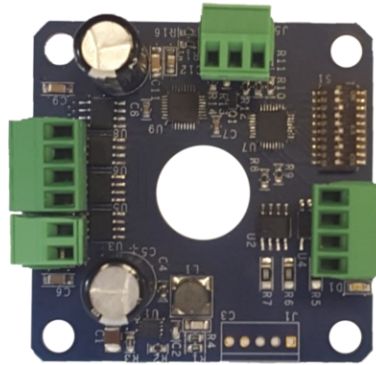


## OMD23b

The OMD23b 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 23 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, 1/64, 1/128, 1/256.
- Single supply voltage +10V to +50V
- Up to 2.5 Amp phase current for high torque motors
- Center pass-through hole for linear actuator stepper motors
- No heat-sink required for typical current
- Motor current set with dip-switch for predictable current
- Matches the NEMA 23 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
- Automatic current decay mode detection
- Optional travel limit input for additional protection
- Exceptional value



503-629-8081, Fax: 503-629-0688

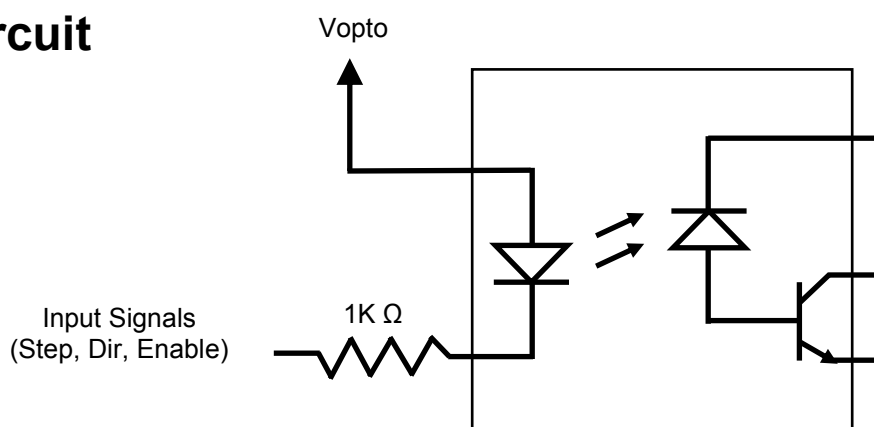
E-mail: SalesOR@OMSmotion.com

[www.OMSmotion.com](http://www.OMSmotion.com)

## Electrical Specifications

Parameter	Min	Typ	Max	Unit	Notes
Supply Voltage	9		50	VDC	
Output Current/Phase (PEAK)	0		2.5	A	DIP Switch
Vopto		5	20	V	
Input Voltage (STEP/DIR/ENABLE)	0		Vopto	V	
STEP frequency	0		1	MHz	The maximum frequency is gated by the optocoupler's circuitry.

## Input Circuit



## Environmental Specifications

- Operating Temperature..... 0.0 to +50° C
- Storage Temperature..... - 40° to +125° C
- Weight..... 31.2g (including mating connectors)
- Humidity..... 20 to 95%  $\Phi$ , non-condensing
- Outline..... 2.22" x 2.22" x 1.1" (including mating connectors)

