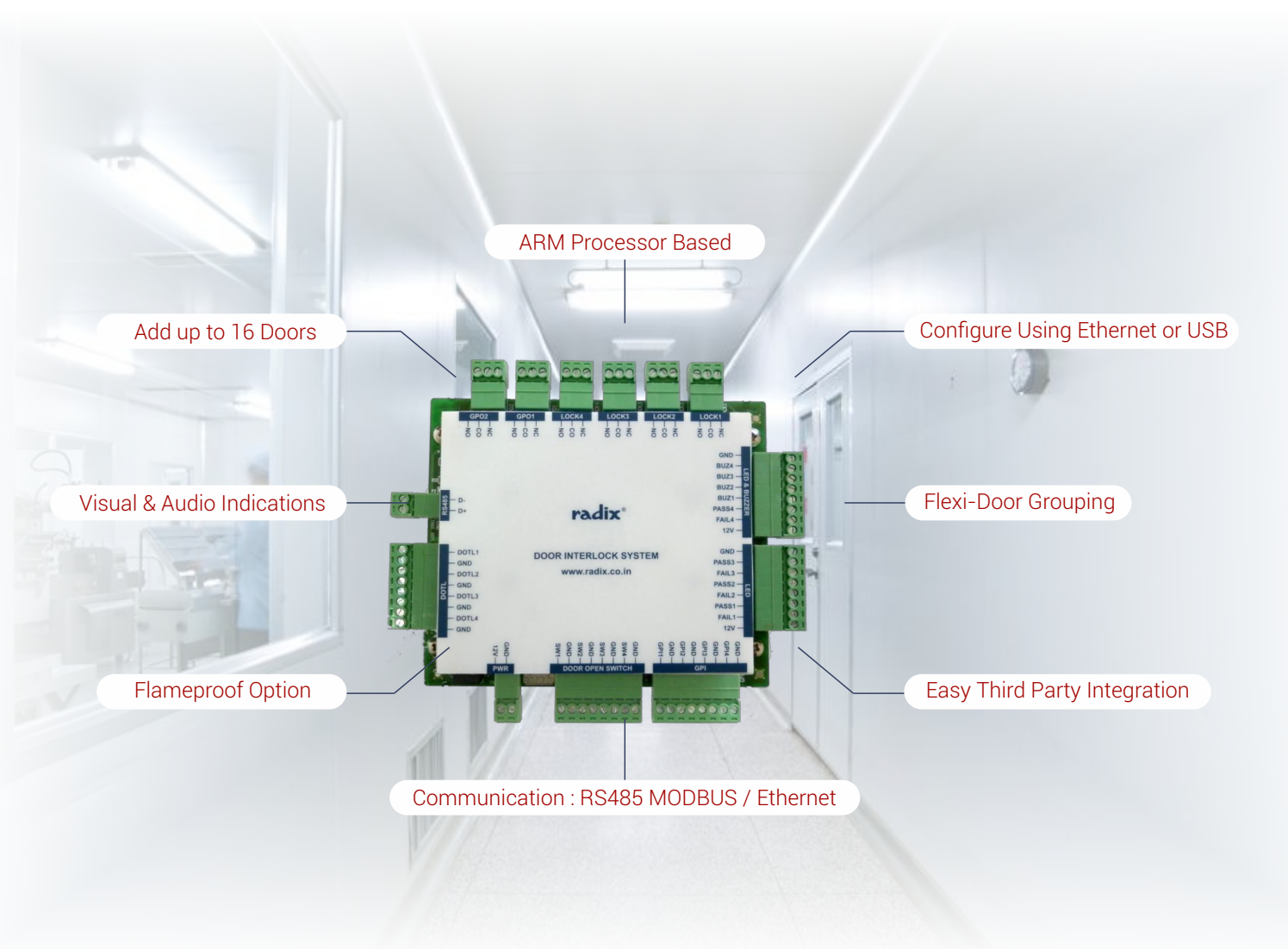


DOOR INTERLOCK SYSTEMS



Door Interlock Systems

Door interlock system is used to prevent the simultaneous opening of multiple doors.

This pharma system aids in minimizing the microbial, particulate contamination and helps maintaining pressure difference between two rooms.

