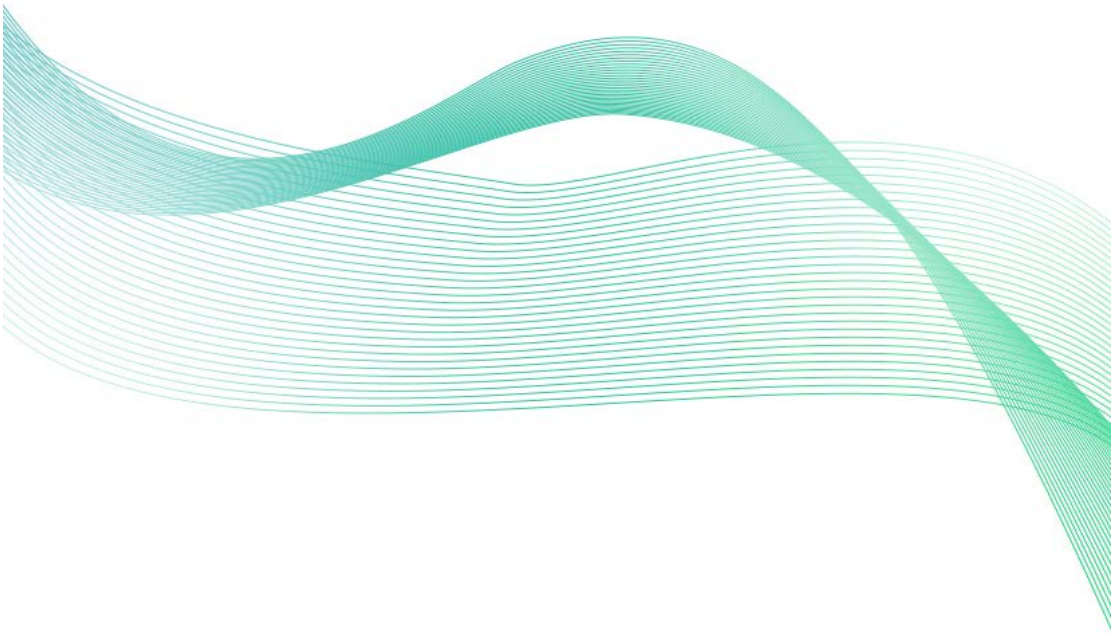
SUCH

UV Transmitter (Analog Type)



Chapter 1 Product Overview

1.1 Product Overview

The transmitter is widely used in agricultural greenhouses, flower cultivation and other occasions that require ultraviolet light and temperature and humidity monitoring. Sensor input power supply, sensing probe output three parts completely isolated. Safe and reliable, beautiful appearance, easy to install.

1.2 Functional Characteristics

This product adopts high sensitivity sensing probe, signal stability with a wide measuring range, good linearity, good waterproof performance, easy to use and install, transmission distance and other characteristics.

1.3 Main Parameters

DC power supply (default)	10-30VDC (0~10V models can only be powered by DC 24V)	
Maximum Power Consumption	1.2W	
Typical Accuracy	±10% FS（@365nm,60%RH,25℃）	
UV intensity range	0~15 mW/ cm^2； 0~ 450 uW/ cm^2	
Measurement wavelength range	Wavelength 240-370 nm	
Operating Environment	-40℃~ +60℃， 0%RH~ 80%RH	
Response Time	UV intensity	0.2s
Output Signal Load capacity	Current Output	4mA~20mA
	Voltage Output	0~5V/0~10V
DC power supply (default)	Current Output	Load capacity≥600Ω
	Voltage Output	Output resistance≤250Ω

