

4700 Series Interlock

Economical PLC Interlock Solution

2-4 Door Interlock Controller



Typical Configurations:

47211-U – Standard 2-Door / 1-Room
Normally Unlocked
Mounted in an enclosure with a
 294 Class 2 power supply.

47211-L – 2-Door / 1-Room
Normally Locked

47321-LU/S – 3-Door / 2-Room
1-Normally Locked & 2-Normally
Unlocked with 1-Shared Door

47431-U/2S – 4-Door / 3-Room
Normally Unlocked with
2-Shared Doors

Secure Interlock Door Control

The 4700 series Programmable Logic Controller is an economic way to control up to 4 interlocked doors. The controller prioritizes requests for access preventing simultaneous operation. The position and lock status of interlocked doors are monitored at all times to maintain the highest level of security.

Environmental or Security Control

Suitable for air locks or security mantraps, with up to four normally unlocked doors or three normally locked doors. The controller may also be customized to control automatic door openers and provide timing and logic sequences for biological wash-down controls.

Typical configurations also provide outputs for traffic lights, door violation alarm and an emergency unlock input.

Access Control Compatible

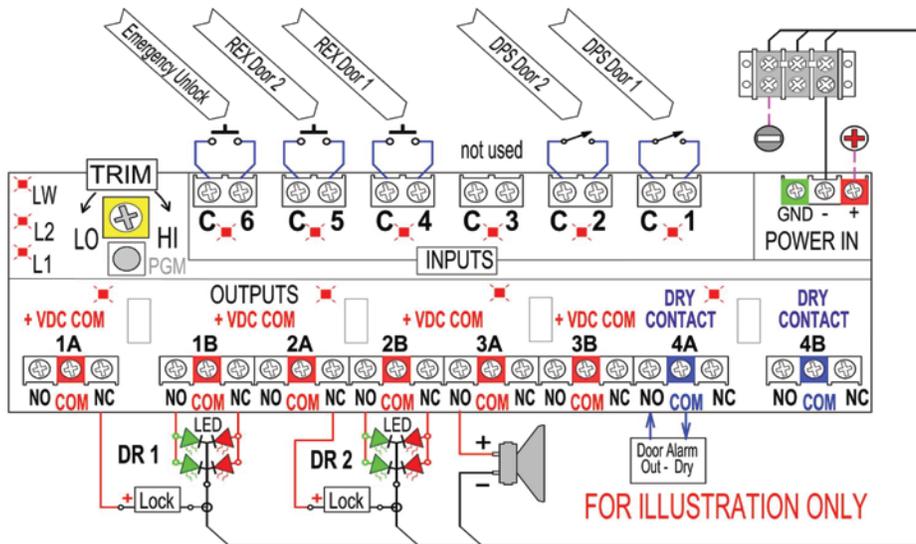
Any access control system can be used with the 4700 series controllers. The request for access input recognizes any normally open dry contact.

12/24 VDC Power Supply

The 4700 series PLC controller is paired with a 4 amp UL Listed Class 2 power supply which also provides 12 or 24 VDC to operate maglocks and/or strikes for each of the doors. The heavy-duty power supply is ready for hook-up to the fire alarm system. An alarm output is also provided for monitoring the control system.



System Layout Detail:



Physical Data –

Enclosure- 12" W x 15.5" L x 4.5" D NEMA 1 enclosure will accommodate one I/O module with Power supply. Additional modules require larger enclosures.
 PLC Module - 5-1/2" x 2-7/8" overall

Electrical – #4204NX

4 Amp Class 2 UL 294 power supply
 AC Input - Fused 110 VAC
 DC Output - 4 amp @ 12/24 VDC selectable
 Current draw for 4700 pcb no load @ 12VDC =160mA

Inputs –

Six Digital Inputs for Door Status (Dry contact closed when is door secure) and Request for Access (Dry contact normally open)
 1 analog trim pot input available.

Outputs –

Four Relay Outputs - DPDT Contacts rated 2 Amps @ 30 VDC for each door (Magnetic lock or strike & LED traffic indicators).
 Relays 1, 2, and 3 have wet contacts (common is at supply voltage). Relay 4 contacts are dry (unpowered).
 One set of contacts on each relay is protected by TVS Diodes for Maglocks & Strikes

Operation –

Only one door may be unlocked or open at any time. Unlocking or opening one door automatically secures other interlocked doors. A request for access at any normally locked door will inhibit the REX inputs for all other locked doors and secures all other interlocked doors in the area.

Lock relay contacts will switch low voltage power to maglocks and/or strikes. The lock relay contacts also allow low voltage red and green LEDs to be utilized for indication of lock status. For user feedback, typically a green light indicates that access is permitted, while a red light signals that another door is open and access is denied at this door.

A single turn trim pot is available for setting timing delays and other variable inputs after installation. The function and adjustment range must be specified by the customer prior to ordering. Typical uses include: airlock equalization delay, Unlock time, Door Propped alarm delay, Failure to clear mantrap alarm time, Panic release unlock time. Call for additional information and pricing.



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