

# VT04 and VT02 Visual IR Thermometers

## Technical Data

### Detect issues instantly!

Fluke Visual IR Thermometers combine the convenience of a spot thermometer with the visual advantage of an infrared camera creating a brand new tool category.

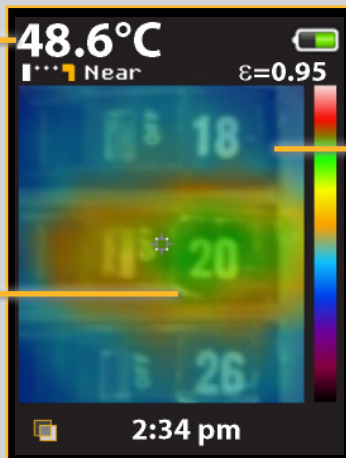
- Detect issues instantly with built-in digital camera
- No training required
- True pocket size design
- Breakthrough affordability

### Designed to see it all

Every Fluke Visual IR Thermometer has a built-in digital camera with a thermal heat map overlay to instantly identify the exact location of the problem.



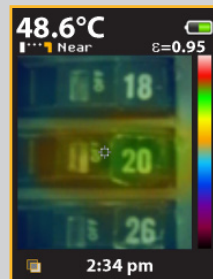
**Centerpoint temperature (°C/°F)**



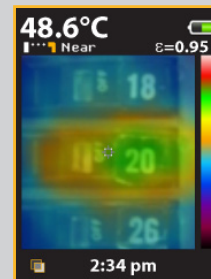
**Digital image for context**

Clearly see that breaker 20 is overloaded and communicate your findings.

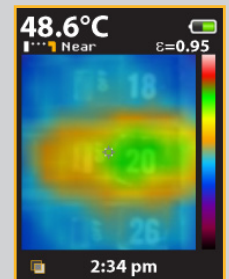
**Thermal heat map overlay**



25 % heat map



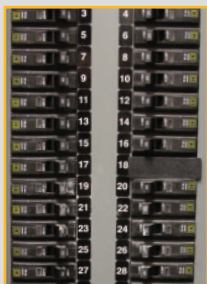
50 % heat map



75 % heat map

## See the difference

See how a traditional IR thermometer and an entry level infrared camera make it challenging to communicate the issue on breaker 20.



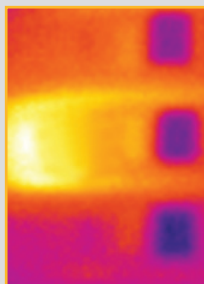
### Visual inspection

No issues are obvious to the naked eye.



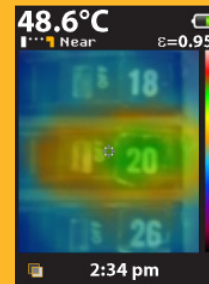
### Traditional IR thermometer

Optimized for single point measurements.



### Entry level infrared camera

Challenging to see the exact location.



### Visual IR Thermometer

Digital image with heat map overlay detects the exact location of the issue.

## Key features of a Visual IR Thermometer

### Breakthrough affordability

Half the cost of infrared cameras that require training and software

### Built-in digital camera

Every Fluke Visual IR thermometer has a built-in digital camera

### Exclusive thermal heat map blending overlay

Blend digital and thermal images to instantly show the exact location of the issue. Blend between 0 %, 25 %, 50 %, 75 %, and full thermal with one button

### No training required

Fully automatic with built-in intelligence

### True pocket size design

Forty percent smaller than entry-level infrared cameras

### SmartView® reporting software

Store up to 10,000 images per Gb on included SD card and make professional reports on included professional software

