

FMDD36D22NOM



The FMDD36D22NOM is full digital 2-phase stepper driver based on DSP control. The drive voltage ranges from 12V to 36VDC. It is designed for use with the 2-phase hybrid stepper motor of all kinds with 39mm to 42mm outside diameter, regulated phase current under 2.2A. Due to the perfect use of the constant current chopping circuit, the motor enables to run smoothly .The highest micro step is 40000ppr.

Feature

- 8 channels constant angle, constant torque micro steps, highest micro step: 6400ppr.
- Highest response frequency: 200Kpps.
- Current of winding will be reduced by approximately 50% when no step. pulse command is received for 1.5 seconds.
- Opto-isolated signal I/O.
- Drive current is adjustable in 8 channels from 0.3A/phase to 2.2A/phase.
- Power supply from 12V to 36VDC.
- Dimension : 86 × 21 × 56mm<sup>3</sup>; Net Weight : 0.1Kg.

Current Setting

Stepper drive working current is set by DIP switches SW1 to SW3.

Max Current(A)	Default	0.5	0.7	1	1.3	1.6	1.9	2.2
Rated Current(A)		0.35	0.49	0.71	0.92	1.13	1.34	1.56
SW1	ON	OFF	ON	OFF	ON	ON	ON	OFF
SW2	ON	ON	OFF	OFF	OFF	ON	OFF	OFF
SW3	ON	ON	ON	ON	OFF	OFF	OFF	OFF

Subdivision(micro step)Setting

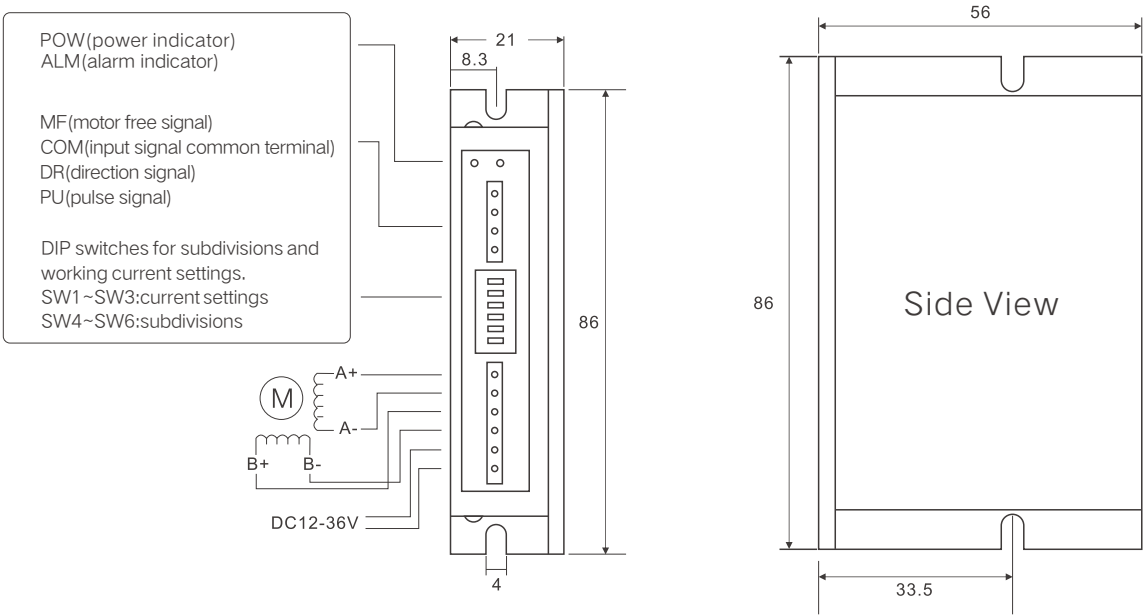
The subdivision is set by DIP switches SW4 to SW6 ,8 channels in total.

Subdivision	800	1600	3200	6400	400	1000	2000	4000
SW4	ON	OFF	ON	OFF	ON	ON	ON	OFF
SW5	ON	ON	OFF	OFF	OFF	ON	OFF	OFF
SW6	ON	ON	ON	ON	OFF	OFF	OFF	OFF



- 1.The supply voltage shouldn ’ t exceed 36VDC.
- 2.Input control signal is 5V~24V, and a current-limiting resistance is unnecessary when it is over 5V.
- 3.Input pulse signal is effective with the rising edge.
- 4.Alarm indicator ALM lights and the driver stops working when the driver temperature is over 80℃. It restarts working until the temperature falls to 50℃. The heat sink is needed when overheat occurs.
- 5.Alarm indicator ALM lights when overcurrent (short of load) occurs. Please check motor ’ s connection and other shorts and turn the power supply on after removing the trouble.
- 6.Alarm indicator ALM lights when no motor connected or poor connection. Please check motor ’ s connection and turn the power supply on after removing the trouble.

Dimension Diagram And Wiring Example



Terminal Function

marker symbol	Function Description	Notes
PU	Pulse Signal	With the rising edge of the signal PU, the motor executes an angular step. The input resistance is 220Ω. Low voltage 0-0.5V, high voltage 4-5V, pulse width > 2.5 μs
DR	Direction Signal	Change the motor's direction of rotation. Input resistance is 220Ω. Low voltage 0-0.5V, high voltage 4-5V, pulse width > 2.5 μs
COM	Input Signal Common Terminal	Connect to +5V power supply, drive signal voltage ranges from 5V to +28V. Current-limiting resistance is not needed when it is over 5V.
MF	Motor Free Signal	The motor current will be cut off and the driver stops working when it is effective.
GND	Negative Power Supply	DC12-36V
VCC	Positive Power Supply	
A+	Motor Connection	
A-		
B+		
B-		