

FEVER SCREENING SYSTEMS

when temperature matters



Viral epidemics like SARS, MERS, swine flu or the current **coronavirus / COVID-19** created a worldwide demand for infrared cameras able to screen for a fever condition in humans. Optris offers an excellent solution for this.

The **T010** models of **Xi 400** and **Pi 450i** are the dedicated cameras for this application, delivering up to **40 mK** thermal sensitivity and making it easy to discern elevated body temperatures.

As employees return to work now after virus related shelter-in-place regulations are lifted, it is critical for companies to ensure the health of this returning work force is not compromised by workers who may contract a virus outside the facility.

The Fever screening system can be used in different variants and application areas - so **individual scans** of single persons or **crowd based screening** of larger groups of people can be implemented.

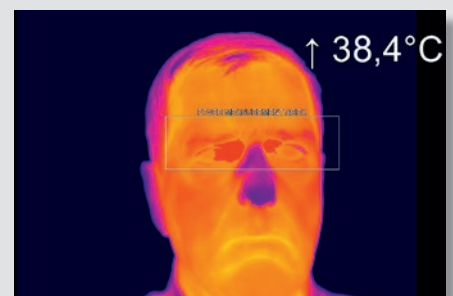
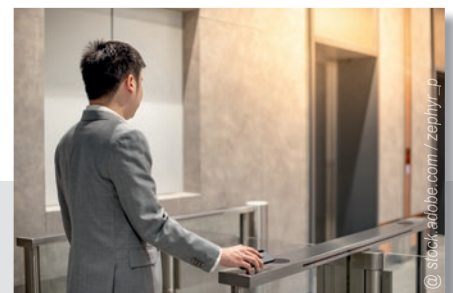
The installation of the whole system including the **reference radiator** and **PIX Connect software**, which comes with a predefined fever screening layout, is very easy. It can also be re-located if necessary and set up in minimum time.

The system works **discreetly**. The software singles out the people whose skin temperature exceeds the predefined value.

The **visual alarm** quickly identifies subjects who exhibit temperature increases from the normal population allowing security staff to validate internal temperature and discreetly examine the subject for additional symptoms.

Thermal images with temperature measurements can be **stored** whenever a temperature exceeds the pre-set threshold.

Optris IR cameras and Ambient reference source



Key features of the optris Fever Screening Systems

- Screening of employees and visitors with elevated skin temperatures
- Easy installation and operation of the inspection system
- Alarm signal when skin temperature reaches predefined alarm value
- Thermal Images of fever suspects can be stored automatically
- Extensive software inclusive, runs on a standard PC
- 382 x 288 pixel resolution and 80 mK (Xi 400) or 40 mK (PI 450i) thermal sensitivity (NETD)
- PI 450i T010 with ambient referencing source BR 20AR for an absolute measurement accuracy of +/- 0.5 °C

The two main approaches

1. Crowd based screening



The IR camera is monitoring a crowd of people at once or sequential. Assuming that the majority of the measured maximum head temperature values are coming from healthy individuals the exceptions with an elevated body temperature can be easily detected.

Recommendations:

Xi 400 T010 or PI 450i T010
with 29° or 53° optics ≥ 4 m distance

2. Individual screening



This method is mainly used at control gates or where crowd screening is not possible. From a closer distance you can measure exactly the temperature of the Medial canthus (tear duct) which provides the strongest correlation between outside skin temperature and core body temperature.

This method can also detect lower fever grades.

Recommendations:

PI 450i T010 with 29° optics @ 1 m distance or
PI 450i T010 with 13° optics @ 1.5...2 m distance
(MFOV should be 4 mm or less)

