

Index

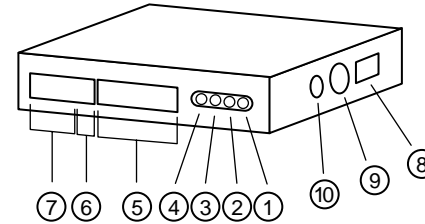
1. Product Outline.....	P1
2. Names and Functions of Driver	P2
2.1 Introduction of LED	P3
2.2 Signal Output Terminal	P4
2.3 DC Power Input Terminal.....	P5
2.4 Wiring Connection to Motors	P5
2.5 Setting Function Switch.....	P6
2.6 Run Current Setting.....	P7
2.7 Stop Current Setting	P8
3. Input Signal Circuit.....	P9
3.1 Pulse / Direction Signal Diagram..	P9
4. Output Signal Circuit.....	P10
5. Connecting Diagram.....	P11
6. Dimension.....	P12
7. Specification.....	P13

7. Specification

Item	2 phase micro step drive
Drive Method	Constant Current (unipolar)
Power	DC15~45V@2A
Driver Current	0.3~1.0A/Phase
Auto-Current -Down	20%~65%
Resolution	1600step/ r (0.225°/ step)
Pulse Width	> 5us
Direction Response	> 20us
Input Signal	L : 0~+0.5V , H : +4~+24V
Breakdown Voltage	20mA
Input Signal Impedance	220Ω
Output Signal	Open Collector
Signal Standard	40V、20mA (Max)
Connection Method	Removable Connector
Temperature	0~40°C
Moisture	10~85% RH
Dimension (mm)	100(L) x 62(W) x 22(H)
Wight	160g

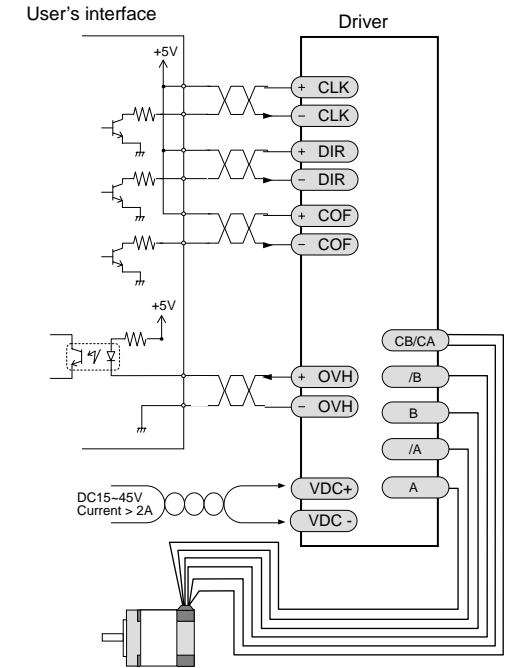
- 13 -

2. Names and Functions of Driver



- 2 -

5. Connecting Diagram



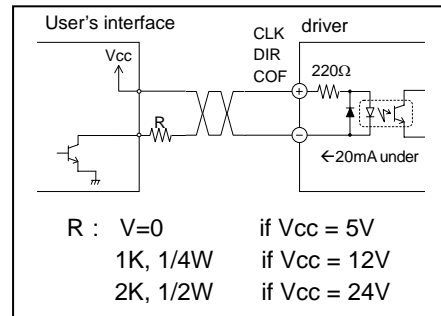
- 11 -

2.2 Signal Output Terminal

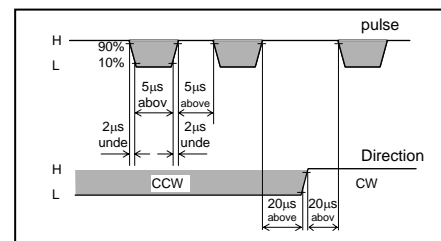
Indicator	Description
⑤ CLK	Pulse signal Input terminal When input one pulse signal, the motor will running one step.
DIR	Direction signal input terminal Control the motor running direction, when High the motor will be CCW , when Low the motor will be CW.
COF	Excite mega tic release signal input terminal When add a high voltage in this point, driving current will down to 0 immediately.
OVH	Overheat input terminal When the driver's transistor overheat , this point will normal open.

- 4 -

3. Input Signal Circuit



3.1 Pulse / Direction Signal Diagram



- 9 -

2.5 Setting Function Switch

Indicator	Description
⑧ OFF	OFF : When driver overheat, it will only output signal, but he motor wouldn't stop.
OVH	OVH : When driver overheat, If want to motor stop, to set the switch OVH.
GO	GO : In normal running, to set the switch GO.
TST	TST : When self-testing, to set the switch TST. Drive will bring about 20Hz pulse speed to driving the motor run.
OFF	OFF : When motor stop, If want to current fixed, to set the switch OFF.
ACD	ACD : After motor stop about 0.3 sec , drive current auto-down.

