onbon 仰邦科技

Specification

BX-FY Negative Oxygen Ion Sensor

VRE：V1.0　　release time：2021.03.19

Catalogue

Products Profile

The BX-FY negative oxygen ion sensor with liquid crystal display, real-time display of negative oxygen ion concentration in the air, equipment using RS485 communication, communication stability is good. The sensor can be used to monitor negative oxygen ions in forestry, environmental protection, meteorology and tourist sites.

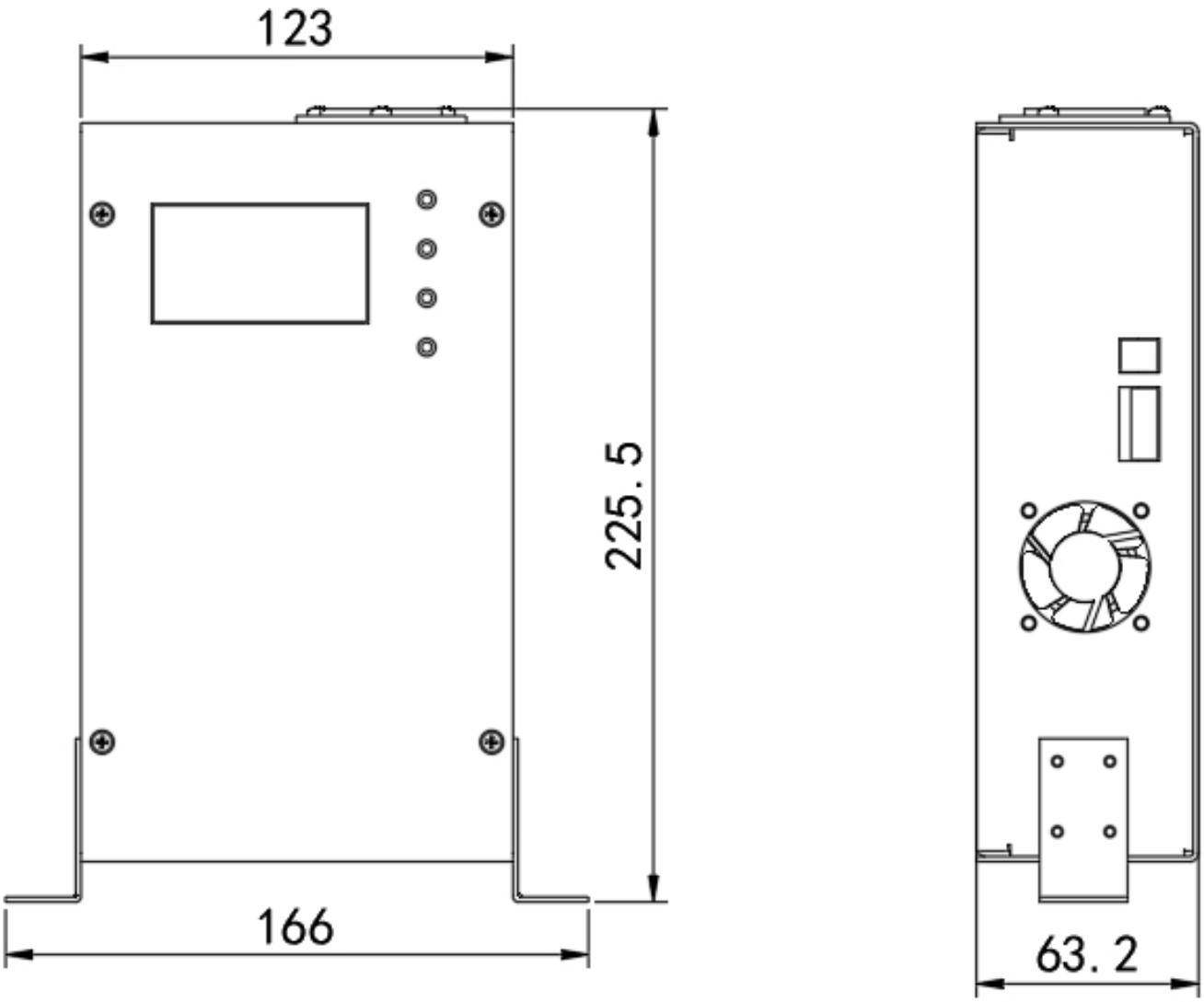
Products of Functions profile

- Screen liquid crystal display, beautiful and easy;
- Adopt to high precision negative oxygen ion measuring unit, good long-term stability, small drift;
- Adopts special 485 circuit, standard MODBUS-RTU communication protocol;
- 12V DC voltage supply;
- Key to set parameters, easy to operate;
- Small size, easy installation, easy to implement on site;
- Suitable for all kinds of full color LED display。

