

FEATURES

- High performance sensitive film
- Automatic temperature compensation
- PC and stainless steel housing
- Simple operation and high reliability
- No external module, a whole design
- NO₃⁻ and temperature measurement at the same time
- Immersion in water or pipe installation



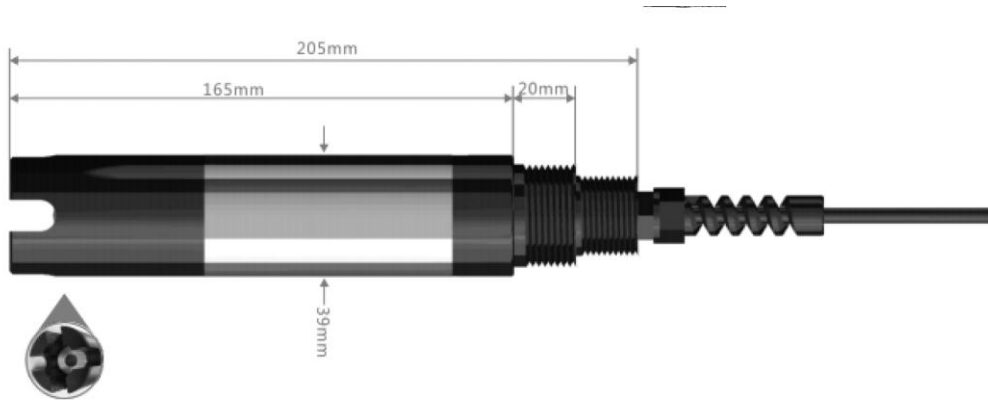
APPLICATIONS

- Environmental protection
- Water quality monitoring
- Clean in place(CIP)
- Sewage treatment
- Industrial wastewater treatment

TECHNICAL SPECIFICATION

Item	Technical Specification	
	NO ₃ ⁻ (concentration)(2.5-11PH)	Temperature
Range	0.1-14000ppm	0-50℃
Accuracy	±1%FS	±0.3℃
Resolution	0.001ppm	0.1℃
Supply	5VDC,12VDC,24VDC	
Temperature compensation	0-60℃	
Output	RS485 and 4-20mA at the same time	
Pressure resistance	0-3bar	
Power consumption	<0.4W	
Operating temperature	0-+80℃	
Probe material	PC+316L	
Weight(probe)	0.5kg	
Ingress protection	IP68	
Cable length	5m default,other length optional	
Storage	10-60℃@20%-90%RH	

DIMENSION



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FEATURES

- High performance sensitive film
- Automatic temperature compensation
- PVC and POM housing
- Simple operation and high reliability
- No external module, a whole design
- NH₄⁺ and temperature measurement at the same time
- Immersion in water or pipe installation



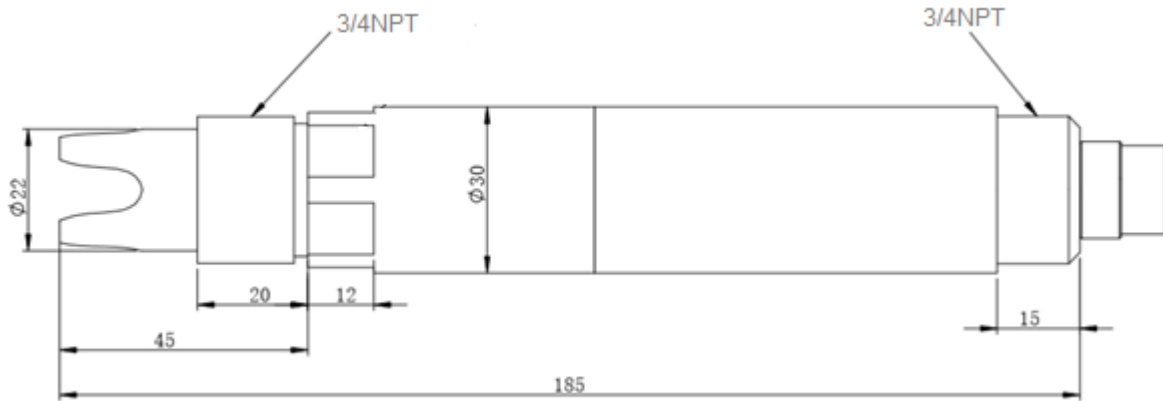
APPLICATIONS

- Environmental protection
- Water quality monitoring
- Clean in place(CIP)
- Sewage treatment
- Industrial wastewater treatment

