

IR and Rod Thermometer Model SPK3 with Laser

Take temps in-close or at-range. Point the laser for 8:1 IR (infrared) temperatures or push the rod through ducts for dry bulb air temperatures. T1-T2 mode works across both IR and Rod modes.

Features

- Use for walk around or in-duct checks.
- Max/min, Hold, and T1-T2 functions.
- Hangs from duct walls or air register fins.
- Sharp, narrow tip for insertion into duct work.
- Display flips (IR/ROD) for easy viewing.
- Clips to your pocket or bag.
- Backlight and laser sight.



Specifications

Probe length:	94mm (~3.75") long
Operating environment:	32°F to 104°F (<90% RH)
Storage environment:	14°F to 140°F (<70% RH)
Battery:	2 x AAA (installed)
Battery life (alkaline):	40 hrs (IR), 750 hrs (ROD)
Auto-off:	3 min, 15 min (T1-T2 mode)
IR range:	-20°F to 932°F (-30°C to 500°C)
Best resolution:	0.5°F/0.2°C
Accuracy:	±4°F(±2°C),(-20°F to 32°F); ±3°F(±1.5°C),(32°F to 50°F); ±2°F(±1°C),(50°F to 104°F); ±3°F(±1.5°C) or 1.5% of rdg, whichever is greater, (104°F to 932°F)
Field of view (D:S):	8:1
Response time:	0.5 seconds
Wavelength:	8µm to 14µm
Emissivity:	E=0.95
Rod range:	-40°F to 257°F (-40°C to 125°C)
Best resolution:	0.1°F/0.1°C
Accuracy:	±1°F(±0.5°C), (32°F to 122°F); ±2°F(±1.0°C), (<32°F, >122°F)
Response time:	20 seconds

WARNING:
Cancer and Reproductive Harm
www.P65Warnings.ca.gov

Fieldpiece
Designed in USA

Model: SPK3 H27-691



MADE IN CHINA

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IR and Rod Thermometer w/Laser Model SPK3



Tools HVACR Pros Trust

- 8:1 Infrared
- Backlight
- T1-T2,Max/min
- Hanging Hook
- 2 AAA Batteries

Piercing Rod and IR



Description

Use the SPK3 IR and Rod Thermometer to quickly measure surface temperatures or to check the dry bulb inside duct work. It has an 8:1 field of view which means at 16 feet away, you are seeing the average temperature of a 2 foot circle. The backlit display automatically flips in ROD mode for hanging on duct walls.

WARNING

Never point the laser towards the eyes as permanent eye damage may occur.

Use extreme caution when using the laser.

Keep out of the reach of children.

Be careful around mirror surfaces since mirrors can reflect the laser. Looking into the reflected laser is just as damaging as looking directly at the laser.



Operation

Press MEAS/HOLD to power-on into IR mode.

Press ROD to flip the display and view probe temp.

There is no OFF button. Your SPK3 will turn off automatically after 3 minutes (15 min in T1-T2 mode.)

IR (Infrared) Mode

1. Hold the MEAS button while aiming the sensor at the surface you want to measure.
2. The surface temperature will automatically be held on the display when MEAS is released.

ROD (Thermistor) Mode

1. Display flips so it can be seen when hanging.
2. Press MEAS/HOLD to freeze the display.

T1-T2 (Works between both IR and ROD)

1. Press T1-T2 to view T1.

Note: You must hold MEAS if in IR mode.

2. Press T1-T2 to lock in T1 and switch to T2.
3. Press T1-T2 to lock in T2 and view T1-T2.
4. Hold T1-T2 to exit.

Units

Hold T1-T2 and M/m to toggle °F and °C.

Max/min

1. Press M/m to begin recording maximum and minimum values.
2. Press M/m to cycle through maximum, minimum, and real-time (MAXMIN blinks) values.
3. Hold M/m to clear recorded values and exit.

Battery Replacement

When your meter's battery is low, the laser and LCD brightness will dim. "Lob" will display and meter will power off. Open the bottom battery cover with a mini screwdriver and replace the 2 AAA batteries.

Infrared Test Tips

The infrared sensor is very sensitive to ambient temperature changes. For best accuracy, do not quickly go from a hot truck to a cold basement. It also helps to keep hands away from sensor.

When something is hot, it radiates infrared (IR) energy. The SPK3 collects infrared energy from a circular viewing area and measures the total amount of energy collected. The SPK3 converts the total energy measured to a temperature. Distance doesn't matter because the further you go from the target, the increase in area "seen" by the sensor exactly balances the loss of energy collected from a given area. If you want to get the temperature of something small, such as a pipe, you must get close enough so the pipe takes up the whole viewing area circle. Otherwise the pipe and the background temperatures will be averaged into the reading. Though for best results, it's best to measure from at least 1 foot (30cm) of your target.

The accuracy of many infrared temperature measuring systems is adversely affected by ambient temperature. You need to be aware that if the target surface is reflective enough, it may reflect infrared from other objects. For example, if you take a reading of a shiny metal surface, the infrared energy of your face may reflect enough energy off the surface to affect the reading.

"Emissivity" of the target surface also affects the temperature reading. For a given temperature, the higher the emissivity, the higher the reading. The lower the emissivity, the lower the reading. Emissivity of a surface indicates how easy it is for the infrared to get out. Emissivity for a dull, black surface is high (nearly 100%) so it's easy for the infrared to get out. Emissivity for a shiny surface can be much lower. If the emissivity is low, the measured temperature will be lower than actual. For relative readings of the same kind of surface, this isn't a problem. For some applications, it may be necessary to spray dull, black paint on the target to insure a more accurate reading. For best accuracy use contact sensors (thermocouples, thermistors, etc.) anytime you take a temperature measurement. Infrared instruments should only be used when you aren't able to touch the surface to be measured.

Limited Warranty

This meter is warranted against defects in material or workmanship for one year from date of purchase. Fieldpiece will replace or repair the defective unit, at its option, subject to verification of the defect. This warranty does not apply to defects resulting from abuse, neglect, accident, unauthorized repair, alteration, or unreasonable use of the instrument. Any implied warranties arising from the sale of a Fieldpiece product, including but not limited to implied warranties of merchantability and fitness for a particular purpose, are limited to the above. Fieldpiece shall not be liable for loss of use of the instrument or other incidental or consequential damages, expenses, or economic loss, or for any claim of such damage, expenses, or economic loss. State laws vary. The above limitations or exclusions may not apply to you.

For Service

In the USA, call Fieldpiece Instruments for one-price-fix-all out of warranty service pricing. Send check or money order for the amount quoted. Send the meter freight prepaid to Fieldpiece Instruments. Send proof of date and location of purchase for in-warranty service. The meter will be repaired or replaced, at the option of Fieldpiece, and returned via least cost transportation. Outside of the USA, please visit www.fieldpiece.com for service contact information.

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