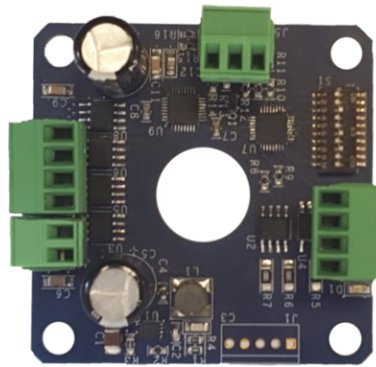


## OMD24

The OMD24 is a microstep motor driver integrated with an advanced motion controller. Capable of microstepping up to 1/256 steps the OMD24 can support 2.5 Amp of motor phase current. Its small design is compatible to mount directly on to a NEMA 23 stepper motor, and includes a through-hole in the center so the shaft of a linear actuator motor can pass through when mounted on the motor. The connectors are screw terminal plugs for easy and secure wiring.



### FEATURES

- Integrated Stepper Motor Microstep Driver with Controller
- RS485 communications with Modbus option
- Velocity = 0 to 2M steps per second
- Step resolutions include: full, 1/2, 1/4, 1/8, 1/16, 1/64, 1/128, 1/256.
- Single supply voltage +12V 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 and step resolution set through the communication interface
- 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



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

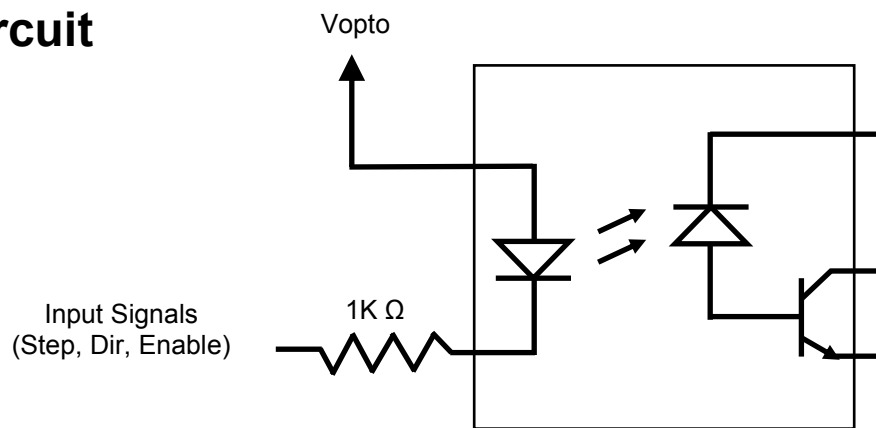
E-mail: SalesOR@OMSmotion.com

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

## Electrical Specifications

Parameter	Min	Typ	Max	Unit	Notes
Supply Voltage	12		50	VDC	
Output Current/Phase (PEAK)	0		2.5	A	Programmable
Vopto		5	20	V	
Input Voltage (STEP/DIR/ENABLE)	0		Vopto	V	
STEP frequency	0		2	MHz	The maximum frequency is gated by the optocoupler's circuitry.

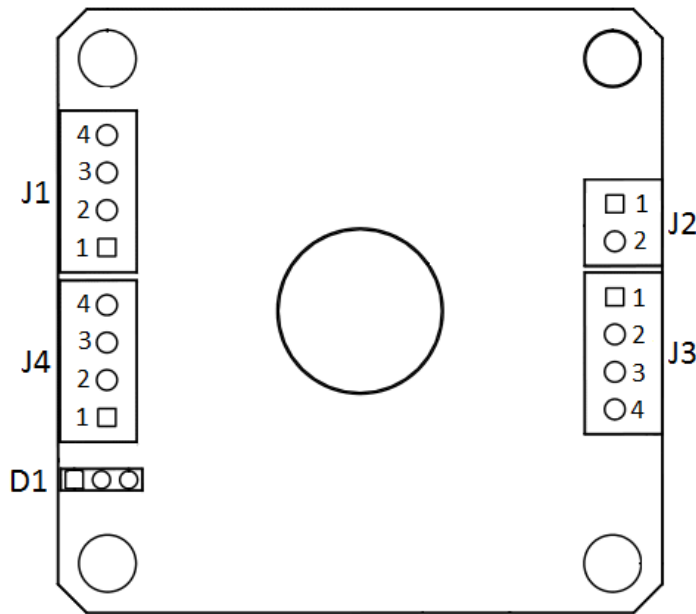
## Input Circuit



## 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)





**POWER SUPPLY**

PIN	J2
1	+12 to +50 VDC
2	GND

**MOTOR PHASES**

PIN	J3
1	Phase A1
2	Phase A2
3	Phase B1
4	Phase B2

**RS485**

PIN	J1
1	GND
2	D-/B
3	D+/A
4	Vcc/Cfg.

**I/O SIGNALS**

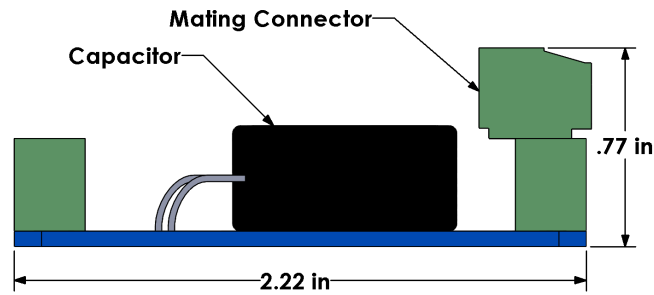
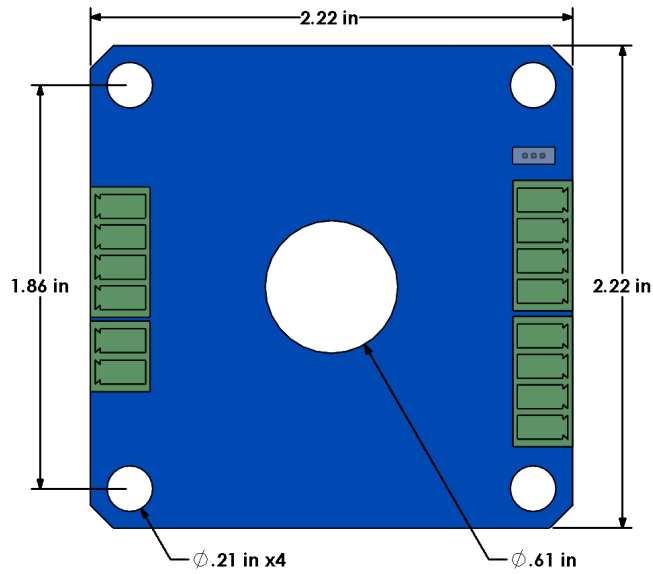
PIN	J4
1	GND
2	Pos. Limit
3	Neg. Limit
4	HOME

**STATUS LED (D1)**

D1, PATTERN	DESCRIPTION
	Short Flash ON (red) Drive disabled (J1,4 short to J1,1)
	Red ON solid Power Low
	Fast Blink (green) Initialize
	Slow Blink (green) Motor Disabled (ABL = no motor current)
	Flash OFF (green) Motor in Hold Current (no motion active)
	Green On solid Motor in Run Current (motion active)
	Double Flash OFF (red) Transition to Drive Disable (motion active)



## Dimensions



### ORDERING INFORMATION

Model	Description
OMD24	Integrated Drive/Controller, Size 23, 2.5A



ISO 9001  
QMI-SAI Global

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