

ABSTRACT

The right entrance solutions for both access and infection control that elegant yet efficient and affordable in price.

Marc Corporation Pte Ltd
Product catalogues

TURNSTILES & SPEED GATE

The 2020-2021 reference





Co Reg. No: 201104385M

Marc Corporation Pte Ltd, located in is the manufacturer for all types of turnstiles, namely Tripod, Half-height, Full-height, Flap Barrier, Swing Gate, Slide Gate, Tripod Turnstile, Speed Gate and other access control peripheral products under MSS® brand name.

Our products are the combination of high-quality material and components, company optimized control algorithm, high-learning production machinery and experienced expertise yet affordable in price. In-house research and study are conducted yearly and improvement on products and routine of service are continuous. MSS® turnstiles system not only helps to control the assessment of public and manage the level of authority but also enhance the elegancy and presentation of any buildings, public locations or individual assets.

All turnstiles have available standard electrical interface that can be easily integrate with common access control system equipment and 3rd party facilities such as Card reader, Bar-code Scanner, Finger-print & Facial recognition, Iris recognition, Card collector, and Token reader for the purpose of authority management and toll collection.

The products can be used at Government Institutions, International bodies, Official & Commercial Building, Sport complexes, Recreation areas, Hotels & resorts, Airport Premises, Education Institutions and Transportation Stations and many other areas both indoor and outdoor environment. We have available options for harsh environment, continuous operation and intensive exploitation.

Customization requirement, various material processing techniques and system integration and modification are accessible with the help of our experienced engineering and technical teams.



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Selection guide

Products	Security Level*	Man-needed	Wheel-chair	Through put	Outdoor
Tripod	1	Yes	No	Medium	Yes
Flap Barrier	3	Yes	Yes	High	Better Not
Swing Gate	3	Yes	Yes	High	Better Not
Sliding Gate	3	Yes	No	High	Better Not
Speed Gate	3	Yes	Yes	Very High	Better Not
Full-height	2, 4	No	No	Medium	Yes

*Security Level

1. Control -Basic authority control without detection of illegal infiltration such as climbing, crawling, tail-gating.
2. Deterrent - Provide physical deterrent or discouragement to unauthorized entry such as climbing or crawling and other violations such as tail-gating but do not detect violation.
3. Detection - Automatically detect unauthorized violations and give an alarm to security staff to prevent such behaviors to take place.
4. Prevention - Completely prevent unauthorized entry without the need of supervision. In additional, there is possibility of automatically alert any infiltration attempts to nearest security staff.

Installation time & Complexity

•	••	••••
Tripod	Flap, Swing & Speed Gate	Full-height

Architectural design, Aesthetics & Functionality

•••••	••••	••••	••
Speed Gate	Swing Gate*	Flap, Sliding*	Full-height, Tripod

*Swing gate has higher score in aesthetics than flap & sliding, however the other type has higher integration capability so overall they are at the same score

Relative cost

•••••	••••	•••	•
••	••	•	•••
Speed Gate	Flap, Sliding, Swing Gate	Full-height	Tripod

*1st row describes the investment cost, 2nd row describes the annual maintenance cost. Speed-gate is the one with highest investment cost while full-height requires lowest maintenance cost.

TRIPOD

Tripods is an economical and compact solutions to separate to separate the public and secured area and enforce enter and exit exactly one by one that suitable to many areas. The tripod hydraulic core is created from 170 individual components of 0,01% tolerance rate. All tripods are able to allow for bi-directional operation (enter and/or exist in one or both direction) with selectable working modes (free, locked and controlled in one or both directions). The tripods can be used both indoor and outdoor with preferably under a cover-roof to avoid moist penetration and available in Semi-automation (standard) and Full-automation (optional).

Operation

In case of emergency and power outage, the tripod arm will be in open stage for public encumbered exit. When power is on, the arm will automatically set into its locked position and automatically return to default settings. Depends on the mode of operation that it was set, it can allow the public to pass freely in one or both direction or will only allow the public to access whenever there is a validation.

Users can set the pass-through time out after card swipe (by default 10s) and re-user duration of same card (from 1-60s). There is swipe card memory function and activation via single press button. Products have 2nd mechanism with shock absorption and anti-reverse intrusion, which is able to avoid one trying to pass in opposite direction and able to prevent force intrusion by locked at closed position.

LED on top of devices at both sides of turnstiles is to indicate the authority level and direction of traffic for users convenient. It allows for long-range management and control via computer and compatible with all range of card access and biometric recognition door access control system.

Function

- Automatically reset function
- Ability to choose different operating model (bi-directional, single-directional)
- Anti-reverse intrusion – to avoid one trying to pass in opposite direction of allowed direction
- Ability to lock at closed position to prevent force intrusion
- Time out closing feature to close entrance after a period of time without no access after an authorization (by default = 10s)
- Emergency/power outage escape, automatically drop arms to open freely in case of emergency/power outage
- Standard fire alarm input interface (N.C normally close contact)
- Multiple reader integration: Card reader, bar code scanner, finger-print detection and facial recognition at one tripod
- Selectable operation mode: Free access (always allow to pass), Controlled mode (only open for valid access authorization) in one or both direction.
- LED indication of direction and authorization status
- Available normally open and normally close mode
- Smooth operation with low noise and low mechanical impact
- Ergonomic and user friendly design for easily tabbing card
- No crew exposed for safety use of public
- Interface with peripheral computer for programming

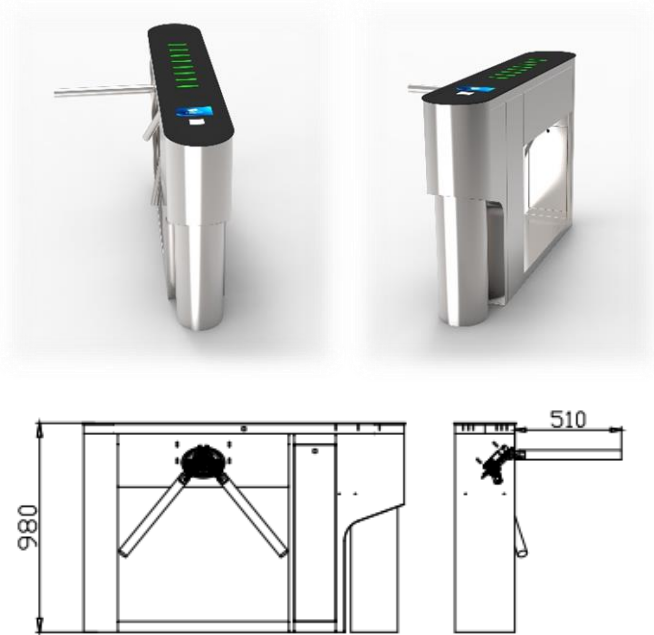
Specification

Power voltage	AC220V±10% V, 50Hz±10% Hz
Power consumption	3A
Mainboard voltage	24Vac
Electronic Motor	Standard DC Brush/ Brushless or Servo (optional)
Materials	Stainless Steel SUS304 1.5-2.0mm/ SS316 (optional)
Core machine	Hydraulic Core/ Gear & Plate (economical)
Mode of operation	Semi-automation/ Full-auto (optional)
Start-up Time	3s (Semi-auto)/ 8s (Full-auto)
Time to open the gate	0.2s
Direction	Single or Bi-directional
Working mode	Selectable (Free-access, Locked-access, Controlled access)
Passing speed	30~35 persons/min
Standard Dimension	1400 x 280 x 980 mm (1000mm with basement) 1400 x 300 x 980 mm (1000mm with basement)
Arm Length/ Passage width	510 mm/ 550mm
Automatic reset time after the failure	10 seconds
MTBF	>3 million (tested)
Operation temperature	-10°C ~ +50°C
Relative humidity	Relative ≤90%, no condensation
Working Environment	Indoor/Outdoor (with a tent cover)
Input port	Relay dry contact signal; +12V level signal and Pulse width >100ms, DC12V pulse signal
Input Interface	Dry contact signal or +12V level signal or DC12V pulse signal with a width of more than 100ms, driving current: >10mA.
Communication Interface	RS485, TCP/IP
Customization	<ul style="list-style-type: none"> • Stainless steel thickness of the cabinet: selectable between 1.5-3.0mm • Surface finish of the cabinet: satin/ polish/ frosted/ electroplating/ baking • Upgrade to Full-automation working mode • Upgrade to SUS316-grade stainless steel for industrial and seaside environment • Upgrade to Brushless, Servo and Germany motor for intensive and very intensive usage. • Modification on design and size

