

# Energy Management Control solution for Renewable Energy Type PVS1



- Solar irradiation sensor for photovoltaic applications
- No need for external power supply (auto-powered)
- Aluminium case for longer life
- UV resistant resin encapsulation
- Fast clamping system for easier installation
- Calibration process according to IEC 60904-2 and 60904-4
- Anti-ageing treatment
- Calibration certificate available (option)

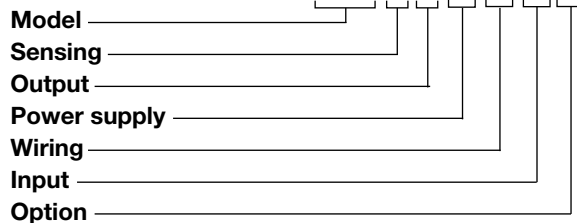
## Product description

PVS1 is a solar irradiation sensor based on photovoltaic technology. A crystalline silicon cell is used to measure the solar irradiation, so as to match the same typical behaviour as photovoltaic modules in terms of light wavelength response. The sensor, installed with the same tilt and azimuth of the PV modules, measures the solar irradiation and provides the measurement as an analog electrical signal by

means of its mV or mA output to be connected to an opportune measuring device such as the environmental module (VMU-P) of the Carlo Gavazzi's Eos-Array/Eos-Web system. PVS1 is a ruggedized sensor with an aluminium case and an UV resistant encapsulation so as to avoid issues driven by adverse weather conditions and humidity; installation is fast, thanks to the clamping system designed to fit eas-

## How to order

**PVS 1 V X W X X**



ily the photovoltaic module's frame. The 3% (mV output) or 4% (mA output) accuracy is stable as time goes by, thanks to a special anti-ageing treatment. A calibration

certificate according to the relevant guidelines is available on request.

## Type Selection

Sensing	Output	Power supply	Wiring
<b>1:</b> irradiation	<b>V:</b> analog mV <b>A:</b> analog 4-20mA	<b>X:</b> auto-powered <b>1:</b> 9-30 VDC	<b>W:</b> wired connection
Input	Option		
<b>X:</b> none	<b>X:</b> none <b>C:</b> calibration certificate		

## PVS1V Specification

<b>Hardware characteristics</b>			improved specification stability
Case	Aluminium made	<b>Input</b>	From 0 to 1250 W/m <sup>2</sup> STC From -30 to 80°C
Encapsulation	UV resistant resin <sup>(1)</sup>		
Mounting system	Aluminium screw-clamp for direct module-frame mounting		
Electrical connection	3 pin male/female IP67 M8 type connector	<b>Output</b>	80 mV @ 1000 W/m <sup>2</sup> STC (Typical)
Size	57 x 48 x 15 mm (not including clamp)	Measurement precision	±3%
<b>Sensor specification</b>		<b>Supply</b>	Auto-powered
Sensor type	Crystalline silicon cell	<b>Connection</b>	0.5m cable with 3 pin connector (male and female)
Calibration	According to IEC 60904-2 and 60904-4	<b>Mounting options</b>	Aluminium fastening clamp with fixing screw for PV module frame mounting
Stability	Anti-ageing treatment for		

## PVS1A Specification

<b>Hardware characteristics</b>			improved specification stability
Case	Aluminium made	<b>Input</b>	From 0 to 1250 W/m <sup>2</sup> STC From -30 to 80°C
Encapsulation	UV resistant resin <sup>(1)</sup>		
Mounting system	Aluminium screw-clamp for direct module-frame mounting		
Electrical connection	3 pin male/female IP67 M8 type connector	<b>Output</b>	from 4mA @ 0 W/m <sup>2</sup> STC to 20mA @ 1200 W/m <sup>2</sup> STC
Size	62 x 48 x 15 mm (not including clamp)	Measurement precision	±4%
<b>Sensor specification</b>		<b>Supply</b>	9-30VDC
Sensor type	Crystalline silicon cell	<b>Connection</b>	0.5m cable with 3 pin connector (male and female)
Calibration	According to IEC 60904-2 and 60904-4	<b>Mounting options</b>	Aluminium fastening clamp with fixing screw for PV module frame mounting
Stability	Anti-ageing treatment for		

(1): Some inclusions may be visible into the encapsulation resin: it is a result of the resin coating process, and it does not affect the system's performances and accuracy