

*9 in 1, Anemometer, Humidity meter, UV Light meter,  
Pt 1000 Temp. ( optional )*

*Sport/Weather meter*

# ENVIRONMENT METER

Model : SP-8002

ISO-9001, CE, IEC1010



**Lutron**

**LUTRON ELECTRONIC**

*The Art of Measurement*

**9 in 1**  
**Anemometer, Humidity/Temp. meter,**  
**UV Light meter, Pt 1000 Temp. ( optional )**  
**Sport/Weather meter**

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Model : SP-8002

## FEATURES

- \* 9 in 1 professional environment instruments:  
 1. Air velocity/Temp., 2. Humidity/Temp., 3. UV Light  
 4. CFM, CMM, 5. Dew point, 6. Wet bulb, 7. Wind chill,  
 8. Heat index, 9. Pt 1000 ohm Temp.( optional )
- \* Tiny bone shape with light weight and small size case design are suitable for handling with one hand.
- \* Wristlet design provides extra protection to the instrument especially for user one hand operation.
- \* Low-friction ball bearing mounted wheel design provides high accuracy at high and low air velocity.
- \* UV sensor structure The exclusive UV photo sensor with the cosine correction filter.
- \* High precision humidity sensor with fast response time.
- \* Optional Pt 1000 ohm Temp. probe for the precision Temp. measurement.
- \* Built- in microprocessor circuit assures excellent performance and accuracy.
- \* Concise and compact buttons arrangement, easy operation.
- \* Memorize the maximum and minimum value with recall.
- \* °C/°F detection by pressing button on the front panel.
- \* Hold function to freeze the current reading value.

## GENERAL SPECIFICATIONS

|                       |   |
|-----------------------|---|
| Display               | 8 mm LCD display  |
| Measurement           | 1. Air velocity/Temp.<br>2. Humidity/Temp.<br>3. UV Light<br>4. CFM, CMM<br>5. Dew point<br>6. Wet bulb<br>7. Wind chill<br>8. Heat index<br>9. Pt 1000 ohm Temp.( optional ) |
| Operating Humidity    | Max. 80% RH.  |
| Operating Temperature | 0 to 50 °C ( 32 to 122 °F )   |
| Over Input Display    | Indication of "- - - -"   |
| Power Supply          | CR 2032 DC 3V battery   |
| Power Consumption     | Approx. DC 5 mA   |
| Weight                | 160g (battery included)   |
| Dimension             | HWD 120 x 45 x 20 mm (4.7 x 1.8 x 1.2 inch).  |
| Standard Accessory    | Instruction Manual  |
| Optional Accessories  | Pt 1000 ohm Temp. probe, TP-1000  |

## ELECTRICAL SPECIFICATION ( 23 ± 5°C )

### Air velocity

| Unit   | Range                      | Resolution       | Accuracy                         |
|--------|----------------------------|------------------|----------------------------------|
| ft/min | 80 to 3937 ft/min          | 1 ft/min         | ± 3% F.S.<br>@ F.S. : full scale |
| m/s    | 0.4 to 20.0 m/s            | 0.1 m/s          |                                  |
| km/h   | 1.4 to 72.0 km/h           | 0.1 km/h         |                                  |
| MPH    | 0.9 to 44.7 mile/h         | 0.1 MPH          |                                  |
| knots  | 0.8 to 38.8 knots          | 0.1 knots        |                                  |
| Temp.  | 0 to 50 °C<br>32 to 122 °F | 0.1 °C<br>0.1 °F |                                  |

Remark :  
 ft/min : feet per minute      MPH : miles per hour  
 m/s : meters per second      knots : nautical miles per hour  
 km/h : kilometers per hour

### Air flow

| Unit | Range            | Resolution                           |
|------|------------------|--------------------------------------|
| CMM  | 0.024 to 36000   | 0.001/0.01/0.1/1                     |
| CFM  | 0.847 to 1271300 | 0.001/0.01/0.1/1/10 (x10)/100 (x100) |

