

Digital Solar Radiation Recorder (For Shortwave)



“Instrumex” make Solar Radiation Recorder reflect state of the art in micro controller based instrumentation design. The Shortwave Pyranometer sensor can be attached with this data logger for the collection of real time data automatically. The micro controller has its internal memory along with, a real time clock with an LCD (16 X 2) to display the instrument status. It is a self contained power source system, fitted with Data Logger and battery charging solar panel with rechargeable, maintenance free batteries complete with sensors mounted on a tripod stand with sealed waterproof enclosure for Data Logger, Solar charger and battery. All Sensors powered directly from Data Logger and no need of external power source. 4x2 membrane keypad is provided at front panel of data logger for programming data logger and monitoring sensor reading at site without the help of computer Data file is saved in Microsoft’s Excel.

Features & Specifications

- Sensor Type: Pyranometer Sensor for Shortwave Radiation
 - Parameter Monitored: Date, Time, Solar Radiation (W/m^2), Battery Voltage.
 - Display: 16 Characters X 2 Lines alphanumeric display,
 - Keyboard: 4x2 membrane keypad for onsite programming of data logger.
 - Real Time Clock accuracy: Internal with ± 2 minutes / year & leap year compensation
- Number of Channels: Eight (extendable up to 16 at extra cost).
 - Channels Configuration: Factory configured sensors as per purchase Order.
 - Memory: More than 16000 data points (extendable at extra cost). store 1 year data at user’s selectable 1 hour interval

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- ADC Resolution: 16+ bits
- Unattended recording of Solar Radiation. Virtually maintenance free
- Logging Interval: 1 min to 24 Hr program log Start time within next 24 hours
- Operating Temperature: - 40 to 75 °C. Humidity: 0 to 95 % non-condensing.
- Power Supply: 12V SMF battery, Charging: Solar Panel / 220V AC (Optional).
- Battery Life: More than 1.5 Years (Easily Available in local Market)
- Solar Panel:: 12 Volt DC, Wattage: 10, 20 & 40 Watt (as per system power requirement)
- Along with Small Stainless Steel Tripod
- Data Output Format: MS- Excel
- Data retrieval: Data shuttle (default) to Computer. Other options also available (at extra cost).

Application Software (Instrumex)

This is a user-friendly, Menu Driven, Windows based software allows you to view & save collected data from data logger to computer/laptop. Data file is saved in Microsoft's Excel format

Other options: Ethernet, 2G/3G/4G enabled Web based telemetry at Instrumex Portal “www.Instrumex.ae”.

Solar Radiation Sensor (Pyranometer)

For Shortwave Radiation

Radiation Range: 0 – 2000 w/m²

Cosine response @ 45° zenith angle: ± 4 %

Cosine response @ 75° zenith angle: ± 10 %

Absolute accuracy: ± 5 %



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Repeatability: $\pm 1 \%$

Output: 0.200 mV / Wm⁻²

Sensitivity: Custom calibrated to exactly 5.00 W m⁻²/ mV

Operating environment - 40 to 55 °C; 0 to 100% RH

SN	Description	Model No.
1	Solar Radiation Recorder with Data Shuttle option	SRR-VH-SR-D
2	Solar Radiation Recorder with Ethernet option	SRR-VH-SR-E
3	Solar Radiation Recorder with GPRS Telemetry option	SRR-VH-SR--GPRS

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