PYRANOMETER PYR-420®

hw rev. RGB402A

USER MANUAL

GENERAL DESCRIPTION

PYR1-420 and PYR2-420 are ISO 9060:2018 CLASS B (First Class) and CLASS C (Second Class) thermopile pyranometers for measuring solar irradiance in PV plants.

PYR1-420 and PYR2-420 are equipped with electronics to amplify a very weak signal coming from the thermopile.
They are composed of the best operational amplifiers on the market to guarantee linearity, noise immunity, constant behavior over time and temperature variations. They have a **4** to **20 mA output signal**.

FEATURES

Measurements:	**PYR1-420**	**PYR2-420**
spectral range:	300 ÷ 2900nm	300 ÷ 2900nm
input irradiance range:	0 ÷ 1600 W/m²	0 ÷ 1600 W/m²
Response time:	< 20 sec	< 25 sec
Temperature response:	< ± 2 % (-10 to +40°C)	
Zero offset		
Thermal radiation (at 200 W/m²)	<14 W/m²	<20 W/m²
Temperature change (5 k/h)	<± 3 W/m²	<± 6 W/m²
Resolution		
Smallest detectable change	± 4 W/m²	± 8 W/m²
Outputs		
serial:	4 ÷ 20 mA current loop	
Output resolution:	1W/m²	
Output precision:		
Tilt response (0 ÷ 90°):	< ± 2%	< ± 4%
Temp. Response (Δt = 50K)	< 4%	< 8%
Working temperature:	-40 ÷ +80 °C	
Supply:	9 ÷ 30 Vdc protected against short circuit	
Encapsulation:	Quartz [k5]	
	Double glass dome	Single glass dome
Special glass transparent to:	0,3 ÷ 3,0 µm	0,3 ÷ 3,0 µm
Case:	Anodized aluminum	
Connectors:	standard M8 3 pin female	
Dimensions:	Φ 162 x h 104 mm	

PIECE'S LIST

- Pyranometer with sun screen
- M8 3pin male connector
- Instruction sheet
- Calibration Report

CALIBRATION:

- Date: ..... Operator: ….....

- S/N:. .....

-..... mA @0 W/m² STC [pin 3]

- ..... mA @ 1200 W/m² STC [pin 3]

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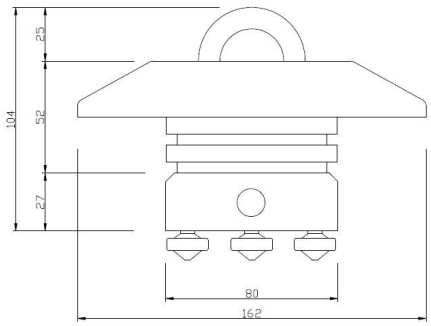
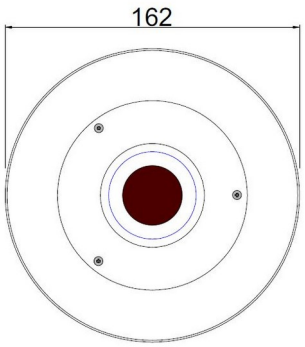
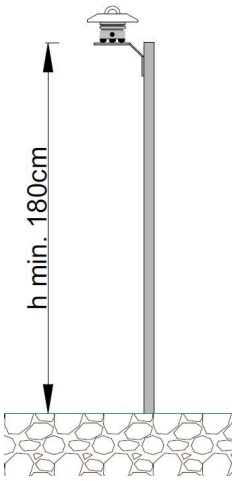
DIMENSIONS





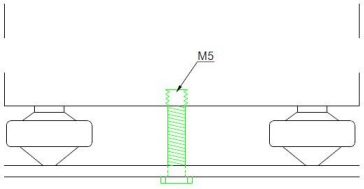
INSTALLATION

It is recommended to install the product at a minimum height of 180cm above the ground.



There are the following **fixing types**:

- With M5 screw on flat bases;
- Bracket on pole;
- Inclinable bracket in degrees



M5 screw on flat bases
*screw's thread must be 0,4cm + distance between the pyranometer and the base. (approx. 1,5 - 1,8 cm long.)

CALIBRATION

It is recommended to send to factory for verifying calibration after 2 years of outdoor work.

MAINTENANCE

Reading is reduced if the dome is not clean.

1. Keep the dome clean using water or alcohol.
2. Keep instrument levelled.
3. Recalibrate every 2 years.

USER INFORMATION

Read this document carefully before installation.

Warranty is 2 years from date of invoice, subject to correct installation and use. Soluzione Solare accepts no liability for any loss or damage arising from incorrect use of the product. This device conforms to the EU 'CE' guideline 89/336/EEC73/23/EEC. Unauthorised modifications may void the warranty and CE validity. Visit our website for the latest product support information.

CONTACTS

Other Information about our solar devices are available at: www.soluzionesolare.it/prodotti

For technical support, contact: **support@soluzionesolare.it**

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DICHIARAZIONE DI CONFORMITÀ ISO 9060
ISO 9060 COMPLIANCE STATEMENT

Dichiara sotto la propria responsabilità che i nostri prodotti:
declares under our sole responsibility thet the our product:

PYRA-420, PYRA-485

al quale si riferisce questa dichiarazione, è conforme alle norme europee armonizzate come pubblicato nella Gazzetta Ufficiale della CE, basato sul seguente standard:
to which this declaration relates, is in conformity with European Harmonised Standards as published in the Official Journal of the EC, based on the following standard:

ISO 9060
[Solar energy -- Specification and classification of instruments for measuring hemispherical solar and direct solar radiation]

Vicenza, 1 Janaury 2019

Il legale rappresentante
Legal rapresentative

A. Calatroni

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