

Door Interlock System

No consecutive doors open
at the same time to isolate
different classification areas

Shree Aerodynamic Products, based in Ahmedabad – Gujarat, India, is founded on the old-fashioned principles of Customer Service, Quality and Trust. The Company established its innovative concept with the slogan : “We can – and we will !” Our quality approach has enabled us to meet the demands of our reputed clients. **Shree Aerodynamic Products** can offer innovative, customized and user-friendly products to suit the varied requirement of the user. All backed by a team of professional experts. The products and services that bear the 'Niyama' name come with quality assurance and in-house R&D support to meet the need of clean room industries.



The **Door Inter Lock System** ensures that **no two consecutive doors open at same time**. This system plays a major role in isolating areas of different classification or pressure zones, to control particle and microbial contaminants.

It is a mechanically supported system that provides clean-room Entry/Exit doors that control infiltration during door operation. In case of different classified room/area/zone doors opening at the same time disturbs the HVAC design. Therefore a door inter lock system is very critical. But more important, is a support system to keep the predefined pressure zoning under desired conditions, as many safety feature are essential here.

Where it is required

All the Entry or Exit doors/pass boxes which are exposed to ambient/different classified room/area, need a door interlock system for predefined classification control.

How it works

Door inter lock system is a mechanically supported system required on entry/exit doors of different classification. This system also restricts unauthorized entry into classified clean room areas. In this system, a plunger or magnet lock is mounted on a door to keep it closed when a consecutive door is opened. The door interlocking system thus avoids cross-contamination in clean rooms, by preventing simultaneous door-opening between two areas of different classes.

Different optional operations :

Door inter lock system is basically for controlling the differential pressure classification. Hence, we offer multiple optional control systems.

- 1. System with pre-defined pressure control /delay time :**
This system operates on the basis of differential pressure sensors. When the pre-defined pressure is not under control, the consecutive doors will not open. This will keep the pre-defined classification under control.
- 2. System with Default Open logic :**
In this system, all the doors are equipped with in-built door position sensors. Normally, all the doors are closed with air pressure and door-closing hardware. In case any door is open, the adjacent door will remain locked.
- 3. System with by-default lock logic :**
In this system, normally all the doors are locked. For entering, a push button/No-Touch sensor switch is used. When this is operated, the same door will open and consecutive doors will remain locked.



Real Time Display Console



Unique Features:

- It has a master logic-controller card, the features of which can be updated as per various regulatory guidelines. The key feature of our door interlock system, is that it is possible to migrate from one logic to another custom-defined logic.
- Even if a system is damaged, its auto-fault-detection can bypass the fault.
- This can be incorporated with fire safety. In case of fire, the system will be bypassed and all doors will open automatically.
- Emergency exit – Once the emergency exit is pressed, it will automatically bypass the system for safety.
- Preset time only – system auto-reset – to avoid manipulation of operation system.
- Real time Display console : To monitor real time operation of the door interlocking system, and display an alert whenever a fault is detected – for preventive action. It's easy to repair and resolve the faulty condition.
- Optional PC support software to log real time information – i.e. all the door operation information, with time duration.
- User-defined delay time can be set.

Optional features :

- Display consol.
- Differential pressure sensor.
- No-Touch Switch.
- Access controller : Card access / Thumb and Card / Eye retina scanner.
- Real time clock on display.
- In-built memory option
- Alert Acknowledgment with predefined power use only.
- With RS485 and RF communication.
- PC support software.
- Door status STOP / Go indication.
- Normally open system / Normally door closed system with Operation Logic lock the door when a consecutive door opens.
- The door always opens on a preset time factor only. So if it remains open for more than the preset time, an alert will be displayed on the display consol, as a sensor failure.
- Works with pressure sensor control.
- An in-built delay timer control system stabilizes the pressure.
- In-built Fire Safety protection.
- A preset emergency feature.

Electromagnetic Lock



Plunger Lock



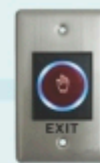
Mechanical Lock



FLP Electromagnetic Lock



No Touch



Exit Switch



Thumb & Card access



Microprocessor based Controller



Technical Specifications :

Supply Voltage	: 230 V AC + 10%
Supply Frequency	: 50 +3 HZ
Digital Inputs	: 5 V DC
Digital Outputs	: 5 V DC
Output Supply Voltage	: 5 / 12 / 24 V DC
Mounting	: Surface
Environment Temp.	: 55° C
Indications	: Supply ON

The Door Inter lock System incorporates the hardware in basic module :

Electromagnetic Lock / Plunger Lock comes with an in-built door status sensor, buzzer, status indication LED, and a linear Power supply. The microprocessor logic defined motherboard is compatible with a 4/8/16 door system.

Our Valuable Clients

Alembic Ltd.
Blue Star Ltd.
Cadila Healthcare Ltd.
Cadila Pharmaceuticals Ltd.
Gujarat Glass Ltd.
Intas Pharmaceuticals Ltd.
Karnavati Engineers Ltd.
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Marck Bioscience Ltd.
Nirlife Healthcare (Nirma Ltd.)
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Unichem Laboratories Ltd.
Voltas Ltd.
Wockhardt Ltd.
...and the list is still growing.



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