



# Stepper Positioning Module HE800STP100 Inputs / Outputs



This product has a detailed supplement (SUP0270) available.

## SPECIFICATIONS

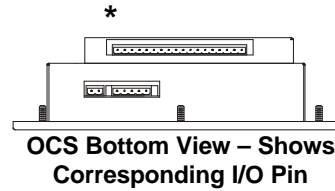
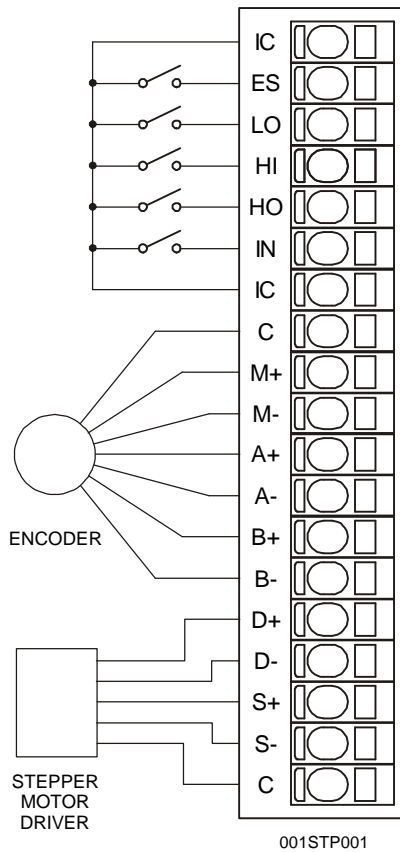
INPUT	STP100	STP100
<b>ISOLATED INPUTS</b>		
<b>LOW LEVEL (+2mA)</b>		<b>ISOLATION</b>
Emergency Stop (ES)	0 - 9 VDC	Emergency Stop (ES)
Home (HO)		500 VDC min.
Index (IN)		
High Limit (HILIM)		
Low Limit (LOLIM)		
<b>DIFFERENTIAL INPUTS</b>		
Encoder Frequency	0 - 1.0 MHz	Encoder Differential Threshold Low
Encoder Single-Ended Threshold	1.2 - 1.6 VDC	Encoder Differential Threshold High

OUTPUT	STP100	STP100
<b>DIFFERENTIAL OUTPUTS</b>		
Step Frequency	0 - 245 KHz	Direction Output Setup Time
Step Output High @ -20 mA	2.5 VDC min.	Direction Output High @ -20 mA
Step Output Low @ +20 mA	0.5 VDC max.	Direction Output Low @ +20 mA

<b>GENERAL SPECIFICATIONS</b>			
Required Power (Steady State)	0.17W (7.15mA @ 24VDC)	CE	Refer to MAN0005
Required Power (Inrush)	0.38W (16.2mA @ 24VDC)	UL	Refer to SUP0259
Relative Humidity	5 to 95% Non-condensing	Terminal Type	Spring Clamp, Removable
Operating Temperature	0° to 60° Celsius	Weight	9.5 oz. (270 g)
Storage Temperature	-40° to +85° Celsius		

MAN0270-06

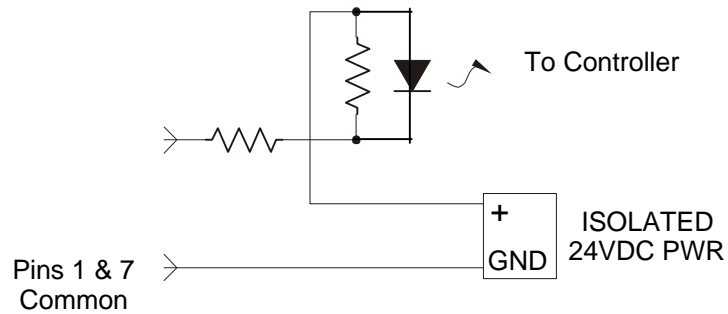
2 WIRING



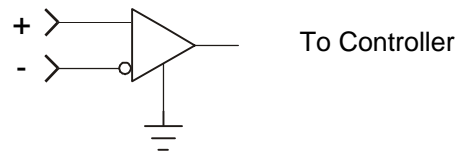
Pin	Signal	STP100 Description
<b>ISOLATED</b>		
1	IC	Isolated Common
2	ES	ESTOP+ Emergency Stop, Active High (Open), 24 Vdc Pull Up
3	LO	LOLIM- Lower limit, Active Low (Closed), 24 Vdc Pull Up
4	HI	HILIM- High limit, Active Low (Closed), 24 Vdc Pull Up
5	HO	HOME- Home, Active Low (Closed), 24 Vdc Pull Up
6	IN	INDEX- Index, Active Low (Closed), 24 Vdc Pull Up
7	IC	Isolated Common
<b>NON-ISOLATED</b>		
8	C	Common Connected internally to bus common
9	M+	MARK+ Encoder Marker Positive Input
10	M-	MARK- Encoder Marker Negative Input
11	A+	ENC A+ Encoder Channel A Positive Input
12	A-	ENC A- Encoder Channel A Negative Input
13	B+	ENC B+ Encoder Channel B Positive Input
14	B-	ENC B- Encoder Channel B Negative Input
15	D+	DIR+ Direction Positive Output
16	D-	DIR- Direction Negative Output
17	S+	STEP+ Step Positive Output
18	S-	STEP- Step Negative Output
19	C	Common Connected internally to bus common

### 3 INTERNAL CIRCUIT SCHEMATICS

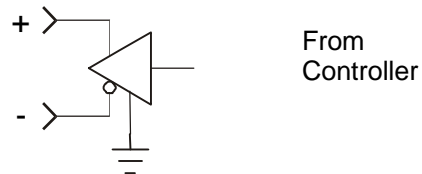
This circuit is typical of **ESTOP+**, **LOLIM-**, **HILIM-**, **HOME-**, and **INDEX-** *inputs*.



This circuit is typical of **Encoder A**, **Encoder B**, and **Marker** *inputs*.



This circuit is typical of **STEP** and **DIR** *outputs*.



### 4 CONFIGURATION

**Note:** The status of the I/O can be monitored in Cscape Software.

See the Supplement for the Stepper Positioning Module (SUP0270) for detailed information covering configuration and input/output modes.

## 5 INSTALLATION / SAFETY

**Warning:** Remove power from the OCS controller, CAN port, and any peripheral equipment connected to this local system before adding or replacing this or any module.

- a. All applicable codes and standards are to be followed in the installation of this product.
- b. Use the following wire type or equivalent: Belden 8917, 16 AWG or larger.

For detailed installation information, refer to Chapter Two in the Control Station Hardware Manual (MAN0227). A handy checklist is provided that covers panel box layout requirements and minimum clearances.

## 6 TECHNICAL ASSISTANCE

For assistance, contact Technical Support at the following locations:

**North America:**

(317) 916-4274 or visit our website at [www.heapg.com](http://www.heapg.com).

**Europe:**

(+) 353-21-4321-266