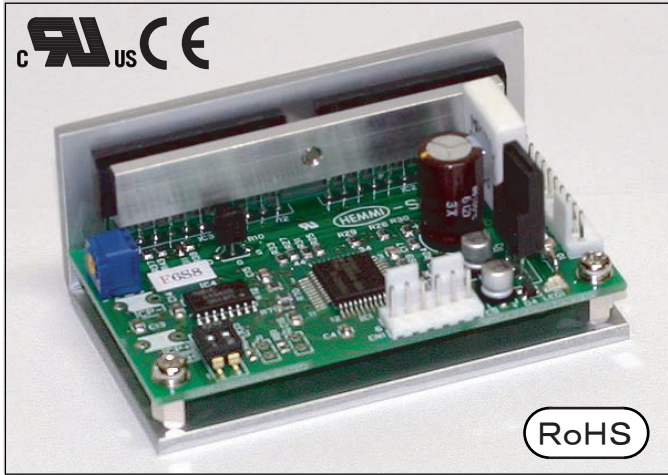# 5 PHASE STEPPING MOTOR DRIVER

MC-5M

UL standard recognition , CE marking

FEATURES
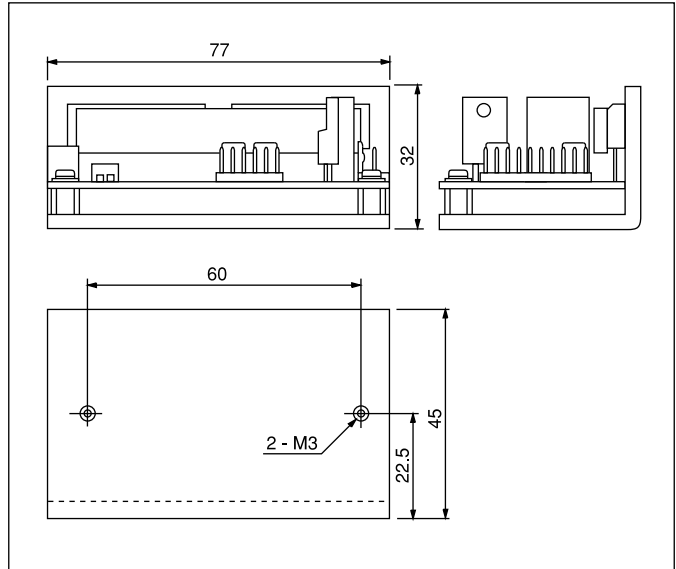
● Maximum drive current 1.4A/phase.
● Single power supply DC24−36V.
● Optical−isolator input.
● Automatic current reduction.
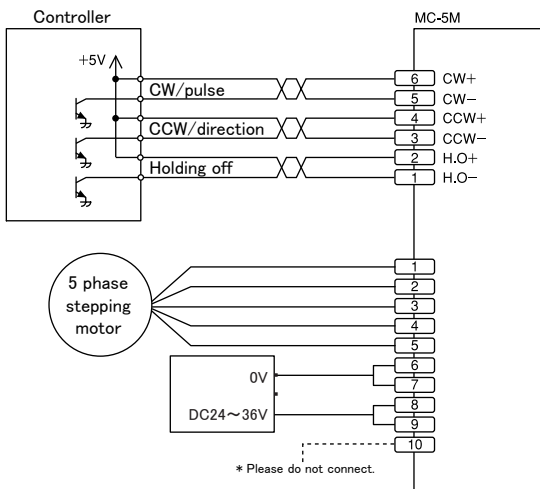● Compact size driver.

※ Optional Parts ; Wire assembled conector.

SPECIFICATION

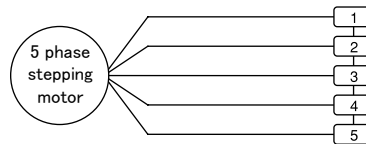| Name	5 phase stepping motor driver
Model	MC-5M
Drive method	Bipolar Pentagon
Input power	DC20〜40V 3A Max.
Drive current	0.5A〜1.4A/phase
Maximum frequency	70kpps
Input signal	Optical−isolator input ［1］; 4〜8V , ［0］; −8〜0.5V Input resistance CW, CCW, and H.O ; 390Ω
Function	Pulse input mode selector , Full/half step select , Automatic current reduction at motor standstill
Operating temperature range	0〜40℃
Operating humidity range	0〜85%
Weight	90g

DIMENSIONS (unit;㎜)

