

RK200-08 Automatic tracking solar radiation measurement system is an unattended solar radiation monitoring system, which can accurately observe direct, scattered and total solar radiation at the same time. It use the Angle sensor and the four quadrant balance light sensor technology, automatic tracking the sun, the sun rays remain vertical to the radiation sensor within the cone of light.Track motion trajectory tracking system according to the sun and light way, the combination of 2D automatic control, realize a full automatic real-time tracking of the sun.Products from the base, bench, screw, gear box, motor, microcomputer controller, direct radiation sensor,scattered and total solar radiation, power and other parts.

The product is used to measure the direct and scattered solar radiation in the spectral range of 280 to 3000 nm. It also can be directly measured sunshine time.It can match RK600 series recorder.

It is widely used in photovoltaic environmental monitoring, meteorological radiation observation, agricultural and forestry research and many other fields.

FEATURES

- Conform to the WMO standard
- Simple operation,simple initialization can start measurement,
- High tracking accuracy
- mounting bracket has good compatibility and can be compatible with similar sensors
- level adjustment
- Closed-loop mechanical rotation prolongs the service life of the tracker
- Optional AC or DC power supply



APPLICATIONS

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

SPECIFICATIONS

Item	Specification		
	Direct radiation	Scattered radiation	Total solar radiation(optional)
Spectral range	280-3000nm	400-1100nm	300-3200nm
Range	0-2000W/m ²		
Output	0-20mV or Customized(RS485...)		
Sensitivity	7-14μV*W ⁻¹ *m ²		
Internal resistance	Approx. 100Ω	Approx. 350Ω	Approx. 350Ω
Non-linearity	<±2%	<±2%	<±2%

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Response time	≤25s(99%)	≤20s(99%)	≤20s(99%)
Stability	±1%/year	±2%/year	±2%/year
Temperature effect	±1%(-10°C--+40°C)		
Operating temperature	-40°C--+70°C,0-100%RH		
Tracking system	Motor	Stepper motor	
	Tracking accuracy	<±0.3°(4h)	
	Torque	12Nm	
	Power consumption	3W	
	Tracking way	Automatic tracking the two-dimensional Angle	
	Supply	DC12V, AC220V or other	
	Speed	50°/s	
	Horizontal Angle(azimuth)	0-200°	
	Vertical Angle(declination)	-15--+90°	
Ingress Protection	IP65		
Operating temperature	-40°C--+70°C,0-100%RH		
Communication interface	RS232,RS485,USB		
Storage Condition	10°C-60°C@20%-90%RH		
Weight(unpacked)	6.5kg(include sensors)		

 Complies with applicable CE directives.

Specifications subject to change without notice. Version 3.0

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