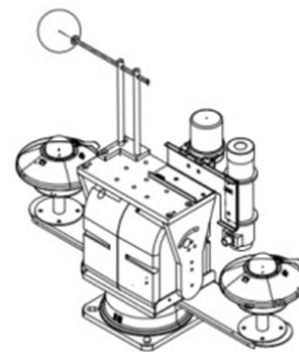




RK200-08

Solar Tracker Thermal Radiation Sensor



Overview

RK200-08 solar tracker thermal radiation sensor adopts GPS positioning and light sensing dual tracking technology, equipped with high-precision dual axis stepper motors, to achieve dynamic real-time tracking of the sun's position. Even under complex weather conditions such as rainy and cloudy weather, the system can still accurately calculate the trajectory of the sun through intelligent algorithms, ensuring uninterrupted data collection around the clock.

This device can simultaneously support total radiation, scattered radiation, and direct radiation measurement. The radiation meter strictly complies with the ISO 9060:2018 Class B standard and has high precision and low drift characteristics. It is suitable for photovoltaic power plant efficiency evaluation, agricultural ecological research, meteorological observation, and other fields, providing reliable data support for energy management and environmental monitoring.

Features

- 7×24 hour monitoring
- RS485 output is easy to integrate
- Compact structure
- GPS positioning+light sensing dual tracking technology
- Can simultaneously measure total radiation, scattered radiation, and direct radiation

Applications

- Tourism eco
- Weather stations
- Solar energy resources evaluation
- Agriculture and forestry monitoring
- Crop growth monitoring
- Solar energy & photovoltaic power generation

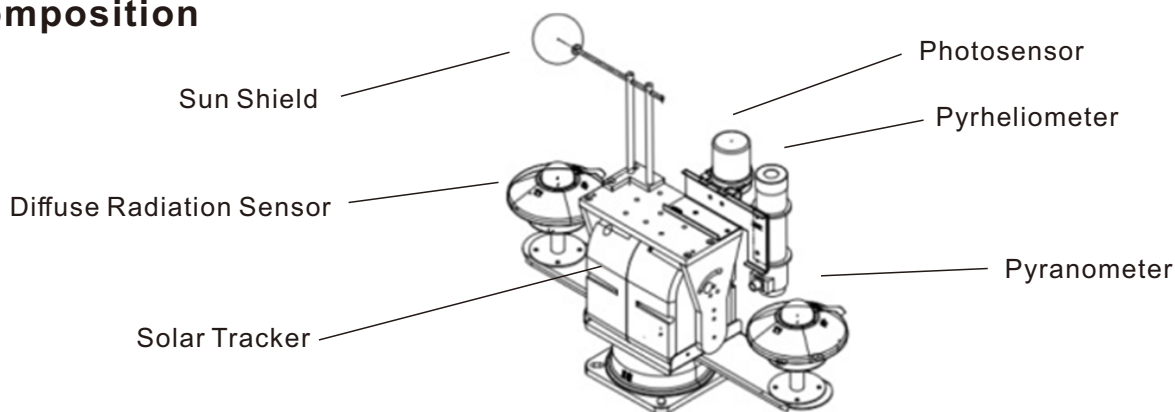
Technical Parameter

Item		Technical Specification	
Solar Tracker	Accuracy	0.5°	
	Load capacity	10kg	
	Power supply	DC12-20V	
	Rotation angle	Elevation angle	-5~120°
		Azimuth angle	0-350°
	Motor	stepper motor, operation steps 1-8	
	Tracking mode	Sun tracking+GPS tracking	
	Product weight	5kg	
Pyrehelio-meter	Power consumption	3.6W ,standby 0.95W	
	Spectral range	280-3000nm	
	Range	0-2000W/m ²	
	Sensitivity	7-14μV/(W/m ²)	
	Tracking accuracy	<168h±1°	
	Response time	≤6S(99%)	
	Open angle	4°	

Technical Parameter

Item	Technical Specification
Pyrheliometer	Stability $\pm 1\%/year$ (sensitivity change rate)
	Internal resistance 10-30 Ω
	Power supply DC12V
	Output signal 0~20mV (no power supply required), RS485
	Accuracy <2%
	Cable length 3m
	Weight 1.5kg
Pyranometer	Spectral range 280~3000nm
	Sensitivity 7-14 $\mu V/(W/m^2)$
	Range 0-2000W/m ²
	Response time $\leq 10s(95\%)$
	Non linearity $\pm 1\%(100\sim 1000W/m^2)$
	Resolution 1W/m ²
	Output 0~20mV (no power supply required), RS485
	Temperature response <2%(-10~40°C)
	Tilt response <1%
	Directional response $\pm 20W/m^2$
	Power supply 12VDC
	Long term stability <2%/year
	Internal resistance <50 Ω
	Sensor type thermopile type
	Weight 0.8kg
	Cable length 3m
Ingress Protection IP65	
Working temperature -30~+60°C	
Storage environment 10°C-60°C@20%-90%RH	

Composition



Revision time	Reviser	Current Version	Remarks
20260807	Echo	V5.0	