Sound, Anemometer, Anemometer, %RH, Temp., Type K

5 IN 1 METER

Model : LM-8102 ISO-9001, CE, IEC1010

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The Art of Measurement

5 in 1

Anemometer, Humidity meter, Light Meter, Thermometer, Sound level meter

Model : LM-8102

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FEATURE

1 5 in 1 professional measuring instrument:
Anemometer, Hygrometer, Type K Thermometer, Light meter. Sound level meter.
2 Anemometer use low-friction ball bearing mounted wheel design provides high accuracy.
3 Light meter use exclusive photo diode and color correction filter light sensor, spectrum meets C.I.E. photopic.
4 Type K thermometer use standard type K (NiCr-NiAl) thermocouple input jack suitable for all kinds of type K probe.
5 Humidity meter use high precision humidity sensor with fast response time.
6 Sound level meter's characteristic is simulated as " Human Ear Listing" response, used the " A " frequency weighting and " Fast " time weighting to meet IEC 61672 class 2.
7 Sound level meter can cooperate the external 94 dB sound calibrator and just press the front buttons to make the calibration
8 Built- in microprocessor circuit assures excellent performance and accuracy.
9 Concise and compact buttons arrangement, easy operation.
10 Memorize the maximum and minimum value with recall.
11 Hold function to freeze the current reading value.
12 ℃/℉ detection by pressing button on the front panel.
13 Lux/Feet-candle selection by pressing front button.
14 Air velocity measuring units selection by pressing button on the front panel for five kinds of units.
15 Multi channel display for relative humidity and temperature measured values or air velocity and temperature measured values at the same time.
16 Zero button design makes light meter calibration.
17 Rough housing case suitable for handling with one hand
18 RS232/USB computer data bus

GENERAL SPECIFICATION

Display	LCD display, LCD soze : 41.5 x 31.5 mm.
Measurement 5 in 1	*Anemometer (Air velocity + Temp.)* *Humidity (%RH + Temp.)* *Light* *Thermometer (type K)* *Sound level*
Operating Humidity	Max. 80 %RH.
Operating Temperature	0 to 50° C (32 to 122° F)
Over Input Display	Indication of "- - - - "
Data Output	RS 232/USB PC serial interface. **Connect the optional RS232 cable UPCB-02 will get the RS232 plug.* **Connect the optional USB cable* *USB-01 will get the USB plug.*
Power Supply	DC 1.5 V battery (UM4, AAA) x 6 PCs,
	Or DC 9V adapter input. *@ AC/DC power adapter is optional.*
Power Consumption	Anemometer : Approx. DC 11 mA. Other functions : Approx. DC 7.5 mA.
Weight	335 g/0.74 LB (battery included).

Dimension	HWD 248 x 70 x 34 mm (9.8 x 2.8 x 1.3 inch).
Standard Accessory	Instruction Manual..... 1 PC
Optional Accessories	Carrying case, CA-05A Type K Temperature probe 94 dB sound calibrator, SC-941 Wind shield ball, SB-01 USB cable, USB-01 RS232 cable, UPCB-02 Data Acquisition software, SW-U801-WIN AC to DC power adapter

ELECTRICAL SPECIFICATIONS (23± 5 ℃)

Hygrometer (Humidity/Temp.)

Measurement		*Range*	*Resolution*	
Humidity	%RH	10 to 95 %RH	0.1 %RH	*< 70 %RH :*± 4 %RH ≧*70 %RH :*± (4%rdg+1.2%RH)
	Temperature (Semiconductor)	32 to 122 ℉	0.1 ℉	± 2.5℉
		0 to 50 ℃	0.1 ℃	± 1.2℃

Type K Thermometer

Measurement	*Range*	*Resolution*	*Accuracy*
Temperature (Type K)	-148 to 2372 ℉	0.1 ℉	± (1% rdg + 2℉)
	-100 to 1300 ℃	0.1 ℃	± (1% rdg + 1℃)

Anemometer (Air velocity/Temp.)

Measurement		*Range*	*Resolution*
Air velocity	ft/min	80 to 5910 ft/min	1 ft/min
	m/s	0.4 to 30.0 m/s	0.1 m/s
	km/h	1.4 to 108.0 km/h	0.1 km/h
	MPH	0.9 to 67.0 mile/h	0.1 MPH
	knots	0.8 to 58.3 knots	0.1 knots
	Temperature (Semiconductor)	32 to 122 ℉	0.1 ℉
		0 to 50 ℃	0.1 ℃

Measurement	*Range*	*Accuracy*
Air velocity	80 to 5910 ft/min	≦ 20 m/s : ± 3% F.S. > 20 m/s : ± 4% F.S.
	0.4 to 30.0 m/s	
	1.4 to 108.0 km/h	
	0.9 to 67.0 mile/h	
	0.8 to 58.3 knots	
	32 to 122 ℉	± 2.5 ℉
	0 to 50 ℃	± 1.2 ℃
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*		

Light ***Ft-cd : feet candle*

Measurement		*Range*	*Resolution*	*Accuracy*
Light ** auto range*	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	
Temperature (Type K)		-148 to 2372 ℉	0.1 ℉	± (1% rdg + 2℉)
		-100 to 1300 ℃	0.1 ℃	± (1% rdg + 1℃)

Sound Level

Measurement Range	Auto range *35 to 130 dB, 3 ranges :* range 1 - 35 to 80 dB, range 2 - 50 to 100 dB, range 3 - 80 to 130 dB,	
Resolution	0.1 dB.	
Measurement Frequency	31.5 Hz to 8,000 Hz.	
Weighting	Frequency Weighting	Characteristics of " A " frequency weighting network. ** A weighting :* The characteristic is simulated as " Human Ear Listing " response.
	Time Weighting	" Fast " time weighting.
Accuracy *(23± 5 ℃)*	Characteristics of " A " frequency weighting network meet IEC 61672 class 2. Under 94 dB input signal, the accuracy are : 31.5 Hz：± 3.5 dB 63 Hz：± 2.5 dB 125 Hz：± 2.0 dB 250 Hz：± 1.9 dB 500 Hz：± 1.9 dB 1 K Hz：± 1.4 dB 2 K Hz：± 2.6 dB 4 K Hz：± 3.6 dB 8 K Hz：± 5.6 dB	
Calibrator	B & K (Bruel & kjaer), multi-fuction acoustic calibrator, model : 4226.	
Microphone	Electric condenser microphone.	
Size of micropho	1/2 inch standard size.	
Data Hold	Hold function to freeze the display value.	
Optional Accessories	94 dB Sound Calibrator, Model : SC-941	

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

LM8102+1001

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