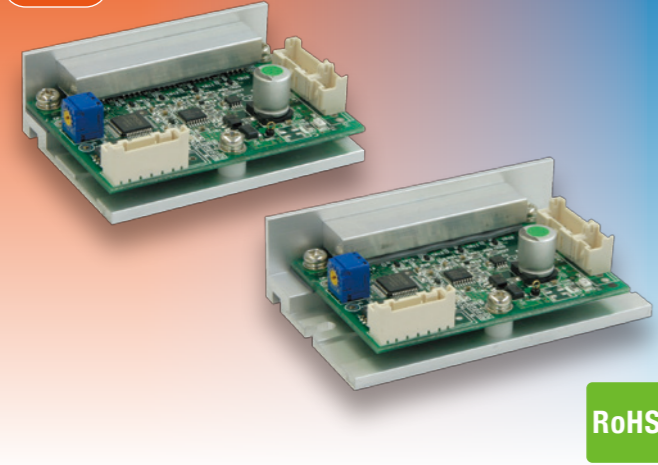


# 5 Phase Stepping Motor Driver

## MC-S5ML



RoHS

### FEATURE

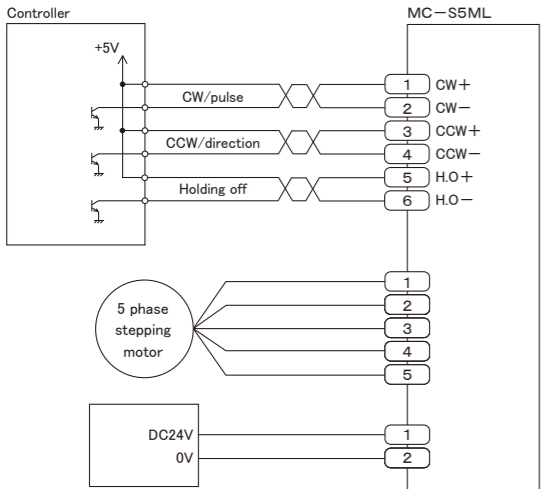
- Maximum drive current 1.4A/phase.
- Single power supply DC24V.
- Optical-isolator input.
- Automatic current reduction.
- Compact size driver.

※Optional Parts ; Wire assembled conector ▶Page 54

### SPECIFICATION

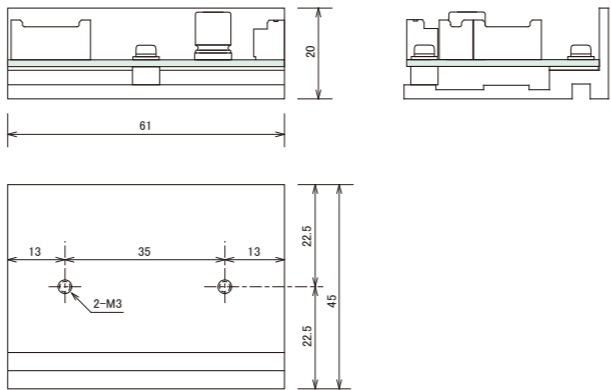
Name	5 phase stepping motor driver
Model	MC-S5ML
Drive method	Full / Half Step
Input power	DC24V ±5% 3A Max.
Drive current	0.5A~1.4A/phase
Maximum frequency	70 kpps
Input signal	Optical-isolator input [1]:3~5V, [0]:-3~0.5V Input resistance CW, CCW, H.O.:220Ω
Function	Pulse input mode selector, Full/half step select, Automatic current reduction at motor standstill
Operating temperature range	0~40°C
Operating humidity range	0~85%
Weight	63g (type 2)

