

User Manual

Product features

The WSPD-02 temperature & humidity transmitter is a high-precision digital probe node. It has wide measurement range, high measurement accuracy and Universal site compatible design, suitable for various places with high requirements for °C & RH measurement.

Typical application:

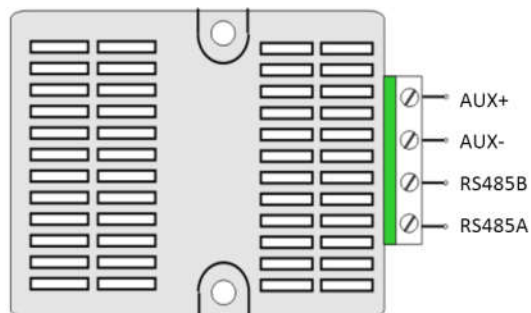
Measurement and control in industrial sites, offices, supermarkets, archives, production workshops, warehouses, machine rooms, construction sites, etc.

Provide standard RS-232 or 485 communication interface or transmitter output, can be directly connected to the host device or local secondary display instrument.

Parameter

Sensor type	High precision temperature and humidity sensor
Power rating	9~28VDC (default DC12V) Accept customized power range
Accuracy	Temperature : $\leq \pm 0.3^{\circ}\text{C}@25^{\circ}\text{C}$ Humidity: $\pm 3\% \text{RH} @(20-90\% \text{RH}, 25^{\circ}\text{C})$
Temperature measurement range	1= $(-40-80)^{\circ}\text{C}$, default 2= $(-20-60)^{\circ}\text{C}$ 3= $(0-50)^{\circ}\text{C}$
Humidity measurement range	0-100%RH
Communication output	Modbus-rtu, RS485port, ratio 9600, format n,8,1
Outer casing	White ABS plastic
Working current	$\leq 100\text{mA}$
Dimensions	65*46*29mm
Installation method	Din-rail installation (standard 35mm)
Working environment	$(-20-60)^{\circ}\text{C}$ or $(-40-80)^{\circ}\text{C}$

Wiring Terminal



Communication Protocol

Products use customize modbus protocol, default address 01

Read value

Send: 01 03 00 07 00 02 75 CA

- 01 Device address
- 03 Function code
- 00 Register start address(H)
- 07 Register start address(L)
- 00 Read number (H)
- 02 Read number (L)
- 75 CRC-L
- CA CRC-H

Received: 01 03 04 01 10 01 E2 BA 07

- 01 Device address
- 03 Function code
- 04 Data length
- 01 Temperature Byte-H
- 10 Temperature Byte-L
- 01 Humidity Byte(H)
- E2 Humidity Byte (L)
- BA CRC- L
- 07 CRC-H

Temperature data 0x 0110=272, actual value =27.2C

Humidity data 0x01E2=482, actual value =48.2%RH

Modify RS485 address

Send: 01 10 00 06 00 02 01 00 02 27 F7

01 Device address
10 Function code
00 Register start address(H)
06 Register start address(L)
00 Write number (H)
02 Write number (L)
01 Data length
00 New address Byte-H
02 New address Byte-L
27 CRC- L
F7 CRC- H

Received: 01 10 00 06 00 01 11 CB

01 Device address
10 Function code
00 Register address (H)
06 Register address (L)
00 Modify successes
01 Modify successes
11 CRC-L
CB CRC-H