

Principle of Access Control with Infrared Temperature Sensor



INFRARED TEMPERATURE SENSOR

Introduction of Principle of Access Control with Infrared Temperature Sensor

Business organizations and public sectors are facing a difficult time in response to the recent ongoing public health issue. Not only the governments worldwide have taken numerous preventive measures like partial and national lockdown, but employers around the world have also made tremendous efforts to maintain business continuity and secure working environment for their employees.

It is not unusual to see, at the entrance of almost every commercial building, station, school, restaurant, that security guards and staff hold an IR thermometer and keep measuring the temperature of visitors and guests at their forehead one-by-one all-day-long. Sometimes the businesses will install visual imaging cameras with blackbody temperature calibration units at the entrance or in the conjunction as well.

While most of this kind of temperature screening has many limitations, such as the measurement distance, the accuracy of the temperature detected, the workforce needed, ZKTeco's solution to be described in this article provides a more pleasant user experience with much accurate and fast temperature measurement system together with biometric authentication approval.



What is ZKTeco Access Control with Infrared Temperature Sensor

ZKTeco develops cutting-edge technologies with infrared temperature detection in access control terminals and entrance control systems. It helps various industries perform fast and accurate temperature screenings during identity recognition at the entrance.

Visitors, users, or any types of individuals just need to merely walk close to the access point (about 30cm away from the temperature sensor), the system will help measure the body temperature.

If the temperature detected is over the pre-set value, an alarm will be triggered, and notice will be delivered to the guards. ZKTeco believes this kind of products will help reduce the risk of germs spreading while maintaining an excellent performance of biometric security.



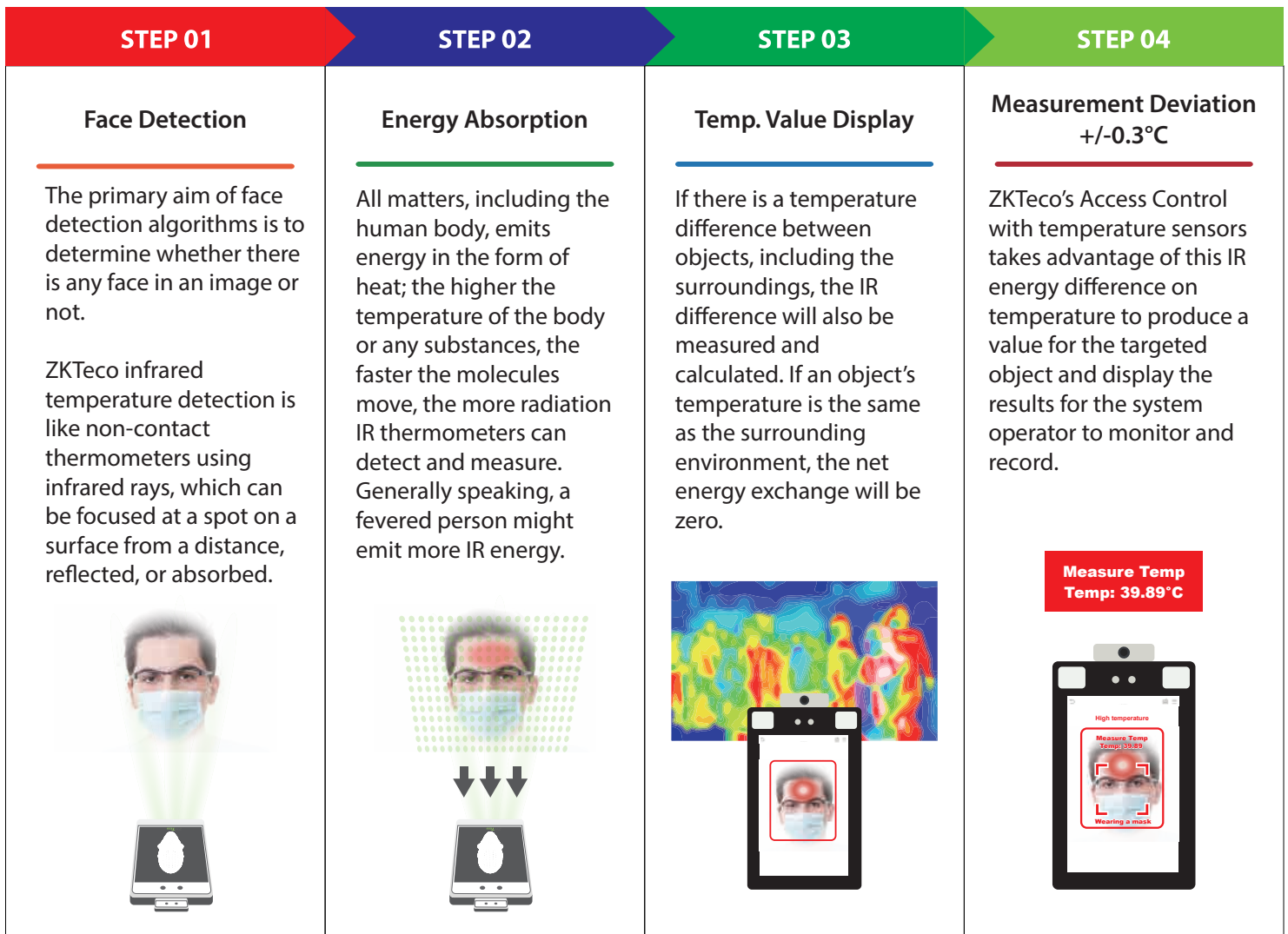
Infrared Temperature Sensor
Accurate temperature measurement accuracy $\pm 0.3^{\circ}\text{C}$.

