Optical Rain Gauge
Model: RS-GYL-N01-1

Description:

The Renke optical rain gauge series is a reliable and cost-effective choice for precipitation measurement. The overall size of the optical rain gauge is about the size of a tennis ball, and the internal sensor is completely sealed from the external environment. The delivery comes with mounting brackets that can be easily installed on weather stations, street lights and other infrastructure.

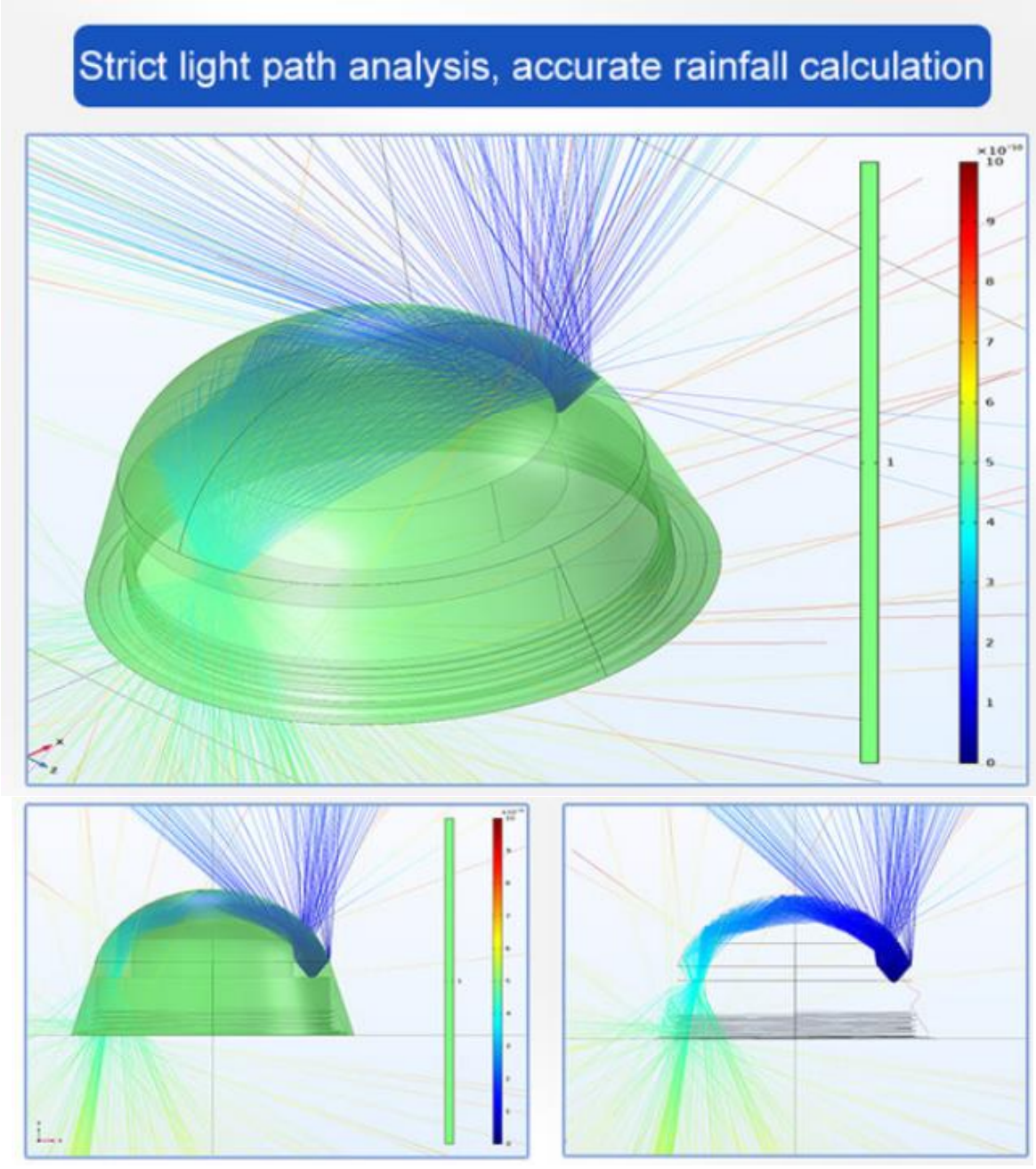
Our optical rain sensor has RS485 signal output and pulse-type signal output. Among them, the RS485 output optical rain sensor can be combined with a small ultrasonic anemometer to form an ultrasonic weather station.

