



Sivananda  
Electronics

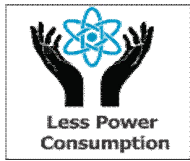
## Microcontroller Based Motorized Full Height Turnstile For pedestrian & service personnel



Dual Lane Turnstiles



Single Lane Turnstiles



### Sailient Traits

- 4 x 90 degree rotation
- Microcontroller based Bidirectional control
- The turnstile is equipped with bi-directional throughput feature, made especially for quick access control in areas with high traffic.
- Turnstile housing is made up of superior-quality stainless steel
- Inactive arms do not obstruct the passage
- Mechanical & electronic locking in closed position prevents fraudulent entry
- It can be easily integrated with wide variety of access control system
- Non-removable arms
- Comfortable passage
- Positive action lock to prevent two passage at one time,
- All springs and shafts are made in SS. Shafts are surrounded by bearing.

#### Drive

- Brushless DC motor based drive motor combined with crank-and-rod
- Electromagnetic lock used for positive locking in rest position which prohibits

## Worm Gear Box



- Wormshafts are made of steel and are case hardened to 58-60HRC and profile ground.
- The thread grinding in the gear ratios that the module value permits is carried out with ZI-Profile. This improves the contact between toothed surfaces and therefore performance and reduces operating noise.
- To guarantee long life, ball bearings of reputed make used.
- Gearboxes are filled with synthetic oil grade ISO VG 320 which is virtually maintenance free and does not require oil change.

### Orientation

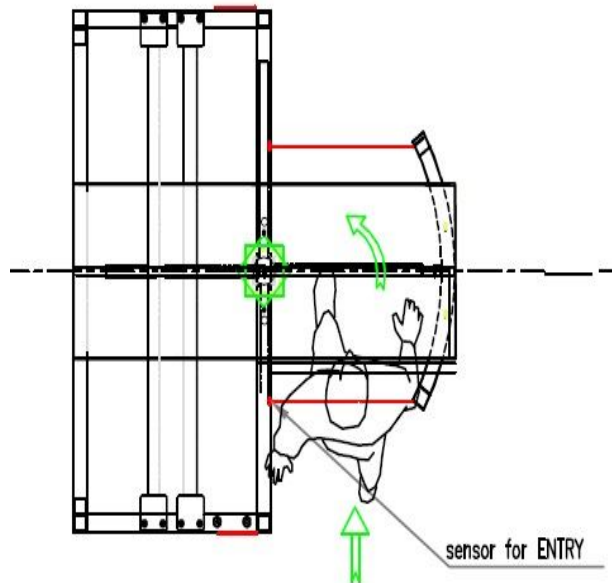
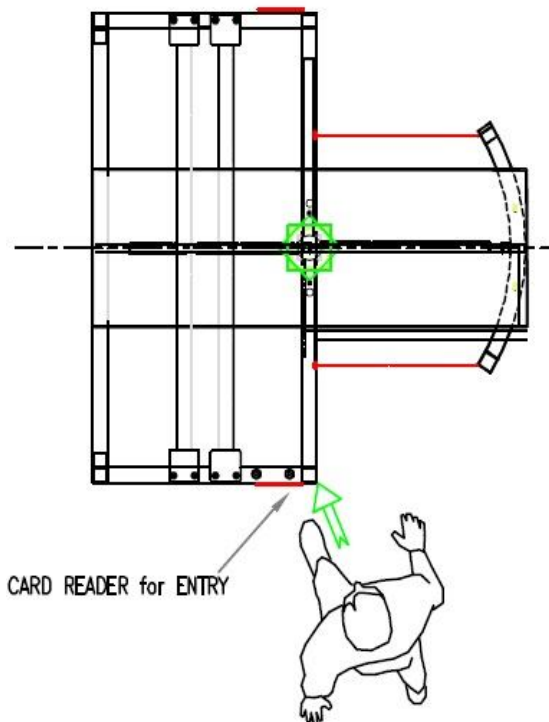
The same turnstile can be installed as either left hand or right hand unit

### Functionality

The turnstile supports bidirectional throughput. It ensures comfortable passage in area with high traffic & limited space

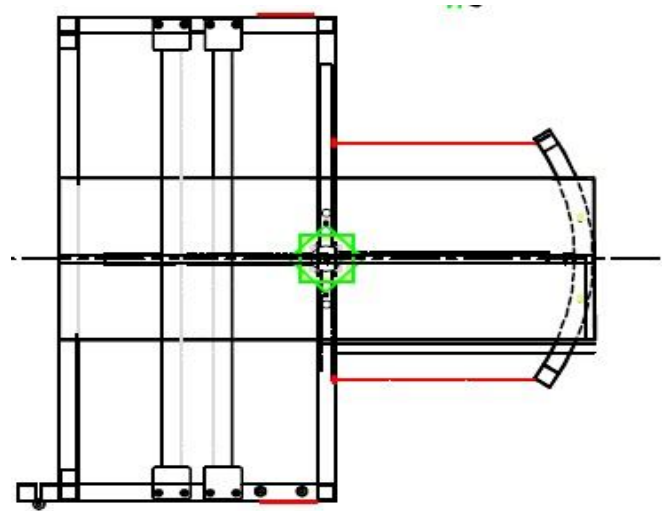
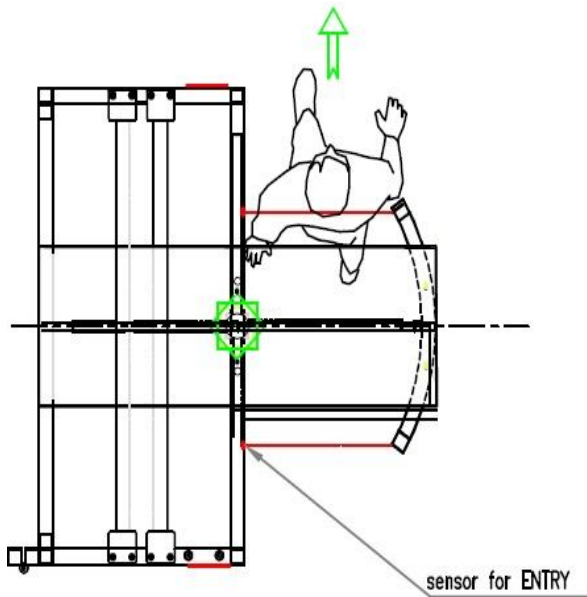
**Step 1:** Rotor in locked position and ready to accept

