Auto-Canceling Interlock Switching

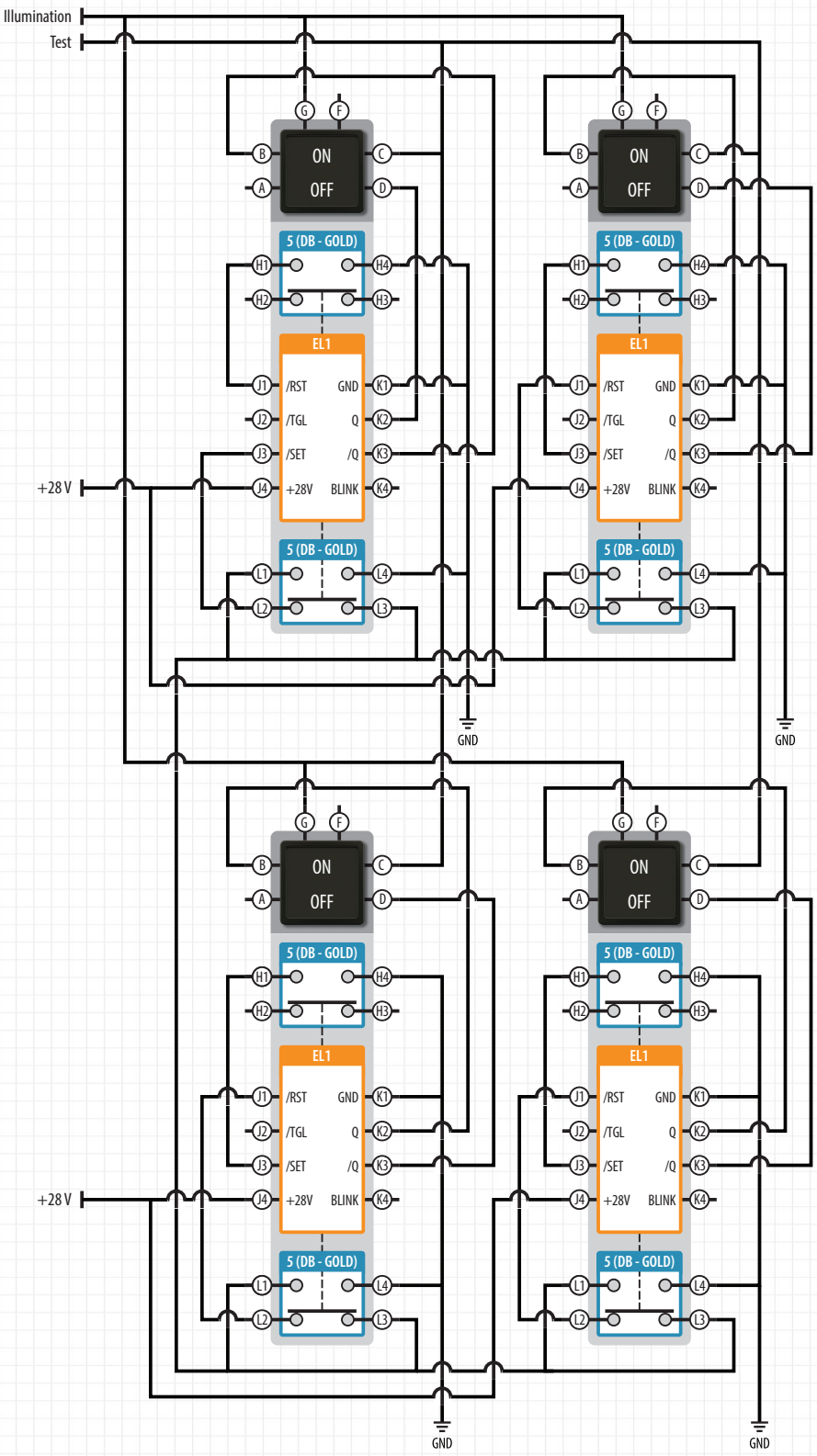
This example has four momentary switches with an electronic interconnect. The interconnect function has a similar action to mechanically interlocked switches. When the operator presses a switch, the selected function becomes active and any other selected function is canceled.

A combination of four VIVISUN High Capacity momentary switches are used and each switch contains two electromechanical switch poles and a NEXSYS Electronic Latch (EL1).

The power up state illuminates the initial switch (top left) in the ON mode by the /Q output (K3) to the (B) legend input. The remaining 3 switches are in the OFF mode with the /Q output (K3) connected to the (D) legend input illuminating the OFF legend. If any one of the 3 OFF switches is actuated, the ON legend of that switch illuminates from ground switched to the /SET input (J3) from the H1 switch contact and the Q output (K2) of the specific EL1. This selected switch is then canceled by the /RST input (J1) anytime a different switch is depressed. The initial (top left) switch is controlled in the same way but in an opposite state to the other 3 switches.

This application presents an effective alternative to mechanical interlocking alternate action switches. This example takes advantage of the improved reliability offered by a solid-state electronic interlock and momentary pushbutton switches. This application also includes a an externallly activated Press-To-Test feature (Pin C) for a lamp check test circuit. Grounding the TEST pin will illuminate all sections of all indicators.

To speak with our Technical Support team on how NEXSYS LOGIC Component Technology can be used to add avionics system capabilities or solve your system integration challenges call us at 1-888-848-4786.



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