

# Spring Return Electric

Optional Manual Override Available



**NEMA 4 Enclosure**

A.C. Models Only  
(Canadian Standard Association)

CSA NRTL/C Type 4



**NEMA 7 Enclosure**

A.C. Models Only  
(Canadian Standard Association)

CSA NRTL/C Class I, Divisions 1 & 2,  
Groups C & D

CSA NRTL/C Class II, Divisions 1 & 2,  
Groups E, F, & G

CSA NRTL/C Approved to UL Standard No.  
429, Electrically Operated Valves

CSA NRTL/C Approved to UL Standard No.  
1203, Electrical Equipment for  
use in Explosion - proof  
And Dust - Ignition - proof  
Hazardous (Classified) Locations

## Models

SURE 24, SURE 25

## Typical Application

For on/off and modulating control of:

- Part turn ball, butterfly, plug valves or rotary dampers when emergency shutdown or shutoff capability is required in the event of a loss of power.

## Temperature Range

Standard: -40°F to +150°F  
-40°C to +65°C

Optional: -60°F to +150°F  
-50°C to +65°C

Optional: Compliance to NFPA 130, capable of operation after exposure to ambient temperature of 482°F (250°C) for a minimum of 1 hour

## Voltage

115 VAC, 1 Phase, 50/60 Hz.  
230 VAC, 1 Phase, 50/60 Hz.

## Torque Range

300 pound inches spring end (34 newton meters)

## Speed Range

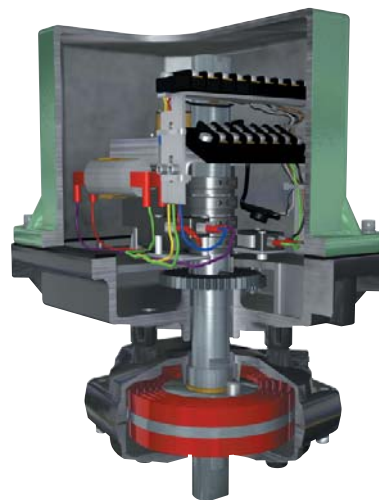
5 & 10 seconds for 90° revolution, motor operation  
2 to 5 seconds spring operation

## Spring

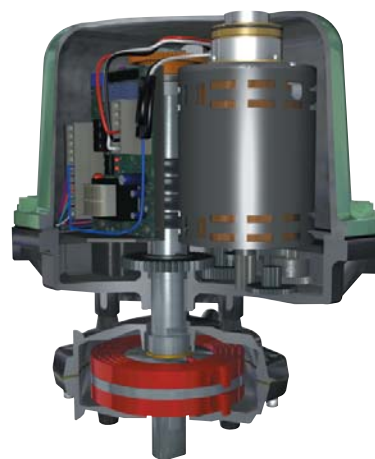
Flat, spring steel torsion spring, XYLAN® coated

