

## RK120-01C Combined Wind Speed & Direction Sensor

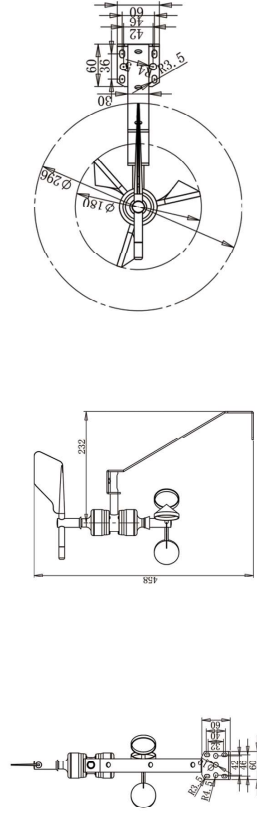
RK120-01C Combined Wind Speed & Direction Sensor is assembled with aluminum alloy precision machined parts, which has high strength and convenient installation. The wind speed part adopts the traditional three-wind cup structure, the wind cup is made of ABS, the starting performance is good, the measuring range is large, the linearity is good, stable and reliable. The wind direction part adopts low inertia wind direction to respond to the wind direction. When the wind direction changes, the tail wheel drives the angle sensor to sense the azimuth change, thereby generating a change of electrical signal output, good linearity, high precision, and no blind zone.

### FEATURES

- Combined wind speed & direction sensor
- Low starting threshold
- Good corrosion resistance
- Compact and light design
- Easy installation



ITEM	Wind speed	Wind direction
Range	0-45m/s(current output)/0-70m/s(pulse,RS485,RS232 output)	0-360°
Resolution	0.1m/s	1°
Accuracy	±(0.3+0.03V)m/s , V is current wind speed	±3°
Acquisition Cycle	3s	
Starting wind speed	0.5m/s	
Limited wind speed	75m/s	
Supply	5V(only for digital output),12-24VDC	
Output Signal	RS485,4-20mA,0-5V,RS232,pulse(NPN,only for wind speed)	
Operating Temperature	-40°C~+70°C	
Ingress Protection	IP65	
Main material	Aluminum alloy and ABS	
Storage	10-60°C@20%-90%RH	
Cable length	Default 2.5m,other length is optional	
Installation bracket	attached	
Weight(unpacked)	700g	



## RK120-03 Ultrasonic Wind Speed & Direction Sensor

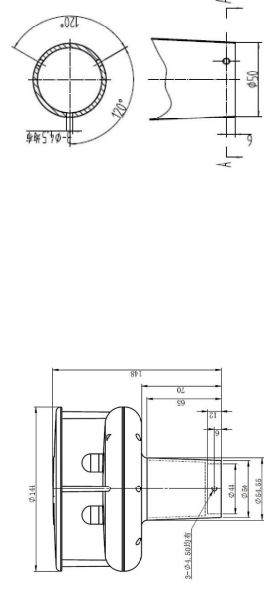
RK120-03 Economical Ultrasonic Wind Sensor is a fully digital detector, high-precision sensors, integrated by the ultrasonic wind speed and direction sensors. It can accurately and quickly detect the wind speed, wind direction; built-in signal processing unit can output a corresponding signal in response to user needs, with the structure lightweight and compact, no moving parts, high-strength structural design can be accurately detected in the harsh climatic conditions, made the accurate and stable elements, low maintenance, an open communications protocol and so on. It can be widely used in meteorology, oceanography, environment, airports, ports, laboratories, industry and agriculture, and transportation and other fields.

