

CoolDrive® SWITCHING INFORMATION

Background

The Cool Drive™ valve driver board has been developed to facilitate the holding voltage required to maintain cool coil operation for Valcor Scientific's SV74, SV75 & SV76 Series of solenoid valves.

These boards have been designed as a building block for clients to use in their own control systems and as such are not a stand-alone piece of electronic equipment.

The Cool Drive™ boards would normally be used in conjunction with interface boards, switches, relays or direct-buffered inputs from the clients' own instrumentation.

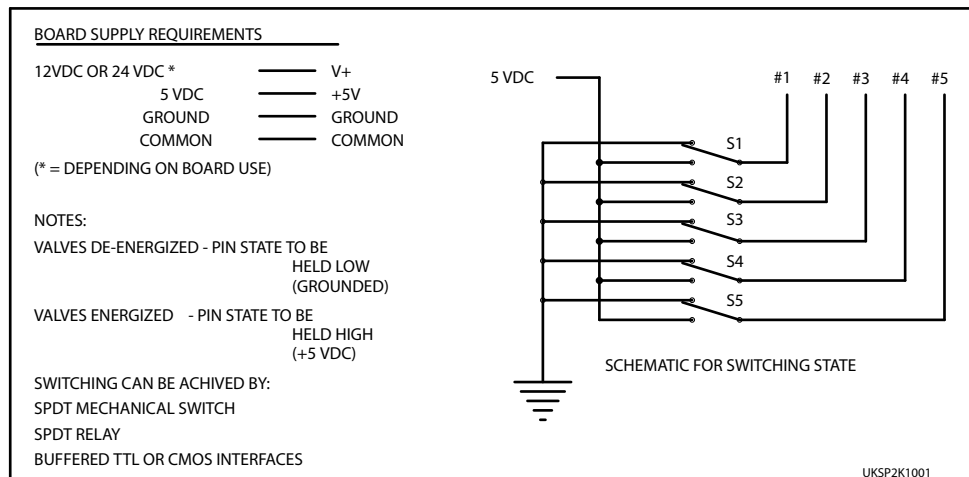
1. Power Requirements

The Cool Drive™ valve driver board requires +12 VDC or +24 VDC depending on the valves to be used, plus +5 VDC and a common ground. (See the Cool Drive™ specification sheet for full details)

2. Switching Information

The switching function is achieved by taking the input pins either high (+ 5 VDC) or low (Grounded). When the pins are taken high, the valves are energized at the normal voltage of the board and thereafter held at the reduced voltage (Normally 1/3 of the nominal voltage). When the pins are held low, the valve is de-energized. The pins should always be held low and not left open circuit.

3. Schematic For Switching

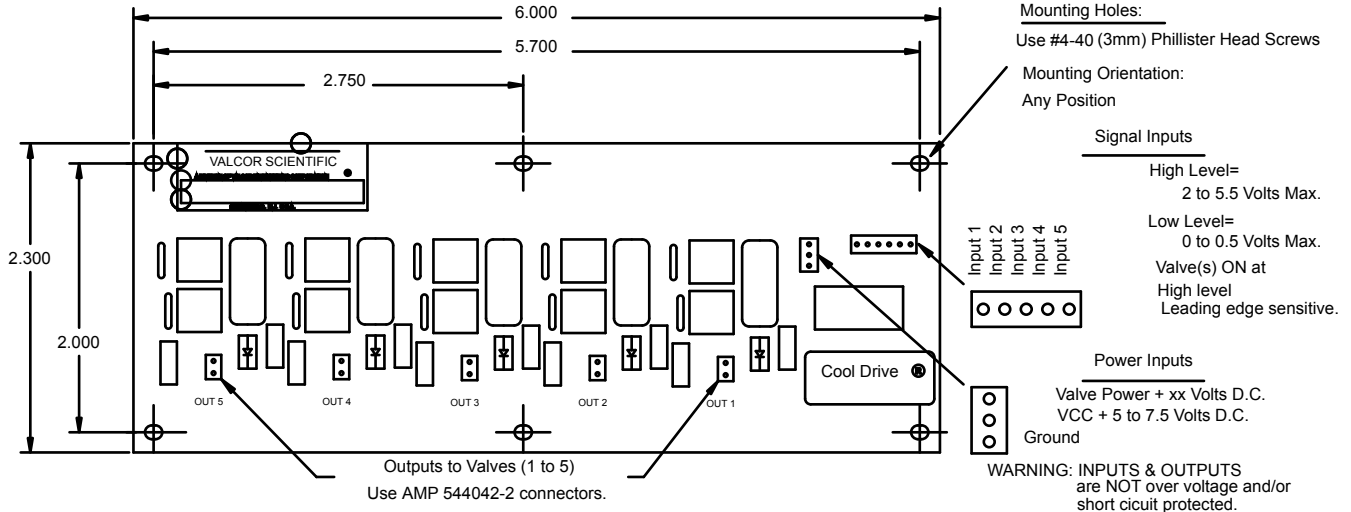


Note:

Be aware that most interface boards and devices will need to be programmed by the clients for inclusion in their own equipment and it is therefore necessary that clients intending to use drivers and interface boards have some basic knowledge of electronics and programming languages.



CoolDrive® Technical Information



SPECIFICATIONS	12 VDC	24 VDC
SV61D5Xxx	Power Inputs: VCC 5 to 7 volts Valve Power: 12 volts DC minimum 94mA / Valve at 12 volts DC Outputs: Solenoid coil resistance 127 Ohms Maximum current 400mA each driver	Power Inputs: VCC 5 to 7 volts Valve Power: 24 volts DC minimum 48mA / Valve at 12 volts DC Outputs: Solenoid coil resistance 550 Ohms Maximum current 400mA each driver
SV25D5Xxx	Power Inputs: VCC 5 to 7 volts Valve Power: 12 volts DC minimum 135mA / Valve at 12 volts DC Outputs: Solenoid coil resistance 90 Ohms Maximum current 400mA each driver	Power Inputs: VCC 5 to 7 volts Valve Power: 24 volts DC minimum 65mA / Valve at 12 volts DC Outputs: Solenoid coil resistance 375 Ohms Maximum current 400mA each driver
SV60D5Xxx	Power Inputs: VCC 5 to 7 volts Valve Power: 12 volts DC minimum 355mA / Valve at 12 volts DC Outputs: Solenoid coil resistance 34 Ohms Maximum current 400mA each driver	Power Inputs: VCC 5 to 7 volts Valve Power: 24 volts DC minimum 175mA / Valve at 12 volts DC Outputs: Solenoid coil resistance 140 Ohms Maximum current 400mA each driver
SV48D5Xxx	Power Inputs: VCC 5 to 7 volts Valve Power: 12 volts DC minimum 600mA / Valve at 12 volts DC Outputs: Solenoid coil resistance 20 Ohms Maximum current 600mA each driver	Power Inputs: VCC 5 to 7 volts Valve Power: 24 volts DC minimum 308mA / Valve at 12 volts DC Outputs: Solenoid coil resistance 78 Ohms Maximum current 400mA each driver