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800mA Micro Stepper Motor Driver Forward/Reverse Controller

1.Introduction:

It is a 800mA Micro Stepper Motor Driver Forward/Reverse Controller for 2-Phase 4-Wire or 4-Phase 5-Wire Stepper Motor. It can control the four working states of the stepper motor, adjust the motor speed and number of steps, and can also be externally connected with an extended travel switch for better control of the working state of the stepper motor. It is very suitable for mini stepper motors and applications.

2.Feature:

- 1>.Four Work Mode
- 2>.Adjustable Speed Control
- 3>.Adjustable number of motion steps
- 4>.Externally adjustable travel switch control
- 4>.For 2-Phase 4-Wire or 4-Phase 5-Wire Stepper Motor

3.Parameter:

- 1>.Work Voltage:DC 5V - 12V
- 2>.Drive Current:800mA(Max)
- 3>.Power Reverse Protection:Yes
- 4>.Over Current Protection:Yes
- 5>.Over Temperature Protection:Yes
- 6>.Work Temperature:-20℃~85℃
- 7>.Work Humidity:5%~85%RH
- 8>.Module Size:60*44*16mm

4.Work Mode:

- 1>.Set Mode by P4 in the Right 4Pin Male Pin.

2>.Normal Mode 1:

- 2.1>. S1(UP or next to Pot) Button is Start/Stop Button;
- 2.2>. S2(Down or next to Hole) Button is Forward/Reverse Control Button;
- 2.3>. W2(Black Pot) Potentiometer is speed regulator;
- 2.4>. P3(Left 4Pin Male Pin) is used to connect Forward and Reverse Limit switches or sensors which can make sure step motor automatically runs back and forth between the two switches. It also can input sensor signal(Low level signal available).
- 2.5>. P2(3Pin Male Pin next to Black Pot) is used to switch the speed gear:
 - 2.5.1>. Slow Gear: Short circuit the upper two pins. Its adjustment range is 3.125s/step to 0.0625s/step. That is 0.32step/s to 16step/s.
 - 2.5.2>. Fast Gear: Short circuit the below two pins. Its adjustment range is 0.0625s/step to 0.00125s/step. That is 16step/s to 800step/s.
- 2.6>.Work Status: Press S1 to start stepper motor, Press S2 change the direction of motor rotation, Rotate the black potentiometer to change the speed, Press S1 again to stop stepper motor.

3>.Normal Mode 2:

- 3.1>. S1(UP or next to Pot) Button is Forward Start Button or Stop Button when Running;
- 3.2>. S2(Down or next to Hole) Button is Reverse Start Button or Stop Button when Running;
- 3.3>. W2(Black Pot) Potentiometer is speed regulator;
- 3.4>. P3(Left 4Pin Male Pin) is used to connect Forward and Reverse stop switches or sensors which can make sure step motor stop automatically. It also can input sensor signal(Low level signal available).
- 3.5>. P2(3Pin Male Pin next to Black Pot) is used to switch the speed gear:
 - 3.5.1>. Slow Gear: Short circuit the upper two pins. Its adjustment range is 3.125s/step to 0.0625s/step. That is 0.32step/s to 16step/s.
 - 3.5.2>. Fast Gear: Short circuit the below two pins. Its adjustment range is 0.0625s/step to 0.00125s/step. That is 16step/s to 800step/s.
- 3.6>.Work Status: Press S1 stepper motor forward rotation, Press S1 or S2 when running to stop, Press S2 stepper motor reverse rotation, Rotate the black potentiometer to change the speed, Press S1

or S2 again to stop stepper motor.

4>.Inching Mode:

4.1>. S1(UP or next to Pot) Button is Forward Start Button;

4.2>. S2(Down or next to Hole) Button is Reverse Start Button;

4.3>. W2(Black Pot) Potentiometer is speed regulator;

4.4>. P3(Left 4Pin Male Pin) is used to connect Forward and Reverse Start switches or sensors which can make sure step motor automatically stop if get signal from the two switches. It also can input sensor signal(Low level signal available).

4.5>. P2(3Pin Male Pin next to Black Pot) is used to switch the speed gear:

4.5.1>. Slow Gear: Short circuit the upper two pins. Its adjustment range is 3.125s/step to 0.0625s/step. That is 0.32step/s to 16step/s.

4.5.2>. Fast Gear: Short circuit the below two pins. Its adjustment range is 0.0625s/step to 0.00125s/step. That is 16step/s to 800step/s.

4.6>.Work Status: Keep press S1 and stepper motor start to forward rotation and stop if release button. Press S2 and stepper motor start to reverse rotation if release button, Rotate the black potentiometer to change the speed.

5>.Automatic Reciprocate Mode:

5.1>. S1(UP or next to Pot) Button is Start/Stop Button;

5.2>. S2(Down or next to Hole) Button is Forward/Reverse Control Button;

5.3>. W2(Black Pot) Potentiometer is speed regulator;

5.4>. W1(Blue Pot) Potentiometer is used to adjust steps for Automatic Reciprocate.

5.5>. P1(3Pin Male Pin next to Blue Pot) is used to switch the step gear:

5.5.1>. Short Gear: Short circuit the right two pins. Its adjustment range is 1-20step.

5.5.2>. Long Gear: Short circuit the left two pins. Its adjustment range is 200-1200step.

5.6>. P2(3Pin Male Pin next to Black Pot) is used to switch the speed gear:

5.6.1>. Slow Gear: Short circuit the upper two pins. Its adjustment range is 3.125s/step to 0.0625s/step. That is 0.32step/s to 16step/s.

5.6.2>. Fast Gear: Short circuit the below two pins. Its adjustment range is 0.0625s/step to 0.00125s/step. That is 16step/s to 800step/s.

5.7>.Work Status: Press S1 to start stepper motor, Press S2 change the direction of motor rotation by manual control or automatic reciprocate within the steps which set be Blue Pot W1, Rotate the black potentiometer to change the speed, Press S1 again to stop stepper motor.

5.Note:

1>.It is necessary to disconnect the power before operating when switching speed/step size/mode.

2>.Work indicator flashes once every two seconds if stepper motor current is greater than 800mA. It needs to remove stepper motor or decrease working voltage.

3>.Low-level signal is available if connect the sensor as a limit switch.

6.Application:

1>.2-Phase 4-Wire Stepper Motor

2>.4-Phase 5-Wire Stepper Motor

3>.Intelligent robots/robotic arms

4>.Intelligent focusing system control

5>.Micro mechanical equipment

7.Package:

1>.1pcs 800mA Micro Stepper Motor Driver Forward/Reverse Controller

2>.1pcs 20cm 10Pin Female to Female Connect Wire