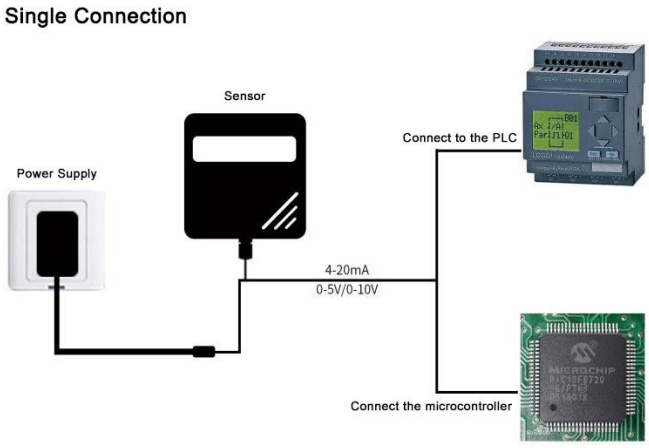
The performance data stated above were obtained under test conditions using our test system and

software. Despite the high reliability of this product, we recommend checking that the equipment functions properly and that the parameters are up to standard before use to ensure that it does not interfere with on-site use.

Overall Dimension：110× 85× 44mm

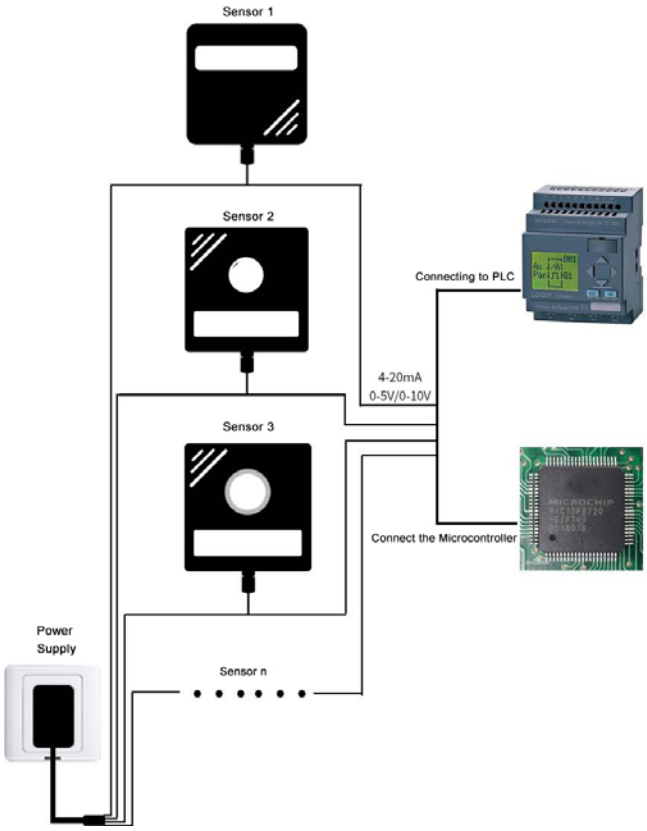
1.4 System Framework Diagram

When the system needs to access an analog version of the sensor, you only need to supply power to the device, and at the same time, the analog output line will be connected to the DI interface of the microcontroller or PLC, and at the same time, according to the conversion relationship in the latter part of the preparation of the corresponding acquisition program can be.



When the system needs to access more than one analog version of the sensor, you need to connect each sensor to each different microcontroller analog acquisition port or PLC DI interface, and at the same time, according to the conversion relationship later to write the corresponding acquisition program can be.

Multiple Connections



Chapter 2 Hardware Connections

2.1 Pre-installation Inspection of Equipment

Equipment list:

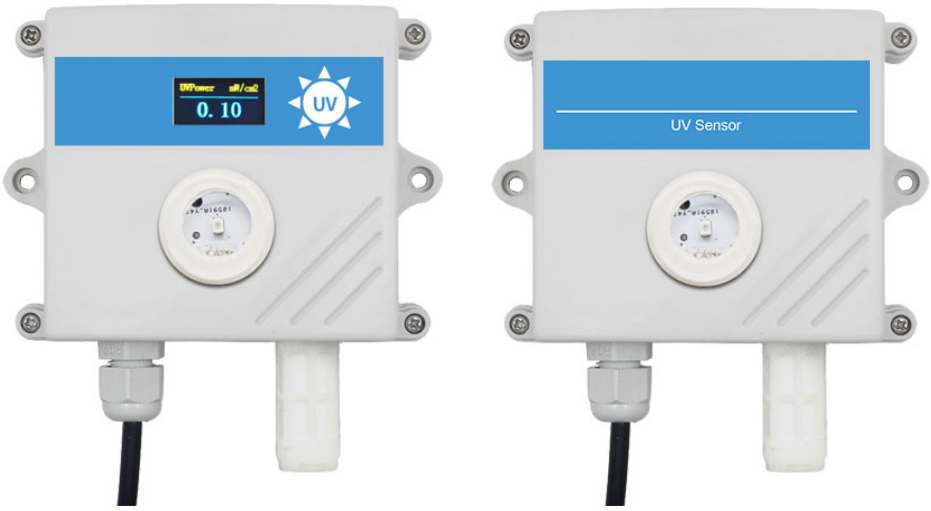
- 1 set of transmitter equipment
- Self-tapping screws (2), expansion plug (2)
- Certificate of conformity, warranty card

