ALVARADO
dormakaba Group

TAS12-EDM SERIES

MOTORIZED ADMISSION TURNSTILES

TAS12-EDM intelligent admission waist high turnstiles provide access control at stadiums, arenas, theme parks and other entertainment facilities. The turnstiles validate all types of entry credentials and provide a wide variety of features and functionality specifically tailored to entertainment and leisure facilities. All TAS12-EDM series turnstiles utilize a motorized rotation system that maximizes throughput while providing superior passage comfort for guests.

TYPICAL INSTALLATION SITES

- Stadiums
- Arenas
- Theme Parks
- Ferry Terminals
- Other Entertainment Facilities

COMMON APPLICATIONS

- Entry and/or Exit Access Control
- Printing During the Entry Process
- Attendant Assisted Access Control

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FUNCTION

The TAS12-EDM is one of our intelligent admission products, providing admission control at sports and entertainment venues. The TAS12-EDM integrates directly (no server software or middleware required) with TicketMaster and Paciolan access systems. Our turnstiles also work seamlessly with Alvarado's widely used GateLink10 admission control software or, using our DirectConnect API, the TAS12-EDM can directly communicate with third-party systems.

TAS12-EDM turnstiles provide superior real-time validation of printed and digital 1D/2D barcodes. A strategically placed, best in class, 1D/2D barcode imager provides near instantaneous validation of printed and digital barcodes in all types of environments. Alvarado offers options to also validate virtually any media type, including RFID/NFC. The RFID/NFC reader can be part of the initial order, or easily added in the field, if the venue is not currently working with RFID credentials.

The TAS12-EDM is reliable and packed with features, including a motorized drive system, which provides a smooth, controlled and nearly silent rotation. Our precise rotation control allows a user to start the motorized rotation with just a touch of the horizontal turnstile arm. As an added benefit, the TAS12-EDM's extended arm length provides a very comfortable passage width for patrons.

The turnstiles have drop arm functionality which facilitates quick and easy patron exit after an event. Powering down the turnstiles or sending a "drop arm" command from the included GateUtility application (see below), drops the horizontal arm, providing a clear passageway for after event, or emergency, egress. Restoring power or sending a "reset arm" command automatically returns the arms to the normal operating position. The turnstile also has a dedicated fire system input if required by local fire codes.

Like all our intelligent admission devices, TAS12-EDM turnstiles allow guests to self-validate entry credentials. Guest self-scanning of credentials is becoming increasingly popular at venues because it provides many benefits over handheld validation terminals, including faster throughput and superior digital barcode scanning – even in bright sunlight.

As an added benefit, purchasers of TAS12-EDM turnstiles receive GateUtility, a browser-based configuration and support utility that allows users to address individual turnstiles, turnstiles in a section or area, or all installed turnstiles, to:

- Change display graphics and audio sound files
- Change the operating mode between controlled entry and free pass
- Automatically drop the horizontal arm to provide a free passageway for after event egress
- Automatically return the horizontal arm to the normal operating position
- Download software updates and restart devices

EXAMPLES OF AVAILABLE OPTIONS ARE:

- Addition of a highly responsive RFID/NFC reader. Every TAS12-EDM is factory prepped to allow field installation of a RFID/NFC reader at later date.
- Addition of a second display/scanning device for entry/exit validation (or attendant assisted entry application using the touchscreen).
- Addition of a high speed printer used to print coupons and seat locator slips. For some venues Alvarado prints unique identifying graphics on seat locators to identify whether a patron is allowed access to clubs or special areas inside the facility.
- Wireless communication, portable and battery powered

MODELS

Alvarado offers six TAS12-EDM intelligent admission turnstile models. Various options are available for all models (see Options section)

TAS12-EDM

The TAS12-EDM comes with a scan head containing an intelligent high speed controller, color touchscreen display and 1D/2D barcode imager that quickly scans printed and digital barcodes. LED's on the rear of the device notify attendants of presented credential status (good/bad) and identify when special tickets, such as "child", "senior" or "VIP", are presented. The graphics on the front display are user customizable and can include advertisements. The turnstile supports many admission functionality options, most of which are conveniently controlled and implemented from the GateLink10 server.

