Sensors • Germicidal Detector

PMA2122-WP

Measures Germicidal Radiation (253.7nm)

Applications

- Water Treatment Plants
- Purification Systems
- Environmental Testing

Features and Benefits

- High Sensitivity
- Dynamic Range $2x10^5$
- Cosine Corrected
- NIST Traceable Calibration
- Ease of Use
- Selectable Units

The PMA2122-WP Germicidal detector provides fast and accurate irradiance measurements of the effective germicidal radiation. Ultraviolet radiation at 253.7nm has been used in germicidal applications for several decades. Micro organisms (bacteria), usually in air or water, can be killed using UV or a combination of UV and ozone.

The UV producing lamps in the purification systems must be monitored to insure that the bacteria are receiving a lethal dose of germicidal radiation. The expensive UV lamps can be monitored to get maximum life out of the lamp before replacement. The germicidal detector can also be used to insure that the proper lamp has been installed after replacement.

The detector is waterproof, and can be safely submerged up to 3 meters. The detector's housing is rugged and easy to handle in harsh environment. One #1/4-20 taped hole in the bottom center of the detector housing allowing for attachment to users devices.

SOLAR®
LIGHT

Calibration

The PMA2122-WP detector is calibrated by means of a NIST traceable quartz standard lamp. The intensity at the detector can be calculate using the gernucudak spectrum of the lamp.

Specifications	
Spectral Response	249-261nm, Figure 1
Angular Response	5% for Angles <60°, Figure 2
Range	0.01µW/cm2 to 2000 µW/cm^2 0.1mW/m2 to 20000mW/m^2
Display Resolution	0.01 0.1[µW/cm^2], 0.1[µW/cm^2]
Operating Environment	32 to 120 °F (0 to +50 °C) No Precipitation
Cable	6 ft. Straight Cable (1.82m)
Diameter	1.6" (40.6mm)
Height	1.8" (45.8 mm)
Weight	7.1 oz. (200 grams)
Ordering Information	
PMA2122-WP	Germicidal Detector
References	
[1] ACGIH technical Affairs Office, 1330 Kemper Meadow Drive, Cincinnati, OH 45240	

SL/Sensors/PMA2122-WP_10/2014

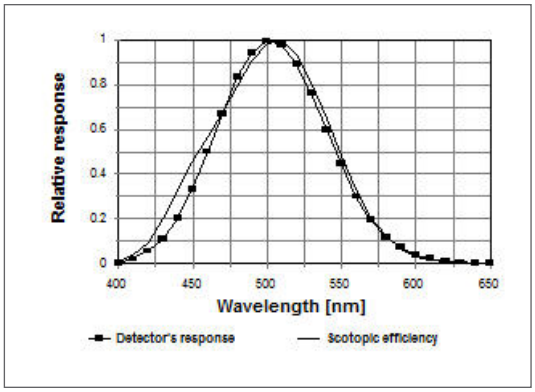

Fig. 1. PMA2122-WP Spectral Response

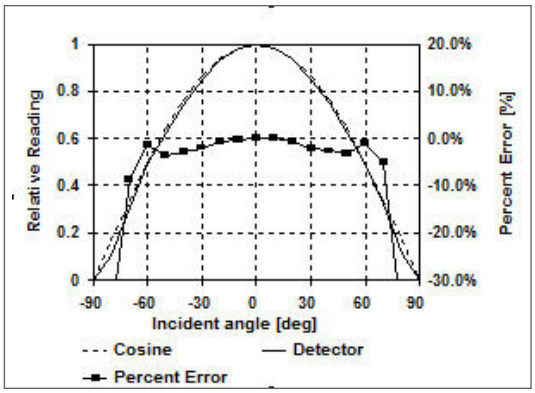

Fig. 2. PMA2122-WP Angular Response