

*11 in 1, Anemometer, Humidity meter, Barometer  
Light Meter, Altitude, Pt 1000 Temp. ( optional )*

*Sport/Weather meter*

# ENVIRONMENT METER

Model : SP-9201

ISO-9001, CE, IEC1010



**Lutron**

LUTRON ELECTRONIC

*The Art of Measurement*

11 in 1

Anemometer, Humidity meter, Barometer  
Light Meter, Altitude. Pt 1000 Temp. ( optional )  
Sport/Weather meter

# ENVIRONMENT METER

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**FEATURES**

- \* 11 in 1 professional environment instruments:  
1. Air velocity/Temp., 2. Humidity/Temp., 3. Light  
4. Barometer, 5. CFM, CMM, 6. Dew point,  
7. Wet bulb, 8. Wind chill, 9. Heat index,  
10. Altitude, 11. Pt 1000 ohm Temp. ( optional )
- \* Tiny bone shape with lightweight 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.
- \* Exclusive photo diode and color correction filter light sensor, spectrum meets C.I.E. photopic.
- \* High precision humidity sensor with fast response time.
- \* Build in baro sensor for the atmosphere value and altitude measurement precisely.
- \* 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. Light<br>4. Barometer<br>5. CFM, CMM<br>6. Dew point<br>7. Wet bulb<br>8. Wind chill<br>9. Heat index<br>10. Altitude<br>11. 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              | Instruction Manual   |
| Accessory             |  |
| Optional              | Pt 1000 ohm Temp. probe, TP-1000   |
| Accessories           |  |

**ELECTRICAL SPECIFICATION ( 23 ± 5°C )**

**Air velocity**

| Unit   | Range              | Resolution | Accuracy                                     |
|--------|--------------------|------------|--|
| ft/min | 80 to 3937 ft/min  | 1 ft/min   | ≤ 20 m/s : ± 3% F.S.<br>> 20 m/s : ± 4% F.S. |
| 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         | 0.1 °C     |  |
|        | 32 to 122 °F       | 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

**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   | 0.1 °C     | ± 1.2 °C   |
|       | 32 to 122 °F | 0.1 °F     | ± 2.5 °F   |

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

**Light \* auto range**

| Unit  | Range               | Resolution | Accuracy         |
|-------|---------------------|------------|------------------|
| Lux   | 0 to 2,200 Lux      | 1 Lux      | ± 5% rdg ± 8 dgt |
|       | 1,800 to 20,000 Lux | 10 Lux     |                  |
| Ft-cd | 0 to 204.0 Fc       | 0.1 Ft-cd  |                  |
|       | 170 to 1,860 Fc     | 1 Ft-cd    |                  |

Remark : Ft-cd : feet candle

**Barometric pressure ( Barometer )**

| Unit | Range         | Resolution | Accuracy    |
|------|---------------|------------|-------------|
| hPa  | 10.0 to 999.9 | 0.1 hpa    | ± 1.5 hPa   |
|      | 1000 to 1100  | 1 hpa      | ± 2 hPa     |
| mmHg | 7.5 to 825.0  | 0.1 mmHg   | ± 1.2 mmHg  |
| inHg | 0.29 to 32.48 | 0.01 inHg  | ± 0.05 inHg |

**Pt 1000 ohm Thermometer ( optional probe )**

| Unit | Range             | Resolution | Accuracy |
|------|-------------------|------------|----------|
| °C   | -10.0 to 100.0 °C | 0.1 °C     | ± 1.2 °C |
| °F   | 14.0 to 212.0 °F  | 0.1 °F     | ± 2.5 °F |

**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) |

**Dew point Temp.**

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

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 |
| °F   | 22.2 to 120 °F  | 0.1 °F     | humidity/Temp. value |

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 100.0 °C | 0.1 °C     | ± 2.0 °C |
| °F   | 32 to 212 °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**

| °C | Range            | Resolution | Accuracy |
|----|------------------|------------|----------|
| °C | -9.4 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)

**Altitude**

| Unit | Range             | Resolution | Accuracy |
|------|-------------------|------------|----------|
| m    | -2000 to 9000 m   | 1 m        | ± 15 m   |
| ft   | -6000 to 30000 ft | 1 ft       | ± 50 ft  |

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