

3. WSS-27 -- PAR (Photosynthetically Available Radiation)

WSS-27 photosynthetically active radiation sensor is mainly used to measure the photosynthetically active radiation of natural light in the wavelength range of 400-700nm.

WSS-27 use precision optical detectors and has an optical filter of 400-700nm, when natural light is irradiated, a voltage signal proportional to the intensity of the incident radiation is generated, and its luminous flux density is proportional to the cosine of the direct angle of the incident light.

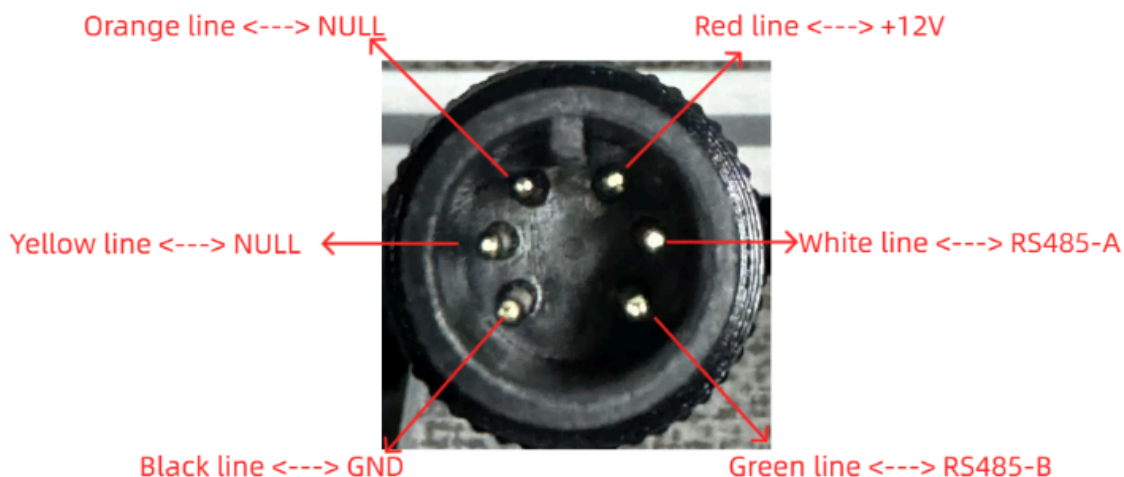
3.1 Specification



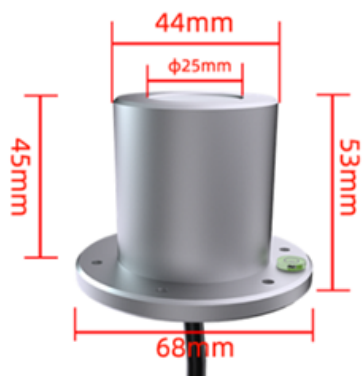
- Input Power: DC 5 ~ 24v
- Interface: RS485
- Response Spectrum: 400~700nm
- Measure range: 0 ~ 2500 μ mol/m²•s
- Resolution: 1 μ mol/m²•s
- Accuracy: $\pm 2\%$
- Yearly Stability: $\leq \pm 2\%$
- Working Temperature: -30°C ~ 75°C
- Working Humidity: 10 ~ 90%RH
- Power Consumption: 5mA @ 12v & 6mA @ 5v
- Stable Time: 5s

3.2 Wiring

WSS-27 Wiring

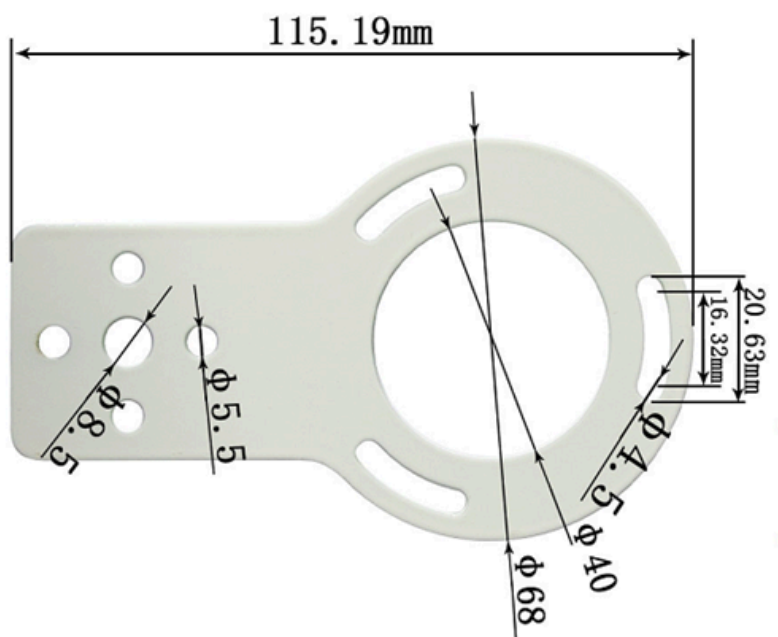
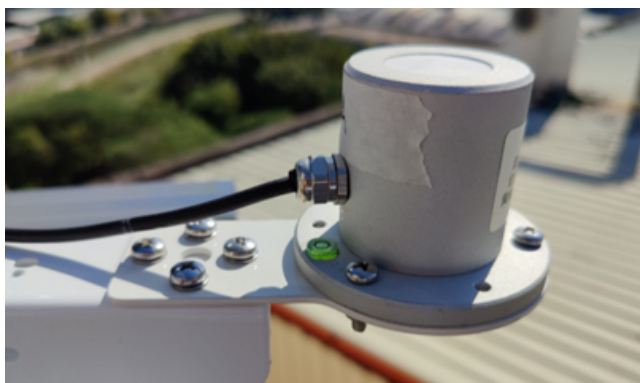


3.3 Dimension



3.4 Installation Notice

Do not power on while connect the cables. Double check the wiring before power on.



3.5 RS485 Commands

The RS485 command is as follows: [Weather_Sensors_Modbus_Command_List](#)

([/xwiki/bin/download/Main/Agriculture%20%26%20Weather%20Stations/WebHome/Weather_Sensors_Modbus_Command_List.xlsx?rev=1.1](#)).