DID YOU KNOW?

VICON

VAX VICON ACCESS CONTROL

There are two options for powering the second door lock

Both the single door and two door VAX controllers currently use the same board design and terminal connections for peripherals; what separates them is the firmware that is applied at the factory level and how you decide how to assign the door(s).

Both versions of the controller have three solid state output relays

- Relay1 one powered at 12VDC @500mA
- Relay 2 and Relay 3 are non-powered
- 2 Wiegand reader ports
- One 12VDC output
- 4 dry inputs

On a VAX one door panel you can use the Relay 1 to provide power to the door strike (which typically meets the specifications of available power). On a two door controller, you can do the same for the first door, using Relay 1 wet power. But how do we handle powering the second door since there is not a second wet power output relay available on the controller?

The first option is the simplest and what people are most familiar with – use an external power supply rated for the requirements of the second door strike and assign dry output Relay 2 or Relay 3 to manage the second door strike.

The second option is equally simple and in certain cases can be a nice differentiator. Here's how…

The 2 reader ports (which provide DC power to each reader) and the 12VDC output (P8 on controller) are a **shared** power limited circuit that supplies 12VDC and up to **500mA** combined draw. A typical proximity reader will have a peak current draw of around **80-100mA**. So for two readers connected on a two door controller it will consume around **200mA** of the available 500mA, leaving around **300mA** of current available through the 12VDC output of P8.

You will have to know the peak in-rush current spec of the strike you are using on the second door. If it is 300mA or less, then you have the option to now use the on-board 12VDC as a source to power that second strike in conjunction with its assigned output relay (in our case 2 or 3). This is a truly viable power option that has been successfully deployed throughout the country.

So when would you **not** use the onboard power as a source for the second door strike?

- When the sum of the 2 readers peak current draw and the strikes in-rush current exceed 500mA (this would be expected with larger proximity readers including keypad combo readers unless they themselves are powered from an external source and not via the reader port power)
- When you are using maglocks (typical fire code regulations dictate use of an external power supply to integrate with fire system for power drop in alarm conditions)
- When electrified locks are 24VDC powered
- When electrified locks are AC powered

So it is important to understand and investigate the system specs and the requirements of the peripherals connected. The VAX controller is very versatile and can be optimized in most installations.