

## Series 94

## Peaktronics Positioner

The DHC-100 positioner is a high performance, high resolution digital positioner. A simple three button control is used to configure ALL parameters that the unit needs for a variety of applications, and eliminates the need for special meters and/or tools for calibration. As long as there is supply power, the unit can easily be field calibrated. This positioner can be calibrated for various command types (such as 4-20mA, 1-5 VDC, 0-5 VDC, 0-10 VDC, or digital) and also the default operation upon loss of command (such as fail open, fail close, or fail as is). The optional transmitter/auxiliary limit switch module is installed into the positioner card via plug and socket. This allows a user defined feedback signal of current or voltage, and provides 3-SPST relay contacts for open position, closed position and a fault condition.

### Series 94 Standard Features

- Reversing, brushless capacitor run motor (115 VAC & 230 VAC)
- All 115 VAC and 230 VAC motors are CE Compliant, and bear the CE mark
- Integral thermal overload protection for motor windings with automatic reset (115 VAC & 230 VAC)
- 75% - 100% duty cycle motor
- Permanently lubricated gearing
- Type 4X enclosure
- ZYTEL FR50 Engineered resin enclosure
- ISO mounting configuration
- Two (2) 1/2" FNPT conduit entry to eliminate cross feed between control, feedback, and power signals
- Highly visible position indicator for positive position of valve, even at a distance
- Declutchable manual override: Push down on handle and rotate
- Output torque: Series 94 actuators have an output torque range from 150 in/lbs to 300 in/lbs

### Positioner Standard Features

- High resolution
- Simple Pushbutton calibration
- Calibrated as standard or reverse acting
- Multi-meter not required for potentiometer calibration
- Control signal not required for calibration
- Options install into positioner via plug and socket
- Selectable fail position for loss of input signal; fail open, fail close, or fail as is
- Selectable input signal; 4-20mA, 1-5 VDC, 0-5 VDC, 0-10 VDC, or digital
- Loss of command and feedback potentiometer fault detection
- Motor stall detection will sense when the motor has reached a stall condition and remove power from the motor



### Actuator/Positioner Options

- Voltages: 230 VAC, and low AC or DC
- Heater and thermostat
- Mechanical Brake
- 4-20 mA Output transmitter with 3-SPST Relay Contacts

### Series 94 Engineering Specifications

Size: A94, B94

Torque: 150 in/lbs - 300 in/lbs

Voltage: 120 VAC, 1-phase, 50/60Hz

Amp Draw: A94 = 0.5A

B94 = 0.8A

Duty Cycle: A94 = 100%

B94 = 75%

Conduit Entry: two (2) 1/2" FNPT

Maximum Ambient Temperature: 150°F

Switches: two (2) single pole, double throw (2SPDT), 15 amp rated

Cycle Time per 90°: A94, B94 5 seconds

# Series 92/94

# Transmitter/Relay

The transmitter/relay module has been specifically designed for use with the DHC-100 Positioner via plug and socket installation, and is supplied with its own terminal strip. This module provides a selectable output signal of 0-20mA as a current output signal, or 0-10 VDC as a voltage output signal. It also provides 3-SPST relay contact outputs that are typically used as end of travel limit switches (open and closed), and a fault indicator (loss of power, etc.). These contacts are rated for 1A @ 24vdc / 0.5A @ 125vac.

## Transmitter/Relay Standard Features

- Transmitter/Relay plugs directly into DHC-100 positioner card
- Its own terminal strip
- Selectable current (0-20mA), or voltage (0-10 VDC) output signal
- 3-SPST independently configurable relay contacts
- Simple calibration via DHC-100 pushbuttons
- Control signal not required for calibration



## Positioner

### POWER REQUIREMENTS

DHC-100: 117 VAC  $\pm 10\%$ , 50/60 Hz  
12 VA typical (not including output load)  
Fuse Type: 5A TR5 Slo-Blo (replaceable)

### COMMAND SIGNAL INPUT

Input Impedance  
20K ohms (1-5 VDC, 0-5 VDC, 0-10 VDC Input)  
251 ohms  $\pm 1\%$  (4-20 mA Input)  
Loss of Command threshold  
< 0.75V or > 5.5V (1-5 VDC input)  
< 3mA or > 22mA (4-20mA input)

### FEEDBACK SIGNAL INPUT

Input Voltage: 0 to 2.5 VDC  
External Feedback Potentiometer: 1K ohm

### POWER SUPPLY OUTPUTS

+15V OUT (J2-8): 125mA maximum (not including option module)  
+5V OUT (J2-7): 5mA maximum  
**NOTE:** Do not connect these outputs to other power supplies.

### AC MOTOR OUTPUTS

Off-state Leakage Current: <15mA  
Maximum Load Current @ 150C: 5A

### ENVIRONMENTAL

Operating Temperature Range: 32 F to 150F  
Storage Temperature Range: -40 F to 185 F  
Relative Humidity Range: 0 to 90 %(noncondensing)

## Specifications

## Transmitter/Relay

### CURRENT OUTPUT

0 to 20mA @ 8 VDC or 400 $\circ$  maximum  
Resolution: 0.0031mA

### VOLTAGE OUTPUT

0-10vdc @ 10mA maximum  
Resolution: 0.0016 VDC

### RELAY OUTPUTS

Switch Contact Type: SPST  
Contact Rating (non-inductive):  
1A @ 24 VDC / 0.5A @ 125 VAC

### ENVIRONMENTAL

Operating Temperature Range: 32 F to 150 F  
Storage Temperature Range: -40 F to 185 F  
Relative Humidity Range: 0 to 90 %(noncondensing)

# Peaktronics Positioner

## Specifications

Size	115 VAC		230 VAC		24 VAC		12 VAC		24 VDC		12 VDC		Cycle Time 90 (SEC)
	Amp Draw	Duty Cycle	Amp Draw	Duty Cycle	Amp Draw	Duty Cycle	Amp Draw	Duty Cycle	Amp Draw	Duty Cycle	Amp Draw	Duty Cycle	
A94	0.5	100%	0.4	100%	4.0	75%	2.0	75%	4.0	75%	2.0	75%	5
B94	0.8	75%	0.6	75%	4.0	75%	2.0	75%	4.0	75%	2.0	75%	5
S92	0.5	100%	0.4	100%	3.0	75%	2.0	75%	4.0	75%	2.0	75%	10
A92	0.8	75%	0.6	75%	3.0	75%	2.0	75%	4.0	75%	2.0	75%	10
B92	0.5	100%	0.4	100%	3.0	75%	2.0	75%	4.0	75%	2.0	75%	25
C92	1.0	50%	0.6	50%	3.0	75%	2.0	75%	4.0	75%	2.0	75%	25

