RK900-11 Ultrasonic Automatic Weather Instrument

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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 | | | | |
|-------------------------|-------------------------|------------|--------------------------|--|--|
| nem | Range | Resolution | Accuracy | | |
| Wind speed | 0~40m/s | 0.1m/s | ±3% | | |
| Wind direction | 0~359° | 1° | ±3° | | |
| Atmospheric temperature | -40°C~+80°C | 0.1℃ | ±1°C | | |
| 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% | | |



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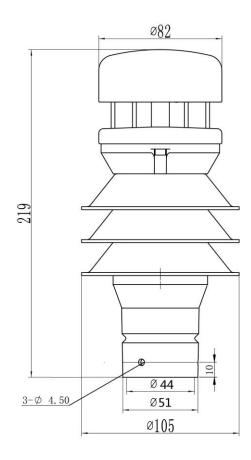


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| Radiation | 0~2000W/m ² 0.1W/m ² | | ±5%(@ Vertical irradiation) | | | |
|-----------------------|--|--------|------------------------------|--|--|--|
| Illumination | 0~20000lux | 0.1lux | ±5%(@ Vertical irradiation) | | | |
| PM2.5 | 0~2000µg/m³ | 1µg/m³ | ±10% | | | |
| PM10 | 0~2000µg/m³ | 1µg/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 | ASA | | | | | |

DIMENSION

Unit:mm



PARAMETER SELECTION TABLE

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| Remark | Series | Туре | Supply | Output | Communication Protocol | Measure parameters | |
|--------|--------|------|--------|--------|---------------------------|-----------------------|---|
| RK | | | | | | | |
| | 900 | | | | | | |
| | | 11 | | | | | |
| | | | А | | | | 12-24VDC |
| | | | х | | | | Other |
| | | | | А | | | RS232 |
| | | | | В | | | RS485 |
| | | | | С | | | SDI-12 |
| | | | | | А | | Modbus-rtu(default) |
| | | | | | В | | NMEA-0183 |
| | | | | | С | | SDI-12 |
| | | | | | х | | Other |
| | | | | | | M5 | Wind speed, wind direction |
| | | | | | | | temperature & humidity air pressure |
| | | | | | | M6 | Wind speed, wind direction temperature & humidity |
| | | | | | | | air pressure , rainfall |
| | | | | | | х | Customized ^① |

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

C C Complies with applicable CE directives. Specifications subject to change without notice. Version 4.1 Copyright © 2015 Hunan Rika Electronic Tech Co.,Ltd

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