

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

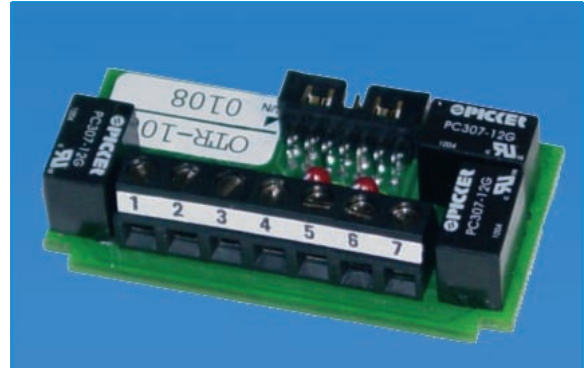
Cycle Time per 90 : A94, B94 5 seconds*

*Cycle times are approximate

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 @ 125 VAC.

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 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 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		24 VDC		Cycle Time* 90 (SEC)
	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%	4.0	75%	5
B94	0.8	75%	0.6	75%	4.0	75%	4.0	75%	5
S92	0.5	100%	0.4	100%	3.0	75%	4.0	75%	15
A92	0.8	75%	0.6	75%	3.0	75%	4.0	75%	15
B92	0.5	100%	0.4	100%	3.0	75%	4.0	75%	32
C92	1.0	50%	0.6	50%	3.0	75%	4.0	75%	32

*Cycle times are approximate

