



# PROGRAMMABLE STEP MOTOR INDEXER/DRIVE

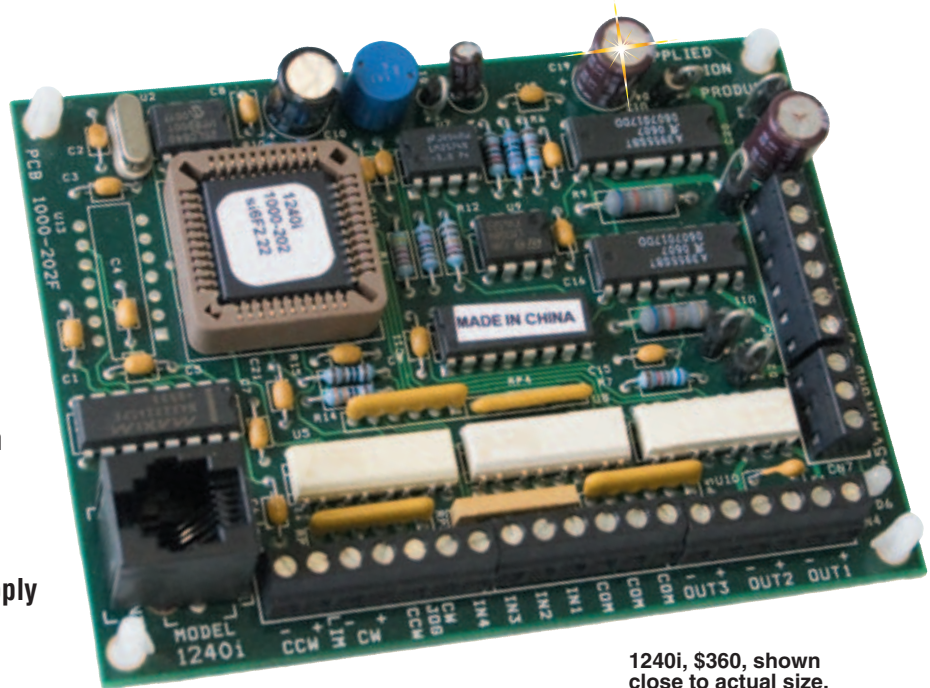
## MICROSTEPPING 1.2 A, 40 Vdc

1240i  
\$360



- Precise Pulse Width Modulation Switching Amplifiers Providing Up to 1.2 A per Phase and Microstepping to 50,800 Steps Per Revolution
- Accepts 12 to 42 Vdc Power Supply
- Powerful, Flexible, Easy to Use Indexer
- Connects by a Simple Cable to Your PC for Programming (Cable Included)
- Microsoft Windows™-Based Software for Easy Setup and Programming
- Eight Inputs for Interacting with the User and Other Equipment
- Three Outputs for Coordinating External Equipment
- External Trigger I/O is Optically Isolated, 5 to 24V, Sinking or Sourcing Signals. PC/MMI Port is RS232
- 76.2 x 101.6 x 16.5 mm (3 x 4 x 0.65") Overall Dimensions
- Optional Man Machine Interface (MMI) Allows Operator to Enter Distances, Speeds, Cycle Counts and More
- CE Compliant

The 1240i is a programmable step motor driver suited for a wide range of motion control applications. It includes a sophisticated controller integrated with a 48-watt microstepping amplifier. The 1240i includes easy to use software for the rapid development of stand-alone motion control programs. The 1240i can also be commanded in real time from a host PC or



1240i, \$360, shown close to actual size.

PLC, using the Si Command Language™. For multi-axis applications, up to four drives (stepper or Servo) can be networked using a single SiNet™ Hub 444. The 1240i includes 8 optically isolated programmable inputs for triggering, branching, position sensing and end of travel detection. 3 optically isolated programmable outputs can send signals to other electronic devices and activate relays.

### SPECIFICATIONS

**Amplifiers:** Dual H-bridge, 3 state, pulse width modulated (PWM) switching at 25 KHz. 0.2 to 1.2 A/phase output current, software selectable. 48 watts maximum output power. Automatic idle current reduction (software programmable) reduces current to motor when idle. Minimum motor inductance is 0.8 mH.

