

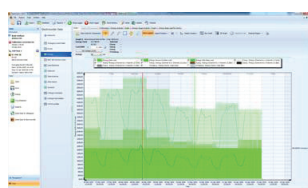
## Electrocorder Model: SR-1R



**Solar irradiance,  
0-1500W-m<sup>-2</sup>**

**Complete with Electrosoft  
energy analysis software**

**Sealed to IP65/NEMA  
12/4 as standard**



Enables users to conduct site or installation surveys, records minimum, average and maximum solar irradiance

Data stored in non-volatile memory

Memory capacity of 32,000 (True RMS) values per channel (10bit), up to 300 days continuous recording

Selectable averaging period from 1 second to 60 minutes

Accurate to  $\pm 5\%$  of reading

Kit includes data logger, pyranometer, USB lead, 12Vdc PSU, Electrosoft software and a carry case

The advantage of the ElectroCorder products over most others is that our Data Loggers constantly sample information (recording the Minimum, Maximum and Average reading) over the set period, many other products only take 'snap shots' of what is going on and can miss 99.9% of the data that is critical to your analysis.

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**Powerfully Measured**

Version 3.01.02.14

The SR-1R is designed to allow users to monitor and record Solar Irradiance over a prolonged period. The SR-1R is widely used for site surveys, either for proposed Solar Energy installations or to assess existing systems.

Setting up the Electrocoorder SR-1R is easy, suitable for non-technical staff. Using the supplied (free) Windows software, Electrosoft; input the location details for the logging and choose the logging period. Electrosoft will print the necessary dispatch/return documentation including user instructions. All data is included in a database of dispatches and returns, allowing you to track the location of multiple loggers.

Why is the Electrocoorder better than other similarly priced competitors? The Electrocoorder range use a constant sampling technique, unlike the single reading of competitors. When the loggers start to record, they sample every channel 16 times per cycle, a cycle is 16ms at 60Hz and 20ms at 50Hz. At the end of each averaging period, 3 quantities are saved for each channel, the True RMS average, the Max, which is the highest cycle value during the period and the Min, lowest cycle value. This means that it will record all the peaks and troughs which are one cycle or longer.

The solar irradiance levels are stored with dates and times. With the back-up battery, the Electrocoorder can continue to record for about a week on battery power alone and indefinitely with the 12V PSU.

The recorded data is uploaded to a PC via the supplied USB lead. Using Electrosoft, the recorded current levels, with dates and times that can be viewed in both tabular and graphical form, exported to a spreadsheet or saved to file. Graphs can be printed showing the recorded levels and the allowable tolerance bands. These results may then be discussed with the customer.

On the logger, recording is signified by a flashing green light. A red light advises users that the unit has completed recording.

The SR-1R model is specifically designed to monitor one solar irradiance channel. If you wish to additionally measure efficiency of existing installations consider the PV-3 data logger.

Technical specifications (subject to change without notice)

Recorded values	Records minimum, average & maximum irradiance
Pyranometer input socket type	3.5mm stereo jack
Minimums and maximums time resolution	Always 20ms
Supplied pyranometer sensor accuracy	±2% of range
Measurement range	0-1500W·m <sup>-2</sup>
Irradiance measurement accuracy	Typically 5% of range
Sampling frequency	800Hz
Data recorded	Average, max & min irradiance values during the averaging period
Memory capacity	64kB able to record 32,000 irradiance levels
Memory type	Non-volatile SEEPROM
Memory - averaging period & duration	1 sec to 60 min (1 sec gives 2 hrs logging, 60 min gives 300 days logging)
Real-time clock accuracy	Greater than 0.001%
Input lead length	Metric 5m, Imperial/ English 16' (feet)
Battery life while logging	Unlimited – 12Vdc PSU option & battery backup or 7 days on battery power only
Battery type	Unit contains one 9V alkaline battery (E-Block, PP3, 1604A)
Communications interface type	USB, optically isolated to 5,2kV
Environmental (temp & sealing)	-10C to +40C or +14°F to +104°F. Sealed to IP65, NEMA 12/4
Dimensions & weight	Metric 100 x 85 x 65mm & 300g or English/Imperial 4" x 3" x 2.5", 11 oz

Determining product order codes:

To specify your Electrocoorder select various codes and enter into the boxes in order to create an accurate product code. For example: SR-1R-IP65-KIT.

SR-1R — IP65 — KIT

Warranty & calibration

Acksen Ltd products carry a \*Lifetime back to base warranty covering manufacturing defects and component failures. Each unit is individually calibrated during testing.  
\*Refer to website for full terms and conditions.

Conformity

Emissions EN55022:1994B, (EN50081-1:1992).  
Immunity EN50082-2:1995, following the provisions of EMC directive 89/336/EEC. Recording std EN50160:1994.  
LVD 72/23/EEC with respect to EN60065. (IEC-61010).  
All models certified (light industrial, 3V/m).