### Humidity/Temp.

| Unit  | Range                      | Resolution       | Accuracy   |
|-------|----------------------------|------------------|--|
| % RH  | 10 to 95 %RH               | 0.1 %RH          | < 70% RH :<br>± 4 %RH<br>≥ 70% RH :<br>± ( 4 %rdg + 1.2 %RH) |
| Temp. | 0 to 50 °C<br>32 to 122 °F | 0.1 °C<br>0.1 °F | ± 1.2 °C<br>± 2.5 °F   |

### UV Light \* auto range \* UVA light measurement

| Range                         | Resolution              | Accuracy             |
|-------------------------------|-------------------------|----------------------|
| 0 to 1999 uW/cm <sup>2</sup>  | 1 uW/cm <sup>2</sup>    | ± ( 4 % FS + 2 dgt ) |
| 2 to 20.00 mW/cm <sup>2</sup> | 0.01 mW/cm <sup>2</sup> | FS : full scale      |

Remark  
 \* Calibration is executed under the UVA light & and compare with the standard UVA light meter.  
 \* UV Sensor structure :  
 The exclusive UV photo sensor with the cosine correction filter.  
 \* UV sensor spectrum Band pass 260 nm to 390 nm.

### Pt 1000 ohm Thermometer ( optional probe )

| Unit | Range            | Resolution | Accuracy |
|------|------------------|------------|----------|
| °C   | -10.0 to 70.0 °C | 0.1 °C     | ± 1.2 °C |
| °F   | 14.0 to 158.0 °F | 0.1 °F     | ± 2.5 °F |

### Dew point Temp.

| Unit | Range             | Resolution | Remark                                    |
|------|-------------------|------------|---|
| °C   | -25.3 to 49.0 °C  | 0.1 °C     | * Calculate from the humidity/Temp. value |
| °F   | -13.5 to 120.0 °F | 0.1 °F     |   |

Please refer to [http://en.wikipedia.org/wiki/Dew\\_point](http://en.wikipedia.org/wiki/Dew_point)

### Wet bulb Temp.

| Unit | Range           | Resolution | Remark                                    |
|------|-----------------|------------|---|
| °C   | -5.4 to 49.0 °C | 0.1 °C     | * Calculate from the humidity/Temp. value |
| °F   | 22.2 to 120 °F  | 0.1 °F     |   |

Please refer to [http://en.wikipedia.org/wiki/Wet-bulb\\_temperature](http://en.wikipedia.org/wiki/Wet-bulb_temperature)

### Heat index

| Unit | Range        | Resolution | Accuracy |
|------|--------------|------------|----------|
| °C   | 0 to 70.0 °C | 0.1 °C     | ± 2.0 °C |
| °F   | 32 to 158 °F | 0.1 °F     | ± 3.6 °F |

Please refer to [http://en.wikipedia.org/wiki/Heat\\_index](http://en.wikipedia.org/wiki/Heat_index)

### Effects of the heat index (shade values)

| Celsius    | Fahrenheit  | Notes  |
|------------|-------------|--|
| 27- 32 °C  | 80- 90 °F   | Caution :<br>Fatigue is possible with prolonged exposure and activity. Continuing activity could result in heat cramps |
| 32- 41 °C  | 90- 105 °F  | Extreme caution :<br>Heat cramps, and heat exhaustion are possible. Continuing activity could result in heat stroke    |
| 41- 54 °C  | 105- 130 °F | Danger :<br>Heat cramps, and heat exhaustion are likely ; heat stroke is probable with continued activity              |
| over 54 °C | over 130 °F | Extreme danger : Heat stroke is imminent   |

Note :  
 Exposure to full sunshine can increase heat index values by up to 8 °C ( 14°F ).

### Wind chill

| Unit | Range            | Resolution | Accuracy |
|------|------------------|------------|----------|
| °C   | -0.4 to 44.2 °C  | 0.1 °C     | ± 2.0 °C |
| °F   | 15.0 to 112.0 °F | 0.1 °F     | ± 3.6 °F |

\* Wind chill value is effect only when the Temp. value < 15 °C and Air velocity value > 1.4 m/s.  
 \* Please refer to [http://en.wikipedia.org/wiki/Wind\\_chill](http://en.wikipedia.org/wiki/Wind_chill)

\* Appearance and specifications listed in this brochure are subject to change without notice.