TECHNICAL SPECIFICATION

Item	Technical Specification	
	NH ₄ ⁺ (concentration)(4-10PH)	Temperature
Range	0-100mg/L,0-1000mg/L	0-40℃
Accuracy	±10%FS	±0.3℃
Resolution	0.1mg/L	0.1℃
Supply	12-24VDC	
Temperature compensation	Automatic temperature compensation(PT1000)	
Output	RS485	
Pressure resistance	<0.1MPa	
Power consumption	<0.4W	
Operating temperature	0-+40℃	
Probe material	PVC+POM	
Ingress protection	IP68	
Cable length	5m default,other length optional	
Storage	10-60℃@20%-90%RH	

DIMENSION



Note: The sensor outlet is M16-5 core waterproof male connector



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Chlorophyll sensor uses leading optical technology, integrated design, with high efficiency power management, sturdy structure, stable sensor performance, free of maintenance and frequent calibration, can be used online for a long time. Can be used for research, investigation and monitoring of rivers, lakes, ponds, marine surveys, aquaculture, drinking water sources, algae and phytoplankton conditions.

FEATURES

- IP68 protection, water depth within 20 meters
- Built-in temperature sensor
- Support RS-485
- Modbus/RTU protocol
- Convenient, fast,
- Stable and easy to maintain



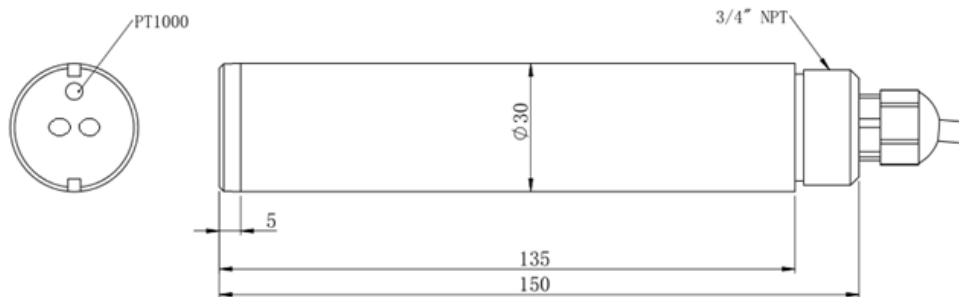
APPLICATIONS

- Aquaculture
- Water quality testing
- Study on the status of algae and phytoplankton

SPECIFICATIONS

Item	Specification
Range	0~400ug/L
Temperature range	0-50℃
Accuracy	±3%, ±0.5℃
Resolution	0.1 ug/L, 0.1℃
Power	12-24VDC
Power consumption	<0.5W
Output	RS485(Modbus-RTU)
Main material	POM
Protection class	IP68
Deepest depth	20m underwater
Cable length	5 m(default), customizable

INSTALLATION DIAGRAM



INSTALLATION

Installation distance requirements: keep more than 3cm from the side wall and more than 10cm from the bottom.



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Many organics dissolved in water can absorb UV light. Therefore, the total amount of dissolved organic pollutants in water can be accurately measured by measuring the absorption of these organic compounds to UV light of 254 nm wavelength. The COD sensor adopts two light sources, one is 254nm ultraviolet light, the other is 550nm green light reference light, which can automatically compensate the attenuation of the optical path and eliminate the interference of impurities in the granular suspension to a certain extent, so as to achieve more stable and reliable measurement.