## Standard Features

AC Voltages  
2 - SPDT Switches,  
PTC Heater, Motor Break



SURE 24

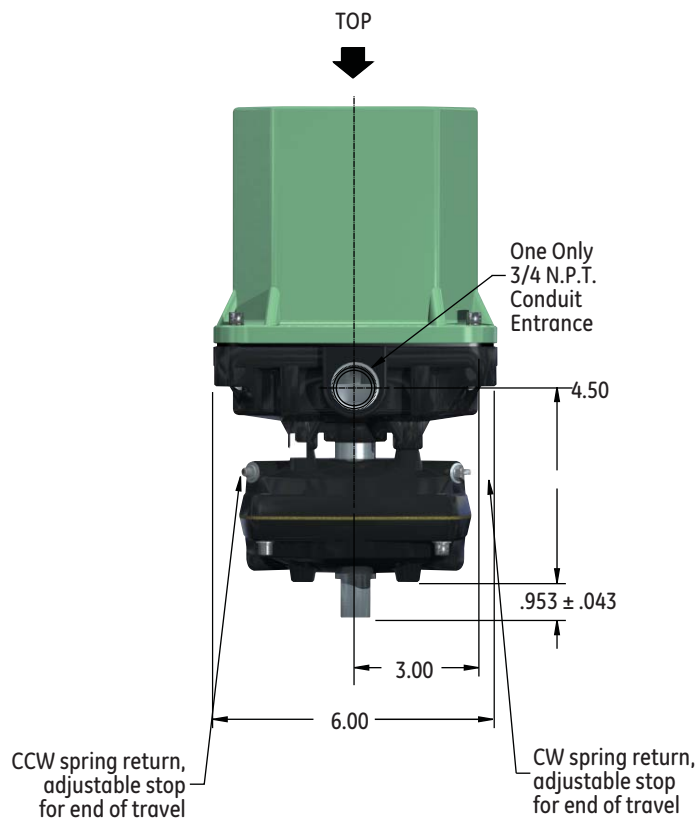
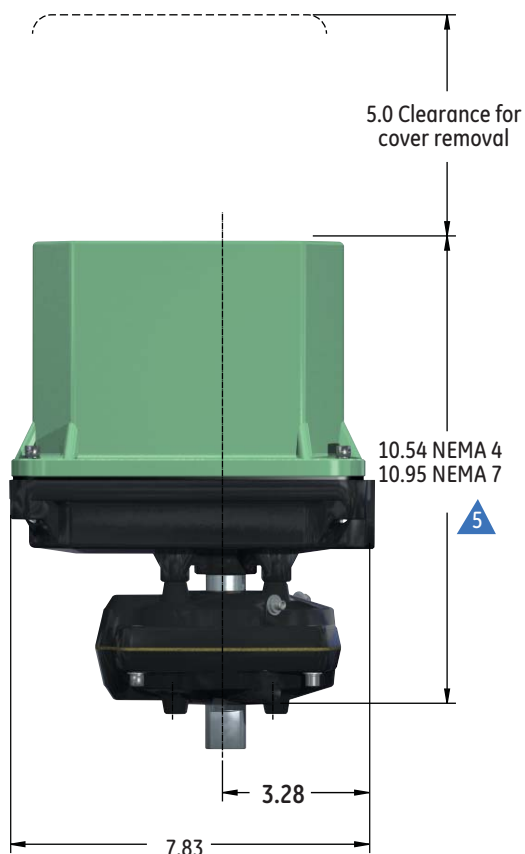


SURE 25

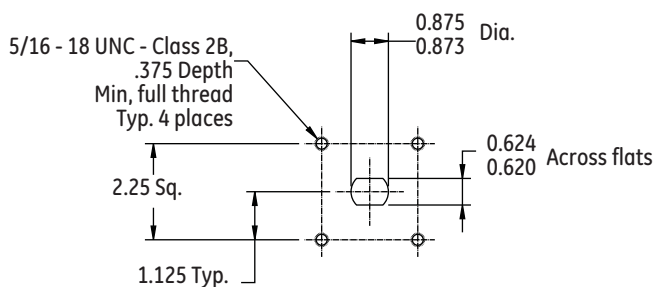
# Spring Return Electric

Outline Dimensions (Inches) – SURE 24/25

<b>Weight</b>
23 lbs/10.4 kg



## Mounting Geometry - Bottom View



## Notes

1. Direction of rotation is based on viewing actuator from top.
2. Drawing shows actuator output shaft in power fail clockwise position.
3. Standard unit fails clockwise (closed).
4. Optional unit fails counter-clockwise (open).
5. NEMA 4 cover shown. Dimensions given are accurate for NEMA 7.

# Spring Return Electric

Not Available with Manual Override



## NEMA 4/6/7 Enclosure

### Approvals

A.C. Models Only  
(Canadian Standard Association)

CSA NRTL/C Type 4 and 6

CSA NRTL/C Class I, Divisions 1 & 2,  
Groups C & D

CSA NRTL/C Class II, Divisions 1 & 2,  
Groups E, F & G

CSA NRTL/C Approved to UL Standard No.  
429, Electrically Operated Valves

CSA NRTL/C Approved to UL Standard No.  
1203, Electrical Equipment for  
use in Explosion - proof  
And Dust - Ignition - proof  
Hazardous (Classified) Locations

## Models

SURE 49

## Typical Application

For on/off and modulating control of:

