WWW.BURAQ.COM

PAR Sensor
BS200-02



High-Precision Sensing for Reliable Solar Data

Overview

The **BS-Series PAR Sensor** is designed for accurate measurement of solar radiation across the 350 ~ 1100nm and 400 ~ 700nm wavelength ranges. Its compact design allows for easy installation and reliable continuous operation under diverse weather conditions.

When exposed to sunlight, the integrated silicon photodetector generates a voltage signal proportional to the incident radiation intensity.

The sensor provides cosine-corrected response according to the angle of incident light, ensuring accurate measurements from different directions.

Each sensor is individually calibrated with a unique sensitivity coefficient and can provide direct radiation measurements in W/m^2 or $\mu mol/m^2/s$.

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 Specifications

Item	Type A 0-2500μmol/m²/s	Type B 0-2000W/m2
Spectral range	400 ~ 700nm	350 ~ 1100nm
Sensitivity	800μV/μmol/m²/s	1000μV/W/m2
	6.4μA/μmol/m²/s	8uA/W/m2
Supply	5VDC,12V ~ 24VDC	
Accuracy	±5% rdg	
Range	0 ~ 2500μmol/m²/s, 0 ~ 2000W/m2	
Output	0 ~ 2000mV, 4 ~ 20mA (2-Wires), RS-485	
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	

Output Characteristics

0 ~ 2000mV

Range: 0-2000W/m2 PAR Values(W) = Voltage Output Value (μV)/1000

4 ~ 20mA

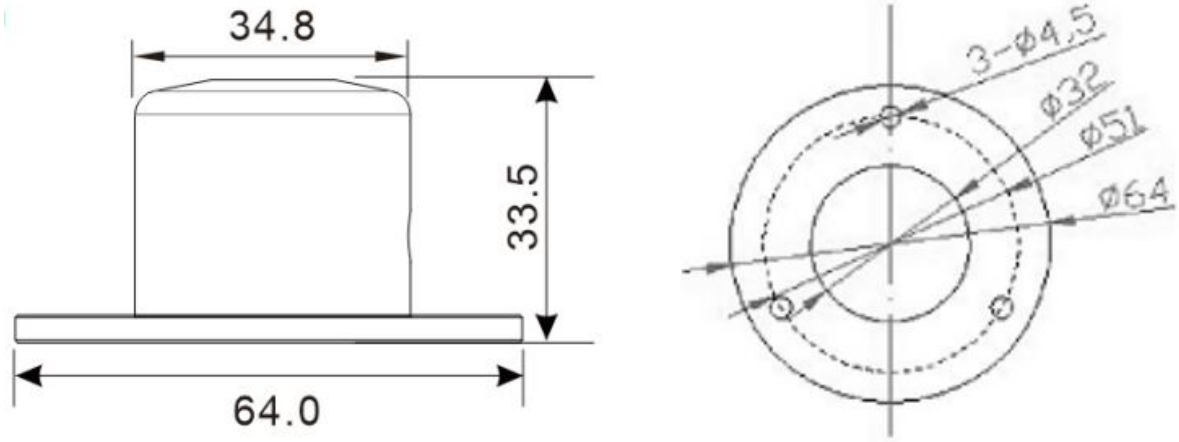
Range: 0 ~ 2000W/m2 PAR Values(W) = (I(μA) ~ 4000μA)/8 (Where I is Output Current Value, unit:μA)

RS-485

MODBUS-RTU

Dimensions

Unit:mm



Parameter Selection Table

Remark	Series	Type	Supply	Range	Output	Cable Length	
BS							
	200						
		02					
			A				5V
			B				12 ~ 24V
			X				Other
				A			0 ~ 2500μmol/m^2/s
				B			0 ~ 2000W/m^2
				X			Other
					A		4 ~ 20mA (2 Wires)
					B		0 ~ 5V
					C		/
					D		0 ~ 2000mV
					E		RS-485
					X		Other
						1500	Units:mm（typ）
						3000	Units:mm
						...	Units: mm

Example: BS200-02BBA1500 Supply: 12 ~ 24V, Range: 0 ~ 2000W/m2, Output: 4 ~ 20mA, Cable Length: 1.5m.