

SLO-SYN[®]

MD808 and MD808-128 Microstep Drive Module

Models MD808 and MD808-128



Affordable Versatility, With Micro-Stepping, Higher Current, Higher Voltage, Active Stabilization

Our MD808 and MD808-128 SLO-SYN modular drives are dependable and affordable options for a wide variety of OEM, single-axis, and multi-axis applications.

Each model, in this series, features a bi-polar PWM drive for maximum torque over a wide range of

speed. Designed for DC input MD808 and MD808-128 drives operate from a single 20 to 80 VDC power supply to help you conserve on space and cost.

The MD808 provides up to 20,000 micro-steps per revolution for smooth, low speed operation. For even greater resolution and flexibility, choose model MD808-128, featuring up to 25,600 micro-steps per revolution.

So, if precise operation, customized micro-stepping ranges, rugged dependability, and solid cost-efficiency are high on your list of priorities, once again, we have the answer.

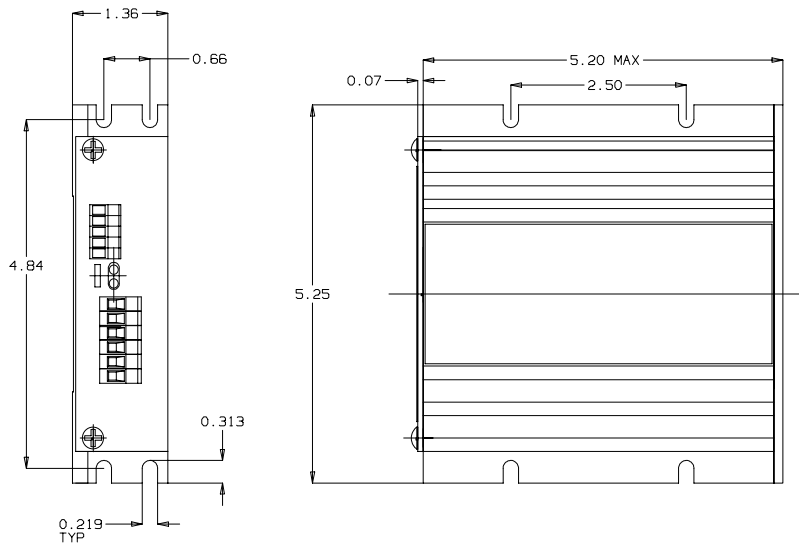
WARNER ELECTRIC[®]



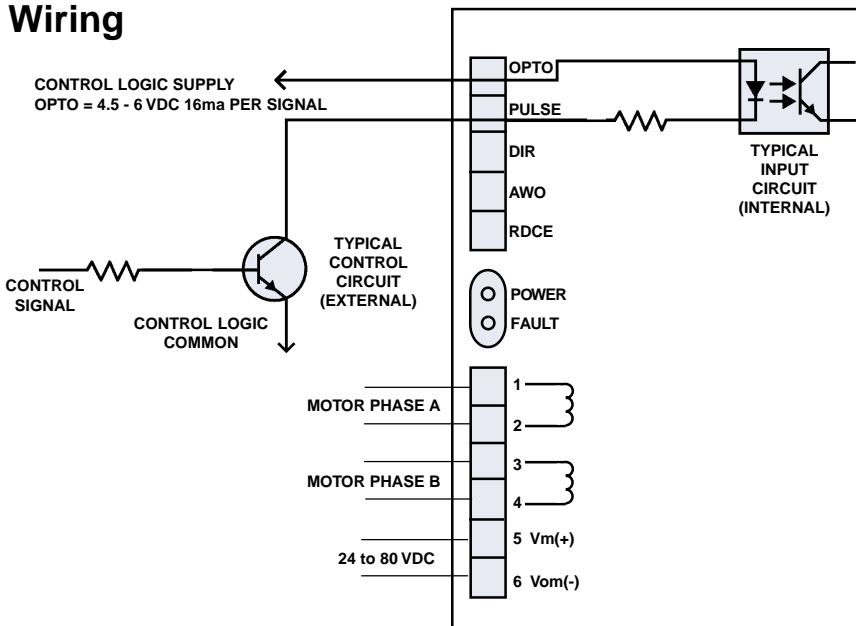
Features:

