

## • Outline

66.1 mm x 100 mm x 32 mm

### Outline drawing

CN3: Motor terminal

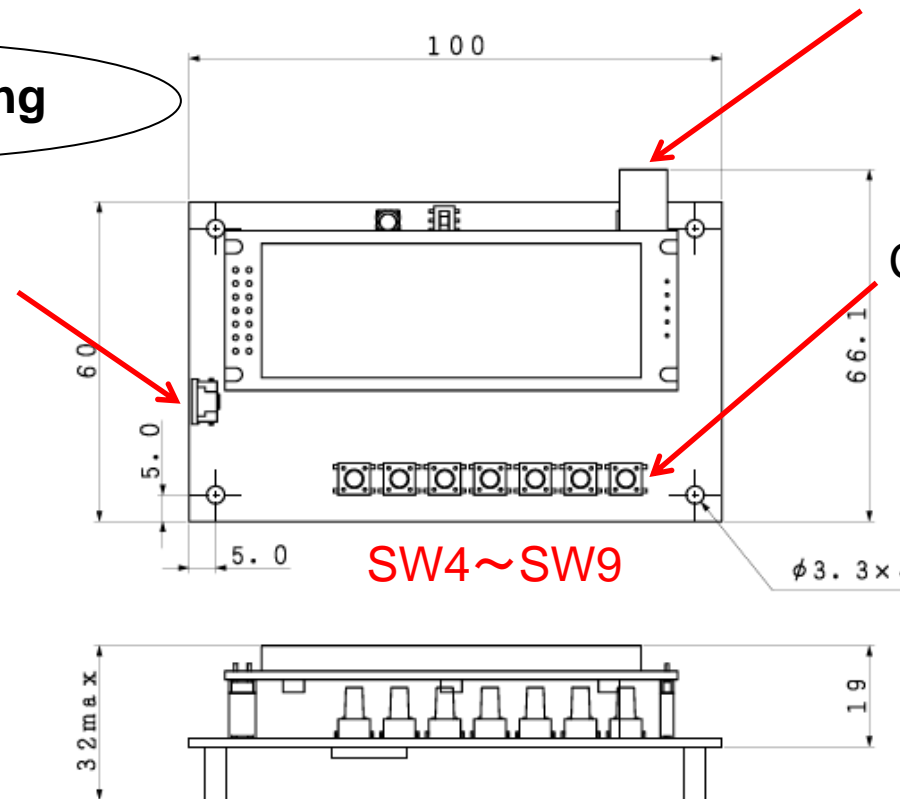
- 1.No connected
- 2.W phase
- 3.Common
- 4.V phase
- 5.U phase
- 6. No connected

J1: Power Input  
(using AC Adaptor)

- 1. GND
- 2. VCC(12V)

Control SW

- SW4. Set speed
- SW5. Speed up
- SW6. Direction
- SW7. Acceleration time
- SW8. Motor voltage
- SW9. Start/Stop



The SOD12ST drives the brushless motor with the constant frequency sinusoidal wave. Therefore, the motor can be made to drive smoothly.

- Electrical characteristics

|                             | Min. | Typ. | Max.   |     |
|-----------------------------|------|------|--------|-----|
| Power supply voltage        | 11.5 | 12   | 12.5   | V   |
| Consumption current         |      |      | 250    | mA  |
| Output voltage              | 1.0  |      | 5.0    | V   |
| Output current              |      |      | 0.7    | A   |
| Motor speed                 | 100  |      | 190000 | rpm |
| Acceleration time           | 1    |      | 9      | s   |
| Operating temperature range | 0    |      | 50     | °C  |
| Weight                      |      | 60   |        | g   |

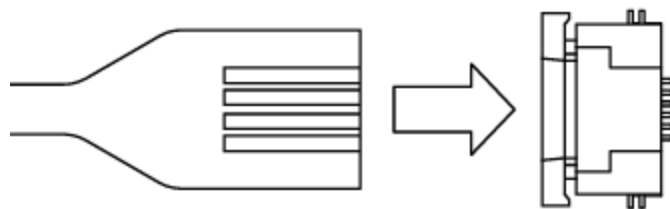
※ The minimum resolution of setting the rotation speed is 60 rpm.

Example 1. 6059 rpm is set to 6000rpm.

Example 2. 6100 rpm is set to 6060rpm.

- Connecting Instruction

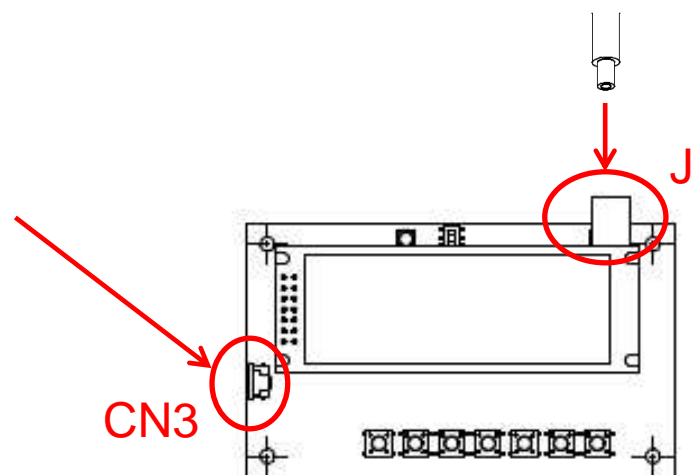
Motor cable is connected to CN3



※ Motor cable is inserted to CN3  
the terminal side up.

AC adaptor is connected to J1

AC adaptor (**DC12V**)



- Motor speed setting

1. Once SW4 is pressed,  
the motor speed value blinks.  
(The left-most value is blinking at first)

2. Press SW4 to select the digit  
you want to change.

3. Press SW5, the blinking  
digit value will increase.

4. If SW4 is pressed while blinking  
the right-most digit value,  
it will be effective the speed.

LCD Display

000600rpm CCW  
5sec 3. 0V STOP

Motor speed digit is blinking

LCD Display

000600rpm CCW  
5sec 3. 0V STOP

Blinking digit is shifted to the right

LCD Display

000700rpm CCW  
5sec 3. 0V STOP

Blinking digit value is increased

- Rotating direction setting

Rotating direction is set by pressing SW6.  
(CW / CCW)

LCD Display

M 000600rpm **CCW**  
5sec 3.0V STOP

LCD Display

M 000600rpm **CW**  
5sec 3.0V STOP

- Acceleration time setting

Acceleration time is set by pressing SW7.  
(Adjustable range : 1 sec to 9 sec. )  
In case the motor cannot be started,  
there is a possibility to start by increasing  
this value.

LCD Display

M 000600rpm CW  
**5sec** 3.0V STOP

- Motor voltage setting

**Motor voltage is set by pressing SW8.  
Voltage setting resolution: 0.1V**

LCD Display

000600rpm CCW  
5sec 4.6V STOP

- Operation

**Motor is operated by pressing SW9.  
It is switched to start and stop.  
✕Motor is not started during speed  
setting.**

LCD Display

000600rpm CCW  
5sec 3.0V STOP

LCD Display

000600rpm CCW  
5sec 3.0V RUN