FLUKE®

Fluke 561 Infrared and Contact Thermometer

IR thermometer with K-type thermocouple capability

Technical Data

The multipurpose thermometer you need.

Lighten up your toolbox. The Fluke 561 combines the temperature measurement functions that industrial, electrical, and HVAC/R professionals need, all in one tool. It measures **both IR and contact temperature**, replacing several other test tools. It's fast, efficient, and easy to use, saving you valuable time and effort.

With the Fluke 561, you can take contact and ambient temperatures in the way that's best for you. Use the IR thermometer to measure hot, moving, electrically energized, and hard-to-reach objects instantly. Check motors, insulation, breakers, radiant heating, pipes, corroded connections, and wires. Plus, scan ducts, and other hard-to-reach objects from the floor—leave your ladder in the truck. You can use the Fluke 561's handy Velcro® pipe probe or, plug in any industry-standard, K-type mini-connector thermocouple probe you already own.

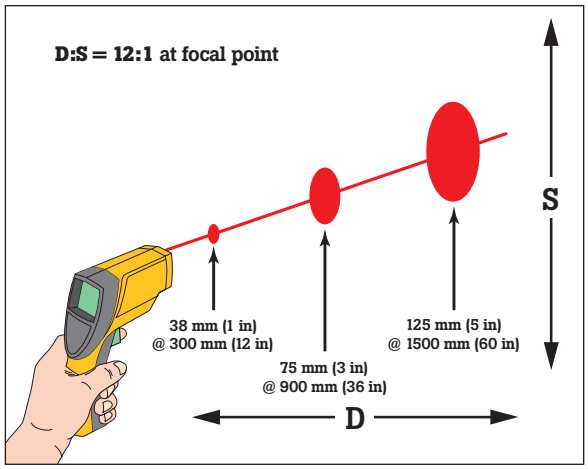


Features include:

- IR thermometer for quick measurements up close, or at a distance, without a ladder
- Contact thermometry capability, compatible with all standard mini-connector K-type thermocouples, preserves your investment in thermocouples
- Velcro® pipe probe for superheat and sub-cooling and other contact and ambient measurements
- Single-point laser sighting
- Temperature range of -40 °C to 550 °C (-40 °F to 1022 °F) covers most industrial and residential applications
- Easy emissivity adjustment for measuring pipes and other shiny materials more accurately
- Lightweight (just 12 ounces/ 340 grams) and portable
- Very easy to use
- Efficient—no need to shut down equipment when making IR measurements
- MIN, MAX, and DIF functions help you quickly identify problems
- Scan large areas or small objects quickly and efficiently

Laser-guided sighting for IR measurements

When using the Fluke 561 in the IR mode, the single dot, laser sighting system guides measurements to the right target. The dot indicates the approximate center of the measurement area.



When measuring smaller objects, use the Fluke 561 within 6 ft. (1.75 m) of the intended target. The measured area increases with distance (the distance divided by 12, approximately).

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Product specifications

	Fluke 561
Temperature range	–40 °C to 550 °C (–40 °F to 1022 ° F)
Display resolution	0.1 °C (0.1 °F) of reading
D:S (Distance to spot size)	12:1
Easy emissivity selector	Adjustable with three settings: low (0.3), medium (0.7). high (0.95)
Display accuracy [Assumes ambient operating temperature of 23 °C (73 °F) to 25 °C (77 °F)]	± 1.0 % of reading or ± 1 °C (± 2 °F), whichever is greater; below 0 °C (32 °F), ± 1 °C (± 2 °F) ± 0.1°/1°
Response time	500 mSec (95 % of reading)
Repeatability	± 0.5 % of reading or ± 1 °C (± 2 °F), whichever is greater
Spectral response	8 µm to 14 µm
Laser sighting	Single-point laser
Laser shutoff	Laser turns off above ambient temperature of 40 °C (104 °F)
Laser power	Class 2 (II) operation; output <1 mW, wavelength 630 nm to 670 nm
Relative humidity	10 % to 90 % RH non-condensing, at < 30 °C (86 °F)
Power	2 AA batteries (alkaline or NiCD)
Battery life (alkaline)	12 hours
Display hold	7 seconds
Backlit display	Yes, LCD with dual temperatures (current and MAX/MIN/DIF/KTC), low battery, F/C indicator, and Scan/Hold options
Operating temperature	0 °C to 50 °C (32 °F to 120 °F)
Storage temperature	–20 °C to 65 °C (–25 °F to 150 °F)
MAX, MIN, DIF temperatures	Yes
Thermocouple type K mini-adapter input	Yes, compatible with industry standard type K probes with mini-connector
Thermocouple type K Velcro® pipe probe	Yes, with a temperature range of 0 °C to 100 °C (32 °F to 212 °F) and accuracy of ± 2.2 °C (± 4 °F)
Warranty	Two-year

