

NRG R1 PYRANOMETER

This cost-effective class A pyranometer captures highly accurate solar irradiance data for solar resource assessment campaigns as well as solar resource monitoring applications.

Key Benefits:

- Fully compliant with ISO 9060:2018 standards
- Insulation from wind and dust reduces sensitivity to thermal irradiance and protects spectral sensitivity
- Available with digital output via Modbus RTU or analog output for maximum flexibility
- Electrically isolated from any mounting surface and built-in surge protection improves ESD resistance



NRGSystems®

Technical Specifications:

DESCRIPTION	Sensor Type	Thermopile solar radiation sensor; ISO 9060:2018 'Class A' (Secondary Standard) compliant
	Applications	Meteorological studies
		Environmental monitoring
	Sensor Range	(0 to 2000) W/m ²
	Spectral Range	283 nm to 2800 nm
	Typical Sensitivity	(6 to 11) $\mu\text{V}/(\text{W}/\text{m}^2)$
	Instrument compatibility	NRG SymphoniePRO and LOGR-S Data Loggers
Certifications	Class A classification per ISO 9060:2018	
OUTPUT SIGNAL	Signal type	Microvolt analog signal proportional to total solar radiation (sensor specific sensitivity found on calibration report in units $\mu\text{V}/\text{W}/\text{m}^2$)
	Accuracy	Class A (Secondary Standard) per ISO 9060:2018
	Calibration	Characterization report included with each sensor; traceable to World Radiometric Reference (WRR)
Calibration uncertainty < 2%		
POWER	Power Required	Zero (passive sensor)
INSTALLATION	Mounting	Mounts to tower using NRG's Mounting Plate Pyranometer, Gen II (14357); more mounting options available
	Accuracy of leveling device	< 0.1 Deg.
	Tools required	Phillips head screwdriver (No. 1) 4 mm hex key 7 mm wrench 8 mm wrench coin for removing desiccant cartridge
ENVIRONMENTAL	Operating temperature range	-40 °C to 80 °C (-40 °F to 176 °F)
	Operating humidity range	0 to 100%
PHYSICAL	Connections	4-pole M12 connector on sensor body Bare wire leads from cable connect directly to logger see also logger user's manual for wiring diagram
	Cable length	Sold separately; options include: 5 m (16.4 feet) 10 m (32.8 feet) 20 m (65.6 feet) 30 m (98.4 feet) 50 m (164 feet)
	Weight	1.65 lbs. 0.75kg
	Dimensions	160 mm diameter x 104 mm high (with feet) 160 mm diameter x 83 mm high (without feet)
MATERIALS	Detector	Thermopile
	Enclosure	IP67 weatherproof anodized aluminum enclosure and stainless steel hardware

For more information:

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ISO 9001: 2015 Certified
ISO 14001: 2015 Self-Certified

