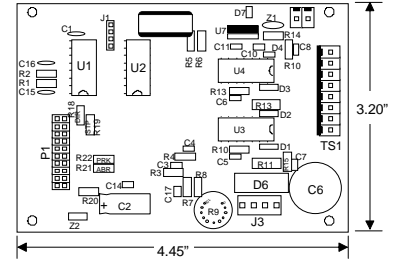
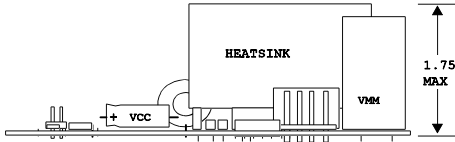


MS 2.0 High Performance Stepper Motor Driver.

The MS 2.0 is an extremely **powerful** stepper motor driver / translator unit capable of driving either bipolar or unipolar motors up to **2.0 amps per phase** in Full, Half or **Quad** step (3200 s/rev). The MS 2.0 requires only digital step pulses and direction signal (on board step sequences) and No step software required (onboard firmware). The MS 2.0 stepper motor driver features Switch-Mode Bipolar Constant-Current technology, **adjustable output current** and "**Auto-park**" which reduces motor dissipation during non-step periods. Fully compatible with matching TMG controller.



Compatible with standard stepper motors (4,6 or 8 wire).

Shown with CY5.4 controller

TS1 Power & Motor pins

1. VMM IN (+5 - 40VDC @ 10 - 2000 ma)	2. +Coil A (Out)	3. -Coil A (Out)	4. GND
5. GND	6. +Coil B (Out)	7. -Coil B (Out)	8. VCC (+5VDC @ 100ma) IN

J3 AC Input pins

1. N/C	2. 6 - 24 VAC IN from transformer	3. 6 - 24 VAC IN from transformer	4. N/C
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P1 Step motor control pins

CLK Input STEP pulse	P1-15	1 step per pulse when enabled
DIR Direction Set (Hi/Low)	P1-17	CW / CCW
Enable (ABR)	P1-9 ABR IN P1-10 ABR OUT P1-12 ABR from CPU	Jump P1-9 To P1-10 to Enable motor
Ground (GND)	P1-5 (User GND), P1-19 (CPU)	
+5 VDC	P1-1, P1-6, P1-13, P1-14	

P1 TMG Controller Interface pins

PARK	P1-11	Selects between Hi & Low Power
SENSOR	P1-2 P1-3 P1-4 P1-16	LED +Anode Led -GND Sensor signal IN Sensor to CPU
Spares	P1-7, P1-8, P1-18, P1-20	Unused pins

Electrical Specifications -

Input Voltage - Logic	+5 VDC (TTL)
Input Voltage - Motor	+12 to 40 VDC
Output Current (Adjustable)	0.05 to 2.0 Amps / Phase
Step Frequency	500 KHz Max
Step size	QUAD or Full/Half
Protection	Over-Temp, Over-Voltage, Over-Current
Current Reduction at standstill	Automatic: 0.5 sec after last step input. Selectable ratio.

Temperature

Operating	0 to +70 C
Storage	-40C to +125C
Mounting surface	0 to 70C