

Testimonial

Fluke thermal imaging with
CNX™ Wireless Test Tools

Name: Mike Kelly

Company:
The Electrical Department

Application:
Electrical contractor

“With the CNX wireless capable thermal imaging system, I can have modules taking measurements while I conduct the thermal scan and I have all of the information I need on screen so I can troubleshoot all the parameters immediately.”

“I’m a Flukeaholic!”

Background

I’ve been an Electrician for 14 years, Master Electrician for five years working on electrical installations for residential, commercial, and industrial segments. I am also responsible for maintenance, power quality, and preventive maintenance.

All the information on one screen

I use my Fluke thermal imaging camera with the CNX wireless system to conduct thermal scans and produce reports on electrical equipment. With this system I can see multiple measurements on the screen. It allows me to have the voltage and current plus other options I feel will help in reporting or troubleshooting.

Before I had the CNX wireless capability, I would use my camera to scan equipment to try to determine why it was hot—the equipment could be loose, the voltage could be too high or low, or the current may be in a high or low state. Then I would have to go back to each device and conduct a follow up test with other tools to check the voltage and current.

With the CNX wireless capable thermal imaging system I can have modules taking measurements while I conduct the thermal scan and I have all of the information I need on the screen so I can troubleshoot all the parameters immediately. And all the data is in the file for reporting.

Faster preventive maintenance troubleshooting

We were troubleshooting a distribution center that had an underground facility with electric ramp heating, used in the wintertime to keep snow and ice from forming. I used my thermal imaging camera with the CNX a3000 AC Current Clamp and v3000 AC Voltage modules to detect which line was at the loss. With the camera, I could look at the current and see which cable set was running cold. Before I had this system I would have to take a picture, go back and use the meter, then come back with the camera again.

In bigger buildings it’s the walking that can eat up a lot of time and energy. We have one high-rise building where there is only one physical entrance, however it’s really two buildings combined. So I could be on the roof of one building and then have to go all the way down and get up on the roof of the other building—back and forth—all the time. Now I can be on one roof and have another guy on the other roof and we are able to transmit the readings and monitor them together.

My Fluke thermal imaging camera with CNX wireless capability saves a lot of time

I have also used this system on a control cabinet for preventive maintenance to measure voltage and current. If there is some kind of overload trip it produces heat—it could be a loose connection or the load could be defective and creating heat. Now I can scan the motor with the camera while the cabinet is closed and I don’t have to be in two places at

one time. Before I would attach a DMM to log, do my scan, and hope the data would line up if the voltage went up or down. Now I can do it right in front of the cabinet and see it all at one time.

Power quality

I specialize in power quality. Dirty power makes heat, so I usually try to record temperature with my thermal imaging camera at the same time as I take PQ measurements.

When I'm troubleshooting a capacitor banks, which is really several smaller capacitors together, the electrical code states you have to turn off the power and wait one-to-five minutes for the energy in the capacitors to dissipate—which can be time consuming if you have to go back and forth to troubleshoot. With this system, I can power down, put in the module, power it back up and let it record at the same time while monitoring the heat. When you scan you can detect a small heat load within the cover and confirm with the voltage at the same time to determine which of the small capacitors is faulty.

I'm a Flukeaholic

I have 13 different Fluke test tools in my arsenal. What is different about this system is that all the measurements I "could take" are now compatible with each other and it easily saves me time and money. Having the voltage and current combined with the thermal image allows me to have all the information I need to troubleshoot and saves me from going back to the site to conduct follow up tests in order to correct an issue. I love using Fluke meters as they make me look good. My Fluke thermal imaging camera with CNX wireless capabilities makes me look really good!