Installation of Diagram

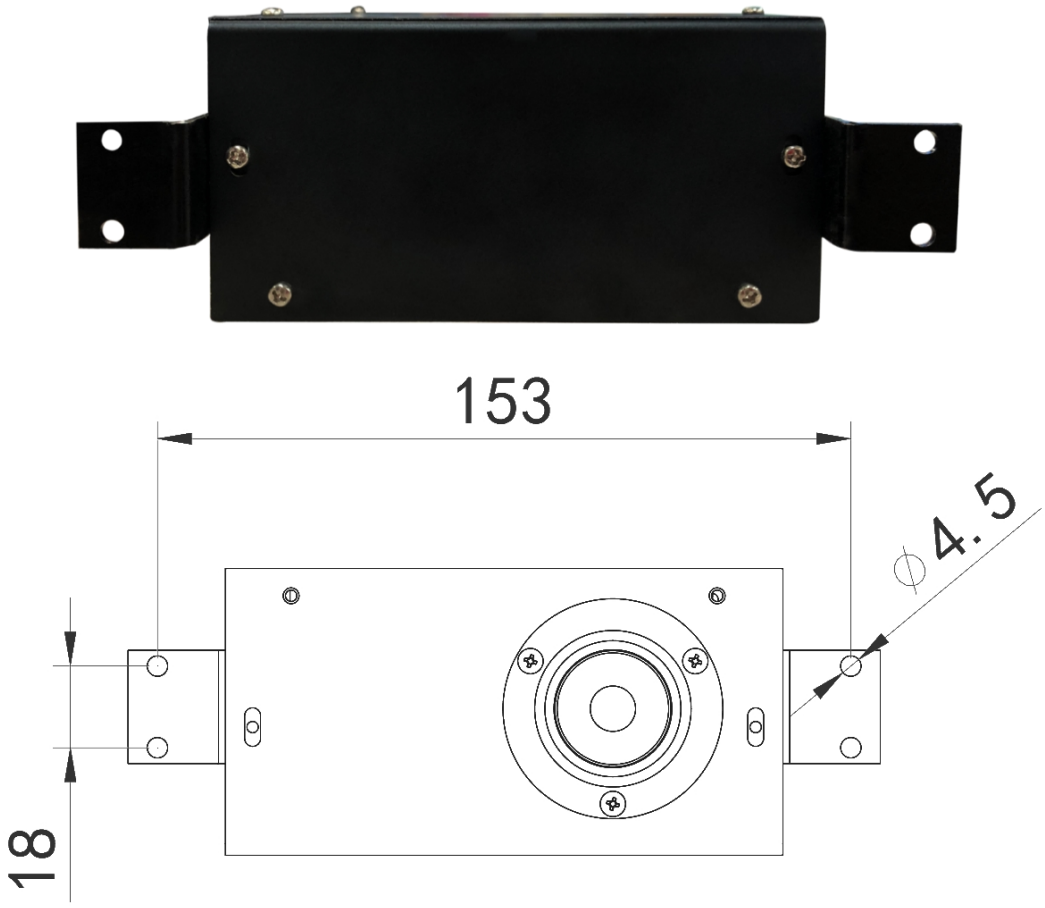
Boundary dimension

Units：mm

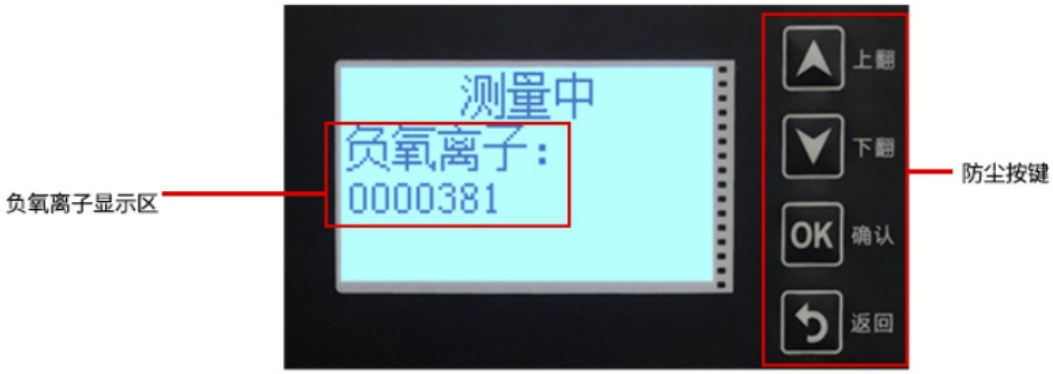


Installation procedure

1. It can be installed and fixed with screws, and the size of the mounting hole is as follows (unit: mm) : Note that the equipment must be placed vertically, otherwise the accuracy of data will be affected.
2. The installation shall be stable, and the height from the center of the detector to the ground shall be 1.5m.
3. The shell and outer box of the collector should be well grounded.
4. With a lightning protection facilities, grounding resistance should be less than 4 Ω .。
5. Protective fences can be set selectively. The height of the fence should not exceed 1.2m, and the distance between the instrument and the fence should be greater than 2.0m。



Keys and Display



Connection definition

When wiring, the serial number on the terminal of the machine shall correspond to the serial number on the label on the product body.