**Power Supply:** Accepts 12 to 42 Vdc power supply, 1.2 A typical max load.

**Inputs:** 5 to 24 Vdc, optically isolated. 2200  $\Omega$  internal resistance. Can be configured for sinking (NPN) or sourcing (PNP) signals.

**Outputs:** Optically isolated. 5 to 24 Vdc, 100 mA max



**Microstepping:** 13 software selectable resolutions. Steps per revolution with 1.8° motor: 2000, 5000, 10,000, 12,800, 18,000, 20,000, 21,600, 25,000, 25,400, 25,600, 36,000, 50,000, 50,800. Waveform: pure sine.

**Motion Update:** 12,800 Hz

**Physical:** Constructed on 2 mm (0.063") thick printed circuit board. Four mounting holes, 4 mm (0.156") diameter.

**Overall size:** 76.2 x 101.6 x 16.5 mm (3 x 4 x 0.65")

**Weight:** 68.3 gm (2.4 oz)

**Ambient Operating Temperature:** 0 to 50°C (32 to 122°F)

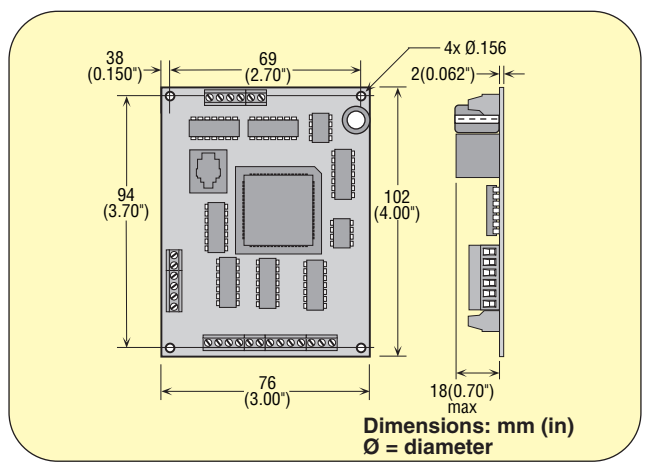
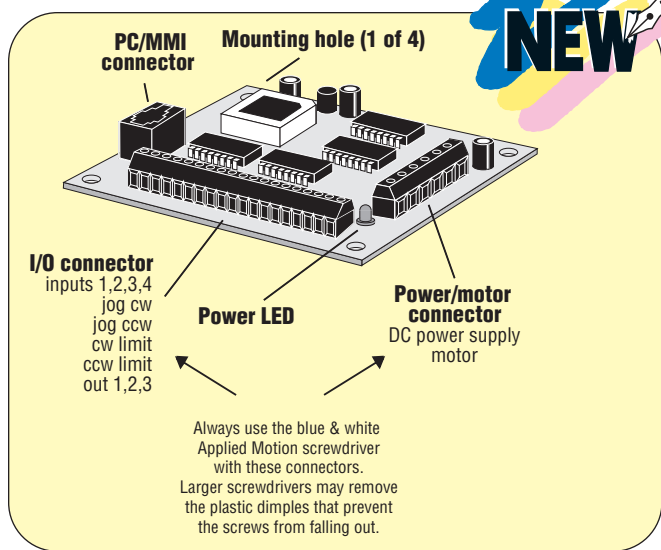
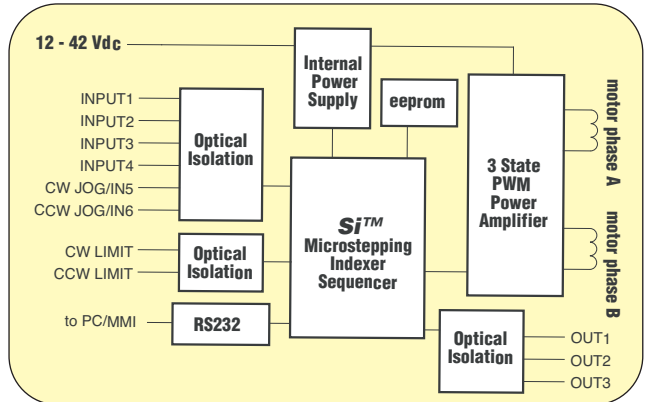
**Connectors:** European style screw terminal blocks

