

Benchtop apt™ Stepper Motor Controllers...Page 2 of 2

Specifications

■ Input/Output:

- **Motor Drive Channel (15-Pin D-Type Female)**
 - 2-Phase Bipolar Motor Drive Output
 - Differential Quadrature Encoder Interface
 - Forward, Reverse Limit Switch Inputs
- **Motor Control (15-Pin D-Type Female)**
 - Jog Forward/Back
 - Enable/Disable Interlock
 - User Logic Outputs/Inputs
 - Single-Ended Analog Input (0-10V)
 - Trigger In/Out

■ Compatible Motors

- **Peak Powers:** 5-50W
- **Average Power:** 25W Maximum
- **Step Angle Range:** 20°-1.8°
- **Coil Resistance (Nominal):** 4-15Ω
- **Coil Inductance (Nominal):** 4-15mH
- **Rated Phase Currents (Nominal):** 100mA-1A

■ Resolution

- 128 Microsteps per Full Step
- 200 Step Motor – 25,600 Microsteps per Revolution

■ Motor Power:

Up to 48V/50W (Peak)

■ Input Power Requirements

- **Voltage:** 85-264VAC
- **Power:** 200W (100W BSC101)
- **Fuse:** 3.15A

■ Motor Speeds: Up to 600 RPM (for 200 Full Step Motor)

■ Encoder Feedback Bandwidth: 500,000 Counts per Seconds

■ Housing Dimensions (W x D x H):

- **BSC101**
152 x 244 x 104mm
(6" x 9.6" x 4.1")
- **BSC102, BSC103**
240 x 360 x 133mm
(9.5" x 14.2" x 5.2")

■ Instrument Weight:

- **BSC101**
3.18kg (7lbs)
- **BSC102, BSC103**
6.7kg (14.75lbs)

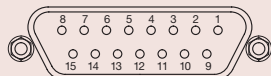


Stage sold separately



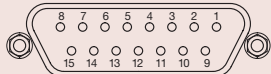
See our full line of motorized flexure stages starting on page 288.

MOTOR CHANNEL



Pin	Description	Pin	Description
1	5 V User	9	0 V User
2	Jog Fwd	10	Jog Back
3	Not Used	11	Analog In
4	Trig In	12	Trig Out
5	EN Return	13	Enable
6	RS-232TX	14	RS-232 RX
7	User In	15	User Out (o/c)
8	Keyed Pin		

MOTOR DRIVE



Pin	Description	Pin	Description
1	Encoder A +ve	9	CW Limit Switch
2	Encoder A -ve	10	CCW Limit Switch
3	Encoder B +ve	11	0 V User
4	Encoder B -ve	12	Not Used
5	5 V User	13	Not Used
6	Not Used	14	Phase B +
7	Phase B -	15	Phase A +
8	Phase A -		

Full Support for Encoder Feedback

The apt™ stepper unit also supports encoder feedback through dedicated quadrature encoded pulse (QEP) inputs, one for each channel of operation. A built-in algorithm can be enabled to allow the stepper system to reach and maintain an encoded position through an iterative move sequence. Please see page 271 for details on our linear-encoded LNR stage and apt™ stepper drive package.

Software Developers Support CD

A developers' kit ships with all of our apt™ series controllers. This additional software is intended for use by software developers working on large system integration projects which incorporate apt™ products. The kit contains an extensive selection of useful code samples as well as tutorial information.

See pages 380-382 for more information on the apt™ software included with the BSC Series Controllers.

ITEM#	\$	£	€	RMB	DESCRIPTION
BSC101	\$ 1,351.50	£ 851.40	€ 1,256.90	¥ 12,906.80	Single-Channel Stepper Motor Controller
BSC102	\$ 2,203.20	£ 1,388.00	€ 2,049.00	¥ 21,040.60	Two-Channel apt™ Stepper Motor Controller
BSC103	\$ 2,807.60	£ 1,768.80	€ 2,611.10	¥ 26,812.60	Three-Channel apt™ Stepper Motor Controller