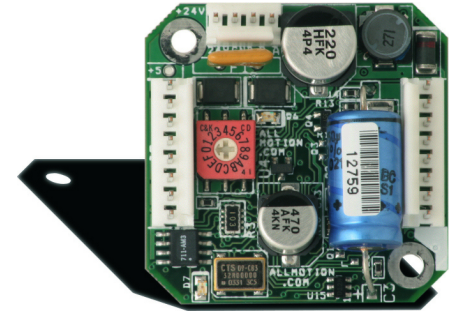


## General Specifications

Supply Input .....	12V to 40V 1.25A <i>Examples:</i> Digikey part 285-1820 or 1470-1015
Dimensions .....	1.6" X 1.6" (40mm X 40mm) square
Step Resolution .....	1/2, 1/8 step
Operating Modes .....	PC controlled or standalone
PC Control.....	Can control up to 16 drives daisy-chained together.
Communications protocol.....	RS485. Can convert to RS232/USB with appropriate converters.
Control protocol .....	Compatible with devices that use the Cavro DT or OEM protocol. Can use EZCommander™ Windows application or serial terminal program such as HyperTerminal to issue commands.
Motor compatibility.....	Accommodates most size 23 (3") and smaller stepper motors, including bipolar or unipolar-wound motors. Best performance is with motor rated at about ¼ of supply voltage.
Mating Connectors.....	AMP MTA 100 series. Recommended tool: Digikey part A9982, or better Digikey parts A2031 + A1998. (See Application Note 131021 for non-standard connector options.)
I/O Interface.....	Accepts 2 opto-electronic and two mechanical switch inputs, or 4 mechanical switch inputs. Signal Levels: <0.8V Vlow; >2V Vhigh (TTL compatible) Optical switch specifications: Transistor optical switch with IC> 1 mA @ IF=20mA. <i>Examples:</i> OPTEK part OPB841W55 or Digikey part 365-1103-ND (prewired); Honeywell HOA1870-33 (prewired)
Operating Temperature .....	-20 to 85 °C PCB copper temperature
Relative Humidity.....	10% to 90% non condensing (operating and storage)

## Fully Intelligent Stepper Motor Controller + Driver



Model EZ17 actual size

### MOTOR CONNECTOR

Mating connector: AMP MTA 100 series 8 pin, 22 GA, part 3-643813-8  
Digikey part A31111-ND

Pin	Function	Notes
1	ON/OFF driver #1 (V+)	2A peak; 1A continuous
2	ON/OFF driver #1 (V-)	Open collector
3,4	Stepper winding A	1.25A bipolar chopper
5,6	Stepper winding B	1.25A bipolar chopper
7	ON/OFF driver #2 (V+)	2A peak; 1A continuous
8	ON/OFF driver #2 (V-)	Open collector

### POWER AND COMMUNICATION

Mating connector: AMP MTA 100 series 4 pin, 22GA, part 3-643813-4  
Digikey part A31108-ND

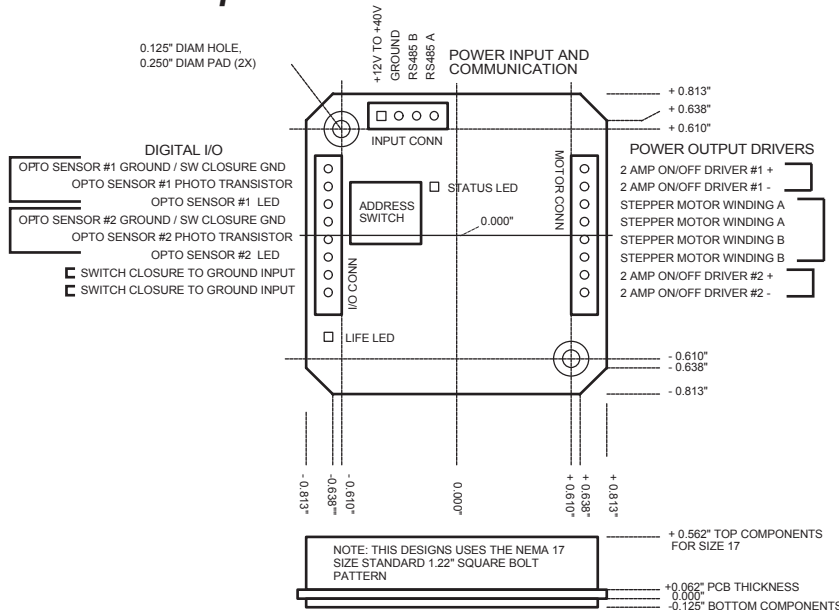
Pin	Function
1	V+ (external supply) +12V to 40V
2	GROUND
3	RS485 B
4	RS485 A

### I/O CONNECTOR

Mating connector: AMP MTA 100 series 8 pin, 26 GA, part 3-643815-8  
Digikey part A31030-ND

Pin	Name	Notes
1	Switch #2 input	Senses closure to ground
2	Switch #1 input	Senses closure to ground
3	LED Drive #1	Includes series 200 Ω resistor to 5V
4	Sensor #2 phototransistor or switch closure	Includes 10k Ω pullup to 5V for open collector
5	Sensor #2 ground/switch closure ground	Ground
6	LED Drive #2	Includes series 200 Ω resistor to 5V
7	Sensor #1 phototransistor or switch closure	Includes 10k Ω pullup to 5V for open collector
8	Sensor #1 ground/switch closure ground	Ground

## Mechanical Specifications



## Key Features

- Single 4-wire bus linking up to 16 drives
- 1.25A chopper (PWM) stepper driver
- Operates from 12V to 40V
- RS232, RS485 or USB based control communications
- Optional standalone operation with no connection to PC
- Execution halt pending switch closure
- Prewired for optoswitch inputs
- Half or eighth step bipolar control
- Cavro DT or OEM protocol compatible
- Homes to an optical or mechanical switch closure with a single command
- Fully programmable ramps and speeds
- Four digital I/O; and two 1A power On/Off drivers for driving relay, dc motors, solenoids, etc. included
- Switch-selectable device address
- Software-settable "Move" and "Hold" currents
- Hold current auto selected upon move completion

## Ordering Information

Name	Order Number
EZ17 Stepper Drive.....	EZ17
RS232 to 485 Converter (option).....	RS485
USB to 485 Converter (option).....	USB485
Enclosure for drive (option).....	EZENC17