

# SM7310V

## Product Overview

SM7310V bracket temperature and humidity sensor, the internal use of imported digital temperature and humidity sensor core and related devices, to ensure that the product has high reliability and excellent long-term stability. RS485, DC0-5V/10V voltage, 4-20mA current and other output modes are designed for selection.

It is widely used in machine room, medicine workshop, food workshop, warehouse, substation, cold storage, HVAC, dehumidifier, testing and testing equipment, agricultural greenhouse, environmental monitoring and other fields.

## Parameters

Specifications	Value
Measuring range	-30°C~80°C
Temperature measurement accuracy	±0.5°C@25°C
Moisture measuring range	0~100%RH
Humidity measuring accuracy	±3%RH@25°C
Resolution	0.01
Input voltage	DC18~24V
output voltage	DC0-5V/10V
power	<1W
Preservation environment	-40 ~ 70°C , 5 ~ 95% RH ( No condensation)
working temperature	-40 ~ 85°C ( Industrial grade )
Dimensions	See dimensions

## wiring method

The device comes with a 1 meter long 4-core cable.

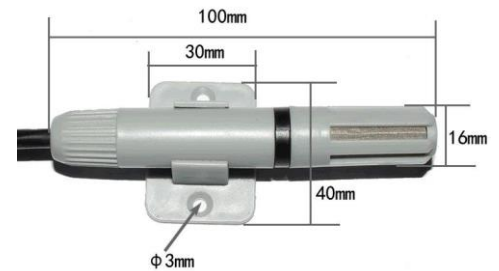
Wire color	Pin	Explanation
Red	V+	Power +
Green	V-	Power -
Yellow	H+	Humidity output
Blue	T+	Temperature output



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## Package dimensions



This product adopts the industrial universal voltage signal output mode, in which V - is the common foot of the voltage source and power supply. V + and V - are usually connected locally. The output voltage of humidity signal is between V - and H + and the output voltage of temperature signal is between V - and T + respectively.

### Instructions

The output is analog, and the voltage corresponds to the set full range. The relationship between voltage and specific temperature and humidity values is described below.

This set range of humidity detection is 0-100% RH. The relationship between voltage and humidity is shown in the following table: if the full range of humidity is recorded as HA, the read voltage value is AR, the actual corresponding humidity value HR is:  $HR = AR \cdot HA / 5$ , the commonly used data can be listed as follows:

Readout Voltage Value (V)	Readout Humidity Value (100% RH)	Computation process
0	0	$0 \cdot 100 / 5$
1	20	$1 \cdot 100 / 5$
2	40	$2 \cdot 100 / 5$
3	60	$3 \cdot 100 / 5$
4	80	$4 \cdot 100 / 5$
5	100	$5 \cdot 100 / 5$

For example, the range of temperature measurement is set as follows: - 30 to 80 C. The relationship between voltage and temperature is shown in the following table: if the full range of temperature is recorded as TA, the read voltage value is AR, the actual corresponding humidity value TR is:

$$TR = AR \cdot TA / 5 - 30$$

Readout Voltage Value (V)	Read out the temperature value (C)	Computation process
0	-30	$0 \cdot 100 / 5$
1	-8	$1 \cdot 100 / 5$
2	14	$2 \cdot 100 / 5$
3	36	$3 \cdot 100 / 5$
4	58	$4 \cdot 100 / 5$
5	80	$5 \cdot 100 / 5$