Line color	Specific
Brown line	VDD “+”
Black line	GND “-”
Green line	D+
Blue line	D-

Technical specifications

parameter	specification
Power supply	The standard DC12V
Maximum power consumption	2W
FAULT SPAN	0-5 million per cubic centimeter
Minimum resolution	10pcs /cm^3
Measuring error	±15%
Communication interface	Standard configurationRS485
Work environment	Temperature：-30～60℃
	Relative humidity：10～90%RH
Data update frequency	1Hz
Ionic mobility	0.4cm2/(V*S)
Ion mobility error	±5%

- It's recommended to purchase the special negative oxygen ion sensor provided by Onbon Technology. We're not recommend to customers oneself to choose and buy, so as not to model deviation.

Appendix

Short list of common sensor technical parameters

Products of name	Response time (seconds)	Measuring range	Precision	*Environment temperature	*Environment humidity
Temperature sensor	1	Temperature：-55℃~+125℃	Temperature：±0.5℃	-10℃~+85℃	——
Temperature and humidity sensor	1	Temperature：-40℃~+80℃	Temperature：±0.5℃	-40℃~+80℃	——
		Humidity：0~99.9%RH	Humidity：±3%RH		
Luminance transducer	5	Luminance：1~65535 lux	Luminance：±20%	-40℃~+85℃	0%RH~80%RH
Air velocity transducer:BX-FS(485)	1	Wind speed：0~60m/s	Wind speed：±0.3m/s	-40℃~+60℃	0%RH~80%RH
Wind transducer:BX-FX(485)	1	Wind direction：0-359.9°	Wind direction：±1°	-40℃~+60℃	0%RH~80%RH
Noise transducer BX-ZS(485)	1	Noise：30dB~120dB	Noise：±0.5dB	-20℃~+60℃	0%RH~80%RH
Purity sensor BX-PM(485)Outdoor waterproof type	1	PM2.5：0~6000ug/^{3}	PM2.5、PM10：±10%	-20℃~+60℃	0%RH~80%RH
		PM10：0~6000ug/m^3			
BX-QX(485)Outdoor waterproof type	1	Temperature：-40℃~+120℃	Temperature：±0.5℃	-20℃~+60℃	0%RH~80%RH
		Humidity：0%RH~99%RH	Humidity：±3%RH		
	1	Noise：30dB~120dB	Noise：±3db		
	1	PM2.5、PM10：0-6000ug/m^3	PM2.5、PM10：±1ug/m^3		

*The is direct of guarantee for senor corresponding measure accuracy of working environment by range of ambient temperature and humidity listed in the table.

*In general with in market same type sensor can not directly compatible by all the sensors listed in the table are customized products of BX.

Technical Parameters of Common Sensors (Continued)

Products of name	Interface type	Transmission distance	Power supply
Temperature sensor	Monobus	10-12 meter	3.0V~5.5V
Temperature and humidity sensor	Monobus	10-12 meter	3.0V~5.5V
Luminance transducer	I²C	10-12 meter	3.0V~5.5V
Wind Speed Sensor BX-FS(485)	RS485	Unlimited	12V or 24V power supply, power ≤0.5W
Wind direction sensor BX-FX(485)	RS485	Unlimited	12V or 24V power supply, power ≤0.5W
Noise Sensor BX-ZS(485)	RS485	Unlimited	12V or 24V power supply, power ≤0.5W
Air quality sensor BX-PM(485) outdoor waterproof type	RS485	Unlimited	12V or 24V power supply, power ≤0.5W
BX-QX(485) outdoor waterproof type - temperature and humidity	RS485	Unlimited	12V or 24V power supply, power ≤0.5W
BX-QX(485) Outdoor Waterproof - Noise	RS485	Unlimited	12V or 24V power supply, power ≤0.5W
BX-QX(485) Outdoor waterproof type - Air quality	RS485	Unlimited	12V or 24V power supply, power ≤0.5W

Shanghai Onbon technology INC

Ad：7th Floor, Building 88, No. 1199, Qinzhou North Road, Xuhui District, Shanghai

Website：www.onbonbx.com

Tel:15921814956

Email:onbon@onbonbx.com

Facebook: https://www.facebook.com/profile.php?id=100012280330l2

Kunshang Onbon photoelectric manufacturer Base

Ad：299 Fuchunjiang Road, Kunshan Development Zone, Jiangsu Province, China