TAS12P-EDM

The TAS12P-EDM has the features of the TAS12-EDM, plus an integrated high-speed kiosk style printer.

DUAL TAS12-EDM

This model comes with two scan heads, each containing an intelligent controller, color touchscreen display and 1D/2D barcode imager. Guests can self-validate entry credentials in both the entry and exit direction.

DUAL TAS12P-EDM

The Dual TAS12P-EDM has the features of the Dual TAS12-EDM, plus an integrated high-speed kiosk style printer.

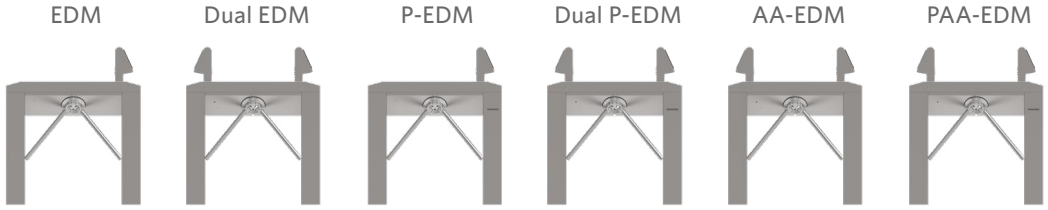
DUAL TAS12AA-EDM

This turnstile is designed for use in applications where there is interaction between an attendant and guest during the entry process. This model comes with two scan heads, each containing an intelligent controller, color touchscreen display and 1D/2D barcode imager. The two intelligent controllers are internally connected allowing the guest facing display and the attendant facing display to interact. The guest facing display provides visual instructions to the guest. The attendant facing display allows the attendant to perform "assist" functions such as processing group tickets, enrolling season pass holders or processing rewards or entitlements.

DUAL TAS12PAA-EDM

The TAS12PAA-EDM has the features of the TAS12AA-EDM, plus an integrated high-speed kiosk style printer.

SUMMARY OF AVAILABLE MODELS



	EDM	Dual EDM	P-EDM	Dual P-EDM	AA-EDM	PAA-EDM
Guest Facing Display for Entry	✓	✓	✓	✓	✓	✓
Second Guest Facing Display for Exit	–	✓	–	✓	–	–
Guest / Attendant Interactive Displays	–	–	–	–	✓	✓
Integrated High-Speed Printer	–	–	✓	✓	–	✓

✓ Included – Not Included

SCAN HEAD COMPONENTS

Each scan head assembly consists of a #304 stainless steel housing containing the components listed below. The scan head assembly attaches securely to the lid of the turnstile.

ACCESS CONTROLLER

The access controller communicates either to Alvarado's GateLink10 access control software or to third-party systems using Alvarado's DirectConnect API, via wired or wireless TCP/IP. The access controller also controls turnstile functionality and provides offline validation if communication to the access control server is not possible. Offline transactions are stored and automatically uploaded to the host when communication is restored.

BARCODE IMAGER

A 1D/2D barcode imager is internally mounted. The imager quickly reads both printed and digital barcodes.

TFT DISPLAY WITH TOUCHSCREEN

A die cast bezel frames a 5.7" (diagonal) touchscreen color display. The bright (700 nit) display is visible in bright sunlight. Facility definable graphics guide patrons through the validation process and provide notification of presented credential status. Advertisements can also be displayed on the screen. Graphics are easily changed using an Alvarado provided utility.

ATTENDANT NOTIFICATION LIGHTS

The back of the assembly contains an LED light board (Yellow/Green/Red). Lights notify attendants of the status of the presented credential. Unique light combinations can be associated with select ticket types to provide notification to attendants of special tickets such as "child", "senior" or "VIP".

INTERNAL SPEAKER

Audible sounds (.wav files) are typically used to notify patrons and attendants of the validity of the presented credentials. Sounds are user configurable and are uploaded to one or all devices from a server utility.