FEATURES

- No reagent, no pollution, more economic and environmental protection
- Small size, more convenient installation, online water quality monitoring
- Automatic compensation for turbidity interference
- With cleaning brush, automatic cleaning, can prevent biological adhesion
- Small drift, fast response and more accurate measurement
- Excellent stability
- Maintenance free, long service life and low cost
- RS-485 interface, Modbus / RTU protocol
- Low power design, anti-interference design



APPLICATIONS

- Environmental protection
- Agriculture
- Aquaculture
- Water conservancy
- Sewage treatment
- Soil remediation

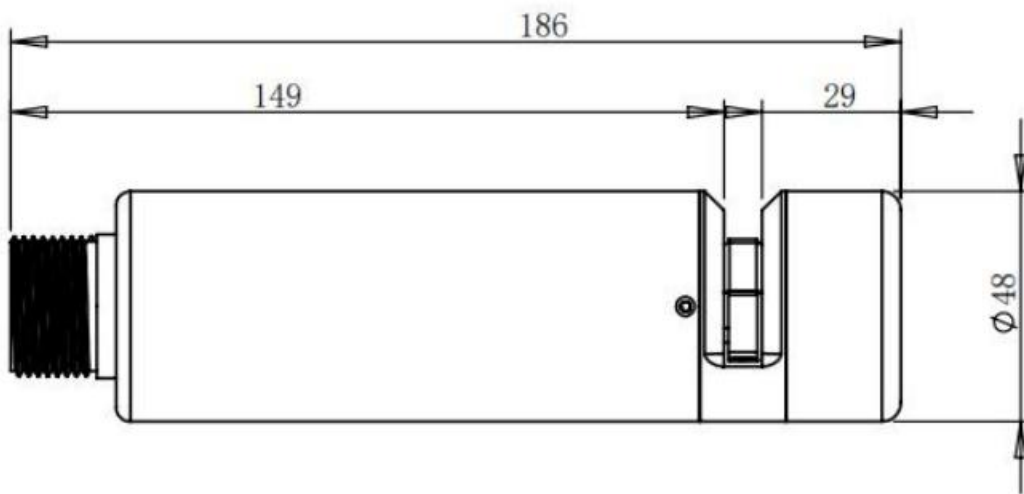
TECHNICAL SPECIFICATION

Item	Technical Specification
Measurement Principle	Dual wavelength ultraviolet absorption method
Range	COD: 0-370mg / L equiv. KHP
	Turbidity: range 0-100NTU
Accuracy	COD: ± 5% F.S
	Turbidity: ± 5% F.S
Resolution	COD: 0.1mg/l
	Turbidity: 0.1NTU
Supply	10-30VDC(power consumption<0.5W)
Response time	<10s
Output Signal	RS485

Operating Environment	0-+45°C(<0.4MPa)
Cable length	5m(default),customizable
Probe material	Titanium alloy and 316L stainless steel
Ingress Protection	IP68
Storage	10-60°C@20%-90%RH

DIMENSION

Unit:mm




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RK900-03 Portable Weather Station is a high-integrated mini weather station of micro-power consumption, equipped with a lightweight telescopic tripod for rapid installation. Its functions as : short-term meteorological observations; chronically continuously monitoring small weather station and adaptable for mobile real-time data collection. Five sensors are included, such as wind direction, wind speed, barometric pressure, temperature, humidity sensor (others can be customized). The test data can be transmitted to a fixed meteorological data center or vehicle mobile center system via RS232, RS485, USB or GPRS wireless communications.

FEATURES

- High accuracy
- Strong resistance to harsh environment
- Low power consumption
- Aluminum alloy frame, one-hand carry, rapid set up in 10s
- Additional sensors can be customized
- Being equipped with lithium battery and various power supply interfaces
- Variety of communication mode for option



APPLICATIONS

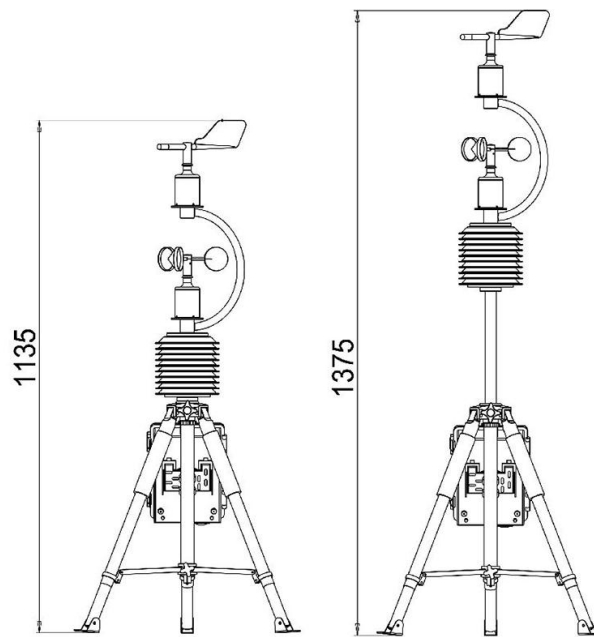
- Emergency meteorological monitoring
- Individual meteorological support
- Agricultural weather monitoring
- Research and teaching
- Micro-meteorological research