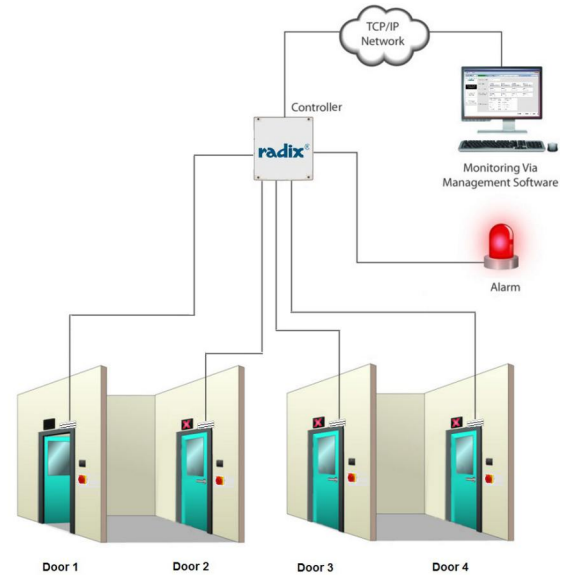
Radix door interlock systems integrated with other access control components like biometric readers are commonly used in industry, hospitals, etc.

Features

- Dedicated ports for door position sensor
- Power supply for locks through the controller
- Dedicated ports for emergency switches
- Visual & audio indications
- Flameproof options available
- Programmable at site

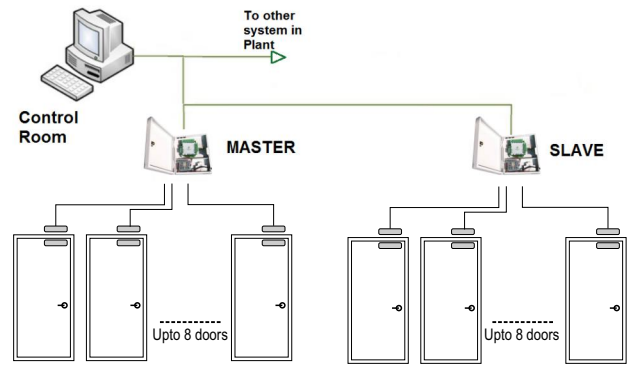
Applications

- Cleanroom airlock with multiple doors
- Air showers, Pass box in pharma industry
- Multi-Door sterile interlock with AHU interlocks
- Dual 2-Door interlock for bank strong rooms
- Hospital : between 2 room & a common washroom
- Semi-conductor industry
- Interlocks with purge delay
- Courthouse security interlock



Integrate multiple doors in the same system

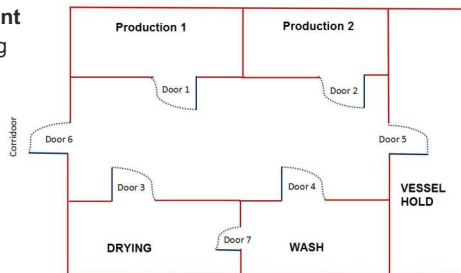
- Control up to 8 door with one controller
 - Control multiple (maximum 3) groups of door interlocks with single 8 door controller
- Cascade feature for more than 8 doors
 - Maximum upto 16 doors



Complete flexibility for your facility

Choose mode of operation as per requirement

- Mode A: All doors normally unlocked, opening any door causes all other doors to lock
- Mode B: All doors normally locked. When any door is unlocked all other doors are incapable of unlocking
- Mode C: Flexibly select combinations of doors to lock or unlock
 - Flexibility to have multiple interlock logic for same door
 - Decide door lock behavior based on surrounding door status
 - Door grouping through software



Door No \ Door Open	1	2	3	4	5	6	7
1		x	x	x	x	x	
2	x		x	x	x	x	
3	x	x		x			x
4							x
5	x	x		x			
6	x	x		x			
7			x	x			


Mode C

x : Door locked

Door Interlock Systems

Never miss an event

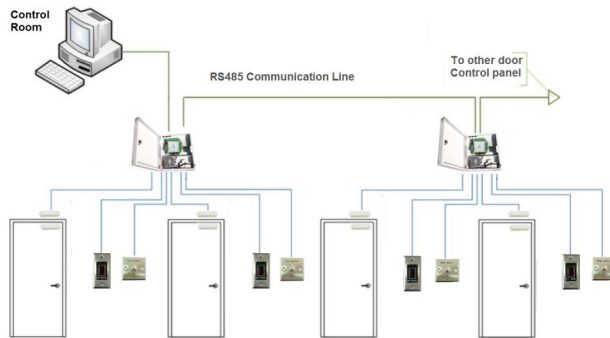
- Multiple LED's for different door events like Emergency open, Waiting, Forcefully open etc.
 - Configurable LED colour and type - steady or blinking
- Configurable audio alarm outputs for events like door open, emergency, door open for too long, multiple doors open, etc.
 - Configurable buzzer type - continuous or beep



Door Events	LED Type	LED Status
Emergency	Both	Blink
Wait	Red	Blink
Normal	Red	Steady
Open	Green	Steady
Forcefully	Both	Blink

