1. R42-D Stepper Driver Function Introduction

R60-D is a special motion control driver customized by Shenzhen Rtelligent for customers.

R60-D is a potentiometer speed regulation function / dual-axis synchronous driver.

An adjustable varistor (about 10-20K is recommended) is connected to the speed control port, and the voltage is provided by the driver. DIP switches SW4.SW5.SW6 select the speed adjustment range. Adjust the rheostat to change the real-time speed of the motor.

The commutation signal is determined by the optocoupler at both ends of OPTO and DIR-. The turn-on and turn-off of the optocoupler reverse the direction of the motor and the voltage is 24V.
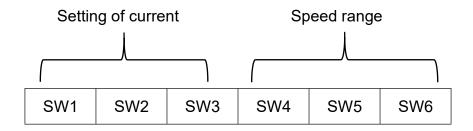
The enable signal, which controls the current output of the driver and the motor, is determined by the optocouplers at both ends of OPTO and ENA-. The optocouplers are turned on and off, corresponding to the current output of the driver to the motor. The total voltage is 24V.

2. Control Signal Wiring

The driver terminal is defined as follows：

Function	Mark	Definition
Power input terminal	V+	Input positive DC power supply
	V-	Input DC power supply negative
Motor 1 Terminal	A+	Connect motor 1 A phase winding ends
	A-	
	B+	Connect motor 1 B phase to both ends
	B-	
Motor 2 Terminal	A+	Connect motor 2 A phase winding ends
	A-	
	B+	Connect motor 2 B phase to both ends
	B-	
Speed control port	+5V	Potentiometer left end
	AIN	Potentiometer adjustment terminal
	GND	Potentiometer right end
Start and reverse (AIN and GND need to be short-circuited if not connected to potentiometer)	OPTO	24V power supply positive terminal
	DIR-	Reversing terminal (0V)
	ENA-	Start terminal (0V)

3. Dialing code and parameter setting

Setting of current			Speed range		
SW1	SW2	SW3	SW4	SW5	SW6

3.1 setting of current

Peak current	Valid value	SW1	SW2	SW3	Remark
0.3	0.2	ON	ON	ON	Other current values can be customized
0.5	0.3	OFF	ON	ON	
0.7	0.5	ON	OFF	ON	
1.0	0.7	OFF	OFF	ON	
1.3	1.0	ON	ON	OFF	
1.6	1.2	OFF	ON	OFF	
1.9	1.4	ON	OFF	OFF	
2.2	1.6	OFF	OFF	OFF	

Dial SW1.SW2.SW3 is used to set the current value of the driver output to the motor.

3.2 Speed range

Speed range	SW4	SW5	SW6	Remark
0~100	ON	ON	ON	Other speed ranges can be customized
0~150	OFF	ON	ON	
0~200	ON	OFF	ON	
0~250	OFF	OFF	ON	
0~300	ON	ON	OFF	
0~350	OFF	ON	OFF	
0~400	ON	OFF	OFF	
0~450	OFF	OFF	OFF	

4. Driver size

4-Φ3.5

112

118

4.5

22.5   25.3

75.5

13.5

25