

Model: SEN-SR-SW

Description

The SEN-SR-SW is a self-powered sensor with a millivolt output and exhibits excellent cosine response. It incorporates a silicon-cell photodiode that measures total shortwave radiation with a sensor housing design that features a fully potted, domed-shaped head making the sensor fully weatherproof and self-cleaning. Total shortwave radiation is an important component in determining evapo-transpiration rates, energy balance, net radiation as well as monitoring solar power panels.



Specifications

Power Supply: Self powered
Sensitivity: 0.20 mV per W/m²
Calibration Factor: 5.0 W m⁻² per mV (reciprocal of sensitivity)
Calibration Uncertainty: ± 5 %
Measurement Repeatability: < 1 %
Non-stability (Long-term Drift): < 2 % per year
Cosine Response @45° Zenith Angle: ±4%
Cosine Response @75° Zenith Angle: ±10%
Non-linearity: < 1 % (up to 1750 Wm²)
Response Time: < 1 ms
Field of View: 180°
Radiation Range: 0 to 2000 W/m²
Spectral Range: 360 nm to 1120 nm (wavelengths where response is 10 % of maximum)
Directional (Cosine) Response: ± 5 % at 75° zenith angle
Temperature Response: -0.04 ± 0.04 % per C
Operating Environment: -40 to 70 C, 0 to 100 % relative humidity

Applications

Determining evapo-transpiration rates, Energy Balance, shortwave radiation as well as monitoring Solar Power Panels.

Dimensions

- 2.40 cm diameter
- 2.75 cm height

Cable length: 5m

(extendable at extra cost)

Input: Self Powered for mV O/P
For others O/P 10-28 VDC, 30-60 VDC

Output: mV O/P : 0 to 400mV
Voltage: 0 to 1, 2.5, 5, 10 V
Current: 4-20mA, 0-20mA
RS485
RS232-ASCII

Ordering Guide

Output

- 1.For mV O/P:
- 2.For Voltage O/P:
- 3.For Current O/P:
- 4.For RS485 O/P:
- 5.For RS232 ASCII O/P:

Model No.

SEN-SR-SW-mV
SEN- SR-SW -V-x
(x stands range; 1, 2.5, 5, 10)
SEN- SR-SW -C-x
(x stands range; 4-20, 0-20)
SEN- SR-SW -RS485
SEN- SR-SW -RS232

Please mention input range information along with your enquiry / Purchase order
Customized Ranges / Resolution / Outputs of sensor are available at extra Cost



1105/1, Salempur Rajputana Industrial Estate
Roorkee - 247667, Haridwar, Uttarakhand, INDIA
Tel:+91-7088-772-772, vhydromet@yahoo.com

Represented by:

**** Drawing & specifications are subjected to change at any time without prior notice as per manufacturing suitability.**