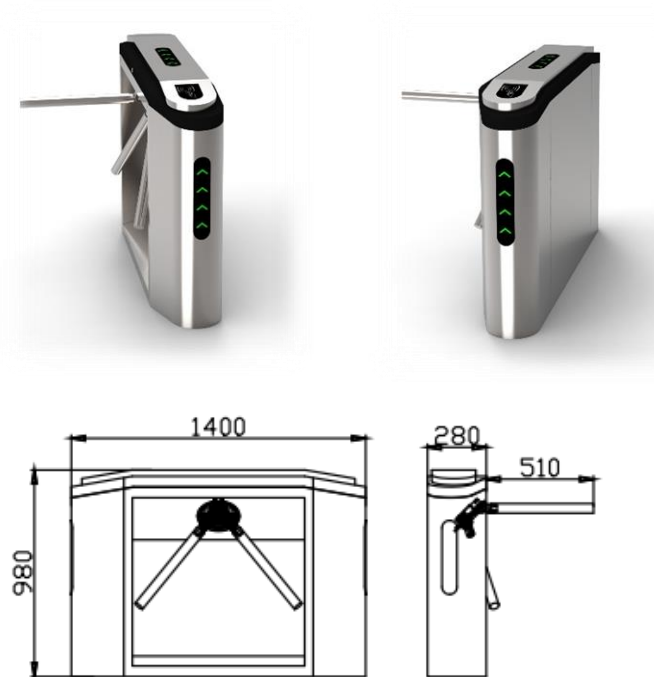
Models & Dimensions



MSS-TR2020



MSS-TR2021



Advantages

- Economical conventional solution
- Wide Space for multiple ACS integration
- Weather-durable and one-by-one access
- Low power consumption & low noise system operation

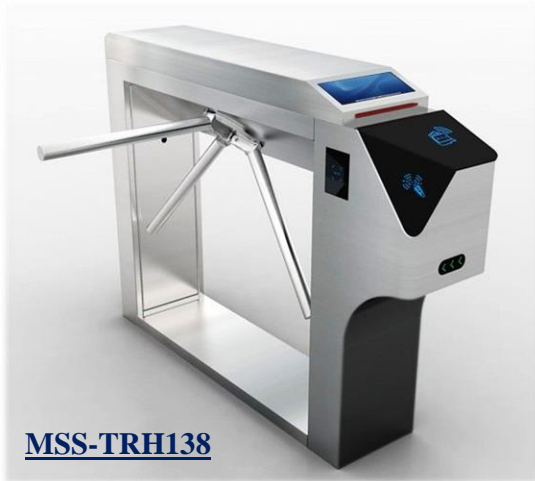
Models & Dimensions



MSS-TR1120



MSS-TRP185



MSS-TRH138



MSS-TR638



MSS-TR238



MSS-TH238S

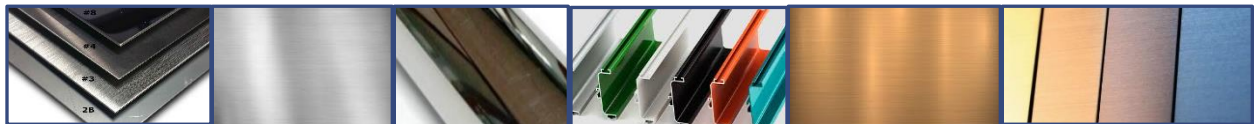


MSS-TRI321B



MSS-TRI312E

Finishing (*optional finishing and material process are available for all types of turnstiles)



Standard
(2B)

Satin

Mirror

Powder-
coating

Electro-
plating

Electrolytic-
coloring

FLAP BARRIER

Flap barrier or Wing Gate is automatic and safety pedestrian barrier solution that widely selected for ticket collection in public transportation and visitor management, individual authorization at office and buildings. The machine has more space for installation of many 3rd party access control or ticket solution, passenger LCD, passenger counter display, coin and ticket collection than other type of machine and at the same time it does not block the road or hurt passenger in the opposite direction and also available in wide lane.

Flap barrier is available in single machine turnstiles and double machine turnstiles and they can be used to found one to more lanes to enforce one by one enter or exit. The barrier often uses 5-8 pairs of infrared sensor or more for special requirement at both sides to avoid tail-gating and unauthorized violation and has standard electrical interface to integrate with common card reader and biometrics access control system.

The barrier is held in locked position when electrical power is on to control the access of public to secured area. When system is validated by user access card or recognition or active payment, the flap barrier retracts to allow one-by-one traffic. The flap will be automatically retracted during emergency or power outage for unencumbered exit for safety of public in event of emergency, fire and accidents.

Products can be set as controlled or free access in one direction or both directions by array of sensors on its bodies.

Traffic lights on both sides of turnstile barriers indicate the direction and status of access by arrow and its color. In which direction of arrow shows the direction of traffic while 'green' color means authorized and 'red' color means unauthorized.

Function

- Automatically reset function
- Ability to set up running status of device through pressing small built-in keyboard of main control board
- Ability to choose different operating model (bi-directional, single-directional)
- Equipped with infrared photo beam sensors and anti-folding mechanical to protect passengers from injuries (Anti-pinching)
- Positioning infrared sensors at two different heights level to prevent abnormal access (roll/crawl) and violated intrusion
- Anti-tailgating – to avoid one trying to pass by closely moving behind another
- Anti-reverse intrusion – to avoid one trying to pass in opposite direction of allowed direction
- Audible alarm when detecting unmoved obstacle
- Audible alarm for violation and un-authorized access
- Ability to lock at closed position to prevent force intrusion
- Time out closing feature to close entrance after a period of time without no access after an authorization (by default = 10s)
- Emergency/power outage escape, automatically retract flaps to open freely in case of emergency/power outage
- Standard fire alarm input interface (N.C normally close contact)
- Multiple reader integration: Card reader, bar code scanner, finger-print detection and facial recognition at one tripod
- Selectable operation mode: Free access (automatically open whenever detecting passenger by

infrared beam), Controlled mode (only open for valid access authorization) in one or both direction.

