

# Energy Management Pyranometer for photovoltaic applications Type PVS2



- Global solar radiation sensor for photovoltaic applications and weather stations
- 2nd Class Thermopile Pyranometer
- 4-20 mA output for reliable connections
- Compact and rugged IP67 aluminium case
- Compliant with WMO (World Meteorological Organization) for environmental monitoring
- Compliant with ISO 9060 and IEC17025 for photovoltaic applications
- Calibration according to ISO 9847 certificate available

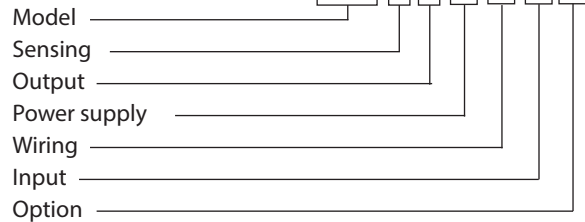
## Product description

PVS2 is a global solar radiation sensor based on a thermopile transducer designed to measure the global component of the sunlight spectrum between 0.3  $\mu\text{m}$  and 3  $\mu\text{m}$ . It complies with WMO (World Meteorological Organization) for environmental monitoring, being a worldwide valid reference for environmental monitoring. It is also the perfect fit for photo-

voltaic applications monitoring, according to IEC-9060 and IEC-17025. Thanks to its sensing technology, the measurement features are stable, immune to environmental changes, subject to worldwide valid standards, allowing to rely on an absolute reference so as to compare measurement from different installations and locations.

## How to order

**PVS 2 A 1 W X C**



The 4-20 mA output allows a reliable communication of measurements to Carlo Gavazzi's VMU-P modules and dataloggers.

## Type Selection

Sensing	Output	Power supply	Wiring
2: solar irradiance - pyranometer	A: analog 4-20mA	1: 10-28 VDC	W: wired connection
Input	Option		
X: none	C: Class 2 - with calibration certificate		

## Specification

<b>Hardware characteristics</b> Case Mounting system Electrical connection Size		Anodized aluminium and stainless steel Optional aluminium clamp 7 pin IP68 connector 162 x 215 x 40 mm (not including clamp)	Resolution Response time Cosine response $< \pm 22 \text{ W/m}^2$ Non linearity Expected daily uncertainty Tilt response ( $0^\circ - 90^\circ$ ) Temperature response (AT 50K) Zero Offset	$< 8 \text{ W/m}^2$ $< 25 \text{ sec}$ $< \pm 2\%$ $< 10\%$ $< \pm 4\%$ $< 8\%$ $< 20 \text{ W/m}^2$ (at $200 \text{ W/m}^2$ ) $< \pm 6 \text{ W/m}^2$ ( $\Delta T = 5\text{K/h}$ )
<b>Sensor specification</b> Sensor type		2nd Class Global Solar Radiation Sensor (according to ISO 9060) thermopile-based	<b>Supply</b> Voltage Power consumption	$10 - 28 \text{ VDC}$ $< 0,1 \text{ W}$ Note: The pyranometer cannot be supplied by the current loop and it requires a separate power supply unit
<b>Calibration</b> Measuring principle		According to ISO9847 The sensor is a high accuracy thermopile transducer protected by a quartz glass dome. An electric signal is generated by the solar radiation heating the sensor surface	<b>Connection</b> Mounting options	$7 \text{ poles output connector}$ Aluminium fastening clamp with fixing screw for PV module frame mounting
<b>Input</b> Irradiation range Temperature range Working temperature range		From 0 to $2000 \text{ W/m}^2 \text{ STC}$ From $0,3 \mu\text{m}$ to $3,0 \mu\text{m}$ (AM 1.5G Solar radiation) From $-40$ to $80^\circ\text{C}$	<b>Weight</b>	$< 600 \text{ g}$
<b>Output</b> Output range Long term stability		$4-20\text{mA} @ 0-2000 \text{ W/m}^2$ $< \pm 2\%$		

## Dimensions