Switch LED configuration

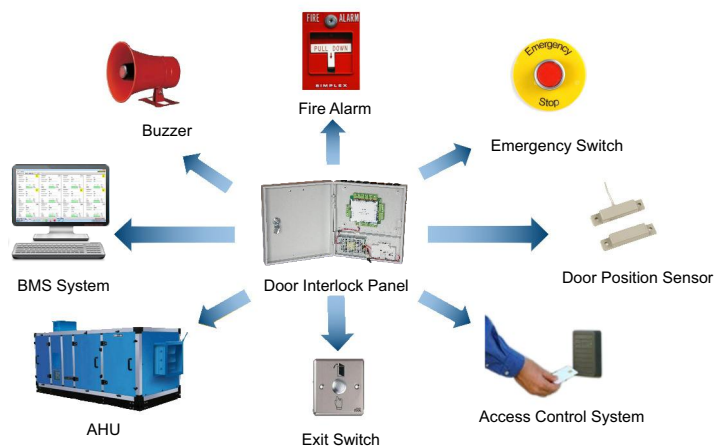
Configure and communicate from the control room



- Software based configuration through remote PC
- Ethernet, RS485 based communication options
- USB for configuring parameter of controller
- RTC option available
- Read door status and door open time on BMS systems

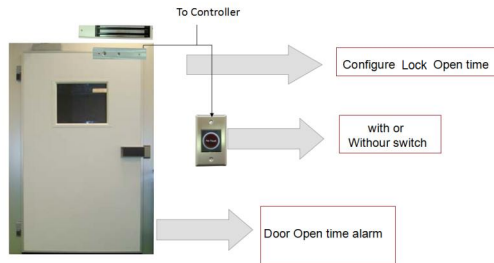
Avoid expensive PLC and IOs

- Large no. of on board IOs
 - Dedicated inputs for door position status and access switches
 - 4 General inputs for fire signal, etc
 - 2 Dedicated outputs for hooters, etc
- Reduced cabling
- Autonomous ARM processor based functioning
- Interface with third party devices like BMS systems, Card readers, etc
- Configurable emergency access feature in regular switches



Door Interlock Systems

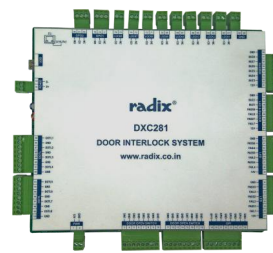
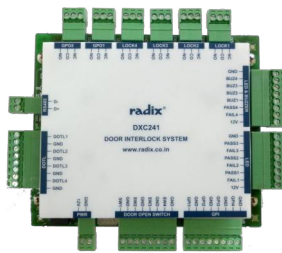
Optimise every parameter as you require



- Large number of customizable options
 - Door type : with and without switch
 - Lock open time : Auto magnetization after preset time
 - Max Door open time : Generate alarm to prevent door being opened for too long
- Define triggers and actions based on field events

Triggers	Actions
Fire signal	Unlock all doors
Normal Closed / Open	Start / Switch lights (Green - closed, Red - Open)
Start hooter	Door open too long (DOTL)

Door Interlock Controllers



Features	DXC241	DXC281	DXC341
PC based programming software	Yes	Yes	No
Flexible interlocking	Upto 4 doors	Upto 8 doors	Upto 8 doors
Cascading	Upto 8 doors	Upto 16 doors	Upto 8 doors
RTC	NA	Yes	NA
Communication	USB / RS485	USB / Ethernet / RS485	NA
Protocol	MODBUS RTU	MODBUS RTU / MODBUS TCP	NA
Programmable parameters	Lock time, DOTL time, GPI time, GPO time etc	Lock time, DOTL time, GPI time, GPO time etc	Lock time, DOTL time, Dwell Time, GPI time, GPO time
	Buzzer sound type and time	Buzzer sound type and time	-
	Emergency action	Emergency action	-
	LED indications	LED indications	-
	door interlock grouping	door interlock grouping	-

Product code	2600		
No. of Doors	1	2	2 Doors
	2	4	4 Doors
	3	3	3 Doors

Product code	2663		
No. of Doors	1	5	5 Doors
	2	6	6 Doors
	3	7	7 Doors
	4	8	8 Doors
Communication	1		RS485
	2		Ethernet

Product code	2683		
No. of Doors	1	2	2 Doors
	2	3	3 Doors
	3	4	4 Doors

Door Interlock Systems

Controller Specifications

Power

	2 - 4 Doors	5 - 8 Doors
External Voltage	90~264 V AC	100~240 V AC
Internal Voltage	12V / 5.2A	12V / 6.25A

I/O Details

	2 Doors	4 Doors	5 Doors	6 Doors	7 Doors	8 Doors
Doors Open Switch	4	8	10	12	14	16
Doors Position Input	2	4	5	6	7	8
EM Lock Output	2	4	5	6	7	8
Digital Input	4	4	4	4	4	4
Digital Output	2	2	2	2	2	2
Buzzer Output	2	4	5	6	7	8

