



## Kipp & Zonen SMP22 Pyranometer

**Product #:** 0374940  
**USD Price:** Contact Hach

The SMP22 is an ISO 9060:2018 Spectrally Flat Class A pyranometer that combines the new smart interface with quartz domes and sensor technology from the CMP22, which has a proven track record of decades, making it the most accurate and reliable pyranometer in the world.

The SMP22 has the widest spectral range, improved directional response, and reduced thermal offsets. Because of the highest optical quality domes, the directional error is reduced below 5 W/m<sup>2</sup>.

The SMP22 comes standard with RS-485 Modbus® interface and 5-year warranty. The SMP22 has an internal desiccant that will last for at least 10 years, which minimizes maintenance significantly. The interval for dome cleaning can be extended, and the quality of measurements maximized, by fitting SMP22 with the CVF4 ventilation unit. The SMP22 has a digital interface, amplified analogue output, improved response time and individual temperature corrected measurement data.

The SMP22 is supplied with individual measured cosine response data. The wide and low power supply range from 5 to 30 VDC makes integration in meteorological and solar energy stations easy.

The SMP22 is extremely robust and comes with 5 years warranty. Thanks to standardized output and connections of every SMP22, exchanging instruments for recalibration is easy.

SmartExplorer Windows™ software for data logging, display of data and Modbus® address setting is provided as standard.

### **ISO / IEC classification**

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

### **Minimized maintenance**

No desiccant change for 10 years, best MTBF with 5 years warranty.

### **Smart interface**

Modbus RTU interface, wide temperature correction range and very low power consumption. Both digital and analog outputs available. No need to adjust data logger after recalibration.

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## Specifications

Analog Outputs: 0 to 1 V (V-model) or 4 to 20 mA (A-model)

|  |   |
|--|---|
| Cable Length:                              | 33, 82, 164, 330 ft (10, 25, 50, 100 m)                           |
| Classification:                            | Spectrally Flat Class A (ISO 9060:2018)                           |
| Digital Outputs:                           | Modbus RTU 2-wire RS-485  |
| Directional Response:                      | # 5 W/m <sup>2</sup> (up to 80 ° with 1000 W/m <sup>2</sup> beam) |
| Drying Cartridge and Maintenance Interval: | Internal, lasts for 10 years, replaced with every recalibration   |
| IP Rating:                                 | IP67  |
| Irradiance Saturation:                     | 4000 W/m <sup>2</sup> (Max.)                                      |
| Material Enclosures:                       | Aluminum, anodized  |
| Non-linearity:                             | # ±0.5% (0 to 100 W/m <sup>2</sup> )                              |
| Non-stability:                             | # 1% (change/year)  |
| Operating Humidity:                        | 0 to 100 %  |
| Operating Temperature Range:               | -40 to +80 °C   |
| Response Time:                             | # 0.7 s (63%), # 2 s (95%)  |
| Sensitivity:                               | N.A.  |
| Spectral Accuracy:                         | 250 to 3500 nm  |
| Temperature Correction:                    | # 0.3 % (-20 to +50 °C)   |
| Weight:                                    | 1.3 lb (600 g)  |
| Zero offset A:                             | # ±3 W/m <sup>2</sup>   |
| Zero offset B:                             | # ±1 W/m <sup>2</sup>   |