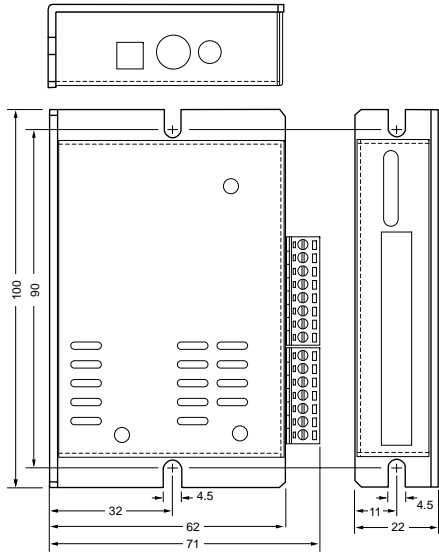
- 6 -

2.6 Run Current Setting

Indicator	Description																
⑨ RUN	16 driving current setting <table border="0" style="width: 100%;"> <tr> <td>0 → 0.20</td> <td>8 → 0.69</td> </tr> <tr> <td>1 → 0.25</td> <td>9 → 0.76</td> </tr> <tr> <td>2 → 0.32</td> <td>A → 0.83</td> </tr> <tr> <td>3 → 0.37</td> <td>B → 0.90</td> </tr> <tr> <td>4 → 0.44</td> <td>C → 0.98</td> </tr> <tr> <td>5 → 0.50</td> <td>D → 1.05</td> </tr> <tr> <td>6 → 0.57</td> <td>E → 1.13</td> </tr> <tr> <td>7 → 0.63</td> <td>F → 1.20</td> </tr> </table>	0 → 0.20	8 → 0.69	1 → 0.25	9 → 0.76	2 → 0.32	A → 0.83	3 → 0.37	B → 0.90	4 → 0.44	C → 0.98	5 → 0.50	D → 1.05	6 → 0.57	E → 1.13	7 → 0.63	F → 1.20
0 → 0.20	8 → 0.69																
1 → 0.25	9 → 0.76																
2 → 0.32	A → 0.83																
3 → 0.37	B → 0.90																
4 → 0.44	C → 0.98																
5 → 0.50	D → 1.05																
6 → 0.57	E → 1.13																
7 → 0.63	F → 1.20																

- 7 -

6. Dimension



- 12 -

1. Product Outline

- A. Low vibration, high resolution, 1600 steps per loop.(each step at 0.225°)
- B. DC15~45V Power Input (Current > 2A)
- C. Can select 16 driving current adjustment , 0.3~1.5A/phase
- D. Auto-urrent-Down (ACD) function for reduced motor heat.
- E. Overheating protection and signal output function.
- F. Output signal can control the excite mega tic release.
- G. Use the removable connector for easy connection.
- H. High speed photo coupler to increase input pulse frequency.
- I. SMD design, driver fine and delicate.
- J. Self-testing function.

- 1 -

User Manual

Please read this operating manual thoroughly before installing and operating the driver, and always keep the manual where it is readily accessible.

VER. NOV-Y2K1-MD26-M01

2.7 Stop Current Setting

Indicator	Description
⑩ STOP	It is for driving current down, when motor stop. Clockwise rotating → Max to 20% Counterclockwise rotating → Max to 65% ex : rotating current to set $F = 1.2A$ clockwise, when motor stop, the current will down to 0.93A counterclockwise, when motor stop, the current will down to 0.41A

- 8 -

2.3 DC Power Input Terminal

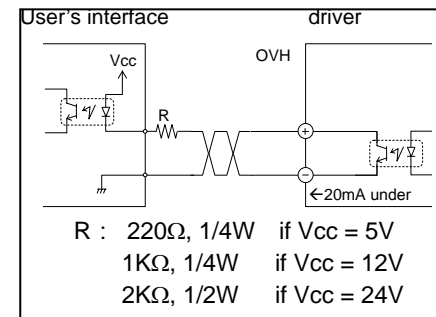
Indicator	Description
⑥ VDC	Power input terminal DC15~45V , Current > 2A.

2.4 Wiring Connection to Motors

Indicator	Description
CA	Motor A phase common
⑦ CB	Motor B phase common.
A	Motor A phase
/A	
B	Motor B phase
/B	

- 5 -

4. Output Signal Circuit



- 10 -

2.1 Induction of LED

Indicator	Description
① COF	Excite mega tic release light When driver receive the excite mega tic release signal, COF will be light.
② OVH	Overheat light. When the temperature of driver is over 85°C, OVH will be light.
③ CLK	Pulse signal indicate light. Driver received one pulse signal, CLK will light once. When the pulse high speed, the CLK will keep the light at all time.
④ PWR	Power input light. When driver accept DC15~45V, PWR will be light.

- 3 -