

IR2-S Infrared Thermometer w/ laser and probe Instructions

For Model with probe socket

The thermometer is a non-contact infrared thermometer. There are many mathematical modes for the Infrared function. Please remember to keep away from children and don't use it for safety related applications.



(Default Screen)

Simply aim the thermometer at the measure target with Lens (O) and press Meas. key (G) to display the surface temperature. The Distance:Spot is 16:1. Please make sure the target area is within the field of view.

- 1. WHEN DEVICE IS IN USE, DO NOT LOOK DIRECTLY INTO THE LASER BEAM-PERMANENT EYE DAMAGE MAY RESULT.
- 2. USE EXTREME CAUTION WHEN OPERATING THE LASER.
- 3. NEVER POINT THE DEVICE TOWARDS ANYONE'S EYES.
- 4. KEEP OUT OF REACH OF ALL CHILDREN.

- △ Caution: To avoid electric shock and thermometer damage, do not measure live circuit where voltage exceeding 24V AC RMS or 60V DC with the thermocouple probe.
- ▲ EMC/RFI:Readings may be affected if the unit is operated within radio frequency electromagnetic field strength of approximately 3 volts per meter, but the performance of the instrument will not be permanently affected.



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[▲] Caution: The measure range is for thermometer only. User should choose proper probe types for different kinds of application. Please make sure the target to be measured will not exceed the temperature range of the probe to avoid permanent damage of the thermocouple probe.



FUNCTION

Press Mode key (④) for scrolling more display function as follows.

-E	Here will show the emissivity data. (The default emissivity is 0.95.)			
	Press Mode key (④) , then press Up key (②) or Down key (③) to set the			
∧E♥	emissivity , then press Mode key (\circledast) to confirm it. The emissivity can be			
	changed from 0.10 (10E) to 1 (100E).			
M <u>A</u> X	Press Mode key (④) for the Maximum (MAX), Minimum (MIN), Different			
MIN	between MAX and MIN (DIF) and Average (AVG) modes. During the			
dIF-	measurement, the special modes reading will be displayed beside the			
RIG (mode icon.			
_HAL	Press Up key (\Im) or Down key (\Im) key to change the High Alarm (HAL) or			
J	Lo Alarm (LAL), then press Meas. key (6) to confirm it. For example: When			
LAL	the reading 26.9 °C < LAL 27 °C, the Low icon will flash and you will hear a			
	beep sound.			
	Connect the thermocouple with Thermocouple socket (5) and put the probe			
PR]	in/on the target, the thermometer will display the temperature automatically			
	without pressing any button. To see the minimum or maximum data during			
	the probe measurement, please hold down the Up key (\mathfrak{D}) or Down key (\mathfrak{T}).			
	m m m A After measure high temp, the probe may remain HOT for a while.			
** The thermometer will automatically shut off if left idle for more than 60sec, unless in				

PRB mode. (In PRB mode, it will shut off if left idle for more than 12 minutes.)

ADD VALUE

	Press Up key (\mathcal{O}) for LOCK mode ON/OFF. The lock mode is		
In E,MAX, MIN,	particularly useful for continuous monitoring of temperatures for up to		
DIF, AVG mode:	60 minutes.		
	Press Down key (3) for °C or °F transferred.		
In all modes	and press Up key (②) for backlight		
First hold on the	function ON/OFF.		
Meas key (6)	and press Down key (③) for laser		
	function ON/OFF.		

STORAGE & CLEANING The thermometer should be stored at room temperature between -20 to +65 °C (-4~149°F).

The sensor lens is the most delicate part of the thermometer. The lens should be kept clean at all times, care should be taken when cleaning the lens using only a soft cloth or cotton swab with water or medical alcohol. Allowing the lens to fully dry before using the thermometer. Do not submerge any part of the thermometer.



LCD ERROR MESSAGES

The thermometer incorporates visual diagnostic messages as follows:



'Hi' or 'Lo' is displayed when the temperature being measured is outside of the settings of HAL and LAL.

'Er2' is displayed when the thermometer is exposed to rapid changes in the ambient temperature. 'Er3' is displayed when the ambient temperature exceeds 0°C (32°F) or +50°C (122°F). The thermometer should be allowed plenty of time (minimum 30 minutes) to stabilize to the working/room temperature. **Error 5~9**, for all other error messages it is necessary to reset the thermometer. To reset it, turn the instrument off, remove the battery and wait for a minimum of one minute, reinsert the battery and turn on. If the error message remains please contact the Service Department for further assistance.

'Hi' or 'Lo' is displayed when the temperature being measured is outside of the measurement range.

BATTERIES

The thermometer incorporates visual low battery indication as follows:







'Battery OK': measurements are possible 'Battery Low': battery needs to be replaced, measurements are still possible

'Battery Exhausted': measurements are not possible

A When the 'Low Battery' icon indicates the battery is low, the battery should be replaced immediately with AAA, 1.5V batteries. Please note: It is important to turn the instrument off before replacing the battery otherwise the thermometer may malfunction.

A Dispose of used battery promptly and keep away from children.

SPECIFICATION			
Item	Non-contact Infrared Scan function	Thermocouple Probe Scan function (K type; probe not included.)	
Measurement Range	-60 to +625 °C (-76 to +1157 °F)	-64 to +1400°C (-83.2 to +1999°F)	
Operating Range	0 to +50°C (32 to +122°F)		
Accuracy (Tobj=15~35°C, Tamb=25°C)	±1.0°C (1.8°F)	+/-1% of reading or 1°C (1.8°F) whichever is greater (Test under Tamb= $23\pm6^{\circ}$ C)	
Accuracy(Tamb=23±3°C)	Tobj=0~625°C:+/-2% of reading or 2°C (4°F) whichever is greater, Tobj= -60~0°C: +/-(2°C+0.05/degree)		
Emissivity Range	0.95 default – adjustable 0.1 to 1 step .01		
Resolution (-9.9~199.9°C) 0.1°C/0.1°F			
Response Time (90%)	1sec		
Distance:Spot	16:1(90% energy covered)		
Battery Life	Typ.180, min 140 hours continuous use (Alkaline, without Laser and Back Light.)		
Dimensions	46.0 x 143.0 x 184.8mm(1.81×5.63×7.28 inch)		
Weight	240 grams(8.5 oz) including batteries (AAA*2pcs)		
Note: Under the electromagnetic	field of 3V/m from 200 to 600 MHz, the maximum error is	s 10 °C (18 °F).	

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