



# Thermal Camera Applications

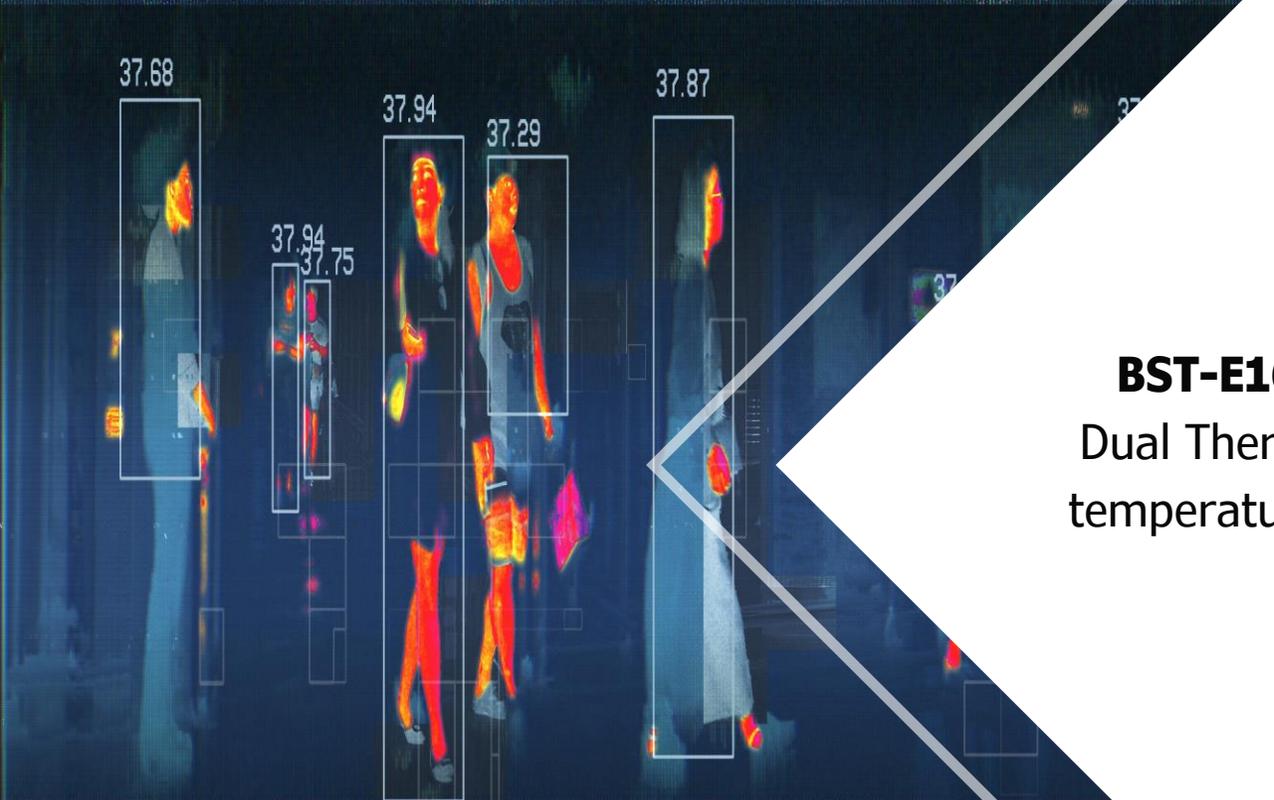
7493 Route Canada High Way, Suite  
100-101A, Saint Laurent, Quebec,  
Canada H4T 1T3  
Tel : +1 514 447 82 82  
Email: [bst@bstsecurity.com](mailto:bst@bstsecurity.com)  
[www.bstsecurity.com](http://www.bstsecurity.com)



