

Total Solar Radiation sensor

WSS-06





Overview:

WSS-06 is Total Radiation Sensor can be used to measure the total solar radiation in the spectral range of 0.3 to 3 µm (300 to 3000 nm). If the sensor face is down, the reflected radiation can be measured, and the shading ring can also be used to measure the scattered radiation.

The core device of the radiation sensor is a high-precision photosensitive element, which has good stability and high precision; at the same time, a precision-machined PTTE radiation cover is installed outside the sensing element, which effectively prevents environmental factors from affecting its performance.

WSS-06 is designed to support the Dragino Weather station solution.

Users only need to connect WSS-06 RS485 interface to WSC1-L. The weather station main processor WSC1-L can detect and upload Total Solar Radiation to the IoT Server via wireless LoRaWAN protocol.

Features:

- RS485 Total Solar Radiation sensor
- Measure Total Radiation between 0.3 ~ 3μm (300 ~ 3000nm)
- Measure Reflected Radiation if sense area towards ground.

Specification:

- Input Power: DC 5 ~ 24v
- Interface: RS485
- Detect spectrum: 0.3 ~ 3μm (300~3000nm)
- Measure strength range: 0 ~ 2000W/m²
- Resolution: 0.1W/m2
- Accuracy: ±3%
- Yearly Stability: ≤±2%
- Cosine response: ≤7% (@ Sun angle 10°)
- Temperature Effect: $\pm 2\%$ (-10 °C \sim 40 °C)
- Working Temperature: -40 $^{\circ}$ C \sim 70 $^{\circ}$ C
- Working Humidity: 10~90%RH
- Power Consumption: 4mA @ 12v

Order Part #- WSS-06