

PMA 2145 CLASS I PYRANOMETER

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 2145 is an ISO-classified first class pyranometer. It is based on the thermopile technology broad spectral sensitivity with exceptional flatness and long term stability. The PMA 2145 Class I pyranometer features a sixty-four thermocouple junction sensing element. The sensing element is coated with a highly stable carbon based non-organic coating, which delivers excellent spectral absorption and long term stability characteristics. The sensing element is housed under two concentric fitting Schott K5 glass domes. The precision optical glass dome acts as a filter, allowing the full solar spectrum to pass through to the sensor. It also protects the sensor from the elements. The sensor is a high quality blackened thermopile. Heating of the sensor by solar radiation produces a signal in the μ volt range. Each pyranometer has its own calibration factor and with the processing algorithm, it is programmed into a memory chip in the sensor. When connected to the PMA2100 the algorithm is loaded into the meter and the correct reading is displayed on the LCD.

Uses

Measures full spectrum radiation for agricultural, Meteorological and Solar research

Alternate Views



Applications

Meteorology
Agriculture

Solar power research and testing
Heating and air conditioning

Lighting
Physics and optical laboratories

Features

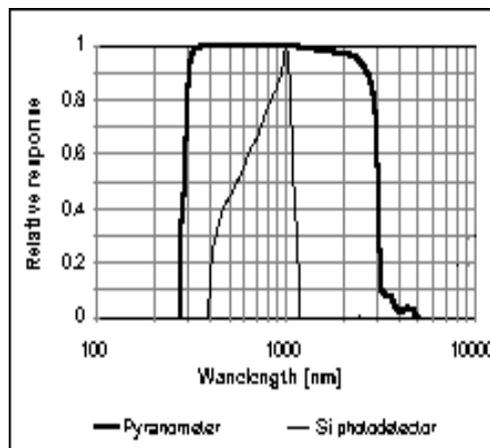
Very wide and flat spectral response
Excellent long term stability
Cosine corrected

NIST traceable calibration
ISO classified

Low cost
Weatherproof
Bubble level

Specifications

Spectral response:
310-2800nm FWHM Figure 1
Range:
2000 [W/m²], 200 [mW/cm²]
Response time:
18 seconds (95%)
Sensitivity change/year:
<1%
Non-linearity:
<1.0% (1000W/m²)
Temperature dependence:
<2% (-10 to 40°C)
Angular response:
1% for angles <70°
Zero offsets:
<15W/m² @200 W/m² thermal radiation
Display resolution:
1[W/m²], 0.1[mW/cm²]
Operating environment:
-40 to 175 °F (-40 to +80 °C), outdoors
Temperature coefficient:
<5% (-10 to +40°C)
Cable:
30ft, 9m
Diameter with Sun Screen:
2.375" (60.3 mm)
Diameter Without Sun Screen:
3.08" (78.11mm)
Height:
3.31" (84.0mm)



Weight:

11oz (0.31kg)

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