



General Specifications

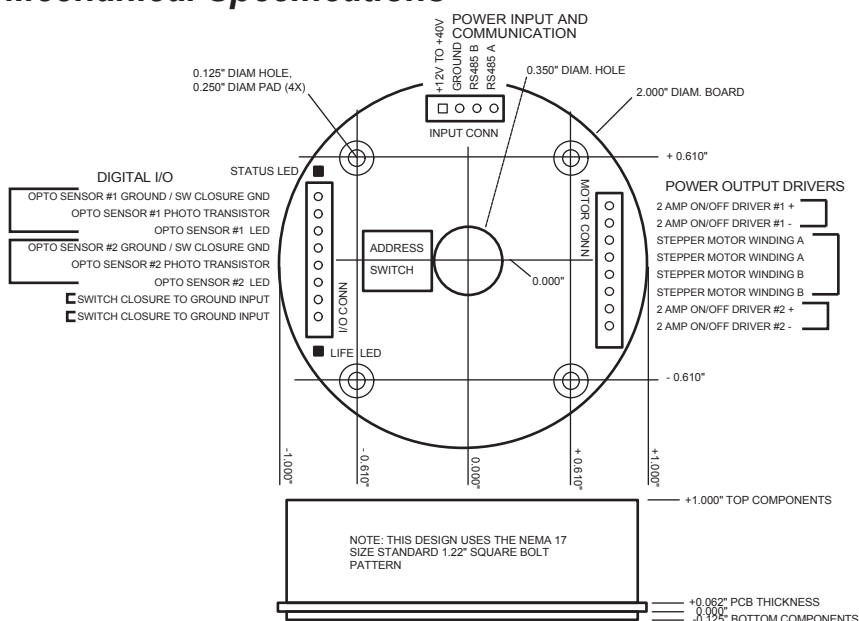
Supply Input	12V to 40V 3A. <i>Examples:</i> Digikey part 285-1820 or 1470-1015
Dimensions	2" (50mm) diameter round
Step Resolution	1/2 to 1/256 th step
Operating Modes	PC controlled or standalone
PC Control.....	Can control up to 16 drives daisy-chained together.
Communications protocol.....	RS485. Can convert to RS232/USB with appropriate converters.
Control protocol	Compatible with devices that use the Cavo DT or OEM protocol. Can use EZCommander™ Windows application or serial terminal program such as HyperTerminal to issue commands.
Motor compatibility.....	Accommodates most size 34 (4") and smaller stepper motors, including bipolar or unipolar-wound motors. Best performance is with motor rated at about 1/4 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 HOA870-33 (prewired)
Operating Temperature	-20 to 85 °C PCB copper temperature
Relative Humidity.....	10% to 90% non condensing (operating and storage)

I/O CONNECTOR

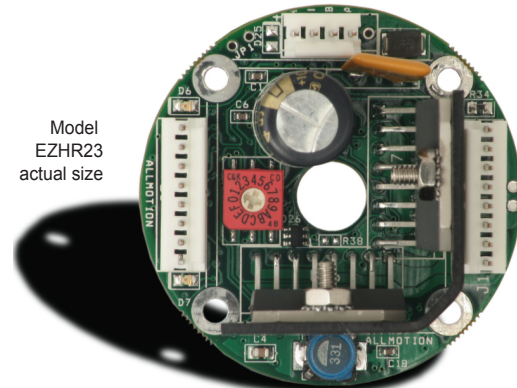
Mating Connector: AMP MTA 100 series 8 pin, 26 GA, part 3-643815-8
Digikey part A31030-ND

Pin	Name	Notes
1	Switch #2 input	Senses closure to ground
2	Switch #1 input	Senses closure to ground
3	LED Drive	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	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



High Resolution Intelligent Stepper Motor Controller + Driver



Model
EZHR23
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+)	V+ 2A peak; 1A continuous
2	ON/OFF driver #1 (V-)	Open collector
3,4	Stepper winding A	3A bipolar chopper
5,6	Stepper winding B	3A bipolar chopper
7	ON/OFF driver #2 (V+)	2A peak; 1A continuous
8	ON/OFF driver #2 (V-)	Open collector

INPUT CONNECTOR (POWER AND CONTROL)

Mating connector: AMP MTA 100 series 4 pin, 22 GA, 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

Key Features

- Single 4-wire bus linking up to 16 drives
- 3A chopper (PWM) stepper driver
- Operates from 12V to 40V
- RS232, RS485 or USB based control communications
- On-board EEPROM for user program storage
- Optional standalone operation with no connection to PC
- Execution halt/branch pending switch closure
- Prewired for optoswitch inputs
- 1/2 to 1/256 step bipolar control
- Cavo 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
- Accommodates double-shafted motors

Ordering Information

Name	Order Number
EZ17 Stepper Drive.....	EZHR23
RS232 to 485 Converter (option).....	RS485
USB to 485 Converter (option).....	USB485