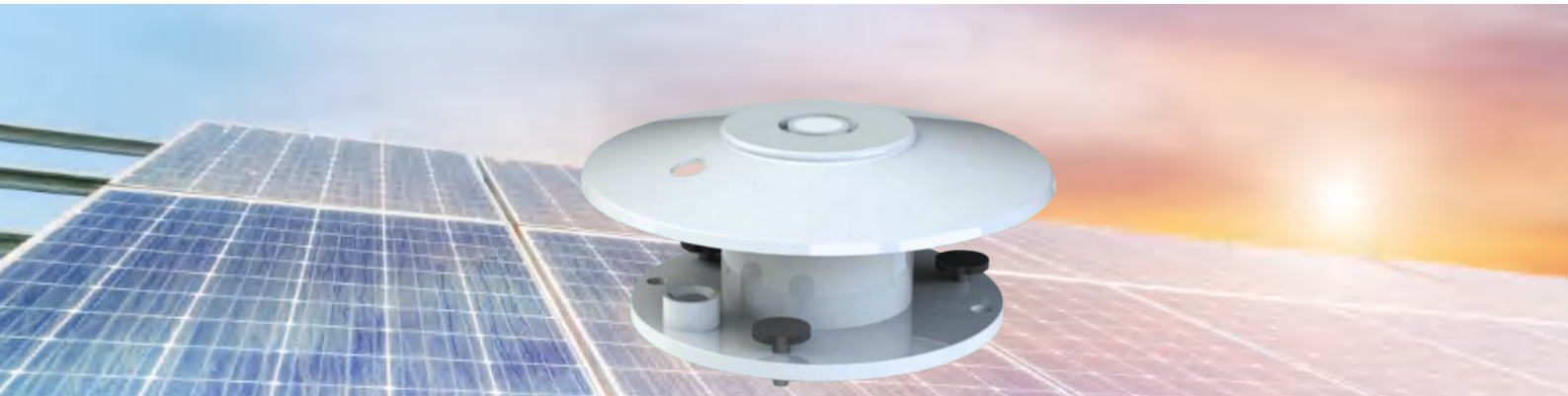


PAR sensor

Model ES-S228PC



Introduction

ES-S228PC photosynthetically active radiation sensor is a high-tech product specifically designed for plant growth and photosynthesis research. It accurately measures and displays the contribution of different spectral bands to plant photosynthesis, helping researchers and horticultural enthusiasts gain a deeper understanding of plant responses to light. With notable features, it boasts a high-precision spectrometer and a real-time data recording system, enabling rapid capture and analysis of the impact of light variations on plant growth. Its wide range of applications supports both plant physiological research in scientific institutions and precise light management in greenhouses, providing robust assistance for more efficient and scientific plant growth regulation.

Main features

- Utilizing high-precision photoelectric sensing elements, it features high absorption within the spectral range and excellent stability.
- Compact and aesthetically pleasing in design, it occupies minimal installation space.
- Equipped with a built-in level, it allows for on-site adjustments for greater convenience.

Compliance

The electromagnetic compatibility in accordance with the following applicable directives:

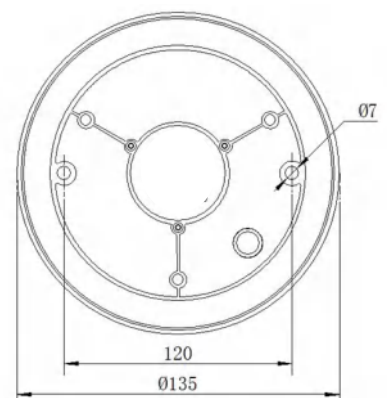
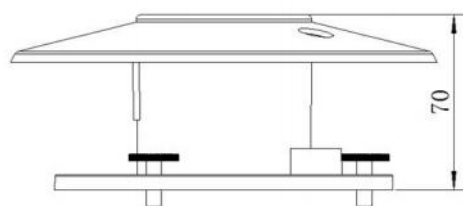
LVD 2014/35/EU Low Voltage
EMC 2014/30/EU
Electromagnetic Compatibility
EMC 2014/35/EU
Electromagnetic Compatibility

Working principle

ES-S228PC Photosynthetically Active Radiation Meter uses a silicon photodetector and a 400~700nm optical filter. When light is present, it generates a voltage signal proportional to the intensity of the incident radiation, with sensitivity proportional to the cosine of the angle of incidence. Each meter provides its own sensitivity and the measurement value, expressed in $\mu\text{mol}/\text{m}^2 \cdot \text{s}$.

Dimension

Unit:mm



Specification

Spectral coverage	370nm~700nm
Measuring range	0~2500 μ mol/m ² ·s
Power supply	6V~30V DC
Definition	±5%rdg+10dgts
Degree of linearity	±3%
Sensitivity	5~50 μ V/ μ mol•s1
Response time	≤10 seconds (99% response)
Cosine response	≤10 %
Working environment	Temperature:~-40°C 65°C;humidity : 0% 100%RH
Internal resistance	10~30 Ω
Output signal	RS485(Modbus)
Definition of wiring	Pin 1 is positive and pin 2 is negative
Cable length	3 meter default

Order guide

ES-S228PC	PAR sensor		
	CODE	Material	
	A	Aluminum shell	
		CODE	Signal output
		1	4-20mA
		2	0-10V
		3	0-5V
		4	RS485
ES-S228PC	A	1	Order example