

# PMA 2143 THERMOPILE

**SENSORS**  
**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.



**With the PMA2143 thermopile radiant fluxes can be measured.**

It is sensitive to radiation from 0.2 to 50  $\mu\text{m}$ , and has a field of view of 10°. It brings the unsurpassed features and high accuracy of this class of instruments into the price range of photovoltaic detectors. The sensor is a high quality blackened thermopile assuring flat spectral response throughout the entire spectrum. The thermopile is a thermal detector and responds to the total power absorbed. Irradiance measurements are easily affected by convection and radiant losses to the environment. Therefore, the detector can be shielded by a glass window. By using the window, the spectral range is limited to 0.3 to 3  $\mu\text{m}$ .

## Uses

The PMA2143 is used for measuring radiant fluxes

## Alternate Views



## Applications

Flat spectral response measurements  
Control of ovens

Reference measurements  
IR applications

## Features

Flat spectral response from 0.2-50  $\mu\text{m}$   
Portable  
Hermetic enclosure

Min/Max tracking  
Dose integration

## Specifications

### Spectral response

0.2-50 $\mu\text{m}$  without window, 0.3-3 $\mu\text{m}$  with window

### Field of view

10°

### Sensitivity

20-40  $\mu\text{V}/\text{W}/\text{m}^2$  on window, 0.1  $\mu\text{V}/\mu\text{W}$  on absorber, 1.10 times higher without window

### Max Irradiance

2000  $\text{W}/\text{m}^2$

### Absorber/detector surface area

12mm

### Response time

30 seconds

### Operating environment

-40 to 175 °F (-40 to +80 °C), outdoors

### Non linearity

(50mv)3%

### Diameter

1.48", 37.6mm

### Length (without connectors)

4.0", 101.6mm

### Height (with 160mm rod)

7.75", 196.9mm

### Cable

15ft, 5m

### Weight

16.5 oz. (500 grams)