Speed gate SPEEDBLADE

GENERAL

Principle – flap type (retractable) speed gates, with wings opening to the opposite sides.

Single and double-sided cabinets allowing arranging independent single or joint multi lanes.

Each wing has independent mechanical blocking mechanism (DeadLock) to prevent un-authorized manual opening of the wings. Turnstile can be equipped by Fail Safe or Fail Secure mechanism.

Motor of the turnstile should be brushless (BMDrive). Speed of opening of normal lane should not exceed 0.5 seconds to provide high traffic rate.

The smart self-diagnosing system of mechanism BMDrive automatically analyzes the system, detects critical malfunctions, and records error log and warnings.

The BMDrive mechanism controller is equipped with an OLED display for easy setup and configuration without special programmers, also a full configuration and diagnostics is possible via a USB connector by using a service software for Windows OS.

Turnstiles shall be capable of Continuous Motion Control. Barrier motion shall be under the control of the unit at all times through the cycle. This motion can be overridden by the user at any point during passage.

The turnstile shall be integrated with a building access control system to grant or deny access to the facility.

The turnstile shall be capable of utilizing proximity, bar code, magnetic stripe and biometric readers. All readers shall be factory mounted and protected by tempered glass when possible.

Turnstile's design should allow installing any type of reader including external biometric reader. In the same time, such reader should be located within dimensions of turnstile, without changing of material of top-lid (glass), and done from same brushed stainless steel as rest housing on the cabinet (if it is required).

Turnstile's design should allow installing build-in card-collector system (factory-made) without any exposed elements. Such card-collector system should have a LED backlight, servo-motor, and bracket for RFID-reader selected by customer. Box for visitor's cards should be located under the system and access for collecting the cards, can be arranged through side cover (door) of the turnstile.

The pedestrian passageway shall be bi-directional at all times.

The passageway shall be directionally controlled to not allow passage in opposite direction of a positive card read. This feature shall prevent tailgating and invalid access into the facility.

The moving panel shall be capable of being replaced without removing the cabinet from the floor or disassembling the installation.

Operation shall be capable of allowing one single passage per valid card read. Passageway shall be directionally sensitive and optically resettable. If pedestrian attempts to travel in opposite direction of valid card read; moving panel shall close and not allow invalid access to the passageway.

Entrance/exit control shall be performed by a dry contact closure of no more than 200ms. Fire alarm open control shall be performed by breaking the normally closed wire pair/circuit provided at the turnstile control board.
Push button/panel and exit control shall be available.

Tempered glass leafs shall have LED backlight function and should shine blue color during standby, green when access granted or in free passage mode, red when access denied or alarm activated. Tempered glass leafs can be done with sand-blasting of any graphic element. Wide passage for handicapped shall have telescopic leaf.

Not less than fourteen infra-red safety sensors (transmitters and receivers) should be covered with a tinted plastic covers (strips) to hide location of sensors and prevent manual obstructing of the same with un-authorized intention.

Safety sensors should be located at the top and bottom of the turnstile, to detect each independent person, person with trolley or luggage, or person on the wheelchair.

OPERATION MODES

A. Passage Modes:
   1. *Controlled Passage*: Each person must present a valid electronic credential to the integrated reader before passage is allowed. Upon receipt of an authorization signal from the access control system, the barriers open and allow a single passage in the authorized direction. The barriers return to the closed position after the user has passed through the turnstile or the time frame allowed for entry expires. The turnstile will buffer multiple inputs to maximize throughput.
   2. *Free Passage*: All persons are allowed to pass. The barriers open when the first sensor in the cabinet array is activated and close when the person passes through the turnstile.
   3. *No Passage (Direction Closed)*: No passage is allowed. Valid electronic credentials are ignored.
   4. *Free passage*: Allows anybody without credentials access through the turnstile. When placed in Free passage Mode, the barriers open and remain open. Passages in either direction are monitored and an output is provided for each passage.

      Direction of free passage can be selected by ACS or from wired push-button. Free passage can be activated in one or both directions.

B. Operating Modes:
   1. *Normally Closed*: The barriers are closed, securing the turnstile.
   2. *Barrier Disabled*: The barriers remain open, allowing the unit to function as a barrier free optical turnstile.
   3. *Emergency:* Activation to open the barriers in conjunction with a fire alarm or similar system. When activated, the barriers open in the exit direction and remain open until deactivated.
   4. *Power Failure*: In the event of loss of power, the barriers can be opened automatically.

ALARM FUNCTIONS

Following alarms should be generated locally and on the wired control panel (push-button) . The system should have necessary dry contacts for the required alarm generation.

- Intruder Alarm – Activated after detection of an unauthorized person attempting access.
- Tailgating Alarm – Activated after detection of an unauthorized person following an authorized person.
- Opposite Direction Alarm – Activated after detection of an unauthorized person entering from the opposite side of an authorized person.

- Anti-Masking Alarm – Activated after one or more detection sensors is masked during a longer period than that used for a normal passage.
- Barrier Panel Open Alarm – Activated when the barrier panels unintentionally stay in an open position for an abnormal period.

PHYSICAL DIMENSIONS
Passage width – from 500 to 900 mm.
Cabinet width (both for side or middle cabinets) – 290 mm
Cabinet length (both for side or middle cabinets) – 1000 mm

MATERIALS
Barrier (wings): Tempered 8 mm glass with polished safety edges with a sandblasting and three colors of backlight.
Housing: brushed AISI 304 stainless steel, polished AISI 304 stainless steel, powder coated steel.
Top-lid: tempered 8 mm painted glass with standard tinted window for RFID card-reader, and possibility (upon order) to install external metal holders for other identification devices like biometric readers or keypads.
Internal frame: galvanized steel.

Origin
Only European or USA products allowed. Origin to be confirmed by Certificate of Origin issued by Chamber of Commerce.