

SD card real time recorder , all in one

CO2 METER + Humidity/Temp.

Model : COH-9905SD

ISO-9001, CE, IEC1010



Laboratory Equipment Manufacturer
www.mrclab.com



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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 3 function data (CO2/Temp. , %RH/Temp. /Dew /Wet) 3 group analog data 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 : CO2 (Carbon dioxide), Humidity, temperature measurement.
* CO2 range : 0 to 10,000 ppm x 1 ppm.
* Humidity range: 10 to 95 %RH.
* Dew point Temp. and Wet bulb Temp. measurement.
* Temp. range : 0 to 50.0 °C, °C/°F.
* CO2 sensor : NDIR, long term reliability.
* Humidity sensor : Precision capacitance sensor
* Alarm setting with the beeper sound output.
* Sampling time for data recorder is 2 seconds to 3600 seconds.
* 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 (Dot Matrix) LCD with green backlight (ON/OFF).	
Measurement	CO2 (Carbon dioxide) Humidity Dew point Temp., Wet bulb Temp. Temperature	
Sensor structure	CO2	NDIR * Nondispersive infrared sensor
	Humidity Temp.	Precision capacitance sensor Precision thermistor
Datalogger Sampling Time Setting range	Auto	2 sec to 3600 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.	
Data Hold	Freeze the display reading.	
Memory Recall	Maximum & Minimum value.	
Sampling Time of Display	Approx. 1 second.	
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.	
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	CO2 /Humidity measure- ment	Normal operation (w/o SD card save data and LCD Backlight is OFF) : Approx. DC 80 mA.
		When SD card save the data and LCD Backlight is OFF) : Approx. DC 110 mA.
	* If LCD backlight on, the power consumption will increase approx. 5 mA.	

Operating Temperature	0 to 50 °C. (32 to 122 °F).	
Operating Humidity	Less than 80% R.H.	
Weight	350 g/0.77 LB.	
Dimension	Meter	177 x 68 x 45 mm
Accessories Included	Instruction manual..... 1 PC	
	Hard carrying case, CA-08..... 1 PC	
Optional Accessories	SD memory card (4 GB)	
	AC to DC 9V adapter.	
	USB cable, USB-01.	
	RS232 cable, UPGB-02. Data Acquisition software, SW-U801-WIN.	

Electrical Specifications (23±5 °C)

CO2 (Carbon dioxide)

CO2 (Carbon dioxide) 23 ± 5 °C.	Range	0 to 10,000 ppm	
	Resolution	1 ppm	
	Accuracy	±40 ppm * ≤ 1,000 ppm.	
		±(50ppm +3% of reading) * > 1,000 ppm ≤ 3,000 ppm.	
		±(50ppm +5% of reading) typically * > 3,000 ppm ≤ 10,000 ppm. ,	
Repeatability	± 20 ppm * ≤ 3,000 ppm.		
Temperature	Range	0 °C to 50 °C, 32 °F to 122 °F.	
	Resolution	0.1 degree	
	Accuracy	°C : ±0.8 °C °F : ±1.5 °F.	

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.
Range		0 °C to 50 °C, 32 °F to 122 °F.
Temperature	Resolution	0.1 degree
	Accuracy	°C ±0.8 °C.
		°F ±1.5 °F.

Dew Point Temp. (Humidity)

°C	Range	-25.3 °C to 48.9 °C
	Resolution	0.1 °C
°F	Range	-13.5 °F to 120.1 °F.
	Resolution	0.1 °F.

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)

°C	Range	-21.6 °C to 50.0 °C
	Resolution	0.1 °C
°F	Range	-6.9 °F to 122.0 °F.
	Resolution	0.1 °F.

Remark :

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

@ Above specification tests under the environment RF Field Strength less than 3 V/M & frequency less than 30 MHz only.