SOLAR RADIATION SENSOR

Pyranometers

The SS-SRS Series pyranometers are used to measure the solar irradiance on a planar surface and it is designed to measure the solar radiation flux density (W/m^2).

We have two different types of solar radiation sensors: 1. Thermopile based pyranometers and 2. Silicon based pyranometers. Thermopile pyranometers feature a blackbody thermopile detector that provides a much broader and more uniform spectral response for better performance in all atmospheric conditions. On the other hand, silicon pyranometer is excellent for applications that do not require high accuracy and with a limited budget. It is with faster response time and a more competitive price.

Features

- High long-term stability
- High Sensitivity
- Fast Response Time
- Suitable for all weather conditions
- Design and performances addressed to meteorological applications
- Low power consumption
- Multiple outputs available

Applications

Weather Stations, Agriculture, Solar power plants etc.

Models

	SS-SRS-01	SS-SRS-02
Type	Thermopile	Silicon
Spectral Range	300 ~ 3200nm	300 ~1100nm
Irradiance Range	0-2000 W/m^2	0-1500W/m^2
Sensitivity	7-14 $\mu V/W/m^2$	-
Non-linearity	< ±2%	≤ ±3%
Internal resistance	350Ω	-
Response time	≤ 20s (99%)	≤ 5s
Stability	± 2% / year	± 2% / year
Zero drift (temperature drift:5k/h)	±5 W/m^2	-
Temperature effect	± 2% (-10℃ to +40℃)	±0.08%/℃
Cosine correction	≤ ±7% (Solar elevation angle=10°)	≤ ±10% (Solar elevation angle=10°)
Resolution	1W/m^2	1W/m^2
General Specifications		
Input Power	12 - 24V	
Output	0-20mV, 0-5V, 4-20mA, RS485	
Calibration interval	2 Years	-
Cable	2m Standard	
Protection	IP65	
Operating Temperature	-40℃ to +80℃	

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