Series 94

Electric Actuator

Standard Features

- Motor: Reversing, brushless, capacitor-run 120 VAC 50/60 Hz, single phase
- Overload protection: Integral thermal overload protection for motor windings with automatic reset
- Gear train: Permanently lubricated
- Corrosion resistant enclosure: Engineered resin rated NEMA Type 4X with stainless steel trim
- ISO mounting configuration: F05 x 14mm star
- Conduit: Two 1/2" NPT conduit entries to eliminate cross feed between control, feedback, and power signals
- Position indication: Highly visible position indicator for positive position of valve
- Declutchable manual override: Push down on handle and rotate in the appropriate direction (CCW for open, CW for close)
- Limit switches: Standard end of travel limit switches can be used for light indication (not to be use with PLC for position confirmation)
- Corrosion resistant mounting: Mounting is with PPG or stainless steel bracket, stainless steel coupling, and stainless steel hardware
- CE compliant motor: All 120 VAC and 220 VAC motors are CE compliant and stamped as such
- Extended duty cycles: Our extended duty cycles are ideal for modulating and high cycling applications
- Output torque: Series 94 electric actuators have an output torque range from 150 in/lbs. to 300 in./lbs.
- Enclosure: Corrosion proof weatherproof rated Type 4X
- Captivated SS hex head slotted cover screws



Engineering Specifications

Size: A94, B94

Torque: 150-300 in/lbs

Voltage: 120 VAC 1Ph 50/60 Hz Amp Draw: A94 .5A, B94 .8A Conduit Entry: Two (2) 1/2" NPT Max Ambient Temperature: 150° F

Switches: Two single pole, double throw (Two SPDT)

15 amp rated

Cycle Time per 90°: A94, B94: 5 seconds

Options

- Auxiliary (additional) limit switches
- Heater and thermostat
- RHM (see page 199)
- Mechanical brake
- Transmitter
- Cycle length control module (CLC)
- Two-wire control
- Center-off
- Failsafe battery back up (Protek)
- Voltages
- Local Remote Station (LL200)

See page 187 for more details regarding options.

Engineering Data

| | Torque | 120 VAC | | 220 VAC | | 12 VDC | | 24 VDC | | 12 VDC | | 24 VAC | | Cycle Time per | Weight |
|-------|----------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|--------------------------|--------|
| Model | (in/lbs) | Amp Draw | Duty Cycle | 90 Degrees (seconds)* | (lbs) |
| A94 | 150 | 0.5 | 100% | 0.4 | 100% | 2.0 | 75% | 4.0 | 75% | 2.0 | 75% | 4.0 | 75% | 5 | 3.5 |
| B94 | 300 | 0.8 | 75% | 0.6 | 75% | 2.0 | 75% | 4.0 | 75% | 2.0 | 75% | 4.0 | 75% | 5 | 3.5 |

Note: Amp rating is considered locked rotor. Duty cycles are for ambient temperature (73° F).

^{*}Cycle times are approximate.



Series 94 - w/RHM

Electric Actuator

Standard Features

- Motor: Reversing, brushless, capacitor run 120 VAC 50/60 Hz, single phase
- Overload protection: Integral thermal overload protection for motor windings with automatic reset
- Gear train: Permanently lubricated, solid gear that is Rockwell hardened
- Corrosion resistant enclosure: Engineered resin rated
 Type 4X with stainless steel trim
- ISO mounting configuration: F05/14mm star
- Conduit: Two ½" FNPT conduit entries to eliminate cross feed between control, feedback, and power signals
- Position indication: Highly visible position indicator for positive position of valve
- Declutchable manual override: Push down on handle and rotate in appropriate direction (CCW for open/CW for close)
- Limit switches: Two (2) SPDT end of travel limit switches can be used for light indication (not to be use with PLC for position confirmation)
- RHM Module: Module consisting of a heater and thermostat, and 2-SPDT 8A dry contact relays for PLC position confirmation, or auxiliary equipment
- Captivated SS hexhead slotted enclosure screws
- Corrosion resistant mounting: Mounting is with PPG or SS bracket, SS coupling and SS fasteners
- CE compliant motor: All 120 VAC and 220 VAC motors are CE compliant stamped as such
- Extended duty cycles: Extended duty cycles are ideal for modulating and high cycling applications
- Output torque: Series 94 Electric Actuators have an output torque range from 150 in/lbs to 300 in/lbs
- Enclosure: Corrosion proof weather proof rated Type 4X



Engineering Specifications

Size: A94, B94

Torque: 150-300 in/lbs

Voltage: 120 VAC 1Ph 50/60 Hz Amp Draw: A94 .5A, B94 .8A Conduit Entry: Two (2) ½" FNPT Max Ambient Temperature: 150° F

Switches: Two (2) single pole, double throw

(2-SPDT) 15 amp rated

Cycle Time per 90°: A94, B94: 5 seconds

RHM Module: Heater and thermostat with two (2) SPDT 8A

dry contact relays (Auxiliary switches)