TECHNICAL SPECIFICATION

Measure item	Measure range	Resolution	Accuracy
Wind speed	0-45m/s	0.1m/s	± (0.3±0.03V) m/s
Wind direction	0-360°	1°	±3°
Atmospheric temperature	-50-+100°C	0.1°C	±0.5°C
Atmospheric humidity	0-100%RH	0.1%RH	±3%
Atmospheric pressure	10-1100hPa	0.1hpa	±0.3hPa
Item	Details		
Storage capacity	4M,if stored hourly, you can store data for one month.		
Meteorological monitoring software(for free)	Use to real-time display, analysis and storage data on the PC		
Communication mode	Default R232,RS485 & GPRS is optional		
Supply	Recharged 4.8 AH lithium battery or ac adapter(AC100-240V) or 12DC		
Power consumption	<1W		
Electronic compass(optional)	With electronic compass when installation does not need to manually to the north		


Portable aluminum alloy instrument box(optional)	600*200*500mm
Installation	The AWS can complete the installation within 1 minute
Ingress protection	IP65
Operating temperature	-40°C--+70°C
Dimension	1375 mm(Shrinkage at 1135 mm,Height can be customized.)
Weight(unpacked)	5kg

Dimension



Extension-type tripod



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RK900-09 miniature ultrasonic weather station is a fully digital detection, high-precision sensor, which is integrated by the principle of ultrasonic wind speed and direction sensor, high-precision digital temperature, humidity, pressure sensor, can accurately and quickly detect wind speed, wind direction, atmospheric temperature, atmospheric humidity and Atmospheric pressure, built-in signal processing unit can output corresponding signals according to user needs, high-strength structure design can work reliably in harsh climate environment, can be widely used in meteorology, ocean, environment, airport, port, laboratory, industry, agriculture and transportation, etc.

FEATURES

- High accuracy,fast response
- Easy to install, all-weather measurement
- RS485 output
- High-strength structural design



APPLICATIONS

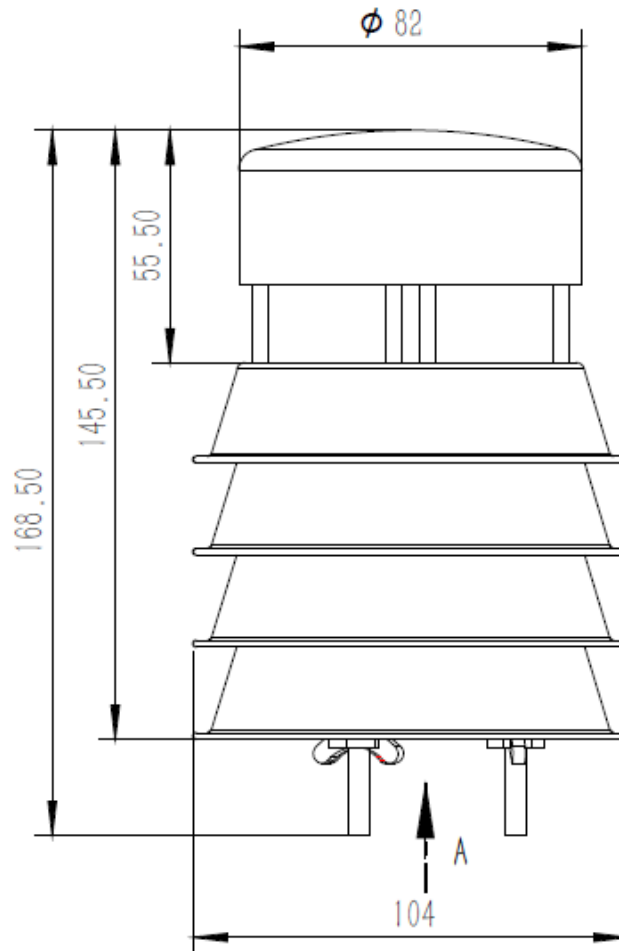
- Unattended meteorological monitoring system
- Mobile meteorological monitoring system
- Electric power safety monitoring
- Solar or wind power generation
- Port and navigation of the ship
- Scenic region
- Meteorological science research

