Access Control Terminal People Counting Solution Powered by ZKBioSecurity-MTD

ZKTeco's Visible Light People Counting System integrates Access Control, Facial Recognition and Video Surveillance, which automatically counts and controls people traffic conveniently, precisely and effectively. It enables management staffs to effortlessly monitor crowd traffic and control number of people in a certain site, and integrates entrance control, tracking, and instant notification of event and instant view of crowd status. ZKTeco People Counting System, with advanced technologies turning manual people counting digital for greater convenience, preciseness and efficiency, is an optimal choice for businesses which require a better people count performance.

What is People Counting

People Counting is a crucial measure for crowd traffic control for both better safety and user experience. ZKTeco with our advanced technologies turns it digital for greater convenience, preciseness and efficiency.

ZKTeco integrates computer vision technology with people counting system, the new generation of facial recognition system is able to automatically count number of people in a certain site, once it detects that the number of people counted exceeds the maximum preset value, alarm will be triggered and door will be automatically closed to prevent entry to the site to effectively control crowd and traffic.

People Flow and Line Management

Cost Saving Deployment

People counting solution deploys ZKTeco's standalone access control terminals, which are critical in any door area, as they allow only authorized people to enter. By combining people counting function and multi-verification system (including facial recognition, fingerprint and ID card etc.), cost is greatly saved by just installing one access control terminal to count people entering to a particular area, hence which saves money meanwhile maximizing convenience, efficiency and security.

People Flow and Line Management

Traffic Flow Monitoring

People flow has always been a challenge to staffs in holiday and sale promotion. ZKTeco People Counting System ensures that a particular area is not overcrowded, as it automatically count everyone entering a specific area, with display of the exact number of people walking through the door, which is significantly useful to staffs to monitor traffic flow compared with the old manual people counting method.

Various People Counting Decisions

ZKTeco has a scalable and flexible access control system that can be integrated with entrance control system in entrances of building. It is enabled to perform traffic track, tracking particular persons' entry and exit or other people counting functions with ZKTeco's flexible people counting system.

High Security

Overcrowding in a closed space can cause severe danger, ZKTeco's people counting system offers monitoring function to grant access without charging any extra security cost. When the traffic rate exceed the maximum level, the door will be locked to make sure the business are on a strong security presence.

ZKTeco's people counting system also enables global linkage extension to alarm, email and video, letting administration staffs or security staffs know the instant traffic data if there is any emergency action needed.
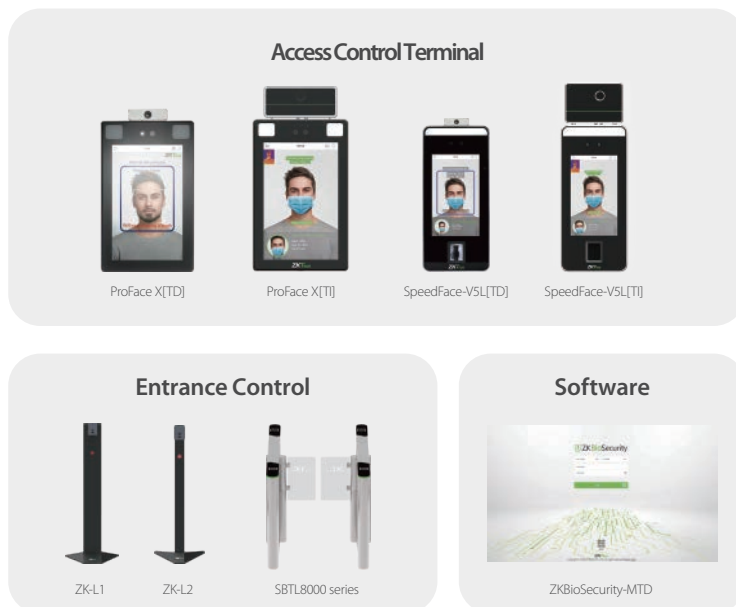
People Counting Solution

ZKTeco provides an efficient way to control human traffic with a facial recognition system to control the maximum occupancy, people and well counted and in case the number of people exceeds the maximum level of the occupancy, alarms/ door lock will be triggered and therefore disallowing people to access to the particular zone.

The people counting function is designed for retailer, entrainments venues, shopping centre, retail chain, museum restaurant, as it provides a wide range of useful figures of people traffic. With our advanced technology, it is now enabled to work with the functions of access control, time attendance, elevator control, visitor, video surveillance with its combined technologies.