Options

- Feedback Potentiometer
- Positioner (modulating PCB)
- Transmitter
- Mechanical brake
- Cycle Length Control Module (CLC)
- Two-wire Control
- Failsafe Battery Back Up (Protek)
- Voltages
- HMI/LRS Control Station

Engineering Data

| | Torque | 120 VAC | | 220 VAC | | 12 VDC | | 24 VDC | | 12 VDC | | 24 VAC | | Cycle Time per | Weight |
|-------|----------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|--------------------------|--------|
| Model | (in/lbs) | Amp Draw | Duty Cycle | 90 Degrees (seconds)* | (lbs) |
| A94 | 150 | 0.5 | 100% | 0.4 | 100% | 2.0 | 75% | 4.0 | 75% | 2.0 | 75% | 4.0 | 75% | 5 | 3.5 |
| B94 | 300 | 0.8 | 75% | 0.6 | 75% | 2.0 | 75% | 4.0 | 75% | 2.0 | 75% | 4.0 | 75% | 5 | 3.5 |

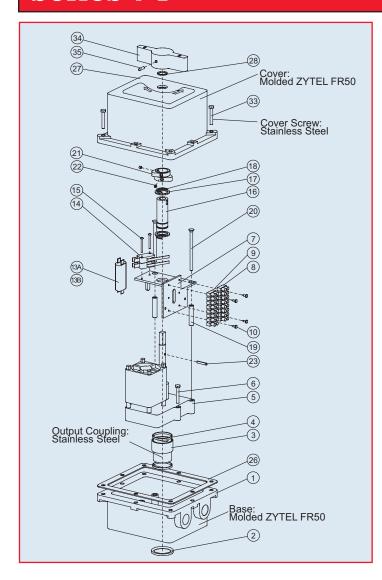
Note: Amp rating is considered locked rotor. Duty cycles are for ambient temperature (73° F).

^{*}Cycle times are approximate.



Series 94

Electric Actuator



(+) \oplus \oplus R0.070 Ø1,97 ISO F05 (+) (+) 4× M6×0.5 0.554+0.002 -0.000× 0.5 DEEP \oplus \oplus \oplus

General Parts List

| PARTS LIST | | | | | | | | | | |
|------------|-------------|----------|-----------------------|--|--|--|--|--|--|--|
| NO. | Part Number | Quantity | Description | | | | | | | |
| 1 | 7403002 | 1 | Base | | | | | | | |
| 2 | 7403000 | 1 | Base Seal | | | | | | | |
| 3 | 7403043 | 1 | Output Coupling | | | | | | | |
| 4 | 7403005 | 2 | Coupling Gasket | | | | | | | |
| 5 | 7403004 | 1 | Motor(120VAC) | | | | | | | |
| 6 | ACTMSC | 2 | Motor Screw | | | | | | | |
| 7 | 7403011 | 1 | Base Plate | | | | | | | |
| 8 | 7401420 | 1 | Terminal Block 1-8 | | | | | | | |
| 9 | 7401425 | 1 | Terminal Block 9-16 | | | | | | | |
| 10 | ACTMSC | 4 | Terminal Block Screw | | | | | | | |
| 13A | 7401948 | 1 | 4.2 mFD Capacitor-A94 | | | | | | | |
| 13B | 7402004 | 1 | 6.7 mFD Capacitor-B94 | | | | | | | |
| 14 | 7401460 | 2 | Limit Switch | | | | | | | |
| 15 | ACTMSC | 2 | Limit Switch Screw | | | | | | | |
| 16 | 7403016 | 1 | Outer Shaft | | | | | | | |
| 17 | 7403006 | 2 | Outer Shaft Gasket | | | | | | | |
| 18 | ACTMSC | 2 | Retaining Ring | | | | | | | |
| 19 | ACTMSC | 2 | Standoff | | | | | | | |
| 20 | ACTMSC | 2 | Base Plate Screw | | | | | | | |
| 21 | 7401480 | 2 | Cam | | | | | | | |
| 22 | ACTMSC | 4 | Cam Set Screw | | | | | | | |
| 23 | ACTMSC | 1 | Pin | | | | | | | |
| 26 | 7403007 | 1 | Base Gasket | | | | | | | |
| 27 | 7403001 | 1 | Cover | | | | | | | |
| 28 | 7403020 | 1 | Cover Seal | | | | | | | |
| 33 | ACTMSC | 8 | Cover Screw | | | | | | | |
| 34 | 7403003 | 1 | Handle | | | | | | | |
| 35 | 7401700 | 1 | Handle Screw | | | | | | | |

Sample Specification

All Series 94 electric actuators shall have a thermally protected, bi-directional (reversing type), capacitor run motor with a permanently lubricated gear train. 120 VAC and 220 VAC motors shall conform to CE and be indicated on motor housing. Actuator shall have a Zytel FR50 engineered resin housing with stainless steel trim, rated Type 4X. Each actuator to have a declutchable manual override, visual position indication, ISO mounting configuration, as manufactured by Asahi/America, Inc.