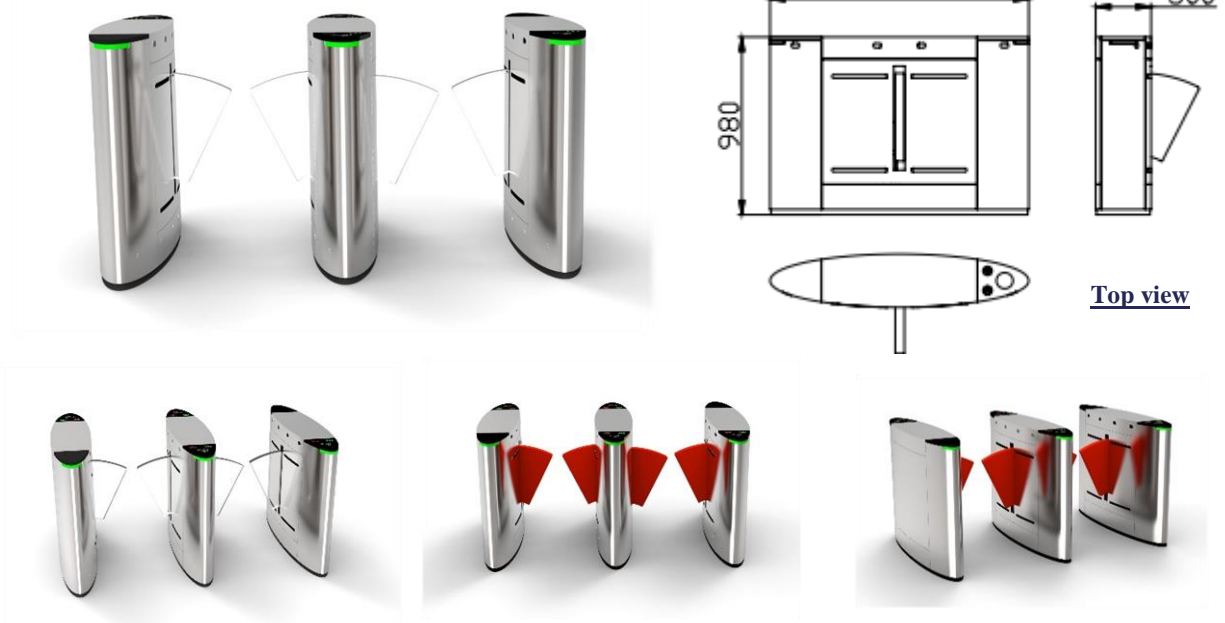
- LED indication of direction and authorization status
- Able to set up multi-lane combination of handicapped lane and normal lane
- Available normally open and normally close mode
- Smooth operation with low noise and low mechanical impact
- Interface with peripheral computer for programming

Specification

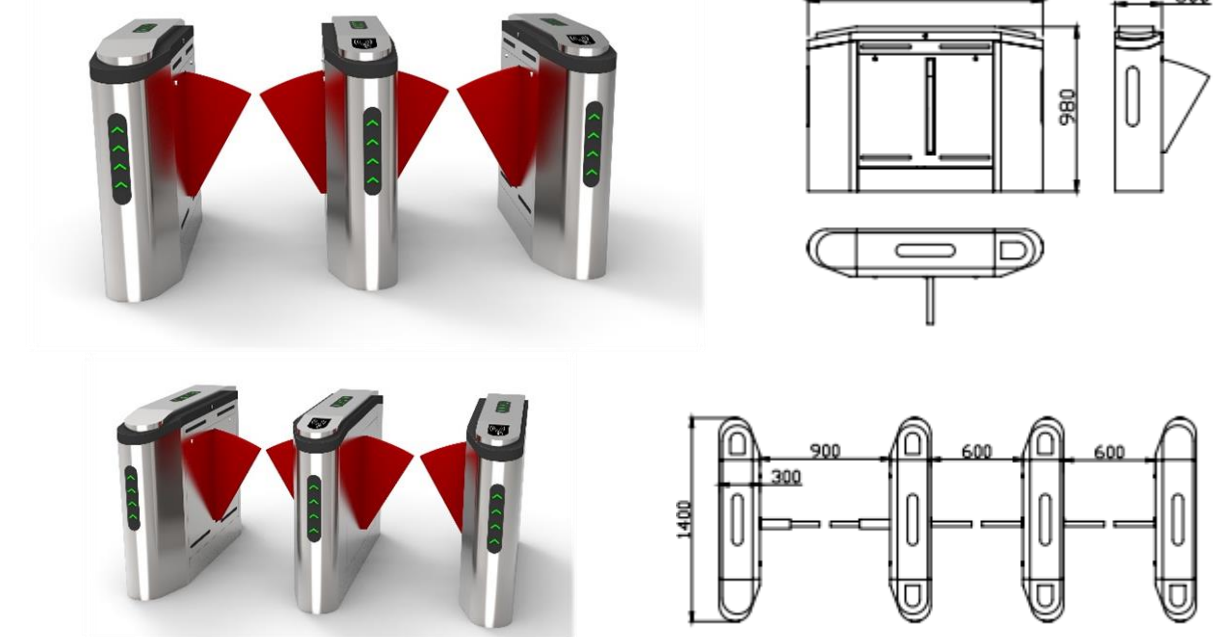
Machine center	Germany-algorithm motor
Power voltage	AC110-220V/50-60HZ
Power consumption	5A
Standard dimension	1400 x 300 x 980 mm
Housing material	SS304 stainless steel thickness 1.5-2.0mm
Door body material	Soft polyurethane foam material/ Acrylic
Driver motor	Standard DC Brush Motor/ Brushless 24V 40W or Servo (optional)
Main-board voltage	24VAC
In-built Infrared	5-8 pairs/passage way
Passing speed	30-35 persons/min
Passage Width	550~600mm
Flap gate opening / closing time	0.6 seconds
The time required to running state after power on	3 seconds
Automatic reset time after the failure	10 seconds
MTBF	5,000,000
Operation temperature	-20°C ~ +60°C
Relative humidity	Less than 95% not condensed
Working Environment	Indoor/Outdoor (with rain-tent cover)
Input port	Relay dry contact signal; +12V level signal and Pulse width >100ms, DC12V pulse signal
Communications port	RS232/ RS485 electric standard, communications range: ≤1200m. Available to connect with external CAN BUS and Ethernet
Customization	<ul style="list-style-type: none"> • Stainless steel thickness of the cabinet: selectable between 1.5-3.0mm • Surface finish of the cabinet: satin/ polish/ frosted/ electroplating/ baking • Upgrade to SUS316-grade stainless steel for industrial and seaside environment • Upgrade to Brushless, Servo and Germany motor for intensive and very intensive usage. • Modification on design and size (1600mm length) • Wide lane/ Disabled access for flap arm of 900mm

Models & Dimensions

MSS-WG2020



MSS-WG2021

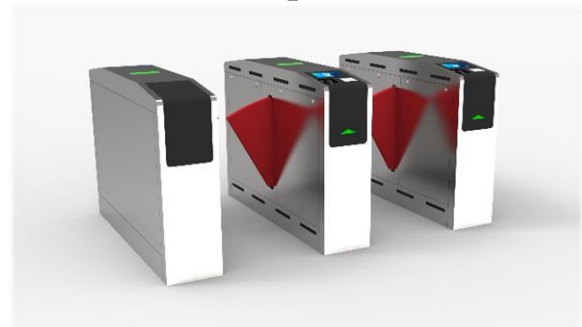
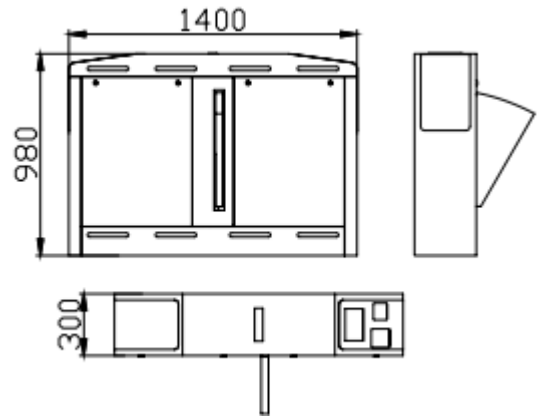