Programmable Parameters

Door open time : Lock time, Valid open time
 Buzzer sound type and time
 Door interlock grouping

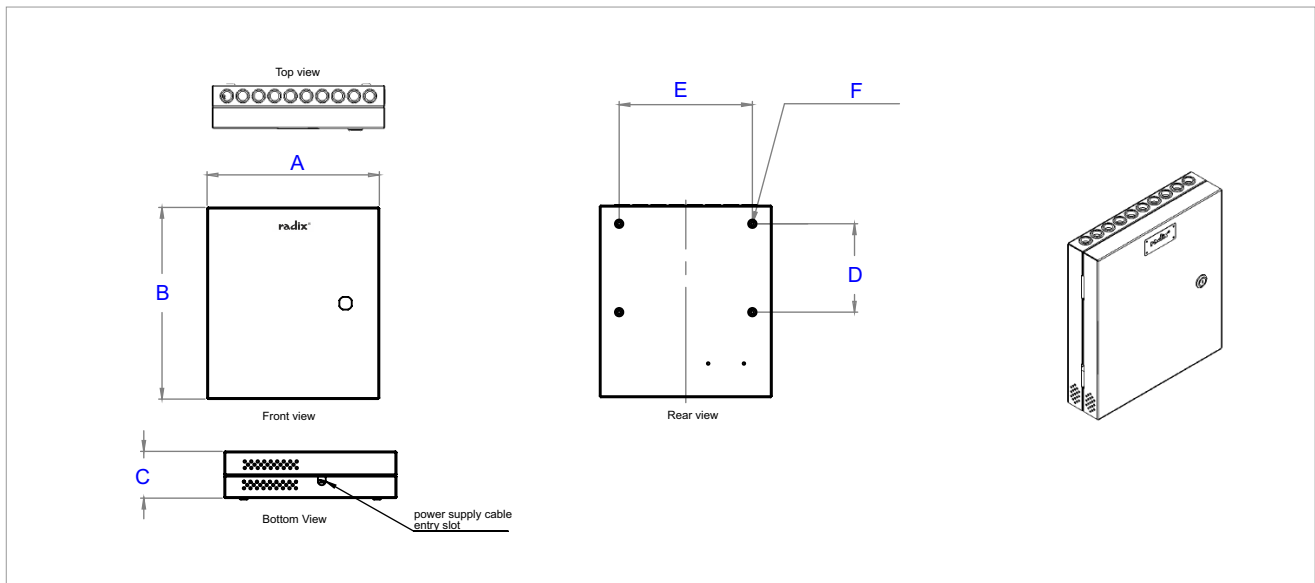
Temperature, Humidity

Ambient, storage : -20 to +55 °C
 Ambient, operation : -20 to +55 °C
 Relative humidity : 5~95% RH, non-condensing

Controller MOC

Material : MS, Powder coated
 Mounting : Wall

Detailed Dimensions







	A	B	C	D	E	F
DXC241	265	295	72	145	200	4.5 * 4 Holes for mounting
DXC281	325	360	80	194	256	4.8 * 4 holes for mounting
DXC341	270	212	48.6	160	160	4.5 * 4 Holes for mounting

All dimensions are in mm

Door Interlock Systems

Electromagnetic door locks

An electromagnetic door lock consists of an electromagnet and an armature plate.

				
Order Code	2603	2655	2658	2603-V1
Holding Force	600lb/280Kg	As strong as 1200lb/540Kg	600lb/280Kg	NA
Dimension	250x48x27mm	500x50x25mm	Available on request	160x32x39mm
Rust Protection	Zinc plating	Zinc plating	Electromagnetic flameproof enclosure	Zinc plating
Door Position Sensor (inbuilt)	Yes	Yes	Yes	Yes

Switches

Switches in door interlock systems are used to allow door access to users.

No touch switch is used to access the door by putting your hand near the switch without making any contact.

Emergency switch is used to unlock all doors simultaneously in case of fire, etc.

							
Order Code	2641-1	2641-2	2605-1	2605-2	2640	2661-V2	2604-V9
LED Indications	No	Yes	No	Yes	Yes	Yes	No
Dimension	92(L)x29.4(W) 91(L)x28(W)	92(L)x29.4(W) 91(L)x28(W)	90(L)x90(W)	86(L)x86(W)	115(H)x70(W)	Available on request	86(H)x86(W)x4.5(D)
No Touch	No	No	No	No	Yes	No	Yes
Flameproof	No	No	No	No	No	Yes	No

ENQUIRIES

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Automation : automation@radix.co.in
Level : level@radix.co.in

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