# Series 92

# **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 hardened steel gears
- Corrosion resistant housing: Thermally bonded powder coating rated Type 4X with stainless steel trim
- ISO mounting configuration: FO7/17mm star
- Conduit: Two 1/2" NPT conduit entries to eliminate cross feed between control, feedback, and power signals
- Position indication: Highly visible beacon position indicator for positive indication of valve position
- Declutchable manual override: Pull up on indicator knob, insert 5/8" wrench onto flats and rotate in the appropriate direction (CCW for open, CW for close). Models with handwheel override do not require a wrench. Simply push down on handwheel until engaged with cam and rotate
- Limit switches: Standard end of travel limit switches can be used for light indication (not to be use with PLC for position confirmation)
- Enclosure: Weatherproof enclosure rated Type 4X has a thermally bonded powder coat finish with SS trim
- Captivated SS hexhead slotted cover screws
- 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 92 electric actuators have an output torque range from 400 in./lbs. to 2,000 in./lbs.



### **Options**

- Auxiliary (additional) limit switches
- Heater and thermostat
- RHM (see page 189)
- Feedback potentiometer
- Positioner (modulating PCB)
- Mechanical brake
- Transmitter
- Cycle length control module (CLC)
- Two-wire control
- Failsafe battery back up (Protek)
- Voltages
- Local remote station (LL200)
- UL1203 explosion proof enclosure

## **Engineering Specifications**

Size: S92, A92, B92, C92 Torque: 400-2000 in/lbs

Voltage: 120 VAC 1Ph 50/60 Hz

Amp Draw: S92, B92 .5A, A92 .8A, C92 1.0A

Conduit Entry: Two (2) 1/2" NPT Max Ambient Temperature: 150° F

Switches: Two (2) single pole, double throw (2SPDT)

15 amp rated

75%

2.0

75%

Cycle Time per 90°: S92, A92: 15 seconds \* Approx.

B92, C92: 32 seconds\* Approx.

75%

#### 120 VAC 220 VAC **12 VDC** 24 VDC **12 VAC** Cycle Time per **24 VAC** Torque Weight Model 90 Degrees Duty Duty Amp Duty Amp Amp Amp Amp Duty Amp Duty Duty (in/lbs) (lbs) (seconds)\* Draw Draw Cycle Draw Cycle Draw Cycle Draw Cycle Draw Cycle Cycle S92 400 0.5 100% 0.4 100% 2.0 75% 4.0 75% 2.0 75% 3.0 75% 15 15.3 700 15.3 A92 0.8 75% 0.6 75% 2.0 75% 4.0 75% 2.0 75% 3.0 75% 15 B92 1100 0.5 100% Π4 100% 2.0 75% 4.0 75% 2.0 75% 30 75% 32 15.3

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

50%

Cycle times are approximate.

1.0

50%

0.6

2000

**Engineering Data** 

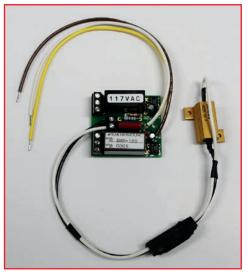
C92

32

75%

2.0

18.3



#### Specifications

Standard Operating Voltage: 120 VAC

Optional Voltages: 220 VAC, 12 VAC,

24 VAC, 12 VDC,

24.VDC

Operating Current: 42mA @ 120 VAC

39mA @ 220 VAC

89mA @ 12 VAC

43mA @ 24 VAC

37mA @ 12 VDC

23mA @ 24 VDC

Relay Outputs (Form C): 8A

Operating Temperature: -40 to 85 C

Approved for UL508 & UL1203 Actuators

## Series 92/Series 94 Optional RHM (Relay Heater Module)

The RHM (Relay Heater Module) is a means of powering an optional heater and thermostat without requiring an additional constant power source or wiring. These modules also provide open and close Form C dry contacts that replace auxiliary switches. A 2-pin terminal block provides wiring connection of the heater and thermostat, while two 3-pin terminal blocks provide easy connection to the relays by the user.

When the actuator is powered to open, the motor runs until the open limit switch is tripped, then sends power to the RHM open connection. At that time power is provided to the heater and thermostat, the open relay coil, and to the on board red LED. This provides contact closure at the end of the open cycle and confirms that power is provided to the heater and thermostat.

When the actuator is powered to close, the motor runs until the close limit switch is tripped, then sends power to the RHM close connection. At that time power is provided to the heater and thermostat, the close relay coil, and to the on board green LED. This provides contact closure at the end of the close cycle and confirms that power is provided to the heater and thermostat.

\*Power must be maintained at the end of travel for power to be applied to heater and thermostat. Also note that no power is provided to heater and thermostat when the actuator is in mid travel.

### AC Wiring (For 120 VAC and 220 VAC only)

