

INDUSTRIAL PRODUCT DATASHEET

Industrial MODBUS RS485 Air Temperature and Humidity Sensor, with Waterproof Aviation Connector

Industrial MODBUS RS485 air temperature and humidity sensor with waterproof aviation connector for reliable temperature and humidity monitoring in smart city, smart agriculture, and environmental monitoring applications.

SKU	UPDATED	PRICE
101990882	2026-07-20 09:27:06	\$45.00(Excl. VAT)



Overview



This industrial air temperature and humidity sensor measures humidity from 0 to 100%RH and temperature from -40 to 80°C with high accuracy, fast response, and stability. Equipped with a waterproof aviation connector, it uses MODBUS-RTU RS485 and is compatible with the SenseCAP Sensor Hub 4G Data Logger for industrial environment sensing.

Key Features

Exciting News: Only 50 kits! Enjoy a **50% discount** on our 4G or LoRaWAN® Solution Kits - first come, first served!

- **4G Solution Kit**
- **LoRaWAN® Solution Kit**

It measures air temperature and humidity ranging from 0~100%RH and -40~80°C. It can be widely used in industrial environment sensing scenarios.

We have two versions of the industrial temperature and humidity sensor. The main difference is the cable connector. Please choose the version that best suits your needs:

(1) This one is with a waterproof aviation connector. It is compatible with **SenseCAP Sensor Hub 4G Data Logger**, which can collect various sensor data simultaneously and send them via 3G/4G LTE.

(1) Another version is with hook-up wires. That is compatible with **SenseCAP LoRaWAN® Data Logger** to connect with the LoRaWAN® network, enjoying the benefits of low-power and long-range communication.

It can also be compatible with a **Solar Radiation Shield for Outdoor Sensor Protection**, and it can be waterproof and reduce temperature buildup when measured outdoors.

- **High Performance:** High accuracy, fast response, and stability
- **Temperature Measurement Range:** Can be used in -40~80°C

Description

This air temperature and humidity sensor contains a complex algorithm to achieve an extremely high accuracy data collection process. Also, the high-level tolerance for working conditions and low cost of power provide a solution with long working expectations and saving of human resources. With a waterproof aviation connector, it is compatible with **SenseCAP Sensor Hub 4G Data Logger**.

Recommendation for SensorHUB

Sensor Hub Data Logger is an easy-to-deploy 4G cellular station. It uses the MODBUS-RTU RS485 protocol to communicate with sensors and can collect various sensor data simultaneously.

Sensor Hub consists of 4 RS485 data channels. With extension hubs / RS485 splitters, it can connect with a maximum of 32 sensors at one time. The data is collected and sent to the cloud (either to the SenseCAP server or the client's private server) via 4G/3G/2G (as shown below).

Designed with industry standards and IP66 rated, Sensor Hub is suitable for outdoor and harsh environments, resistant to UV, rain, and dust, etc. GNSS is embedded for location tracking.

Sensor Hub is also equipped with 10MB onboard memory, to store more than 700,000 measurements locally in case of a bad connection.

Seeed provides the **SenseCAP Portal and **SenseCAP Mate** to help users better manage and check data remotely.**

Application

- Smart City
- Smart Agriculture
- Environmental Monitoring
- Other Sensor Applications

Specification

Part list

Product Gallery



Specification

Specification	
Product Model	S-TH-01B
Signal Output	RS485 Modbus Protocol

Power supply	3.6-30V/DC
Current Consumption	4mA@24V DC
Humidity Measurement Range	0-100%RH, Resolution 0.01% Accuracy: $\pm 3\%$ RH
Temperature Measurement Range	-40~80°C, Resolution: 0.01°C, Accuracy $\pm 0.3^\circ\text{C}$
IP Rating	IP54
Operating Temperature	-40~85°C
Installation Methods	Wall-mounted Installation and Tube installation
Cable Length	2M
Connection Methods	Aviation connector and Hook-up wire

	Equipment	Number
1	Tube Installation Equipment	1
2	Wall-mounted Installation Equipment	1
3	Plastic Screw	2
4	Metal Screw	2

Applications

- **Smart City**
- **Smart Agriculture**
- **Environmental Monitoring**
- **Other Sensor Applications**

Compliance & Logistics



HSCODE	9025800090
USHSCODE	9025801000
UPC	
EUHSCODE	8517180000
COO	CHINA

FCC Requirement

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

15.21

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy.

If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Resource Links

- <https://www.seeedstudio.com/RS485-Temperature-and-Humidity-Sensor-Connector-p-5236.html>
- [RS485-Industrial-grade air temperature and humidity sensor](#)

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