

The FLUKE logo is displayed in a bold, black, sans-serif font on a yellow rectangular background.

# The next generation in infrared for utilities

## Keep the meters spinning

Power outages are not an option. Performing quick spot checks of components and connections can uncover potential failures before they happen; allowing you to schedule repairs when it's convenient. Keep the meters spinning and reduce overtime by making repairs during planned outages. Whether it's substations, vaults or transmission lines, Fluke thermal imagers help ensure uninterrupted power.

## Reliable tools you can trust

Fluke has created a new standard: the first camera to combine a 640 x 480 resolution with the extraordinary ruggedness essential for harsh utility environments and surprising affordability. The higher resolution of these new thermal cameras allow users to capture clearer images from greater distances. Be more proactive and uncover problems earlier so costly repairs can be averted and downtime dramatically reduced.

For quick point and shoot troubleshooting choose the Ti480 pistol grip form factor. And when challenged with capturing images in awkward or hard to reach areas chose the TiX580 with a 240-degree rotating screen.

## Performance meets affordability

Equipment cost has historically limited the frequency of infrared inspections. With high performance and affordable Fluke 640 x 480 resolution thermal imagers, it's now possible for every crew to carry one. How does this help? Completing more frequent inspections and troubleshooting while on-site eliminates the need for special or return trips.

## Optimize your images with optional IR smart lenses

- Take images from farther distances with 2x and 4x telephoto smart lenses (2x is suitable for most applications and 4x works well for smaller substations)
- Capture great images inside vaults and substation switch and control rooms with the wide angle lens.



Ti480

TiX580

*Our previous infrared camera did a good job, but was complicated to operate and the cost limited us to only one. Now we have three Fluke thermal imagers. We still have the same great features, but in a rugged and easy-to-use package that's cost-effective. Now, in-between scheduled infrared inspections, all three of our crews have access to a great troubleshooting tool.*

*– Jim Waddill, Santee Cooper, Electric & Water Utility of South Carolina*



Exceptional 640 x 480 image quality for fast detection of problems.

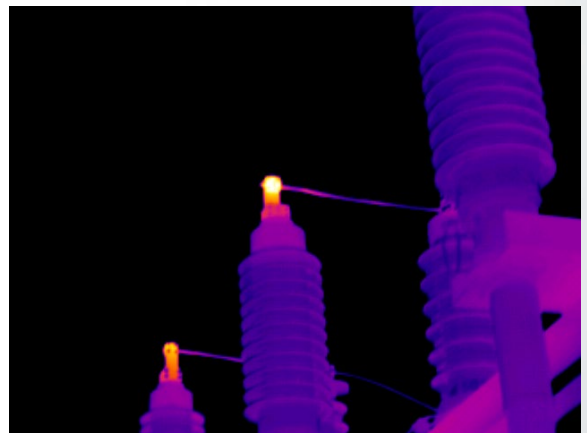
# Quick tips:

## Performing successful IR inspections

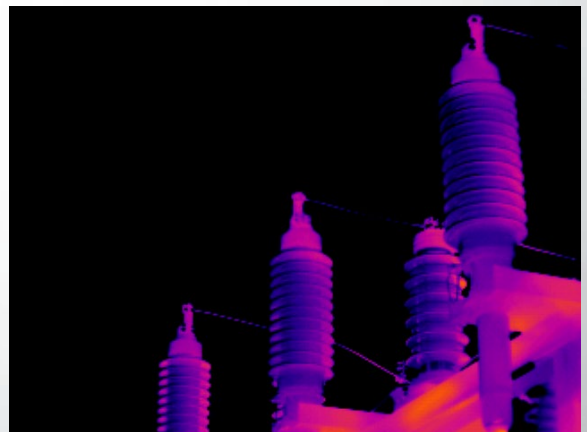
1. **Focus inspections on:**
  - Switches and disconnects
  - Bushings
  - Lightning arrestors
  - Connectors and conductors
  - Insulators
  - Ground connections
  - Voltage regulators
  - Transformers
  - Cooling tubes
  - Splices
2. **Ensure adequate load:**  
According to NFPA 70B, the system should have a minimum of a 40 % load when testing.
3. **Account for wind:**  
Wind greater than 15 mph will result in significant cooling of any problem spots, some of which may not be detected at all.
4. **Beware of solar heating:**  
When working in strong sunshine, be sure to account for solar heating.
5. **Perform qualitative measurements:**  
Perform phase-to-phase or phase-to-ambient comparisons of similar components looking for thermal differences.
5. **Account for emissivity:**  
Components and materials emit their energy differently. For accurate findings, ensure you are using the proper emissivity setting for the material you are inspecting.



A hot spot on this porcelain terminator or pothead was easily detected with infrared. While the component itself is not extremely expensive, the cost of an outage resulting from its failure is. Here infrared not only found the problem, infrared also verified the fix.



Connection before fix\*



Connection after fix\*

## Advanced focus options to optimize your inspections

### LaserSharp® Auto Focus

Capture in-focus images every time with a touch of a button. LaserSharp calculates the distance to your target with a laser distance meter and adjusts the focus automatically.

### MultiSharp™ Focus

With MultiSharp focus images are automatically focused throughout the field of view. The camera takes multiple images and combines them so equipment in both the foreground and background are in focus.

Simply point and shoot.

## Experience the Fluke advantage!

Contact your local Fluke representative and request a demo.

\*Images are for illustrative purposes and may not have been taken by the camera models featured in this article