

Much sand and dust carried by the wind will deposit on the surface of photovoltaic modules with the passage of time, which will affect the reflectivity and transmittance of the glass cover plate on photovoltaic modules, thus reducing the conversion efficiency of solar photovoltaic modules.

The RK210-03 dust monitoring system perfectly solves the problem that the user is difficult to monitor the dust of solar panels. The dust monitoring system of photovoltaic station measures and calculates the surface cleanliness, which shows that the cleanliness decreases all the way from 100% to 0%. It enables users to find a balance between power generation efficiency and cleaning cost. The operation and maintenance personnel of photovoltaic station can use scientific and accurate methods instead of selecting the best cleaning scheme through visual inspection. Thus, the loss of power generation efficiency and the waste of cleaning funds are avoided. Effectively improve the benefits of photovoltaic stations.

The dust monitoring system for a photovoltaic power station can be easily installed into a new or existing photovoltaic array and integrated into the power station management system. The device is mounted on the frame of photovoltaic panels and does not need sunlight to work. By continuously measuring the transmission losses caused by contaminants on the glass, the reduction in the amount of sunlight reaching the solar panel was calculated.

## FEATURES

- No moving parts, no maintenance required
- Easy installation
- Clean at the same time as photovoltaic panels
- 24-hour monitoring
- RS485 output is easy to integrate
- Compact structure



## APPLICATIONS

- Solar energy & photovoltaic power generation
- Agriculture and forestry monitoring
- Crop growth monitoring
- Tourism eco
- Weather stations

## SPECIFICATIONS


Item	Specification
Soiling ratio (SR) range	100 - 0 %
Output	RS485
Communication	Modbus-RTU
Accuracy	± 0.1 of reading ± 1% (after local dust calibration)
Supply	12-24V
Measuring frequency	once a minute
Operating temperature	-40°C-+70°C
Cable length	power line: not included, communication line: 20m

Ingress protection	IP65
Storage condition	10°C-60°C@20%-90%RH

## INSTALLATION SCHEMATIC

It can be mounted on the top or side of the PV panel or between them, or on single and multi-axis PV trackers.




 Complies with applicable CE directives.

Specifications subject to change without notice. Version 1.0

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