### Hot and cold spot trackers

Automatically identifies hottest and coldest spots within field of view

## The Fluke VT04 adds powerful features that include:

### Powerful resolution with PyroBlend™ Plus optics

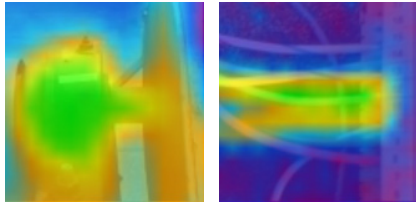
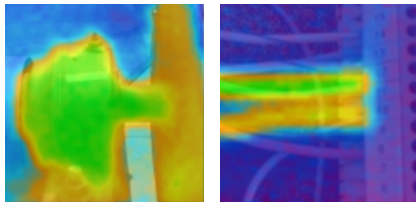
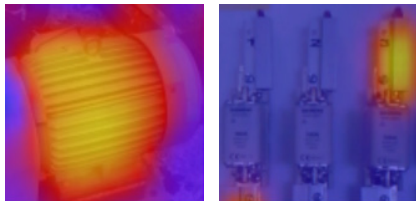
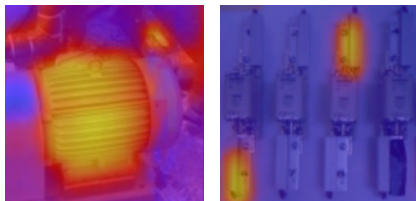
- Best-in-class field of view for tight spaces: 28° x 28°
- Four times sharper images: VT04 compared to VT02

### Alarm and time lapse features

- **Hi/Lo temperature alarm**—Screen flashes if user-selected temperature is exceeded
- **Time lapse image capture**—automatically capture images
- **Auto-monitor™ alarm**—automatically capture images after a user-selected temperature alarm has been triggered

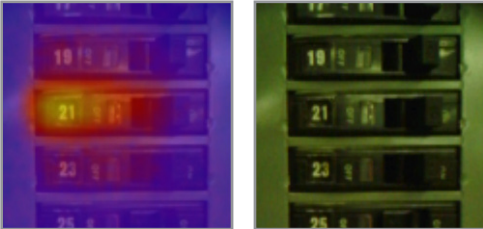


## Specifications

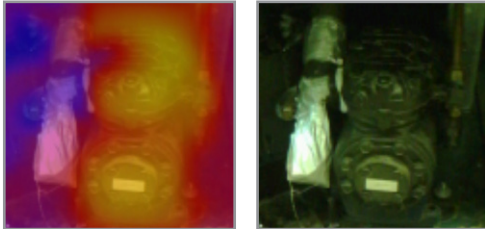
| Key features   | VT02   | VT04  |
|--|--|---|
| Built-in digital camera                                  | Yes  |   |
| Thermal heat map overlay                                 | Yes, five blending modes   |   |
| Image optics system                                      | PyroBlend™ optic<br>  | PyroBlend™ Plus optic<br>*4x sharper image than VT02<br> |
| Field of view  | 20° x 20°<br>   | 28° x 28°<br>  |
| Hi-Lo temperature alarms                                 | —  | Yes   |
| Time lapse image capture                                 | —  | Yes   |
| Auto-monitor alarm                                       | —  | Yes   |
| Battery type   | Four (4) AA batteries  | Li-Ion rechargeable   |
| Training   | No training required   |   |
| Ergonomics   | Slim pocket-sized design   |   |
| Hot and cold markers                                     | Yes  |   |
| <b>General features</b>                                  |  |   |
| Battery life   | Eight (8) hours  |   |
| Temperature measurement range                            | -10 °C to +250 °C (14 °F to 482 °F)  |   |
| Temperature measurement accuracy                         | +/- 2 °C or +/- 2 %  |   |
| Temperature measurement                                  | Yes, centerpoint   |   |
| Storage medium (micro SD card)                           | Stores up to 10,000 images per Gb (Four (4) Gb card included)  |   |
| Infrared spectral band                                   | 6.5 µm to 14 µm  |   |
| Level and span   | Auto   |   |
| Focus mechanism  | Focus free, no training required with built-in intelligence  |   |
| Focus options—exclusive user selectable NEAR/FAR options | NEAR > 23 cm (9 in); FAR < 23 cm (9 in)  |   |
| Dimensions   | 21 cm x 7.5 cm x 5.5 (8.3 in x 3 in x 2.2 in); < 300 g. (10.5 oz.)   |   |
| File format  | .is2 format saved to SD card. User can create professional reports or export images in SmartView (BMP, DIB, GIF, SPE, FIF, SPEG, JPG, PNG, TIF and TIFF) |   |
| Safety and compliance                                    | CFR47: 2009 Class A. Part 15 subpart B; CE: EN 61326:2006; IEC/EN 61010-1:2010   |   |
| Warranty   | Two (2) years  |   |

