hybrid power, Patent

GREEN POWER 4 in 1 METER

Model: LM-8020G

ISO-9001, CE, IEC1010

<u>www.yalab.com.tw</u>

02-2389-0101





The Art of Measurement

GREEN POWER 4 in 1 METER

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FEATURES

* Hybrid power, power supply from green power (handy				
generator) or battery. If power source come from " Green				
power ", battery is no need. Wind-up the generator 20				
seconds will offer several minutes energy typically.				

- * 4 in 1 professional measuring instrument: Anemometer, Hygrometer, Thermometer, and Light meter.
- * Anemometer use low-friction ball bearing mounted wheel design provides high accuracy at high and low air velocity.
- * Anemometer use the separate probe, convenient for measurement.
- * Light meter use exclusive photo diode and color correction filter light sensor, spectrum meets C.I.E. photopic.
- * High precision humidity sensor with fast response time.
- * Standard type K (NiCr-NiAl) thermocouple input jack suitable for all kinds of type K probe.
- * 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.
- * Lux/Feet-candle selection by pressing button on the front panel.
- * Air velocity measuring units selection by pressing button on the front panel for five kinds of units.
- Multi channel display for relative humidity and temperature measured values or air velocity and temperature measured values at the same time.
- * Zero button design makes light meter calibration.
- * Hold function to freeze the current reading value.
- * Microprocessor circuit assures high accuracy and reliable performance.
- * Large LCD, dual function display.
- * Auto power shut off to battery life or manual power off.
- * Using the durable, long-lasting components and a strong lightweight ABS-plastic housing case.

GENERAL SPECIFICATIONS

Circuit	Custom one-chip of microprocessor LSI		
	circuit.		
Display	40 mm x 32 mm LCD (Liquid crystal		
	display).		
Measurement	Anemometer, Humidity, Temperature. Light		
Data Hold	Freeze the display reading.		
Memory	Maximum and Minimum reading values can		
Recall	be saved and retrieved by record function.		
Power off	Auto shut off saves battery life or manual		
	off by push button.		
Overload	" " symbol on the display.		
indication			
Operating	$0 ^{\circ}\!\! \mathrm{C}$ to 50 $^{\circ}\!\! \mathrm{C}$ (32 $^{\circ}\!\! \mathrm{F}$ to 122 $^{\circ}\!\! \mathrm{F}$).		
Temperature			
Operating	Max. 80% RH.		
Humidity			
Sampling Time	Approx. 1 second.		
Power Supply	Green power :		
* Hybrid power	Power from the handy generator, battery is		
	no need.		
	Battery power :		
	DC 9V battery, 006P, MN1604 (PP3) or		
	equivalent.		
	* Alkaline or heavy duty type.		

Power Consumption	Battery power : Approx. DC 10 mA.
Weight	432 g/0.95 LB (w/o battery).
Dimension	Meter: 170 x 70 x 39 mm (6.7 x 2.8 x 1.1.5 inch).
	Anemometer probe head : Round, 72 mm Dia.
Standard Accessories	Instruction manual 1 PC Hard carrying case 1 PC
Optional Accessories	Type temperature probe : $TP-01$: Naked-bead, -40 to 250 $^{\circ}$ $TP-02A$: Penetration, -50 to 900 $^{\circ}$ $TP-03$: Penetration, -50 to 1200 $^{\circ}$ $TP-04$: Surface, -50 to 400 $^{\circ}$

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

Measurement		Range	Resolution
Air velocity	m/s	0.4 - 25.0 m/s	0.1 m/s
	km/h	1.4 - 90.0 km/h	0.1 km/h
	MPH	0.9 - 55.9 mile/h	0.1 MPH
	knots	0.8 - 48.6 knots	0.1 knots
	ft/min	80 - 4930 ft/min	1 ft/min
	Temperature	32 to 122 °F	0.1 °F
	(Semiconductor)	0 to 50 ℃	0.1 ℃

Measurement		Range	Resolution
Humidity	% RH	10 to 95 %RH	0.1 %RH
-	Temperature	32 to 122 °F	0.1 °F
	(Semiconductor	0 to 50 ℃	0.1 ℃
Light	nt Lux	0 to 2,200 Lux	1 Lux
		1,800 to 20,000 Lux	10 Lux
* auto range	Ft-cd	0 to 204.0 Fc	0.1 Ft-cd
		170 to 1,860 Fc	1 Ft-cd
Temperature (Ty	/pe K)	-148 to 2372 °F	0.1 °F
		-100 to 1300 ℃	0.1 ℃

Measurement	Range	Accuracy
Air velocity	0.4 - 25.0 m/s	
	1.4 - 90.0 km/h	\leq 20 m/s : ± 3% F.S.
	0.9 - 55.9 mile/h	> 20 m/s : ± 4% F.S.
	0.8 - 48.6 knots	
	80 - 4930 ft/min	
	32 to 122 °F	± 2.5 °F
	0 to 50 ℃	± 1.2 ℃
Humidity	10 to 95 %RH	< 70% RH:
		±4 %RH
		<i>≧70% RH :</i>
		: ± (4%rdg + 1.2 %RH)
	32 to 122 °F	± 2.5 °F
	0 to 50 ℃	± 1.2 ℃
Light	0 to 20,000 Lux	± 5% rdg ± 8 dgt
	0 to 1,860 Fc	
Temperature	-148 to 2372 °F	± (1% rdg + 2°F)
(Type K)	-100 to 1300 ℃	± (1% rdg + 1°C)

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 Ft-cd : feet candle

PATENT CHINA: ZL200620012764.3 GERMANY: Nr.202006007329.9 TAIWAN: M299401 JAPAN: 3130269 U.S.A.: PENDING

^{*} Appearance and specifications listed in this brochure are subject to change without notice.