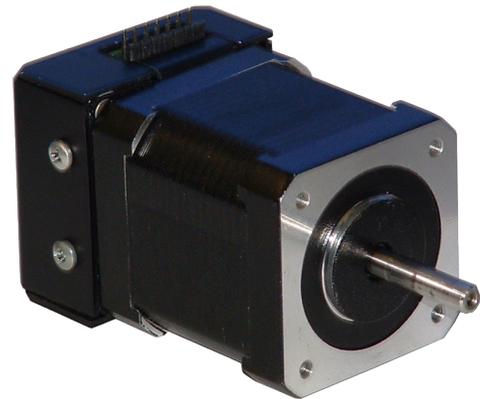# 17MD Series Motor / Driver Combination   SPEC SHEET

- *Stepper Motor/Microstep Driver Combination*
- *Eliminates Motor Wires*
- *Microstep Divisors of 8, 4, 2, or Full Step*
- *Compact Package*
- *12-24V Power Requirement*
- *TTL Logic or 24V Level Inputs Available*
- *Ideal for Precise Positioning*
- *0.225º Resolution at Eighth Step*
- *Efficient and Durable*
- *Long Life Expectancy*

The 17MD Series has a compact construction that implements a microstepping driver and a size NEMA 17 stepper motor in one streamline package. With the two parts combined into one casing, the need to include motor wires has been eliminated. The high-torque step motor can generate up to 62 oz-in of torque. The microstepping driver will operate off 12VDC minimum to 24VDC maximum. The inputs are capable of running from either open collector or TTL level logic outputs. The microstepping driver features resolutions from 200 - 1600 steps/revolution, providing smooth rotary operation. The 17MD Series comes in motor stack lengths of 1, 2, or 3 allowing for varying amounts of start-up torque and inertia. The 17MD Series features built in over temperature and short circuit shut down. It also has automatic 70% reduction in current after clock pulses stop being received, and status LED's to indicate power on (green LED) and clocks being received (yellow LED).

All units are in inches
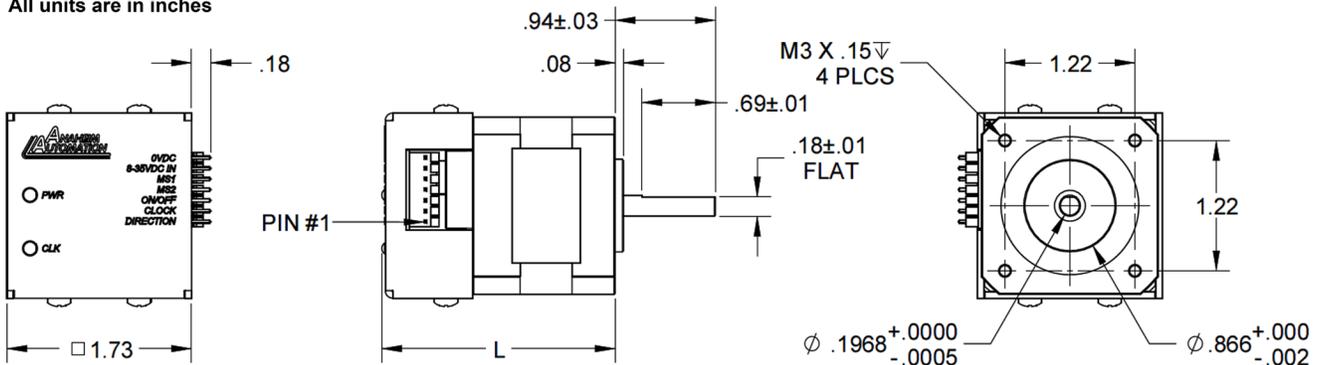
Model	Length	Holding Torque
17MD102S-00	2.215"	31 oz-in
17MD202S-00	2.452"	50 oz-in
17MD302S-00	2.767"	62 oz-in

Hook-Up Drawing

**17MD SERIES
(SINKING INPUTS)**
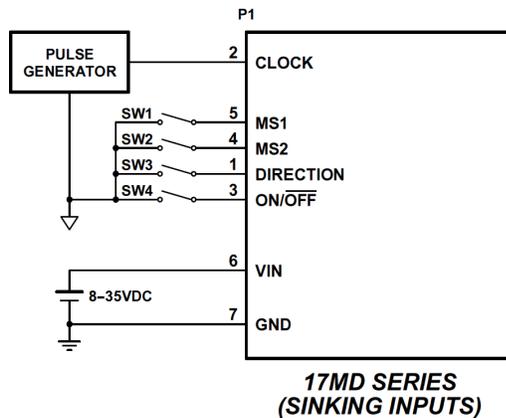
Input Pin Descriptions

Pin #	Description	CBL-AA4031 Wire Color
1	Direction	Brown
2	Clock	Red
3	On/Off	Orange
4	MS2	Yellow
5	MS1	Green
6	12VDC-24VDC	Blue
7	0VDC (Gnd)	Violet

VDC In: 12VDC Minimum to 24VDC Maximum

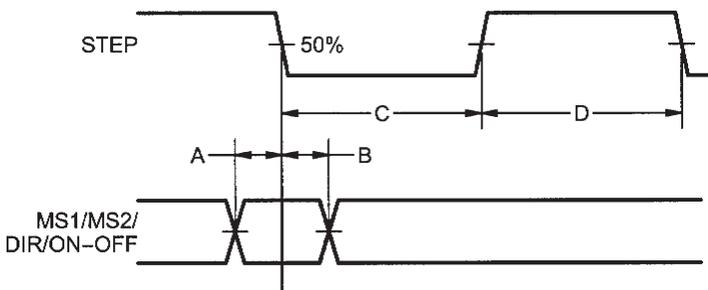**Direction:** Logic "1" CW
           Logic "0" CCW
Clock: Logic "0" - 1 Step
           Logic "1" (open) - Reduce Current Mode
On/Off: Logic "0" - Off
           Logic "1" (open) - On

Microsteo Resolution Truth Table

MS1	MS2	Resolution
Logic 1 (Open)	Logic 1 (Open)	Full Step
Logic 0 (Active)	Logic 1 (Open)	Half Step
Logic 1 (Open)	Logic 0 (Active)	Quarter Step
Logic 0 (Active)	Logic 0 (Active)	Eighth Step

A. Minimum Command Active Time
    Before Clock Pulse (Data Set-Up Time) ... 200nS
B. Minimum Command Active Time
    After Clock Pulse (Data Hold Time) 200nS
C. Minimum CLOCK Pulse Width 1.0uS
D. Minimum CLOCK Off Time....................... 1.0uS
Maximum CLOCK Frequency 500kHz

Motor and Accessories Ordering Information

Part Number	Description
17MD102S-00	17 Frame, 2.215" Length, Motor Driver Combination
17MD202S-00	17 Frame, 2.452" Length, Motor Driver Combination
17MD302S-00	17 Frame, 2.767" Length, Motor Driver Combination
CBL-AA4031	7 Pin Input Connector with 12" Leads
PSAM24V2.7A	24V @ 2.7A Universal Input Power Supply
CON-6404407	7 Pin Connector with 0.100" Centers (Amp #640440-7)

ANAHEIM AUTOMATION