2.2 Interface Description

4~20mA, 0-5V output type device wide voltage 10~30V DC power supply input.

0-10V output type devices require 18~30V DC power supply.

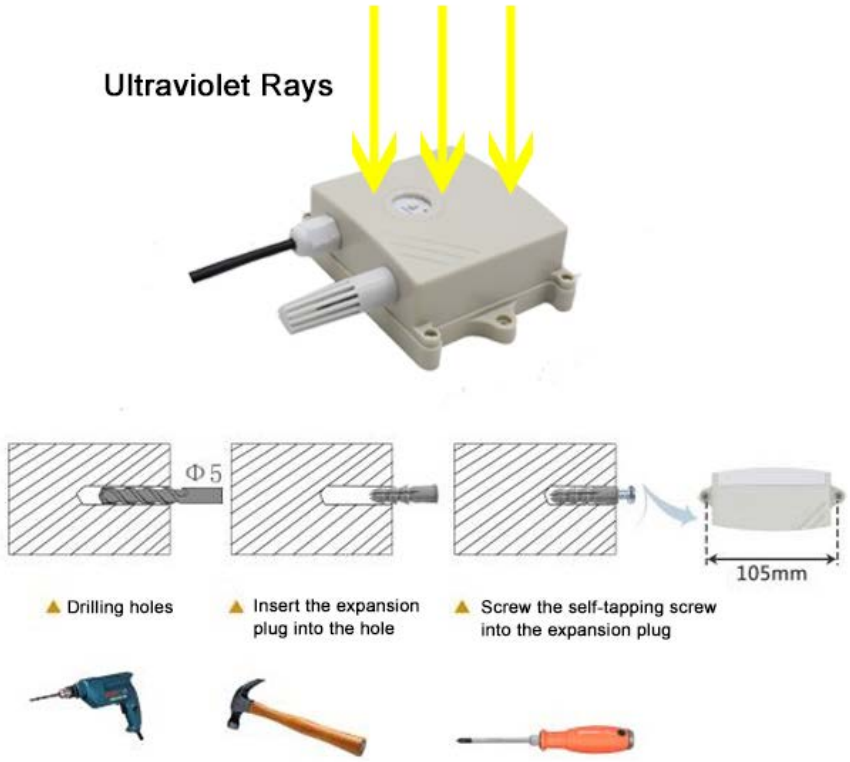
2.2.1 Sensor Wiring



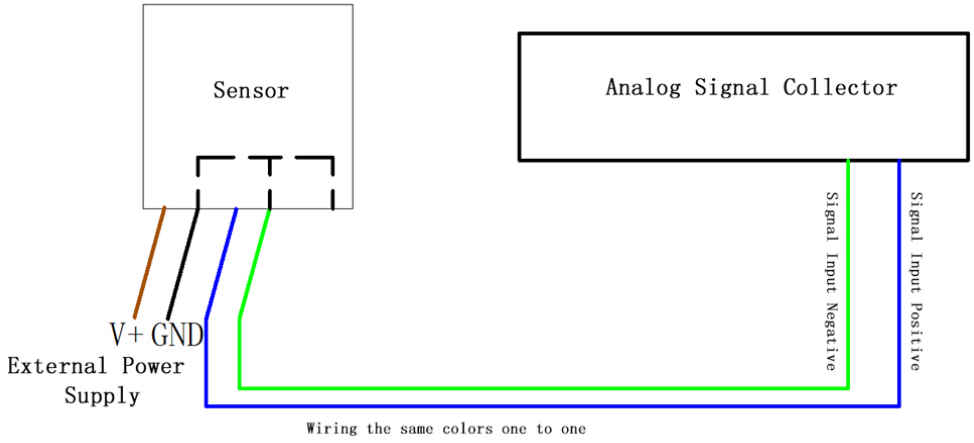
	Thread color	Description
Power	Brown	Power positive (10~30V DC)
	Black	Power supply negative
Communication	Blue	UV intensity signal positive
	Green	UV intensity signal negative