- Part turn ball, butterfly, plug valves or rotary dampers when emergency shutdown or shutoff capability is required in the event of a loss of power

## Temperature Range

Standard: -40°F to +150°F  
-40°C to +65°C

Optional: -60°F to +150°F  
-50°C to +65°C

Optional: Compliance to NFPA 130, capable of operation after exposure to ambient temperature of 482°F (250°C) for a minimum of 1 hour

## Voltage

115 VAC, 1 Phase, 50/60 Hz.  
230 VAC, 1 Phase, 50/60 Hz.  
24 VAC, 1 Phase, 50/60 Hz.  
12 VDC, 24 VDC

## Torque Range

600 pound inches spring end  
(68 newton meters)

## Speed Range

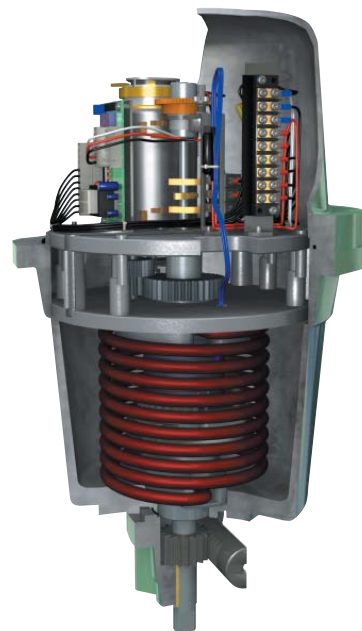
5, 15 & 30 seconds for  
90° revolution, motor  
operation  
2 to 5 seconds spring  
operation

## Spring

Helical torsion spring, spring  
steel XYLAN® coated

## Standard Features

AC Voltages  
4 - SPDT Switches, PTC  
Heater, Motor Break  
DC Voltages  
2 - SPDT (High Current)  
Switches, PTC Heater,  
Motor Break

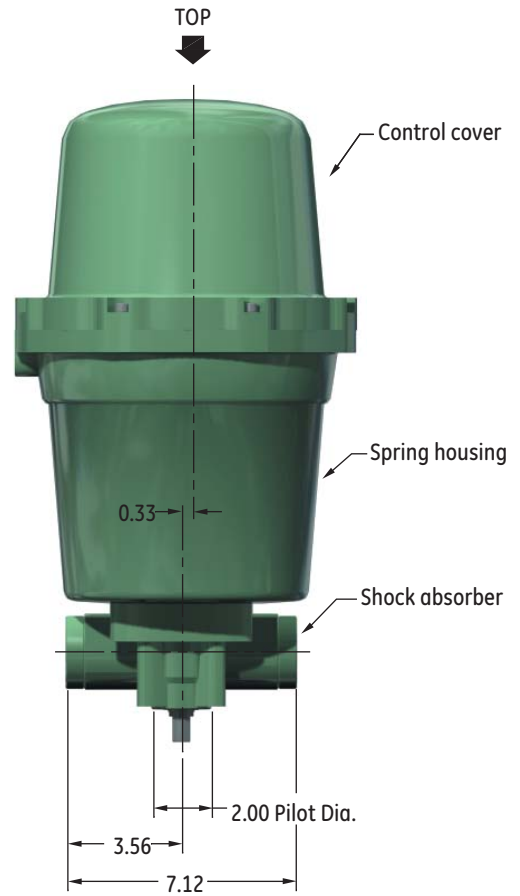
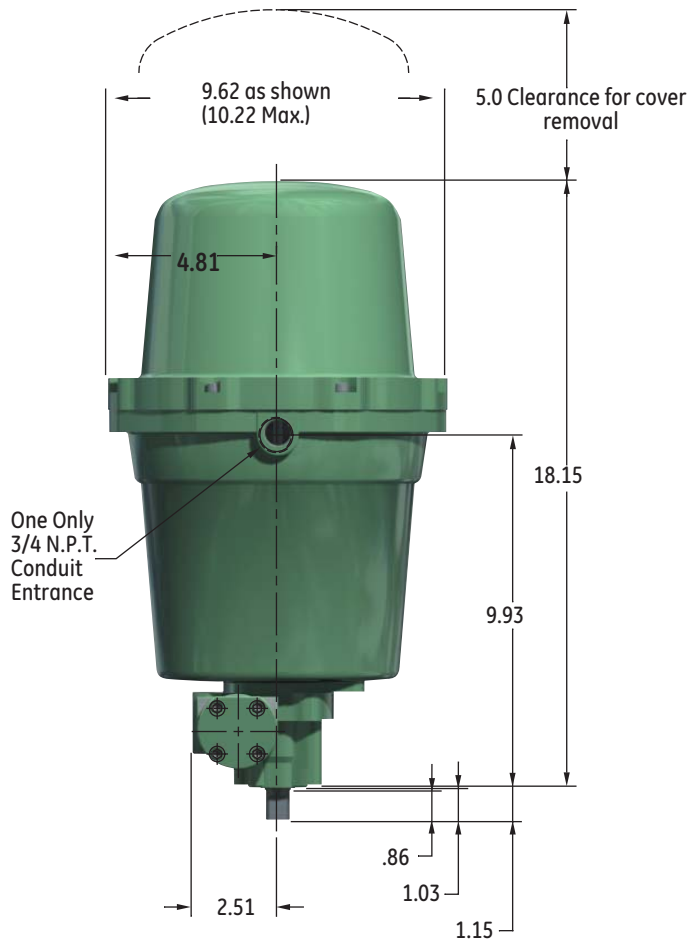