SAMPLE WIRING DIAGRAM

MOTOR
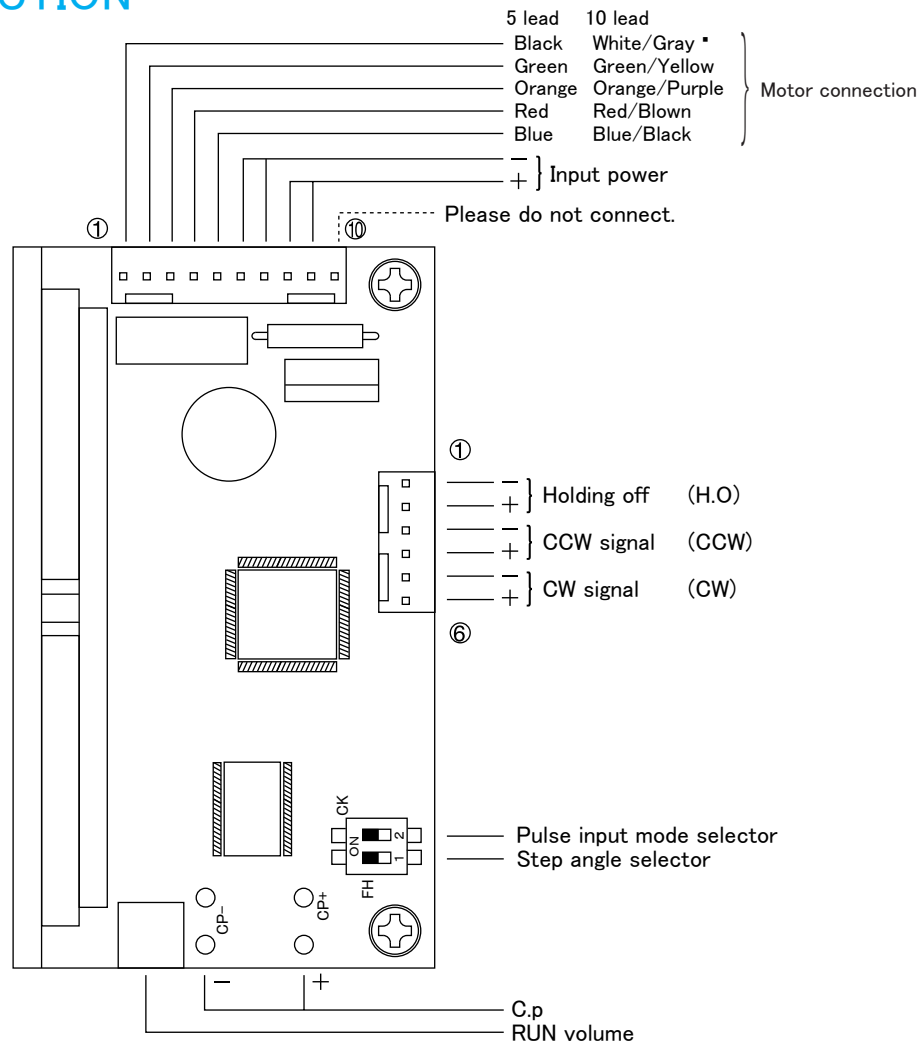
● 5/10 lead 5−Phase stepping motors such as Tamagawa−seiki or Oriental−motor.

Motor connection

Connector No.	5 lead	10 lead
1	Black	White/Gray
2	Green	Green/Yellow
3	Orange	Orange/Purple
4	Red	Red/Brown
5	Blue	Blue/Black

NAME AND FUNCTION

```
                                    5 lead      10 lead
                                    Black       White/Gray ▪  ⎫
                                    Green       Green/Yellow  ⎪
                                    Orange      Orange/Purple ⎬ Motor connection
                                    Red         Red/Blown     ⎪
                                    Blue        Blue/Black     ⎭
                                                          ⎺  ⎫ Input power
                                                          ＋  ⎭
                                    ┈┈┈┈┈┈ Please do not connect.
```


- ⎺/＋ } Holding off   (H.O)
- ⎺/＋ } CCW signal   (CCW)
- ⎺/＋ } CW signal   (CW)

Pulse input mode selector
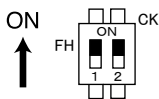Step angle selector

C.p
RUN volume

SETTING THE DRIVER OUTPUT CURRENT

To obtain the desired drive current,connect a potentiometer to CP(+,−)and use the following formula：

Potentiometer voltage(V) = Desired drive current × 2

Factory setting is 1.4A/phase.

① Turn RUN Volume Control all the way to the left before the system is powered.

② Turn On the power.

③ Input CW(or CCW) pulse signal with a frequency of 10Hz minimum.

(Caution : Motor starts to rotate once the signal is input.)

④ To set the drive current, turn RUN Volume slowly to the right untill voltage meets the value calculated bove.

⑤ At the Motor Standstill, the output current will be automatically reduced to 65% of the set current.

DIP SW FUNCTIONS

No.	Mode	ON	OFF
1	Step angle	0.72° / pulse	0.36° / pulse
2	Pulse mode ▪	One pulse	Two pulse

INPUT CIRCUIT

390Ω
+
−