

*SD card real time data recorder  
PM2.5, CO2, %RH, Temp., Barometer*

# **AIR QUALITY MONITOR/RECORDER**

**Model : PM-1064SD**

**ISO-9001, CE, IEC1010**



**Lutron**

**LUTRON ELECTRONIC**

***The Art of Measurement***

# AIR QUALITY MONITOR/RECORDER

Model : PM-1064SD

## FEATURES

* Monitoring air pollutant source from dust, petrochemical industry, steel-making plant, thermal power plant, restaurant, smoke, burning plants, driving automobiles.
* The meter is a real-time air quality monitor instrument used to monitor the concentration of PM2.5, humidity and temperature in the indoor environment.
* PM2.5 : 0 to 250 $\mu\text{g}/\text{m}^3$ , Humidity : 5 to 95 %RH, Temperature : 0 to 50 $^{\circ}\text{C}/^{\circ}\text{F}$ . CO2 : 0 to 10,000 ppm, Barometer : 10 to 1100 hPa, mmHg, inHg.
* PM2.5 time weighted average reading.
* Data hold, Record(Max,Min)
* Alarm setting with the beeper sound output.
* Health index ( 0-9 ) detection and alarm.
* Built-in clock and Calendar, real time data record with SD memory card, sampling time can be set from 1 second to 3600 seconds. Just slot the SD card into the computer, all the measured values with the time information ( year, month, data, hour, minute, second ) can be downloaded to the Excel directly, then user can make the further data analysis by themselves.
* Manual data record is available, can set the different position(location) No.( 1 to 99 ).
* SD card capacity : 1GB to 32GB.
* Dot matrix LCD display.
* Power by UM3/AA(1.5V) X 6 batteries or DC 9V adapter
* RS232/USB PC computer interface

## SPECIFICATIONS

Circuit	Custom single-chip microprocessor LSI circuit.
Display	LCD Size: 2.18 X 2.87" (55.4 X 72.9 mm). Dot matrix backlit LCD (128 X 240 pixels).
Measurement	PM2.5 : 0 to 250 $\mu\text{g}/\text{m}^3$ , Humidity : 5 to 95 %RH, CO2 : 0 to 10,000 ppm, Barometer : 10 to 1100 hPa, Temperature : 0 to 50 $^{\circ}\text{C}/^{\circ}\text{F}$ .
Over-range	* LCD display show " OL ". * The data save into the Micro SD card will show " 999 " (overleap the decimal point).
Data Hold	Freezes displayed reading.
Memory Recall	Maximum & Minimum value.
Data Recording	SD memory card ( 1 GB to 32 GB ).
Sampling Time	Approx. 1 second.
Data logger	* Real time data logger, saved the data into Micro SD memory card and down load the all the measured value with the time information ( year/month/date/ hour/minute/second ) down load to the Excel. * Sampling time for data logger : Auto: 2 seconds to 3600 seconds. Manual: Push the data logger button once will save data one time. @ Set the sampling time to 0 second. @ Manual mode, can also select the 1 to 99 position. * When the system detects micro SD format does not match with the Machine that will be mandatory for reformatting to ensure that data records can be normal. * Data error no. : $\leq 0.1\%$ no. of total saved data typically.
Data Output USB/RS232	* Computer interface. * Connect the optional USB cable USB-01 will get the USB plug.. * Connect the optional RS232 cable UPCB-02 will get the RS232 plug.
Operating temperature	0 to 50 $^{\circ}\text{C}$ ( 32 to 122 $^{\circ}\text{F}$ ).
Operating humidity	Less than 80% R.H..
Power Supply	* DC 1.5V, AA ( UM-3 ) Battery X 6 PCs (Alkaline or heavy-duty battery). * AC to DC 9V power adapter..
Power consumption	DC 135 mA approximately. Backlight ON approximately DC 150 mA.
Weight	385 g/0.85 LB.
Dimension	164 x 93 x 72 mm ( 6.5 x 3.7 x 2.8 inch ). * Dimension is for the meter only ( without terminals ).
Accessories included	* Instruction manual..... 1 PC * AC to DC 9V power adapter..... 1 PC
Optional Accessories	* SD memory card ( 4 GB ). * USB cable, USB-01. * RS232 cable, UPCB-02. * Data Acquisition software, SW-U801-WIN, SW-E802.

## Electrical SPECIFICATIONS (23 $\pm$ 5 $^{\circ}\text{C}$ )

### PM2.5 ( Particulate matter )

Range	Resolution	Accuracy
0 to 250 $\mu\text{g}/\text{m}^3$	1 $\mu\text{g}/\text{m}^3$	$\pm ( 10 \% \text{ reading} \pm 20 \mu\text{g}/\text{m}^3 )$

### Humidity

Range	Resolution	Accuracy
5 % to 95 %RH	0.1 %RH	< 70 %RH: $\pm 3 \% \text{RH}$

### Temperature

Range	Resolution	Accuracy
0.0 $^{\circ}\text{C}$ to 50.0 $^{\circ}\text{C}$	0.1 $^{\circ}\text{C}$	$\pm 0.8 \text{ }^{\circ}\text{C}$
32.0 $^{\circ}\text{F}$ to 122.0 $^{\circ}\text{F}$	0.1 $^{\circ}\text{F}$	$\pm 1.5 \text{ }^{\circ}\text{F}$

### CO2(Carbon dioxide)

Range	Resolution	Accuracy
0 to 10000 ppm	1 ppm	$\pm 40 \text{ ppm}, \leq 1000 \text{ ppm}$ $\pm ( 50 \text{ ppm} + 3\% \text{ of reading} )$ $> 1000 \text{ ppm} \leq 3000 \text{ ppm}$ $\pm ( 50 \text{ ppm} + 5\% \text{ of reading} )$ $> 3000 \text{ ppm} \leq 10000 \text{ ppm}$ Repeatability: $\pm 20 \text{ ppm}$ $> 3000 \text{ ppm} \leq 10000 \text{ ppm}$

### Barometric pressure ( Barometer )

Unit	Range	Resolution	Accuracy
hPa	10.0 to 999.9	0.1 hPa	$\pm 1.5 \text{ hPa}$
	1000 to 1100	1 hPa	$\pm 2 \text{ hPa}$
mmHg	7.5 to 825.0	0.1mmHg	$\pm 1.2 \text{ mmHg}$
inHg	0.29 to 32.48	0.01inHg	$\pm 0.05 \text{ inHg}$