



Kipp & Zonen RaZON+ Sun Tracker

Product #: 0382900
USD Price: Contact Hach

The Kipp & Zonen RaZON+ is an all-in-one system that accurately measures both direct normal irradiance (DNI) and diffuse horizontal irradiance (DHI) from the sun and sky, enabling it to provide very reliable values of global horizontal solar irradiance (GHI) and sunshine duration. The integrated data logger presents the irradiance measurements in W/m^2 , sunshine duration in hours and energy in kWh/m^2 (kilowatt-hours per square meter).

RaZON+ is fitted as standard with the PR1 pyranometer and PH1 pyrheliometer. A base version is also available for mounting SMP/SHP radiometers. Even though the standard RaZON+ instrument specifications are Class C, the calculated GHI is as accurate as the Kipp & Zonen SMP10 Class A pyranometer. The uncertainty of the PH1 is proven to be within 1% of Kipp & Zonen CHP1 and SHP1 pyrheliometers.

Applications: It is a perfect fit for small meteorological stations, used in temperate climates. Ideal for solar energy resource mapping, Concentrated Solar Power (CSP), Concentrated Photovoltaics (CPV) and tracking PV site prospecting. Continuous power plant monitoring.

Anti-soiling & low maintenance

Thanks to the open collimator tube design and the quartz diffuser, the pyrheliometer is resistant to the effects of soiling. Moreover, RaZON+ is based on a completely maintenance-free gear drive sun tracking mechanism.

Internal data logging with web access

RaZON+ comes with internal data logging of all parameters in one data set. Choose either the Ethernet or RS-485 interfaces (Modbus® RTU or ASCII) to download your data. The data is presented in a complete interface with data, graphs and status information.

Expand RaZON+ with additional sensors

An extra Modbus® input is fitted, which will allow additional sensors to be connected with future updates; for example PV panel temperature, tilted irradiance or a compact weather station.

Specifications

Analog Outputs:	No
Antenna:	Yes, GPS
Body material:	White coated aluminium
Communication:	Ethernet + web browser / RS485
Compliance Certifications:	CE, FCC
Data Logger:	Integrated
Data Storage:	Integrated

Dimensions:	23.6 x 23.6 x 18.9 in (600 x 600 x 480 mm)
Display:	No
GPS Features:	Location, date, time, longitude, latitude
Integrated Logger:	Yes
Interface:	Ethernet, RS485
Internet Application Software:	Webpage for control and download
IP Rating:	IP65
Level Accuracy:	# ±0.1°
Operating Temperature Range:	-20 to +50 °C
Payload:	2 lbs (1 kg)
Pointing Wind Force:	Beaufort Scale Gale Force 8
Power input:	24 VDC (20 to 30VDC) 13W
Sample Rate:	1 Hz
Temperature Range:	-20 to +50 °C
Tracking Accuracy:	# ±0.2° (passive)
Transmission System:	High precision reduction gear
Weight:	20 lb (9 kg)