- ◆ 8 Amp 80 VDC modular drive
- ◆ Bi-polar PWM two phase step motor drive with active mid-range stabilization
- ◆ Micro-stepping to 20,000 steps per revolution (MD808) or 25,600 steps per revolution (MD808-128)
- ◆ Compact size
- ◆ Full short circuit protection (phase-to-phase and phase-to-ground)
- ◆ Under voltage and transient overvoltage protection
- ◆ Thermal protection
- ◆ Single input voltage (20 to 80 VDC)
- ◆ Patented sturdy all-aluminum case and efficient thermal design minimize heat sink requirements
- ◆ Optically isolated inputs
- ◆ Switch selectable current levels from 3 thru 8 amperes; no external resistors or jumpers required
- ◆ Switch selectable step resolution
- ◆ Reduce Current and Windings Off inputs
- ◆ Auto Reduce Motor Current at standstill can be selected
- ◆ Optimal motor performance
- ◆ LED fault and power indicators
- ◆ Removable Screw Clamp Connectors
- ◆ Optional heat sink available
- ◆ Bookcase or Flat Mount
- ◆ UL Recognized for use in US and Canada
- ◆ CE Compliant

Dimensions



Wiring



Specifications

General

Drive Type: Modular DC power input bi-polar chopping drive
 Chop Frequency: 24KHz minimum (above audible range)
 Output Device Type: MOSFET
 Number of Phases: Two phase microstepping output

Mechanical

Size (inches): 1.36 W x 5.25 H x 5.2 D
 Size (mm): 35 W x 133 H x 132 D
 Weight: 1.5 lbs (680 grams)

Input Power

Power Required: 20 VDC to 80 VDC unregulated
 Maximum Drive Dissipation: 40 watts
 Recommended Power Supply: Warner Electric Model PS860

Output

Current: 3 to 8* Amps in 1 amp increments
 Microstepping Capabilities: MD808: Full (200 ppr), 1/2 (400 ppr), 1/5 (1000 ppr), 1/10 (2000 ppr), 1/20 (4000 ppr), 1/25 (5000 ppr), 1/50 (10,000 ppr), 1/100 (20,000 ppr)
 MD808-128: Full (200 ppr), 1/2 (400 ppr), 1/4 (800 ppr), 1/8 (1600 ppr), 1/16 (3200 ppr), 1/32 (6400 ppr), 1/64 (12,800 ppr), 1/128 (25,600 ppr)

Control Inputs

Pulse Input: Input type - sinking, High speed opto-coupler
 Maximum frequency - 500 kHz
 Maximum rise time - 1 micro-sec.
 Maximum fall time - 1 micro-sec.
 Signal active steps on low - high Transition (.2 mA to 16 mA sink)
 Direction Input: Delay time - < 5 microseconds
 All Other Inputs: Delay time - < 50 microseconds

Protection

Short Circuit Protection
 Unbalanced Phase Protection (Ground)
 Over Voltage Protection
 Over Temperature Protection

Motor Compatibility

Motor types: Warner SLO-SYN® M and KM
 M Series Frame sizes: M061 (NEMA 23) thru M093 (NEMA 34)
 KM Series Frame sizes: KML060 (NEMA 23) thru KM093 (NEMA 34)

Number of connections: 4, 6, 8
 Minimum Inductance: 1 mH
 Maximum Resistance including leads: = .25 x VDC supply / I Setting

Example:
 VDC = 30 I Setting = 3.0
 R max. = 0.25 x 30 ÷ 3.0 = 2.5 ohms

Environmental

Operating Temperature: +32°F to +122°F (0°C to +50°C)
 Maximum Heat Sink Temperature: +158°F (+70°C)
 Storage Temperature Range: -40°F to +167°F (-40°C to +75°C)
 Humidity: 85% max., non-condensing
 Altitude: 6600 feet (2000m) above sea level

* Heat sink Part Number 221576-001 recommended if motor current is 4 amps or above. Case temperature must be less than 70°C

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