# Spring Return Electric

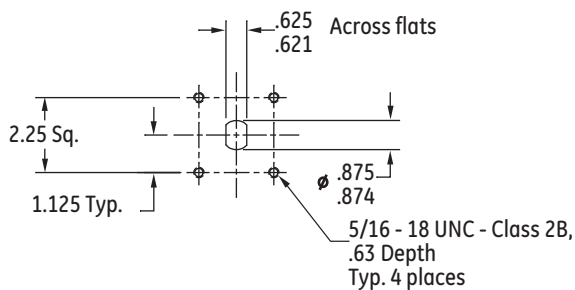
Outline Dimensions (Inches) – SURE 49

## Weight

NEMA 4/6/7 Enclosure: 49 lbs/22.2 kg



## Mounting Geometry - Bottom View



## Notes

1. Direction of rotation is based on viewing actuator from top.
2. Actuator shown in energized position.
3. It is recommended that the actuator be driven electrically in both directions for normal operation and prolonged life.

# Spring Return Electric

Optional Manual Override Available



## NEMA 4/6/7 Enclosure

Approvals

A.C. Models Only

(Canadian Standard Association)

CSA NRTL/C Type 4

CSA NRTL/C Class I, Divisions 1 & 2, Groups C & D

CSA NRTL/C Class II, Divisions 1 & 2, Groups E, F & G

CSA NRTL/C Approved to UL Standard No. 429, Electrically Operated Valves

CSA NRTL/C Approved to UL Standard No. 1203, Electrical Equipment for use in Explosion - proof And Dust - Ignition - proof Hazardous (Classified) Locations

## Models

SURE 100

## Typical Application

For on/off and modulating control of:

- Part turn ball, butterfly, plug valves or rotary dampers when emergency shutdown or shutoff capability is required in the event of a loss of power

## Temperature Range

Standard: -40°F to +150°F  
-40°C to +65°C

Optional: -60°F to +150°F  
-50°C to +65°C

Optional: Compliance to NFPA 130, capable of operation after exposure to ambient temperature of 482°F (250°C) for a minimum of 1 hour

## Voltage

115 VAC, 1 Phase, 50/60 Hz.  
230 VAC, 1 Phase, 50/60 Hz.

## Torque Range

1200 pound inches spring end  
(136 newton meters)

