

# Weather Station

SOLARMAN weather station is specifically designed for PV system. It provides a comprehensive environmental monitoring solution for users including irradiance, ambient temperature and humidity, wind direction and speed, and module temperature. With the combination of accurate real-time data, durable products and powerful online platform, SOLARMAN helps users evaluate yield efficiency in a more comprehensive and convenient way.



Accurate real-time and historical data, enabling a comprehensive evaluation of system performance.



Compatible with SOLARMAN data logger, ensuring simple configuration and lower O&M cost.



SOLARMAN platform provides visualized meteorological data.



Real-time alerts with timely notification, ensuring fast troubleshooting.



Standard sensors for general demands (High accuracy sensor for project with high demands).

Product Model	WP-2S
Irradiance (Sub-reference Level)	ISO 9060:1990 (Sub-reference Level) Sensitivity: 7~14 $\mu$ V/W/m <sup>2</sup> Instability (Year): <0.5% Measuring Range: 0~4000W/m <sup>2</sup> Spectral Range: 270~3000 $\mu$ m Zero Offset (No ventilation) (a) Thermal Irradiance (200W/m <sup>2</sup> ): <7W/m <sup>2</sup> (b) Temperature Variation (5K/h): <2W/m <sup>2</sup> Nonlinear: <0.2% Directional Response (80°, 1000W/m <sup>2</sup> at max.): <10W/m <sup>2</sup> Spectral Selectivity (350~1500nm): <1% Tilt Response (0°-90°, 1000W/m <sup>2</sup> ): <0.2% Temperature Response (-10°C~+40°C): <1% Visual Angle: 180°
Irradiance (Level 1)	Sensitivity: 7~14 $\mu$ V/W/m <sup>2</sup> Instability (Year): $\pm$ 2% Measuring Range: 0~2000W/m <sup>2</sup> Cosine (Deviation between solar altitude angle 10° in sunny day and ideal value ): $\pm$ 2% Spectral Range: 0.28~3.0 $\mu$ m Temperature Characteristic (-20°C~+40°C): $\pm$ 2% Nonlinear: $\pm$ 2% Visual Angle: 180° Measurement Accuracy: 2%
Irradiance (Level 2)	Sensitivity: 7~14 $\mu$ V/W/m <sup>2</sup> Instability (Year): <2% Measuring Range: 0~2000W/m <sup>2</sup> Cosine (Deviation between solar altitude angle 10° in sunny day and ideal value ): $\pm$ 5% Spectral Range: 0.28~3.0 $\mu$ m Temperature Characteristic (-20°C~+40°C): $\pm$ 5% Nonlinear: $\pm$ 5% Visual Angle: 180° Measurement Accuracy: 5%
Ambient Temperature	Measuring Range: -50°C~+80°C Resolution: 0.1°C Accuracy: $\pm$ 0.1°C Working Environment: Temperature -40°C~+80°C Humidity $\leq$ 100%RH
Ambient Humidity	Measuring Range: 0.0~100.0%RH Resolution: 0.1%RH Accuracy: $\pm$ 2% ( $\leq$ 80%), $\pm$ 5% (>80%) Working Environment: Temperature -40°C~+80°C Humidity $\leq$ 100%RH
Wind Direction	Measuring Range: 0~360° Resolution: 3° Accuracy: $\pm$ 3° Startup Wind Speed: $\leq$ 0.5m/s Working Environment: Temperature -40°C~+80°C Humidity $\leq$ 100%RH
Wind Speed	Measuring Range: 0~70m/s Resolution: 0.1m/s Accuracy: $\pm$ (0.3+0.03V)m/s Startup Wind Speed: $\leq$ 0.5m/s Working Environment: Temperature -40°C~+80°C Humidity $\leq$ 100%RH
Module Temperature	Measuring Range: -50°C~+80°C Resolution: 0.1°C Accuracy: $\pm$ 0.1°C Working Environment: Temperature -40°C~+80°C Humidity $\leq$ 100%RH
Height	1.5m
Power Supply&Communication Junction Box	Power: AC 230V, COM: RS485
IP Grade	IP65