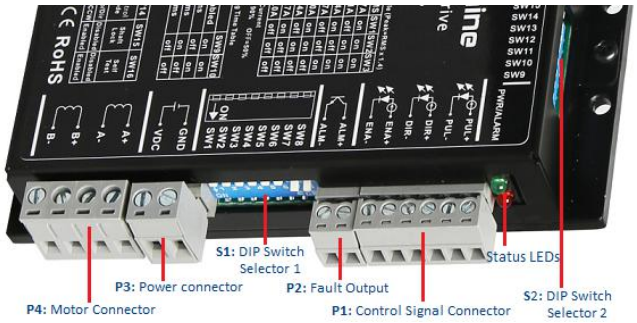
DM556S-IO 2-phase Digital Stepper Drive

20-50VDC, 1.8-5.6A peak current, Auto-configuration, Low Noise

Features

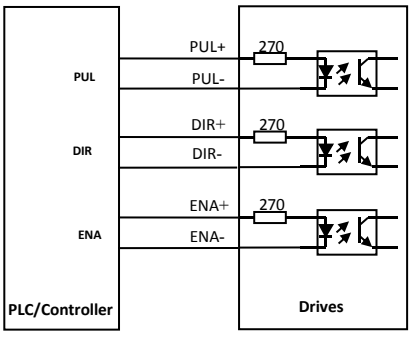
- External I/O signal control mode, with 24VDC
- DIP switch setting drive's output current and motor speed
- PUL+ and PUL- signals indicate Start and Stop
- DIR+ and DIR- signals indicate motor running direction
- Power voltage recommend 24V-36VDC, output current 1.8-5.6A peak current

DM556S-IO Interface

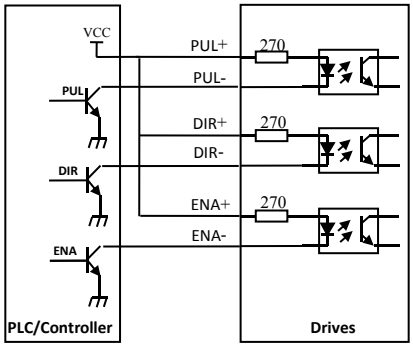


I/O Signals Connection

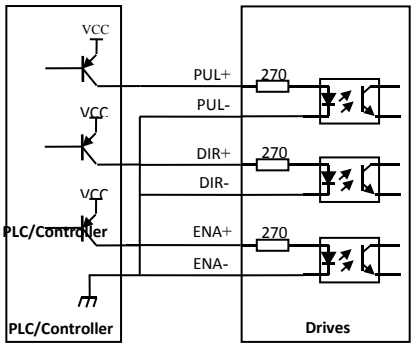
- When the voltage between PUL+ and PUL- is 0-0.5 V, the motor stops working, when it is 4.5-24VDC, the motor accelerates to the set speed.
- When the voltage between DIR+ and DIR- is 0-0.5 V, the motor's rotation direction is positive(related to motor wiring), and when it is 4.5-24VDC, the motor's rotation direction is negative.
- ENA+ and ENA- signals indicate lock the motor shaft (no need to be connected as default).



Differential



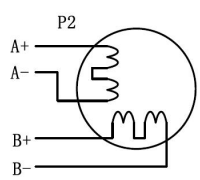
Common-cathode



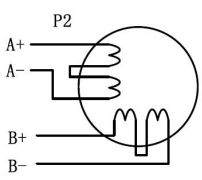
Common-anode

Motor Connection

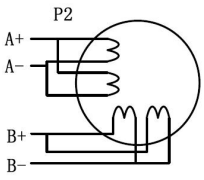
- DM556S-IO can match with Leadshine 2-phase stepper motor, size include NEMA17,23,24.
- The motor connections are shown as below



4-lead Motor Connections



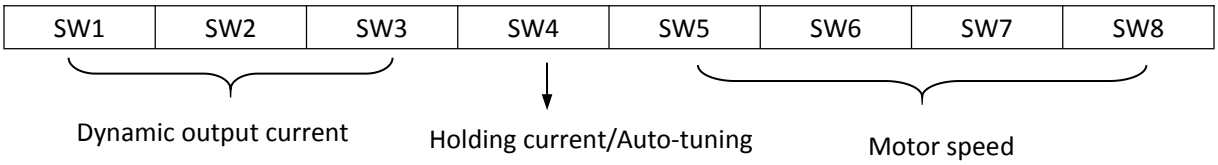
8-lead motor series connections



8-lead motor parallel connections

DIP Switch Setting

● DM556S-IO has 8-bit DIP switches, functions as below



● Output current setting（3-bit）

Peak	RMS	SW1	SW2	SW3
1.8A	1.3A	off	off	off
2.1A	1.5A	on	off	off
2.7A	1.9A	off	on	off
3.2A	2.3A	on	on	off
3.8A	2.7A	off	off	on
4.3A	3.1A	on	off	on
4.9A	3.5A	off	on	on
5.6A	4.0A	on	on	on

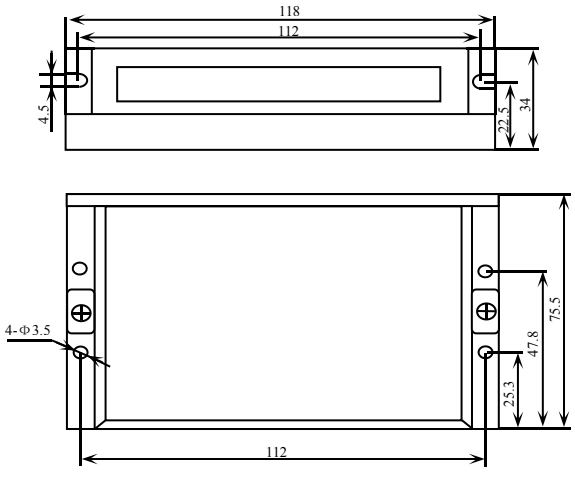
● Idle current setting（SW4）

Idle current is output current percentage when motor is standstill, it will be set to 50% at OFF position, and 90% at ON position.

● Motor speed setting（4-bit）

Motor Speed (RPM)	SW5	SW6	SW7	SW8
50	on	on	on	on
150	off	on	on	on
250	on	off	on	on
350	off	off	on	on
450	on	on	off	on
550	off	on	off	on
650	on	off	off	on
750	off	off	off	on
850	on	on	on	off
950	off	on	on	off
40	on	off	on	off
60	off	off	on	off
70	on	on	off	off
80	off	on	off	off
90	on	off	off	off
100	off	off	off	off

Mechanical Size



Mounting Size: mm

Note： *This driver is set at a constant speed by DIP Switch, and is suitable for constant speed applications, not for applications with frequent speed adjustment.*