## Speed Range

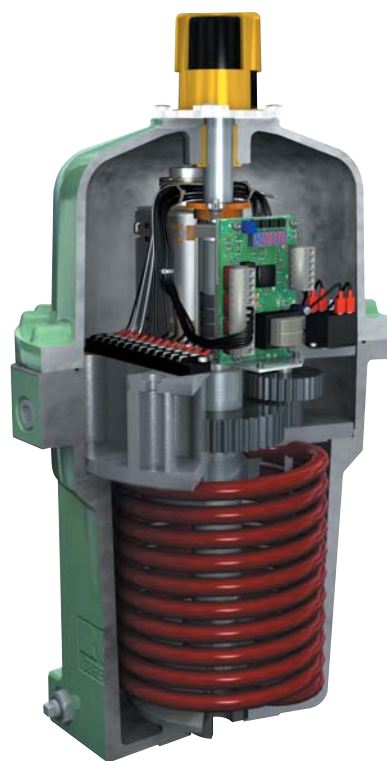
10 & 30 seconds for  
90° revolution, motor operation  
5 to 7 seconds spring operation

## Spring

Helical torsion spring, spring steel, XYLAN® coated

## Standard Features

AC Voltages  
4 - SPDT Switches, PTC  
Heater, Motor Break

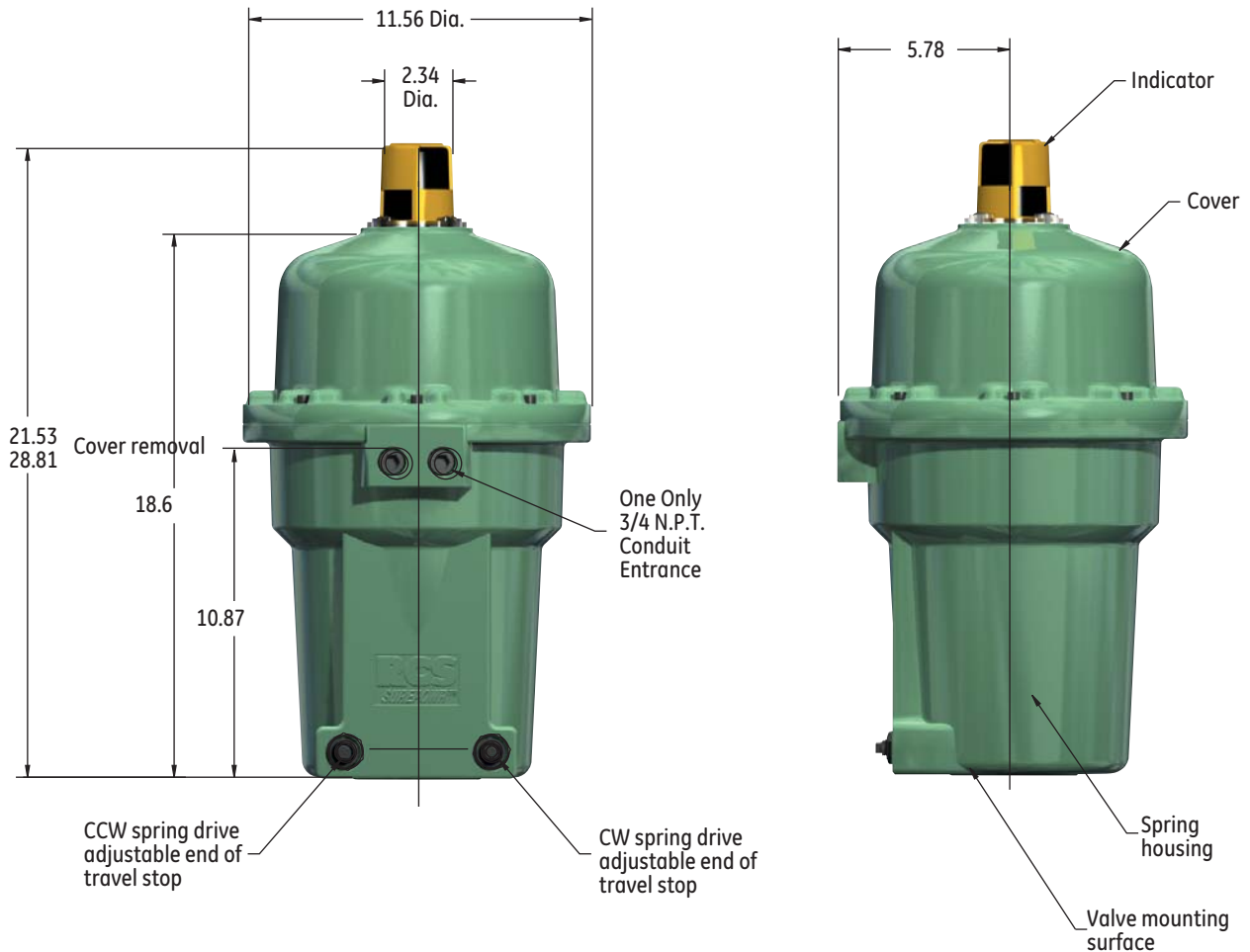


# Spring Return Electric

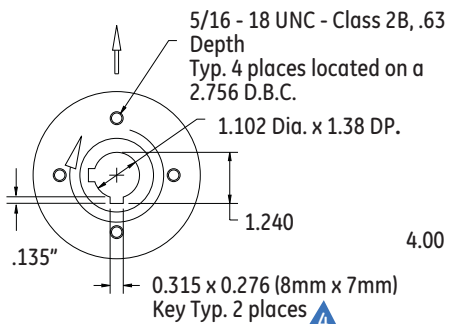
Outline Dimensions (Inches) – SURE 100

## Weight

NEMA 4/6/7 Enclosure: 70 lbs/31.8 kg

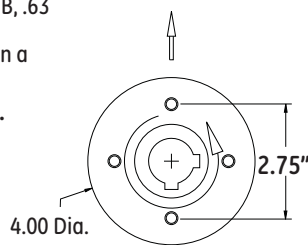


## Conduit Entries



CCW Spring Return

## Conduit Entries



CW Spring Return

## Notes

1. Direction of rotation is based on viewing actuator from top.
2. Actuator shown in a power fail position.
3. Mounting circle complies with ISO 5211 flange type F07 (except bolt thread). Bolt circle is on center line, not straddling center line.
4. Two keys are recommended for driving device.
5. It is recommended that the actuator be driven electrically in both directions for normal operation and prolonged life.

