



SX2594, QUANTUM PAR SENSOR, PHOTOSYNTHETIC ACTIVE RADIATION SENSOR

The SX2594 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 $\mu\text{mol}/\text{m}^2\cdot\text{s}$.

Output Characteristics:

▶ 0-2000mV

Range: 0-2000W PAR values(W)= Voltage output value(μV)/1000
 Range: 0-2500 $\mu\text{mol}/\text{m}^2\cdot\text{s}$ PAR values($\mu\text{mol}/\text{m}^2\cdot\text{s}$)= Voltage output value(μV)/800

▶ 4-20mA

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

Range: 0-2500 $\mu\text{mol}/\text{m}^2\cdot\text{s}$ PAR values($\mu\text{mol}/\text{m}^2\cdot\text{s}$)= (I(μA)-4000 μA)/6.4
 (Where I is output current value,unit: μA)

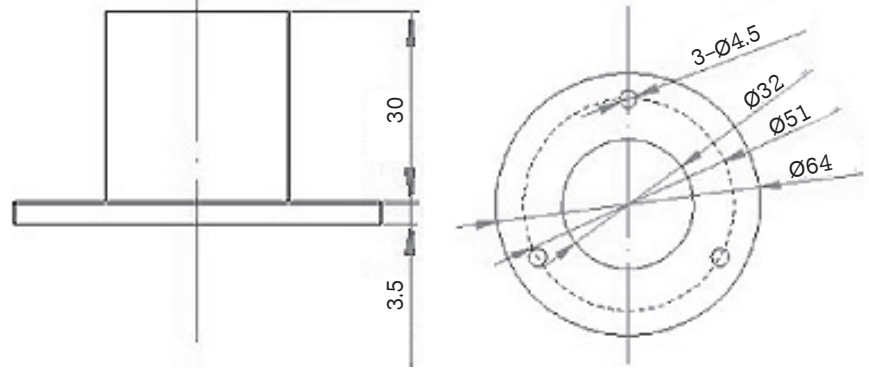
▶ RS485

MODBUS-RTU.

Applications:

- ▶ Agriculture
- ▶ Factory
- ▶ Farm
- ▶ Forestry
- ▶ PV power
- ▶ PV station
- ▶ Scoolyard weather station
- ▶ Solar radiation monitoring station.

Dimensions:



MODEL	SX2594			
Spectral range	0-2500 $\mu\text{mol}/\text{m}^2\cdot\text{s}$	350-1100nm		
	0-2000W/m ²	400-700nm		
Supply	5V,12-24VDC			
Accuracy	±5% rdg			
Range	0-2500 $\mu\text{mol}/\text{m}^2$,0-2000W/m ²			
Output	0-2000mV	4-20mA (2-wires)	RS485	
Sensitivity	0-2500 $\mu\text{mol}/\text{m}^2\cdot\text{s}$	0.8mV/ $\mu\text{mol}/\text{m}^2\cdot\text{s}$	6.4 $\mu\text{A}/\mu\text{mol}/\text{m}^2\cdot\text{s}$	
	0-2000W/m ²	1mV/W/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°C - +80°C			
Shell material	Aluminum alloy			
Storage Condition	10°C-60°C@20%-90%RH			