

# Cup wind speed sensor

Model ES-W200S



## Introduction

ES-W200S vane wind speed sensor is a wind speed measuring instrument independently developed and produced by our company. The sensor shell is made of aluminum material, with very small dimensional tolerance, and has high weather resistance, high strength, corrosion resistance and water resistance. Internal integration of photoelectric conversion mechanism, industrial microcomputer processor, standard current generator, current driver, etc.

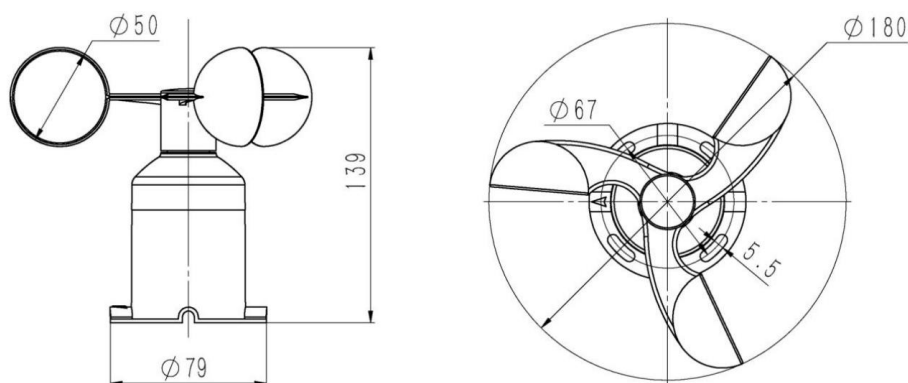
The circuit is designed according to EMI specifications, making the whole with extremely reliable anti-electromagnetic interference ability, and the electronic components are imported industrial-grade chips to ensure the stability of the measurement parameters and electrical performance.

## Application

It is widely used in the fields of construction machinery (cranes, crawler cranes, gantry cranes, tower cranes, etc.), as well as wind speed measurement in fields such as railways, ports, docks, power plants, meteorology, cableways, environment, aquaculture, air conditioning, energy-saving monitoring, agriculture, etc.

## Dimension

Unit:mm



## Main features

- compact design and high measurement accuracy
- Fast response and good interchangeability
- Low cost and high performance
- Flange installation with bottom line
- Wide power supply range
- Good linearity of data information

## 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

## Specification

Measurement range	0-30m / S; 0-50m / S; 0-60m / S; (other ranges can also be customized)
Starting wind speed	≤ 0.3m/s
Accuracy	± (0.3 + 0.03V) m / s, V is wind speed
Output signal	A: Analog output signal (0-2v, 0-5V, 0-10V), 4-20mA (current loop) B: SDI-12 (American Hydrological Organization Serial Data Communication Interface Protocol) C: RS485 (standard Modbus RTU protocol, device default address: 01) D: Pulse signal (pulse amplitude 3.3V, 5V choose one)
Power supply voltage	Default: 5~24V DC (When the output signal is 0~2V, RS485, Pulse signal, SDI-12) 12~24V DC (When the output signal is 0~5V, 0~10V, 4~20mA)
Power consumption	24V/8mA(Heater off), 24V/0.8A(Heater on)
Stable time	< 1s
Response time	< 1s
Working environment	-30 °C ~ 70 °C (Not heated type), -40 °C ~ 70 °C(Heated type)
Cable specification	2m 3-wire system (analog signal); 2m 4-wire system (RS485) (optional cable length)
Material	Aluminum alloy
Heating mothod	PTC automatic heating (only for heating model)
Automatic heating	Bellow -1 °C , reach 25 °C automatically stop heating, heating power 12-24vdc
Protection level	IP66

**Remarks:** The heating function is automatically controlled according to the ambient temperature, or different start and stop temperatures can be set according to the use environment (the PWM control is used in the early stage of heating to prevent the impact of the current, the time is 120 seconds)

## Order guide

ES-W200S	Wind Speed Sensor			
	CODE	Range		
	A	0~30m/S		
	B	0~50m/S		
	C	0~60m/S		
		CODE	Signal output	
		1	4~20mA	
		2	0-10V, 0-5V	
		3	SDI-12	
		4	RS485	
		5	Pulse output	
			Y	With heating function
			N	Without heating function
ES-W200S	A	1	N	Order example