

PWM SOLENOIDS AND VALVES DRIVER USING DRV103

Tiny module is a PWM Solenoids and Valves driver using Texas instrument's DRV103 low-side DMOS power switch employing a pulse-width modulated (PWM) output. Its rugged design is optimized for driving electromechanical devices such as valves, solenoids, relays, actuators, motors and positioners. This board is also ideal for driving thermal devices such as heaters, coolers, lamps, PWM operation conserves power and reduces heat rise, resulting in higher reliability. In addition, adjustable PWM allows fine control of power delivered to the load. Output delay time and oscillator frequency are also externally adjustable.

Features

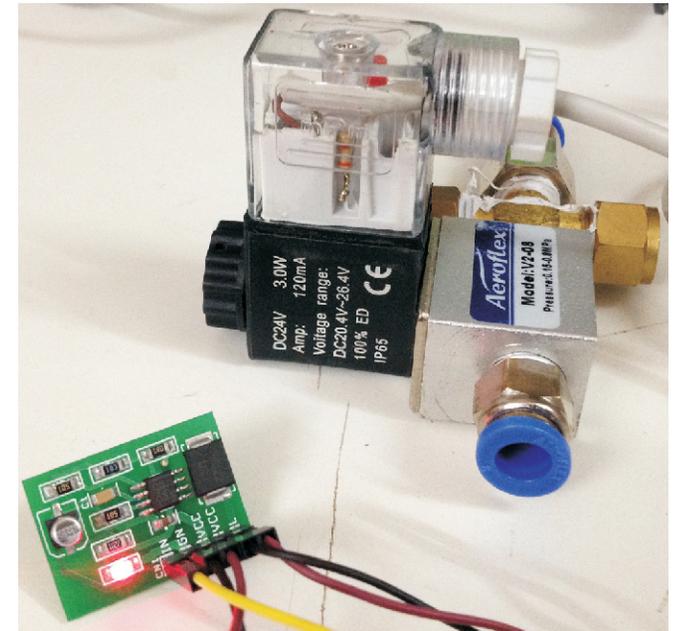
- Supply 8V to 32V DC
- Load Capacity 1.5A
- Trigger Input Voltage 1.5V to 5V DC
- Thermal and Current Limit Shutdown
- On Board Power LED

Applications

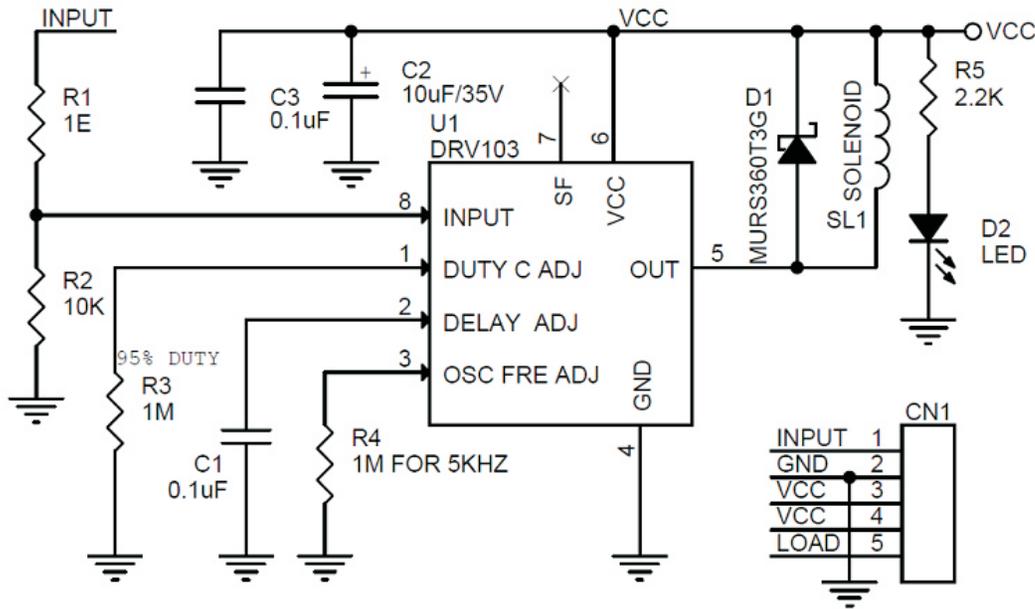
- Solenoids
- Valves,
- Heaters, Coolers
- Lamps
- Relays
- Power Contactor Coils
- Hydraulics and Pneumatics Systems

Note: PWM Duty Cycle, Output Delay, Frequency Adjust

- Oscillator Frequency range 500Hz to 100Khz, default set to 5Khz, Frequency can be alter by changing R4 (Refer Data sheet for more details)
- Delay Output: Default delay set to approx. 100mili seconds, Delay can be adjust by changing Capacitor C1
- Duty Cycle is adjustable 10% to 95% , default set to 95% can be alter by changing R3 (Refer Data sheet for more details)



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BOM			
SR.	QNTY.	REF.	DESC.
1	1	CN1	5 PIN HEADER CONNECTOR
2	2	C1,C3	0.1uF SMD 1206
3	1	C2	10uF/35V SMD
4	1	D1	MURS360T3G SMD
5	1	D2	LED SMD 1206
6	1	R1	1E SMD 1206
7	1	R2	10K SMD 1206
8	1	R3	1M SMD 1206
9	1	R4	1M SMD 1206
10	1	R5	2.2K SMD 1206
11	1	SL1	2 PIN HEADER CONNECTOR
12	1	U1	DRV103 SO8