TECHNICAL SPECIFICATION

Measure item	Principle	Range	Resolution	Accuracy
Wind speed	Ultrasonic	0-40m/s	0.01m/s	±0.5+2%FS
Wind direction	Ultrasonic	0-359°	1°	±3°
Atmospheric temperature	MEMS	-40+100℃	0.1℃	±0.5℃
Atmospheric humidity	MEMS	0-100%RH	0.1%RH	±3%
Atmospheric pressure	MEMS	10-1100hPa	0.1hpa	±1.5hPa
Supply	12VDC			
Output	RS485			
Communication Protocol	Modbus-rtu			
Power consumption	0.6W			
Operating temperature	-40+80℃			
IP Rating	IP65			
Main material	ABS+ Aluminum alloy			

DIMENSION

Unit:mm



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RK900-10 automatic weather instrument is simultaneously measure the atmospheric temperature, atmospheric humidity, air pressure, wind speed, wind direction, solar radiation, Illuminance/UV, dust concentration and precipitation. Temperature, humidity and air pressure sensor is placed within the radiation shield. Wind speed and direction of ultrasonic principle. 24G radar detection on rainfall, which can quickly detect rainfall and rainfall intensity. Internal GPS global positioning module and electronic compass can be mounted to the system to give a good indication of latitude and longitude and relative speed, which can calculate the real and virtual wind speed and direction, and is especially suitable for installation on motion vector, such as special vehicles or vessels, etc.

FEATURES

- High accuracy, fast response
- Easy to install, all-weather measurement
- RS485/RS232/SDI-12 output
- No moving parts, maintenance free
- Built-in heating device to ensure the normal work in cold climate
- Use radar measurement of precipitation, accurately reflect the rainfall and start-stop moment
- Can be added the electronic compass, GPS and BDS global positioning module



APPLICATIONS

- Unattended meteorological monitoring system
- Mobile meteorological monitoring system
- Electric power safety monitoring
- Solar or wind power generation
- Port and navigation of the ship
- Scenic region
- Meteorological science research