Advantages

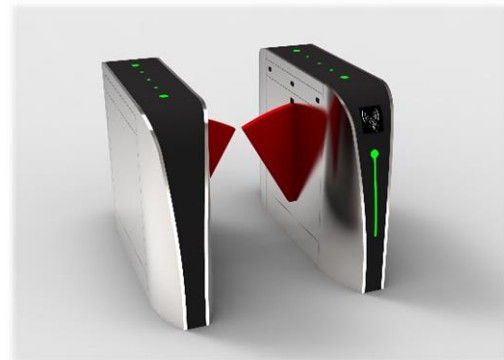
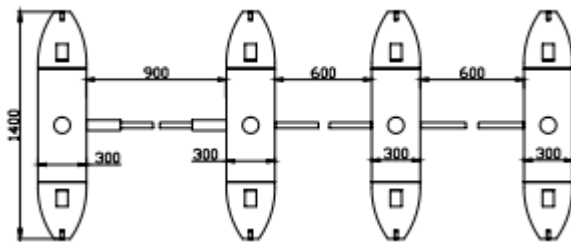
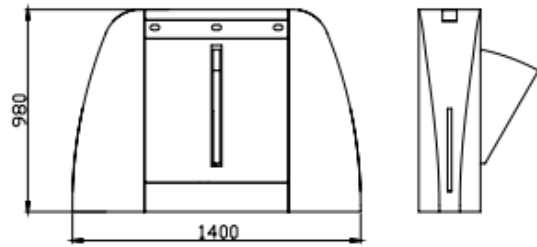
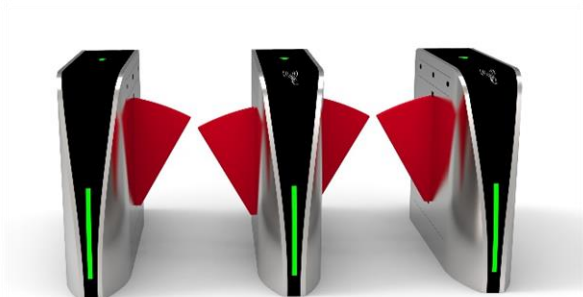
- Efficient & safe access for public
- Wide space for multiple ACS integration
- Smooth & highly stable operation
- Various working condition

Models & Dimensions

MSS-WG2000



MSS-WG2200



Unique features

- Non-destructive machine core center
- Anti-pinch, anti-reverse & tail-gating
- 120Nm impact force withstand ability
- Fully automatic & self-detection

SWING GATE

Swing Gate is the aesthetic and safety pedestrian barrier solution that widely selected for hotel, office and condominium building and many other areas. The transparent glass reduces the perceived barrier effect and create a welcome gesture. The barrier also has slim width and occupies less space on the floor than other types and easily to create a wide/handicapped lane.

Swing gate has single machine turnstiles and double machine turnstiles that can be used to found one to more lanes to enforce one by one enter or exit. The barrier often uses 5-8 pairs of infrared sensor or more for special requirement at both sides to avoid tail-gating and unauthorized violation and has standard electrical interface to integrate with common card reader and biometrics access control system.

The barrier is held in locked position when electrical power is on to control the access of public to secured area. When system is validated by user access card or recognition or active payment, the swing arms will open to allow one-by-one traffic. The arms will be automatically retracted during emergency or power outage for unencumbered exit for safety of public in event of emergency, fire and accidents.

Products can be set as controlled or free access in one direction or both directions by array of sensors on its bodies.

Traffic lights on both sides of turnstile barriers indicate the direction and status of access by arrow and its color. In which direction of arrow shows the direction of traffic while 'green' color means authorized and 'red' color means unauthorized.

Function

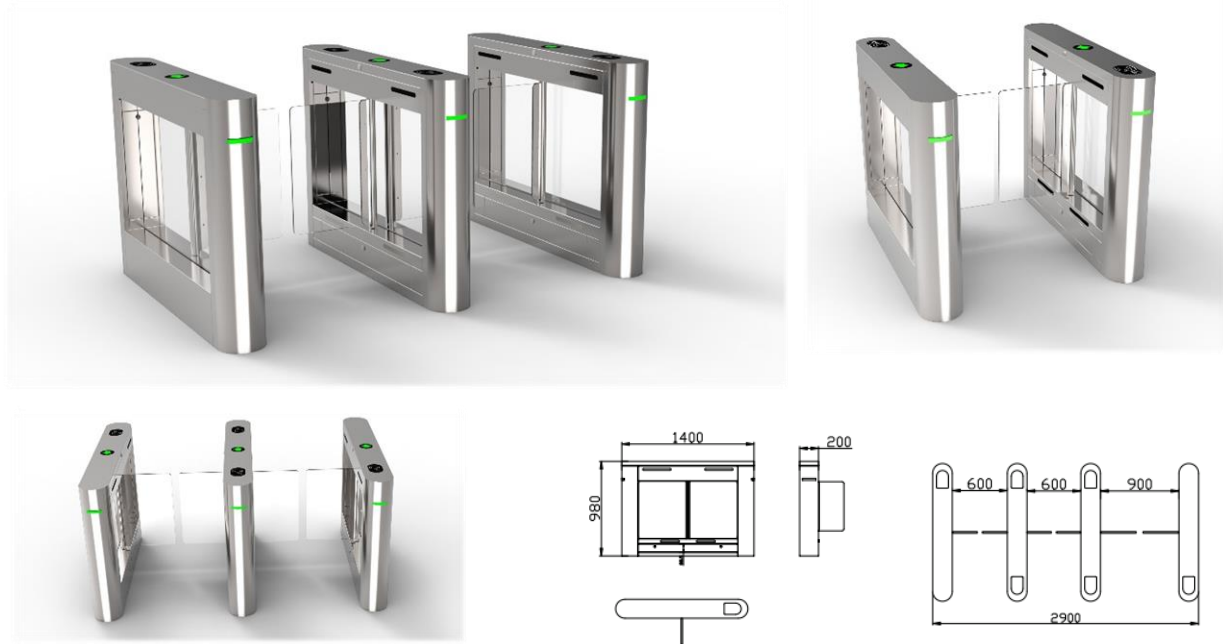
- Automatically reset function
- Ability to set up running status of device through pressing small built-in keyboard of main control board
- Ability to choose different operating model (bi-directional, single-directional)
- Equipped with infrared photo beam sensors and anti-folding mechanical to protect passengers from injuries (Anti-pinching)
- Positioning infrared sensors at two different heights level to prevent abnormal access (roll/crawl) and violated intrusion
- Anti-tailgating – to avoid one trying to pass by closely moving behind another
- Anti-reverse intrusion – to avoid one trying to pass in opposite direction of allowed direction
- Audible alarm when detecting unmoved obstacle
- Audible alarm for violation and un-authorized access
- Ability to lock at closed position to prevent force intrusion
- Time out closing feature to close entrance after a period of time without no access after an authorization (by default = 10s)
- Emergency/power outage escape, automatically retract flaps to open freely in case of emergency/power outage
- Standard fire alarm input interface (N.C normally close contact)
- Multiple reader integration: Card reader, bar code scanner, finger-print detection and facial recognition at one tripod
- Selectable operation mode: Free access (automatically open whenever detecting passenger by infrared beam), Controlled mode (only open for valid access authorization) in one or both direction.

