

# Wind speed and direction sensor

Model ES-W304



## Introduction

ES-W304 three cup type wind speed and direction sensor is a wind speed & direction mechanical measuring instrument independently developed and produced by our company. This product is composed of shell, wind cup and circuit module, with internal integrated photoelectric conversion mechanism, industrial microcomputer processor, standard current generator, current driver, etc.

The circuit PCB is made of military grade a material, which ensures the stability of parameters and the quality of electrical performance; the electronic components are made of imported industrial grade chips, which makes the whole circuit have extremely reliable anti electromagnetic interference ability.

## 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



## Main features

- Integrated wind speed and direction measurement
- Imported chips, high-precision and stable performance
- Polycarbon/aluminum alloy two materials are available
- Low power consumption, long-term stable work.
- Optional heating function to cope with bad weather

## 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

Wind speed range	0 ~ 30m/s; 0 ~ 50m/s; 0 ~ 60m/s; (other ranges can also be customized)
Wind direction range	0 ~ 360°
Accuracy	$\pm(0.3+0.03V)$ m/s, $\pm 1^\circ$
Signal output	A: Analog: (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: Lora/4G/WIFI
Power supply	5 ~ 24V DC (when the output signal is 0 ~ 2V, RS485) 12 ~ 24V DC (when the output signal is 0 ~ 5V, 0 ~ 10V, 4 ~ 20mA)
Heating supply voltage	12~24V DC
Heating power	Average: 15W; Peak: 18W
Starting wind speed	$\leq 0.3$ m/s
Stability time	<1 second
Response time	<1 second
Working environment	-30°C ~ 70°C; Humidity: <100%RH
Material	Aluminum alloy, ABS
Heating mothod optional	PTC automatic heating (only for heating model)

## Order guide

ES-W304	Wind direction Sensor		
	CODE	Material	
	Y	With heating function	
	N	Without heating function	
		CODE	Signal output
		1	4~20mA
		2	0-10V
		3	0-5V
		4	RS485
		5	Lora
		6	4G
		7	WIFI
ES-W304	N	1	Order example