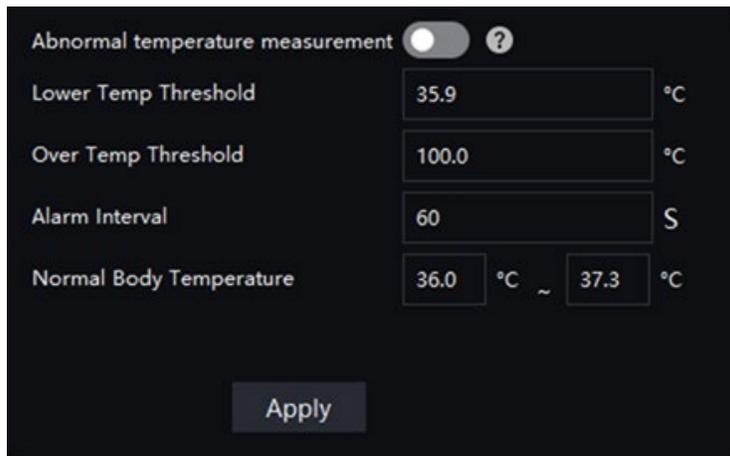


## Basic Guidelines for Pre-Screening for Elevated Body Temperature

The PSC-400FCS thermal camera inspection system needs to be set up in a stable ambient temperature environment from 68°F to 85°F. The pre-screening room should not have reflective walls or ceiling surfaces. **Remove hats, scarfs, glasses or garments covering the face.** The outside temperature should not be much lower than 60°F where a person is coming into a building before being pre-screened.

The camera system measures face / skin temperature. When the ambient temperature outside is lower than approximately 60°F, a person's skin temperature will be less than their norm, depending on how long that person was subjected to that lower ambient temperature. The PSC-Camview software offers a low and high temperature setpoint that can be selected by the operator.

### How to set low and high temperature limits in the PSC-Camview software



The screenshot shows the following settings in the PSC-Camview software:

- Abnormal temperature measurement:  (disabled) ?
- Lower Temp Threshold: 35.9 °C
- Over Temp Threshold: 100.0 °C
- Alarm Interval: 60 S
- Normal Body Temperature: 36.0 °C ~ 37.3 °C

An "Apply" button is located at the bottom of the settings panel.

- For Normal face/ body temperature: A **Green box** surrounds the persons head.
- For Cold face /body temperature, a **Blue box**.
- For Hot Face/Body Temp.: exceeding operators high setpoint, A **RED box**.

In a case where the outside ambient temperature is cold and a person enters the indoor screening area (**blue box** around their head), their skin/body temperature must acclimate to the ambient temperature of the surroundings. As mentioned earlier, the ambient temperature of the screening area is

expected to be between 68°F and 85°F prior to an individual's pre-screening for elevated face/body temperature measurement.

If the person is identified as having an elevated face/body temperature which is higher or lower than normal, based on the user selected defined setpoints / temperature threshold value, the person should be allowed another 15 minutes or so, for their body temperature to stabilize to the surrounding ambient conditions between 68°F and 85°F. The person should then be screened again.

If an alarm condition based on the elevated temperature threshold value as set by the software user is triggered, further examination via a medically approved tympanic ear thermometer or oral thermometer must be used to accurately measure the core body temperature.

If the subject has been running or exercising prior to inspection, a higher body temperature is likely. Since a high temperature or sweat on their brow can cause a misreading, time must be allowed for body temperature to stabilize.

The Process Sensors camera system model **PSC-400FCS** using face tracking recognition software automatically positions a box surrounding a person's head and measures temperature dynamically, even upon movement.

**Important camera system operation note:** In order to achieve a non-contact temperature accuracy of 0.3°C, a blackbody reference source **MUST** be in the image scene to ensure that the thermal imaging camera is within its accuracy specification. Without it, a typical thermal camera's accuracy is  $\pm 2^{\circ}\text{C}$ , which is unacceptable.

Typical Camera System set up illustrated below.



### Use of a Tympanic ear thermometer:

Are tympanic thermometers accurate? ^

Conclusion. In this study, **tympanic** membrane thermometry is as reliable and **accurate** as axillary mercury glass thermometry. Thus, **tympanic** thermometry can be used in clinical practice, especially in the emergency setting, where ease of use and speed of obtaining the temperature reading are important. May 10, 2013

4/13/2020