- LED indication of direction and authorization status
- Able to set up multi-lane combination of handicapped lane and normal lane
- Available normally open and normally close mode
- Smooth operation with low noise and low mechanical impact
- Interface with peripheral computer for programming

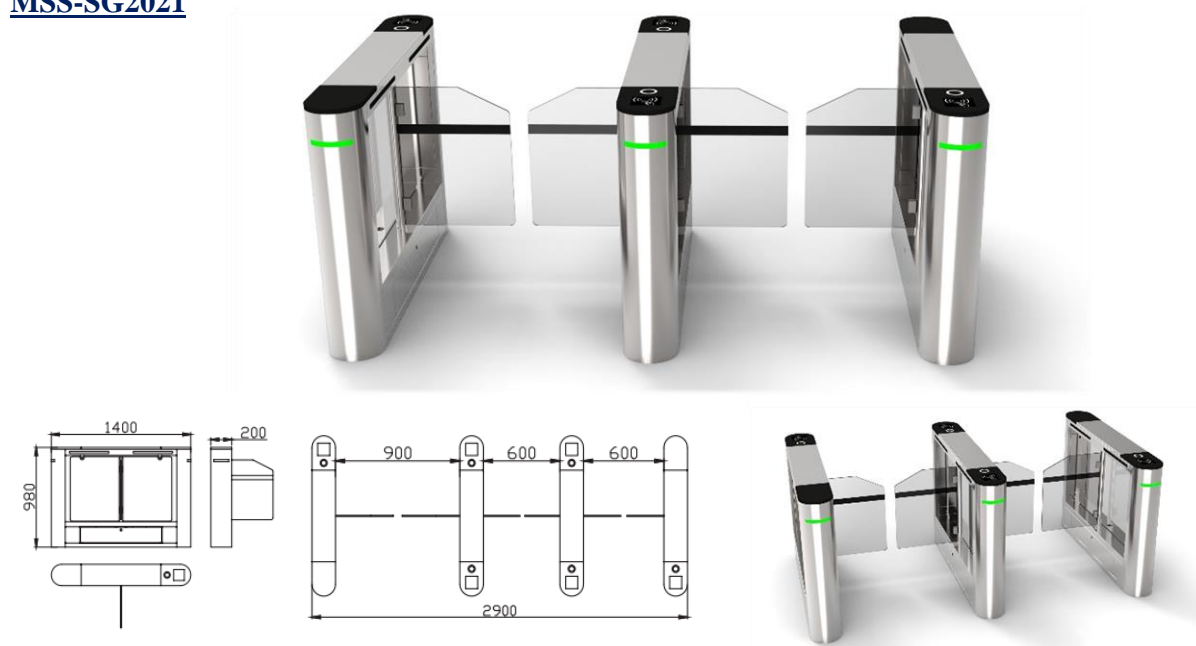
Machine center	Germany-algorithm motor
Power voltage	AC110-220V/50-60HZ
Standard dimension	1400 x 200 x 980 mm
Housing material	SS304 stainless steel thickness 1.5-2.0mm
Door body material	Tempered glass 10mm thickness
Driver motor	Standard DC Brush Motor/ Brushless 24V 40W or Servo (optional)
Main-board voltage	24VAC
In-built Infrared	5-8 pairs/passage way
Passing speed	30-35 persons/min
Passage Width	600-900mm
Flap gate opening / closing time	0.6 seconds
The time required to running state after power on	3 seconds
Automatic reset time after the failure	10 seconds
MTBF	5,000,000
Operation temperature	-20°C ~ +60°C
Relative humidity	Less than 95% not condensed
Working Environment	Indoor/Outdoor (with rain-tent cover)
Input port	Relay dry contact signal; +12V level signal and Pulse width >100ms, DC12V pulse signal
Communications port	RS232/ RS485 electric standard, communications range: ≤1200m. Available to connect with external CAN BUS and Ethernet
Customization	<ul style="list-style-type: none"> • Stainless steel thickness of the cabinet: selectable between 1.5-3.0mm • Surface finish of the cabinet: satin/ polish/ frosted/ electroplating/ baking • Upgrade to SUS316-grade stainless steel for industrial and seaside environment • Upgrade to Brushless, Servo and Germany motor for intensive and very intensive usage. • Modification on design and size (1600mm length)

Models & Dimensions

MSS-SG2020



MSS-SG2021



Advantages

- Transparent & unperceived looking
- Slim, sleek & aesthetic design
- Smooth & highly stable operation
- User-friendly & flexible lane width

SPEED GATE

Speed gate is the fast, reliable and durable solution of pedestrian barrier that allow the intensive and very intensive exploitation. The speed gate machine core, mainboard and motor was all put in the rotor column so speed gate is able to leave the minimal footprints and seamlessly blend into the surrounding environment. It is the most slim and sleek design while providing stable and exact operation for high frequency of use. The width of speed gate can be reduced as slim as 120mm.

Single machine and double machine speed gate turnstiles can be used to found one to more lanes to enforce one by one enter or exit. Speed gate often uses 5-8 pairs of infrared sensor ore more at both sides to avoid tail-gating and unauthorized violation and has standard electrical interface to integrate with common card reader and biometrics access control system.

The speed gate barrier is held in locked position when electrical power is on to control the access of public to secured area. When system is validated by user access card or recognition or active payment, the swing arms will open to allow one-by-one traffic. The arms will be automatically retracted during emergency or power outage for unencumbered exit for safety of public in event of emergency, fire and accidents.

Products can be set as controlled or free access in one direction or both directions by array of sensors on its bodies.

Traffic lights on both sides of turnstile barriers indicate the direction and status of access by arrow and its color. In which direction of arrow shows the direction of traffic while 'green' color means authorized and 'red' color means unauthorized.

Function

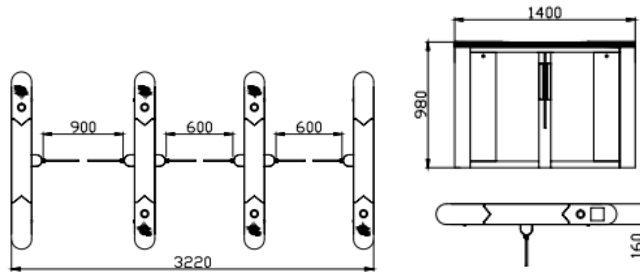
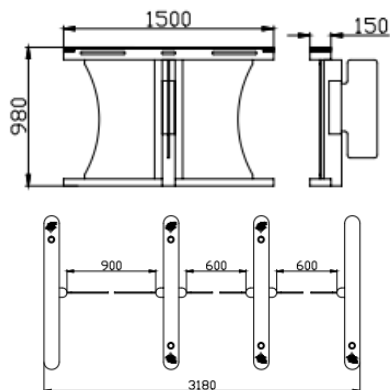
- Automatically reset function
- Ability to set up running status of device through pressing small built-in keyboard of main control board
- Ability to choose different operating model (bi-directional, single-directional)
- Equipped with infrared photo beam sensors and anti-folding mechanical to protect passengers from injuries (Anti-pinching)
- Positioning infrared sensors at two different heights level to prevent abnormal access (roll/crawl) and violated intrusion
- Anti-tailgating – to avoid one trying to pass by closely moving behind another
- Anti-reverse intrusion – to avoid one trying to pass in opposite direction of allowed direction
- Audible alarm when detecting unmoved obstacle
- Audible alarm for violation and un-authorized access
- Ability to lock at closed position to prevent force intrusion
- Time out closing feature to close entrance after a period of time without no access after an authorization (by default = 10s)
- Emergency/power outage escape, automatically retract flaps to open freely in case of emergency/power outage
- Standard fire alarm input interface (N.C normally close contact)
- Multiple reader integration: Card reader, bar code scanner, finger-print detection and facial recognition at one tripod
- Selectable operation mode: Free access (automatically open whenever detecting passenger by

infrared beam), Controlled mode (only open for valid access authorization) in one or both direction.

