

PSS-332061

Photosynthetically active radiation sensor

Related Products

Product.	Interf.	Descriptions
PSS-332061	RS485	Photosynthetically active radiation sensor (400-700nm wavelength,Range 0~2500 $\mu\text{mol}/\text{m}^2\text{ S}$)
PSS-332062	4-20mA	Photosynthetically active radiation sensor (400-700nm wavelength,Range 0~2500 $\mu\text{mol}/\text{m}^2\text{ S}$)
PSS-332063	0-10V	Photosynthetically active radiation sensor (400-700nm wavelength,Range 0~2500 $\mu\text{mol}/\text{m}^2\text{ S}$)

Product introduction

PSS-332061 The PAR sensor adopts the principle of photoelectric induction and can be used to measure the PAR in the spectral range of 400~700nm. The dust cover adopts special treatment to reduce dust absorption, effectively prevent the interference of environmental factors on internal components, and can accurately measure the photosynthetic effective radiation. The product adopts the standard Modbus RTU 485 communication protocol, which can directly read the current photosynthetic effective radiation value, and the wiring mode is simple. Small and beautiful appearance, small installation space.

Detection principle

Photoelectric sensing principle: high-precision photoelectric sensing element is adopted, which has wide spectrum absorption, high absorption in the range of 400-700nm, and good stability; When there is light, a voltage signal proportional to the incident radiation intensity is generated, and its sensitivity is proportional to the cosine of the direct angle of the incident light.

Product features

- ❖ Response spectrum range 400-700nm
- ❖ All aluminum housing with protection grade of IP67
- ❖ It is equipped with a level and an adjusting handwheel, which is convenient for on-site adjustment
- ❖ High quality cosine corrector is used to ensure standard cosine response
- ❖ Wide voltage power supply DC 7~30V



Product parameters

Monitoring object	
Response spectrum	400nm~700nm
Measuring range	0~2,500 $\mu\text{mol}/\text{m}^2 \cdot \text{s}$
Resolving	1 $\mu\text{mol}/\text{m}^2 \cdot \text{s}$
Accuracy	$\pm 5\%$ (1,000 $\mu\text{mol}/\text{m}^2 \cdot \text{s}$, @550nm,60%RH,25 $^{\circ}\text{C}$)
Response time	0.1s
Linearity	$\leq \pm 1\%$
Annual stability	$\leq \pm 2\%$
Power waste	0.06W
Working temperature	-25 $^{\circ}\text{C}$ ~60 $^{\circ}\text{C}$
Interface	
Interface	RS485
Warranty	

Warranty period 1year

Mechanics

Size 80mm×51mm

Product maintenance
 1. The dust cover shall be kept smooth and clean, and shall be wiped with soft cloth regularly
 2. There shall be no water in the dust cover. In case of heavy rain, snow, ice and other weather for a long time, it is recommended to cover it.

Power

Power 7V~30V DC

Installation method

1. Use the screw to fix the sensor on the mounting bracket through the mounting hole on the sensor
2. Ensure that the equipment is parallel to the ground (adjust the hand screw and check the status of the horizontal bubble to determine whether it is parallel)
3. Remove the protective cover after installation

Application

The products are widely used in solar energy utilization, meteorology, agriculture, building material aging and air pollution departments to measure the total solar radiation.

Ordering Guide

- ❖ PSS-332061 sensor is a sensor only, it needs to use with WxS terminals to combine to different product series; On the basis of the combination, multiple PSS sensors can be loaded through the Multiple Purpose Interface (MPI) of the intelligent IoT terminal.
- ❖ According to the specific scenario of use case, the enclosure and antenna of intelligent IoT terminal will be replaced to ensure the product quality and performance.
- ❖ PSS sensors can be integrated with the WxS terminal via the MPI interface to form different product series.
- ❖ Example of products are as follows:
 - WxS7800-332061 WiFi Series Photosynthetically active radiation Smart Sensor & RTU 2-in-1 Terminal
 - WxS8800-332061 LoRaWAN Series Photosynthetically active radiation Smart Sensor & RTU 2-in-1 Terminal
 - WxS9800-332061 NB-IoT (China) Series Photosynthetically active radiation Smart Sensor & RTU 2-in-1 Terminal
 - WxS9900-332061 NB-IoT (Global) Series Photosynthetically active radiation Smart Sensor & RTU 2-in-1 Terminal
 - WxSC800-332061 LTE Cat1 Series Photosynthetically active radiation Smart Sensor & RTU 2-in-1 Terminal
 - WxSC900-332061 LTE Cat1 w/GPS Series Photosynthetically active radiation Smart Sensor & RTU 2-in-1 Terminal
 - WxSD800-332061 LTE Cat4 Series Photosynthetically active radiation Smart Sensor & RTU 2-in-1 Terminal
 - CxS1800-332061 Ethernet (RJ45) Series Photosynthetically active radiation Smart Sensor & RTU 2-in-1 Terminal