TURNSTILE COMPONENTS

CABINET

The cabinet is fabricated from 14-gauge #304 stainless steel polished to a #4 satin finish. The cabinet houses the turnstile controller, motorized low energy drive mechanism, power supplies and other electronics. The cabinet connects to two end support columns.

COVER / LID

The cover is hinged and secured with key locks. Opening the cover provides access to the internal components as well as internally mounted card or credential readers. The cover provides a tight seal to repel water and dust and is fabricated from 16-gauge #304 stainless steel polished to a #4 satin finish.

END SUPPORT COLUMNS

Each column contains a locking hinged door which, when opened, provides interior access to facilitate the running of power and communication cables and provides access to mount the turnstile to a concrete floor, or to an optional portable baseplate. The columns also house certain options. Columns are fabricated from 14-gauge #304 stainless steel polished to a #4 satin finish.

ROTATING HEAD AND ARMS

The rotating head is powder coated in a matte gray color. Turnstile arms are 1.4" OD x 16-gauge stainless steel sealed at the outer end by a welded stainless steel cap. All models include drop arm functionality. Upon loss of power, or receipt of a "drop arm" command from the GateLink10 server, the horizontal arm of the turnstile drops, providing a clear passageway. Once power is restored, or a "reset arm" command is initiated, the arms automatically reset to the normal operating position.

TURNSTILE CONTROL BOARD

The turnstile control board (TCB) controls the turnstile operation and interfaces to the scan head access controller. A UL listed primary power to low voltage power supply provides 24VDC power for motor control and for printers. 24VDC power is stepped down internally to 5/12VDC for other low voltage operational requirements.

PRINTER (PRINTING MODELS ONLY)

Printing models include an integrated high-speed kiosk style printer housed in the front, guest facing, turnstile leg. The printer, a Zebra Model 403, has a maximum print speed of 6" per second.

OPERATION AND INTERFACE

TAS12-EDM AND TAS12P-EDM

The TAS12-EDM and TAS12P-EDM are used in the following operational modes:

Patron Self-Validation (Single Direction)

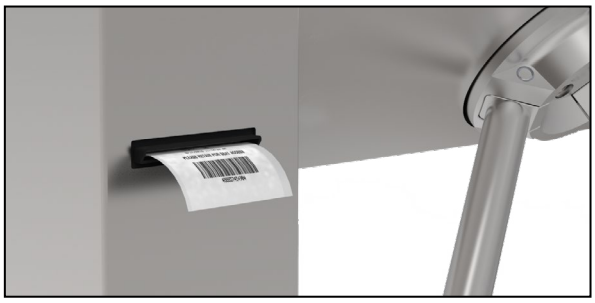
The turnstile is in a normally locked state. The color screen instructs the guest to scan their credential which is validated by the access control system. If the presented credential is valid, the turnstile plays the associated "valid" sound file and moves forward slightly in the passage direction to prompt the guest to enter. With a slight touch of the horizontal arm, the motorized arms rotate to allow passage. Lights visible to attendants provide notification of the presented credential status. When the turnstile is rotated the passage is recorded and the turnstile relocks, ready for the next patron.

MISSING IMAGE MISSING IMAGE

Screen Prompts can be customized by the venue

Depending on facility requirements, the turnstile can either be locked in the exit direction or provide free passage in the exit direction. To initiate free passage, the guest pushes on the horizontal arm in the exit direction to initiate motorized rotation.

If a TAS12P-EDM is used, a seat locator, receipt or coupon can be printed during the entry process.



