

STD-402 STEP Motor driver User manual

(DOC NO:050331)

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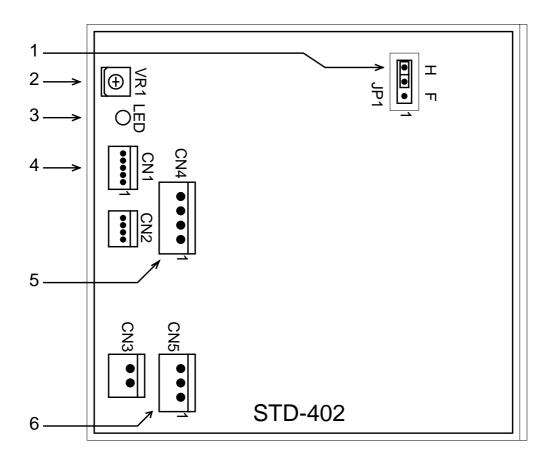
1. INTRODUCTION

The STD-402 stepper motor driver is bipolar, PWM chopper, constant current regulated unit, designed to operate with a wide range of step motors. Manufactured by TAILY AUTOMATION, Is suitable to drives 2 or 4 phase step motor, the driver is high torque, easy to interface and use, high performance and low cost.

2. SPECIFICATIONS

Model	STD-402	
Suitable motor	2 or 4 phase stepper motor	
Control mode	Bipolar, PWM constant current regulation	
Drive current	2A (MAX)	
Excitation mode	Full step 2 phase excitation	
	Half step 1-2 phase excitation	
Power input	AC30V 50/60HZ or DC40V 100VA	
Selection	"Full step/Half step" selection	
Standby current	Automatically reduce at standby mode	
Current adjustment	urrent adjustment Maximal output current adjust	
Input signals	PUS: Pulse input	
	DIR: Direction input	
	CO: Current off input	
Ambient temperature	ent temperature 0 ~40	
Dimension	nension 86(W)×75(D)×35(H) mm	
Weight	Weight 120g	

3. **DESCRIPTION**



NO.	NAME	DESCRIPTION	FACTORY SET
1	JP1	HALF/FULL Step mode select	Н
2	VR1	Maximal output current adjust	1.5A
3	LED	Power indicate	
4	CN1	Pulse input connector	
5	CN4	Step motor connector	
6	CN5	Power input connector	

◆ Step mode selection

H: JP1 at H position = HALF step mode (0.9°/step,400step/rev).

F: JP1 at F position = FULL step mode (1.8°/step,200step/rev).

◆ Out current adjustment

Rotate VR1 to adjust maximal output current.

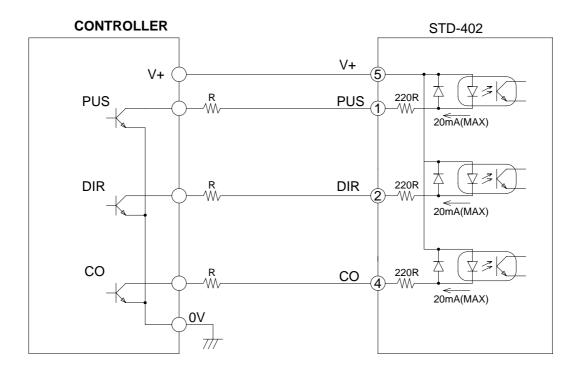
4. INPUT SIGNALS

STD-402 with three input signals (PUS), (DIR), (CO).

◆ PUS: Pulse input.

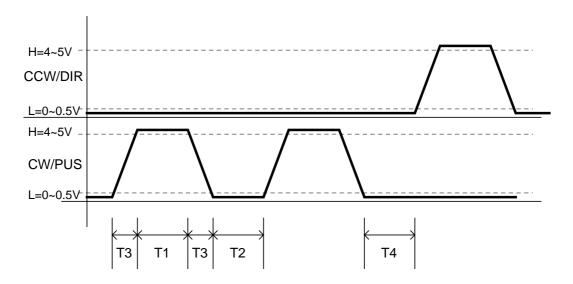
◆ DIR : Direction input.

◆ CO: when this input is low lever, the driver will turn of output current to free the step motor from excitation condition.



♦ Signals wave:

T1,T2,T4 = 20us (min). T3 = 2us (max).

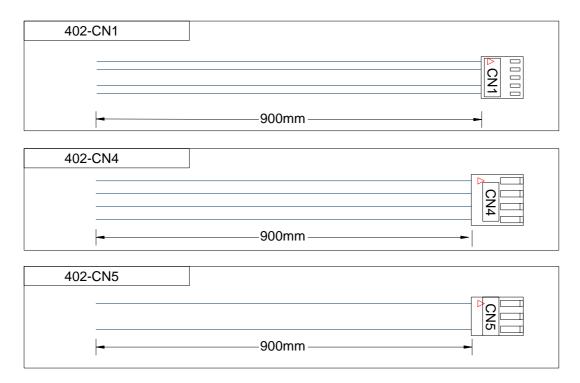


5. INSTALLATION AND WIRING

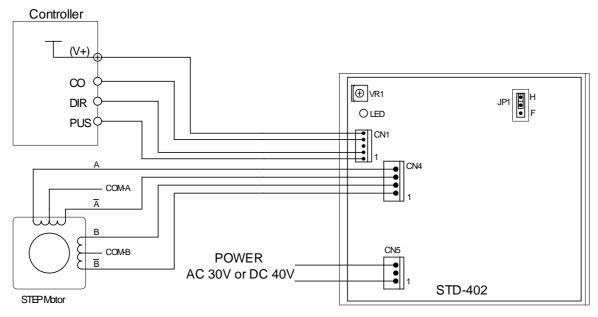
◆ Requirement and Safety precautions:

- 1. The driver should be operated in an environment that is protected from moisture, corrosive gases, oil mist, and airborne dust, metallic particles.
- 2. Make sure all connectors are connected to correct position before turn on power. Do not connect or disconnect connectors while power is applied to the driver.
- 3. Make sure that the power source supplies the correct voltage and is capable of supplying the required current to the driver.

♦ Connectors:



♦ Wiring diagram :



6. **DIMENSION**

