

Overview

The **TxTH023** is a specialized sensor designed for outdoor temperature and humidity monitoring. Equipped with a standard radiation shield, it offers protection against wind and rain, ensuring optimal performance even in harsh weather conditions. The sensor provides three output options: current, voltage, and RS485, making it versatile for various applications. It is ideal for use in environments such as construction sites, weather monitoring systems, and other outdoor settings.

Features

- **5-layer radiation cover:** Designed to block external influences such as sunlight radiation and rain, ensuring excellent stability.
- **Adjustable protective cover:** The number of layers and height can be customized based on site requirements, making installation easy and flexible.
- **Durable and reliable:** Offers a long service life and strong anti-interference capabilities.
- **Reverse connection protection:** The output includes reverse connection protection, with a high protection rating of up to IP65.

Applications

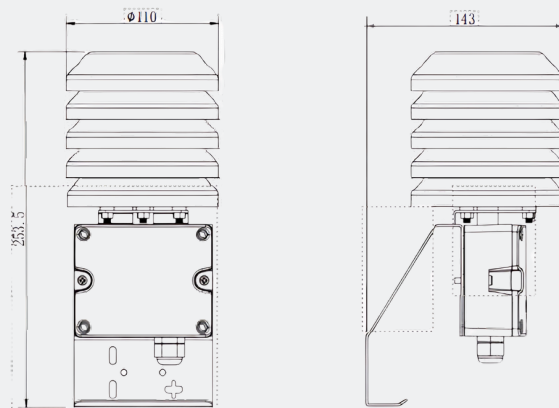
- Weather monitoring systems
- Construction sites
- Agricultural environments
- HVAC systems
- Industrial facilities
- Outdoor research stations
- Smart city projects
- Energy management systems

TxTH023

Outdoor Temperature And Humidity Sensor



Dimensions



Specifications:

Outdoor Temperature And Humidity Sensor

Relative humidity

Sensor	Digital
Range	0%~100%RH
Output	RS485/Modbus, 0~10VDC, 4~20mA
Accuracy	±3%@ 20°C & 20~80%RH
Response time	≤10s(20°C, slow air flow)

Temperature

Sensor	Digital or thermal resistance, see Order Ref No
Range	0~50°C, -20~60°C etc.
Output	4~20mA, 0~10VDC, RS485/Modbus
Thermal Resistance	See Order Ref No. and Thermal Resistance Indexing Table
Accuracy	Digital type: ±0.5°C@20°C; Thermal resistance type: typical±0.2~0.4°C@25°C, see Order Ref No. Thermal resistance type: typical±0.2~0.4°C@25°C, see Order Ref No.
Power Supply	Voltage type/485 type: 15~35VDC/24VAC+20% (isolated power supply is required for AC power supply) Current type: 18.5~35VDC (RL=500Ω)/8.5~35VDC (RL=0Ω)
Output Load	≤500Ω (Current type), ≥2KΩ(Voltage type)
Display	LCD display optional, with unit display and backlight (4~20mA without backlight)
Shell Material	PC housing, PC probe and ABS protection cover
Working Environment	-20~60°C ,5%-95%RH (Non-condensing)
Protection Level	IP65

Selection Code:

Code and description		Remark
TxTH023	Outdoor Temperature And Humidity Sensor	Model
3	±3%RH(±0.5°C)	Accuracy Range
V10	0~10VDC(3-wire)	Humidity Output
A	4~20mA(2-wire)	
RS	RS485/Modbus	
V10	0~10VDC(3-wire)	Temperature Output
A	4~20mA(2-wire)	
RS	RS485/Modbus	
1	Pt100, ±0.2°C@0°C	
2	Pt1000, ±0.2°C@0°C	
3	NTC10K, ±0.4°C@25°C	
4	NTC20K, ±0.4°C@25°C	
1	NO	Temperature Range
2	0~50°C	
3	-20~60°C	
9	Others (customerized)	

NOTES:-

- Only when the temperature output option is **V10** or **A**, the corresponding temperature range **2-9** should be selected; otherwise, only **1** can be selected.
- Exposure of the sensor probe of this product to high concentrations of chemical gases for a long time may cause the reading of the sensor to shift.

Despite all attempts to guarantee accuracy in this specification, NeoWave cannot be held liable for any damage injury, loss, or expense due to errors or omissions. Product specification and design might change without prior notice in pursuit of technical enhancements.

For technical support please contact: support@neowave.tech