**Step 2:** After getting valid trigger, once the user cuts



**Step 3:** Once the user travels out then rotor will be

**Step 4:** Turnstile in locked position again and ready for



### Design

Turnstile design consists of turnstile housing with built in control logic board (CLB). Its design ensures comfortable passage without hindrance of inactive rotor arms. The design of the housing is made slim, sleek & sturdy. Led lane indicators are located on side panels of the housing. The head of the housing contain the rotation mechanism.

### Visual Indication

It is equipped with LED display with bright pictogram for status and direction indication (standard feature).

### Material

1. Turnstile housing is manufactured AISI304 Stainless steel (1.5 mm). It comes in Matt Finish & Mirror finish .Mild steel single coat black color/RAL7035 finished powder coating.

2. Rotor Arms is made up of AISI304 Stainless steel 1.5mm) tube with plastic caps, mirror finish (Dia- 32 mm).



### Access Control Integration

1. Electrical control for both entry and exit operation are standard.

2. It can be controlled by any third party access control systems. This system gives client ability of presetting in either pulse or potential control mode for correct operation of tripod turnstile with virtually any access control systems. In both control mode the tripod turnstile is operated by input of the control signal to the connector block

3. In case of emergency/power failure turnstile remain free to rotate in both directions. Once power restored or emergency vanishes then turnstile will locked again entering into normal operation.



## Control Mechanism

1. Powerful DC Brushless motor ensuring low maintenance & long life
2. Controller ensures swift, safe & quiet rotation of arms without vibrations.
3. Self centering of vertical rotor arm irrespective of the manual force applied on it .
4. Smooth rotation of the rotor arms and soft return to the home position.
5. Anti pass back mechanism which restricts the reverse rotation of the arms.

## Interface

This turnstile is controlled via the CLB (Control Logic Board) placed inside the housing. The CLB microcontroller processes the incoming commands, keeps tracks of the signals from the sensors, generates commands to the control mechanism and operates external devices. The features are as follows:

- Input facility for unblocking the turnstile at the fire alarm command or from emergency unblocking button;
- Pre-set timeout facility using DIP switches
- Single alarm relay output for connection of remote devices such as indicators, status lights, intrusion detector, sensors and sirens.
- Relay output for complete transaction

Turnstile is designed with the control logic board installed inside the turnstile housing. After each passage the barrier arms are automatically returned to home position by a self-centering mechanism.

## Delivery Details

The equipment is to be delivered at the job site in manufacturer's packaging; the equipment is to be wrapped in air bubble sheet, in wooden closed freight container. The equipment is to be delivered undamaged. Once at job site it is to be stored indoors in controlled environment. Product manual is to be sent along.

## Installation

1. Installation is to be carried out on a levelled and finished concrete floor at least 200 mm thick.
2. A trench of 100mmX100mm is to be provided by the client according to installation drawings provided.
3. It is to be carried out by a skilled installer only and in strict accordance with the manufacturer's instruction (supplied with the turnstile) and installation drawings.
4. Warranty of product would not cover service calls after improper installation.

## Warranty

Sivananda Electronics warranties its products against defects in material and workmanship for a period of one year from the date of installation or 15 months from the date of dispatch, whichever is earlier. This warranty excludes normal wear on finishes or damage that occurs due to abuse or misuse.

### Work To Be provided by Client

1. Power supply & Cables
2. Access control systems & cables
3. Possible masonry & Cable Trench

### Standard Technical Specification

Parameter	Single Lane	Dual Lane
Power Supply	180-270 VAC @50Hz	
Control Circuit	24 V DC	24 V DC
Nominal Consumption	40 W(Peak)	80 W(Peak)
Capacity/Minute	20 persons	40 persons
Sensors	Diffuse type sensors used without need of reflector, provides	
Ambient Operating Temperature	0° to +50° C	
Net weight (approx )	290 Kg	415 Kg
MTBF	> 2 million cycles	
Humidity	90-95% non condensing	

### Dimensions & Specifications

Model	Passage Width (mm)	Overall Width (mm)	Unit Height (mm)	Unit Length (mm)
Single Lane - MK-1M/ MK-ISM	530	1450	2212	1500
Dual Lane - MK-IIM / MK-IISM	530	2150	2212	1500



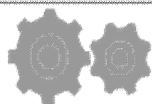
After Sales Service



After Hour Service



On Site Servicing



Preventive Service Management Schedules



Comprehensive Annual Maintenance Contract



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### Manufacturer

Manufacturers: subject to compliance with requirements, provide products by one of the following:

1. M/S Sivananda Electronics, Deepak Mahal, Lam road, Deolali, Pin-422401, Nasik, Maharashtra, India.

Tele: +91-253-2491504/816/423

[Homepage: www.sivanandaelectronics.com](http://www.sivanandaelectronics.com)