# RK200-14 Albedometers (Reflectivity Sensor)

## Overview

RK200-14 Albedometers is used to measure the reflectivity of earth objects to solar radiation. It needs to be installed horizontally in an open area with no obstacles above the sensing surface. The RK200-14 Albedometers is based on the principle of pyroelectric effect. The sensing element adopts a wire-wound electroplating multi-contact thermopile, and its surface is coated with a black coating with high absorptivity. The hot junction is on the sensing surface, and the cold junction is located in the body, and the hot and cold junctions generate a thermoelectric potential. In the linear range, the output signal is proportional to the solar radiation value. In order to reduce the influence of temperature, the sensor is designed with a temperature compensation circuit. In order to prevent the environment from affecting its performance, the sensor uses a two-layer quartz glass cover. The glass cover is ground by precision optical cold processing.

## Features

- Suitable for harsh environment
- High sensitivity
- Passive accurate measurement
- Maintenance free
- Easy installation

## Applications

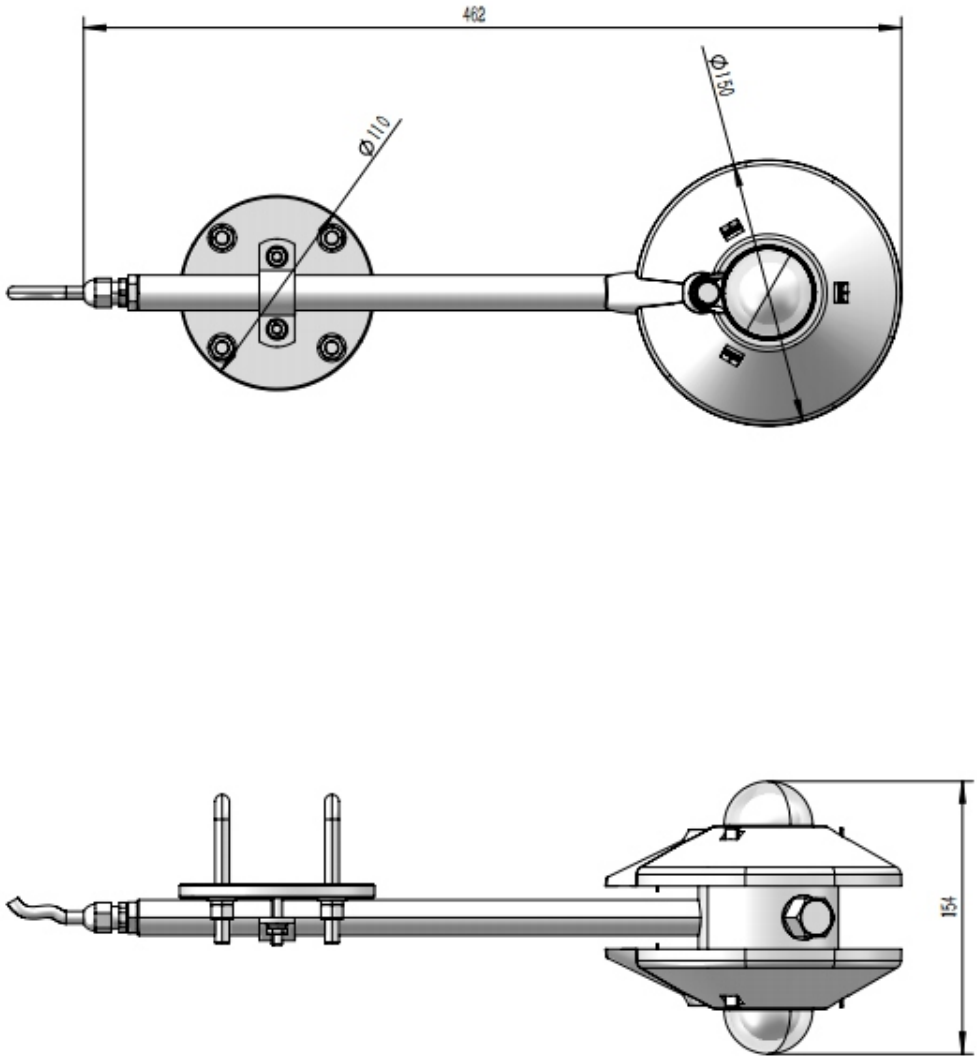
- Solar, wind power generation
- Solar water heater and solar engineering
- Weather and climate studies
- Agricultural and forestry ecology research
- Solar energy construction
- Study on radiation energy balance in environmental science

## Technical Parameter

| Item | Technical Specification |
|---|---|
| Spectral range | 280-3000nm |
| Range | -2000~+2000W/$m^2$ |
| Output | RS485 |
| Response time | ≤13s(99%) |
| Stability | ±2%/year |
| Sensitivity | 7～14μV/W. $m^{-2}$ |
| Internal resistance | ≈50Ω |
| Accuracy | ±5% |
| Temperature compensation | Automatic |
| Operating temperature | -40℃-+80℃ |
| Ingress protection | IP65 |
| Weight(unpacked) | 1.5kg |
| Storage condition | 10℃-60℃@20%-90%RH |

## Dimension

Unit:mm




| Revision time | Reviser | Current Version | Remarks |
|---|---|---|---|
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