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^2

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^2 STC [pin 3]
- ..... mA @ 1200 W/m^2 STC [pin 3]

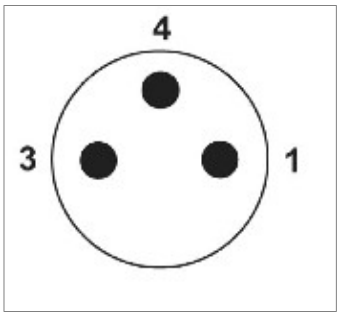
CONNECTIONS

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

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