SD Card real time data recorder, Oxygen
Oxygen in air

O2 METER *+Humidity/Temp.*

Model : O2H-9903SD   *ISO-9001, CE, IEC1010*

O2 probe   Humidity/Temp. probe

LUTRON ELECTRONIC

The Art of Measurement

SD Card real time recorder
O2 METER + Humidity/Temp.
Model : O2H-9903SD

FEATURES

*	Real time recorder, save the data into the SD memory card and can be down load to the Excel, extra software is no need. User can make the further data or graphic analysis by themselves. under the Excel software.
*	At the same time, the SD memory card can record 2 probe's data (%RH/Temp. and O2) along with the time information into the one Excel file at the same time.
*	Manual datalogger is available, during execute the manual datalogger function, it can set the different location no. (position 1 to position 99).
*	Air quality measurement application, multi-function : , O2 (Oxygen in air), Humidity, temperature measurement.
*	O2 range : 0 to 30.0 % x 0.1 %.
*	Humidity range: 10 to 95 %RH.
*	Dew point Temp. and Wet bulb Temp. measurement.
*	Temp. range : 0 to 50.0 ℃, ℃/℉.
*	O2 sensor : Galvanic cell type.
*	Humidity sensor : Precision capacitance sensor
*	Alarm setting with the beeper sound output.
*	Sampling time for data recorder is 2 seconds to 8 hours.
*	Complete set with 2 probes : O2/Temp. probe, Humidity/Temp. probe, main meter and the hard carrying case.
*	Separate probe, easy for remote measurement.
*	Meter can cooperate with 2 GB to 16 GB SD card, SD card is optional.
*	RS232/USB computer interface.
*	Patented.

GENERAL SPECIFICATIONS

Circuit	Custom one-chip of microprocessor LSI circuit.	
Display	LCD size : 52 mm x 38 mm LCD with green backlight (ON/OFF).	
Measurement	O2 (Oxygen in air) Humidity Dew point Temp., Wet bulb Temp. Temperature	
Sensor structure	Humidity	Precision capacitance sensor
	O2	Galvanic cell type
	Temp.	Precision thermistor
Datalogger Sampling Time Setting range	Auto	2 sec to 8 hour 59 min. 59 sec. @ Sampling time can set to 1 second, but memory data may loss.
	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 (Location) no.
Data error no.	0.1% of total saved data max.	
Memory Card	SD memory card. 1 GB to 16 GB.	
Advanced setting @ main setting	* SD memory card Format * Set clock time * Set sampling time * Auto power OFF management * Set beep Sound ON/OFF * Decimal point of SD card setting * Temp. unit setting * Alarm value setting	
Data Hold	Freeze the display reading.	
Memory Recall	Maximum & Minimum value.	
Sampling Time of Display	Approx. 1 second.	
Power Supply	*.Alkaline or heavy duty DC 1.5 V battery (UM3, AA) x 6 PCs, or equivalent. *.DC 9V adapter input. (AC/DC power adapter is optional).	
Power Current	Humidity measure- ment	Normal operation (w/o SD card save data and LCD Backlight is OFF) : Approx. DC 10.5 mA.
		When SD card save the data and LCD Backlight is OFF) : Approx. DC 40 mA.
	O2 measure- ment	Normal operation (w/o SD card save data and LCD Backlight is OFF) : Approx. DC 12.5 mA.
		When SD card save the data and LCD Backlight is OFF) : Approx. DC 42.5 mA.
	*.If LCD backlight on, the power consumption will increase approx. 12 mA.	

Data Output	RS 232/USB PC computer 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.
Operating Temperature	0 to 50 ℃. (32 to 122 ℉).
Operating Humidity	Less than 80% R.H.
Weight	350 g/0.77 LB.
Dimension	Meter : 177 x 68 x 45 mm / Humidity probe : 197 mm in length. / O2 probe : 150 x 38 x 38 mm
Accessories Included	Instruction manual..............................1 PC Hard carrying case, CA-08....................1 PC Humidity probe................................. 1 PC O2 probe.. 1 PC
Optional Accessories	* SD memory card (2 GB) * AC to DC 9V adapter. * USB cable, USB-01. * RS232 cable, UPCB-02. * Data Acquisition software, SW-U801-WIN. * EXCEL Data Acquisition software, SW-E802

ELECTRICAL SPECIFICATIONS (23± 5 ℃)

O2 (Air oxygen)

O2 *Air oxygen		
	Range	0 to 30 %O2.
	Resolution	0.1 %O2.
	Accuracy	± (1 % reading + 0.2 % O2). @ After calibration
	Response time	≦ 15 second @ t 90
	Overload protection	100 %O2.
	Environment pressure range	0.9 to 1.1 atmosphere.
	Expected life time	≧2 years.
	Alarm	If the measurement Air oxygen value < 18.0 %O2, the buzzer will sound for warning.
Temperature	Range	0 ℃ to 50 ℃,32 ℉ to 122 ℉.
	Resolution	0.1 degree
	Accuracy	℃ : ± 0.8 ℃ ℉ : ± 1.5 ℉.

Humidity/Temperature

Humidity	Range	5 % to 95 % R.H.
	Resolution	0.1 % R.H.
	Accuracy	≧70% RH : ± (3% reading + 1% RH). < 70% RH : ± 3% RH.
Temperature	Range	0 ℃ to 50 ℃,32 ℉ to 122 ℉.
	Resolution	0.1 degree
	Accuracy	℃	± 0.8 ℃.
		℉	± 1.5 ℉.

Dew Point Temp. (Humidity)

℃	Range	-25.3 ℃ to 48.9 ℃
	Resolution	0.1 ℃
℉	Range	-13.5 ℉ to 120.1 ℉.
	Resolution	0.1 ℉.

Remark :
* Dew Point display value is calculated from the Humidity/Temp. measurement automatically.
* The Dew Point accuracy is sum accuracy value of Humidity & Temperature measurement..

Wet bulb Temp. (Humidity)

℃	Range	-21.6 ℃ to 50.0 ℃
	Resolution	0.1 ℃
℉	Range	-6.9 ℉ to 122.0 ℉.
	Resolution	0.1 ℉.

Remark :
* Wet bulb display value is calculated from the Humidity/Temp. measurement automatically.
* The Welt bulb accuracy is sum accuracy value of Humidity & Temperature measurement..