Working Principle:

When raindrops pass through the sampling space, the raindrops will block the laser, and the light signal received by the receiving sensor and the electrical signal (such as voltage or current) converted from the light signal will change. When the raindrop passes through the sampling space, it will receive the electrical signal from the sensor. Restore the previous state. When the raindrops traverse the sampling space, the electrical signals of the receiving sensor are processed, and the time for the raindrops to traverse the sampling space can be obtained.

Features:

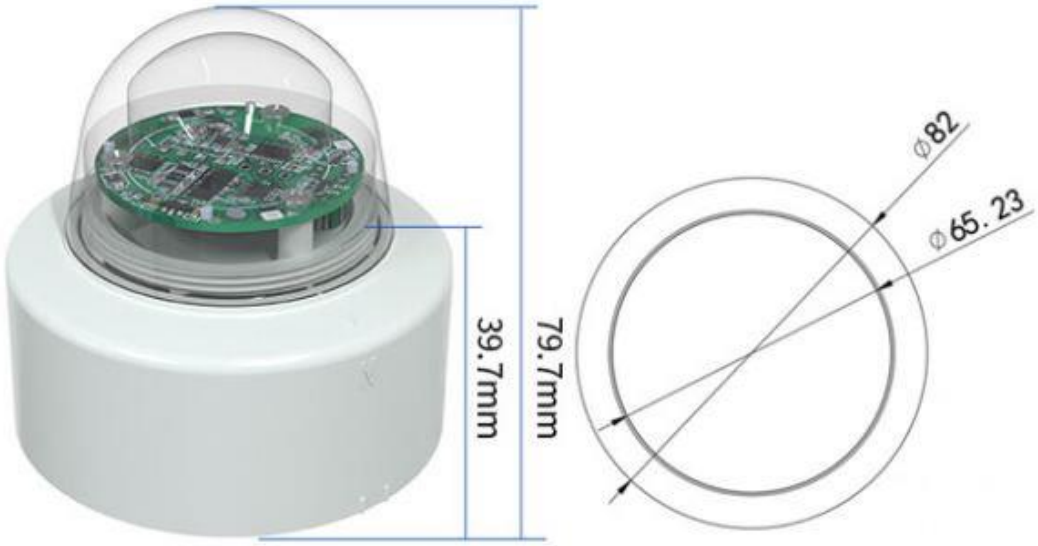
Compared with the tipping bucket rain gauge: the optical rain gauge is small in size, simple to install, and easy to maintain. The optical rain gauge uses electronic optics and a series of microelectronic filtering, amplification, and detection technologies. This principle has the advantage of sensitivity. During installation, because the optical rain gauge is non-mechanical and non-contact measurement, there is no horizontal installation requirement, so the installation is simple and the subsequent maintenance is also convenient. The shell has smooth lines and an easy-to-maintain design, which is not easily blocked by fallen leaves.



Specifications:

- Sense of Rain Diameter: 6CM
- Power Supply Voltage: 9~30V DC
- Power Consumption: <0.24W (12V DC, current less than 20mA)
- Resolution: 0.1mm
- Accuracy: ±5%
- Maximum Instantaneous rainfall: 24mm/min

- Output Mode: RS485
- Working Environment: -40~60℃, 0~99% (non-condensing)
- Working Pressure Range: standard atmospheric pressure ±10%



Optical Rain Gauge Maintenance:

- Before installing the optical rain sensor, it must be ensured that the surface of the cover is dry. Any water droplets will cause measurement errors. You can choose to use some desiccant in it.
- If the optical rain gauge is kept outdoors for a long time and the operating environment is harsh, the surface of the optical rain gauge should be kept clean, often wiped with a soft cloth, the rain gauge should be cleaned once a month for long-term work and must be cleaned once every three months.

Made in China