# BST security

THERMAL SCAN

LOCAL: 11:28:28



## BST-E1612MW Dual Thermal body temperature camera

### **Briefing:**

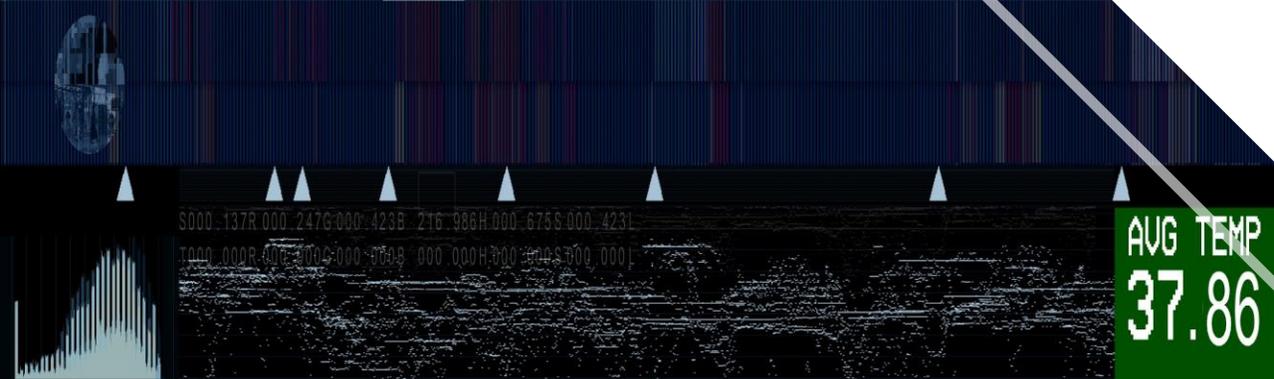
BSTsecurity **Thermal cameras** can be integrated into full smart access security solutions, often used in combination with both visual video analytics and thermal sensing.

Typically, Thermal cameras have been used for industrial inspection, such as checking the temperature in machinery to warn of overheating. The pandemic facing the world today has enabled a new use for these thermal cameras.

**Skin temperature screening** represents a larger part of the thermal camera application based on the demand from integrators and end-users from different sectors such as commercial office buildings, transportation and government facilities who are looking to deploy thermal camera solutions.

An important distinction to make is that body temperature solutions are not a medical solution. Temperature screening solutions are a tool that can support the identification of subjects with high temperatures, adding value in the overall response and protection by checking skin temperature at faster rates than hand-held scanners and at a greater and safer distance.