TECHNICAL SPECIFICATION

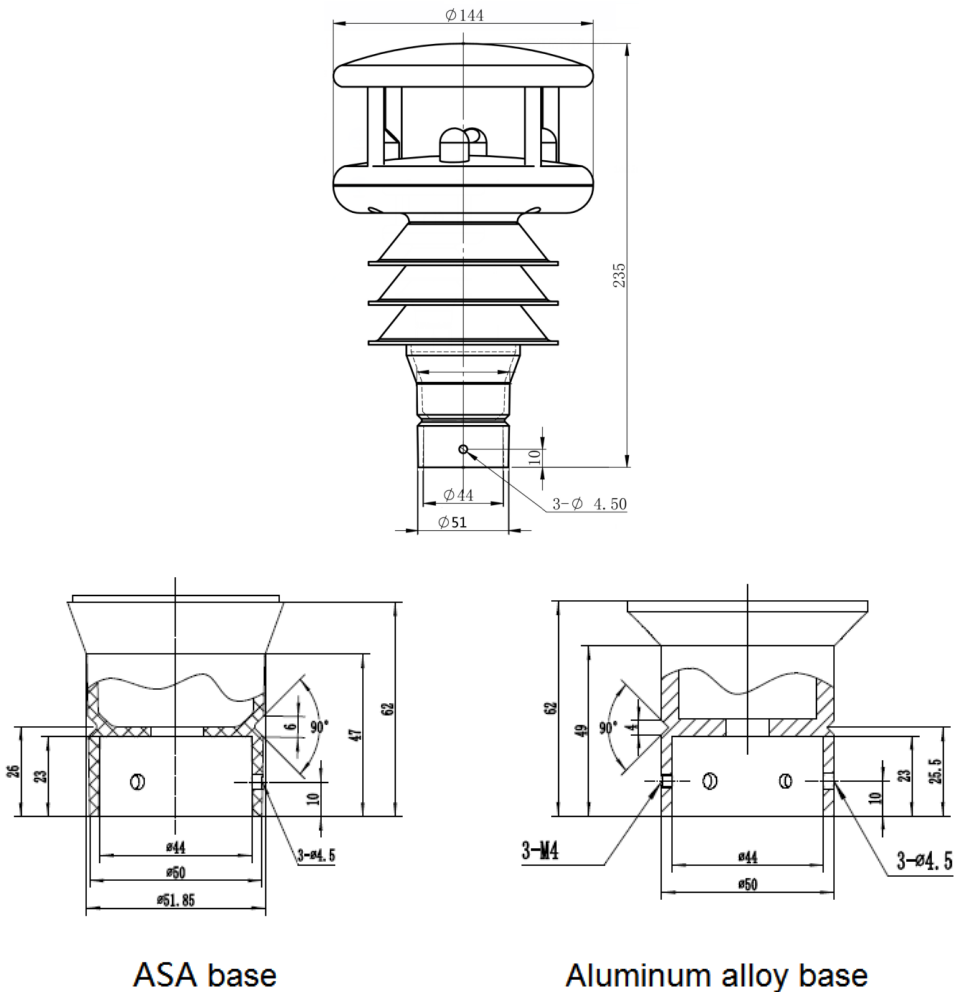
Measure item	Principle	Range	Resolution	Accuracy
Wind speed	Ultrasonic	0-60m/s	0.01m/s	±2%
Wind direction	Ultrasonic	0-360°	1°	±3°
Atmospheric temperature	MEMS	-40-+80°C	0.1°C	±1°C
Atmospheric humidity	MEMS	0-100%RH	0.1%RH	±3%
Atmospheric pressure	MEMS	150-1100hPa	0.1hpa	±1hPa
Precipitation (Rain/Hail/Snow)	Radar	0-200mm/hr.	0.1mm	±5% (@ wind speed ≤ 5m/s)
Solar radiation	Silicon-cell	0-2000W/m2	0.1W/m2	±5% (@ Vertical irradiation)
Illuminance	Silicon-cell	0-200000lux	0.1lux	±5% (@ Vertical irradiation)

RK900-10 Ultrasonic Automatic Weather Instrument

UV	Silicon-cell	0-2000W/m2	0.1W/m2	±10%
Dust concentration (PM2.5, PM10)	Photoelectric scattering	0-2000 μ g/m3	1 μ g/m3	±10%
Visibility	Optical	10-5000m	1m	±15%
Supply	12-24VDC			
Output	RS485,RS232,SDI-12			
Communication Protocol	Modbus-rtu(default),NMEA-0183,SDI-12			
Data update cycle	1s(default),other optional			
Power consumption	<5W,auto-heating power: 9W			
Operating temperature	-40+80℃			
EMC	EN61000-6-3 , EN61000-3-3 EN61000-3-2 , EN61000-6-1			
IP Rating	IP66			
Main material	ASA, Aluminum alloy base(optional)			

DIMENSION


Unit:mm



PARAMETER SELECTION TABLE

Remark	Series	Type	Supply	Output	Communication Protocol	Measure parameters	
RK							
	900						
		10					
			A				12-24VDC
			X				Other
				A			RS232
				B			RS485
				C			SDI-12
					A		Modbus-rtu(default)
					B		NMEA-0183
					C		SDI-12
					X		Other
						M5	Wind speed, wind direction temperature & humidity air pressure
						M6	Wind speed, wind direction temperature & humidity air pressure, precipitation
						M9	Wind speed, wind direction temperature & humidity air pressure , precipitation, solar radiation, Illuminance, dust concentration
						X	Customized①

①Wind speed and direction are necessary, and other parameters can be combined freely, GPS positioning and electronic compass are optional configurations. GPS/BDS and electronic compass are optional configurations.