2.3 Installation Methods

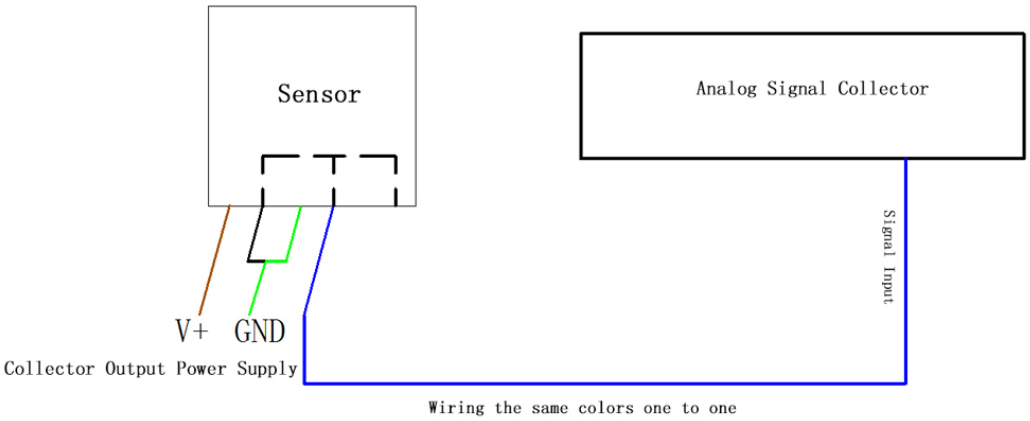
Special Note: This unit should be installed so that the sensor's light-sensitive surface is perpendicular to the light source.



Chapter 3 Wiring Description



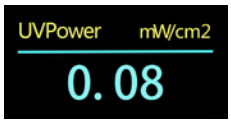
Four-wire Connection Diagram

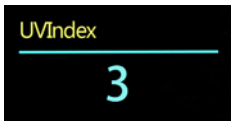


Three-wire Connection Diagram

Chapter 4 Display Instructions

OLED displays are equipped with two measurement elements, UV intensity and UV index.





Note: Devices with a range of 0-450 uW/ cm2 do not have a UV index parameter and do not have a corresponding display.

Chapter 5 Meaning of Analog Parameters

5.1 Current Type Output Signal Conversion Calculation

UV intensity range 0-15 mW/ cm2 , 4~20mA output, when the output signal is 12mA, the current UV intensity value is calculated. The span of this UV intensity range is 15 mW/ cm2, which is expressed by 16mA current signal, 15 /16=0.9375, i.e., the current 1mA represents the change of UV intensity by 0.9375 mW/ cm2, and the measured value is 12mA-4mA=8mA, 8*0.9375=7.5 mW/ cm2, and the current UV intensity is 7.5 mW/ cm2.

5.2 Voltage Type Output Signal Conversion Calculation

UV intensity range 0-15 mW/ cm2, 0-10V output, when the output signal is 5V, the current

UV intensity value is calculated. The span of UV intensity range is 0-15 mW/ cm2, which is expressed by 10V voltage signal, 15 /10=1.5, i.e., the voltage 1V represents the change of UV intensity by 1.5 mW/ cm2, and the measured value is 5V-0V=5V, 5*1.5 =7.5 mW/ cm2, and the current UV intensity is 7.5 mW/ cm2.