



SXM THT01

Temperature and humidity transmitter
with RS232 communication.

User manual

1. Product Introduction

The SXM THT01 is an ultra-low power (<0.02 W) temperature and humidity transmitter designed to deliver accurate and stable measurements. Its optimized architecture and dedicated air channel minimize internal heating, improving response time and accuracy.

It incorporates high-quality sensors, ensuring reliable performance. Furthermore, it features configurable switching outputs (1 or 2 channels) and advanced control and alarm functions, including temperature and humidity management (high/low), as well as heating, cooling, humidification, and dehumidification applications.

2. Application

The device is designed to integrate with MDVR solutions from the SXM line, enabling real-time environmental monitoring within vehicles and mobile environments.

It is ideal for implementation in transport units, onboard technical rooms, cargo compartments and special applications and spaces that require precise temperature and humidity control.

3. Product feature

- Ultra-low power consumption and unique air duct design to prevent circuit temperature increase, allowing for more accurate measurement and faster response.
- Large, high-resolution LCD screen design.
- Second generation high-precision probe.
- Password protection to prevent unauthorized access.
- Celsius and Fahrenheit can be switched.
- Integrated dew point analysis function.
- Integrated clock function .
- Ceiling mount design for easy installation.
- Super stability and anti-interference capability.
- High measurement accuracy, wide range, good consistency.
- Product with robust, first-class lightning protection.



4. Main parameters

Nominal voltage	DC9V~DC26V (recommendation 12V)
Measurement range	Temperature: -20°C~80°C
Measurement accuracy	Humidity: 0~100% RH Temperature: ±0.3°C Resolution 0.1°C Humidification: ± 3% RH Resolution 0.1 rh
Output interface	RS232
Protocol	MODBUS RTU
Protocol Office	1-247
Baud rate	1200 bit/s, 2400 bit/s, 4800 bit/s, 9600 bit/s, 19200 bit/s
Average energy consumption	<0.02 W, <2 mA
Switch output	Optional switch outputs of 1 to 2, by default there are none.
Data record	Optional temperature and humidity data logging and event logging; by default there are no event logs.
Effective coverage area	10–20 m ² per unit
Installation method	Interior wall installation, ceiling installation
Product size	90*95*29 mm

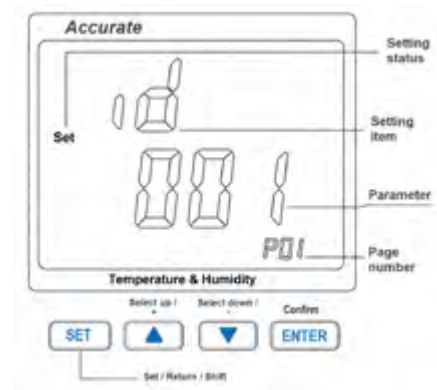
5. Operating and configuration instructions

On the main screen, use the “Up” and “Down” keys to switch between the different available displays: Td (dew point), ID (device address), Baud (transmission rate), DO1 (channel 1 status), DO2 (channel 2 status), Date (day) and Time (minutes).

To access the settings menu, press the “Settings” button on the main screen. The system will prompt you for a password; the default is “0000”. Use the “+” and “-” keys to change the selected digit, and the “Settings” key to scroll through the digits. Once you have entered the correct password, press “Confirm” to access the menu.

The settings menu has multiple pages of parameters. Use the “Up” and “Down” keys to navigate between options and press “Confirm” to edit the selected parameter.

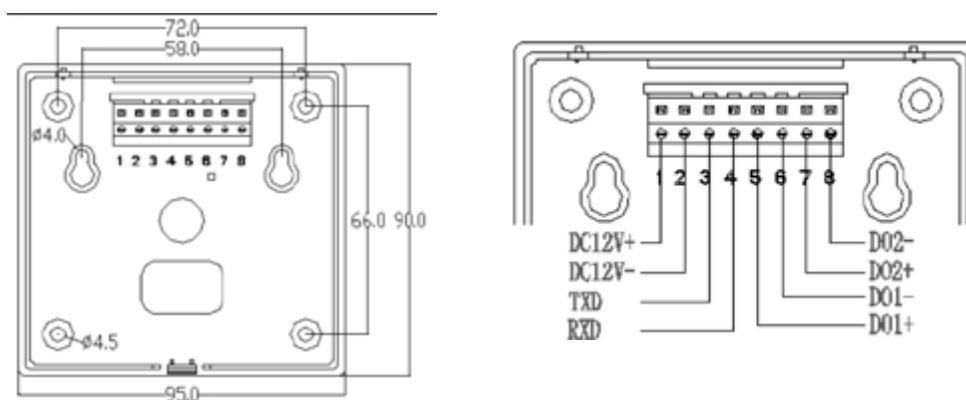
Once the configuration is complete, press “Confirm” to save the changes and then “Configure” to return to the main screen.



Configuration elements and corresponding page numbers

Página	Element configuration	Instruction	Página	Element configuration	Instruction
01	Protocol Office	1-247	12	Low temperature limit	Low temperature alarm or lower temperature limit
02	Baud rate	1200-19200	13	High humidity limit	High humidity alarm or humidity limit
03	Verification method	n81, o81, e81	14	Low humidity limit	Low humidity alarm or lower humidity limit
04	Temperature unit	C: Celsius; F: Fahrenheit	15	Temperature damping value	The default value of 0.1 °C, relay anti-jitter
05	Use of DO1	Ctrl: Control mode Alarm: Alarm mode	16	Moisture buffering value	Default 1% RH, relay anti-jitter
06	Use of DO2		17	Date settings	Year, Month, Day
07	Enable DO1 function	0 is Disable	18	Time setting	Hour, Minute, Second
08	Enable the DO2 function	1 is Enable	19	Code configuration	0000-9999
09	State DO1	OFF means open, ON means closed	20	Establishment of a record period	Units can be configured for the points, from 1 to 180.
10	DO2 State		21	Zigbee network ID	Zigbee wireless network parameters
11	High temperature limit	High temperature alarm value or upper temperature limit	22	Zigbee network ID	Zigbee wireless network parameters

6. Wiring instructions for installation



Precautions

1. Do not install it directly over sources of heat, cold, or direct sunlight.
2. Do not remain for long periods in environments with steam, water mist, water curtain or condensation.
3. In dusty or other contaminated environments, the product should be cleaned regularly.



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Product may vary from description.

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