

## BX-CO<sub>2</sub> sensor specification



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## Instruction

The BX-CO2 carbon dioxide sensor adopts the new infrared verification technology to measure the CO2 concentration, and the response is fast and sensitive, which avoids the life and long-term drift problems of traditional electrochemical sensors, and is widely used in agricultural greenhouses, flower cultivation, edible mushroom cultivation, etc. occasion. The product equipment adopts RS485 communication, and the communication stability is good. The shell has a high degree of protection and can adapt to various harsh conditions on site.

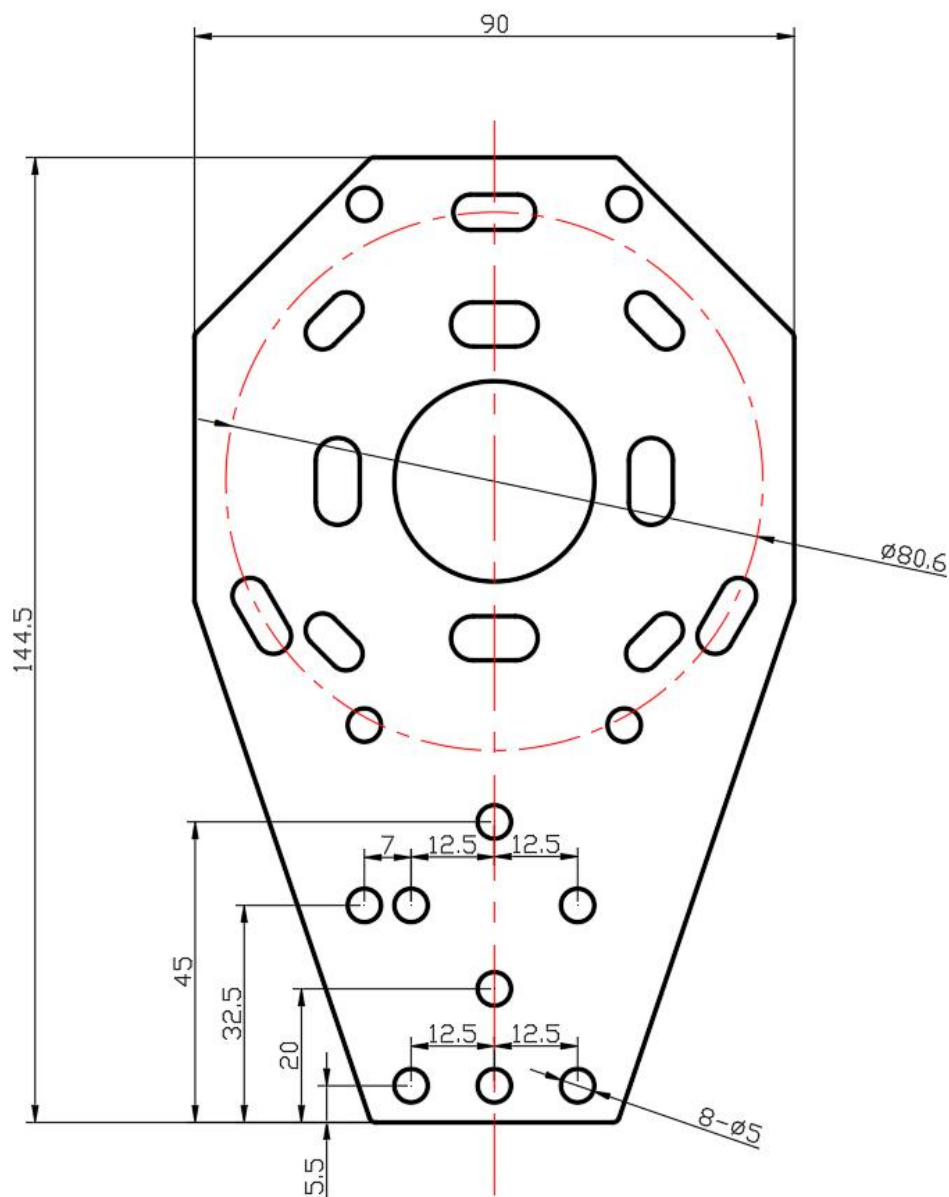
## Functions

- The equipment adopts RS485 communication, standard ModBus-RTU communication protocol, and the communication stability is good;
- New infrared verification technology for CO2 concentration measurement, high accuracy, small drift and long life;
- Wide measurement range, default 0-5000ppm (default), with built-in temperature compensation, less affected by temperature;
- The product adopts a wall-mounted waterproof case, which is easy to install and has a high degree of protection.