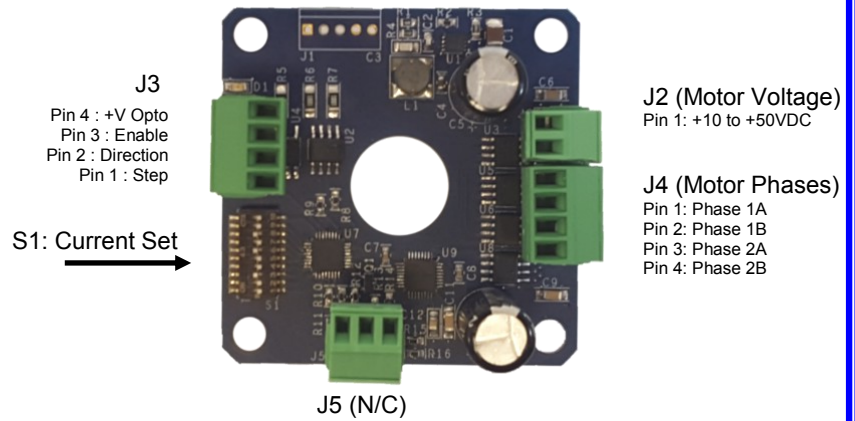


### S1: Step Resolution Set

SW9	SW8	SW7	Res.	Step/Rev.
On	On	On	Full	200
On	On	Off	1/2	400
On	Off	On	1/4	800
On	Off	Off	1/8	1,600
Off	On	On	1/16	3,200
Off	On	Off	1/64	12,800
Off	Off	On	1/128	25,600
Off	Off	Off	1/256	51,200

(1.8° motor resolution)

### Connector Pin-out

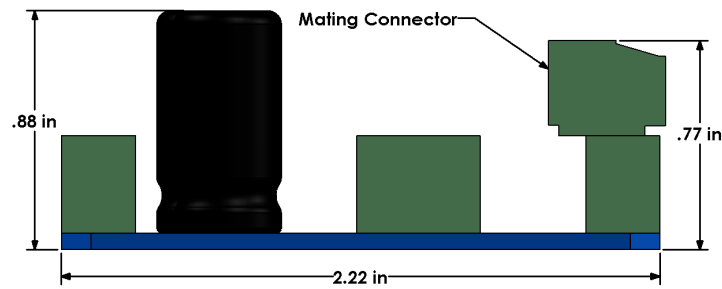
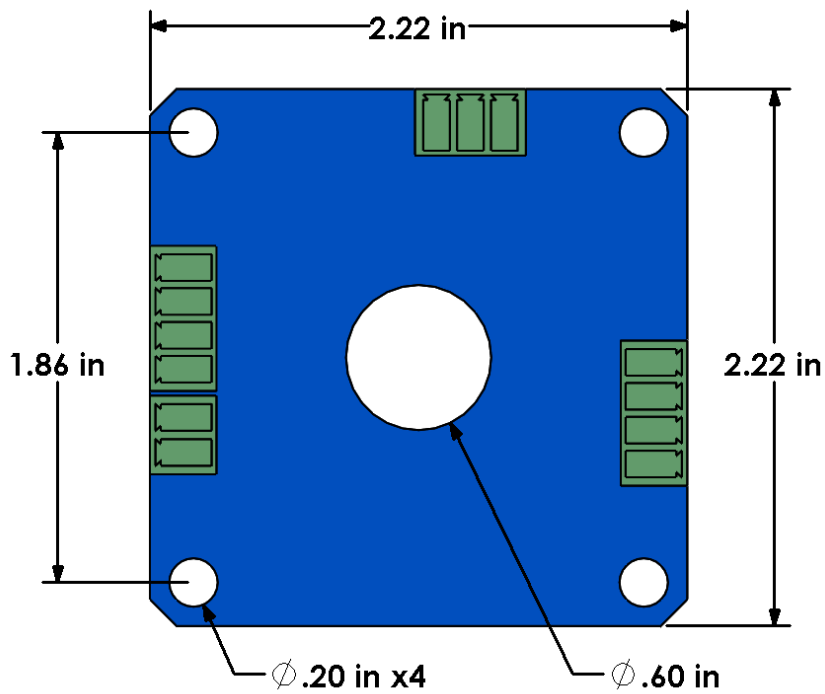


### S1: Current Set

SW6 SW5 SW4			SW3 SW2 SW1			Value (A)
Run Current			Hold Current			
On	On	On	On	On	On	0.0
On	On	Off	On	On	Off	0.3
On	Off	On	On	Off	On	0.7
On	Off	Off	On	Off	Off	1.0
Off	On	On	Off	On	On	1.4
Off	On	Off	Off	On	Off	1.7
Off	Off	On	Off	Off	On	2.1
Off	Off	Off	Off	Off	Off	2.5



## Dimensions



### ORDERING INFORMATION

Model	Description
OMD23b	MicroStep Driver, Size 23, 2.5A



ISO 9001  
QMI-SAI Global

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