



## Series 92 Electric Actuators

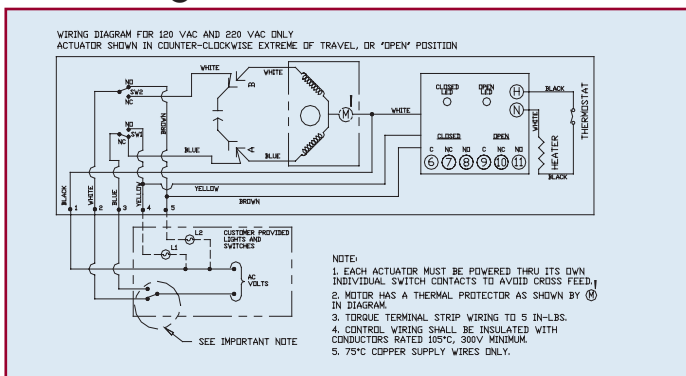
### Standard Features (Sizes 1/2" - 4")

- Brushless, capacitor-run motors (AC models)
- Integral thermal overload protection with auto-reset (AC models)
- Permanently lubricated gear train
- High duty cycle motor for high cycle applications
- Weatherproof enclosure rated Type 4X has a thermally bonded powder coat finish with SS trim
- ISO mounting
- Two 1/2" NPT conduit ports prevent interference between control and power signals
- Declutchable manual override
- Standard travel stop limit switches can simultaneously be used for indicator lights
- Highly visible position indicator
- Captivated SS hex head slotted cover screws
- RHM module (consists of 2-SPDT 8A relays/dry contacts) and heater and thermostat (see page 26)

### Options

- Fail safe battery pack
- Feedback potentiometer
- Positioner: 4-20 mA or 0-10 VDC input
- 4-20 mA output position transmitter
- Voltages: 220 VAC, 24 VAC, 12 VAC, 24 VDC, 12 VDC
- Mechanical brake (eliminates seating oscillation)
- Explosion-proof enclosure (UL1203)

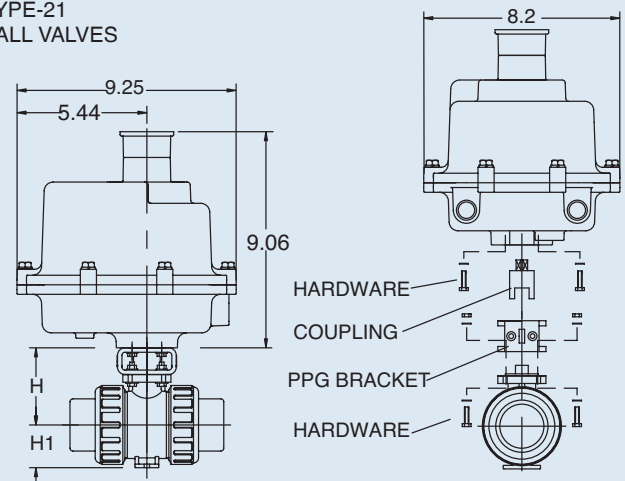
### AC Wiring (For 120 VAC and 220 VAC only)



### Specifications

- Motor Type:** Reversing, 1/4 turn single phase
- Sizes:** S92, A92 for sizes 1/2" - 4" ball valves
- Torque:** 400 to 700 in-lbs.
- Voltage:** 120 VAC, 50/60 Hz
- Amp Draw:** For S92: .50 Amps  
For A92: .80 Amps
- Max Ambient Temp:** 150° F
- Switches:** Two single pole, double throw (15 Amp rating)

SERIES 92 ON TYPE-21 BALL VALVES



### Engineering Data

Actuator Model	Torque (in-lbs.)	Duty Cycle	Cycle Time* (sec)	Weight (lbs.)	Amp Draw					
					120 VAC	220 VAC	24 VAC	12 VAC	24 VDC	12 VDC
S92	400	100	15	15.3	0.5	0.4	3.0	2.0	4.0	2.0
A92	700	75	15	15.3	0.8	0.6	3.0	2.0	4.0	2.0

Cycle times are approximate.

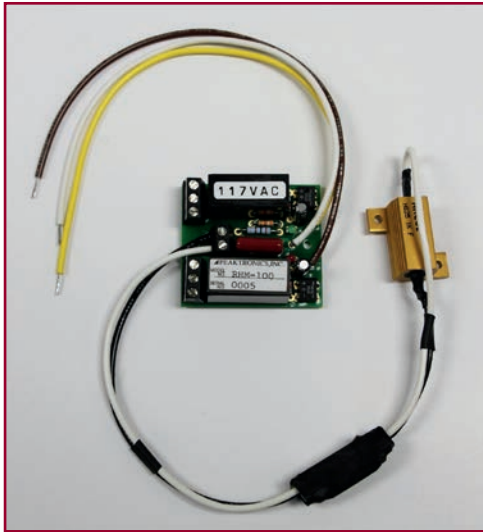
Duty cycle show for ambient temp. (73° F)

#### NOTE TO WIRING DIAGRAM:

1. EACH ACTUATOR MUST BE POWERED THROUGH ITS OWN INDIVIDUAL SWITCH CONTACTS TO AVOID CROSS FEED.
2. WIRING AS SHOWN IS FOR S92 AND A92 MODELS.
3. MOTOR HAS A THERMAL PROTECTOR AS SHOWN BY (M) IN DIAGRAM. (120 AND 220 VAC MODEL).
4. IF 120 & 220 VAC MODELS ARE PLC DRIVEN, OUTPUT CONTACTS OF PLC SHOULD BE RATED AT A MINIMUM OF 1.5 TIMES REQUIRED INPUT VOLTAGE OF ACTUATOR.

### Dimensions (in.)

NOMINAL SIZE		H	H1
INCHES	mm		
1/2	15	2.76	1.14
3/4	20	3.01	1.38
1	25	3.29	1.54
1-1/4	30	3.64	1.85
1-1/2	40	3.98	2.17
2	50	4.43	2.60
2-1/2	65	5.12	2.83
3	80	5.47	3.35
4	100	6.97	4.33



### 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)

