LM2-420 PRO®

USER MANUAL

hw rev. RGB402A

GENERAL DESCRIPTION

The LITEMETER 420 PRO (LM2-420 PRO) is a calibrated cell **temperature compensated** with strictly selected electronic components to ensure maximum precision.
Its monocrystalline silicon cell is laminated with small microprismatic glass for photovoltaic modules and E.V.A., this improves its durability and stability of measurements over time.
Its output signal is 4-20 mA to ensure reliability and a continuous signal that testifies a correct working. To know more about signal line reliability, refer to paragraph 4 of our document downloadable at this link:
https://soluzionesolare.com/products/analog-solar-radiation-sensor-litemeter-current-pro/

FEATURES

Measurements:
irradiance range: 0 ÷ 1200 W/m² or 0 ÷ 1600 W/m²

Outputs:
Current: 4 ÷ 20mA, calibration report below
(max output: 25mA)

Output precision:
irradiance: ± 2.7 % Temperature compensated

Working temperature: -25 ÷ +80 °C

Supply: by current loop, compliance voltage 9 ÷ 30 V dc (see scheme on page 2)

Encapsulation: small microprismatic glass for photovoltaic modules and E.V.A

Case: anodized aluminium with screw-clamp to fix it on modules or montage profile

Wiring: 50 cm cable UV resistant or 2.5m Cable FREE Pins

Connectors: female circular M8 3 pin IP67 degree

Dimensions: 98x55x25 mm, with mounting bracket 112x55x66 mm

PIECE'S LIST

- **LM2-420 PRO**
- **M8 3 pin male connector (optional, on request)**
- **Aluminium fastening clamp**
- **Mounting screws for the fastening clamp**
- **Fixing screw for fastening clamp on profile/modules**

CALIBRATION:

- Date: ..... Operator: ……
- S/N:. .....
- -..... mA @ 0 W/m² STC [pin 3]
- 20.00 mA @ 1200 or 1600 W/m² STC [pin 3]

CONNECTIONS
The connector is a female 3 pin M8 standard. The male connector is optional and available on request.
The IP67 3-pin circular female connector carries all the signals from the LM2-420 PRO as in Tab. 1 and Fig. 1, that shows a front view of the female connector wired to the sensor (or a back side view of the male connector):

#	Name	Description	Cable colors
1	-	-	-
2	-	-	-
3	SUPPLY +Vin	Power supply input, + 9...30Vdc - See tab. 2	Blue
4	I out (-)	Current Output (-)	Black

Tab. 1

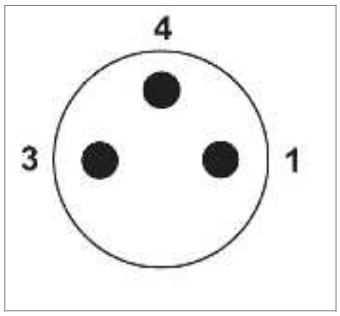


Fig. 1

The compliance voltage depends by the burden resistor (datalogger input impedance) with the relation: voltage = 8 + impedance*0.02

The voltage supply has to be equal or greater than compliance voltage.

Verify the input impedance of your DataLogger. Here below a table given to see DataLogger compatibility:

Input burden [Ohm]	Min. supply voltage [V cc]
20	8
100	10
150	11
250	13
500	18
1000	28

Tab. 2

MEASUREMENT
The signal can be read with an amperometer placed in series to the output pole of the instrument, or with a datalogger with a 4-20 mA input.

CALIBRATION
It is recommended to calibrate this instrument after the first year of use and successively, each three years.

DON'T PERFORATE. WARRANTY VOID IF REMOVED OR PERFORATED.

Huawei SmartLogger 1000/2000/3000
Configuration guide (PDF)

CONTACTS
This manual and information about our solar products are available at:
http://www.soluzionesolare.com/products/

Soluzione Solare Srl
Tel. +39.0444.530234- Fax +39.0444.1830563
Vicenza – Italy
E-mail: support@soluzionesolare.it
Web: www.soluzionesolare.it

DICHIARAZIONE CE DI CONFORMITA'
CE DECLARATION OF CONFORMITY

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

LM1-10V PRO, LM1-420, LM1-420 PRO, LM2-420 PRO, SUNMETER PRO
ai quali si riferisce questa dichiarazione, sono conformi 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:

[EMC – Emissions] EN 61326-2-1:2013 and EN 61326-2-3:2013;
[EMC – Immunity] EN 61326-2-1:2013 and EN 61326-2-3:2013;
IEC60904-2, 60904-4; 60904-10

Vicenza, 1 Janaury 2019

Il legale rappresentante
Legal representative

A. Calatroni