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Code:

## Description

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The **SEVEN** sensor is a device for measuring solar irradiance ( $\text{W}/\text{m}^2$ ) in photovoltaic plants, which is the incident solar power per unit area in the aperture plane. It offers additional features, such as the internal temperature of the cell and the PV module, and also the external ambient temperature.

The **SEVEN** sensor contains a single monocrystalline silicon solar cell that, together with its temperature sensor (PT 1000, class A), is connected to an electronic card to calculate the solar irradiation value in  $\text{W}/\text{m}^2$  using the temperature to compensate for its value and thus provide a precise measurement of the solar energy received.

Its enclosure is made of aluminium with UV protection, with no openings and easy installation, IP54 rating with weather-resistant materials, plastic connectors with UV protection, with different patterns on each connector to avoid connection errors.

**SEVEN** sensors collect data from internal and external devices and provide them through an RS-485 output (Modbus/RTU). The logs on the devices can be read by a **Line-EDS-PSS** (manager) device or a generic datalogger. **SEVEN** sensors are designed as a plug & run device that is user friendly.

## Application

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**SEVEN** is crucial to maximizing the performance of photovoltaic plants and providing important data to photovoltaic operators, helping to measure and evaluate energy production, while allowing better detection/prevention in changes in performance in the photovoltaic system.

This yields a faster assessment of the operational efficiency of the PV plant between expected and actual production, and allows for informed decisions.



Code:

Specifications

iPV-Monitor-accesor  
Accessories for iPV-Monitor series

CODE	TYPE	Internal PV cell temperature sensor, ambient temperature, irradiance, with RS-485 communications (Modbus/RTU)	Internal PV cell temperature sensor, ambient temperature, irradiance, external probe for temperature measurement on the back of the module, with RS-485 communications (Modbus/RTU)
EX0120.	SEVEN-GTi		
EX0130.	SEVEN-GTiFV		