

# PMA 2140 GLOBAL DETECTOR

**SENSORS**  
**ATMOSPHERIC**  
**INSTRUMENTATION**  
**INDUSTRIAL LIGHT**  
**MEASUREMENT**  
**LABORATORY LIGHT**  
**MEASUREMENT**

Delivery on all products is Stock to 2 weeks.

Every product is calibrated to NIST traceable standards before shipment.



The PMA 2140 global detector measures irradiance within the range of 400 to 1100nm.

It is especially useful in cost-sensitive applications where the flat spectral response of thermopile based instruments is not needed.

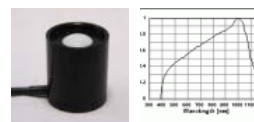
The PMA2140 can be used to monitor the global solar irradiance (direct + diffuse). It is factory calibrated to accurately read the global solar irradiance (from 300 to 2800nm) if exposed to the standard sun, even though the detector is not sensitive beyond 1100nm. This is achieved by applying a correction factor during calibration.

High sensitivity permits measurements of weak sources but caution is advised when measuring artificial sources since the spectral distribution of the source's irradiance will affect the reading. A correction factor can be calculated to take the spectral distribution into account.

## Uses

The PMA2140 can be used to monitor the global solar irradiance (direct + diffuse). It is especially useful in cost-sensitive applications where the flat spectral response of thermopile based instruments is not needed.

## Alternate Views



## Applications

Meteorology  
Agriculture

Solar power research and testing  
Heating and air conditioning

Lighting  
Physics and optical laboratories

## Features

Wide spectral range  
Excellent long term stability

Cosine corrected  
NIST traceable calibration

High sensitivity  
Low cost

## Specifications

### Spectral response

400-1100nm Figure 1

### Angular response

5% for angles <60°

### Range

2000 [W/m<sup>2</sup>]

### Display resolution

0.01 [W/m<sup>2</sup>]

### Operating environment

32 to 120 °F (0 to +50 °C) no precipitation

### Cable

5ft (1.5m)

### Diameter

1.6" (40.6 mm)

### Height

1.8" (45.8 mm)

### Weight

7.1 oz. (200 grams)

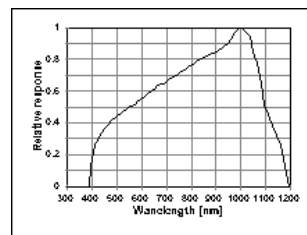


Figure 1

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