

# LITEMETER 420®

## USER MANUAL hw rev. RGB200B



### GENERAL DESCRIPTION

The LITEMETER 420 (LM1 420) is a calibrated cell **temperature compensated** with strictly selected electronic components to ensure maximum precision.  
His output signal is 4-20 mA to ensure reliability and a continuous signal that testify a correct working.

### FEATURES

**Measurements:**

irradiance range: 0 ÷ 1250 W/m<sup>2</sup>

**Outputs:**

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

**Output precision:**

irradiance: ± 3.5% Temperature compensated

**Working temperature:**

-25 ÷ +80 °C

**Supply:**

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

**Encapsulation:**

transparent resin, UV-resistant

**Case:**

anodized aluminium with stainless steel screw-clamp to fix it on modules or montage profile

**Wiring:**

50 cm cable UV resistant

**Connectors:**

female 3 pin IP67 code

**Dimensions:**

48 x 62 x 15 mm

### PIECE'S LIST

- Instrument with cable and connector
- Aluminium fastening clamp
- Mounting screw for the fastening clamp
- Fixing screw fastening clamp-profile/modules

### CALIBRATION:

- Date: ..... Operator: .....

- S/N: .....

- ..... mA @0 W/m<sup>2</sup> STC [pin 3]

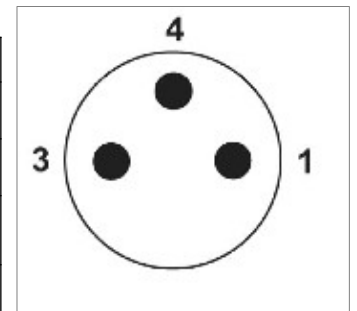
- ..... mA @ 1200 W/m<sup>2</sup> STC [pin 3]

### CONNECTIONS

The connector is a 3 pin M8 standard. The male connector is not included, but it can be found in commerce: anyhow, if you desire it you can order it to us.

The IP67 3-pin circular female connector carries all the signals from the LM-420 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	Loose pins
1	-	-	
2	-	-	
3	SUPPLY +Vin	Power supply input, + 9...30Vdc - See tab. 2	Blue
4	I out (-)	Current Output (-)	Black



Tab. 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 a 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. Some "inclusions" may be present and clearly visible into the protective encapsulation resin. This is due to the resin coating process and do not affect overall performance and/or accuracy.

## CONTACTS

This manual and information about our solar products are available at: <https://soluzionesolare.it/prodotti/>

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DICHIARAZIONE CE DI CONFORMITA'  
CE DECLARATION OF CONFORMITY

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


**LM1-10V PRO, LM1-420, LM1-C2, SUNMETER PRO**

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:*

[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;  
IEC 61215, IEC60904-2, 60904-4; 60904-10

Vicenza, 1 January 2019

Il legale rappresentante  
*Legal representative*

  
A. Calatroni