

## Temperature and Humidity Sensor SA-2001



### Product features:

High measurement accuracy; built-in high-performance microprocessor; multiple probe options; integrated use of temperature and humidity; superior performance and long-term stability.

### Applications:

Widely used in building automation; climate and HVAC signal acquisition; greenhouses and the pharmaceutical and chemical industries.

### Product description

SA-2001 temperature and humidity sensor adopts wall-mounted installation, built-in imported digital temperature and humidity sensor components, through industrial-grade microprocessor and digital-to-analog conversion processing, to ensure that the product output has excellent reliability, high precision and good interchangeability. It is widely used in building automation, climate and HVAC signal acquisition, greenhouses, and pharmaceutical and chemical industries.

### Features

- High measurement accuracy
- Built-in high-performance microprocessor
- A variety of probes are available
- Integrated use of temperature and humidity
- Superior performance, good long-term stability

### Scope of application

- Widely used in building automation
- Agricultural greenhouses, flower cultivation, etc.
- Greenhouses and pharmaceutical and chemical industries, etc.

### Technical Parameters

Product number	SA-2001
Measuring range	Measuring temperature: -40~+80℃, -40~+120℃ (external probe) Measuring humidity: 0%~100%RH
Output signal	RS485 output (Modbus protocol) 4~20mA/0~5VDC/0~10VDC
Supply voltage	10~30VDC (0~10VDC output, limited to 24VDC)

Maximum power consumption	Digital signal: 0.4W, Analog signal: 1.2W
Precision	Temperature: $\pm 0.5^{\circ}\text{C}$ ( $25^{\circ}\text{C}$ ) Humidity: $\pm 3\% \text{RH}$ ( $5\% \text{RH} \sim 95\% \text{RH}$ , $25^{\circ}\text{C}$ )
Resolution	Temperature: $0.1^{\circ}\text{C}$ Humidity: $0.1\% \text{RH}$
Long-term stability (1 year)	Temperature: $\leq 0.1^{\circ}\text{C}/\text{year}$ Humidity: $\leq 0.1\% \text{RH}/\text{year}$
Response time	Temperature: $\leq 18/\text{s}$ ( $1\text{m/s}$ wind speed), Humidity: $\leq 6$ seconds ( $1\text{m/s}$ wind speed)
Device address	1~255 can be set, the default is 1
Device baud rate	2400, 4800, 9600, 19200, 38400, 57600, 115200 are optional, the default is 9600
Byte format	1 start bit, 8 data bits, 1 stop bit, no parity
Electrical connections	Direct lead

**External structure**