- LED indication of direction and authorization status
- Able to set up multi-lane combination of handicapped lane and normal lane
- Available normally open and normally close mode
- Smooth operation with low noise and low mechanical impact
- Interface with peripheral computer for programming

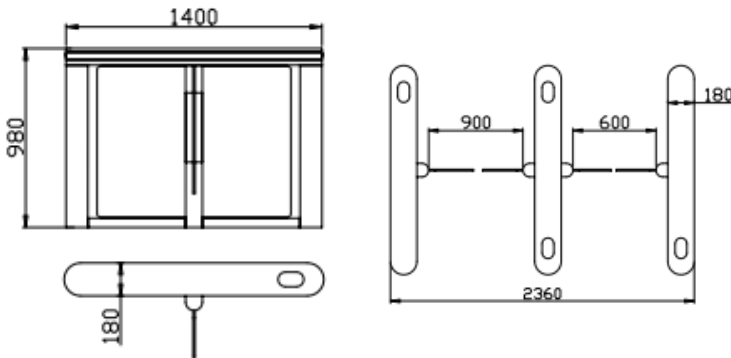
Machine center	Germany-algorithm motor
Power voltage	AC110-220V/50-60HZ
Standard dimension	1400 x 160 x 980 mm
Housing material	SS304 stainless steel thickness 1.5-2.0mm
Door body material	Tempered glass 10mm thickness
Driver motor	Brushless 24V 40W (standard)/ Servo (optional)
Main-board voltage	24VAC
In-built Infrared	5-8 pairs/passage way
Passing speed	30-35 persons/min
Passage Width	550~600mm
Flap gate opening / closing time	0.6 seconds
The time required to running state after power on	3 seconds
Automatic reset time after the failure	10 seconds
MTBF	5,000,000
Operation temperature	-20°C ~ +60°C
Relative humidity	Less than 95% not condensed
Working Environment	Indoor/Outdoor (with rain-tent cover)
Input port	Relay dry contact signal; +12V level signal and Pulse width >100ms, DC12V pulse signal
Communications port	RS232/ RS485 electric standard, communications range: ≤1200m. Available to connect with external CAN BUS and Ethernet
Customization	Stainless steel thickness of the cabinet: selectable between 1.5-3.0mm Surface finish of the cabinet: satin/ polish/ electroplating/ electro-coloring Upgrade to SUS316-grade stainless steel for industrial and seaside environment Upgrade to Servo and Germany motor for extreme usage. Modification on design and size (120mm width, 1600mm length)

Models & Dimensions

MSS-LSG2020**MSS-LSG8080****Unique features**

- Stand-alone mechanical structure
- Hardest one to produce and control
- The most slim & sleek turnstiles
- Fastest and the most intensive type

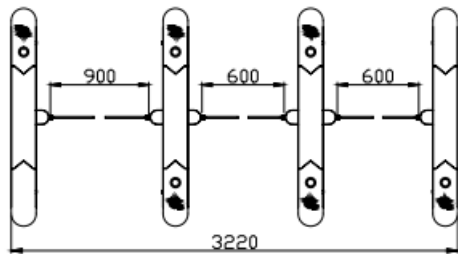
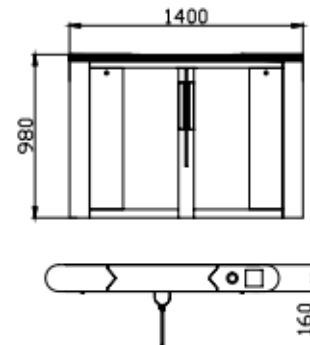
MSS-LSG80087



MSS-LSG2024

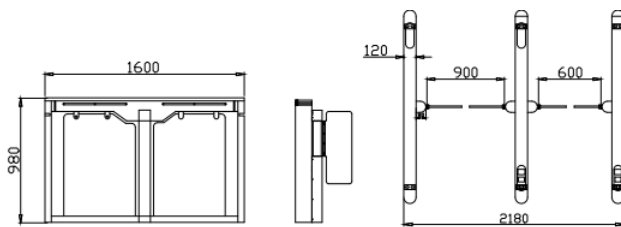
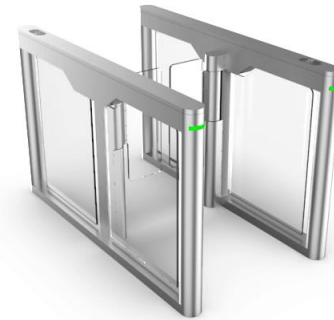
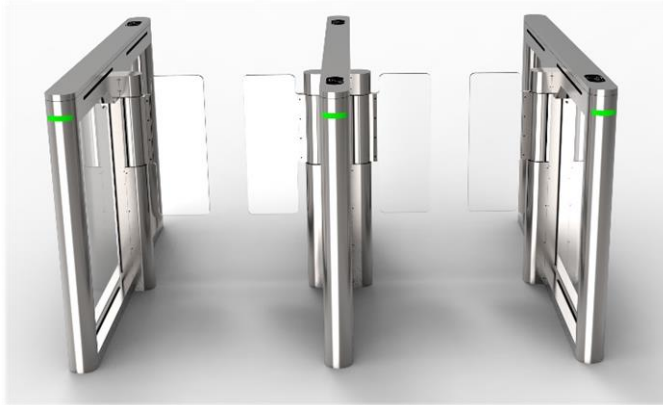
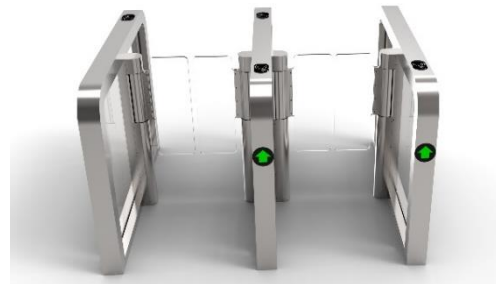
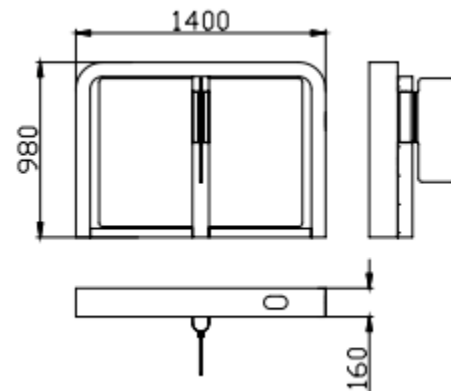


MSS-LSG80088



Standard features

- Elegant design & functional
- Basic training and low complexity
- Emergency & power-failure escape
- Back-up battery available*

MSS-LSG70075MSS-LSG8021**Customization**

- High-end material processing method
- Finger-proof, weather-proof painting
- Up to 20 pairs of infrared sensors
- Standalone judgement logic

FULL HEIGHT TURNSTILES

Full-height is the pedestrian monitoring solution to regulate the flow of people coming into and out of premises without stopping flow of air circulation or fully obstructs the view. Due to its structure, full-height provides the highest security level among turnstiles. It is the ideal solution for outdoor installation and the high-risk, difficult to control and highly restricted areas such as prison, bank, storage, and stadium.

Crawling or climbing is not possible since each single passage full-height turnstile contains three arms at 120 degree spacing to each other; each arm consists of 10 rods spaced equally to form a total of 2 meter plus in height with space between each rod only around 20cm. Variation of four arms at 90 degree spacing, optional canopy, extra height is available for special application. Since violation is not possible, full-heights are the recommended and preferred solution for unmanned and remote areas.

Locked position was pre-set when power on. Under semi-auto mode of operation, arms are manually pushed to pass upon validation takes place. In case of emergency, center rotor will be set free automatically for escape.

The turnstile has standard electrical interface to integrate with common access control system equipment and 3rd party facilities such as Card reader, Bar-code Scanner, Finger-print & Facial recognition, Iris recognition, Card collector, Token reader for the purpose of authority management and toll collection.

Products can be set as controlled or free access in one direction or both directions by array of sensors on its bodies.

Traffic lights on both sides of turnstile barriers indicate the direction and status of access by arrow and its color. In which direction of arrow shows the direction of traffic while 'green' color means authorized and 'red' color means unauthorized.

