# **Tools & Equipment**

FLUKE

35°

# PICTURE PERFECT

Every picture tells a story, so Norman Bradshaw gets to grips with the new Fluke VT02 Visual Thermal Infra-Red thermometer to see what it can reveal.

hat is the difference between being an Electrical Contractor, and being a Successful Electrical Contractor? The difference could simply be owning or not owning Fluke's new VT02 Visual Thermal IR thermometer. Let me expand on that.

Growing up in our fast changing industry has brought us many challenges. For me, one of the greatest challenges and rewards has been learning to conduct meaningful electrical PIR's, now known as EICR's. To be good at conducting Electrical Installation Condition Reports-(EICR's) you need skill, confidence, sound technical knowledge and tools that inspire confidence.

This skill is further compounded by the fact that everyone seems to want a report done for as little as possible. You know as well as I do that you cannot skimp on quality - so how are you going to juggle providing a service while at the same time not working for free? From my experience you need to know what you are worth and have the tools to back you up. A step in the right direction is being able to show your client what would be included in your summary – a thermal IR report – your competitor does not possess one. What a shame!

# **Back to basics**

What is thermal imaging? It is the non-contact detection and measurement of temperature differences shown pictorially by using different colours, or to put it in a vernacular - it allows you to see what your eyes can't. Fluke's VT02 Visual IR thermometer blends infrared heat map technology with digital thermal imagery. Up until now thermal imaging cameras have been wishful thinking for most electricians, but Fluke have developed the VT02 which falls into a new category; it fits in between IR spot thermometers and IR thermal imaging

Test conducted by Professional Electrician and Installer Magazine. www.professional-electrician.com

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cameras, giving you the chance to put that technology right into the palm of your hand. For the price of a top spec multifunctional tester you can now purchase Fluke's latest addition to the IR family.

## The spec

I was very excited to put this tool through its paces as I already have an IR spot thermometer and I wanted to see how this one compared. As I go through the features see if you could think of some jobs you have done or going to do where this technology will make a difference.

Fluke's new IR thermometer stands a little over 200mm tall yet it is jam packed with all you need to do a good job. You can enter the date, time and hour for starters, which is excellent for keeping a log of your pictures and jobs. There is also a slot on the thermometer where the 4 GB micro SD card is to be inserted so that you can store all the pictures you have taken.

Later you can then transfer them to your computer using Fluke's SmatView software, and if that is not all you can blend then and add notes to your photographs – your client is going to be very impressed! To record any details you want, it is simply a matter of just pressing the green trigger on the front of the thermometerjob done!

The menu button also acts as the power off and on button. There are six buttons in all and to find out what they do simply requires pressing the arrows and when you see what you want then press select. You have for example the option of having the temperature displayed in Degrees Celsius or Fahrenheit.

There is a button for taking pictures close up of further away, depending on what you are testing. You can get as close as six inches by selecting the near mode. You can also adjust or record emissivity (the ability of a material to radiate heat energy) colour palette, back-ground temperatures and temperature markers.

## Ease of use

The real beauty of this camera is that it is so easy to use. This machine does not just give you an average reading like many IR thermometers, but the exact temperature of the object you are looking at – so fellow electricians – you can measure with confidence!

By just pressing one button you can capture in real time what is going on at the point under test. You can take several images and later compare your readings.

Even without reading through the entire manual you get a very good idea of what it can do. Thermal Imaging is a growing field as insurance companies have started to request these types of surveys particularly where access to carry out insulation resistance or continuity tests is virtually impossible. While Thermal imaging should never replace traditional testing, it does give you a measure of flexibility and another string to your bow, so... point & shoot!



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