Access Control Terminal

ProFace X[TD]   ProFace X[TI]   SpeedFace-V5L[TD]   SpeedFace-V5L[TI]

Entrance Control

ZK-L1   ZK-L2   SBTL8000 series

Software

ZKBioSecurity-MTD

1) Access Control Terminal

Access control identifies users by various biometric credentials, which include facial recognition function, people only need to stand in front of camera within 3m distance to gain access and will be counted at the same time when they enter the particular area.
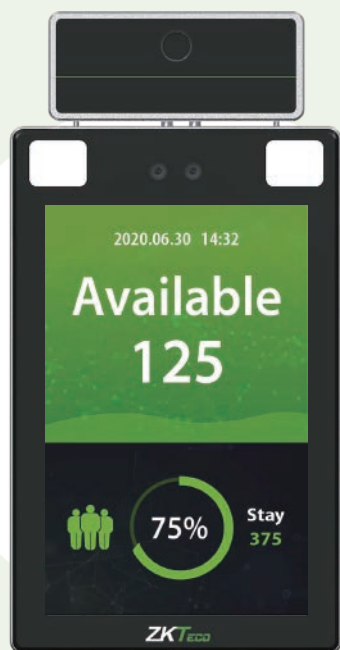
2) Entrance Control

Entrance control system is also used as a counter, which is typically combined with access control terminal, so people will be counted when they request entry. It is generally an optimal application in high crime area or high security facilities.

3) Software (ZKBioSecurity-MTD)

ZKBioSecurity-MTD is the ultimate "All-in-One" web based security platform developed by ZKTeco. It contains multiple integrated modules: access control, time & attendance, consumption management, elevator control (online/offline), hotel module, visitor management, parking, guard patrol and video linkage. With its newly added function of people counting, it provides the most advanced solution for a whole new user experience.

Occupancy Management of Access control

ZKTeco people counter is based on computer vision technology – visible light recognition. When people walk through the camera, the receiver detects human face with a screen displaying total number of people. The counted number will be shown with green or red background indicating different occupancy status.
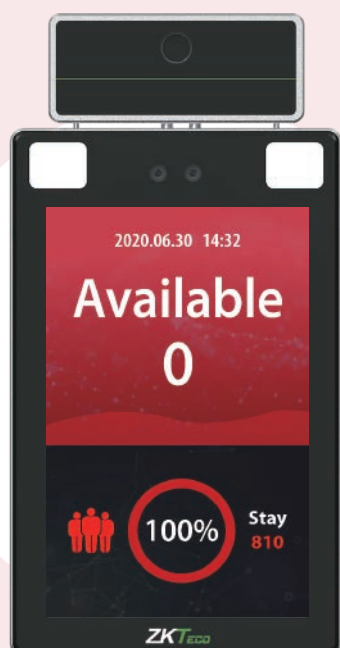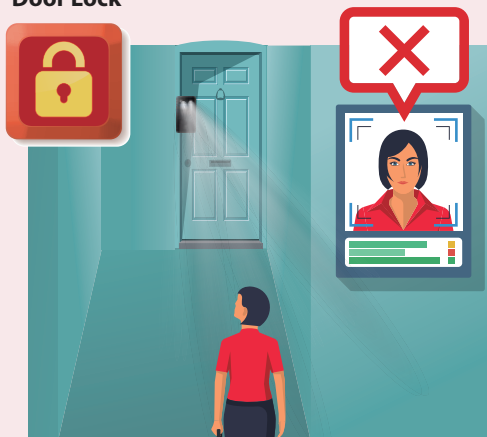
Below Limitation (Access Allowed)

Door Unlock

2020.06.30 14:32

Available
125

75% Stay 375

Green background indicates that user and visitor are allowed to enter the area.

Exceeding Limitation (Access Disallowed)

Door Lock

2020.06.30 14:32

Available
0

100% Stay 810

Red background indicates that maximum number has been reached, people are not allowed to access to the area.

Counting Function of Access Control

The combination of people counter and facial recognition make our system very versatile. Once the people enter the specific area and face to the camera, they will be counted with screen displaying total number of people

Works with All-in-One software - ZKBioSecurity-MTD

ZKTeco integrates people counting function into ZKBioSecurity-MTD Software to provide an effective way to manage in-store capacity.