**Power Supply and Motor:** 6 position

**Signal Input/Output:** 19 position

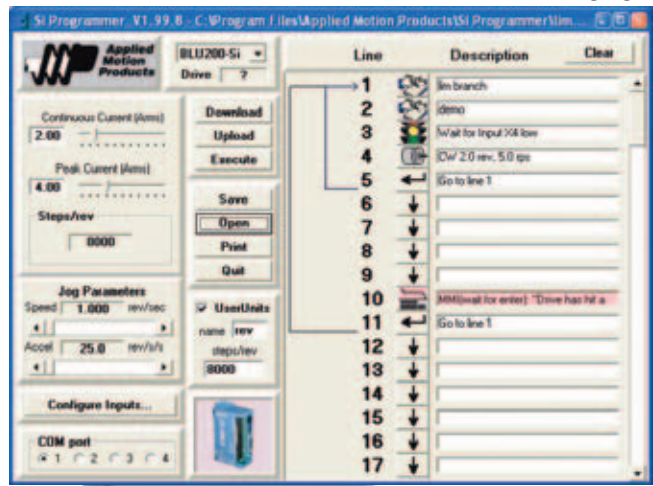
**Wire Size:** 16 to 28 AWG

**Agency Approvals:** CE compliant to EN55011A, EN50082-1(1997)



Software Free with purchase!

Program using the Si Simple Indexer software or the SCL command language



**ACCESSORIES INCLUDED**

- Programming software
- Programming cable

**OPTIONAL ACCESSORIES**

**Power Supply (Required for Drive Operation):**  
 Recommended: OMPS150A24, 24 Vdc, 6.3 A

**Multi-Axis Systems:**

**Hub 444:** Network up to 4 drives

**Operator Interface:**

**MMI-01:** Stand-alone operation



Si Programmer™

OMPS150A24, \$180, shown smaller than actual size. See page D-37 for details



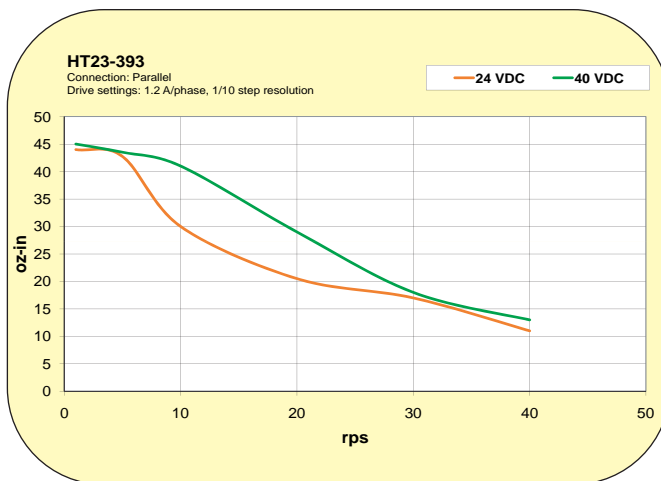
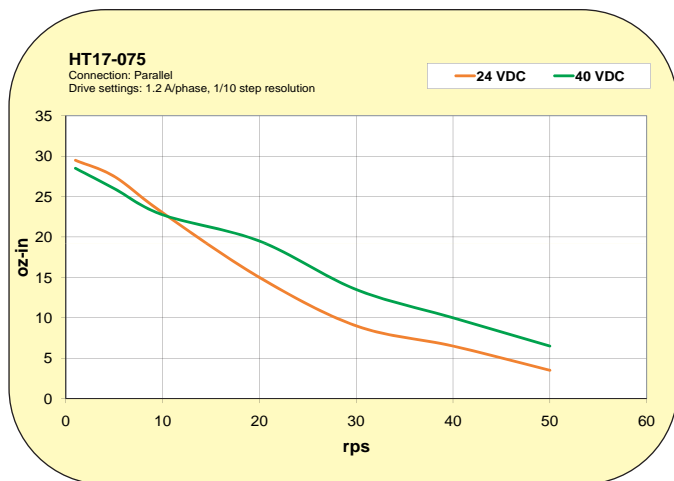
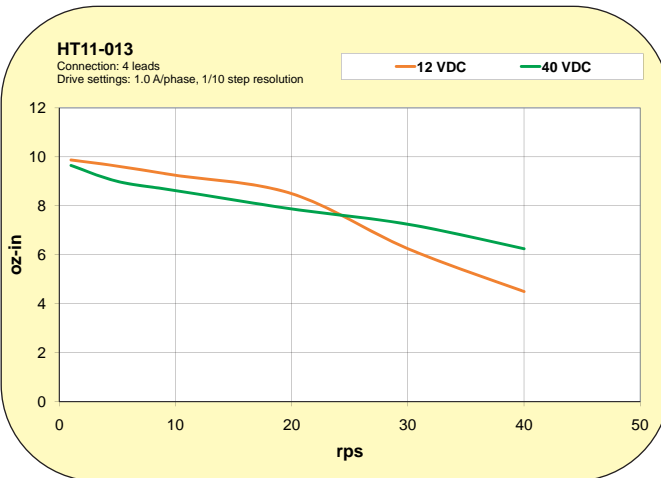
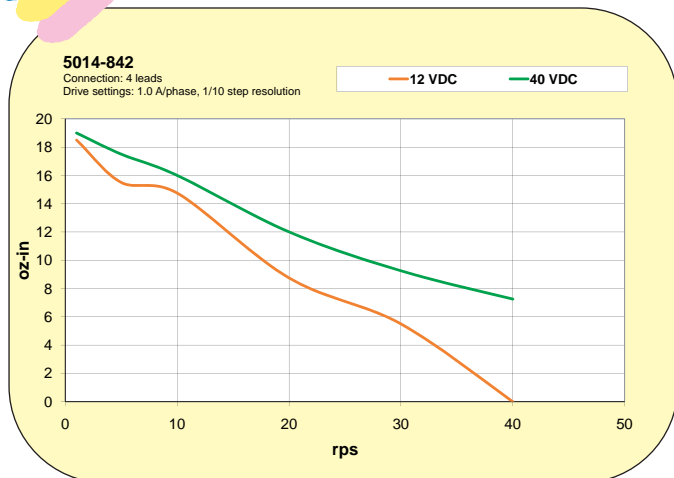
HUB 444 with DIN rail, \$320 shown smaller than actual size. See page D-34 for details.

