FLUKE®

Testimonial

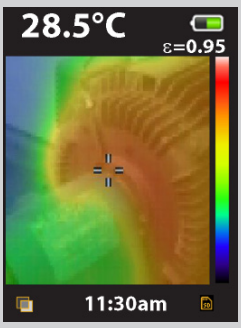
Visual IR Thermometer

Name: Eric Robinson

Company: Washington State Department of Transportation (DOT) and HVAC/R Instructor

Imager model: VT02 Visual IR Thermometer

"I liked the blending capability that lets you get digital pictures throughout the room with the heat map overlay. Having blended pictures to take back to the customer would be really helpful."



50 % thermal blend

1. What is your line of work?
I'm an Engineer for Washington State DOT traveling to 125 sites throughout the state of Washington as an HVAC/R Specialist who supervises retro-commissioning, unit replacement and system updates to improve energy efficiency. I also teach continuing education classes to first-year HVAC/R Apprentices and Class I Electricians for the union.

2. What type of applications do you work in that require IR temperature measurement and troubleshooting?
I use IR temperature measurement in applications where I check heat gain and heat load as well as randomly troubleshoot hot or cool areas. I can quickly scan to detect duct leakage. For in-house preventive maintenance, I also use it on electrical panels.

3. What tools do you currently use for these applications?
I've been using a high-end Fluke IR Thermometer. I don't currently use thermal imagers. We've been considering them, but the price makes them more difficult to afford.

4. What were your first impressions of the VT02 Visual IR Thermometer?
I immediately figured it out and started making frontline measurements like getting a snapshot of a diffuser 30 feet in the air.

I liked the blending capability that lets you get digital pictures throughout the room with the heat map overlay. Having blended pictures to take back to the customer is really helpful. Plus, capturing and saving the highest absolute temperature gives me a reference point that I could store in my customer records or put in a report and reference in the future.

5. What advantages does the VT02 offer you in your temperature applications?
The compact size is a big advantage. It's small enough to fit in your back pocket, smaller than thermal imagers, and it's cost-effective.

I see a great application for home inspection. It would help contractors, like the ones I teach, do their jobs more efficiently, and it would make a great selling tool. To be able to take pictures, create reports and then show homeowners the results is powerful. Then, when inspectors make a recommendation, it's not just a matter of "trust me."

The VT02 is also rugged. That's really important since everything gets bounced around so much in service. When you pull a tool out to use it, you have to know it's going to work.

6. How would having SmartView® professional reporting and editing software impact your job?
Technicians are more credible when they can create a report. For example, in doing a retro-commissioning, when we are trying to restore equipment to its original efficiency, we could document the "before" and "after" states and prove that the equipment is running smoother, and generating less heat and resistance.

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Testimonial

Visual IR Thermometer

Name: Brannon Daly

Company: Active Engineering

Thermometer model: VT02 Visual IR Thermometer

"The fact that you can point it at a panel, push a button, and immediately see the heat, and read the breaker number– I think that's what will really impress electricians."

"There's no arcing, no heat. I think once customers get this kind of service from us, it's going to establish a standard, and they're going to expect it from other contractors."

1. **What is your line of work?**
   I'm a Master Commercial Electrician working on a variety of commercial, light industrial and residential buildings. I also do service work, which includes troubleshooting, repair, and replacement, such as adding switchgear.

2. **What type of applications do you have for IR temperature measurement and troubleshooting?**
   I need to check the breaker temperature at electrical panels, scanning for areas that are much hotter than others. If I see one breaker that's only 5 °F or 6 °F hotter than everything else, then the circuit is probably under load. But if one breaker reads 80 °F and another is 145 °F, then I know there's a loose wire, or something else is seriously wrong.

3. **What tools do you currently use for these applications?**
   I probably use a Fluke IR Thermometer four or five times per week. The problem with a laser pointer is that it's hard to tell exactly what you're pointing at, and which circuit is hot. I've also tried a basic thermal imager, and I can see the hot spot on the thermal image, but I can't read the breaker number or tell exactly how hot it is.

4. **What were your first impressions of the VT02 Visual IR Thermometer?**
   When I first picked up the VT02, the display was set to 100 % thermal, and I could see that I had a hot spot on the electrical panel. I changed it to the blended image so I was seeing 50 % thermal and 50 % visible light. Then, not only did the hot spot jump right out, but I could also clearly read the breaker number, and I instantly knew where the problem was. (See blended thermal and visible light images on the second page.)

5. **What advantages does the VT02 offer you in your temperature applications?**
   Having the visual image of what you're looking at is huge. Like they say: "a picture is worth a thousands words." It's the kind of thing you have to use to really understand how cool it is. The fact that you can point it at a panel, push a button, and immediately see the heat, and read which breaker number it is—I think that's what will really impress Electricians.

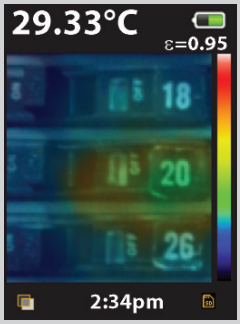
   The small size is good, and the VT02 is very light, much lighter than other cordless tools I carry.

   I also like having the SD card in it so I can save images for documentation. Sometimes I'm checking facilities with 12 electrical rooms and six or seven panels in each room. It would be great to record all my work as I go.

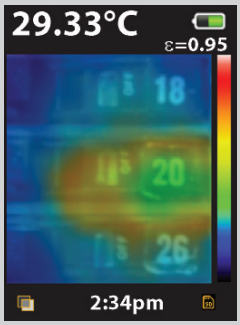
6. **Do you think the VT02 would save you time doing particular jobs?**
   Definitely. Instead of taking a minute or more with an IR thermometer and going through the breakers one by one to try to find out which one is the problem, I can cover the whole panel at once in 20 or 30 seconds. I can go right to exact breaker that's an issue.

   It would also be at least twice as fast to pinpoint hot motor bearings, or check motor temperature.

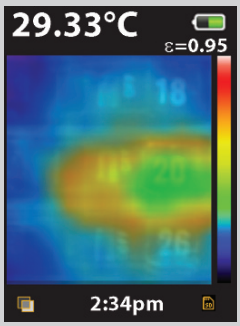
VT02 Visual IR Thermometer screen images



25 % thermal blend



50 % thermal blend



75 % thermal blend

7. How would having SmartView® professional reporting and editing software impact your job?

I think documenting a job using the SmartView® software would offer a lot of value to both commercial and residential customers. You could finish a job and turn it over to the building owner with documentation that shows everything looks good. The wires are tight and everything looks clean and safe. You can provide images of the panels, showing that everything is operating normally. There's no arcing, no heat. I think once customers get this kind of service from us, it's going to establish a standard, and they're going to expect it from other contractors. They'll say: "See what Active Engineering gave us when the job was done!"

And if I'm doing service or routine maintenance like checking receptacles, and I find a problem, I can show the customer a picture. They don't have to know anything about electricity to know that red means hot, and that is bad.