

# MLG-WE300

## Solar Radiation Sensor



### FEATURES

- 4-20 mA output
- Marine grade cable with strain relief
- Mounting plate included

This precision Solar Radiation sensor or pyranometer includes a bubble level, leveling screws and mounting hardware for easy installation. Solar Radiation sensors use a high stability silicon photovoltaic (PV) detector (blue enhanced) to obtain accurate readings. The solar radiation sensors are attached to 25 ft of marine grade cable, with lengths up to 500 ft available upon request. The pyranometer's output is 4-20 mA with a two wire configuration.

### WHY MEASURE SOLAR RADIATION?

Atmospheric circulation is driven by solar radiation. Determining the solar radiation and its interaction with the atmosphere and the Earth's surface is important, since solar radiation accounts for almost all of the energy available to the Earth. There are two ways solar radiation reaches the Earth's surface. The first is direct solar radiation where the solar radiation is directly transmitted through the atmosphere. The second is diffuse solar radiation where the incoming solar radiation is scattered or reflected to the Earth's surface. Almost 50% of shortwave solar radiation is absorbed by the Earth's surface and changed into thermal infrared radiation. Direct solar radiation is measured by using solar radiation sensors or pyranometers. These type of solar radiation sensors have a transparent hemisphere which measures the total amount of shortwave solar radiation. Solar radiation sensors or pyranometers measure the total radiation or sum of the direct radiation and the diffuse solar radiation.

### SPECIFICATIONS

Detector:	High-stability silicon photovoltaic detector (blue enhanced)
Output:	4-20 mA
Range:	0 to 1500W/m2
Spectral Response:	400 to 1100 nm
Accuracy:	1% of full scale
Operating Voltage:	10-36 VDC
Current Draw:	Same as sensor output
Warm Up Time:	3 seconds minimum
Operating Temp:	-40° to +131°F (-40° to +55°C)
Sensor Size:	3inch diameter x 1-1/2 inch (7.6 cm dia. x 3.8 cm long)
Weight:	1/4 lb. (114 g)

### OTHER WEATHER SENSORS

- ✓ Ambient Temperature
- ✓ Module Temperature
- ✓ Wind Speed / Direction
- ✓ Humidity

### MONITORING & LOGGING SOLUTIONS

- Up to 24 Weather / 4-20mA sensors
- AC monitoring of single & 3 phase inverter output
- String Level DC Monitoring
- System performance can be calculated
- Compatible with **PowerStudio** Energy Management Software
- Remote access including email alerts



**DTSk2**