## Dimension



Unit : mm



## Installation



## Connection

When wiring, the number on the terminal of the machine should correspond to the number on the label on the product .

Cable Color	Instruction	mark
Brown	12V	Positive power
Black	GND	Negative power
Yellow	D+	Receive signal positive terminal
Blue	D-	Receive signal negative terminal

## Technical parameter

Parameter	Specification
Power supply	DC12V
Max power	≤2W
Default range	0-5000 ppm
Default precision	±(40ppm+ 3%F·S)
response	1s
Working temp	temp: -10 ~ 50°C
	humidity: 0 ~ 80%RH
Communication	RS485 on board



## Appendix

### Sensor parameters quick guiding(1)

Product name	response(s)	Default range	Precision	Working temp	*Working humidity
Temp sensor	1	Temp sensor: -55°C~+125°C	Temp sensor: ±0.5°C	-10°C~+85°C	——
Temp &humidity sensor	1	Temp sensor: -40°C~+80°C	Temp sensor: ±0.5°C	-40°C~+80°C	——
		Humidity: 0~99.9%RH	Humidity: ±3%RH		
Brightness sensor	5	Brightness: 1~65535 lux	Brightness: ±20%	-40°C~+85°C	0%RH~80%RH
Wind speed sensor BX-FS(485)	1	wind speed: 0~60m/s	wind speed: ±0.3m/s	-40°C~+60°C	0%RH~80%RH
Wind direction sensor BX-FX(485)	1	wind direction: 0-359.9°	wind direction: ±1°	-40°C~+60°C	0%RH~80%RH
Noise sensor BX-ZS(485)	1	noise: 30dB~120dB	noise: ±0.5dB	-20°C~+60°C	0%RH~80%RH
Air quality sensor BX-PM(485)water proof	1	PM2.5: 0~6000ug/ <sup>3</sup>	PM2.5、PM10: ±10%	-20°C~+60°C	0%RH~80%RH
		PM10: 0~6000ug/m <sup>3</sup>			
Environmental sensor BX-QX(485) waterproof	1	Temp sensor: -40°C~+120°C	Temp sensor: ±0.5°C	-20°C~+60°C	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 <sup>3</sup>	PM2.5、PM10: ±1ug/m <sup>3</sup>		

\*The value ranges of the environmental Temp sensor and the environmental Humidity listed in the table refer to the working environment under which the sensor corresponds to the measurement accuracy;

\*All sensors listed in the table are BX customized products, and are generally not directly compatible with similar sensors on the market.

## **Sensor parameters quick guiding(2)**

Product name	Interface	transfer	Power supply
Temp sensor	one-wire	10-12 meters	3.0V~5.5V
Humidity sensor	one-wire	10-12 meters	3.0V~5.5V
Brightness sensor	I <sup>2</sup> C	10-12 meters	3.0V~5.5V
wind speed sensor BX-FS(485)	RS485	no limit	12V or 24V power ≤0.5W
wind direction sensor BX-FX(485)	RS485	no limit	12V or 24V power ≤0.5W
Noise sensor BX-ZS(485)	RS485	no limit	12V or 24V power ≤0.5W
Air quality sensor BX-PM(485) waterproof	RS485	no limit	12V or 24V power ≤0.5W
BX-QX(485)waterproof-Humidity	RS485	no limit	12V or 24V power ≤1W
BX-QX(485)waterproof-noise	RS485	no limit	12V or 24V power ≤1W
BX-QX(485)waterproof- air quality	RS485	no limit	12V or 24V power ≤1W

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