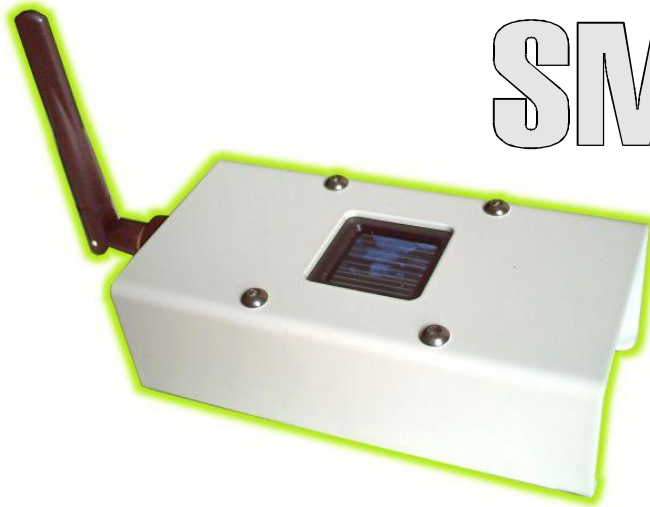


Meteo Station

SM01



The meteo station SM01 is a device designed to measure the main parameters needed for the analysis of the environmental performance of a photovoltaic system. In particular, SM01 measures the following physical quantities: solar irradiance, air temperature and cell temperature.

In accordance to CEI 82-25 guide, the solar irradiation is detected by a silicon solar cell. The cell is also temperature-compensated in order to allow long exposure times without compromising the precision of measurement.

The temperatures are detected by means of high quality platinum resistance sensors; the probe for the cell temperature is provided with a plate coated with thermally conductive rubber.

The measured values are converted into digital format and sent out periodically to a DL01 /DL02 datalogger through a RM01-P radio modem.

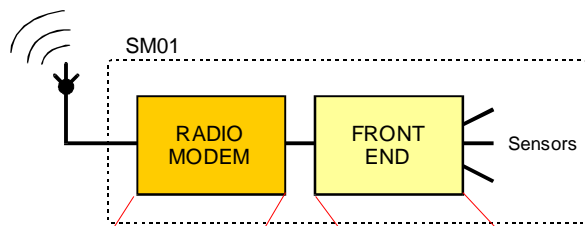


The activation of the meteo station is at the time of the physical connection of the RM01 into the relative slot.

The power of all circuits is supplied from the battery inside the radio modem, sufficient to guarantee a reasonable range (from several days to several months, depending on the sampling time). The battery can also be fully recharged in a couple of hours by simply placing the radio modem into the dedicated slot of the datalogger.

The platinum temperature sensors are equipped with a standard connector to facilitate the setup.

The complete SM01 meteo station is constituted by two devices: the Front End device, containing sensors and interfacing circuitry, and a radio modem requested for the wireless communication with the datalogger. There are several models of Front End according to the sensors configuration (for the updated list, please visit the website). The radio modems are offered in two versions depending on the power of radio transmission.



Block diagram of SM01

Code	Part	Description
8802705	FE02-3B	Front End with solarimeter and 2 temperature channels
8802715	FE02-1B	Front End with solarimeter
8802720	FE02-4A	Front End with temperature, relative humidity and barometric pressure channels

Code	Part	Description
8802201	RM01	Radio Modem RM01 with internal battery (Pout = 1 mW)
8802211	RM01-P	Radio Modem RM01-P with internal battery (Pout = 100 mW)

Standard configurations:

Code	Part	Description
8802782	SM01	Meteo Station
8802780	SM01-P	Meteo Station with -P radio modem

Code	Part	Description
8802705	FE02-3B	Front End with solarimeter and 2 temperature channels
8802201	RM01	Radio Modem RM01 with internal battery (Pout = 1 mW)
8802403	-	Pt1 000 temperature probe (Tair)
8802404	-	Pt1 000 temperature probe (Tcell)

Note:

The technical characteristics of each device are reported in the respective datasheets

