



RK200-02 PAR Sensor



Overview

RK200-02 PAR sensor is primarily used for measuring solar radiation within the wavelength ranges of 350-1100nm and 400-700nm. Featuring easy installation, it can operate continuously under various weather conditions. When exposed to sunlight, the silicon photodetector inside the sensor generates a voltage output proportional to the incident light intensity. Its sensitivity corresponds to the cosine of the incident light's direct angle. Each unit is individually calibrated with a unique sensitivity coefficient and can directly output radiation values in units of W/m^2 or $\mu mol/m^2 \cdot s$.

Features

Metal construction
Harsh environment workable
High sensitivity
No power supply measurement
Compact size for easy use

Applications

Agrometeorological research
Crop growth monitoring
Ecological research
Environment surveillance
Greenhouse control

Technical Parameter

Item	Type A 0-2500 μ *mol/m ² *s	Type B 0-2000W/m ²
Spectral range	400~700nm	350~1100nm
Sensitivity	0-2000mV	800 μ V/ μ *mol/m ² *s
	4-20mA(2-wires)	6.4 μ A/ μ *mol/m ² *s
Supply	5VDC, 12V-24VDC	
Accuracy	$\pm$ 5% rdg	
Range	0-2500 μ *mol/m ² *s, 0-2000W/m ²	
Output	0-2000mV, 4-20mA(2-wires), RS485	
Response time	<1s (99%)	
Temperature effect	<0.05%/°C	
Cosine correction	<10% (until 80°)	
Non-linearity	< $\pm$ 2%	
Operating temperature	-40-+80°C	
Shell material	Aluminum alloy	
Storage condition	10°C-60°C@20%-90%RH	



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Output Characteristic

0-2000mV

Range:0-2000W/m² PAR values(W)= Voltage output value(μV)/1000

4-20mA

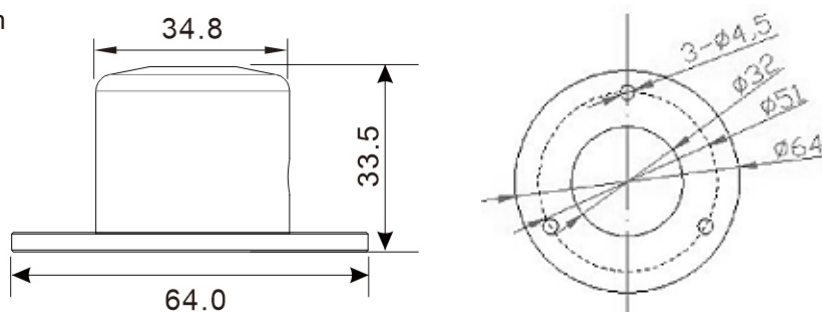
Range:0-2000W/m² PAR values(W)=(I(μA)-4000μA)/8 (Where I is output current value,unit:μA)

RS485

MODBUS-RTU

Dimension

Unit:mm



In order to ensure measurement accuracy, please keep the horizontal installation.

Parameter Selection Table

Remark	Series	Type	Supply	Range	Output	Cable Length
RK	200	02	A			5V
			B			12-24V
			X			Other
				A		0-2500μ*mol/m ² *s
				B		0-2000W/m ²
				X		Other
					A	4-20mA(2 wires)
					B	0-5V
					C	/
					D	0-2000mV
					E	RS485
					X	Other
						1500 Units:mm (typ)
						3000 Units:mm
						... Units:mm

Example: RK200-02BBA1500 Supply:12-24V, Range: 0-2000W/m²,Output:4-20mA,Cable Length:1.5m.

Revision time	Reviser	Current Version	Remarks
20250828	Lee	V5.0	