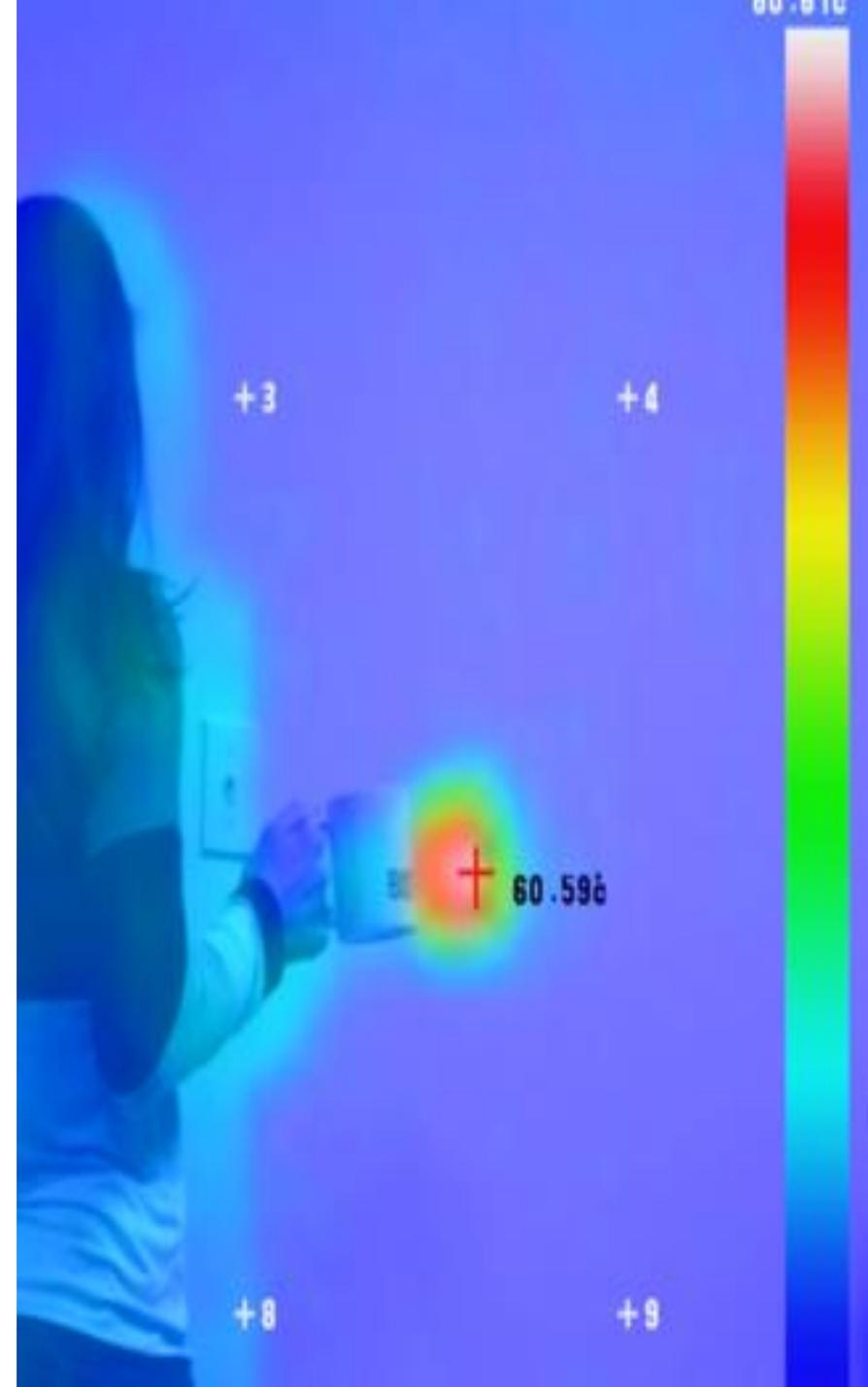
[www.bstsecurity.com](http://www.bstsecurity.com)



AVG TEMP  
37.86

## Environmental Conditions

- It is recommended to install the Body Temperature camera in a stable environmental condition to ensure that the skin temperature is stable.
- False temperature alarms caused by environmental influence can be effectively reduced in the proper setup of the camera and the accuracy of the thermal skin temperature screening solution can be controlled with more precise parameters.
- AI algorithms can also be integrated as facial detection in the camera software to help recognize individuals with high skin temperature in a crowd. Facial detection, as opposed to recognition, is used to improve the accuracy of the solution with better positioning of the measuring points on the face. It is not used to detect specific individuals and does not break privacy compliances.
- The reopening of the economy in all markets and countries will set a new challenge in the safety and protection measures needed where thermal cameras can be deployed to the solutions that any sector is looking for.





## Skin temperature screening with calibration settings:

- Default temperature parameters are set up by testing each model via black body.
- Users don't need to change the values except for "offset".
- "offset" value should be entered as follows:
  - ✓ Measure human face temperature from a specific distance (within 2.5m ~ 3m).
  - ✓ Measure human face (forehead or neck) temperature by non-contact IR thermometer
  - ✓ Enter the difference between the two temperatures in "offset".

BST-E1612MW thermal camera is calibrated using a black body device to detect the skin temperature as accurately as possible, thus clients do not need to add the black body to the solution limiting the added cost on site.

