

R701

MICROSTEPPING DRIVER



FEATURES & BENEFITS

- 10 microstepping driver
- Optically isolated Step, Direction, and Disable/Enable inputs
- Automatic Current Reduction
- Adjustable trimpot for noise and vibration reduction
- Operates from 24 to 80 VDC
- Selectable Driver Peak Current Ranges: 1 to 7 Amps or 0.3 to 2 Amps
- Low Power Dissipation from 1 to 12 Watts (1 to 7 Amps)
- Excellent sinusoidal current waveform for smooth operation
- Low current ripple for low noise
- Low Cost
- High Efficiency

OPTIONS

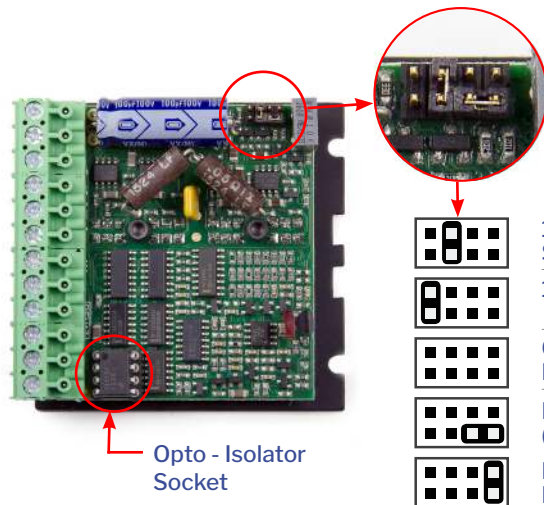
ADJUSTABLE TRIMPOT

The potentiometer shown on the board can be rotated using a screwdriver. It's recommended to rotate the motor at 0.25 RPS. Then to adjust the potentiometer until there is the least amount of vibration and noise coming out of the motor. This will be the position that the driver will perform smoothly with a given motor and power supply voltage.

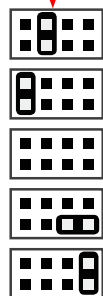
The adjustment will alter the current waveform coming out of the driver and into the motor coils.



AUTO CURRENT REDUCTION



Standard Current Disable (JP1)



1 to 7 Amps Standby

“Standby” means holding current. 33% of the set current.

1 to 7 Amps No Standby

“No standby” means 100% of the set current is the holding current

0.3 to 2 Amps No Standby

Two modes for Amp range: (0.3 to 2A, or 1 to 7A)

Normal (Default)

“Midband” Allows max step to step variation of +/- 30%, otherwise the driver runs irrationally. Disabling midband allows for any variation (beyond 30%).

Midband Disable

ELECTRICAL SPECIFICATIONS

Input Voltage	+24 to 80 VDC
Drive Current(Per Phase)	0.3 to 2.0 Amps Peak or 1 to 7 Amps
Isolated Inputs	Step Clock, Direction, Enable and Disable
Step Frequency (Max)	200 kHz
Steps Per Revolution (1.8° Motor)	2000

PIN OUTS

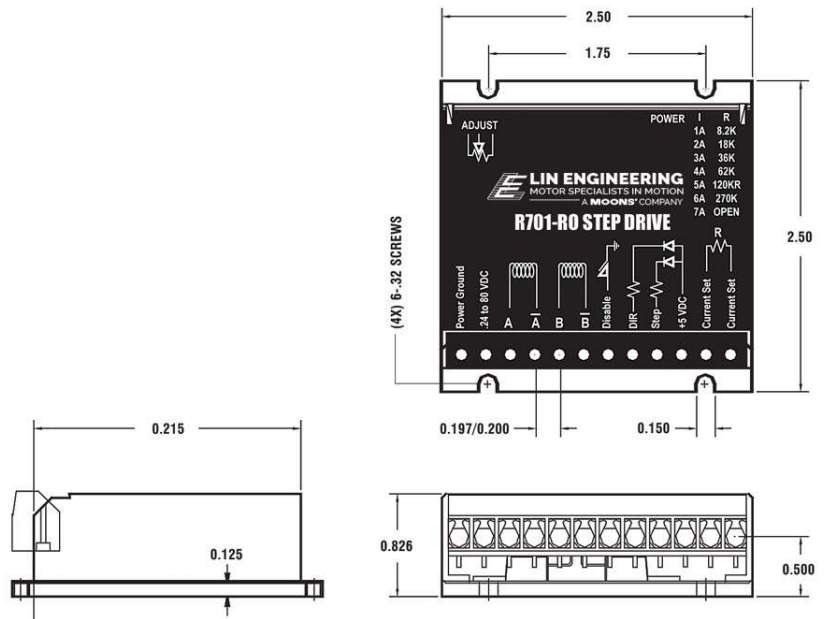
Pin #	Color
1	Power Ground
2	+24 to 80 VDC
3	A Phase
4	A Bar Phase
5	B Phase
6	B Bar Phase
7	Disable Input
8	Direction Input
9	Step Input
10	+5 VDC
11	Current Set
12	Current Set

To set the current with the correct resistor, use the following table:

Current (Amps)	Resistance (Ohms)
1	8.2K
2	18K
3	36K
4	62K
5	120K
6	270K

DIMENSIONS

Weight without cables: 3.8 oz



ACCESSORIES

- No accessories are needed for this product.
- Other units needed to run this: Power Supply, Function Generator (or other squarewave signal source), Step Motor, Resistors.

Motion Control, Solved.

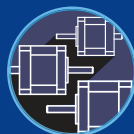
MOTOR ENGINEERING & MANUFACTURING



Optimized
For Your
Application



Quick
Prototype
Turnaround



Small Batch
to OEM Volume
Production



US Based
Support &
Manufacturing