DUAL TAS12-EDM AND DUAL TAS12P-EDM

The Dual TAS12-EDM and Dual TAS12P-EDM are used in the following operational modes:

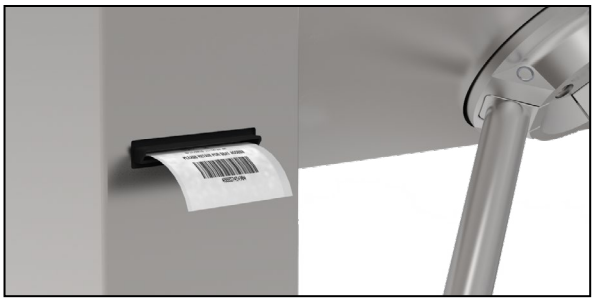
Patron Self-Validation (Entry and Exit)

The turnstile is in a normally locked state. The color screen instructs the guest to scan their credential which is validated by the access control system. If the presented credential is valid, the turnstile plays the associated "valid" sound file, and moves forward slightly in the passage direction to prompt the guest to enter. With a slight touch of the horizontal arm, the motorized arms rotate to allow passage. Lights visible to attendants provide notification of the presented credential status. When the turnstile is rotated the passage is recorded and the turnstile relocks, ready for the next patron.

MISSING IMAGE MISSING IMAGE

Screen Prompts can be customized by the venue

If a Dual TAS12P-EDM is used, a seat locator, receipt or coupon can be printed during the entry process.



DUAL TAS12AA-EDM AND DUAL TAS12AAP-EDM

The TAS12AA-EDM and TAS12AAP-EDM are used in the following operational modes:

Patron Self-Validation (Entry)

The turnstile is in a normally locked state. The color screen instructs the guest to scan their credential which is validated by the access control system. If the presented credential is valid, the turnstile plays the associated "valid" sound file, and moves forward slightly in the passage direction to prompt the guest to enter. With a slight touch of the horizontal arm, the motorized arms rotate to allow passage. Lights visible to attendants provide notification of the presented credential status. When the turnstile is rotated the passage is recorded and the turnstile relocks, ready for the next patron

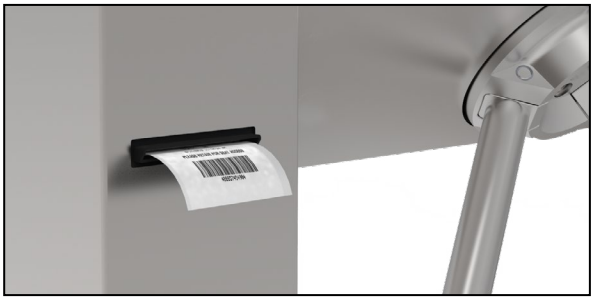
Attendant Assisted Entry Applications

The guest and attendant scan head controllers are internally connected. This allows the guest facing display to provide visual instructions for guests, while the attendant screen allows the attendant to provide assisted functionality as part of the entry process. Examples include processing group tickets, providing season pass enrollment or processing of rewards or entitlements. Custom functionality can also be provided.

MISSING IMAGE MISSING IMAGE

Screen Prompts can be customized by the venue

If a Dual TAS12AAP-EDM is used, a seat locator, receipt or coupon can be printed during the entry process.



Attendant Operation and Diagnostics

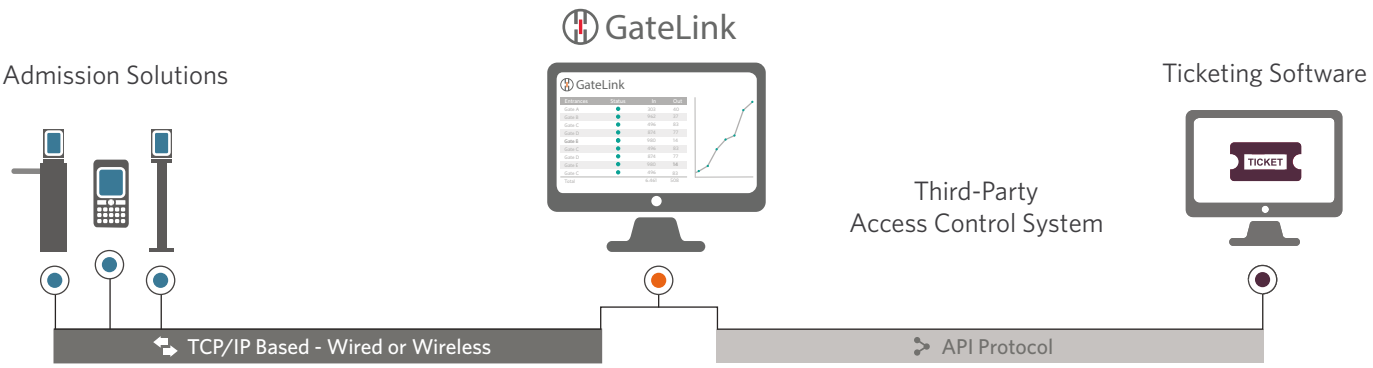
Logging in via the touchscreen display provides attendants access to various functions, such as information-only ticket lookups, overrides and manual credential input. A diagnostic/configuration menu, also accessed through the touchscreen, allows authorized personnel to make configuration changes and test product functionality.

