

Chip Temperature Sensor

Model ES-A100



Introduction

ES-A100 chip temperature sensor uses digital temperature sensor, encapsulates thermal resistor into a small chip, uses full-scale multi-segment calibration, and stores calibration data in the chip. 485 communication interface, standard ModBus-RTU protocol, communication address, baud rate can be set, communication line can be up to 2000 meters. Transmitter working temperature and humidity: $-40^{\circ}\text{C} \sim +120^{\circ}\text{C}$, $0\%\text{RH} \sim 100\%\text{RH}$. Default output four-core waterproof plug-in female + male plug-in) power supply reverse connection protection function, reverse connection of positive and negative poles will not burn the equipment; probe waterproof; 1 year warranty;

Features

- Digital temperature sensor
- Full-range multi-stage calibration
- 485 communication interface, standard ModBus-RTU protocol
- Power reverse connection protection function
- Probe waterproof

Compliance

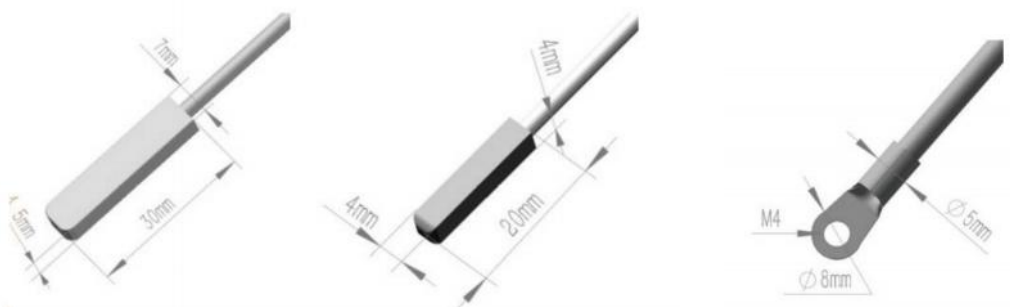
The electromagnetic compatibility in accordance with the following applicable directives:
 EMC 2014/30/EU
 Electromagnetic Compatibility
 EMC 2014/35/EU
 Electromagnetic Compatibility

Application

The operation and maintenance personnel of photovoltaic power stations evaluate the power generation efficiency and heat loss of photovoltaic modules by monitoring the surface temperature and ambient temperature of photovoltaic modules in real time. The operation and maintenance personnel can adjust the operation strategy of the power station according to the temperature data, thereby improving the power generation efficiency of the power station and extending the life of the modules.

Dimension

Unit:mm



Specification

DC power (default)	10-30V DC
Measuring range	-40°C ~ +80°C
Precision	±0.5°C (25°C)
Protocol	Modbus-RTU communication protocol
Output signal	RS485
Temperature display resolution	0.1°C
Response time	≤25s (1m/s wind speed)
long term stability	≤0.1°C/y
Installation	High-temperature aluminum foil tape is provided by default and installed against the solar back panel.

Order guide

ES-A100	Chip temperature transmitter		
	CODE	Range	
	R1	-40°C ~ +80°C	
	R2	-40°C ~ +120°C	
		CODE	Signal output
		1	RS485
ES-A100	R1	1	Order example