Standard functions

- Single passage full-height turnstile, SS304, Semi-auto.
- Automatically reset function
- Ability to set up running status of device through pressing small built-in keyboard of main control board
- Ability to choose different operating model (bi-directional, single-directional)
- Anti-reverse intrusion – to avoid one trying to pass in opposite direction of allowed direction
- Ability to lock at closed position to prevent force intrusion
- Anti-back up function to prevent reverse rotation once the arm turned 60 degree from original position
- Time out closing feature to close entrance after a period of time without no access after an authorization (by default = 10s)
- Emergency/power outage escape, automatically drop arms to open freely in case of emergency/power outage
- Standard fire alarm input interface (N.C normally close contact)
- Multiple reader integration: Card reader, bar code scanner, finger-print detection and facial recognition at one tripod
- Selectable operation mode: Free access (automatically open whenever detecting passenger by

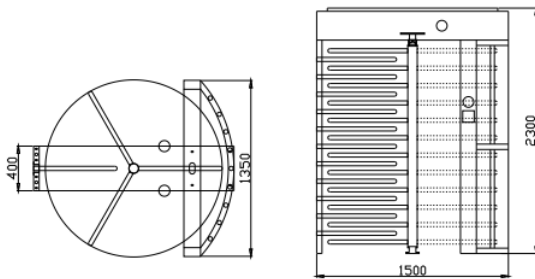
infrared beam), Controlled mode (only open for valid access authorization) in one or both direction.

- LED indication of direction and authorization status
- Available normally open and normally close mode
- Smooth operation with low noise and low mechanical impact
- Ergonomic and user friendly design
- No crew exposed for safety use of public
- Interface with peripheral computer for programming

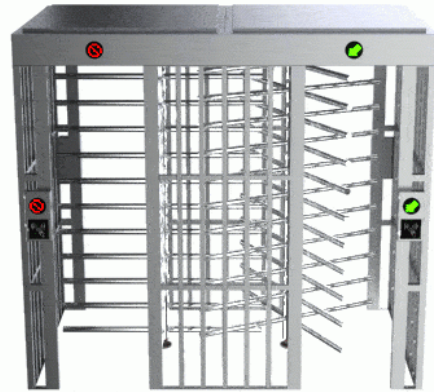
Power voltage	AC220V±10% V, 50Hz±10% Hz
Power consumption	6A
Mainboard voltage	24Vac
Electronic Motor	Standard DC Brush/ Brushless or Servo (optional)
Materials	Stainless Steel SUS304 1.5-2.0mm/ SS316 (optional)
Mode of operation	Semi-automation
Start-up Time	3s (Semi-auto)
Time to open the gate	0.2s
Direction	Single or Bi-directional
Working mode	Selectable (Free-access, Locked-access, Controlled access)
Passing speed in normally open mode	30~35 persons/min
Passing speed in normally closed mode	30~35 persons/min
Arm Length/ Passage width	510 mm/ 550mm
Automatic reset time after the failure	10 seconds
MTBF	>3 million (tested)
Operation temperature	-10°C ~ +50°C
Relative humidity	Relative ≤90%, no condensation
Working Environment	Indoor/Outdoor (with a tent cover)
Input port	Relay dry contact signal; +12V level signal and Pulse width >100ms, DC12V pulse signal
Input Interface	Dry contact signal or +12V level signal or DC12V pulse signal with a width of more than 100ms, driving current: >10mA.
Communication Interface	RS485, TCP/IP
Customization	Stainless steel thickness of the cabinet: selectable between 1.5-3.0mm Surface finish of the cabinet: satin/ polish/ frosted/ electroplating/ baking Upgrade to Full-automation working mode Upgrade to SUS316-grade stainless steel for industrial and seaside environment Upgrade to Brushless, Servo and Germany motor for intensive and very intensive usage. Modification on design and size

Models & Dimensions

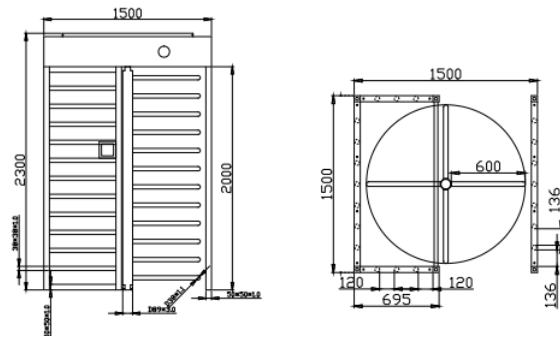
MSS-FH2030



MSS-FH6020A

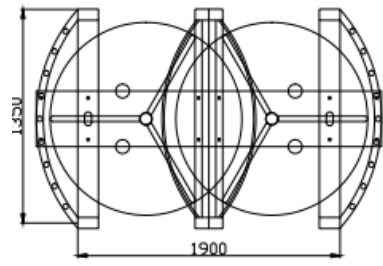
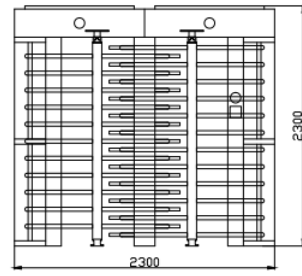


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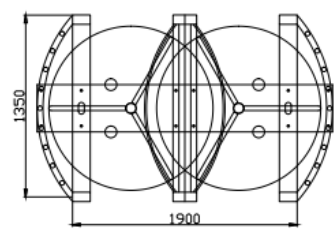
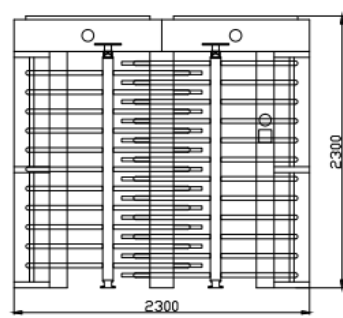
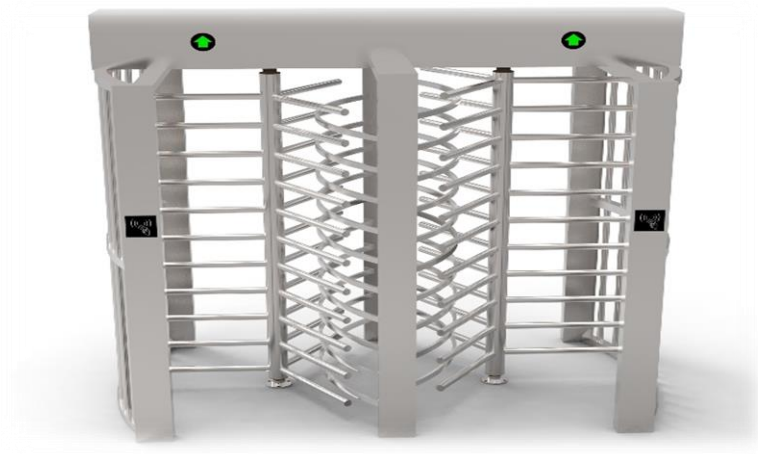


Models & Dimensions

MSS-FH6088



MSS-FH8061



INFECTION CONTROL

Facial reader with temperature sensor

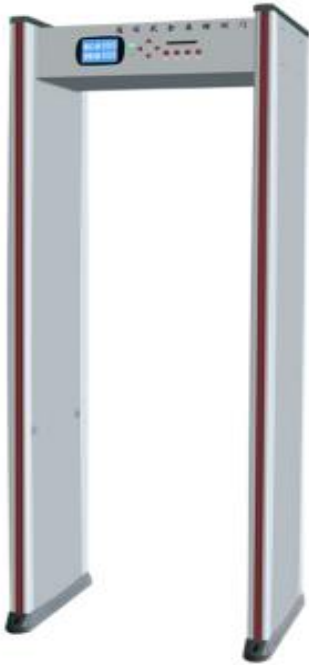


MSS-FDT10S is Facial Detection Device with integrated infrared temperature sensor. It is able to detect face with or without mask (optional) and at the same time display the human body temperature and stop people with high temperature to enter certain premises. This can help to prevent the spread of infected diseases and bring up a safety and healthy environment for publicity.