Face Detection
No need to touch the A&C terminal
Auto detection and identification of faces

Main Function of Access Control with Infrared Temperature Sensor

The primary function of Access Control with temperature sensors is to monitor the access point security within a building, where individuals with normal body temperature and valid authentication can gain access to specific controlled areas. ZKTeco offers a full range of access control solutions that can assist in individual temperature screening and identity checks.

How ZKTeco IR Thermometer works



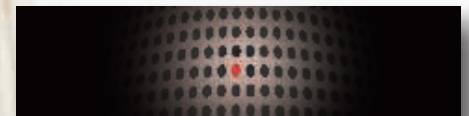
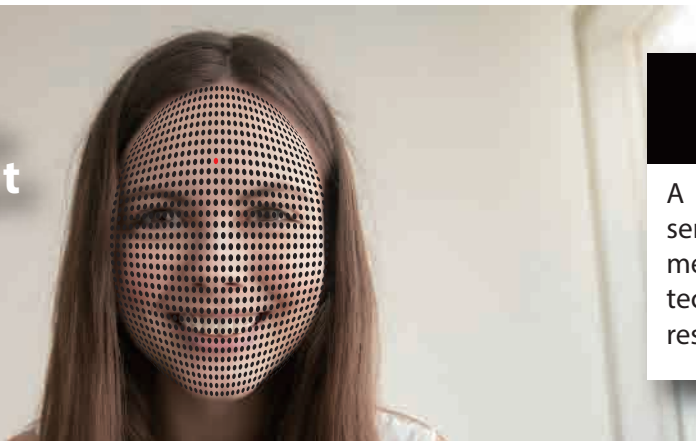
ZKTeco Access Control with Infrared Thermometer Advantages

Multi-point temperature check

While most of the infrared thermometer in the market only provides 1 focus spot on a surface for temperature measurement, ZKTeco's multi-point temperature sensors can measure the temperature at various spots within the detection distance.

It gives a maximum of 1024 (32 x 32) points to measure people's body temperature; then, it will pick and display the highest temperature value measured among the results. Therefore the temperature result given by ZKTeco's solution will be more accurate.

1024
Temperature
Measurement
Points



A multi-point temperature sensor brings accuracy to measurement, and ZKTeco's technology will pick the best results in a flash.

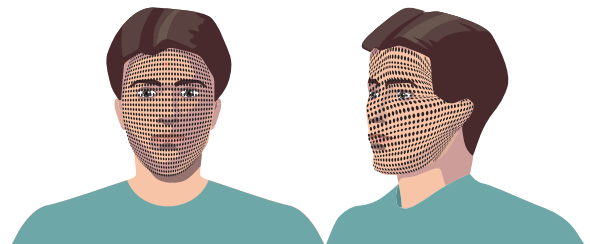
Touchless Sensor

The facial recognition and non-contact features facilitate temperature measurements without touching. It is not only crucial for the safety of workers but also minimization of potential product contamination.