Interface to Access Control System

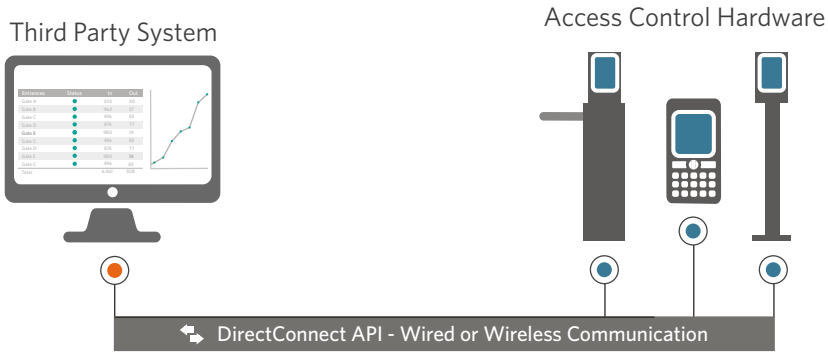
TAS12 series products interface to Alvarado's entertainment facility access control system, GateLink10. Alvarado also offers a DirectConnect API, which allows third-party systems to integrate directly with our devices through easily implemented web service protocols. In either case, communication is via wired or wireless TCP/IP. Note: Not all functionality is supported through the DirectConnect API. Contact Alvarado for more information.

TAS12 series products also provide offline validation in the event that communication between the devices and access control system is interrupted.

