

# **AIR QUALITY SENSOR**

### Specification

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Pls read this user manual before use this product.

# BX-PM (485) air quality sensor

### Statement

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### **GUIDING**

#### Safety notes

Input voltage is 12V, electric current is 4A, power voltage can't be less than 12V, please make sure the quality of the power supply of sensors.
Users are not allowed to disassemble, not to touch the sensor core, so as not to cause damage to the product.

◆ As far as possible away from high-power interference equipment, so as not to cause inaccurate measurement, such as frequency converter, motor, etc., installation, disassembly transmitter must turn off the power, The power supply must be disconnected first. Water entering the forbidden transmitter can cause irreversible changes.

◆ Please make sure that all the power supply cables are plugged off when you want to connect or plug off any signal or controlling cables.

◆ Please make sure that all the power supply cables and signal cables are plugged off when you need to put in or take off the hardware equipment.

 $\blacklozenge$  Please make sure the environment is clean, dry and ventilated when you use this product, also, do not put this product to a high temperature and wet environment.

◆ This product is electronic products, please keep away from fire, water source and flammable&combustible products.

◆ There's high pressure components in this products, please do not open the box and repair it by yourself.

◆ Turn off the power supply immediately when you find smoking, peculiar smell or something unusual. And contact with us soon.

## **PRODUCT INSTRUCTION**

#### <u>Photo</u>



#### **Description**

BX - PM (485) air quality sensor is an industrial-strength, general particle concentration transmitter using a laser scattering measurement principle, through the unique dual-frequency data acquisition technology screening, it is concluded that the equivalent diameter of particle

particle number per unit volume, and with scientific unique algorithm to calculate the equivalent diameter of particles per unit volume mass concentration, and with 485 interface through the ModBus RTU protocol for data output. It can be used in outdoor weather stations, dust monitoring, libraries, archives, industrial plants and other places requiring PM2.5 or PM10 concentration monitoring.

#### **Features**

- Range: 0-6000ug/m3, resolution: 1ug/m3.
- PM2.5 and PM10 are output at the same time.
- Unique dual-frequency data acquisition and automatic calibration technology, the consistency can be up to 10%.
- Adopt advanced laser anti-attenuation technology to ensure long-term stability of the equipment.
- Standard modbus-RTU communication protocol, easy access.

Technical	parameters

DC power supply (default)	10~30V DC		
Working temperature of transmitter circuit	-20°C~+60°C, 0%RH~80%RH		
Communication interface	485 communication (modbus) protocol baud: 2400, 4800 (default), 9600		
	data length: 8 bit		
	Parity check system: none		
	Stop bit : 1bit		
	Default ModBus communication address: 1		
	Function code: 03		
Parameters setup	Set the 485 interface by the software		
Resolution	1ug/m3		
precision	$\pm 10\%$		
Test range	PM2.5	0~6000ug/m3	

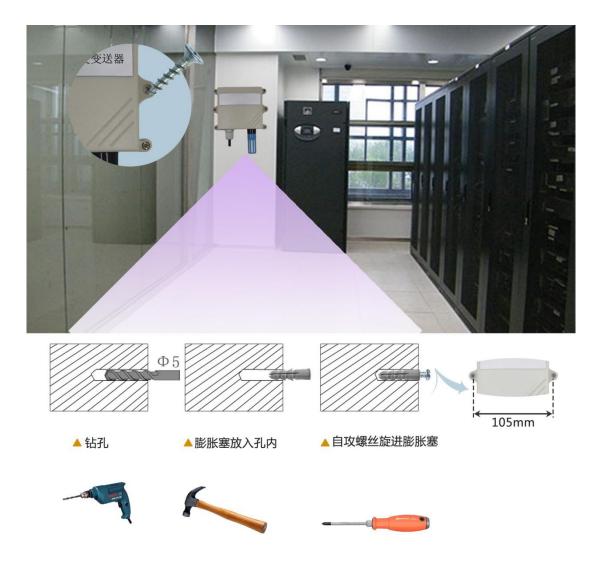
	PM10	0~6000ug/m3
Respond speech	≤90S	
Preheating time	≤2min	

## DEMENSION





## **INSTALLATION DIAGRAM**



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