

WATERLOG[®]

YSI *incorporated*

MODEL H-3791

Silicon Pyranometer Sensor

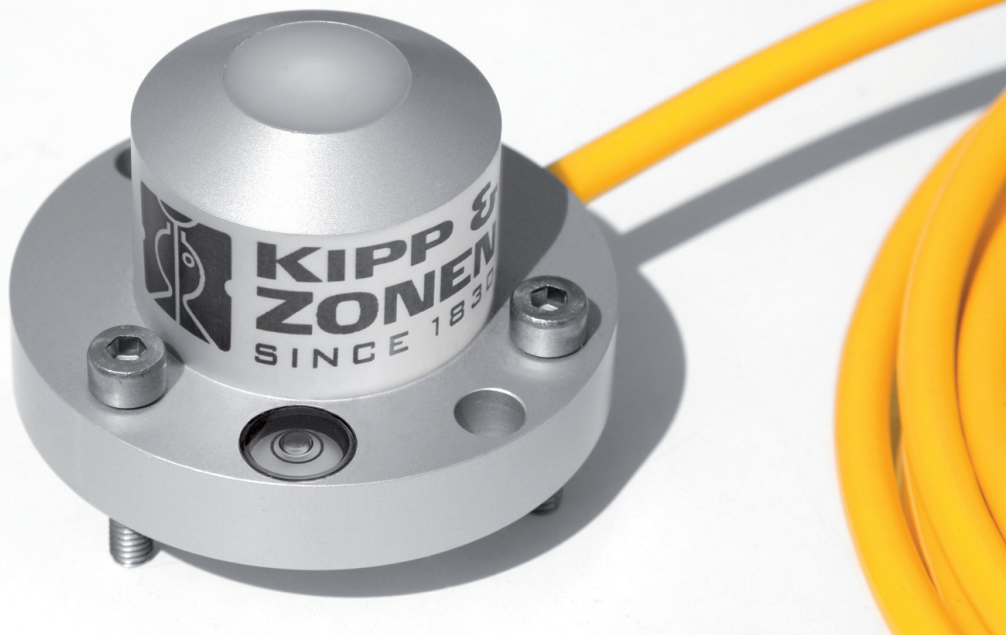
The WaterLOG[®] Model H-3791 Pyranometer is used to measure global solar radiation within all types of applications and studies. The sensor features a silicon photovoltaic detector mounted within a fully cosine-corrected miniature head. In clear unobstructed daylight conditions, (for which purpose the sensor was calibrated) the sensor compares favorably with first class thermopile type pyranometers. In most natural daylight conditions the error is $\pm 3\%$.

KEY FEATURES

- High stability silicon photovoltaic detector
- No error inducted from orientation
- Calibrated against an Kipp & Zonen Precision Spectral Pyranometer (CM11) in Wm² units
- Extreme reliability and ruggedized for remote operation
- Operating Temperature -30° to 70° C

APPLICATIONS

- Meteorological
- AgriMet Stations
- Climatological
- Solar Energy Studies



DATA INPUT		
General	Calibration	Calibrated against an Kipp & Zonen Precision Spectral Pyranometer (CM11) under natural daylight conditions. Typical error under these conditions is $\pm 3\%$.
	Sensitivity	Typically $100 \mu V/W/m^2$
	Linearity	Maximum deviation of 1% up to $1000W/m^2$
	Stability	$< \pm 2\%$ change over a 1 year period
	Cosine Correction	Cosine corrected up to 80 degrees angle of incidence
	Azimuth	$< \pm 10\%$ error over 60 degrees angle of incidence
	Tilt	No error induced from orientation
DATA OUTPUT		
General	Response Time	$< 1s$

MECHANICAL DATA		
Physical	Detector	High stability silicon photovoltaic detector (blue enhanced).
	Sensor Housing	Weatherproof anodized aluminum case with acrylic diffuser and stainless steel hardware.
	Size	2.13 in. Diameter X 1.34 in. High (54mm X 34mm)
	Weight	3.88 oz. (110 g.)
	Cable Length	16 ft. (5 m)
ENVIRONMENT		
Temperature	Operating	-30° to $+70^{\circ}$ C
	Temperature Dependence	0.15% per degrees C maximum
	Impedance	50 Ω
	Relative Humidity	0 to 100%
MISCELLANEOUS		
Warranty	The WaterLOG® H-3791 is warranted against defects in materials and workmanship for one year from date of shipment.	
Note	Specifications subject to change without prior notice due to ongoing commitment to product testing and improvement. LR February 15, 2011. D49 0211.	



WATERLOG®
YSI incorporated