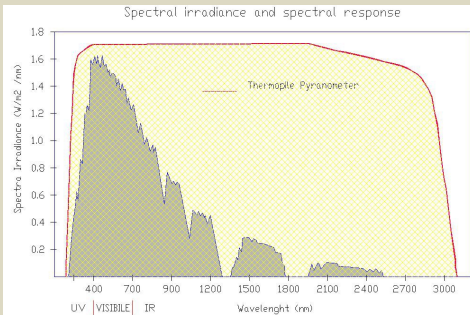


# PYR1-485 / PYR2-485

PYR1-485 and PYR2-485 are thermopile pyranometer for measuring solar irradiance. Manufacturing and Calibrations are done following the ISO 9060 – WMO - ISO 9846 standards.

## Spectrum of interest



## Measurements features

PYR1-485 and PYR2-485 are equipped with electronics board with a microcontroller to manage sampling, average of sampling, temperature reading and manager of RS485 transmissions. In order to guarantee rejection from disturbances, constant behavior over time and temperature variations. The output signal in in Modbus RTU over RS485.

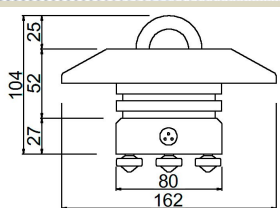
## Most common uses

Pyr1-485 is used in meteorological uses and for controlling the performance of PV systems.

## Physical characteristics

Anodized aluminum casing, encapsulated with a special glass transparent and quartz [k5] dome.

## Dimensions



Nome		PYR1-485	PYR2-485
Type of product	Thermopile pyranometer		
Reference Standard	ISO 9060:1990 ISO 9060:2018	I Class Class B	II Class Class C
Output	Modbus RTU on RS485		
Calibration	Complies to ISO9847	By Secondary Standard Pyranometer calibration certificate	By First Class Pyranometer calibration certificate
Calibration traceability	WRR		
Spectral range		300÷2900nm	300÷2900nm
Input Range		0 ÷ 1600 W/m <sup>2</sup>	
Response time		< 20 sec	< 25 sec
Temperature influence	on sensitivity	< ± 2 % (-10 to +40°C)	< ± 5 % (-10 to +40°C)
Directional response	At 1000W/m <sup>2</sup>	± 15W/m <sup>2</sup>	< 20 W/m <sup>2</sup>
Zero offset	Thermal radiation (at 200 W/m <sup>2</sup> )	<14 W/m <sup>2</sup>	<20 W/m <sup>2</sup>
	Temperature change (5 k/h)	<± 3 W/m <sup>2</sup>	<± 6 W/m <sup>2</sup>
Resolution	Smallest detectable change	± 4 W/m <sup>2</sup>	± 8 W/m <sup>2</sup>
Working range		-40 ÷ +80°C	
Field of view		180°	
Stability (along 1 year)		< ± 1.5%	< ± 2%
Output	Modbus	Adrs.257 Irradiance; Adrs. 34817 Pyr Temp	
Output precision	Tilt response (0 ÷ 90°)	< ± 2%	< ± 4%
	Temp. Response (Δt = 50°K)	< 4%	< 8%
Non linearity		< 1%	
Supply		9 ÷ 30 Vdc protected against short circuit	
Encapsulation	Quartz [k5] dome	to: 0,3÷3,0 μm double	to: 0,3÷3,0 μm single
Case		Anodized Aluminum	
Connector		standard M8 4 pin female	
Dimensions		Φ 162 x h 104 mm	
IP Grade		IP 67	