

SD card real time recorder  
2000 mbar, differential input

# MANOMETER

Model : PM-9110SD

ISO-9001, CE, IEC1010

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02-2389-0101



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*The Art of Measurement*

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## 2000 mbar MANOMETER

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### FEATURE

- \* Dual & differential input, 2000 mbar max. range.
- \* Application : Industrial, laboratory, heating, ventilation, medical hospital, used for air or not corrosive and not ionized gas.
- \* Sensor is built inside the housing.
- \* Single lugs for pipe connection.
- \* 10 kind display units ( mbar, psi, Kg/cm<sup>2</sup> , mm Hg, inch Hg, meter H<sub>2</sub>O, inch H<sub>2</sub>O, Atmosphere, hpa , kpa ) select by push button on the front panel
- \* Auto shut off saves battery life.
- \* Zero button on the front panel, easy to offset the zero value.
- \* Microprocessor circuit assures maximum possible accuracy, provides special functions and features,
- \* Super large LCD display with contrast adjustment for best viewing angle.
- \* setup extra software, after execute datalogger, just take away the SD card from the meter and plug in the SD card into the computer, it can down load the all the measured value with the time information ( year/month/date/ hour/minute/second ) to the Excel directly, then user can make the further data or graphic analysis by themselves.
- \* SD card capacity : 1 GB to 16 GB.
- \* LCD with green light backlight, easy reading.
- \* It can default auto power off or manual power off.
- \* Data hold, record max. and min. reading.
- \* Microcomputer circuit, high accuracy.
- \* Power by UM3/AA ( 1.5 V ) x 6 batteries or DC 9V adapter.
- \* RS232/USB PC COMPUTER interface.

### GENERAL SPECIFICATION

Circuit	Custom one-chip of microprocessor LSI circuit.	
Display	LCD size : 51 mm x 37 mm LCD with green backlight ( ON/OFF ).	
Display units	psi , inch Hg , inch H <sub>2</sub> O , hPA , KPA, mbar, Kg/cm <sup>2</sup> , mm Hg , meter H <sub>2</sub> O , Atmosphere.	
Measurement Function	Dual & differential input, data hold, zero/relative, memory.	
Zero adjust	Push button on the front panel.	
Sensor	* Sensor is built inside the housing. * Piezoelectric sensor. * Used for dry, non-corrosive and non-ionic air and gas only. * Liquid is prohibited.	
Datalogger Sampling Time Setting range	Auto	1 sec to 8 Hour 59 Minute 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.
Memory Card Advanced setting	SD memory card. 1 GB to 16 GB. * Set clock time (Year/Month/Date, Hour/Minute/ Second ) * Set sampling time * Auto power OFF management	

	<ul style="list-style-type: none"> <li>* Set beep Sound ON/OFF</li> <li>* Decimal point of SD card setting</li> <li>* SD memory card Format</li> </ul>
Data Hold	Freeze the display reading.
Memory Recall	Maximum & Minimum value.
Sampling Time of Display	Approx. 1 second.
Operating Temperature	0 to 50 °C.
Operating Humidity	Less than 85% R.H.
Data Output	RS 232/USB PC computer interface. <ul style="list-style-type: none"> <li>* Connect the optional RS232 cable UPCB-02 will get the RS232 plug.</li> <li>* Connect the optional USB cable USB-01 will get the USB plug.</li> </ul>
Power Supply	<ul style="list-style-type: none"> <li>* Alkaline or heavy duty DC 1.5 V battery ( UM3, AA ) x 6 PCs, or equivalent.</li> <li>* DC 9V adapter input. ( AC/DC power adapter is optional ).</li> </ul>
Power Current	<p>Normal operation ( w/o SD card save data and LCD Backlight is OFF ) : Approx. DC 7 mA.</p> <p>When SD card save the data and LCD Backlight is OFF ) : Approx. DC 25 mA.</p> <p>* If LCD backlight on, the power consumption will increase approx. 10 mA</p>
Weight	265 g/0.59 LB.
Dimension	190 x 68 x 45 mm (7.5 x 2.7x 1.8 inch)
Accessories Included	<ul style="list-style-type: none"> <li>* Instruction manual. 1 PC.</li> <li>* Hard carrying case. 1 PC.</li> <li>* PLug for quick coupler. 2 PCs.</li> </ul>
Optional Accessories	SD memory card ( 4 GB ) AC to DC 9V adapter. USB cable, USB-01. RS232 cable, UPCB-02. Data Acquisition software,SW-U801-WIN.

### ELECTRICAL SPECIFICATIONS (23± 5 °C)

Unit	Max. range	Resolution
mbar	±2000 mbar	1 mbar
psi	±29 psi	0.01 psi
Kg/cm <sup>2</sup>	±2.04 Kg/cm <sup>2</sup>	0.001 Kg/cm <sup>2</sup>
mm Hg	±1500 mm Hg	1 mm Hg
inch Hg	±59.05 inch Hg	0.02 inch Hg
meter H2O	±20.4 meter H2O	0.01 meter H2O
h PA	±2000 h PA	1 h PA
K PA	±200 K PA	0.1 K PA
inch H2O	±802 inch H2O	0.5 inch H2O
Atmosphere	±1.974 Atmosphere	0.001 Atmosphere

**Accuracy** ± 2 % F.S.

Note :

\* 23 ± 5 °C .

\* F.S. : full scale

\* Included linearity, hysteresis and repeatability

**Remark :**

Measuring unit	Display unit
psi	PSI
inch Hg	in Hg
inch H2O	in H2O
h PA	h PA
KPA	_PA

mbar	- bAr
Kg/cm <sup>2</sup>	<u>g</u> C2
mm Hg	- - Hg
meter H2O	- - H2O
Atmosphere	AtP

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

PM-9110SD+2005

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