

# Silicon-based radiometer

Model ES-S228S



## Introduction

ES-S228S silicon-based radiometer is a solar irradiance measurement sensor specifically developed by our company for the photovoltaic power generation industry. It utilizes a silicon-based material with a structure similar to that of solar panels. This silicon-based material features high sensitivity, high resolution, and fast response. Furthermore, its spectral response and tilt error are extremely similar to those of solar panels, enabling it to accurately reflect the irradiance data of solar panels.



## Main features

- Small in size for photovoltaic panel.
- Equipped with temperature compensation function
- Equipped with radiation calibration function
- Comes with a single crystal precious solar panel
- RS485 output

## Compliance

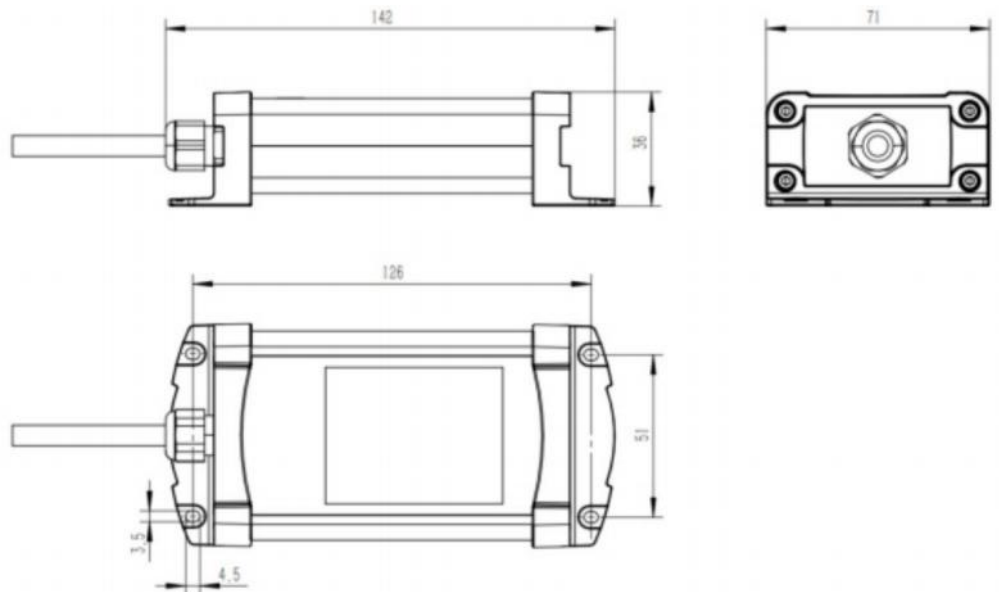
The electromagnetic compatibility in accordance with the following applicable directives:  
 LVD 2014/35/EU Low Voltage  
 EMC 2014/30/EU  
 Electromagnetic Compatibility  
 EMC 2014/35/EU  
 Electromagnetic Compatibility

## Application

It can be used for measuring solar radiance and module temperature in photovoltaic power plants, as well as for pollution monitoring, early warning, and operation and maintenance of photovoltaic power plants.s.

## Dimension

Unit:mm



## Specification

ES-S228S silicon-based radiometer	Technical indicators
Solar panels	Monocrystalline silicon (56mm × 43mm)
Operating Temperature	-40~80°C
Protection level	Aluminum coating, IP65
Dimensions (length x width x height)	142mm×71mm×36mm
Weight	≈ 0.3kg (weight without wire)
Measurement range	Solar irradiance: 0-1400W/m <sup>2</sup> Component temperature: -50~150°C
Corresponding time (99%) G>50W/m <sup>2</sup>	0.15S
Offset	1W/m <sup>2</sup>
Stability	0.50% measurement value
Nonlinear	0.10% measurement value
Accuracy	5% measurement value
Working Voltage	DC 9~24V
Operating current	<25mA (under 12V conditions)
Output method	RS485/0-20mV optional

## Order guide

ES-S228S	silicon-based radiometer		
	CODE	Functions	
	A	radiometer	
		CODE	Signal output
		1	0-20mA
		2	RS485
ES-S228S	A	1	Order example