Fields of Application



Hospitals



Supermarkets & Malls



Offices



Schools / Universities



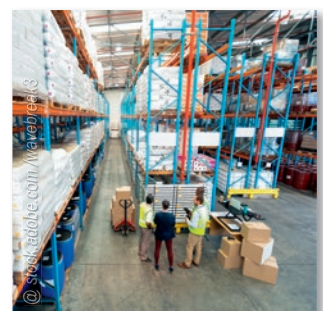
Airports



Stations



Lobbies / Foyers

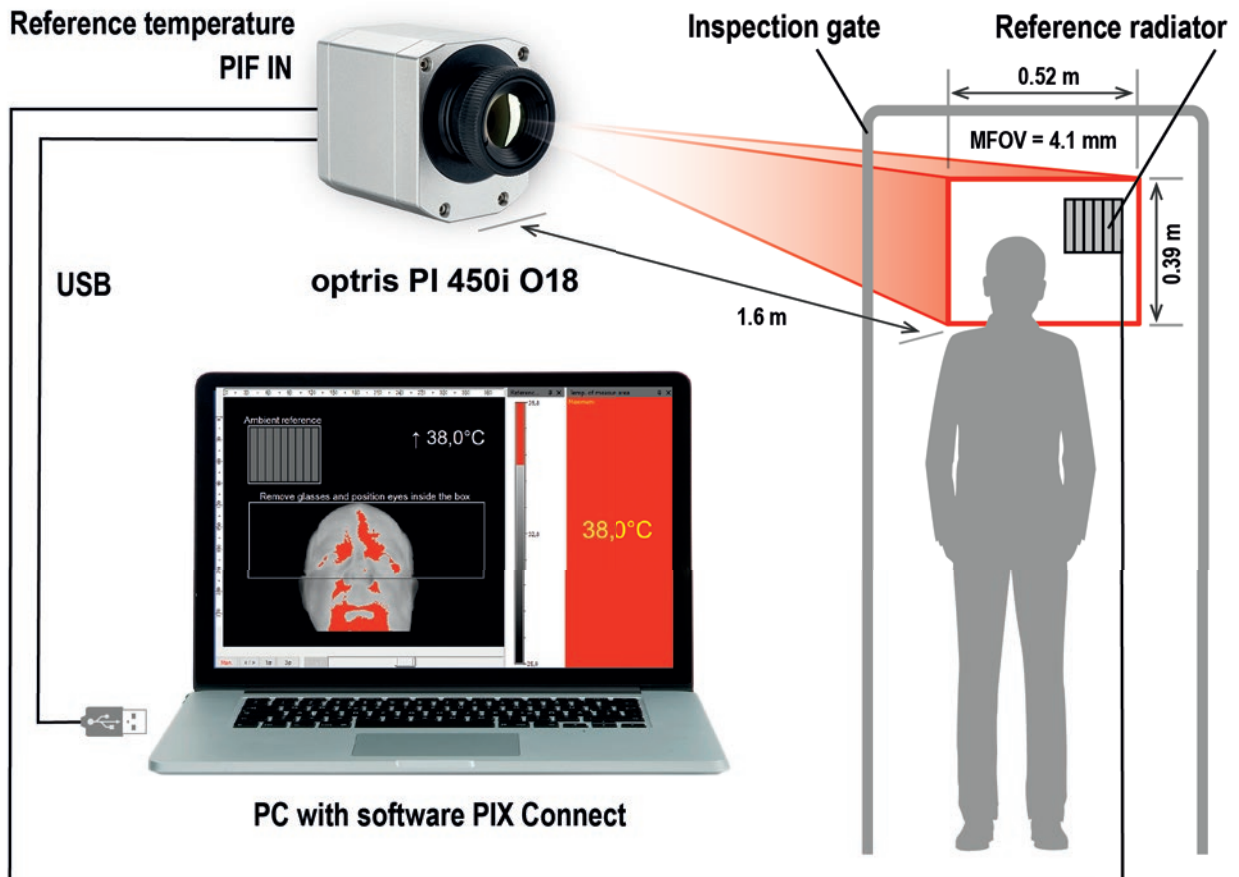


Warehouses

Setting up the System

The optris **PI 450i T010** infrared camera can be combined with the dedicated ambient referencing source **BR 20AR** which is equipped with a digital temperature sensor with **+/- 0.1 °C accuracy**. The reference source has to be positioned in the scene

proximate to the subject to be scanned. The high accurate reference signal is integrated into the **PIX Connect** analysis software and gives a system accuracy of **+/- 0.5 °C**.



Your reliable partner for infrared temperature measurements

Optris was founded in 2003 and has since established itself as one of the leading innovative manufacturers of non-contact temperature measurement devices. Our founder and General Manager Dr.-Ing. Ulrich Kienitz has over 30 years of experience in the field of infrared temperature measurement.

The product portfolio comprises stationary infrared thermometers and online infrared cameras as well as accompanying accessories and software for industrial applications and research & development.

“German engineering” - thanks to an extensive know-how and innovative concepts, our experienced engineers and physicists continuously inspire new product developments and outstanding solutions.

„Made in Germany“ - We are developing and producing in Germany to ensure the highest standard in quality as a key component of our company policy.

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