Ordering information

Fluke-561 Infrared and Contact Thermometer

Includes: Infrared thermometer with contact thermometer capabilities, K-type thermocouple Velcro® pipe probe, hard carrying case, AA batteries, and users manual.



Optional accessories

Model	Features
80PK-1 Bead Probe	• K-type thermocouple for general-purpose applications • Measurement range: –40 °C to 260 °C (–40 °F to 500 °F) • One-year warranty
80PK-3A Surface Probe	• K-type thermocouple for flat or curved surfaces such as plates and rollers • Measurement range: 0 °C to 260 °C (32 °F to 500°F) • One-year warranty
80PK-EXT Extension Wire Kits	• Extending and repairing K-type thermocouple wires • Kit includes 3 meters of thermocouple wire and 1 pair of male/female mini-connectors • Maximum continuous exposure temperature: 260 °C (500 °F) • 80PK-EXT is compatible with K-type thermometers • One-year warranty
80CK-M type K Male Mini-Connectors	• Isothermal screw terminal for K wire • Suitable for up to 20 gauge thermocouple wire • Color-coded to industry standards (K-yellow) • Two per package • One-year warranty
80PK-8 Pipe Clamp Temperature Probe	• K-type thermocouple for fast temperature and superheat measurements of pipe surfaces • Durable ribbon sensor • Measurement range: –29 °C to149 °C (–20 °F to 300 °F) for pipe diameters from 6.4 mm to 34.9 mm (0.25 in to 1.37 in) • One-year warranty
80PK-22 SureGrip™ Immersion Temperature Probe	• K-type thermocouple for use in liquids and gels • Measurement range: –40 °C to 1090 °C (–40 °F to 1994 °F) • One-year warranty
80PK-24 SureGrip™ Air Temperature Probe	• K-type thermocouple for use in air and non-caustic gas measurements • Bead protected by perforated baffle • Measurement range: –40 °C to 816 °C (–40 °F to 1501 °F) • One-year warranty
80PK-25 SureGrip™ Piercing Temperature Probe	• K-type thermocouple suitable for food industry, liquids, and gels • Measurement range: –40 °C to 350 °C (–40 °F to 662 °F) • One-year warranty
80PK-26 SureGrip™ Tapered Temperature Probe	• K-type thermocouple with tapered tip for use in air, non-caustic gas and surface applications • Measurement range: –40 °C to 816 °C (–40 °F to 1501 °F) • One-year warranty
80PK-27 SureGrip™ Industrial Surface Temperature Probe	• K-type thermocouple for surfaces in rugged environment • Durable ribbon sensor • Measurement range: –127 °C to 600 °C (–196 °F to 1112 °F) • One-year warranty
H6 Infrared Thermometer Holster	• Snap-on loop attaches to belt • Durable nylon holster • Velcro® closures provide quick access and secure storage

Fluke. *Keeping your world up and running.®*

Fluke Corporation
PO Box 9090, Everett, WA 98206 U.S.A.

Fluke Europe B.V.
PO Box 1186, 5602 BD
Eindhoven, The Netherlands

For more information call:
In the U.S.A. (800) 443-5853 or
Fax (425) 446-5116
In Europe/M-East/Africa +31 (0) 40 2675 200 or
Fax +31 (0) 40 2675 222
In Canada (800)-36-FLUKE or
Fax (905) 890-6866
From other countries +1 (425) 446-5500 or
Fax +1 (425) 446-5116
Web access: http://www.fluke.com

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