

# LT-IRM

*Infrared Leaf Temperature Sensor*



Exclusively Distributed & Supported By:



**edaphic scientific**

environmental research & monitoring equipment

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## ***Introduction***

The LT-IR infrared temperature sensor offers intelligence in a rugged, easy-to-use package. Every sensor is individually tested and calibrated within the measurement range.

The LT-IR probe comes in a weatherproof box with a holder.

## ***Installing the sensor***

Install LT-IR as close as practical to view target foliage to be measured. Use the sensor's holder to mount the LT-IR. Please note that the LT-IR may have 5:1 field of view depending on the order. The field of view is the ratio of the distance to the object being measured, and the diameter of the temperature measurement area. For example, if the thermometer has a field of view specification of 5:1, holding the thermometer 5 meters from the target will result in a 1 meter diameter spot size (measurement area) on the target. Holding the thermometer 10 meters from the target will result in a measurement area of 2 meters, and so on.

Keep the sunlight at back of the sensor. Remember that when you shine at an angle, the beam being cast will be

oval, (similar to a flashlight beam) just something to bear in mind.

Hold the sensor so that the beam will not see the sky or soil, the confounding variables.

### ***Connection***

The model LT-IRM has the 4-m output wire with the following assignment of the cores:

<b>Red</b>	<b>+ Power (7 to 30Vdc)</b>
<b>Blue</b>	<b>Output (SDI-12)</b>
<b>Black</b>	<b>Ground</b>

### **Maintenance:**

The sensor's lens is protected by a special crystal window. Please maintain it clear for best accuracy of the sensor. Clean it with the use of soft cloth and a glass cleaning agent, if necessary.

## ***Specifications:***

**Measurement range:** 0 to 60 °C

**Absolute accuracy:** ± 1.0 °C

**Repeatability:** ± 0.1 °C

**Field of view:** 5:1

**Emissivity setting:** 0.9

**Spectral response:** 5.5 to 14 μm

**Ambient temperature:** 0 to 50 °C

**Digital output:** SDI-12

**Supply voltage:** 7 to 30 Vdc @ 25 mA

**Sensors's dimensions (w/holder):** 140H x 90W x 150D mm

**Sensor's weight (approximate):** 400 g

**Protection index of the probe:** IP 54

**Cable length:** 4 m

## ***Customer Support***

If you ever need assistance with your LT-IR, or if you just have questions or feedback, please e-mail at [info@edaphic.com.au](mailto:info@edaphic.com.au). Please include as part of your message your name, address, phone, along with a description of your problem.



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