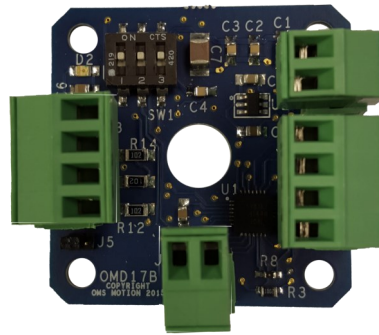


Fractional Step Motor Driver

OMD17b

The OMD17b is an advanced microstep motor driver with selectable microstep resolution in a small compact size. Its small design is compatible to mount on a NEMA 17 stepper motor, and includes a hole in the center so the shaft of a linear actuator motor can pass through when mounted on the motor. Motor phase current is set via dip-switch providing a very predictable current control and easy set up, particularly for a production environment. The connectors are screw terminal plugs for easy and secure wiring.



FEATURES

- Integrated design
- Velocity = 0 to 1M steps per second
- Step resolutions include full, 1/2, 1/4, 1/8, & 1/16
- Single supply voltage +10V to +30V
- 0 to 1.5 amp phase current for high torque motors (1.7A peak)
- Center pass-through hole for linear actuator stepper motors
- No heat-sink required for typical current
- Motor current set through set-resistor on screw terminals
- Matches the NEMA 17 dimension for direct motor mounting
- Use existing motors or select the optimum motor for the application for cost control and best performance
- Screw-terminal connector plugs for convenient wiring
- LED indicator for status



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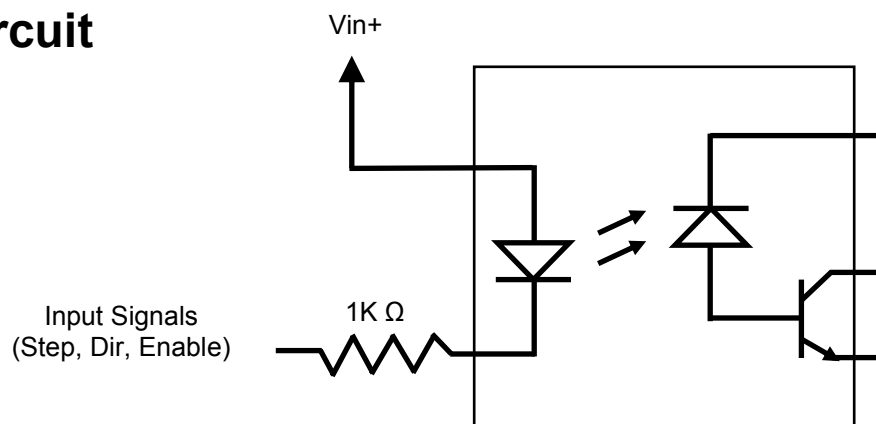
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Electrical Specifications

Parameter	Min	Typ	Max	Unit	Notes
Supply Voltage	8		35	VDC	
Output Current/Phase (PEAK)	0		1.7	A	Current Set Resistor
Vin+		5	20	V	
Input Voltage (STEP/DIR/ENABLE)	0		20	V	
STEP frequency	0		1	MHz	The maximum frequency is gated by the optocoupler's circuitry.
High Input Current 20V input 5V input			20 5	mA mA	1K Ohm series resistor on Opto-input

Input Circuit



Environmental Specifications

- Operating Temperature..... 0.0 to +50° C
- Storage Temperature..... - 40° to +125° C
- Weight..... 19.8g (including mating connectors)
- Humidity..... 20 to 95% Φ, non-condensing
- Outline..... 1.54" x 1.54" x 0.77" (including mating connectors)

