WatchDog®

Silicon Pyranometer

PRODUCT MANUAL

Item # 3670I, 3670WS2

Spectrum®
Technologies, Inc.

Thank you for purchasing a Silicon Pyranometer Sensor to use with your WatchDog Weather Station or Data Logger, or your Field Scout Light Sensor Reader.

Item 3670I is for general use, while item 3670WS2 is designed as a replacement sensor for the WatchDog 2900ET or 900ET Weather Stations.

The sensors measure solar radiation between 300 and 1100 nanometers. This range is important for evapo-transpiration calculations.

This manual will aid you in placement and mounting of the sensor. Read it thoroughly to insure proper and effective use.
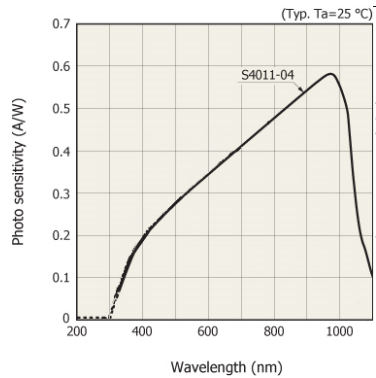
Use With a Field Scout Light Sensor Reader

You may wish to remove the mounting bracket when using the silicon pyranometer sensor with a Field Scout Light Sensor Reader. If so, loosen the thumbscrews, and save the parts for reassembly.

Just plug the sensor into the reader, and SET the reader to "SOLR RAD". For more details, see the Field Scout Sensor Reader Manual.

Use With a WatchDog Station or Logger

The 3670WS2 Silicon Pyranometer replacement sensor includes a 20 in (50cm) data cable which is plugged into Port F on a 2900ET or Port D on a 900ET weather station. Use the existing thumbscrews to remove the old sensor, and attach and level the replacement.

The 3670I Silicon Pyranometer Sensor includes a 6 foot (1.8m) data cable; which is plugged into an available external port on WatchDog weather station or data logger. Once the sensor is in a representative "micro-climate", insert the data cable plug into the WatchDog external channel to log solar radiation data.

Use **SpecWare** software to program the WatchDog to log solar radiation on the desired port. Refer to the **SpecWare Instruction Manual** for detailed launch and/or readout instructions.

Install the sensor so that it is level. Once the sensor is mounted, use the adjustment screws to level the sensor so that the bubble is centered on the level indicator. Mount the sensor on a 1" to 1¼" mast or pipe using the u-bolt provided.

Position the sensor in an appropriate area that monitors the plant conditions. Make sure the sensor is not being shadowed or blocked by another external sensor. Contact your cooperative extension agricultural agent for further suggestions on field placement.

Inspect the sensors frequently to make certain the sensors are still level and clear of obstructions.

Place sensor in a position that it will mimic the sunlight the plant is getting, while being within reach of external WatchDog data port.

WatchDog Data Logger inside mini-radiation shield
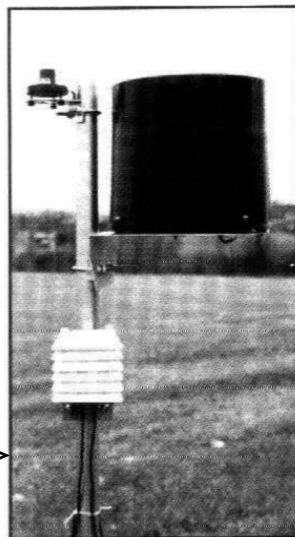
Specifications

Range   0-1500 W/m^2, ±5%

Excitation Voltage   3.0-5.0VDC
Sensor Output   0-3.0V
                        Linear: W/m^2 = V * 500

Warranty

This product is warranted to be free from defects in material or workmanship for one year from the date of purchase. During the warranty period Spectrum will, at its option, either repair or replace products that prove to be defective. This warranty does not cover damage due to improper installation or use, lightning, negligence, accident, or unauthorized modifications, or to incidental or consequential damages beyond the Spectrum product. Before returning a failed unit, you must obtain a Returned Materials Authorization (RMA) from Spectrum. Spectrum is not responsible for any package that is returned without a valid RMA number or for the loss of the package by any shipping company.

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