



## F100SDR Series Turnstiles



### General Description

F100SDR Series Full - Height Turnstiles are the unique solution for unmanned entrances with high level of security requirements. Only one person is permitted to pass on each turn of the turnstile. This is achieved by three group of wings, standing 120 degrees apart on the triangular cross sectioned rotor beam. Frames have a width of 100mm and a thickness of 2mm. Advanced micro processor controlled electronics; fine mechanics processed on CNC machines; contactless position sensing technology; frequency convertor, self-centring mechanism design and rust preventing precautions are some of the main factors resulting F100SDR Series Full Height Turnstiles' trouble-free, long operation life. No vibrations and noise occur during operation, with the help of the frequency convertor.

### ROTOR, WINGS, BODY AND ROOF

Rotor, wings and body are all extrusion aluminum. Rotor is manufactured 3 wings, each wing consisting of 1 panel only. On all F100SDR Series Motorized Glass Full Height Turnstiles, transparent 4+4 PVB 0.76 security glass. Operation without vibrations is achieved by anchoring the turnstile with the help of an 8mm base plate at the floor level. Base plate is fixed to the floor by 6 bolts. Smooth operation of the rotor is achieved with the help of 2 ball bearings (single row, radial contact) and 1 thrust ball bearing (double direction, washers with grooved raceways, flat seats).

### CONTROL ELECTRONICS

Optima full-height turnstiles are controlled by a PLC (programmable logic control). Turnstile can be supplied either fail-locked or fail-open at. In other words, when electricity is off, turnstile will stay locked or will freely rotate according to the requirements. As a solution for the applications where there is "high" flow in "both" directions, the electronics has the ability to remember 10 readings with respect to the reader side and give permission respectively. Control electronics has trigger inputs, position sensor inputs, alarm inputs/outputs, motor outputs, led way-mode indicator outputs, 'cycle (one turn) completed' outputs, counter outputs and buzzer outputs. Every kind of readers either for security or ticketing systems applications can be integrated very easily. Position sensors are contactless; consequently preventing problems arising from long period applications of micro switches with mechanical legs. For safety reasons, only 24V and 5V are running through the control electronics and the whole turnstile.

## MECHANISM

This type of turnstiles features a high-torque AC motor with integrated reducer and controller. After the reducer, there is an electromagnetic clutch which transmits the motion from the AC motor to the rotor whenever necessary. The mechanism is heavy duty. All the mechanical parts of the mechanism are manufactured on CNC machines with high precision. Rusting is prevented as the steel parts are all galvanized, others being aluminium, plastics, etc. Sophisticated self-centring design enables the arms stand at the correct position at every turn. All the necessary parts (especially the ones with dynamic loads) are heat treated to prevent wear. All the bearings and fasteners utilized in the mechanism fit DIN/ISO, etc. standards.

## ENVIRONMENTAL CONDITIONS AND POWER REQUIREMENT

Between -15°C and +55°C, %95 non-condensing humidity; 220V 50/60Hz

## ACCESSORIES

1. Ceiling lamps
2. Base plate with anti-slip rubber mat
3. Wings made of security glass
4. Motion sensor on both sides