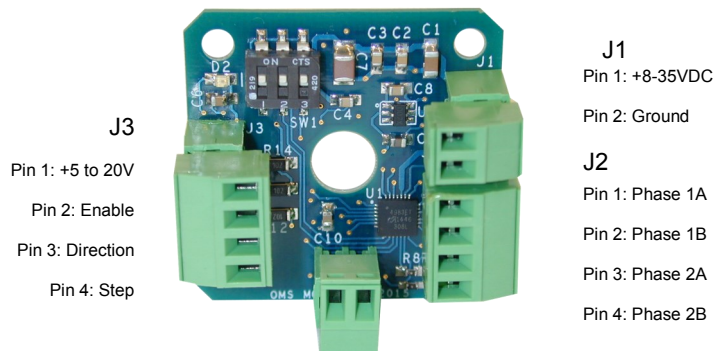


Connector Pin-out

S1: Step Resolution Set

SW1	SW2	SW3	Res.	Step/Rev.
Off	Off	Off	Full	200
On	Off	Off	1/2	400
Off	On	Off	1/4	800
On	On	Off	1/8	1,600
On	On	On	1/16	3,200

(1.8° motor resolution)



J1
Pin 1: +8-35VDC

Pin 2: Ground

J2
Pin 1: Phase 1A

Pin 2: Phase 1B

Pin 3: Phase 2A

Pin 4: Phase 2B

J4: Current Set

Current Set Resistor

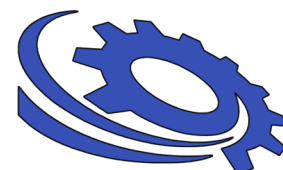
J4 Resistor Value (Ohms)	Maximum Current (Amps)
100	0.010
1000	0.098
1800	0.170
2000	0.188
2200	0.204
2700	0.245
3300	0.292
4700	0.392
5100	0.419
6200	0.488
6800	0.523
7500	0.563
8200	0.600
9100	0.645
10000	0.688
12000	0.773
15000	0.884
18000	0.977
20000	1.031
22000	1.080
24000	1.125
27000	1.185
30000	1.238
33000	1.284
36000	1.326
39000	1.363
43000	1.408
47000	1.447
51000	1.482
56000	1.520
62000	1.559
68000	1.594

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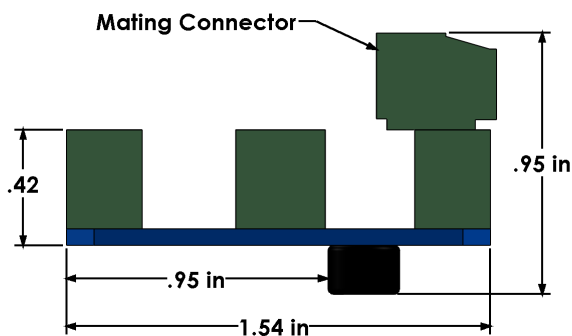
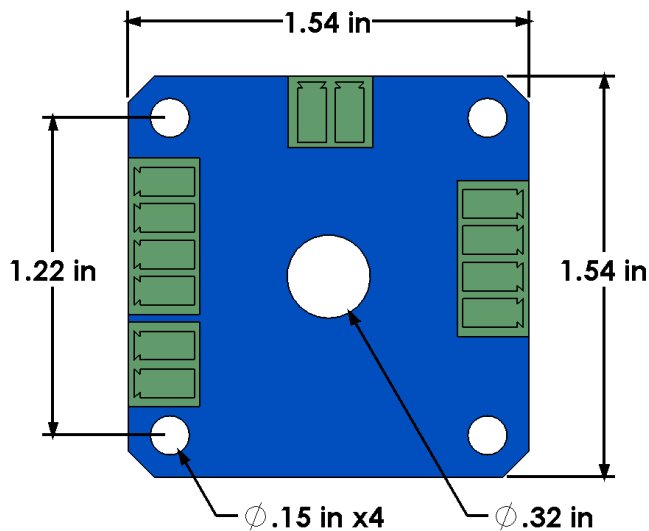
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Do Not Leave J4 Open



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Dimensions

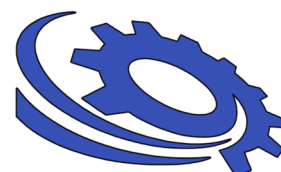


ISO 9001
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ORDERING INFORMATION	
Model	Description
OMD17b	Fractional Step Driver, Size 17, 1.5A



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3701-0461017PRF rev A