# 9 in 1, Anemometer, Humidity meter, Light meter Light Meter, Pt 1000 Temp. (optional) Sport/Weather meter ENVIRONMENT METER

Model : SP-8001

ISO-9001, CE, IEC1010









The Art of Measurement

9 in 1

Anemometer, Humidity/Temp. meter, Light meter, Pt 1000 Temp. (optional)

Sport/Weather meter

# **ENVIRONMENT METER**

# Model : SP-8001

### FEATURES

- 9 in 1 professional environment instruments:
- 1. Air velocty/Temp., 2. Humidity/Temp., 3. 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 lightweight and small size case
- design are suitable for handling with one hand. <sup>6</sup> 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.
- <u>\* High precision humidity sensor with fast response time.</u>
  \* Optional Pt 1000 ohm Temp. probe for the prcision
- 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.
- \*  $^{\circ}C/^{\circ}F$  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 velocty/Temp.	5. Dew point
	2. Humidity/Temp.	6. Wet bulb
	3. Light	7. Wind chill
		8. Heat index
	9. Pt 1000 ohm Temp.(	optional)
Operating	Max. 80% RH.	
Humidity		
Operating	0 to 50° C (32 to 122°	F)
Temperature		
Over Input	Indication of " "	
Display		
Power Supply	CR 2032 DC 3V battery	
Power	Approx. DC 5 mA	
Consumption		
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. prol	be, TP-1000
Accessories		

#### ELECTRICAL SPECIFICATION ( $23 \pm 5^{\circ}$ )

#### Air velocity

Unit	Range	Resolution	Accuracy
ft/min	80 to 3937 ft/min	1 ft/min	
m/s	0.4 to 20.0 m/s	0.1 m/s	± 3% F.S.
km/h	1.4 to 72.0 km/h	0.1 km/h	@ F.S. : full scale
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 ℃	0.1 ℃	
	32 to 122 °F	0.1 °F	
Remark	c :		
ft/min	: feet per minute	MPH : miles	per hour
<i>m/s :</i>	meters per second	knots : nauti	cal miles per hour
km/h :	kilometers per hour		

#### Ar flow

Unit	Range	Resolution
CMM	0.024 to 36000	0.001/0.01/0.1/1
CEM	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 :
			± 4 %RH
			<i>≧70% RH :</i>
			± ( 4 %rdg +1.2 %RH)
Temp.	0 to 50 ℃	0.1 ℃	± 1.2 °C
	32 to 122 °F	0.1 °F	± 2.5 °F

#### 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		
Remar	k : Ft-cd : feet candle			

Remark : Ft-cd : Teet candle

### Dew point Temp.

Unit	Range	Resolution	Remark		
°C	-25.3 to 49.0 °C	0.1 ℃	* Calculate from the		
°F	-13.5 to 120.0 °F	0.1 °F	humidity/Temp. value		
Please	Please refer to http://en.wikipedia.org/wiki/Dew_point				

#### Wet bulb Temp.

Unit	Range	Resolution	Remark	
°C	-5.4 to 49.0 °C	0.1 ℃	* 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				

# Wind chill

Unit	Range	Resolution	Accuracy
°C	-9.4 to 44.2 °C	0.1 ℃	± 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 $\degree$ and			

Air velocity value > 1.4 m/s.

\* Please refer to http://en.wikipedia.org/wiki/Wind\_chill

#### Heat index

Range	Resolution	Accuracy
0 to 100.0 ℃	0.1 ℃	± 2.0 °C
32 to 212 °F	0.1 °F	± 3.6 °F
	0 to 100.0 ℃	0 to 100.0 °C 0.1 °C

Pleas refer to http://en.wikipedia.org/wiki/Heat\_index

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

Celsius	Fahrenheit	Notes
27– 32 ℃	<b>80– 90</b> °F	Caution :
		Fatigue is possible with prolonged exposure
		and activity. Continuing activity could result in
		heat cramps
32− 41 °C	<b>90– 105</b> °F	Extreme caution :
		Heat cramps, and heat exhaustion are possible.
		Continuing activity could result in heat stroke
41– 54 ℃	105– 130 °F	Danger :
		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 :		
Evnosura ta	n full sunshin	e can increase heat index values by un to

Exposure to full sunshine can increase heat index values by up to 8  $\degree$  (14%).

# Pt 1000 ohm Thermometer ( optional probe )

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

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