



RK900-11 Ultrasonic Automatic Weather Instrument



Overview

RK900-11 Ultrasonic Automatic Weather Instrument can simultaneously measure atmospheric temperature, humidity, air pressure, wind speed, wind direction, rainfall, solar radiation, illuminance, dust, visibility and other parameter. The product uses low-power chips with a power consumption of only 1.7W, Especially suitable for solar/battery-powered applications. Due to the adoption of new technologies and processes, the structure is more compact and very suitable for agricultural meteorological systems. The outer shell is made of ASA engineering plastic .

Features

- High accuracy, fast response
- Compact structure and multi parameter measurement
- RS485/RS232/SDI-12 output
- No moving parts, maintenance free
- Low power consumption

Applications

- Agricultural meteorology
- Smart city
- Bridges and tunnels
- Home Weather
- Environmental monitoring of high-altitude equipment
- General environmental monitoring

Technical Parameter

Item	Range	Resolution	Accuracy
Wind speed	0~40m/s	0.1m/s	±5%FS
Wind direction	0~359°	1°	±3°
Atmospheric temperature	-40℃~+80℃	0.1℃	±1℃
Atmospheric humidity	0~100%	1%	±3%
Atmospheric pressure	300~1100hPa	0.1hPa	±1hPa
Rainfall	0~200mm/hr.	0.1mm	±8%(@ wind speed ≤5m/s)
Altitude	-500m~9000m	1m	±8%
Irradiance	0~2000W/m ²	0.1W/m ²	±5%(@ vertical light)
Illumination	0~200000lux	0.1lux	±5%(@ vertical light)
PM2.5	0~2000μg/m ³	1μg/m ³	±5%
PM10	0~2000μg/m ³	1μg/m ³	±8%



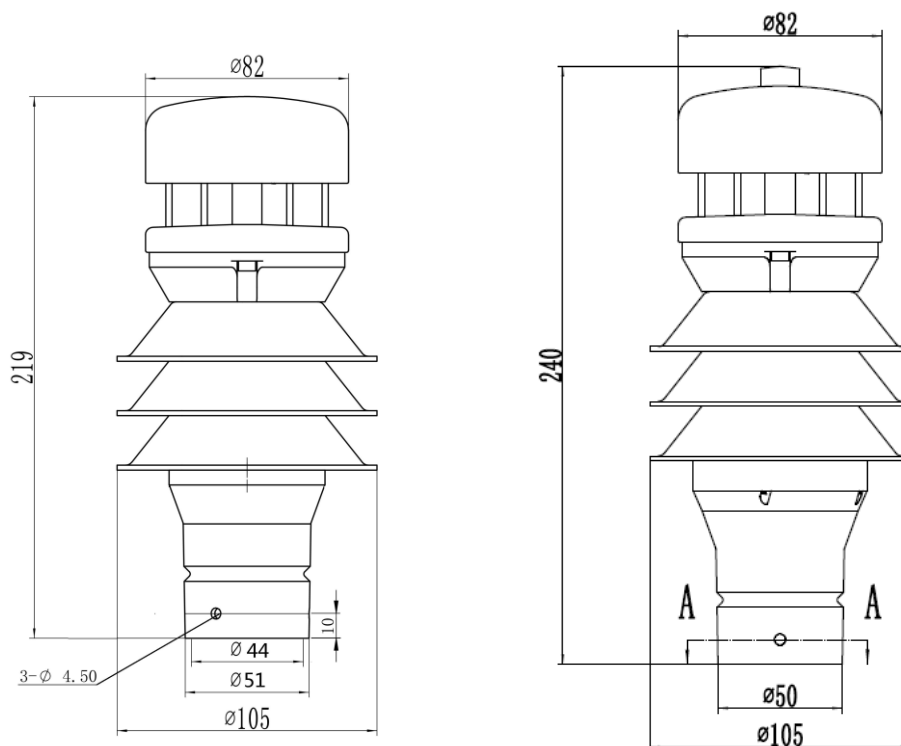
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Technical Parameter

Item	Technical Specification
Power Supply	7-30VDC
Power consumption	1.7W
Output Signal	RS232/RS485(Modbus or NMEA-183), SDI-12
Operating Temperature	-20℃-+60℃
Ingress Protection	IP65
Dimension	Φ82mm×(108-240)mm (Dimensions will vary depending on the parameters)
Weight(unpacked)	0.38kg
Main material	ASA, ABS (black, optional)

Dimension

Unit:mm

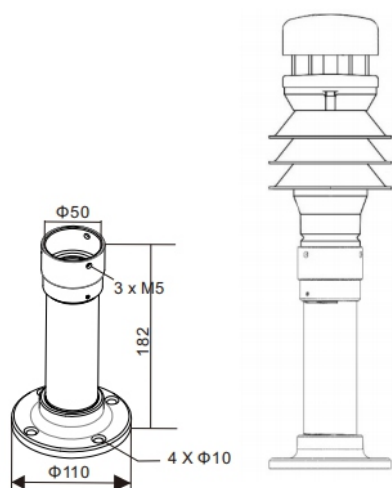


With Irradiance measurement

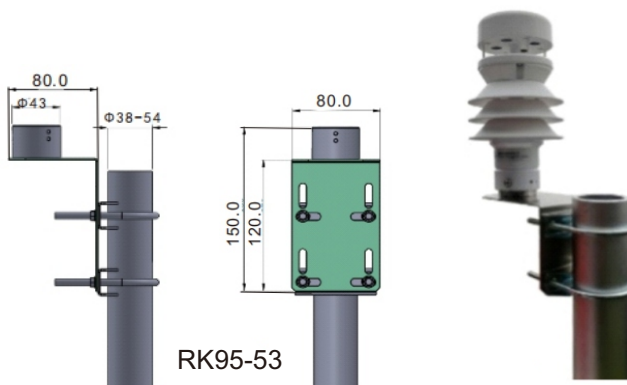


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Mounting



RK95-54



RK95-53

Note:
During installation, use a standard compass to determine the geographic north direction, and align the instrument's northward wind direction with the compass direction for optimal setup.

Parameter Selection Table

Remark	Series	Type	Supply	Output	Communication protocol	Measure parameters	
RK							
	900						
		11					
			A				7-30VDC
			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

①Wind speed and direction are necessary, and other parameters can be combined freely, GPS/BDS and electronic compass are optional configurations.Please confirm with us before order.

Revision time	Reviser	Current Version	Remarks
20250925	Lee	V5. 1	