WS303R Ultrasonic Weather Sensor

MAIN FEATURES

- No moving parts, no wear
- Maintenance free, long service life
- Aluminum alloy shell, more light
- Adopt ultrasonic probe reflection type, more compact structure
- Integral heating, strong anti freezing ability
- Using the phase compensation technology and random error identification technology, the output is more stable and the accuracy is higher
- Measurement compensation technology and protection technology are adopted for light rain, dense fog and lightning weather, with stronger environmental adaptability
- Digital filtering technology, stronger anti electromagnetic interference ability

OVERVIEW

WS303R anemometer is a kind of instrument which can measure the wind speed, wind direction and acoustic temperature by using the time difference of ultrasonic propagation in the air which also integrated the radar rain sensor and air pressure sensor. Compact space structure makes the volume smaller and the appearance more beautiful; all aluminum alloy shell makes the weight lighter; integral heating can work normally in cold and frozen weather. It is recommended for wind power, tunnels, high-altitude buildings and other fields.
It is mainly used in highway, meteorology, drilling platform, waterway, port, wind power generation, ship, automatic weather station and other industries.

SPECIFICATION

Wind speed	Range	0 - 60m/s (customizable 0 - 75m/s)
	Accuracy	±2%
	Resolution	0.01m/s
	Unit	m/s,km/h,knots,mph,ft/min (selectable)
Wing direction	Measure Range	0-359°
	intersection angle with geographic north	0-359°
	Accuracy	±3°
	Resolution	1°
Rain sensor	Principle	24G radar
	Measure Range	0-200mm/hour
	Resolution	0.1mm
	Measurement type	Rain/Snow/Hail
Digital output	Interface	RS232/RS485
	Baud rate	9600(default),1200-19200(configurable)
	Frequency	Standard: 1Hz, Customized:4Hz
	Protocol	ModBus-RTU/NMEA 0183
Protection grade	IP65 (with the cable connected), IP67/68 customized	
Operating Temp.	-40°C ～+70°C	
Humidity	0 - 100%	
Power supply	DC 12~24V DC	
Size/Weight	Φ140×183mm / 0.78kg	
Body material	ABS engineering plastic	

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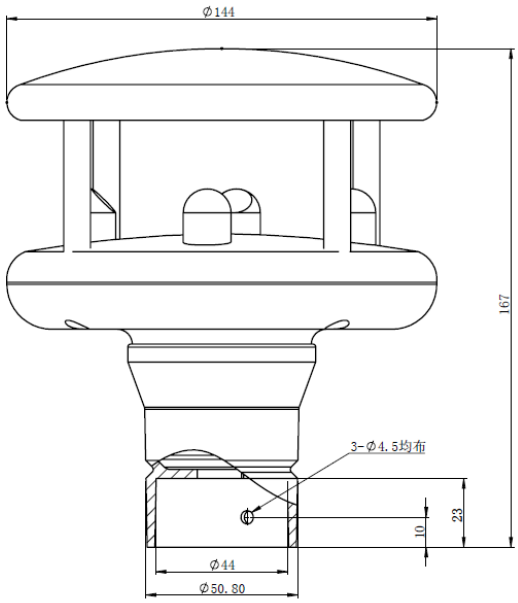
Optional module function		
Air pressure	Principle	Capacitive MEMS sensors
	Range	150 — 1100hPa
	Resolution	0.1hPa
	Accuracy	±1 hPa
Global positioning module	Longitude and latitude	positioning global longitude and latitude coordinates
	Height	The average sea level at which the instrument is located
	Movement speed	Instrument movement speed, in knots or meters per hour
	Moving heading angle	The angle between the instrument's moving direction and the North Pole of the Earth, clockwise, with a maximum of 359.9 degrees

