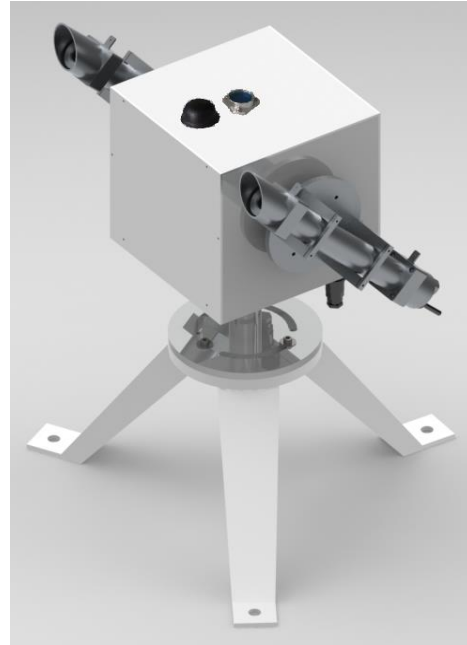


Solar Tracker (Dual Axis)



The dual axis solar tracker (Model No.: V-SOL-2A2P) is an all-weather positioning platform used to point specialized instruments/sensors at the sun's movement across the sky. It is fully automatic and does not require a computer or software installation to control the tracking of Sun movement. The integrated GPS receiver automatically configures location and time data. An RS-232 port allows for software upgrades. The high- efficiency gear drive system requires no maintenance. The tough and distinctive cast aluminum housing has an integrated tripod stand with leveling feet. A side plate with mountings for a pyr heliometer is included as standard and a second side mounted plate can be fitted for an additional pyr heliometer.

Solar Tracker (Dual Axis)

Specifications

- Axis of Motion Two Axis
- Pointing Accuracy $\pm 0.2^\circ$
- Resolution 0.01°
- Transmission Stepper motor Gear driven (no belt)
- Internal Clock GPS Synchronized
- Torque 30Nm
- Payload Capacity 30Kg
- Max. Angular Velocity $5^\circ /s$
- Azimuth Rotation 540°
- Zenith Rotation -90° to $+90^\circ$ without shading ball assembly -5° to $+95^\circ$ with shading ball assembly
- Over Rotation Protection Optical Sensor
- Methodology The system has a GPS (Global Positioning System) to acquire data i.e. (Microcontroller and GPS Latitude, Longitude and exact GMT time etc. The movement of the sun based control)
 tracker is controlled by stand alone 16 Bit low power MCU system (using GPS data) only. High sensitivity external antenna - 159db, Low noise LNA & SAW band pass filter. There is no such dependency on a PC, laptop, palmtop or any other computer or data logger, after initial configuration, for unattended continuous tracking of the Sun.

Solar Tracker (Dual Axis)

- Power Up Automatic Zero tracking
- Manual Adjustment Provision of manual adjustment & orientation also provided for fine tuning after zero tracking on initial power up. Resolution
- Operating Temperature 0 to 60° C (without heater)
-40 to 60° C (with heater & AC Mains operation)
- Environmental Protection IP65 Suitable for all weather use
- Connectivity RS232 (9600 baud) optional Ethernet/Wifi
- Mounting Tripod (balancing screws & provided) Flat surface is required for installation spirit bubble
- Local Indications Bright LEDs visible in sunlight Power, Tracking & GPS synchronizing status
- Mounting provision Two Pyrheliometer Mounting kit provided (if opted) Methodology
Two Pyranometers Top Plate provided (if opted)
- Shading Ball assembly For two nos. Pyranometer sensors (If opted) Shading ball assembly with one or two shading ball arrangement (either or both can be used) for two nos. pyranometer sensors are provided
- Power Requirements 12V/4A (Max) **Optional** : Battery, charging unit (mains/Solar) & Solar panel & Tripod stand for mounting solar panel.
- Maintenance Zero maintenance (if operating on solar & batteries, lead acid batteries need annual replacement)

Solar Tracker (Dual Axis)



Ordering Guide

SN Description

- 1 Tracker with Two Pyrheliometer mounting position
- 2 Tracker with Two Pyrheliometer & Two Pyranometer mounting position
- 3 Tracker along with Shading Ball Assembly for

Model No.

V-SOL-2A2P
V-SOL-2A2P-P
V-SOL-2A2P-PS

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

