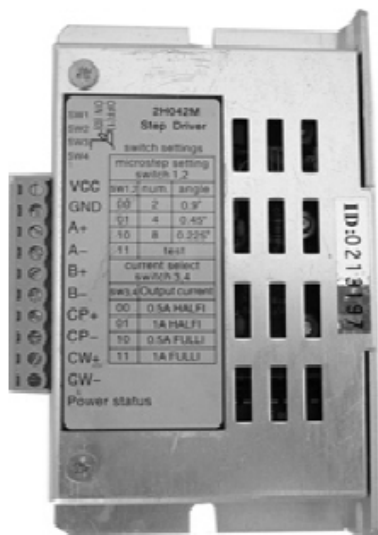


DRIVE "MK" PARA MOTORES PASO A PASO

MODELO: 2H042M



TWO-PHASE

HYBRID STEPPER MOTOR DRIVER

Model: 2H042M

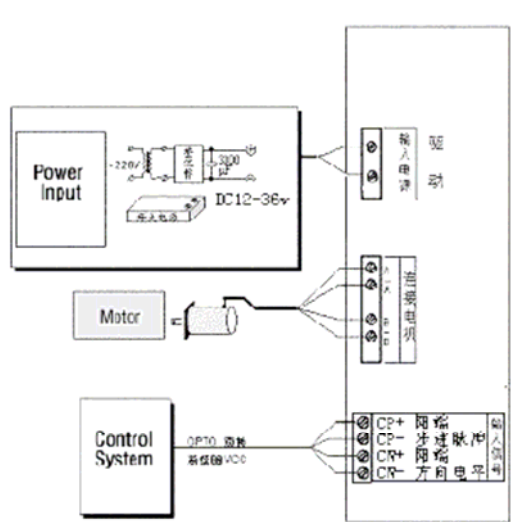
1. Summary

2H042M driver is applied to NEMA 17 series and the smaller two-phase hybrid stepper motors, it utilizes advance division technology, and drives the step motor more peaceful than those cannot.

2H042M driver characteristics

- 1.1 The maximum driver current per phase is 1.0A, and there are eight (8) stage options available.
- 1.2 It takes Non-excessive current measurement.
- 1.3 It uses the imported electronic components.
- 1.4 Current halve is available.
- 1.5 The detail segments of 1/2, 1/4, 1/8 are available.
- 1.6 Optical couplers are used to isolate all of the input signals.
- 1.7 PWM, f=40KHz
- 1.8 The phase current of motor is sine wave.

Diagrama de Conexiones



2. Specification

Mark	Description	Minimum	Normal	Maximum	Unit
Vss	Input Voltage	12		36	V DC
Iss	Input Current			1.5	A
Iout	Output Current Per Phase	0.4		1.0	A
Iin	Logic Input Current	5	15	15	mA
Tp	Step Pulse Duration	5			μ s
Ts	Direction Stabilization Time	0			ms
Th	Direction Holding Time	10			μ s
Td	On/Off Time	20			μ s
Fmax	Maximum Working Frequency			50	Khz
Famb	Operating Temperature	0		+50	°C
Tstg	Storage Temperature	-40		+125	°C

2.1 Power Supply: DC 12-36V.

2.2 Apply to: NEMA 17 series and the smaller two-phase hybrid stepper motors

2.3 Drive Current: Maximum output current per phase is 1.0A.

2.4 Drive Way: detail segment, PWM.

2.5 Definition of the stir position switch is as below

Definition of the stir position switch: ON=0, OFF=1					
Digit 1,2 (Detail Segment)		Digit 3		Digit 4	
Digit 1,2	Detail Segment (Steps per round)	ON	OFF	ON	OFF
00	2	Current halve	Non Current halve	0.5A	1A
01	4				
10	8				
11	Trial				

2.6.1 Input signal(as figure 2-1 below):

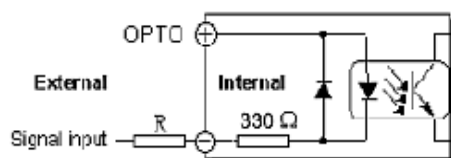


Figure 2-1

Remark: The input current is 5~15mA, normally 15mA is preferred. If the input voltage is over 5V, a current-limiting resistance should be used (as figure 2-2 below).

Signal Aptitude	Current-limiting Resistance
DC 5V	No need
DC 12V	680Ω
DC 24V	1.8k

Figure 2-2

2.6.2 Input Signal Parameter:

Pulse width: "H" -----4.0~5.5V, "L" -----0~0.5V

Pulse situation: ≤ 50%

Input Signal Drive Circuit Connection Guide is as figure 2-3 below.

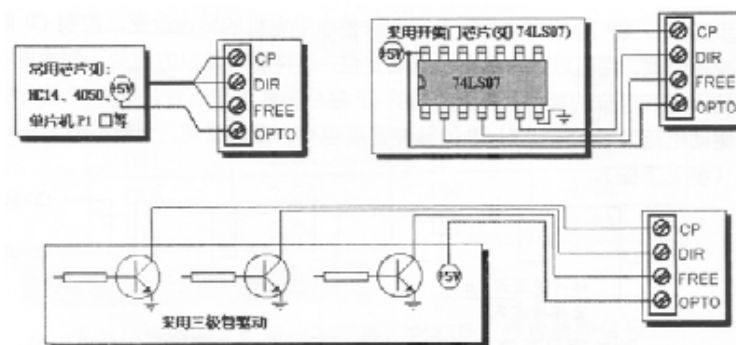


Figure 2-3

3. Power Requirements

2H042M driver needs one DC power, the voltage is DC (12-36)V, driver current is depended on motor's phase current, normally the former is less than or equal to the latter. When motor is with low rotate speed, the low voltage is preferred, when with high rotate speed, the high voltage is preferred.

4. Figure Dimension as the Figure 3 below

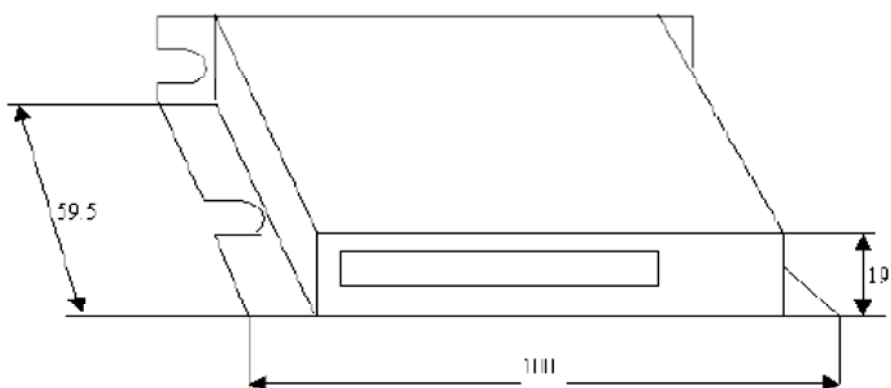


Figure 3