

PRODUCT OVERVIEW

Solar radiation sensor

Model ES-S228A





Main features

- Using high-precision photosensitive elements, high absorption in the spectral range
- Comes with level and adjustment hand wheel, easy to adjust on site
- Adopt standard Modbus-RTU
 protocol
- Highly transparent dust cover, good sensitivity, special surface treatment to prevent dust adsorption
- Using all-aluminum shell, high protection level
- Wide voltage power supply DC 7~30V

Compliance

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The electromagnetic compatibility in accordance with the following applicable directives: LVD 2014/35/EU Low Voltage EMC 2014/30/EU Electromagnetic Compatibility EMC 2014/35/EU Electromagnetic Compatibility

Introduction

ES-S228A photoelectric total solar radiation sensor adopts the photoelectric principle and can be used to measure the total radiation value under sunlight. The radiation sensor adopts a high-precision photosensitive element, with wide spectral absorption, high absorption in the full spectral range, and good stability; at the same time, a dust cover with a light transmittance of up to 95% is installed outside the sensing element, and the dust cover is specially treated to reduce dust. Adsorption can effectively prevent the interference of environmental factors on internal components, and can measure the amount of solar radiation more accurately.

The product supports standard analog output or Modbus-RTU 485 communication protocol, which can directly read the current solar radiation value, and the wiring method is simple. The appearance is small and beautiful, and takes up little installation space.

Application

It is widely used in solar energy utilization, meteorology, agriculture, building material aging and air pollution and other departments to do the measurement of total solar radiation.

Dimension



Unit:mm



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Specification

Material	Matte aluminum + quartz glass cover		
Power supply	7V~30V DC		
Measuring Range	0~1800W/m²		
Power consumption	0.06W (RS485), 0.6W (analog output)		
Response time	≤10S		
Output signal	RS485(Modbus-RTU protocol),4-20mA,0-5V, 0-10V		
Spectral range	0.3~3µm		
Working humidity	0%~100%RH		
Working temperature	-25°C~60°C		
Resolution	1W/m ²		
Nonlinearity	<±3%		
Long-term stability	≤±3%		
Cosine response	≤±10%		
Load capacity	Current output: $\leq 600\Omega$, voltage output: output resistance $\leq 250\Omega$		
Cable length	60cm (customized)		
IP level	IP65 default		

Order guide

ES-S228A	Solar radiation sensor			
	CODE	Material		
	А	Aluminum shell		
		CODE	Signal output	
		1	4-20mA	
		2	0-10V	
		3	0-5V	
		4	RS485	
ES-S228A	А	1	Order example	