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RK900-11 mini automatic weather station is a civil integrated weather station independently developed by our company that can measure multiple meteorological parameters. It can simultaneously measure six major meteorological elements such as atmospheric temperature, atmospheric humidity, wind speed, wind direction, air pressure and rainfall. RK900-11 user a low-power chip with a power consumption of only 1.7W, which is especially suitable for solar energy or battery-powered environment with high requirements on power consumption. As a result of the adoption of new technology and new process, the structure is more compact and compact. Solar radiation and solar illuminance detection module can also be selected, which is very suitable for supporting agricultural meteorological system. The outer shell is ABS engineering plastic, available in black and white.

FEATURES

- High accuracy, fast response
- Easy to install, all-weather measurement
- RS485/RS232/SDI-12 output
- No moving parts, maintenance free
- Use radar measurement of precipitation, accurately reflect the rainfall and start-stop moment
- Compact and compact structure
- low power consumption



APPLICATIONS

- Environmental monitoring
- Sea-going vessel
- Bridge & Tunnel
- Solar and wind power generation
- Wind resource assessment
- Drilling platform
- Automatic weather station
- Agriculture

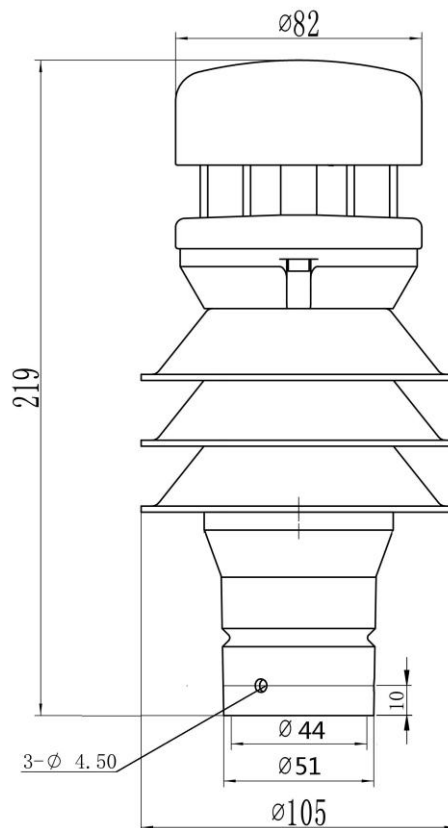
TECHNICAL SPECIFICATION

Item	Technical Specification		
	Range	Resolution	Accuracy
Wind speed	0-40m/s	0.1m/s	±3%
Wind direction	0-359°	1°	±3°
Atmospheric temperature	-40℃ — +80℃	0.1℃	±1℃
Atmospheric humidity	0—100%	1%	±3%
Atmospheric pressure	150 — 1100hPa	0.1hPa	±1
Rainfall	0-200mm/hr.	0.1mm	±5% (@ wind speed ≤ 5m/s)
Altitude	-500m — 9000m	1m	±8%

Radiation	0-2000W/m ²	0.1 W/m2	±5% (@ Vertical irradiation)
Illumination	0-200000lux	0.1 lux	±5% (@ Vertical irradiation)
UV	0-2000W/m ²	0.1W/m2	±10%
PM2.5	0-2000 ug/m3	1 ug/m3	±10%
PM10	0-2000 ug/m3	1 ug/m3	±10%
Visibility	10-5000m	1m	±15%
Item	Technical Specification		
Power Supply	12-24VDC		
Power consumption	1.7W		
Output Signal	RS232/RS485(Modbus or NMEA-183), SDI-12		
Operating Temperature	-20°C+60°C		
Ingress Protection	IP65		
Dimension	Φ82mm× (108-240) mm (Dimensions will vary depending on the parameters)		
Weight(unpacked)	0.38kg		
Main material	ABS		

DIMENSION

Unit:mm



PARAMETER SELECTION TABLE

Remark	Series	Type	Supply	Output	Communication Protocol	Measure parameters	
RK							
	900						
		11					
			A				12-24VDC
			X				Other
				A			RS232
				B			RS485
				C			SDI-12
					A		Modbus-rtu(default)
					B		NMEA-0183
					C		SDI-12
					X		Other
						M5	Wind speed, wind direction temperature & humidity air pressure
						M6	Wind speed, wind direction temperature & humidity air pressure , rainfall
						X	Customized①