Extra-wide angle recognition (+/- 30 degrees)

While most of the algorithms only support a 15-degree facial recognition tolerance, ZKTeco's infrared thermometer supports a much wider tolerance angle of 30-degree for facial recognition.



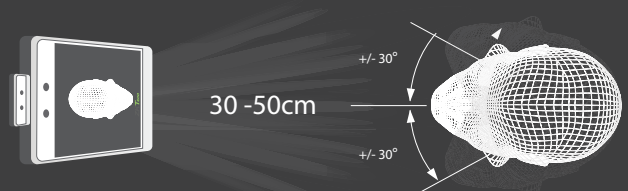
Fast, accurate and convenient

ZKTeco's IR thermometers are fast, accurate, and convenient to use ideal for remote monitoring.

The response time (from detection to display) of an IR thermometer is typically about one-half second that might assist people in having a fast track access to the monitored area.













Proactive long-distance temperature measurement

Because of the combination with the visible light facial recognition technology, the recognition distance of ZKTeco's infrared thermometers greatly extends to up to 30 -50cm, significantly boosting the maximum traffic rate for temperature measurement plus authentication checks.



3 meters of recognition distance and extra wide angle facial recognition

Product Comparison

ZKTeco's Access Control with Thermal Detection	Other Brands' Access Control with Thermal Detection
 Multi-point temperature sensor Maximum 1024 (32x32) measuring points, and auto-selection of the highest temperature results	 Single-point temperature sensor Temperature measurement at 1 spot only
 Support mask detection	 Do not support mask detection
 Detection Distance: Temperature Measurement: 30 - 50cm	 Detection Distance: Temperature Measurement: 30 - 40 cm
 Detection Time: 0.5s	 Detection Time: 1s
 Temperature Measurement Deviation: +/-0.3°C	 Temperature Measurement Deviation: +/-0.5°C
 Temperature measuring range: 0°C to 300°C (32°F to 572°F)	 Temperature measuring range: 30°C to 45°C (89.6°F to 113°F)

Diverse product offerings

ZKTeco offers a wide range of high-quality products that meet the needs of global customers, from facial recognition terminals, network cameras to metal detectors that all integrate with the infrared temperature detection. With an emphasis on quality, technology, and cost-effectiveness, ZKTeco seeks to offer the best solution in a wide range of dimensions.



Proface X[TD]

Facial Recognition Terminal with Temperature Detection



SpeedFace V5L[TD]

Facial Recognition Terminal with Temperature Detection



ZK-D3180S

Walk-Through Metal Detector with Temperature Detection



SBTL8033

Touchless Entrance Control with Temperature Detection



ZN-T1

Body Temperature Detection Network Camera



ZN-TH01

Portable Blackbody



Temperature Detection



Masked Face Detection



Palm Recognition



Wide Pose Angle Acceptance



Wide Palm Pose Angle Acceptance



Proactive Facial Recognition



Speedy Recognition



Touchless for Better Hygiene



Temperature Detection



Masked Face



Proactive Palm Recognition

ZKTeco Products Applications

ZKTeco's touchless biometric solution is a good fit for this situation that is preventing people or patients from touching the door handle. The solution has been widely used in many practical scenarios, including hospitals, educational institutes, factories, construction sites, shopping malls, IT parks, public transportation, banks, business organizations, small to medium enterprises, government organizations and so on.



Hospitals



Educational Institutes



Factories



Construction Sites



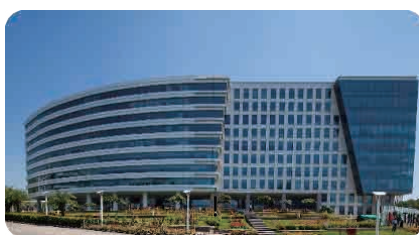
Shopping Malls



IT Parks



Public Transportation



Business Organizations



Small to Medium Enterprises



Banks



Government Organizations

The Leader Of Security And Time Management Solution

