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Document identity

Publ. No.: T810548
Release: AA
Commit: 65957
Head: 65957
Language: en-US
Modified: 2020-05-05
Formatted: 2020-05-05

Website

<http://www.flir.com>

Customer support

<http://support.flir.com>

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T810548

1 Introduction

The Elevated Skin Temperature Screening function can be used at airports, office buildings, production plants, and other public spaces to detect persons with elevated skin temperatures, which may indicate the presence of a fever.

The Elevated Skin Temperature Screening function is supported by the FLIR Exx, FLIR T5xx, FLIR T8xx, and FLIR T10xx series. An operator needs to be present for some interactions, such as the recording of reference temperature samples. For more information about FLIR EST solutions, go to www.flir.com/ebt.



The basics of the screening function is to first build up a base of reference temperature samples. When a person is screened, the camera compares the measured temperature with the average of the reference samples. If the camera detects an elevated temperature, an alarm will trigger.

To ensure consistent measurements, it is important that the screened person is at a correct distance from the camera. The recommended distance is 0.5–1.5 m (1.6–4.9 ft.) for a camera with a 42° lens and 1.0–2.5 m (3.3–8.2 ft.) for a 24° lens. The correct distance can be achieved by a marking on the floor or by using a body outline in the camera graphics. It is also important that the person looks into the camera and that the eyes are not covered by glasses, hair, or other items.

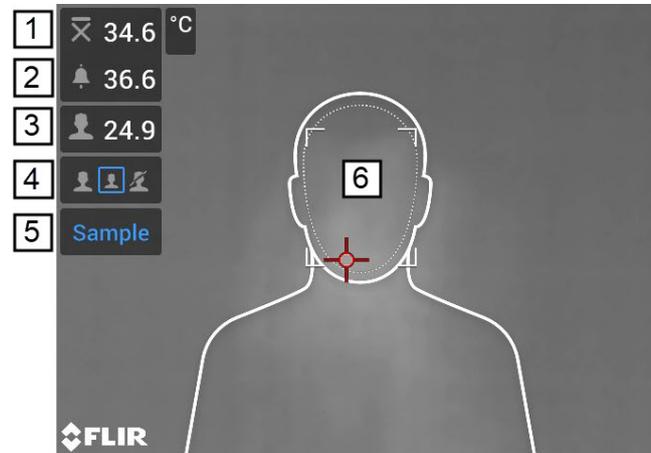
The camera measures the surface temperature of the tear duct, meaning that the measured temperatures are lower than the ones you may be used to in a fever context. Note that the camera cannot measure fever.

For further evaluation of those individuals where the camera has indicated an elevated temperature, we recommend that you set up a suitable process where medical trained personnel will do a full examination.

The screening work flow related to the camera involves the following steps:

1. Set up the camera for screening.
2. Record reference samples.
3. Perform the screening.
4. Record new reference samples after a period of time or if the conditions change.

2 User interface



1. Sampled average temperature.
2. Alarm limit.
3. Measured temperature.
4. Body outline icons.
5. Sample button.
6. Measurement box.

The camera detects and measures the temperature of the hottest spot within the measurement box. A body outline can be used to make sure the person is in a good position for the screening, with the measurement box covering the face.

An alarm will trigger when the measured temperature is higher than the alarm limit. The camera will also apply a red color to all parts of the image with a temperature above the alarm limit.

The alarm limit is the sum of a sampled average temperature and a specified allowed deviation.

3 Set up the camera

To set up the camera for the screening, do the following:

1. Applicable to FLIR T10xx/T8xx/T5xx series:

- 1.1. Enable the screening function by selecting  (*Settings*) > *Device settings* > *User interface options* > *Screening mode* = *On*.
- 1.2. Activate the screening function by selecting  (*Recording mode*) > *Screening*.

2. Applicable to FLIR Exx series:

Activate the screening function by selecting  (*Settings*) > *Recording mode* > *Screening*.

3. In the *Screening* dialog box, you can define the settings for the alarm:

- *Allowed deviation*: The allowed deviation from the sampled average temperature. The default value is 1.0°C/1.8 °F.
- *Alarm sound*: Applicable values are *Beep* or *No sound*.

Note Since the laser beam can cause eye irritation, the laser is automatically disabled when the screening function is activated.

4 Record reference samples

Before you can start the screening, you must record reference samples. These are used to calculate the sampled average temperature.

The camera has a memory of the last 10 samples. It discriminates between the highest and lowest values, and calculates an average of the remaining values. The alarm limit is the sum of the sampled average value and the specified allowed deviation.

To record the reference samples, do the following:

1. Aim the camera toward the person. Make sure the person is in good position for the screening.
Note It is important that the camera can measure the temperature near the eyes of the person.
2. Adjust the focus.
Note It is important to adjust the focus correctly. Incorrect focus adjustment affects the temperature measurement.
3. To record a sample, tap *Sample* on the screen or push the programmable button.
4. The camera counts the number of recorded samples and tells you how many more samples that are required.
Repeat steps 1–3 until the required samples have been recorded.
5. The camera is now ready to use for screening.

5 Perform the screening

To screen a person, do the following:

1. Aim the camera toward the person. Make sure the person is in good position for the screening.
Note It is important that the camera can measure the temperature near the eyes of the person.
2. Adjust the focus.
Note It is important to adjust the focus correctly. Incorrect focus adjustment affects the temperature measurement.
3. If the measured temperature is higher than the alarm limit, an alarm will trigger. The camera will also apply a red color to all parts of the image with a temperature above the alarm limit.

Note

- To keep the alarm limit updated, you must periodically record new samples. The camera will tell you when a new sample is needed. If the ambient temperature varies a lot during the day (outside/inside), it is recommended to record more than one new sample.
- Every time you tap *Sample* on the screen or push the programmable button, a sample is recorded. If you happen to record a sample when the camera is not aimed at a person, you must record 10 new samples. To reset the sampled average, push and hold the programmable button.