



## Kipp & Zonen CMP21 Pyranometer

**Product #:** 0362920  
**USD Price:** Contact Hach

The CMP21 is a high performance research grade pyranometer, and is fully compliant with ISO 9060:2018 spectrally flat Class A specifications.

The CMP21 pyranometer is designed to measure the irradiance (measured in  $\text{W/m}^2$ ) on a plane surface, which results from the direct solar radiation and the diffuse radiation incident from the hemisphere above.

The CMP21 has the same detector as the CMP10 and individually optimized temperature compensation. A standard thermistor sensor is fitted to monitor the housing temperature. Each instrument is supplied with its own temperature and directional (cosine response) test data.

It is the choice for scientific use and in top level solar radiation monitoring networks such as the BSRN (Baseline Surface Radiation Network) of the WMO (World Meteorological Organization).

A waterproof socket is integrated for our signature Kipp & Zonen yellow signal cable, which is available in a range of lengths pre-wired to the waterproof plug. The integral bubble level is raised to the top of the housing and can be viewed without removing the redesigned snap-on sun shield, which also covers the connector. The screw-in drying cartridge is easy to remove and the replacement desiccant is supplied in convenient refill packets.

The CMP21 pyranometer does not require a dedicated power supply. It generates a low voltage output in the estimated range of 0 to 21 mV relative to an irradiance measurement range of 0 to  $1500 \text{ W/m}^2$ . When a higher voltage level or a 4 to 20 mA signal is required, the AMPBOX is the perfect solution.

### ISO / IEC classification

ISO 9060:2018 spectrally flat Class A, with ISO / IEC 17025 calibration.

### Minimized maintenance

Best MTBF with 5 years warranty.

### CMP series with the world's largest installed base

Well known for high quality, durability and accuracy. The CMP pyranometers require no power, so are ideal for remote sites.

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## Specifications

|                                            |                                                                     |
|--------------------------------------------|---------------------------------------------------------------------|
| Analog Outputs:                            | 0 to 21 mV (0 to 1500 W/m <sup>2</sup> )                            |
| Cable Length:                              | 33, 82, 164, 330 ft (10, 25, 50, 100 m)                             |
| Classification:                            | Spectrally Flat Class A (ISO 9060:2018)                             |
| Digital Outputs:                           | N.A.                                                                |
| Directional Response:                      | # ±10 W/m <sup>2</sup> (up to 80 ° with 1000 W/m <sup>2</sup> beam) |
| Drying Cartridge and Maintenance Interval: | External, replacement after approx. 6 months                        |
| IP Rating:                                 | IP67                                                                |
| Irradiance Saturation:                     | 4000 W/m <sup>2</sup> (Max.)                                        |
| Material Enclosures:                       | Aluminum, anodized                                                  |
| Non-linearity:                             | # ±0.2% (100 to 1000 W/m <sup>2</sup> )                             |
| Non-stability:                             | # ±0.5% (change/year)                                               |
| Operating Humidity:                        | 0 to 100%                                                           |
| Operating Temperature Range:               | -40 to +80 °C                                                       |
| Response Time:                             | # 1.7 s (63%), # 5 s (95%)                                          |
| Sensitivity:                               | 7 to 14 µV/W/m <sup>2</sup> # ±1% (-20 to +50 °C)                   |
| Spectral Accuracy:                         | 285 to 2800 nm                                                      |
| Temperature Correction:                    | # ±1% (-20 to +50 °C)                                               |
| Weight:                                    | 1.3 lb (600 g)                                                      |
| Zero offset A:                             | # ±7 W/m <sup>2</sup>                                               |
| Zero offset B:                             | # ±2 W/m <sup>2</sup>                                               |