

*SD card real time data logger*

*Two channels for Pt 100 ohm input , Pt 1, Pt 2, Pt 1-Pt 2*

# PRECISION THERMOMETER

## LED display

**Model : TM-9027SD**

*ISO-9001, CE, IEC1010*



100 ohm  
Temp. probe  
TP-100 ( optional )



**LUTRON ELECTRONIC**

*The Art of Measurement*

# SD Card real time data logger

## Two channels for PT 100 ohm input

# PRECISION THERMOMETER, LED display

### Model : TM-9027SD

#### FEATURES

* Pt 100 ohm, measurement .
* Pt 100 ohm : -199.99 to 850.00 °C.
* °C/°F, 0.01 degree / 0.1 degree / 1 degree.
* 2 channels ( Pt 1, Pt 2, Pt 1- Pt 2 ).
* Microcomputer circuit provides intelligent function and high accuracy.
* Offset adjustment for the Pt 100 measurement.
* Measuring unit can select to °C or °F.
* Real time SD memory card Datalogger, it Built-in Clock and Calendar, real time data recorder, sampling time set from 1 second to 3600 seconds.
* Manual datalogger is available ( set the sampling time to 0 second ), during execute the manual datalogger function, it can set the different position ( location ) No. ( position 1 to position 99 ).
* Innovation and easy operation, computer is not need to 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.
* 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.
* Heavy duty & compact housing case.

#### GENERAL SPECIFICATIONS

Circuit	Custom one-chip of microprocessor LSI circuit.	
Display	4 digits red LED, 14 mm (0.55 inch) digit height.	
Function	Pt1, Pt2, Pt1- Pt2 .	
Sensor type	Pt 100 ohm probe , 4 wires * Cooperate with an 0.00385 alpha coefficient, meet DIN IEC 751.	
Resolution	0.01°C/0.1°C/1°C, 0.01°F/ 0.1°F/1 °F.	
Datalogger	Auto	1,2,5,10,30,60,120,300,600,1800, 3600 seconds @ Sampling time can set to 1 second, but memory data may loss.
Sampling Time Setting range	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	* Set clock time ( Year/Month/Date, Hour/Minute/ Second ) * Set sampling time * Auto power OFF management * Set beep Sound ON/OFF * Decimal point of SD card setting * SD memory card Format * Set temperature unit to °C or °F	

Linear Compensation	Linear Compensation for the full range.
Offset Adjustment	Available for Pt 100 ohm.
Probe Input Socket	Pt 100 ohm : 4 DIN socket.
Over Indication	Show " - - - - ".
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 off	Auto shut off saves battery life or manual off by push button.
Operating Temperature	-20 ~ 50 °C
Operating Humidity	Less than 85% R.H.
Power Supply	* Batteries : ( UM3, AA ) x 6 PCs, or equivalent. * AC/DC power adapter ( adapter is optional ).
Power Current	Normal operation ( w/o SD card save data ) : Approx. DC 24 mA. When SD card save the data ) : Approx. DC 50 mA. * AC/DC power adapter is optional. consumption will increase approx. 14 mA.
Weight	278 g/0.61 LB ( meter only ).
Dimension	177 x 68 x 45 mm (7.0 x 2.7x 1.9 inch)
Accessories Included	* Instruction manual.....1 PCS
Optional Accessories	* Pt 100 ohm probe, TP-100. * SD Card ( 4 GB ) * USB cable, USB-01. * RS232 cable, UPCB-02. * Data Acquisition software, SW-U801-WIN., SW-E802. * AC to DC 9V adapter. * Hard carrying case, CA-06. * Soft carrying case, CA-05A.

#### ELECTRICAL SPECIFICATIONS (23±5 °C) PT 100 ohm

Resolution	Range	Accuracy
0.01 °C	-19.99 to 99.99 °C	± ( 0.4 % + 1 °C )
0.1 °C	-199.9 to -20.0°C 100.0 to 850.0 °C	
0.01 °F	-19.9 to 99.99 °F	± ( 0.4 % + 1.8 °F )
0.1 °F	-199.9 to -20.0 °F 100.0 to 999.9 °F	
1 °F	-327 to -200 °F 1000 to 1562 °F	

\* Pt 100 ohm probe TP-100 is the optional accessory.  
\* Above specification tests under the environment RF Field Strength less than 3 V/M & frequency less than 30 MHz only.

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