OverView

TxDI36

Room Dust PM2.5&PM10 Sensor/Controller

NeoWave TxDI36 PM2.5/PM10 Indoor Dust Sensor
A laser-based sensor that detects particle sizes from 0.3 to 10μm (PM2.5/PM10) with high accuracy, fast response, and long-term reliability. Features overvoltage & reverse polarity protection, multiple output options (current, voltage, RS485), and an optional relay output for alarms/control. The six-color LED screen visually indicates air quality levels, while the compact design allows for easy wall-mount installation

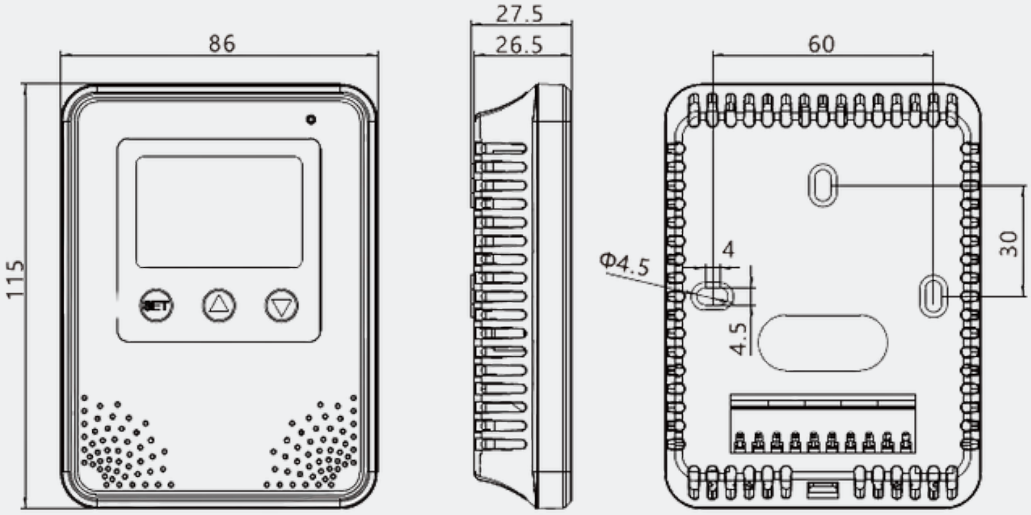
Features

- Laser dust sensor (0.3–10μm detection)
- Multiple outputs (analog, RS485, optional relay)
- Six-color LED for real-time air quality feedback
- Overvoltage & reverse polarity protection
- Relay output for alarms/automated control
- Compact & wall-mountable design

Applications

- Smart offices & commercial buildings
- Hospitals & healthcare facilities
- Schools & educational institutions
- Air quality monitoring in public spaces

DIMENSIONS AND WIRING



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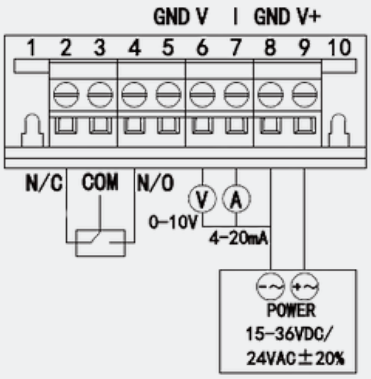
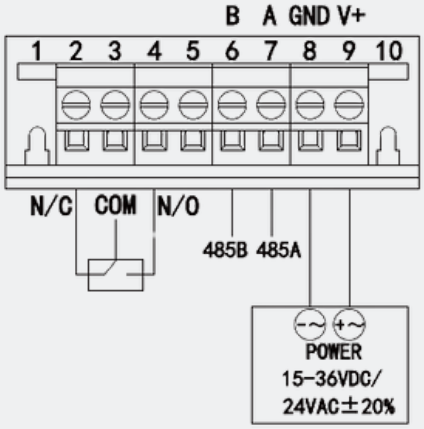
Depending on the selection, the following figures show the current and voltage output, RS485 output and relay wiring methods:





