-4 ~ 140 °F)
Data recording and USB interface
Simultaneous measurement of ambient temperature, dew point temperature and wet bulb temperature

Device List

Temperature and humidity instrument	×1
Instruction	×1
USB cable	×1
9V 6F22 battery	×1
Supporting software	×1

HT-Z82 Intelligent Gateway Specification Manual

With RHT-H30 sensor, intelligent gateway has higher monitor accuracy and strongerinterference resistance. Support 4G, 3G, GPRS adaptive communication methods , and support all Netcom, such as mobile card, Unicom card, telecommunications card . Suitable for multiple application scenarios in various industries.Each hardware device can operate independently and automatically access the supporting cloud platform under the condition of no electricity or network. Through computer and mobile APP access, users can realize remote data monitoring, set abnormal alarms, data export and other functions

Features:

★ Large-scale networking, Cross-platform monitoring
★ Steady data transmission
★ High reliability Meteorology and environment Automatic abnormal warning
★ Low cost saves more input for farmers
★ Long lasting life
★ Built-in 21700 battery
★ High safety performance
★ Customized solar panels
★ Easy to use
★ Scan a QR Code to use
★ Widely application

Temperature and humidity monitoring system have widely application that almost meet the temperature and humidity monitoring needs of all walks of life:

a) In daily life places such as classrooms, offices, apartments, etc.
b) In the operating places of important equipment such as substations, computer rooms, base stations, etc.
C) In warehouses, granaries, archives and other important material storage places.
d) In workshops, laboratories and other workplaces.
e) In the cold chain transportation of food and medical products.

Device List

Intelligent Gateway specification manual	×1
Instruction	×1
Supporting software	×1
User manual	×1
CERTIFICATION	×1

Product Structure

Temperature and humidity sensor interfac	×1
DC12V Charging port	×1
POWER	×1
2 wire indicator light	×1
Network communication antenna	×1

Product Parameter

Cable length: 1M、2M、5M、10M (Optional)
Chip: RHT-H30
Operating Voltage: 3-3.6V
Working current: ⩽15mA
Monitoring range: Temperature -20°C~80°C
Humidity 0~100%RH
Operating range: Temperature -40°C~125°C
Humidity 0~99%RH
Storage range: Temperature -20°C~80°C
Humidity 0~95%RH
Temperature accuracy: ±0.5°C
Humidity range: ±3%RH

LED

Green on: The power indicator is running properly

Red on: Charging, the light is off when it is fully charged

1. Power button
2. LED
3. DC charging connector 5-12V
4. Sensor connector
5. Communication antenna
6. Lifting hole
7. Wall mounting hole

Intelligent gateway interactive platform and related logic description

Login Method: Android APP, WeChat pubic account, PC

Data display: You can check the real-time temperature and humidity data that reported by temperature and humidity collection box via APP or WeChat pubic account(Max air temperature, Min air temperature, Current air temperature, Atmospheric pressure, current wind speed, current wind direction, current wind level, sulfur dioxide, nitrogen dioxide, carbon monoxide, ozone, PM10, PM2.5, air pollution)

Reporting cycle: The temperature and humidity data is collected every five minutes and uploaded to the cloud platform. The mobile terminal automatically refreshes the data every five minutes.

Over temperature Alarm: You can set the “Standard temperature” according your requirement, such as 35-38°C. The UI will display the “Standard temperature” when the temperature over 38°C. The pops will disappear when you click accept.

Low temperature alarm: You can set the “Standard temperature” according your requirement, such as 35-38°C. The UI will display the “Standard temperature” when the temperature lower 35°C. The pops will disappear when you click accept.

Over humidity alarm: You can set the “Standard humidity” according your requirement, such as 45~65%RH. The UI will display the “Standard temperature” when the temperature over 65%RH. The pops will disappear when you click accept.

Low humidity alarm: You can set the “Standard humidity” according your requirement, such as 45~65%RH. The UI will display the “Standard temperature” when the temperature lower 65%RH. The pops will disappear when you click accept.

Big data alarm: Based on big data, the smart agricultural big data integrated management platform forecasts the extreme abnormal weather that will occur in the next few hours in advance; at the same time, when the temperature and humidity in the shed and the current ambient light intensity and atmospheric pressure data are greater than or If it is less than the warning value set by the user, the big data platform will automatically send a message to the user to remind the user to take corresponding measures.

Visualization large screen: The cloud platform can provide users with a more intuitive large screen, 24-hour temperature and humidity data analysis, abnormal alarm analysis, big data early warning analysis, and more accurate management of the future based on the analysis of past data.