### SAMPLE WIRING DIAGRAM

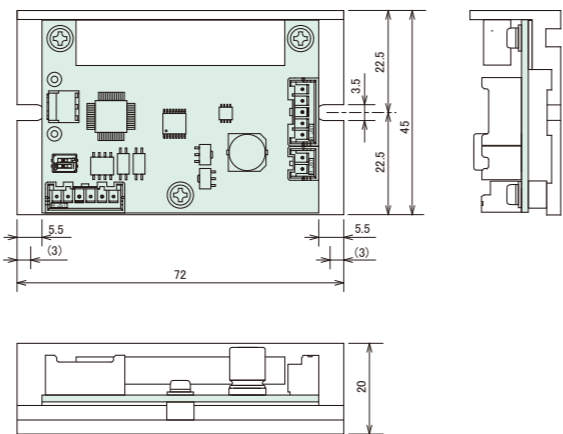


### DIMENSIONS (unit:mm)

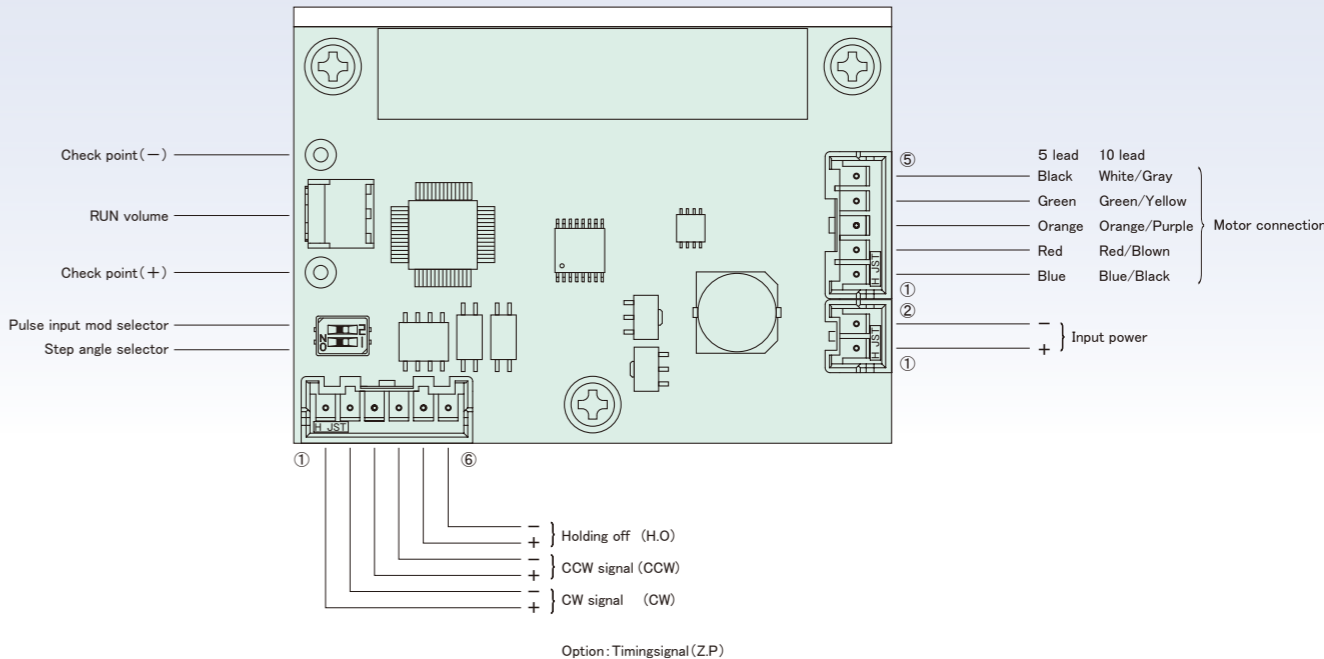
#### Type 1



#### Type 2



### NAME AND FUNCTION



### SETTING DRIVE CURRENT

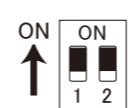
To obtain the desired drive current, connect a potentiometer to CP(+,-) and use the following formula:

$$\text{Potentiometer voltage(V)} = \text{Desired drive current} \times 2$$

Factory setting is 1.4A/phase.

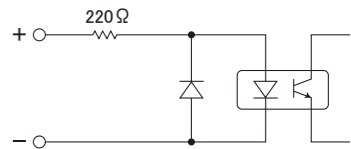
- ① Turn RUN Volume Control all the way to the left before the system is powered.
- ② Insert the cw signal (or the ccw signal) with a frequency of 10 pps or more, slowly turn the run volume and adjust it to the calculated voltage value. (Caution: Motor starts to rotate once the signal is input)
- ③ At the Motor Standstill, the output current will be automatically reduced to 50% of the set current.

### DIP SW FUNCTION



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

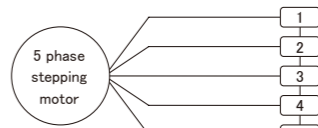
### INPUT CIRCUIT



### MOTOR

- 5/10 lead 5-Phase stepping motors such as Tamagawa-seiki or Oriental-motor.

See table below for the pin no. of the connector and color of motor leads.



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