**Key applications**

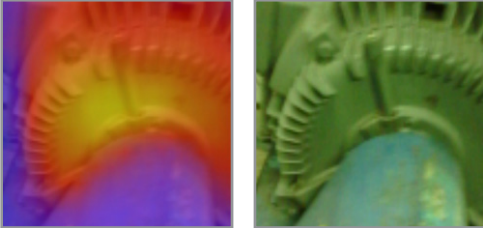
**Overloaded breakers**



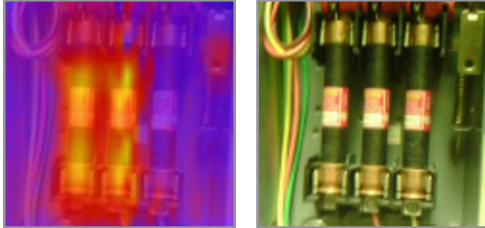
**Evaluate compressor heat expansion valves**



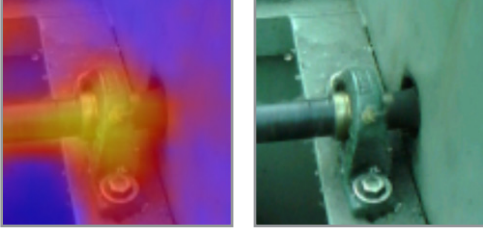
**Overheating motor**



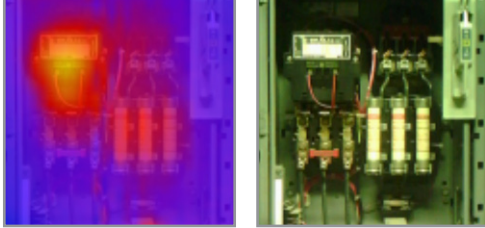
**Unbalanced three phase supply**



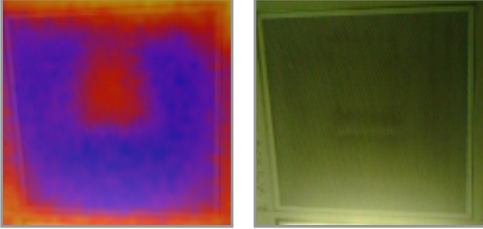
**Overheating bearings**



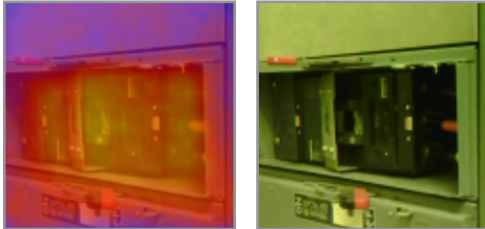
**Combination starter**



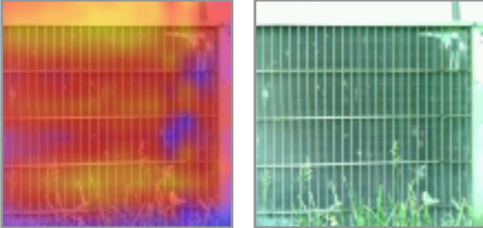
**Faulty air damper**



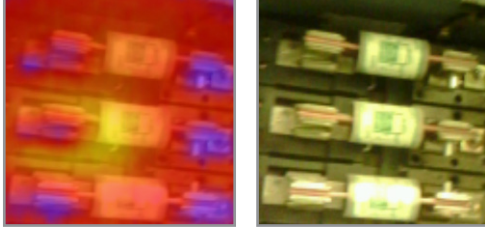
**Normal operating temperature on mission critical breaker**