MSS-FDT10S is suitable to mount on top of turnstiles or any place that require the facial recognition access such as hotel, office building, entrance of shopping malls, construction site or school .etc.

Display screen	8 inches, 170 IPS LCD, 350 LU Brightness, 800 x 1280 HD Resolution	
Camera	Color CAM 2MP 1080P WDR RGB	
	Infrared CAM 2MP 1080P WDR RGB	
CPU	4 cores, 1.8GHz	
Operating system	Android 7.1 and above	
Electricity	DC 12V (±10%) 3A	
Facial capacity	30,000 database, 150,000 records	
Audio	1 channel audio output	
Video	1 HDMI 2.0 Type-A interface	
Output	1 relay output	
Network interface	1 RJ45 10M/ 100M adaptive Ethernet port, Wi-Fi, Bluetooth, 4G (optional)	
Face detection	Support detection and tracking of 5 people	
Recognition accuracy	99.7% (under condition of three thousand faces)	
Optional (on request)	Stranger detection, Recognition distance configuration, UI interface configuration, Remote device upgrade, Mask recognition.	
	Recognition distance	0.3 to 1m (0.5m is recommended)
Human body temperature detection	Measurement accuracy	± 0.5°C
	Measurement range	30°C - 42.5°C
	Thermal imaging	Yes
Protection level	IP55, certain dust-proof and water-proof	
Power supply	DC12V (±10%)	
Operating temperature	-10°C ~ 60°C	
Relative humidity	10% ~ 90% (non-condensing)	
Power consumption	10W max	

Walk-through metal detector with temperature control



MSS-MTD3000

- Strong anti-interference ability
- Reliable and high accuracy
- Lower power consumption & small size
- Buzzer Alarm & LCD display
- Quick installation and integration
- Smart statistics with counting function
- Non-interrupted parameter setting

The walk-through metal detector gate uses infrared non-contact temperature sensor for dual detection of metal and abnormal human body temperature at the same time. The product helps to prevent the spread of diseases in flocks and enhances the safety and security of publicity without taking time and resource for personal check-up.

The gate is totally safety and harmless to human body and hygienic to use under non-contact method. It also comes with smart statistic to count the number of passages and number of alarms and display those parameters and passenger's temperature on LCD on top for administrator to review.

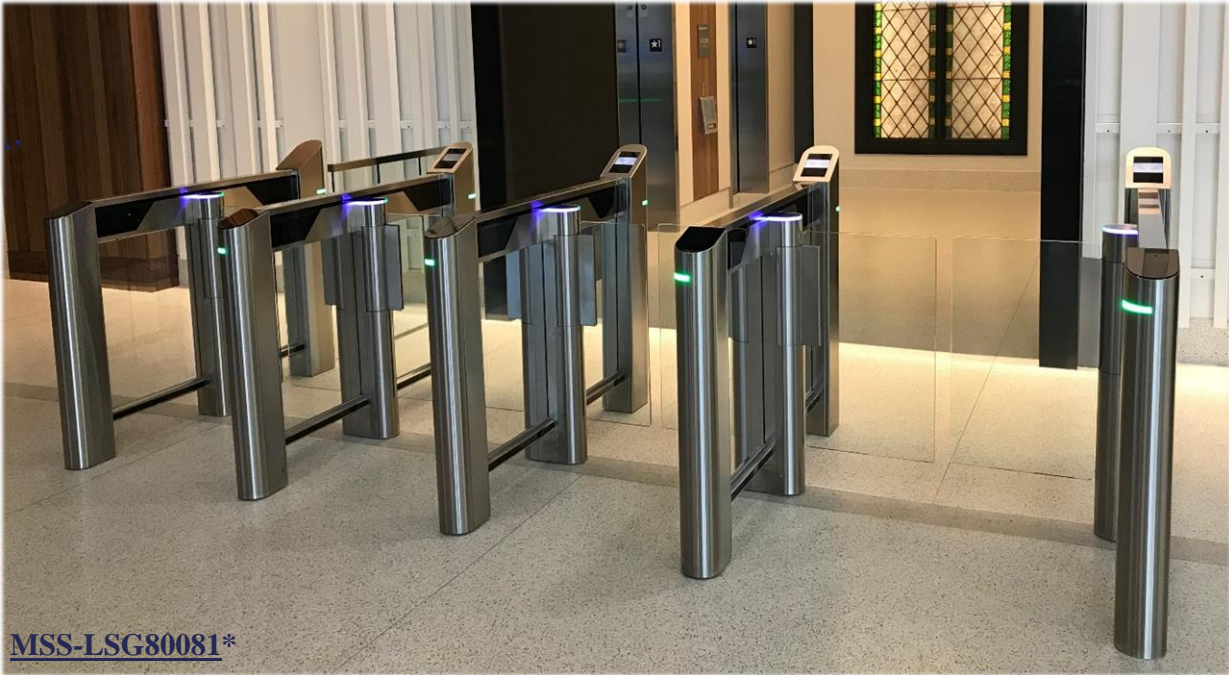
Besides, the gate use analog and left-right balance technology to prevent false alarm and missed report, greatly improving anti-interference ability and automatically stored the setting parameter under continuous operation without the need of interrupting power supply. It is made of PVC water and moisture-proof synthetic material, luxurious and beautiful appearance, with integrated design to allow installation and disassemble in 10 minutes. Walk-through door with only metal detection or temperature detection features and customization features are available on request.

Technical specification

S

Product dimension	2200 mm (H) x 800 mm (W) x 500 mm (D)
Passage dimension	2100 mm (H) x 700 mm (W) x 400 mm (D)
Measuring temperature	-32°C to 100°C
Accuracy	±0.5°C
Resolution	0.1°C/°F
Power consumption	<35W
Response time	<1s
Alarm method	Buzzer alarm
Power supply	220VAC±20% 50-60Hz
Operating Temperature	0°C-45°C
Relative Humidity	10-95%RH (non-condensing, environment temperature less than 30°C)
Number of detection zones	6/ 18/ 24
Note	The accuracy of the temperature sensor is affected by the environment and measurement distance.

Concept to real-life



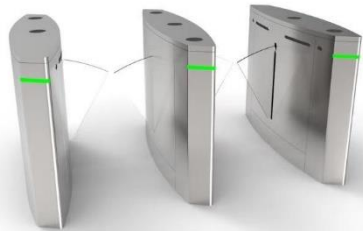
* modifications required



MSS-SG2021*
(*add legs for height & beauty)



MSS-SG7808



MSS-WG4820.



MSS-SL4066





MSS-FH2030



MSS-FH6081*(made of iron and painted black)



Facial thermometer

Installation recommendation



Mobile platform: Purpose of mobile platform is to provide a quick and easy installation of any turnstiles system in a place for temporary use. The platform can be ordered with iron, aluminum and steel and with wheels for moving purpose.



Full-height installation in containers: Serve as a temporary access to construction site and empty area. The container also can be used as guard house and help to prevent the sunshine and heat, protecting the access control devices and enhance the accuracy of products that uses infrared sensor (such as infection control/temperature control).



Automatic Fare Collection (AFC) Gate (Singapore): Flap-barrier is commonly used for ticket collection purpose as it provides large space for multiple access and display solution and at the same time, it is safe, friendly to users and have fast and continuous operation. This bi-directional retractable flap that integrated CEPAS smart card readers, LCD fare information display, LED directional sign and LED gate status display have been implemented in Singapore LRT & SMRT.



Turnstiles aesthetically blending into the building environment:

Applying the material processing technique to coloring the turnstiles and equip decoration features (such as LED) to make turnstiles match with the theme and nature of the surroundings environment.



*Mobile platform, theme design, material processing and special installation/integration are part of MSS® customization program.

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