



High Temp. + Type K/J/R/E/T

Infrared THERMOMETER

Model : TM-939

FEATURES	
* -20 °C to 650 °C Wide range IR temperature measurement.	* Data hold function for stored the desired value on display.
* Infrared thermometer, non-contact temperature measurement, -20 °C to 650 °C (-4 °F to 1202 °F), precision for none contact temperature measurement.	* Memory function to record the maximum & minimum reading with recall.
* Emissivity adjustment for IR thermometer.	* Build the REL button, useful for relative measurement.
* Laser guide for IR thermometer.	* Sensor select button on the front panel, easy to change different type probe.
* 2 in 1, Infrared thermometer + Thermocouple (Type K/J/T/E/R) thermometer.	* RS 232 data output, easy cooperate with computer.
* Thermocouple probe accepts 5 different types : type K, type J, type T, type E, type R.	* Optional data acquisition software for data record.
* Microcomputer circuit with high performance.	* Auto power shut off saves battery life.
* Build in °C & °F select button on the front panel.	* Built-in low battery indicator.
	* Heavy duty & compact housing case with stand.
	* 006P DC 9V battery power supply.

GENERAL SPECIFICATIONS			
Display	51 mm x 32 mm supper large LCD display, 15 mm (0.6") digit size.	Memory Recall	Memorize the Maximum, Minimum reading with recall.
Measurement	1. Infrared thermometer (Non contact temperature measurement)	Offset Adjustment	For thermocouple thermometer offset adjustment by pushing button on front panel.
	2. Thermocouple probe, type K/J/T/E/R	Over Indication	Show " - - - - ".
Functions	°C, °F, Data hold, Memory (Max., Min.), Relative measurement, Emissivity adjustment (IR thermometer).	Data Output	RS232 PC serial interface.
Resolution	1 degree or 0.1 degree.	Power Supply	Alkaline or heavy duty type, DC 9V battery, 006P, MN1604 (PP3) or equivalent.
Circuit	Exclusive microcomputer circuit, the software build in linearity correction instead the traditional hardware circuit.	Power Consumption	Approx. DC 10 mA (laser guide off). Approx. DC 19 mA (with laser light on). * Above consumption value is calculated under the function of IR thermometer.
IR Emissivity Adjustment	Range : 0.20 to 1.00. Adjustment by pushing button on front panel.	Operating Temperature	0 to 50 °C (32 to 122 °F).
IR Sensor	Thermocouple pie.	Operating Humidity	Less than 80% RH.
IR Measure Wave Length Region	6 to 12 micro meter.	Weight	220 g/0.48 LB.
IR Distance Factor	D/S ratio : Approx. 7 : 1. * D - Distance, S - Spot.	Dimension	HWD 220 x 68 x 30 mm (8.7 x 2.7 x 1.2 inch).
Laser Guide	Red laser light, less than 1 mW, Meet EN60825	Standard Accessory	Operational manual.....1 PC.
Probe Input Socket	Thermocouple probe : Standard 2 pin thermocouple socket.	Optional accessories & temp. probe	* Temperature probe : TP-01, TP-02A, TP-03, TP-04 * Carrying case, Model : CA-06, CA-03. * RS232 cable, Model : UPCB-02 * Application software, windows version. Model : SW-U801-WIN
Sampling Time	Approx. 1 second.		
Hold Function	To freeze the display reading value.		

MEASURING RANGE/ RESOLUTION							
Type	Resolution	Range	Accuracy	Type	Resolution	Range	Accuracy
Infrared thermometer	1 °C	-20 °C to 650 °C	-20 °C to 400 °C ;	Thermocouple type T	0.1 °C	-100.0 to -50.0 °C	± (0.2%+1°C)
	1 °F	-4 °F to 1202 °F	± 3% of reading or ± 3°C (5°F)		0.1 °C	-49.9 to 400.0 °C	± (0.2%+0.5°C)
			> 400 °C ;		0.1 °F	-148.0 to -58.0 °F	± (0.2%+1.8°F)
			± 3% of reading		0.1 °F	-57.9 to 752.0 °F	± (0.2%+1°F)
Thermocouple type K	0.1 °C	-100.0 to -50.0 °C	± (0.2%+1°C)	Thermocouple type E	0.1 °C	-100.0 to -50.0 °C	± (0.2%+1.3°C)
	0.1 °C	-49.9 to 1300.0 °C	± (0.2%+0.5°C)		0.1 °C	-49.9 to 900.0 °C	± (0.2%+0.8°C)
	0.1 °F	-148.0 to -58.0 °F	± (0.2%+1.8°F)		0.1 °F	-148.0 to -58.0 °F	± (0.2%+2.8°F)
	0.1 °F	-57.9 to 2372.0 °F	± (0.2%+1°F)		0.1 °F	-57.9 to 1652.0 °F	± (0.2%+2°F)
Thermocouple type J	0.1 °C	-100.0 to -50.0 °C	± (0.2%+1°C)	Thermocouple type R	1 °C	0 to 600 °C	± (1%+5°C)
	0.1 °C	-49.9 to 1150.0 °C	± (0.2%+0.5°C)		1 °F	601 to 1700 °C	± (1.5%+5°C)
	0.1 °F	-148.0 to -58.0 °F	± (0.2%+1.8°F)			32 to 1112 °F	± (1%+10°F)
	0.1 °F	-57.9 to 2102.0 °F	± (0.2%+1°F)			1113 to 3092 °F	± (1.5%+10°F)

OPTIONAL TEMPERATURE PROBE & OTHER ACCESSORIES	
Carrying Case, CA-06	Model : CA-06, Hard carrying case
Carrying Case, CA-03	Model : CA-03, Vinyl soft carrying case.
Thermocouple Probe (Type K) TP-01	Measure Range : -40 °C to 250 °C, -40 °F to 482 °F. Ultra fast response naked-bead thermocouple, general purpose application.
Thermocouple Probe (Type K) , TP-02A	Measure Range : -50 °C to 900 °C, -50 °F to 1650 °F. Dimension: 10 cm tube, 3.2 mm Dia.
Thermocouple Probe (Type K) , TP-03	Measure Range : -50 °C to 1200 °C, -50 °F to 2200 °F. Dimension: 10 cm tube, 8 mm Dia.
Surface Probe (Type K) , TP-04	Measure Range : -50 °C to 400 °C, -50 °F to 752 °F. Size : Temp. sensing head - 15 mm Dia. Probe length - 120 mm.
RS232 cable, UPCB-02	RS232 cable for connecting between the meter & the computer.
Application Software, SW-U801-WIN	Windows software apply as the performance of data logging system & data recorder...

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

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