

### MEASURES SHORTWAVE RADIATION REACHING THE EARTH'S SURFACE.

#### DESCRIPTION

Pyranometer meters measure the shortwave radiation reaching the Earth's surface, measured in Watts per meter squared.

The meters include data recording capability and can store up to 99 manually recorded measurements. In automatic mode, measurements are made every 30 seconds and averages are stored every 30 minutes. Daily totals are also calculated for the past 99 days.

An ideal pyranometer measures the entire solar spectrum, 280 to 2800 nanometers (nm). However, about 90% of sunlight energy is between 300 and 1100 nm. Models MP-100 and MP-200 are calibrated to estimate all of the shortwave energy from sunlight. Apogee pyranometer meters are calibrated under sunlight over a multiple day period to a heated and ventilated Kipp and Zonen model CM21 precision reference radiometer.

These meters still feature the cosine-corrected head, self-cleaning characteristics, and long-term stability.

#### ORDERING INFORMATION

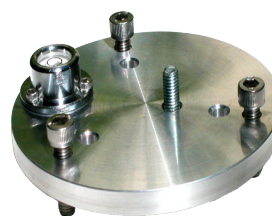
All products can be ordered at [www.apogeeinstruments.com](http://www.apogeeinstruments.com)

For technical information contact [techsupport@apogee-inst.com](mailto:techsupport@apogee-inst.com)



(SMPL) 99 Sample Measurements	(LOG) 99 Log Measurements	(LOG) 99 Daily Total Measurements
Viewable on meter LCD & downloadable		Downloadable Only

#### RECOMMENDED ACCESSORIES



**AL-100** A leveling plate used to keep meters with separate sensor level. (MP-200)



**AL-210** Leveling plate and mounting base for meters with integral sensor.



**AC-100** Communication cable is required for data download to a computer.

## SPECIFICATIONS

### MEMORY

- 99 manually stored data points
- Automatically store 99 consecutive 30 minute averages
- 99 daily averages

### COSINE RESPONSE

- 45° zenith angle:  $\pm 1\%$
- 75° zenith angle:  $\pm 4\%$

### OPERATING ENVIRONMENT

- 0 to 50° C
- Less than 90% non-condensing, relative humidity up to 30° C
- Less than 70% relative humidity from 30 to 50° C

### UNIFORMITY

- $\pm 3\%$

### REPEATABILITY

- $\pm 1\%$

### MATERIALS

- Anodized aluminum with cast acrylic lens

### MASS

- MP-100: 150 g
- MP-200: 180 g

### SENSITIVITY

- Custom calibrated to exactly 5.0 W m<sup>-2</sup> per mV

### ABSOLUTE ACCURACY

- $\pm 5\%$

### INPUT POWER

- Standard 3 V coin cell battery

### DIMENSIONS

- 2.4 cm diameter by 2.75 cm height

### MEMORY

- 99 manually stored data points
- Automatically store 99 consecutive 30 minute averages

### DISPLAY

- 4.2 by 2.8 cm

### RANGE

- 0 to 1999 W m<sup>-2</sup>

### CABLE (MP-200 SERIES)

- 2 meters of twisted-pair wire
- Foil shield
- Santoprene jacket
- Longer cable lengths are available in multiples of 5 meters

### WARRANTY

- 1 year against defects in materials and workmanship

## MEASUREMENTS