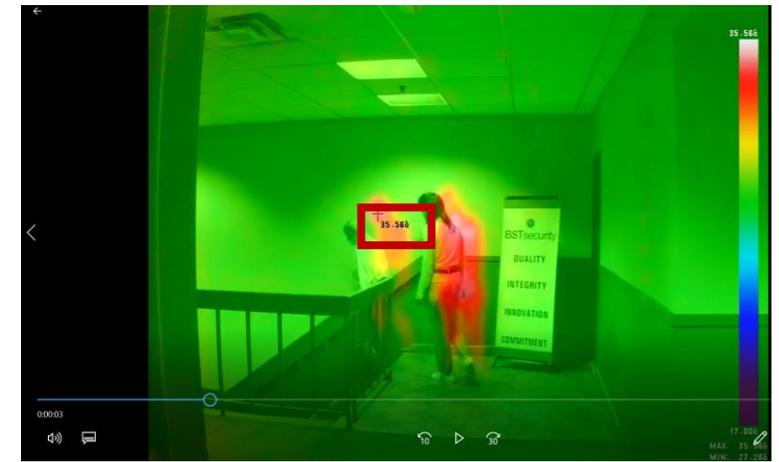
Thermal sensor  
active Distance : 1m



Thermal sensor  
active Distance : 2m



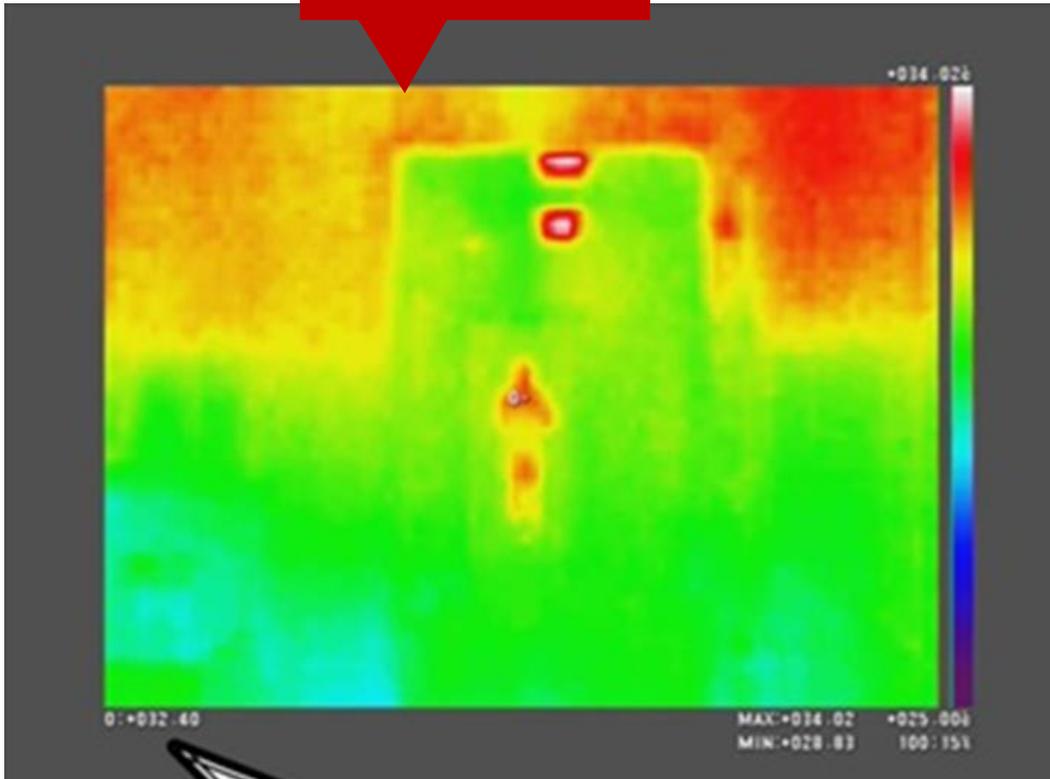
Thermal sensor  
active Distance : 3m



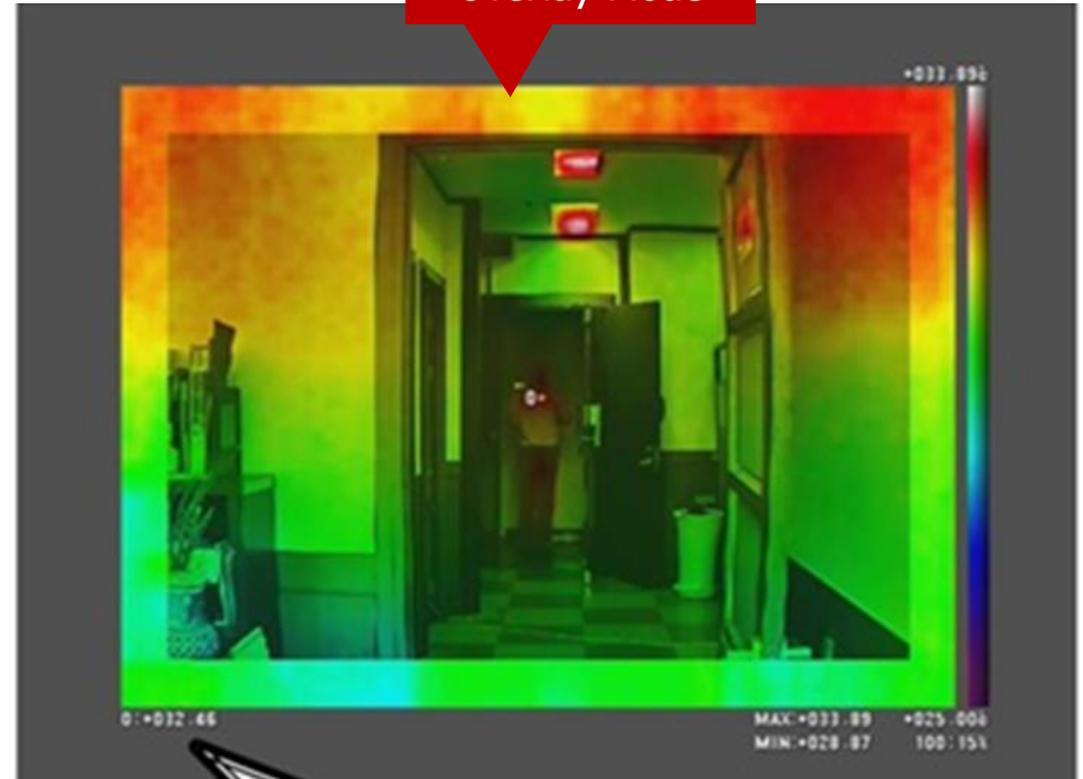
## Temperature Detection application

As an added solution, the PEHD-SE VMS enables advanced functions such as using the signal from the BST's thermal cameras to measure the temperature of approaching people in the field of view and signal temperature alerts when the maximum temperature measured on a person's forehead is too high. The PEHD-SE VMS is designed to detect multiple people at the same time

Thermal Mode



Overlay Mode



## 2. Function detail:

### a. Zones:

The temperature detection function is to be applied only on designated zones specified at configuration. The detection zones are to be specified either by setting the zones within the camera or by using the PEHD-SE VMS zones.

### b. Temperature detection:

Within detection zones, people's foreheads are searched and detected. Maximum temperature is checked on each detected face. When the maximum temperature detected exceeds the alarm threshold, a temperature alert is shown.

### c. Alarm event:

A temperature alert can trigger all actions available with other types of events: log entry, recording, notifications, etc..



## Overview:

- Very Few changes in the measured temperature could be detected at 10m when the size of the subject correspond to the temperature measurement minimum pixel size (3X3 pixels).

- Temperature values may vary depending on the material on the surface of the subject, such as background temperature and ambient temperature. Set the optimum temperature value by adjusting the variables that affect the temperature value according to the installation environment and subject.