### FEATURES

- Adapt to complex weather conditions
- No moving parts, long service life
- The surface preservative treatment
- Strong anti-interference
- High accuracy
- Automatic heating anti-frozen



ITEM	Wind speed	Wind direction	Atmospheric pressure
Range	0-45m/s,0-60m/s	0-360°/0-360°	150-1100hPa
Resolution	0.01m/s	1°	0.1hPa
Accuracy	≤10m/s: ±0.2m/s >10m/s: ±2% the current value	±3°	±1 hPa
Starting Threshold	0.1m/s	0.1m/s	
Extreme Wind Speed		60m/s	
Power Supply		12-24VDC	
Power consumption		<1W(Heating not activated); <3W(Heating activated)	
Output Signal		RS232/RS485(Modbus/INMEA-G183),4-20mA/0-5V(only for wind speed & direction) optional	
Operating Temperature		-40°C~+80°C	
Ingress Protection		IP66	
Heating power		3W max.	
Electronic compass		optional	
Atmospheric pressure		optional	
Dimension		φ145*138mm	
Weight(unpacked)		0.8kg	
Main material		Anti-radiation ABS Engineering plastic	



## RK120-07 Ultrasonic Wind Speed & Direction Sensor

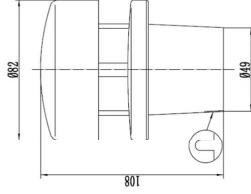
RK120-07 The wind speed and direction meter is a kind of measuring instrument which uses the time difference of ultrasonic wave in the air to measure the wind speed and direction. RK120-07 uses low-power chip with power consumption of only 0.2W, which is especially suitable for solar or battery powered environment with high power consumption requirements. Due to the adoption of new technology and new process, the structure is more compact and compact. Optional temperature and air pressure module.

### FEATURES

Adapt to complex weather conditions
No moving parts, long service life
The surface preservative treatment
Strong anti-interference
High accuracy



ITEM	Technical Specification		
Power Supply	12-24VDC		
Power consumption	1.7W		
Output Signal	RS232/RS485(Modbus or NMEA-183), SDI-12		
Operating Temperature	-30°C~+60°C		
Ingress Protection	IP65		
Dimension	φ82*103mm		
Weight(unpacked)	0.8kg		
Main material	ABS		
ITEM	Range	Resolution	Accuracy
Wind speed	0-40m/s	0.1m/s	±3%
Wind direction	0-360°	1°	±3°
Starting Threshold	0.1m/s		
Extreme Wind Speed		60m/s	



## RK120-08 Ultrasonic Wind Speed & Direction Sensor

RK120-08 Ultrasonic Wind Speed & Direction Sensor's work principle is by ultrasonic transit-time to measure the wind speed. The Anemometer has the feature of light weight, no moving parts, durability. And again, no need maintenance and on-site calibration, wind speed and direction can also output at the same time. If necessary, customers may select wind speed unit, the output frequency and output format, may also select the heating device (recommended in the cold environment) or analog output. It can connect with computers, data acquisition, or other RS485 or analog output consistent with the collection of equipment. If necessary, you can also form a network of multiple to use. Ultrasonic Anemometer is an advanced equipment of wind speed detection. Because it can overcome the inherent defects of mechanical anemometer, it can work in whole day, long time. It gets more and more widely used and is a powerful replacement of mechanical anemometer.

### FEATURES

No limit: to Start wind speed, 360° operation, and measure wind speed, wind direction,
Work whole day, free from rain, snow, frost, weather
High accuracy, stable
Strong, resistant corrosion, installation and use without fear of damage;
Design is flexible, lightweight, portability, easily installation or undo;
Easily signal access, while provide both analog and digital signals;



ITEM	Wind speed	Wind direction
Range	0-60m/s	0-359°
Accuracy	±2%	±3°
Resolution	0.01m/s	1°
Power Supply	12-24VDC(Heating must be 24VDC)	
Power consumption	<0.2W (Heating not activated); <48W (Heating activated)	
Output Signal	RS232/RS485(Modbus/NMEA-0183), 4-20mA, SDI-12	
Wind speed unit	m/s, knots, mph, kph, ft/min	
Ultrasonic output frequency	1Hz (default); 10Hz (optional)	
Operating Temperature	-50°C ~ +70°C	
Ingress Protection	IP66	
Heating power	40W max.	
Dimension/ Weight(unpacked)	φ228*286mm/1.13kg	
Main material	Stainless steel + aluminum alloy	