DIMENSION

Unit:mm

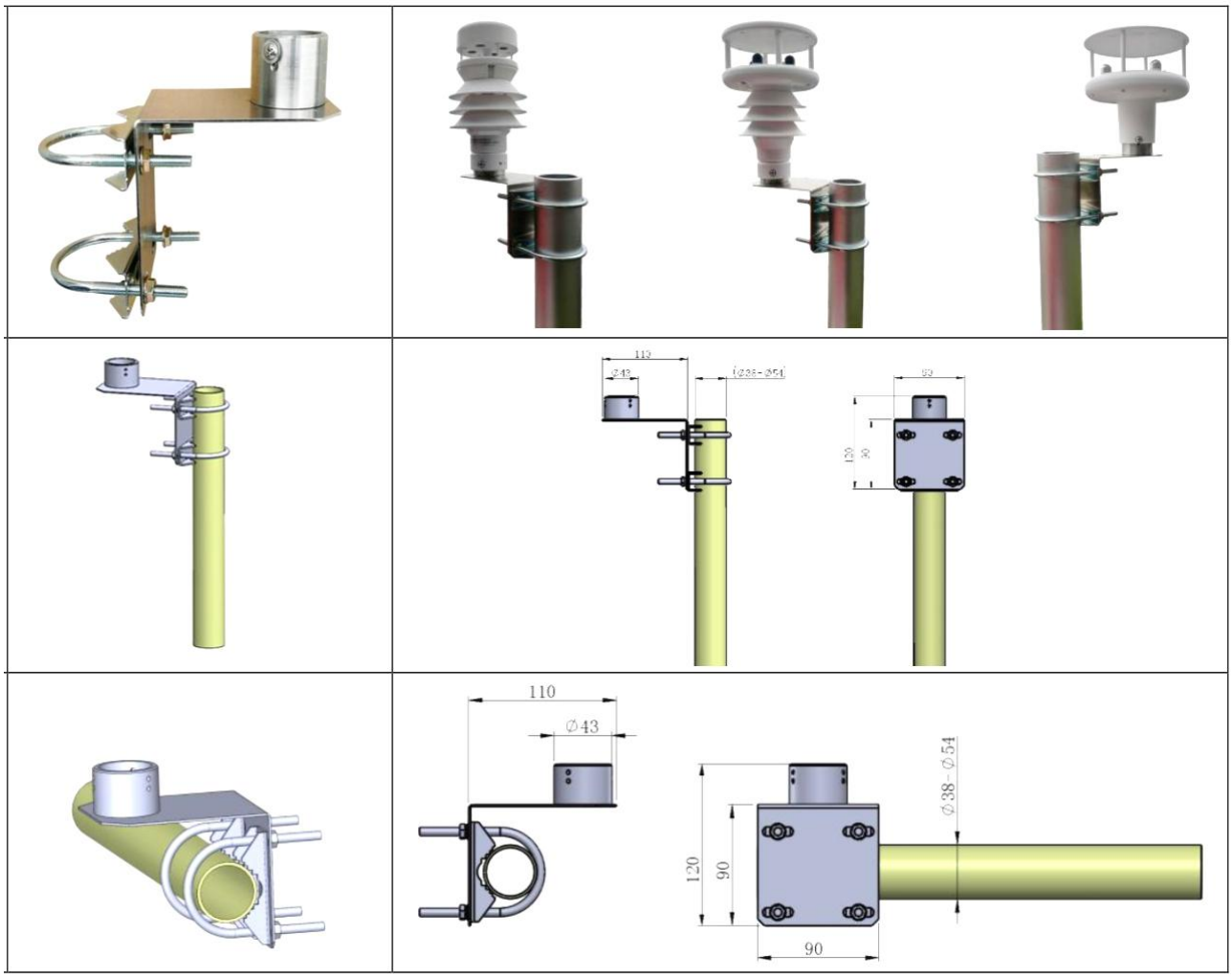


ORDER CODE

WS303R	Ultrasonic Wind Speed & Direction Sensor		
	CODE	Function type	
	A	Wind speed + wind direction +rain sensor	
	B	Wind speed + wind direction +rain sensor + atmospheric pressure	
	C	Wind speed + wind direction +rain sensor + electronic compass	
	D	Wind speed + wind direction +rain sensor + atmospheric pressure+ electronic compass	
		CODE	Signal output
		1	RS232
		2	RS485
WS303R	A	1	Order example

INSTALLATION

L type installation



I type installation

Appendix

Version	Modify records
V2301	Document creation