ZKBioSecurity-MTD is a web-based software, once connect to the network, it is able to check real-time capacity data on the web browser anywhere.
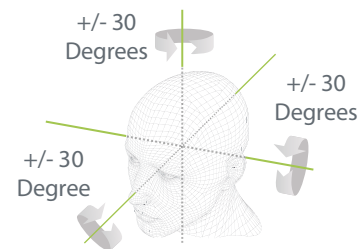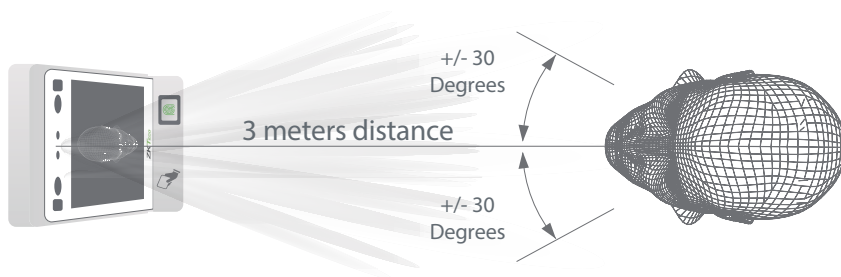
Besides, people counting screen can be installed in entrance and exit, to provide an instant capacity at the door to assist staffs to decide if people can still access to the secured area.

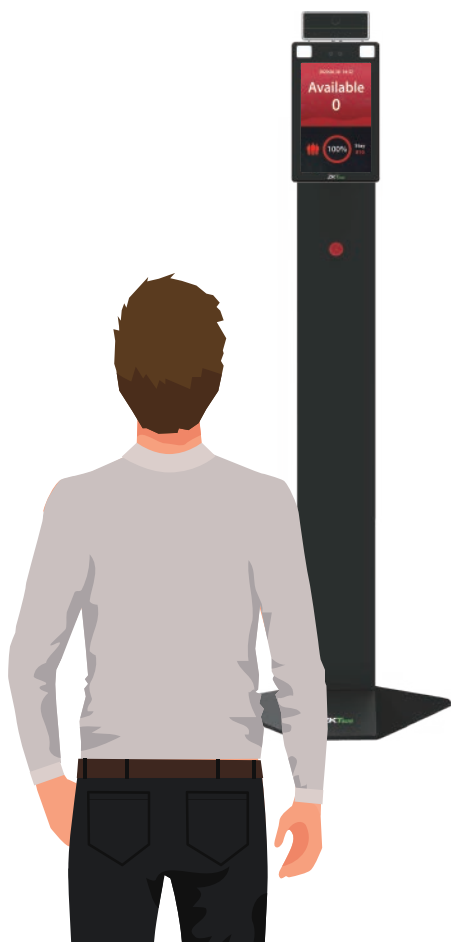# 3 Metres Recognition Distance and Extra-wide Angle Recognition

The visible light facial recognition is way quicker than the previous near infrared facial recognition, and the recognition distance has been greatly extended up to 3 meters long, which significantly improves maximum traffic rate.

While most of algorithms only support 15-degree angle facial recognition, ZKTeco's access control and counting system supports 30-degree angle facial recognition.

+/- 30 Degrees

3 meters distance

+/- 30 Degrees

+/- 30 Degrees

+/- 30 Degrees

+/- 30 Degree

Global Linkage

One of the highlighted functions of the counting function is the global linkage. It is able to automate system cross platform interactive functions and notifications system. There are multiple tiers to the alert process including alarm, email notification and video linkage.

Available
0

100%

Alarm and Door Lock

Alarm sensor device and magnetic door sensor can be connected to the alarm input ports. With the people reach the maximum level of capacity, linkage will be activated, door sensor can trigger the status of the front door and the alarm will sound if the devices is set off.

Email Notification

Email notification allows system to automatically send out email to notice administrators once the people reaches its maximum capacity.

Video Linkage

Enables photo capture, video recording and pop-up video to warn administrators, when the monitoring area is overcrowded, the video recording system is able to capture and save footage before the events occur. Video footage length could be up to 180 seconds.

Diagram

ZKBioSecurity-MTD Server
ZKBioSecurity-MTD Client

TCP/IP
TCP/IP

In
Out
In
Out

ZKBioSecurity-MTD Server
ZKBioSecurity-MTD Client

TCP/IP
TCP/IP

Relay
Relay
Relay
Relay

RS485
RS485
RS485
RS485