① Wind speed and direction are necessary, and other parameters can be combined freely


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RK900-12 mini automatic weather station is a civil integrated weather station independently developed by our company that can measure multiple meteorological parameters. It can simultaneously measure six major meteorological elements such as atmospheric temperature, atmospheric humidity, wind speed, wind direction, air pressure and rainfall. RK900-12 user a low-power chip with a power consumption of only 1.7W, which is especially suitable for solar energy or battery-powered environment with high requirements on power consumption. As a result of the adoption of new technology and new process, the structure is more compact and compact. Solar radiation and solar illuminance detection module can also be selected, which is very suitable for supporting agricultural meteorological system. The outer shell is ASA engineering plastic.

FEATURES

- High accuracy, fast response
- Easy to install, all-weather measurement
- RS485/RS232/SDI-12 output
- No moving parts, maintenance free
- Use radar measurement of precipitation, accurately reflect the rainfall and start-stop moment
- Compact and compact structure
- low power consumption



APPLICATIONS

- Environmental monitoring
- Sea-going vessel
- Bridge & Tunnel
- Solar and wind power generation
- Wind resource assessment
- Drilling platform
- Automatic weather station
- Agriculture

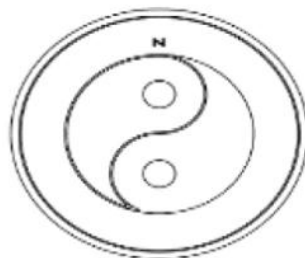
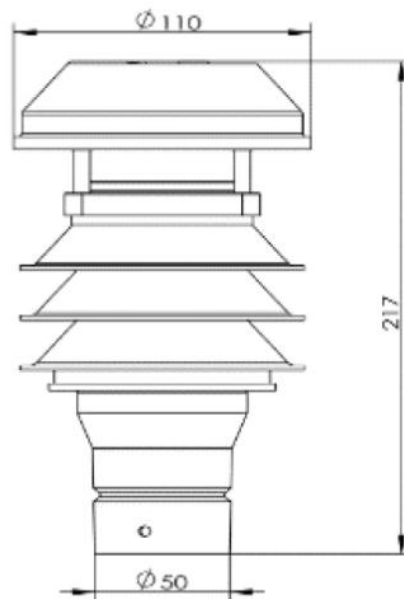
TECHNICAL SPECIFICATION

item	Technical Specification		
	Range	Resolution	Accuracy
Wind speed	0-70m/s	0.1m/s	± 3%
Wind direction	0-359°	1°	± 3°
Atmospheric temperature	-40℃ — +80℃	0.1℃	±0.5℃
Atmospheric humidity	0—100%	1%	±5%
Atmospheric pressure	300 — 1100hPa	0.1hPa	± 1
Rainfall	0-200mm/hr.	0.1mm	±5%
Altitude	-500m - 9000m	1m	±5%
Radiation	0-2000W/m ²	0.1 W/m2	±5%
Illumination	0-200000lux	0.1 lux	±5%

UV	0-2000W/m ²	0.1W/m ²	±10%
PM2.5,PM10	0-2000ug/m ³	1 ug/m ³	±5%
Item	Technical Specification		
Power Supply	12-24VDC		
Power consumption	<1.7W		
Output Signal	RS232/RS485(Modbus or NMEA-183), SDI-12		
Operating Temperature	-20°C+50°C		
Ingress Protection	IP65		
Dimension	Φ 110*(217-298)mm(Dimensions will vary depending on the parameters)		
Weight(unpacked)	0.39kg		
Main material	ASA		

DIMENSION

Unit:mm



PARAMETER SELECTION TABLE

Remark	Series	Type	Supply	Output	Communication Protocol	Measure parameters	
RK							
	900						
		12					
			A				12-24VDC
			X				Other
				A			RS232
				B			RS485
				C			SDI-12
					A		Modbus-rtu(default)
					B		NMEA-0183
					C		SDI-12
					X		Other
						M5	Wind speed, wind direction temperature & humidity air pressure
						M6	Wind speed, wind direction temperature & humidity air pressure , rainfall
						X	Customized①

① Wind speed and direction are necessary, and other parameters can be combined freely


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