

Monitor UV Intensity in a High Pressure
Water Disinfection Tank (Reactor)

Solar Light's [PW254](#), germicidal lamp monitor, is specifically designed to continuously monitor UV intensity from UVC lamps in a high pressure water disinfection tank (reactor). The sensor provides an indication of the effectiveness of the lamps as they age because it is sensitive to the sterilizing UVC wavelengths of mercury lamps at 253.7nm. The sensor reliably interfaces with the Solar Light GLM100 germicidal lamp monitor, or your choice of monitor or data acquisition equipment. Its output is a standard 4-20 mA and the sensor screws into the service port of the water disinfection tank. The screw thread is supplied for 1x11.5FPT with other NPT and metric sizes are also available.

UV water disinfection systems are only as good as the effectiveness of the germicidal lamps. With time, even the best UV water treatment system will show a significant degradation in its ability to disinfect water. Germicidal lamp output decreases as the lamp ages and/or becomes dirty through use.



Applications

- Environmental Monitoring
- Disinfection of Plant Effluent

Features and Benefits

- High Sensitivity
- Front Portion Submersible
- Mercury Lamp Monitor
- Peak Activity at 253.7nm
- 360° Viewing Angle

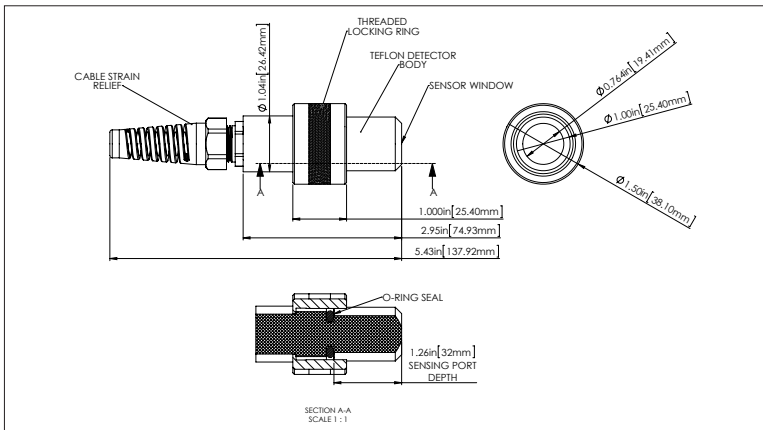
SPECIFICATIONS	
Spectral Range	210 to 380nm, Figure 1
Viewing Angle	360 Degrees x 70 Degrees, Figure 3
Output Signal	4 - 20mA
Readout Range (When Interfaced To LM100)	0-100% of Original Intensity
Input Power	9 - 24VDC
Operating Environment	32 to 120°F (0 to +50°C)
Cable Length	25'
Dimensions and Weight	*See Outline Drawing

Part Number: 210104

Revision Level: B

Specifications subject to change without notice.

PW254 Germicidal Lamp Detector



Est. Weight: 2lbs. (0.9kg)

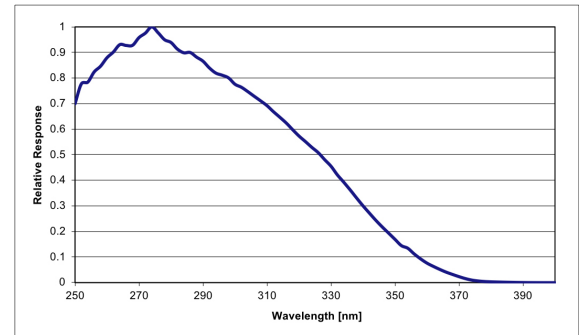


Fig. 1. Linear Spectral Response

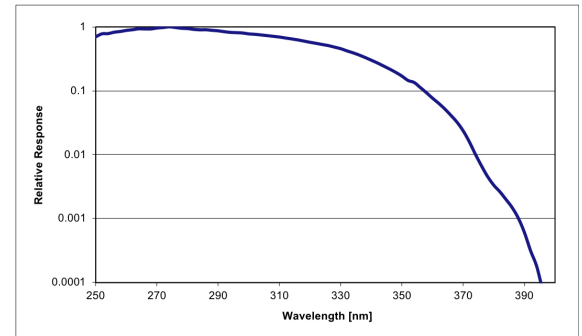


Fig. 2. Log Spectral Response

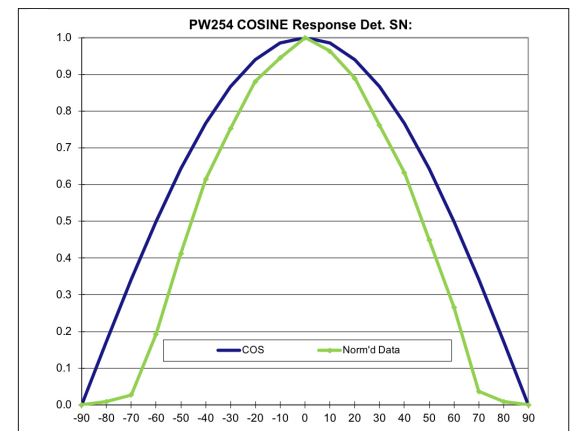


Fig. 3. Cosine Response

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Since 1967, Solar Light Company, LLC has been recognized worldwide as America's premier manufacturer of Precision Solar Simulators and Light Sources, Light Measurement Instrumentation, UV Transmittance Analyzers, Meteorological Instrumentation, and Digital and Analog Sensors. Our advanced line of UV, visible, and IR radiometers and light meters measure laboratory, industrial, environmental, and health related light levels with NIST traceable accuracy. Column ozone, aerosol, and water vapor thickness measurements, in addition to long-term global ultraviolet radiation studies all over the world are performed using our atmospheric line of instrumentation. Solar Light also provides NIST traceable spectroradiometric analyses, calibrations for light meters and light sources, accelerated ultraviolet radiation degradation testing of materials, and OEM instrumentation and monitors. Please visit our website for more details, specifications, and pictures!



State Of The Art Solar Simulators available in 150-1000+ watt UV or AM variations for a variety of applications including PV Cell Testing, Materials Testing, Pre-Irradiation for In Vitro Broad Spectrum Sunscreen Testing, SPF Testing, and much more.



Multi-Functional Professional Grade Radiometers available with and without data logging, and compatible with over 130 Solar Light PMA-Series Sensors to measure UV, Visible and IR wavelengths. Specialty Meters also available to measure UV Radiation, SUV/UVA, Scotopic/Photopic Spectra, and much more.



Advanced NIST-Traceable Sensors for accurate measurement of UVA, UVB, UVA+B, UVC, Visible, IR, Photostability, Temperature, and Custom Wavelength – well over 130 models in both digital and analog configurations, all compatible with our Radiometers.



Ultraviolet Transmittance Analyzers available as complete integrated turnkey systems to meet the latest ISO24443 requirements.



Handheld Ozonometers and Sunphotometers for fast and dependable Column Ozone, Aerosol, and Water Vapor Thickness measurements, in addition to long-term global ultraviolet radiation studies.