



RK200-02 PAR Sensor

The RK200-02 PAR Sensor is mainly used for measuring solar radiation within 400~700nm wavelength. It is easy installation and can work continuously in all weathers. When there is sunlight, voltage output proportional to incident light intensity will be generated by the silicon-photo detector in the sensor. Its sensitivity is proportional to the cosine of incident light direct angle. Each product is with one sensitivity coefficient respectively. It can directly output radiation value in unit of $\mu\text{mol}/\text{m}^2\cdot\text{s}$.

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

SPECIFICATIONS

Item		Specifications		
Spectral range		400~700nm		
Supply		5VDC,12V-24VDC		
Accuracy		±5% rdg		
Range		0-2500 $\mu\text{mol}/\text{m}^2\cdot\text{s}$,0-2000W/m ²		
Output		0-2000mV	4-20mA(2-wires)	RS485
Sensitivity	0-2500 $\mu\text{mol}/\text{m}^2\cdot\text{s}$	800 $\mu\text{V}/\mu\text{mol}/\text{m}^2\cdot\text{s}$	6.4 $\mu\text{A}/\mu\text{mol}/\text{m}^2\cdot\text{s}$	
	0-2000W/m ²	1000 $\mu\text{V}/\text{W}/\text{m}^2$	8 $\mu\text{A}/\text{W}/\text{m}^2$	
Response time		<1s (99%)		
Temperature effect		<0.05%/°C		
Cosine correction		<10% (until 80°)		
Non-linearity		<±2%		
Operating temperature		-40+80°C		
Shell material		Aluminum alloy		
Storage Condition		10°C-60°C@20%-90%RH		



RK200-02 PAR Sensor

OUTPUT CHARACTERISTICS

- **0-2000mV**

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

Range:0-2500μ*mol/m²*s PAR values(μ*mol/m²*s)= Voltage output value(μV)/800

- **4-20mA**

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

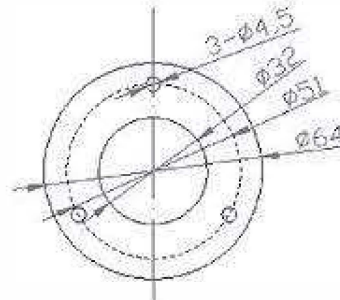
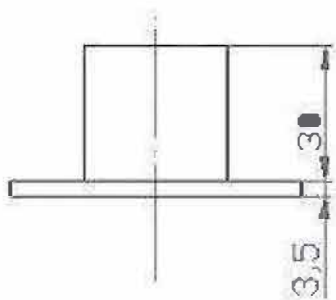
Range:0-2500μ*mol/m²*s PAR values(μ*mol/m²*s)= (I(μA)-4000μA)/6.4(Where I is output current value,unit:μA)

- **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.

RK200-02 PAR Sensor



CE Complies with applicable CE directives.

Specifications subject to change without notice. Version 3.0
Copyright © 2015 Hunan Rika Electronic Technology Co.,Ltd