Using Alvarado's GateLink10



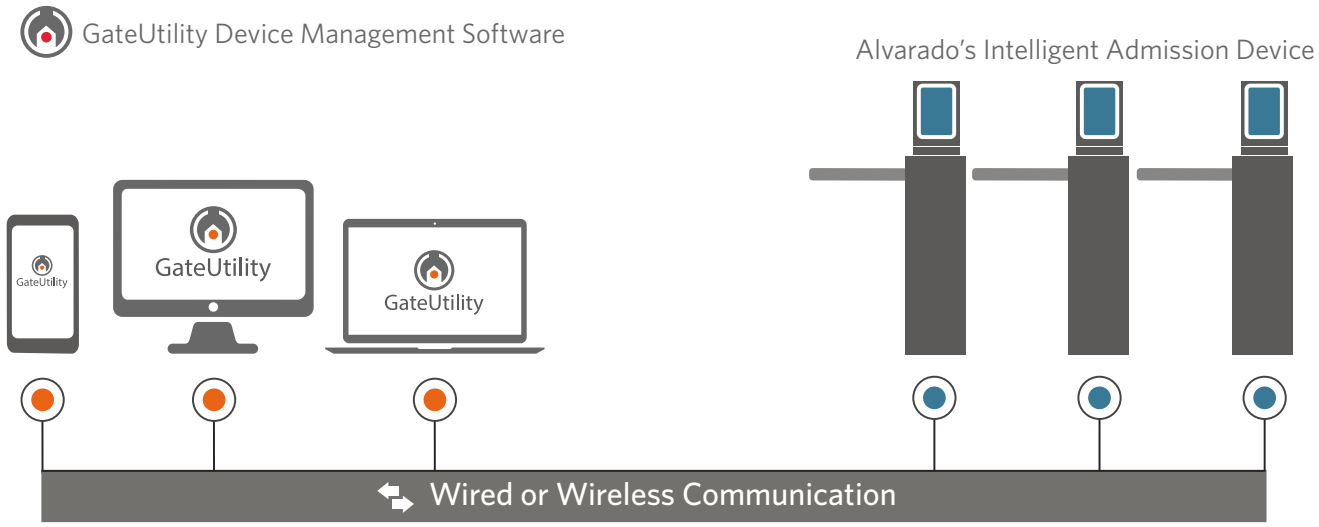
Using Alvarado's DirectConnect API



Using Alvarado's GateUtility

As an added benefit, the TAS12-EDM comes with GateUtility (GU). This browser-based application allows remote control of all Alvarado devices installed at a facility. For example, using any browser accessible device, GU allows the facility to:

- Change screen graphics and sound files
- Change the operating mode between controlled entry and free pass
- Automatically drop the horizontal arm to provide a free passageway for after event, or emergency, egress
- Download software updates and restart devices



AVAILABLE FINISHES

STAINLESS STEEL

Exterior components are #304 stainless steel polished to a #4 satin finish.

POWDER COATED

Exterior components are #304 stainless steel polished to a #4 satin finish. The cabinet is powder coated. The lid and scan head are not powder coated. Powder coating is available in a variety of colors.

OPTIONS

220VAC

A 220-240VAC, 50Hz power supply and EU wiring scheme are utilized.

ALTERNATIVE MEDIA READERS

Other media readers such as an NFC/RFID reader or magnetic stripe reader can be added to the turnstile. NFC/RFID readers are typically installed on the underside of turnstile lid. This allows credentials to be validated by holding the credential over the reader.

DIGITAL ROTATION COUNTER

Passage counts (rotations) can be accessed through use of the touchscreen interface. As an option, a lithium battery powered LCD counter can be installed in the turnstile cabinet to view running passage count totals. Each rotation of the turnstile generates a count. One counter is required per direction of travel. Counters can be reset to "0" using a provided key.

FACTORY PREPARATION FOR ADDITIONAL TAS12 SCAN HEAD

The turnstile can be factory prepped to allow the field installation of a second TAS12 scan head on the turnstile lid. This upgrades the turnstile to support entry/exit validation or attendant assisted applications.

PORTABLE

AC Powered Portable	The turnstile is attached to a black powder coated baseplate with a stainless steel guide rail, wheels and a handle. The wheels can be raised or lowered using included foot pedals. Wheels are lowered to move the turnstile. Wheels are raised to secure the turnstile in place. A Neutrik style power connector is located on the platform to plug in AC power for the turnstile. Communication is via Wi-Fi (802.11a, b-n).
Battery Powered	The turnstile is attached to the same style baseplate. An advanced battery system provides over 10 hours of continuous operation under a full load, even if a printer is used. Communication is via Wi-Fi (802.11a, b-n).

VINYL COVER

Vinyl covers are available to protect units when not in use.

WIRELESS COMMUNICATION

Wi-Fi communication (802.11a,b/n).

