

*Type K/J, Pt 100 ohm, RS-232, Data logger*  
**4 channels THERMOMETER**

**Model : TM-946**

*ISO-9001, CE, IEC1010*



## FEATURES

- \* Type K/J, Pt 100 ohm, 4 display.
- \* 4 channels ( T1, T2, T3, T4 ),  
T1-T2 for Type K, Type J.
- \* 2 channels ( PT1, PT2 ) for  
Pt 100 ohm.
- \* Type K : -199.9 to 1370 °C.
- \* Type J : -199.9 to 1210 °C.
- \* Pt 100 ohm : -199.9 to 850 °C.
- \* °C/°F, 0.1 degree/1 degree.
- \* Data hold, Record ( max., min. ).
- \* RS-232 interface.
- \* Data logger, 16,000 data point.
- \* DC 1.5V ( UM-4, AAA ) battery  
x 6 or DC 9V adapter in.



**LUTRON ELECTRONIC**

***The Art of Measurement***

T1, T2, T3, T4, T1-T2, Type J/K, Pt 100 ohm

# 4 CHANNELS THERMOMETER

Model : TM-946

## FEATURES

* Type K/J, Pt 100 ohm, measurement with 4 display.
* Show 4 channels display on the LCD at the same time.
* Type K : -199.9 to 1370 °C.
* Type J : -199.9 to 1210 °C.
* Pt 100 ohm : -199.9 to 850 °C.
* °C/°F, 0.1 degree/1 degree.
* 4 channels ( T1, T2, T3, T4 ), T1-T2.
* Microcomputer circuit provides intelligent function and high accuracy.
* Manual and auto data logger, with flexible sampling time selection, can save max. 16,000 reading data.
* Records Maximum and Minimum readings with recall.
* Data hold function for freezing the desired value.
* Offset adjustment for the Type K and Type J measurement.
* Offset adjustment for the Pt 100 measurement.
* Measuring unit can select to °C or °F.
* DC 1.5V ( UM-4, AAA ) battery x 6 PCs.
* Build in the input socket for DC 9V power adapter.
* RS232 PC serial interface.
* Few panel buttons, easy operation.
* Built-in low battery indicator.
* Heavy duty & compact housing case.

## GENERAL SPECIFICATIONS

Circuit	Custom one-chip of microprocessor LSI circuit.	
Display	LCD size : 52 mm x 38 mm * <i>Show 4 channels display on the display at the same time.</i>	
Display Unit	°C, °F.	
Resolution	0.1 °C, 0.1 °F.	
Channels	T1, T2, T3, T4, T1-T2.	
Sensor type	Type K thermocouple probe. Type J thermocouple probe. PT 100 ohm probe * <i>Cooperate with an 0.00385 alpha coefficient, meet DIN IEC 751.</i>	
Sampling Time of Data Logger	Manual	Push the data logger button once will save data one time. * <i>Set the sampling to 0 second.</i>
	Auto	1 second to 59 minutes and 59 seconds.
Data Logger number	Max. 16,000-point Data logger	
	Type K, Type J, 4 channels ( T1, T2, T3, T4 ) * <i>Memory use 4 data point space in the memory.</i>	
	Pt 100 ohm, 2 channels ( T1,T2 ) * <i>Memory use 2 data point space in the memory.</i>	
	T1-T2 * <i>Memory use 4 data point space in the memory.</i>	
Temperature Compensation	Automatic temp. compensation for the cold junction both type K/J thermometer	
Linear Compensation	Linear Compensation for the full range.	
Offset, Span Adjustment	Available for advanced calibration procedure.	
Probe Input Socket	Type K, Type J : 2 pin thermocouple socket. Pt 100 ohm : Ear phone socket.	

Over Indication	Show " - - - - - ".
Data Hold	Freeze the display reading.
Memory Recall	Maximum & Minimum value.
Sampling Time of display	Approx. 1 second.
Power off	Auto shut off saves battery life or manual off by push button.
Data Output	RS 232 PC serial interface.
Operating Temperature	0 to 50 °C.
Operating Humidity	Less than 80% R.H.
Power Supply	DC 1.5 V battery ( UM4, AAA ) x 6 PCs, or equivalent.
	DC 9V adapter input. * <i>AC/DC power adapter is optional.</i>
Power Current	Approx. DC 9 mA.
Weight	310 g/0.68 lb.
Dimension	174 x 68 x 42 mm ( 6.9 x 2.7 x 1.7 inch ).
Accessories Included	Instruction manual..... 1 PC
Optional Accessories	* Type K thermocouple probe. TP-01, TP-02A. TP-03, TP-04 * Pt 100 ohm probe, TP-101. * AC to DC 9V adapter. * RS232 cable, UPCB-02. * USB cable, USB-01 * Data Acquisition software, SW-U801 * Data Logger software, SW-DL2005. * Soft carrying case, CA-05A. * Hard carrying case, CA-06.

## ELECTRICAL SPECIFICATIONS (23±5 °C)

### Type K, Type J thermocouple

Sensor Type	Resolution	Range	Accuracy
Type K	1 °C	1000 to 1370.0 °C	± ( 0.5 % + 1 °C )
	0.1 °C	-199.9 to 999.9 °C	
	1 °F	1000 to 2498 °F	± ( 0.5 % + 1.8 °F )
	0.1 °F	-199.9 to 999.9 °F	
Type J	1 °C	1000 to 1210 °C	± ( 0.5 % + 1 °C )
	0.1 °C	-199.9 to 999.9 °C	
	1 °F	1000 to 2210 °F	± ( 0.5 % + 1.8 °F )
	0.1 °F	-199.9 to 999.9 °F	
* Accuracy value is specified for the meter only.			
* Type K probe TP-01 TP-02A, TP-03. TP-04 are the optional accessories.			

### PT 100 ohm

Resolution	Range	Accuracy
0.1 °C	-199.9 to 850 °C	± ( 0.4 % + 1 °C )
1 °F	1000 to 1562 °F	± ( 0.4 % + 1.8 °F )
0.1 °F	-199.9 to 999.9 °F	
1 °F	-200 to -327 °F	
* Pt 100 ohm probe TP-101 is the optional accessory.		

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

0606-TM946