Specifications

Room Dust PM2.5&PM10 Sensor/Controller

Sensor	Laser dust sensor, detecting particle size 0.3~10μm		
Sensor life	Mean time between failures ≥ 3 years		
Range	PM2.5:0~500μg/m3, particle size 0.3~2.5μm	PM10:0~600μg/m3, particle size 0.3~10μm	
Accuracy	PM2.5:±10μg/m3@0~100μg/m3, ±10%FS@100~500μg/m3, @25°C		
Resolution	1μg/m3		
Preheating time	≤2min		
Response Time (T_{90})	Continuous measurement mode single response time <1S, comprehensive response time <10S		
Power supply	15~36VDC/24VAC±20%	4~20mA&0~10V	RS485
Relay	1xSPDT 3A/30VDC 3A/250VAC		
Work environment	0~50°C&0~95%RH (no condensation)		
Storage environment	-20~60°C &0~95%RH (no condensation)		
Display and keys	The equipment can set parameters such as relay working mode		
Levels of protection	IP30		
Material	PC		
LED indicator light	Green:Good	Yellow: Moderate	Orange: Sensitive
	Red:Poor	Purple: Unhealthy	Crimson: Hazardous

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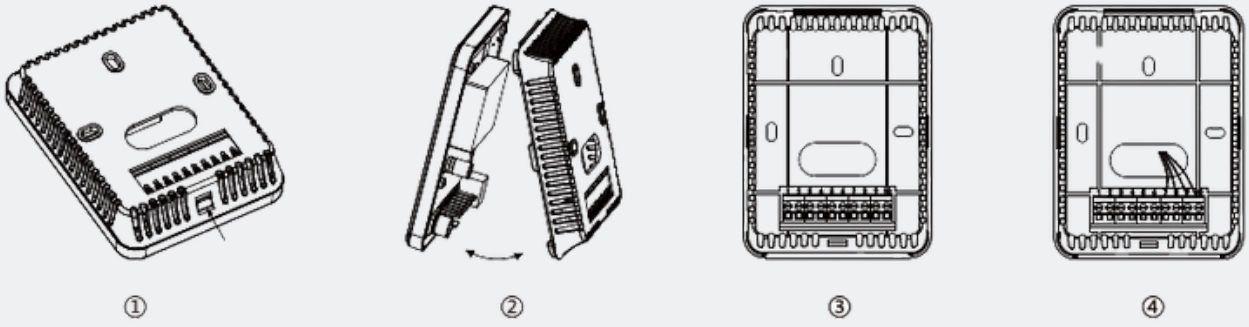
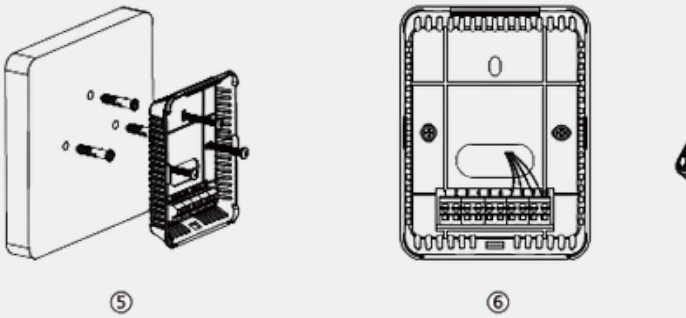
Installation

1. Open the Sensor Cover	• Press the cover release button located at the back to open the sensor (see Figure 1 & 2).
2. Connect Wiring	• Connect wires as per the wiring diagram (see Figure 3). • Route the cable through the designated cable entry hole (see Figure 4).
3. Mounting Options	• **Wall Mounting**: Secure the back cover using expansion screws (3 mounting holes provided see Figure 5). • **Switchbox Mounting**: Attach directly to a standard wall-embedded switch box using screws (see Figure 6).
4. Final Assembly	• Align and snap the front cover onto the base to complete installation (see Figure 7).





Selection Code:

Code and description				Remark
TxDI36	Room Dust PM2.5&PM10 Sensor/Controller			Model
	AV2	4~20mA&0~~10V@PM2.5		Type
	AV10	4~20mA&0~10V@PM10		
	RS	RS485Modbus		
		1	Without display button	Display Button
		2	With display button	
			1 No	Relay & buzzer (optional when equipped with display button
			2 1xSPDT	
			3 1xSPDT+1xbuzzer	