

Cat.No.8266-00

## Infrared Thermometer Model SK-8940

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Measuring range is -40 to 500°C. This model is ideal for various applications; 10:1 Distance to spot ratio and adjustable emissivity between 0.30 and 1.00 in 0.01. The laser marker can instantly identify the target.

### FEATURES

- Instant surface temperature measurement:  
The advantage of the non-contact infrared method is quick-response measurement. And the single-hand-held unit allows easy operation by using the trigger type measurement button.
- Non-contact and clean measurement:  
Ideal for food processing industries where clean and hygienic measurement is required
- Fine emissivity setting:  
Emissivity can be set in increment of 0.01 within the range of 0.30 and 1.00.
- Easily visible measurement spot:  
With the laser marker on, a laser sighting is output to instantly identify the measured spot.
- LCD with backlighting:  
The backlit LCD facilitates reading even in dark places.

- Auto power off function:  
The power will be automatically turned off if the unit has not been operated for about five seconds, thus conserving battery power if you forget to turn the power off.
- Wide range of temperature:  
A wide range of temperature from -40 to 500°C
- Auto Hold function:  
A measured value is automatically held (fixed) for about six seconds.

## SPECIFICATIONS

Model	SK-8940
Measuring range	-40 to 500°C
Accuracy	± 2°C or ± 2% rdg at -19.9 to 450.0°C
	± 4°C or ± 4%rdg at -40.0 to 20.0°C or -451.0 to 500.0°C
	(conditions) Ambient temperature at 23°C ± 5°C calibrated by black body emissivity at 0.95
Resolution	1°C at higher than 100°C 0.1°C at other than above
Emissivity (*1)	Adjustable at 0.01 within 0.30 and 1.00
Distance to spot ratio (*2)	10 : 1
Sensor	Thermopile
Spectral response (*3)	8 to 14µm
Response time	0.5 second
Laser sighting	1 point, Class II Laser (use less than 1mW of power)
Wave length	650 nm
Output	less than 1mW
Operating ambient	0 to 50°C for temperature less than 80%rh for humidity (no condensing)
Storage ambient	-20 to 50°C for temperature less than 90%rh for humidity (no condensing)
Power requirement	9VDC battery x 1
Power consumption	max. 40mA (when Laser ON)
Battery Life	approx. 5 hours (Laser & Backlight ON) approx. 12 hours (Laser ON & Backlight OFF) approx. 8 hours (Laser OFF & Backlight ON) approx. 55 hours (Laser & Backlight OFF)

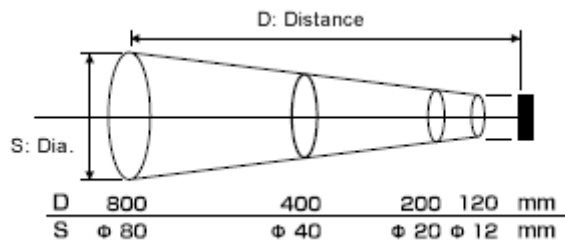
Functions	Adjustable emissivity Backlight ON/OFF Laser marker ON/OFF Auto power off Auto hold
Dimensions	(W) 45 x (H) 157 x (D) 80 mm
Weight	approx. 151 g (with battery)
Materials	Unit: ABS resin
Standard accessories	9V battery x 2 (one is factory set), Hand straps, Soft pouch

**(\*1) Emissivity:**

An object's ability to emit or absorb energy. Perfect emitters have an emissivity of 1. An object with emissivity of 0.8 absorbs 80% and reflects 20% of the incidental energy. Emissivity may vary with temperature and spectral response (wavelength).

**(\*2) Distance to spot ratio (D:S)**

The infrared thermometer focuses infrared energy from an object onto its detector at the rate. 10:1 distance to spot ratio means that the infrared thermometer will read 50mm diameter area 500mm away. For higher accuracy, make sure the area of the object is at least twice as large as the spot being measured



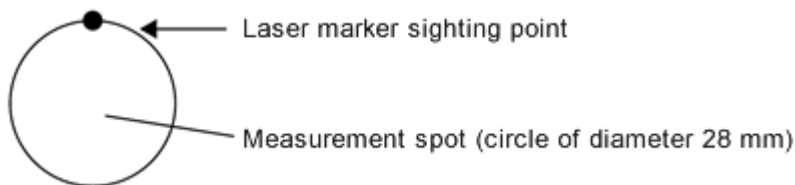
**(\*3) Spectral Response:**

The specific wavelength region where an infrared thermometer responds (in the 0.7 to 20μm band of the electromagnetic spectrum). Instrument response is dependent on the emissivity, reflectance, and the transmission of infrared energy.



**Positional Relation between Distance and Sighting Point**

This is a one-point laser-sighting thermometer. The laser mark is sighted approximately 14 mm above the center of the spot.

(When the distance is approximately 280 mm)



When the measurement distance is approximately 280 mm, the laser marker is output aiming at the point illustrated above. Refer to the figure as a guide.

	<p><b>Cautions on safety</b></p> <p>Read this manual thoroughly before using and keep it in a safe place for future references.</p>		<p>It is dangerous if the laser beam gets into an eye. (Max. 1.0mW 650nm Class II Laser Product)</p>
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