KTH2-RM, KTH2-R-PE, KTH2-R-PVC

Temperature and humidity transmitter

Frequently Asked Questions

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I. FAQ for KTH2-RX Temperature and Humidity Transmitter

1. What is the accuracy of temperature and humidity transmitters in measuring temperature and humidity?

A: Temperature measurement accuracy reaches ±0.2℃, and humidity measurement accuracy reaches ±2%RH (at 25℃).

2. What is the maximum communication distance of an RS485 temperature and humidity transmitter?

A: The maximum distance can reach 1200 meters.

3.How stable are the temperature and humidity parameters of the temperature and humidity transmitter over the long term?

A: Excellent annual stability: temperature < ±0.03℃/year, humidity < ±0.25%RH/year.

4. Probe type Temperature and humidity transmitter KTH2-RM, KTH2-R-PE, KTH2-R-PVCWhat baud rates are supported?

A: This product supports multiple baud rate settings: 1200, 2400, 4800, 9600 (factory default) and 19200 bps.

Due to the low-speed characteristics of RS485 communication and the stringent requirements for product performance and measurement accuracy, we adopted a low-frequency main control chip design. This design effectively reduces chip power consumption and heat generation, minimizing thermal interference from the chip's own temperature rise to the temperature sensor, thereby ensuring high accuracy and stability of temperature and humidity measurement data.

If your application requires support for higher baud rates, please contact us for customized

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development.

5. Probe type Temperature and humidity transmitter KTH2-RM, KTH2-R-PE, KTH2-R-PVCWhat is the register address for reading temperature and humidity?

A: Temperature: 0x0300 (40769); Humidity: 0x0301 (40770). All of our temperature and humidity transmitters use the same register address, allowing users to quickly replace them with other temperature and humidity products from our company.

6.What precautions should be taken when wiring an RS485 interface?

A: Please note the following points when wiring:

- Use shielded twisted-pair cable for RS-485 communication cabling to avoid interference.
- For long-distance or multi-device communication, 120Ω terminating resistors should be installed at both ends of the bus.
- If communication is unstable, it is recommended to use a separate power supply nearby to avoid the impact of voltage drop from a shared power source.

7.How do I interpret the temperature and humidity readings from a temperature and humidity transmitter?

A: Actual value = Reading value × 0.1 (e.g., if the reading is 269, then the temperature is 26.9℃).

8.If a temperature and humidity transmitter reads a negative temperature, how should it be converted or calculated?

A: Negative temperature calculations are performed using two's complement (resolution 0.1℃).
For example: the temperature at this time is -21.7℃;
Hexadecimal (FF27-10000) => Decimal -217 => -217 * 0.1℃ = -21.7℃

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9. How should you choose the casing material if they are different?

Metal casings offer advantages such as robustness, rapid temperature response, and strong protection. However, they are more expensive and susceptible to corrosion in high-humidity environments. They are suitable for environments with rapid temperature changes, such as computer rooms and warehouses.

PVC casings offer some mechanical protection and are the cheapest option. However, they have drawbacks such as moderate heat resistance and exposed PCB, making them unsuitable for high-dust environments. They are generally suitable for general factory buildings and industrial site temperature measurement.

PE housings offer excellent waterproof and dust proof capabilities, but their mechanical strength is generally average. They are suitable for outdoor use or in cold chain applications; in particular, some food processing plants may use food-grade PE housings as temperature sensing units.

When selecting a model, the appropriate housing should be chosen based on the actual application environment.

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