



Overview

The CHP1* pyrhiometer provides unattended direct solar-radiation measurements. It is designed specifically to monitor the direct beam solar irradiance with a field of view limited to 5 degrees. This is

achieved by the shape of the collimation tube, by precision apertures, and by the detector design.

Technical Description

To monitor direct normal irradiance, a CHP1 Pyrhiometer is mounted to a user-supplied sun tracker such as Kipp and Zonen's Solys2. The CHP1 pyrhiometer measures the direct-beam solar irradiance with a field of view limited to 5 degrees. The limited field of

view requires the CHP1 to be continuously pointed toward the sun. The Solys2 Sun Tracker rotates on two axes and uses a GPS receiver to keep the CHP1 aimed at the sun throughout the day.

Ordering Information

Pyrhiometer

CHP1-L Kipp and Zonen Pyrhiometer with user-specified cable length. Enter cable length, in feet, after the -L. Must choose a cable termination option.

Cable Termination Options (choose one)

- PT** Cable terminates in stripped and tinned leads for direct connection to a datalogger's terminals.
- PW** Cable terminates in a connector that allows attachment to a prewired enclosure.

Specifications

- › Spectral Range: 200 to 4000 nm
- › Sensitivity: 7 to 14 $\mu\text{V}/\text{W}/\text{m}^2$
- › Response Time: < 5 s
- › Zero Offset B: < 1 W/m^2
- › Temperature Dependence of Sensitivity (-20° to +50°C): < 0.5 %
- › Field of View: 5° $\pm 0.2^\circ$
- › Operating Temperature: -40° to +80°C
- › Non-linearity: < 0.2%
- › Maximum Solar Irradiance: 4000 W/m^2
- › International Standards: First Class ISO
- › Weight (excluding cable): 0.9 kg
- › Length: 31.6 cm (12.4 in)
- › Body Diameter: 3.8 cm (1.5 in)
- › Base Diameter: 7.6 cm (3.0 in)

*The CHP1 is manufactured by Kipp and Zonen, and then cabled by Campbell Scientific.

