

Door Card Operation - PCB K549-600 (chips K549r1 thru K549r3)

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Door commanded open:

If a door open pushbutton **OPENSW1,2,3** is pushed and held for 0.1 second and the related interlock inputs (+24 VDC) **ILKINnn** are false, then a low-true open collector output **OPEN1,2,3** is sent out to open the door and the related interlock output **ILKOUT1,2,3** is set to true (+24 VDC). Subsequently, when the red input **REDIN1,2,3** (+24 VDC) is true for at least 1.5 seconds, within three seconds of the door open switch press, then the door is considered commanded open, and the red LED **REDLED1,2,3** comes on steady.

When the door closes and the green input **GRNIN1,2,3** (+24 VDC) is true for at least 0.5 seconds, then the green LED **GRNLED1,2,3** is illuminated and the interlock output **ILKOUT1,2,3** is set false.

There are separate field inputs (+24 vdc) for the red **REDIN1,2,3** and green inputs **GRNLED1,2,3**. Because of this, it is possible to have situations where neither input is true. In that case, the red LED **REDLED1,2,3** and the green LED **GRNLED1,2,3** are both turned off and the interlock output is false.

If both the red and green inputs are true at the same time, then both red and green LEDs will be illuminated, resulting in amber output from the bistate red/green LED. The interlock output is also true in this case.

Door forced open:

If a red input is true for more than 1.5 seconds, but the door open pushbutton has not been pressed within the preceding three seconds, then the door is considered forced open. In that case, the red LED is latched in and flashes, and the sonalert sounds and the aux alarm relay contact **RELAY_K1,2,3** for that door is closed. The related interlock output **ILKOUT1,2,3** is made true.

Pushing the SILENCE pushbutton silences the sonalert but leaves the red LED flashing and the alarm contact true. Alternatively, pressing the RESET pushbutton silences the sonalert, clears the alarm contact, and changes flashing red LEDs to the steady red state if the red input is true, or green if the green input is true.

General:

When the red LED is not in the flashing state, then the associated aux alarm relay contact **RELAY_K1,2,3** is false (contact open).

When the red LED is in the flashing state, then the associated aux alarm relay contact **RELAY_K1,2,3** is true (contact closed).

When the red LED is off, the associated interlock output **ILKOUT1,2,3** is false. When the red LED is on or flashing, the interlock output is true. When the door open pushbutton is pressed, the interlock output is true while button is held and for three seconds after release, even in the absence of the red input.