

## **TURNSTILES**

### **PART 1 GENERAL**

#### **1.01 SECTION INCLUDES**

- A. Barrier arm optical turnstiles and accessories.

#### **1.02 RELATED REQUIREMENTS**

- A. Section 26 05 09 - Equipment Wiring: Electrical connections.
- B. Section 28 10 00 - Access Control and Intrusion Detection.

#### **1.03 REFERENCE STANDARDS**

- A. ADA federal regulations and requirements.
- B. NFPA 70 - National Electrical Code; National Fire Protection Association.

#### **1.04 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate gate dimensions, rough-in measurements for control interface, anchorage details, and locations. Provide wiring diagrams.
- C. Product Data: Provide information on operational features, color and finish.
- D. Maintenance Data: Include instructions for maintenance and diagrams for repair and replacement of parts.

#### **1.05 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than ten years of documented experience.
- B. Installer Qualifications: Trained and approved by system manufacturer.

#### **1.06 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver materials to job site in manufacturer's packaging undamaged, complete with installation instructions.
- B. Store off ground, under cover, protected from weather, construction activities and debris.

#### **1.07 WARRANTY**

- A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
- B. Correct defective Work within a 5 year period after Date of Substantial Completion.

### **PART 2 PRODUCTS**

#### **2.01 MANUFACTURERS**

- A. Basis of Design: Optical Turnstile 6000-GB1 by Turnstile Security Systems, Inc:  
[www.turnstilesecurity.com](http://www.turnstilesecurity.com).
- B. Other Acceptable Manufacturers, subject to compliance with specified requirements:
  1. Substitutions: See Section 01 60 00 - Product Requirements.

#### **2.02 BARRIER ARM OPTICAL TURNSTILES**

- A. Type: Barrier arm optical turnstiles.

B. Drive: Motorized.

C. Materials:

1. Base: Welded stainless steel
2. Internal Frame: Welded stainless steel
3. End Panels: Stainless steel, Type 304; No. 4 finish.
4. Side Panels: Stainless steel, Type 304; No. 4 finish.
5. Lid: Solid surface material made of stainless steel, Type 304: No. 4 finish
6. Arm: Clear polycarbonate.
7. Arm Alcove: Vacuum formed ABS plastic; black color.

Dimensions:

1. Lane Width: Standard Width- 25.5 in.  
ADA Width- 36 in.
2. Cabinet : Length - 59 in.  
Height - 39 in.  
Width - 7.87 in.

D. Function: User configurable operational modes of bi-directional, electronically controlled entry & exit access.

E. Control Mechanism: Tandem motorized barrier arms with optical safety sensors.

F. Method of Operation: Signal activated via access control system software, , or push button device; 16 infrared sensors mounted inside turnstile cabinets monitor traffic through turnstile.

Operating Modes:

1. Normally Closed: The barriers are closed, securing the turnstile and will only open upon acceptance of a signal.
2. Normally Open: The barriers are open providing a open passageway and will close upon unauthorized entry or tailgating

Passage Modes:

1. Controlled Passage: Passenger must supply valid access card in order to pass through turnstiles.
2. Free Passage: Passenger is allowed to pass freely without need to supply access credentials.
3. Entry/Exit Prohibited: No passage is allowed. Entry/exit way barred.

G. Proximity Card Reader: Internal space available for mullion style proximity card reader device.

H. Status Icons: green/red illuminated status icon display flush mounted within cabinet lid.

I. Open/Close Status Lights: Green/Red illuminated status icon display flush mounted within cabinet end panel.

J. Arm Cycle Time: 450 milliseconds.

L. Violation Alarm: User configurable alarm activated when unauthorized user enter turnstile.

M. Power Failure: Fail-safe operation; automatically unlocks upon loss of power.

N. Emergency Breakaway: Vertical broken away barrier arm signals alarm.

- O. Fire Alarm: Terminal strip connections provided for activation to open barrier arms in conjunction with fire alarm or other life safety systems.
- P. Aborted Entry: Adjustable time-out timer if user does not pass through within set time.
- Q. Open/Close Inputs: Sustained dry contacts for activation to open or close in either direction.
- R. Crawl Detection: Detection of unauthorized passed by crawling through passageway.
- S. Blocked Sensor Alarm: Audible alarm will sound if one or more infrared sensors remains blocked or obstructed.
- T. Tailgate Detection: Audible alarm
- U. Outputs: Output signals for the following:
  - 1. Authorized passage feedback.
  - 2. Unauthorized passage feedback.
  - 3. Violation alarm.
  - 4. Aborted entry.
  - 5. Power Supply: 120 VAC, 60 Hz.
  - 6. Power Rating: 250 watts, maximum per turnstile, 5 amp
- V. Throughput Rates (Approximate):
  - 1. Proximity Reader Device: 40 users / min.
  - 2. Magnetic Swipe: 25 users / min.
  - 3. Magnetic Swipe with Numeric Keypad: 20 users / min.
  - 4. Omni-Directional Barcode Scanner: 40 users / min.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify rough-ins at cabinets are correctly sized and located.

#### **3.02 INSTALLATION**

- A. Install in accordance with manufacturer's shop drawings and instructions.
- B. Install units plumb and level, located as detailed.
- C. Secure rigidly in place.
- D. Coordinate installation of electrical service with Section 26 05 09.

#### **3.03 CLEANING**

- A. Remove strippable films and clean units according to manufactures instructions.

**END OF SECTION**