

Cup wind speed sensor

Model ES-W200



Introduction

ES-W200 three-cup wind speed sensor is a wind speed measuring instrument independently developed and produced by our company. It supports customized heating wind speed measuring instruments. Heating products have built-in sensitive temperature sensors and high-performance heating plates. The sensor housing is made of aluminum material, with very small dimensional tolerances, with 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.

ES-W200 circuit PCB adopts military-grade A-grade materials to ensure the stability of measurement parameters and electrical performance; electronic components are imported industrial-grade chips, which makes the overall anti-electromagnetic interference ability extremely reliable, and can ensure that the host is at $-30^{\circ}\text{C} \sim 75^{\circ}\text{C}$, humidity $5\% \sim 95\%\text{RH}$ (non-condensing) range can work normally.

Main features

- Compact design, high measurement accuracy, fast response speed and good interchangeability.
- Realize low cost, low price and high performance.
- Flange installation mode can realize lower outgoing line and side outgoing line, which is simple and convenient.
- Reliable performance, ensure normal operation and high data transmission efficiency.

Compliance

The electromagnetic compatibility in accordance with the following applicable directives:

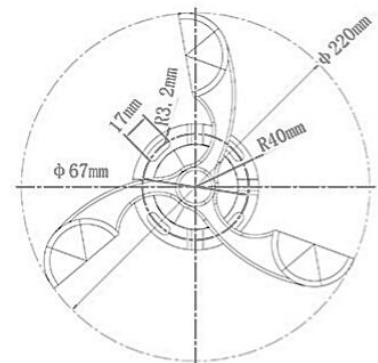
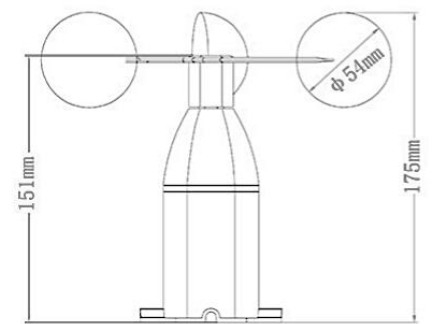
LVD 2014/35/EU Low Voltage
EMC 2014/30/EU
Electromagnetic Compatibility
EMC 2014/35/EU
Electromagnetic Compatibility

Application

This product is widely used in greenhouse, environmental protection, meteorological station, engineering machinery, ships, docks, aquaculture and other environmental wind speed measurement.

Dimension

Unit:mm



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: 5-24vdc (0-2v, RS485), 12-24vdc (0-5V, 0-10V, 4-20mA); Customize: support 30VDC wider voltage customization (Remark: With heating voltage: 12-24V DC)
Power consumption	24V/8mA(Heater off), 24V/0.8A(Heater on)
Stable time	< 1s
Response time	< 1s
Working environment	-30 °C ~ 75 °C (Not heated type), -40 °C ~ 75 °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-W200	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-W200	A	1	N	Order example