

# Ultrasonic weather station

Model ES-W9600



## Introduction

ES-W9600 automatic ultrasonic weather station is an integrated weather station that can measure multiple meteorological parameters. It can simultaneously measure temperature, humidity, wind speed, wind direction, air pressure, rainfall, radiation, illumination, visibility, ambient noise, PM2.5 and PM10 and other meteorological elements.

ES-W9600 uses a low-power chip inside, and the wind speed measurement module uses advanced ultrasonic technology. It has a rugged, high-strength design that can withstand harsh installation environments. Unlike fragile cup-shaped anemometers, the ES-W9600 eliminates the risk of mechanical damage while requiring minimal maintenance. Precipitation can be detected using a 24GHz radar or piezoelectric module, and a MINI visibility detection module can be optionally installed.

## Main features

- Solid and durable overall design, easy to install
- No moving parts, maintenance free
- Standard RS485 / RS232 / SDI-12 output
- Low power chip, energy saving
- Internal heating device ensures normal operation in severe cold climate

## Compliance

The electromagnetic compatibility in accordance with the following applicable directives:

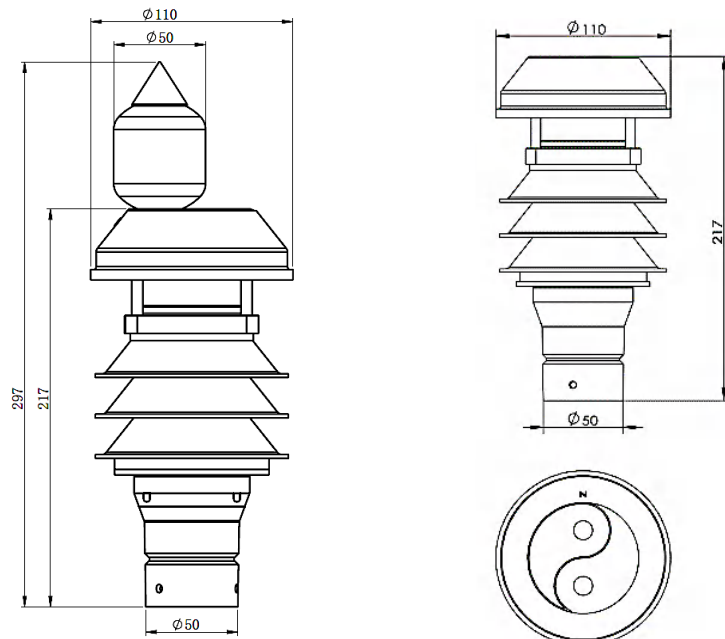
- LVD 2014/35/EU Low Voltage
- EMC 2014/30/EU
- Electromagnetic Compatibility
- EMC 2014/35/EU
- Electromagnetic Compatibility

## Application

It is mainly used in smart cities, home weather stations, and agricultural environment monitoring.

## Dimension

Unit:mm



Specification

ITEMS	Range	Accuracy	Resolution
Wind speed	0-70m /s	± 3%	0.1
Wind direction	0-359 °	±3 °	1 °
Temperature	- 40 °C - + 80 °C	± 0.5°C	0.1 °C
Humidity	0 – 100%	±3%	1%
Atmospheric pressure	300 – 1100hPa	±1	0.1hPa
Rainfall*	0-200mm/hr	±5%	0.01mm
Altitude*	-500m ~ 9000m	±5%	1m
Solar Radiation*	0-2000 W/m2	±5%	0.1 W/m2
Illuminance*	0-200000lux	±4%	0.1 lux
UV radiation*	(100-200K) μ W/cm 2	±10%	1 μ W/cm 2
PM1.0/PM2.5/PM10*	0-1000μg/m3	±10%	1μg/m3
Visibility*	20~10000m	±15%	1m
Noise*	30~130dB	±1.5dB	0.1dB
Digital output	RS232, RS485, SDI-12		
Power supply	VDC: 7-30V / (0.1-0.7) W (Heating Version Start from 12VDC)		
Operate temperature Humidity	-20°C - +50°C / 0 - 100%		
IP protection	IP65 or customized		
Baut rate	4800 - 19200		
Communication	ModBus, NMEA-0183, ASCII		
Size	Φ110mm× (217-297) mm / 0.38kg		
Material	White/ASA		

Order guide

ES-W9600	Compact ultrasonic weather station		
	CODE	Function type	
	XXXXX	W1= wind speed W2 = wind direction R = rainfall V=Visibility	T= temperature H = humidity L =Luminance N=Noise A= atmospheric pressure S1 = solar radiation P=PM1.0/PM2.5/PM10 U =uv radiation
		CODE	Signal output
		1	RS232
		2	RS485
		3	SDI-12
ES-W9600	W1W2THA	2	Order example