SHIPPING AND SITE PREPARATION

SHIPPING

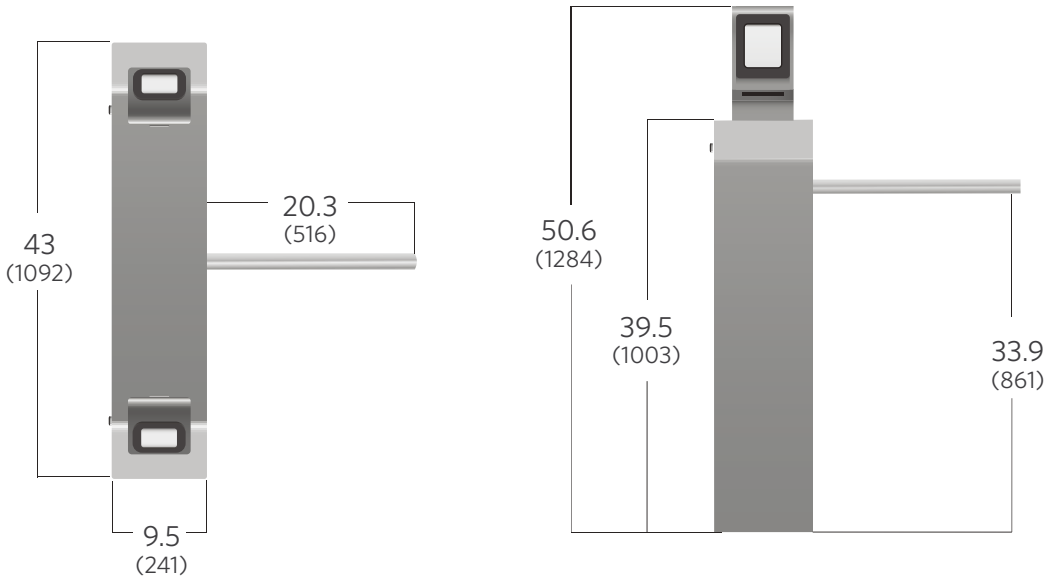
The turnstiles are shipped assembled. The scan head assembly is shipped separately and is attached to the turnstile during the installation process.

SITE PREPARATION

Fixed mounted turnstiles must be installed on a firm foundation in a manner that allows the power and communication cabling to be pulled into the unit. The recommended slab platform should be a minimum of 4" deep, level concrete. Concrete anchors, bolts and washers are included with each turnstile. A skilled installer following Alvarado's directions and instructions should perform installation. Detailed drawings and installation manuals are available online.

TECHNICAL DIMENSIONS

Dimensions are shown in inches (mm). All measurements are approximate.



Electrical	Description	
UL Rated Power Supply	110 VAC, 60 Hz or 220 VAC, 50 Hz (optional)	
Power Requirements	Maximum power consumption is 120W per turnstile (TAS12-EDM), 200W per turnstile (TAS12P-EDM), 132W per turnstile (Dual TAS12-EDM), 212W per turnstile (Dual TAS12P-EDM)	
Operational Voltage	Primary power is stepped down and rectified for low voltage 24VDC, 12VDC and 5VDC operation.	
On/Off Switch	A recessed on/off switch is provided at each turnstile.	
Fuse Protection	Turnstiles are fuse protected.	
Surge Protection	Alvarado suggests use of surge protection equipment in connection with the installation to protect electronics.	
Weights and Environmental		
Product Weight	170 lbs. TAS12-EDM; 180 lbs. TAS12P-EDM	77 kg; 82 kg
Shipping Weight	350 lbs. TAS12-EDM; 360 lbs. TAS12P-EDM	159 kg; 163 kg Shipping Crate(s) Included
Operating Temperature*	15° to 122° F	-10° to 50° C
Storage Temperature	-30° to 160° F	-34° to 70° C

*Recommended installation environment for TAS12 series turnstiles is indoors or outdoors. If outdoors, iinstall in a covered location out of direct weather.

WARRANTY

For a period of one year from the date of purchase, Alvarado will replace or repair, at Alvarado's option, any products or parts which are defective in materials or workmanship, provided recommended installation and maintenance procedures are followed. This warranty is void if damage is due to improper installation, maintenance or use. This warranty is limited to parts only, and does not cover labor or shipping charges incurred in connection with the removal or replacement of warranted products or parts.

This warranty is expressly made in lieu of any and all other warranties, expressed or implied, including, but not limited to implied warranties of merchantability and fitness for a particular purpose. Alvarado shall not be liable for any loss or damage, directly or indirectly, arising from the use of purchased products. In no event shall Alvarado be liable to buyer for consequential damages, special damages, incidental damages, loss of use, business interruption, loss of profits, or damages of any kind arising out of the use or inability to use a purchased product. In no event shall Alvarado be liable for damages which exceed the purchase price of a covered product.