SEA2D34

Features

· High performance, low noise, affordable price, high speed and torque, excellent stability.
· 4 selections of uniform angle and constant torque subdivisions, the max resolution up to 12800 steps / rev.
· Adoption of 6-wires-control circuit greatly reduces noise and increases the rotation stability.
· The max response frequency up to 200Kpps.
· Once the pulse stops for more than 100ms, the coil current will be halved automatically, to prevent the overheating.
· Bipolar constant current chopper control improves the output speed and power of the motor.
· Optically isolated signal I / O
· Current range: 0.1A～3.0A
· Single power input, voltage range: DC12～40V (the optimal voltage is DC36V)
· Error Protection: ① Overheating ② Overcurrent ③ Low voltage
· Size: 136mm×92mm×25mm, Net weight: 0.3kg

Introduction

SEA2D34 is a microstep motor driver with uniform angle and constant torque subdivisions, voltage range is DC12～40V (the optimal voltage is DC36V), single power supply. It matches 2 phase hybrid stepper motors which rated current under 3.0A, external diameter 42mm～60mm, and outlets 6 or 8.

Bipolar constant current chopper control makes the motor run smoothly with lower noise and higher stability, The increase of the voltage greatly improves the drive capability. and speed, The coil current will be halved automatically onece the pulse stops for more than 100ms, it reduces the heat of driver by 50%, reduces the heat of motor as well. Users can choose low speed high subdivision which up to 12800steps / rev, it improves the precision, reduces the vibration and noise.
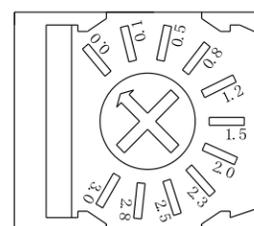
Applications

Carpentry engracing machine, Laser engraving machine, Labelling machine, Die bonder, Inkjrt printer, Embroiderer, Dispenser, BGA repair machine, Laminating machine Wire-stripping machine, Winding machine,Hot-press machine, PCB drilling machine, Non-standard equipment XYZ gauge, Connctors assemble machine, Medical equipments, Semiconductor Equipment, Blast furnace, etc.

Microstep Setting List

Microstep	800	3200	6400	12800
D4	ON	OFF	ON	OFF
D3	ON	ON	OFF	OFF
D2	NULL			
D1	NULL			

Running current setting

DIP Switch Function setting

ON   OFF

D1
D2
D3
D4

Input signal timing diagram

PU: Pulse Signal

DR: Direction Signal

MF: Motor Free Signal
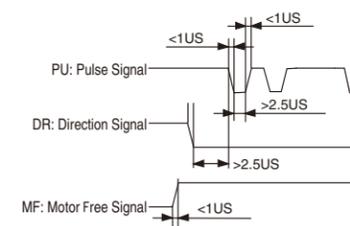
Installation dimensions

Side   Front

Division Setting Table		
Pu/rev	D4	D3
1600	ON	ON
3200	OFF	ON
6400	ON	OFF
12800	OFF	OFF

Driver Connection

Origin indicator
Power Indicator
Over current indicator
Overheat indicator
Current setting
Microstep setting switch
Pulse signal input +
Pulse signal input -
Direction signal
Motor free signal
DC12~40V
Motor

SEA2D34
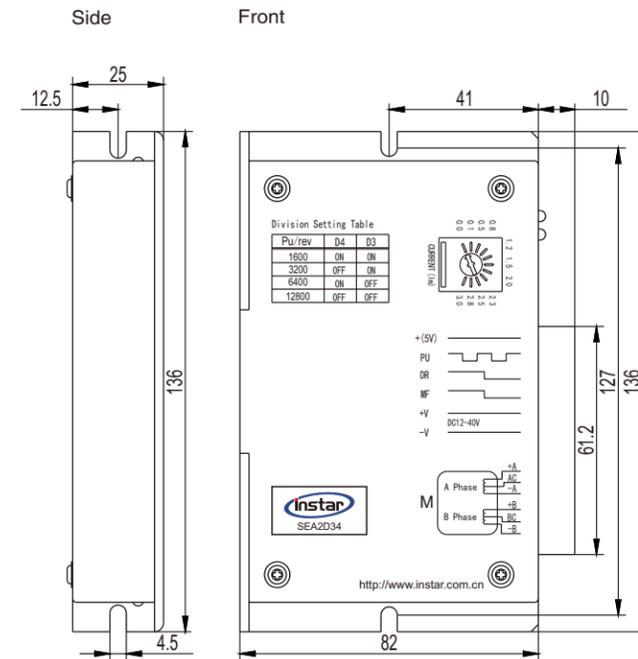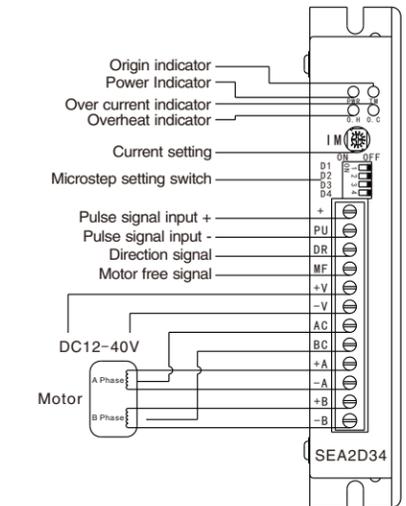
Pin Functions

Mark	Function	Instruction
POWER	Power indicator	Power on, the green indicator normally on.
TM	Working indicator light	When the pulse frequency is low, the green indicator flashes, when the pulse frequency is high, the green indicator normally on.
O.H	Overheat indicator	The Temperature rise exceeds 70 ℃, the red indicator normally on.
O.C	Overcurrent / Low voltage indicator	The current exceeds rated value or the voltage is lower than rated value, the red indicator normally on.
Im	Phase current setting adjuster	Set the phase current, clockwise it increases, anticlockwise it dereases.
+	Input signal positive side	Pulse signal power supply should in the range of +5V～+24V, if higher than +5V , needs to add a resistor on PU-, DR-, FM- (do not add on + sides).
PU	Pulse signal	When the falling edge is valid, the motor moves a step as the pulse become lower, input resistance is 220Ω. Requires: low level +0V～+0.5V, high level +4V～+5V, pulse width >2.5 μs.
DR	Direction control signal	For changing the direction, input resistance is 220Ω. Requires: low level +0V～+0.5V, high level +4V～+5V, pulse width >2.5 μs.
MF	Motor free signal	When the low electrical level is valid, it cuts off the motor current, the driver stops working and motor will be in a free state.
+V	Power+	DC12～40V (the optimal voltage is DC36V)
-V	Power-	
AC、BC		
+A、-A	Connect to the motor	Please refer to the motor connections
+B、-B		

Attantion

1、Please do not reverse the power supply, input voltage not more than DC40V；
2、The input control signal level is +5V, if higher than +5V, needs to add a resistor on PU-, DR-, FM- (do not add on + sides)；
3、This model of the driver uses a special control circuit, so it matches stepper motor of 6 or 8 outlets only；
4、The driver will automatically stop working when the temperature exceeds 70 degrees, the O.H indicator light normally on, temperature drops to 50 degrees it automatic recovers to work, please install radiator when it's in overheating protection；
5、When the current exceeds rated value or the voltage is lower than rated value, the O.C indicator light normally on, please check the connections and other short troubles needs to re-up power after the faults cleared, or if the power voltage is too low；
6、The PWR green indicator light normally on when the driver is powered on；
7、The TM indicator light comes on when the pulse input go crossing the zero point.