

## 4 Electrical Connection and Requirements for Electronic Readout Devices:

LP PYRA 03 is produced in 3 versions, LP PYRA 03, LP PYRA 03 AC and LP PYRA 03 AV.

- LP PYRA 03 pyranometer is passive and it does not require any power supply.
- LP PYRA 03 AC, AV are active and need power supply.  
Required voltage is as follows:  
8-30 Vcc for LP PYRA 03 AC and LP PYRA 03 AV with 0..1V and 0..5V output supply.  
14-30 Vcc for LP PYRA 03 AV with 0..10 V output.
- All version are supplied with a 4 pole M12 connector.
- The optional cable is terminated with a connector at one end and it is made of PTFE UV-proof. It is provided with 3 wires and a braided wire (shield). Cable colors and connector poles are matched as follow (figure 3):

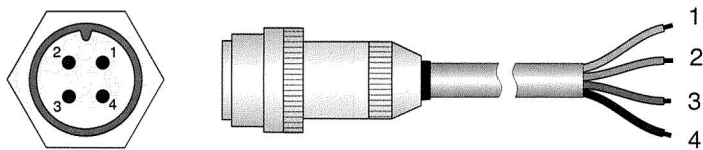


Fig.3

### LP PYRA 03

Connector	Function	Color
1	Vout(+)	Red
2	Vout (-)	Blue
3	No connection	White
4	Shield ( $\frac{1}{2}$ )	Black

### LP PYRA 03 AC

Connector	Function	Color
1	Positive (+)	Red
2	Negative (-)	Blue
3	No connection	White
4	Shield ( $\frac{1}{2}$ )	Black

### LP PYRA 03 AV

Connector	Function	Color
1	(+) Vout	Red
2	(-) Vout e (-) Vcc	Blue
3	(+) Vcc	White
4	Shield ( $\frac{1}{2}$ )	Black

- LP PYRA 03 pyranometer is to be connected either to a millivoltmeter or to a data acquisition system. Typically, the pyranometer output signal does not exceed 20 mV. In order to better exploit the pyranometer features, the readout instrument should have a 1  $\mu$ V resolution.

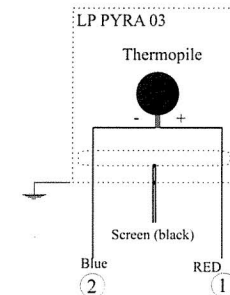


Fig. 4

- LP PYRA 03 AC is to be connected to a DMM and a power supply as show below (Figure 5). To read the signal, the load resistance must be  $\leq 500\Omega$

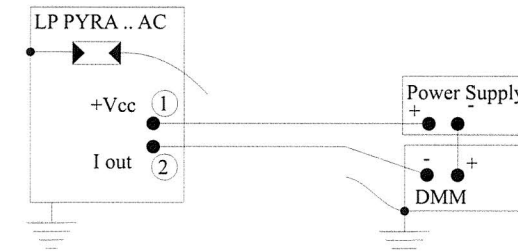


Fig. 5

- LP PYRA 03 AV is to be connected to a DMM and a power supply as show below (Figure 6). To read the signal, the load resistance must be  $\geq 100k\Omega$

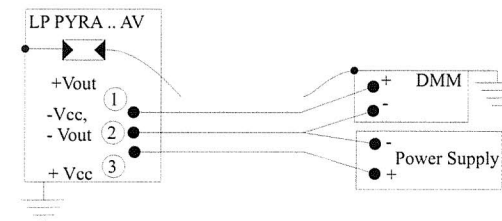


Fig. 6