MMI-01, \$695, shown smaller than actual size. See page D-36 for details.





## TORQUE-SPEED CURVES FOR RECOMMENDED MOTORS



### To Order (Specify Model Number)

**AVAILABLE FOR FAST DELIVERY!**

MODEL NO.	PRICE	DESCRIPTION
1240i	\$360	Programmable step motor indexer drive

Ordering Example: 1240i, Programmable step motor drive, \$360.

### RECOMMENDED MOTORS FOR 1240i

MODEL NO.	PRICE	HOLDING TORQUE g-cm (oz-in)	RATED VOLTAGE (V)	RATED CURRENT (A)	RESISTANCE OHMS	INDUCTANCE MH	ROTOR INERTIA g-cm <sup>2</sup> (oz-in <sup>2</sup> )
<b>NEMA 11 STEP MOTOR SPECIFICATIONS (RATINGS ARE WITH MOTOR CONNECTED IN PARALLEL)</b>							
OMHT11-013	\$130	1080 (15)	2.0	1.0	2.0	2.6	18 (0.098)
<b>NEMA 14 STEP MOTOR SPECIFICATIONS (RATINGS ARE WITH MOTOR CONNECTED IN PARALLEL)</b>							
OM5014-842	\$86	1872 (26)	4.8	1.0	4.3	5.5	208 (0.109)
<b>NEMA 17 STEP MOTOR SPECIFICATIONS (RATINGS ARE WITH MOTOR CONNECTED IN PARALLEL)</b>							
OMHT17-075	\$90	4522 (62.8)	2.8	1.7	1.7	3.0	68 (0.37)
<b>NEMA 23 STEP MOTOR SPECIFICATIONS (RATINGS ARE WITH MOTOR CONNECTED IN PARALLEL)</b>							
OMHT23-393	\$110	5516 (76.6)	3.7	1.41	2.69	5.4	120 (0.66)

Ordering Example: OMHT23-393, high torque step motor with 76.6 oz-in holding torque, \$110.  
See pages D-7 through 10 for additional stepper motor information.

Order motors separately, see below for details

### ACCESSORIES

MODEL NO.	PRICE	DESCRIPTION
OMPS150A24	\$180	Stepper drive power supply, 24 Vdc, 6.3 A
OM-CONV-USB	15	USB to RS232 interface converter

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