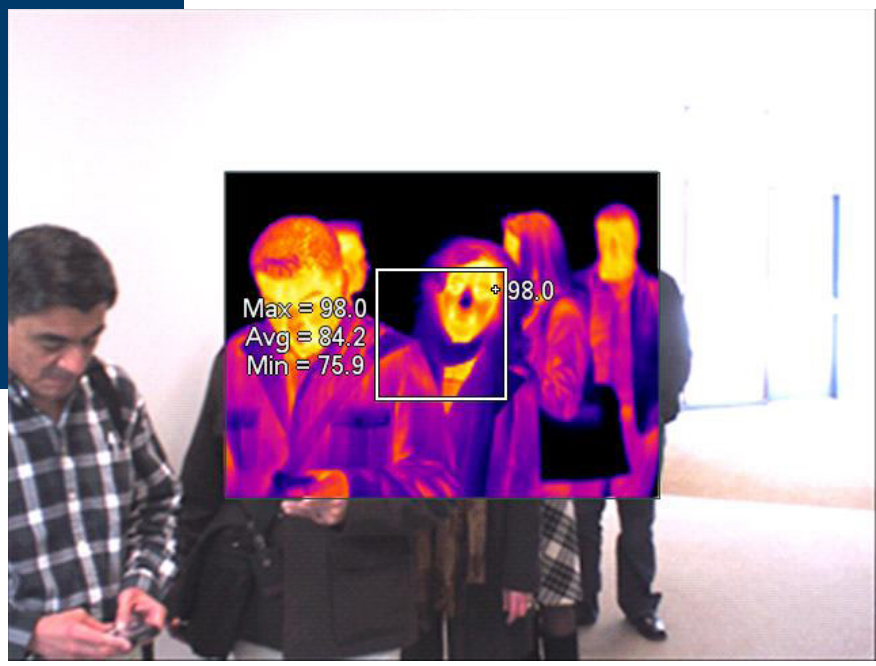
FLUKE®

# Infrared thermography can aid in detecting elevated body temperatures to help prevent the spread of viruses

Application Note

## Checking of body temperature

Public health officials around the world have turned to non-contact thermal imaging as a means to quickly scan and measure the skin temperature of large numbers of people. Airports, bus stations, seaports, hospitals, schools and other public gathering areas are a few examples of where non-contact thermal imaging could be used to detect and help prevent the spread of virus infections.



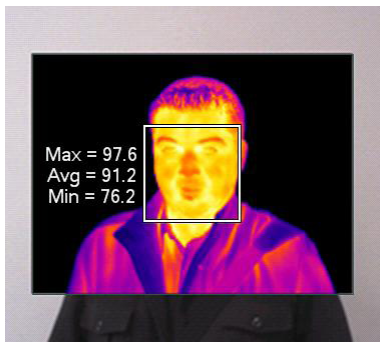

**Temperature above normal**
The highest temperature point is recorded as 37.8°C on the thermal imager. A clinical thermometer records it as 38.1°C

### What is infrared thermography?

All objects, including the human body, emit infrared energy. Non-contact infrared cameras also known as thermal imaging cameras use IR emissions to measure surface temperature, including the temperature of skin, and instantly provides an on screen visual map of the skin's temperature.

### How can infrared thermography be used to scan body temperature?

Individuals with fevers often have elevated skin temperature and infrared cameras have the ability to measure extremely subtle temperature differences. The body's highest temperature measurement is generally around the nose, eye socket and oral cavity areas. A non-contact infrared camera can quickly scan large crowds for individuals who register higher than normal body temperatures and an alarm can be triggered to indicate further testing is needed using a contact thermometer specifically designed to measure body temperature.




**High body temperature**
(highest body temperature 39.1°C)


**Normal body temperature**
(highest body temperature 36.3°C)

FLUKE®

## What are the benefits?

- Non-contact, reduces the chance of spreading infection or disease
- Temperature measurements are immediate—quickly scan large groups of people
- No risk to public safety—infrared temperature measurement is completely safe and innocuous
- People can be screened while moving, travel is not delayed

### Points to note

1. **Infrared cameras are not medical temperature measurement devices; there will be a slight difference when compared to a contact thermometer.**
2. **Exercise and perspiration are factors that can affect the body's epidermis temperature which can result in an inaccurate reading. It is recommended a contact thermometer always be used for further testing.**

## How the India Ministry of Health & Family Welfare applied infrared thermography to aid in viral screening at airports

In 2009, with the increased number of Swine Flu cases in India, The Ministry of Health & Family Welfare purchased Fluke infrared cameras/thermal imaging cameras to be installed at Indira Gandhi International Airport New Delhi, to help them screen passengers coming into the country for H1N1 influenza A, or swine flu symptoms.

Fluke non-contact infrared cameras enabled airport, transit, public health officials and others to quickly scan and measure the skin temperature of large numbers of people. People who registered higher temperatures than normal were isolated for further evaluation to help prevent the spread of disease.

Fluke infrared cameras can measure temperatures differences as small as 0.05 °C* and feature large LCD screens and video output* that make them ideal for scanning large groups. Fluke infrared cameras have many benefits. Non-contact screening reduces the chance of spreading infection or disease. IR Fusion technology* provides screeners with a visible light image (digital picture) of the crowd making screening quicker and more efficient. Infrared temperature measurement is completely safe and non-invasive, so there is no risk to public safety or privacy. People can be screened while moving, so travel is not delayed.

*Features vary depending on model.

**Fluke.** *Keeping your world up and running.®*

**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


Printed in U.S.A. 8/2014 6003622A_EN