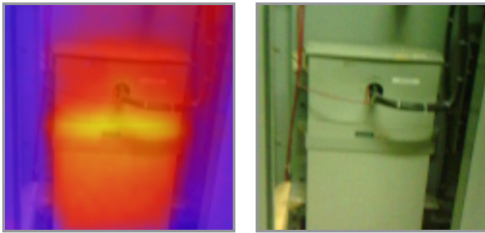
**Abnormal heat patterns in an AC condenser**



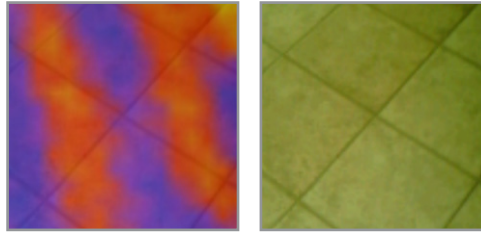
**Detect issues with switchgears**



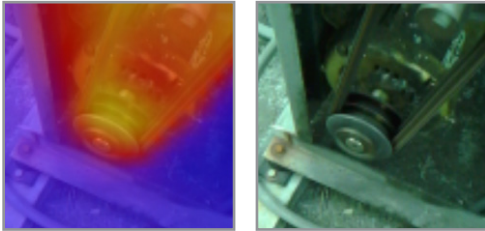
**Monitor power factor correction capacitors**



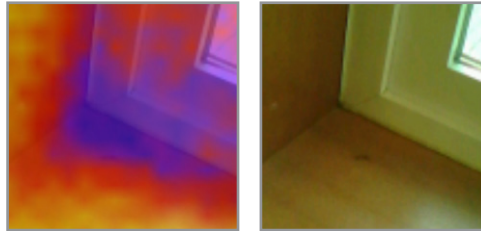
**Ensure hydronic and radiant flooring is functional**



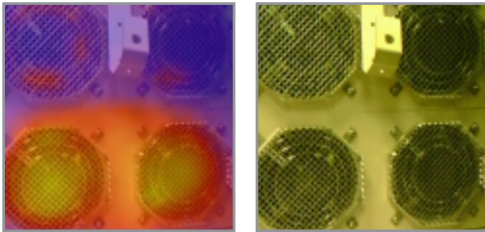
**Overheating pulley and belts**



**Identify potential heat loss from doors and windows**



**Check fans for high-powered equipment**



**Your Results Matter™**

**Ordering information**

- FLK-VT04** VT04 Visual IR Thermometer
- FLK-VT02** VT02 Visual IR Thermometer

**Included with product**

Hard Case, hand strap, mini SD card and adapter, SmartView® software on CD, Lithium Ion batteries and Micro USB Charger/Power Supply (including mains adapters) (VT04) or 4 AA batteries (VT02), printed Quick Start Guide in English, Spanish, German, French and Simplified Chinese, others on CD. Users' manual on CD (21 languages).

**Optional**

- FLK-VT04-CHARGER** Extra charger for VT04
- FLK-VT-HOLSTER** Holster for VT02 and VT04
- C90** C90 Soft Case

**Save money with Fluke kits:**

- FLK-VT04-MAINT-KIT** Includes a VT04 Visual IR Thermometer and a 1507 Insulation Multimeter
- FLK-VT04-HVAC-KIT** Includes a VT04 Visual IR Thermometer, 902 True-RMS HVAC Clamp Meter and a 116 Digital Multimeter.
- FLK-VT04-ELEC-KIT** Includes a VT04 Visual IR Thermometer, a 117 Electricians MultiMeter and a 376 AC/DC True-RMS Clamp Meter

**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>

©2013 Fluke Corporation.  
Specifications subject to change without notice.  
Printed in U.S.A. 8/2013 6000547C\_EN

**Modification of this document is not permitted  
without written permission from Fluke Corporation.**