HT-Z82 Intelligent Gateway specification manual-Interface

HT-Z42 4G 2-way Intelligent Remote Controller

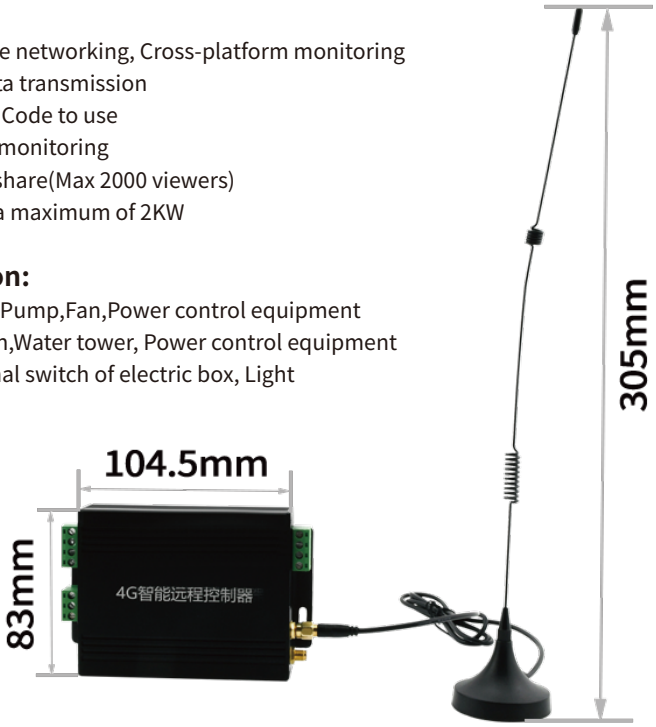
The 4G 2-way intelligent remote controller transport datas via cloud platform, PC and IOS & Android via the Three - network full - band wireless communication technology & the independent research and development of interactive communication protocol, the core adopts STM32 SCM and have advantage of high performance,low latency,large-scale networking and so on.

Features:

★ Large-scale networking, Cross-platform monitoring
★ Steady data transmission
★ Scan a QR Code to use
★ Real-time monitoring
★ One click share(Max 2000 viewers)
★ Supports a maximum of 2KW

Application:

Argriculture: Pump,Fan,Power control equipment
Industrial:Fan,Water tower, Power control equipment
Home: Internal switch of electric box, Light



Technology Datas

Support control channel: 2 way
RS485:1 way
Antenna interface:4G*1, GPS*1(Default Antenna before shipping)
Power supply:DC12V 1A
Min power consumption:15mW
Sensor monitoring range:Tem:-40-80°C Humi:0-100%RH
Operating range:-20°C-80°C
Storage range:-40°C-125°C
Enviroment humidity:10%-90%(No condensation)
Humidity measuring accuracy:±3%RH
Report cycle:600s (Factory Default)

Device List

Host	×1
RH/T sensor	×1
User manual	×1
Certification	×1
Warranty card	×1
Antenna	×1
12V1A power	×1

Interface diagram

LED *4

Red on: The power indicator is running properly
Green flashes intermittently: The network connection is reported properly.
2 way Switch output, Light on(Connect), light off (disconnect)

External interface

2 way Switch output, RS485 output *1, I2C output *1

4G Intelligent remote controller interactive cloud platform & Define hardware program report logic

Function: Remote switch, Normally open(default)
Function definition: Countdown control,An unlimited number of custom tasks can be added,task list
Datas display terminal: Web, ios& android(App/ mini program/Wechat official account/H5)
Using method: Scan a QR Code to use
Big data cloud platform: Support, Cluster deployment, Privatization deployment, OEM
Alarming method: APP/Message/E-mail/ WeChat Official Platform
Over temp: Custom Alarming<standard temperature<Alarming
Over humid: Custom Alarming
Low humid: Custom Alarming
Low humid: Custom Alarming
Environmental data monitoring: Max air temperature, Min air temperature, Current air temperature, Atmospheric pressure, current wind speed, current wind direction, current wind level, sulfur dioxide, nitrogen dioxide, carbon monoxide, ozone, PM10, PM2.5, air pollution
Bad weather warning: Wind speed warning, Wind warning, High temperature warning、Extreme cold warning

Interface：PC IOS

Android

Precautions for installation and use?

1.Open the automatic operation
2.Set the ambient temperature in ascending order
3.Max operation value≥0(positive integer)
4.Temperature-controlled standard value ≥0(positive integer)
False:-10s-1s
5.You must open the wind-cloth curtains before you want to close it.

How to ensure the accurate measurement?

1.Turn on/off the inching :Set the inching time(e.g.5s) before using the device.Quick open or close will run for 5 seconds.
2.Turn on/off control: Set the operating time if you want to operate strength. e.g 15s.

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