



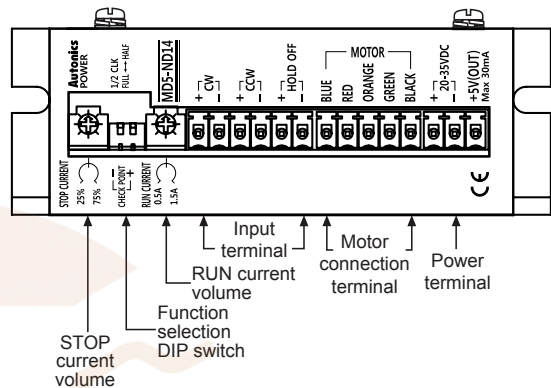
# 5-Phase Stepper Motor Driver (1.5A/Phase, DC Power)

## 5-Phase Stepper Motor Driver [MD5-ND14]

### Unit Description



※Refer to page Q-18 for the specifications.



### Function selection DIP switch

No.	Nameplate	Function	Switch position	
			ON	OFF (default)
1	1/2 CLK	Pulse input method	1-pulse input method	2-pulse input method
2	FULL↔HALF	Select resolution	1-division (0.72°)	2-division (0.36°)

※Changing pulse input method or resolution is available only when stepper motor stops.  
 If changing the resolution during operation, the motor may be out of phase.

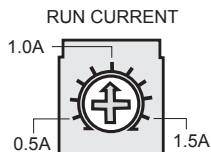
#### ● 1/2 CLK

- 1/2 CLK switch is to select pulse input method.
- 1-pulse input method: CW → operating rotation signal input, CCW → rotation direction signal input ([H]: CW, [L]: CCW)
- 2-pulse input method: CW → CW rotation signal input, CCW → CCW rotation signal input.

#### ● FULL ↔ HALF

- FULL ↔ HALF switch is to set basic step angle for 5 phase stepper motor.
- ※Change resolution only when the motor stops.

### Setting RUN current



- RUN current setting is for the current provided for motor when the motor runs.
- ※When RUN current is increased, RUN torque of the motor is also increased.
- ※When RUN current is set too high, the heat is severe.
- ※Set RUN current within the range of motor's rated current according to its load.
- ※Change RUN current only when the motor stops.

### Setting STOP current



- STOP current setting is for the current provided for motor when the motor stops.
- Setting value of STOP current is percentage (%) ratio of the set RUN current.  
 E.g.) Set RUN current as 1.4A and STOP current as 40%.  
 STOP current is set as 1.4A×0.4=0.56A.
- ※When STOP current is decreased, STOP torque of the motor is also decreased.
- ※When STOP current is set too low, the heat is lower.
- ※Change STOP current only when the motor stops.

### HOLD OFF function

- This signal is for rotating motor's axis using external force or used for manual positioning.
- When hold off signal maintains over 1ms as [H], motor excitation is released.
- When hold off signal maintains over 1ms as [L], motor excitation is in a normal status.
- ※Must stop the motor for using this function.
- ※Refer to I/O Circuit and Connections.

(A)	Photoelectric Sensors
(B)	Fiber Optic Sensors
(C)	Door/Area Sensors
(D)	Proximity Sensors
(E)	Pressure Sensors
(F)	Rotary Encoders
(G)	Connectors/ Sockets
(H)	Temperature Controllers
(I)	SSRs / Power Controllers
(J)	Counters
(K)	Timers
(L)	Panel Meters
(M)	Tacho / Speed / Pulse Meters
(N)	Display Units
(O)	Sensor Controllers
(P)	Switching Mode Power Supplies
(Q)	Stepper Motors & Drivers & Controllers
(R)	Graphic/ Logic Panels
(S)	Field Network Devices
(T)	Software

# MD5 Series

## I/O Circuit and Connections