# Spring Return Electric

Optional Manual Override Available



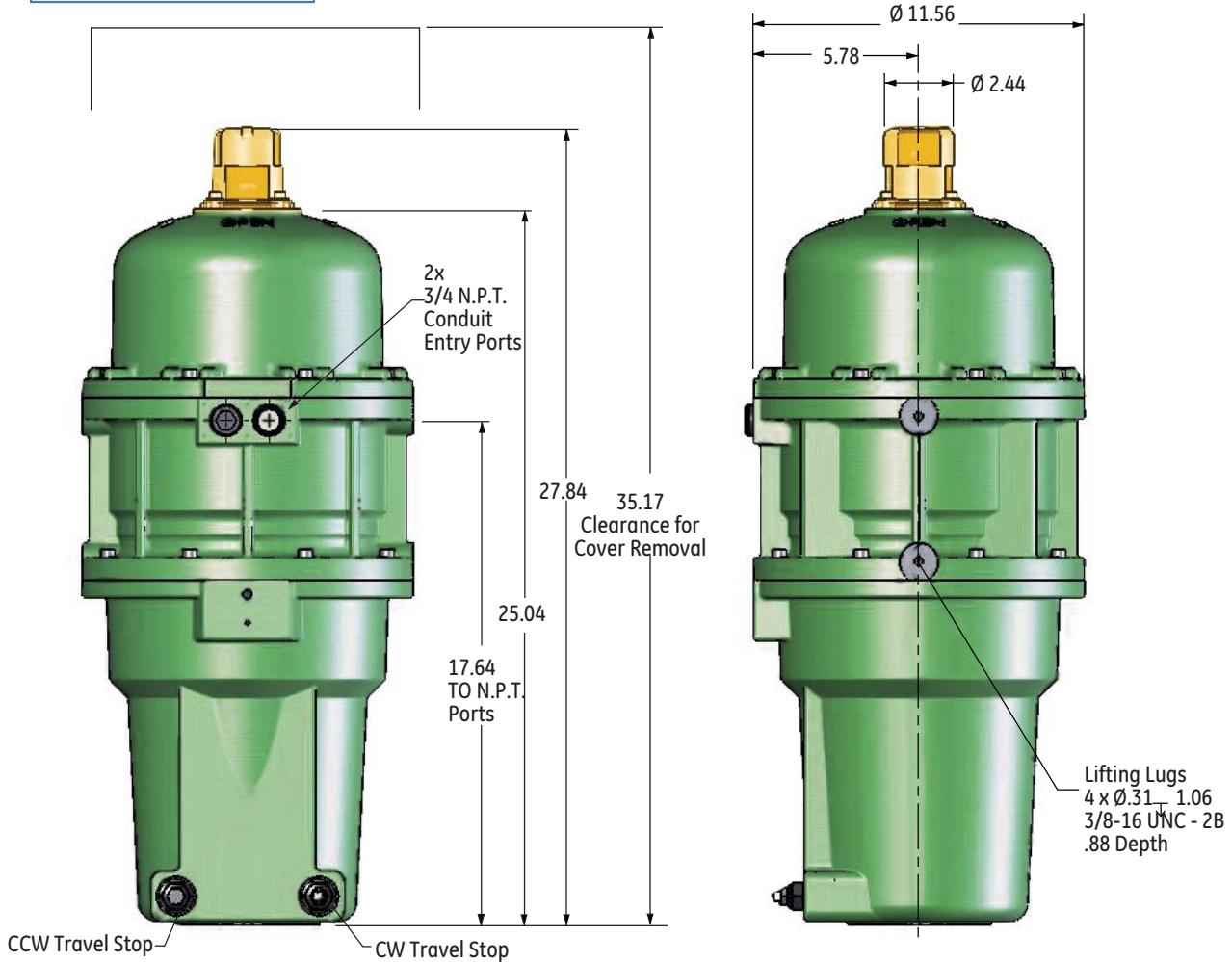
NEMA 4/6/7 Enclosure	
Approvals	
A.C. Models Only (Canadian Standard Association) - pending	
CSA NRTL/C	Type
CSA NRTL/C	Class I, Divisions 1 & 2, Groups C & D
CSA NRTL/C	Class II, Divisions 1 & 2, Groups E, F & G
CSA NRTL/C	Approved to UL Standard No. 429, Electrically Operated Valves
CSA NRTL/C	Approved to UL Standard No. 1203, Electrical Equipment for use in Explosion - proof And Dust - Ignition - proof Hazardous (Classified) Locations

<b>Models</b>
SURE 150
<b>Typical Application</b>
For on/off and modulating control of: <ul style="list-style-type: none"> <li>Part turn ball, butterfly, plug valves or rotary dampers when emergency shutdown or shutoff capability is required in the event of a loss of power</li> </ul>
<b>Temperature Range</b>
Standard: -40°F to +150°F -40°C to +65°C
Optional: -60°F to +150°F -50°C to +65°C
Optional: Compliance to NFPA 130, capable of operation after exposure to ambient temperature of 482°F (250°C) for a minimum of 1 hour
<b>Voltage</b>
115 VAC, 1 Phase, 50/60 Hz. 230 VAC, 1 Phase, 50/60 Hz.
<b>Torque Range</b>
1800 pound inches spring end (204 newton meters)
<b>Speed Range</b>
15 seconds for 90° revolution, motor operation 5 seconds spring operation
<b>Spring</b>
Helical torsion spring, spring steel, XYLAN® coated
<b>Standard Features</b>
AC Voltages 4 - SPDT Switches, PTC Heater, Motor Break

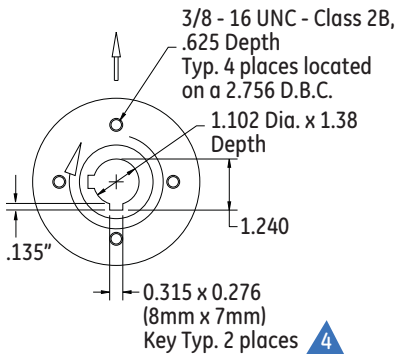
# Spring Return Electric

Outline Dimensions (Inches) – SURE 150

<b>Weight</b>
120 lbs/54.5.8 kg

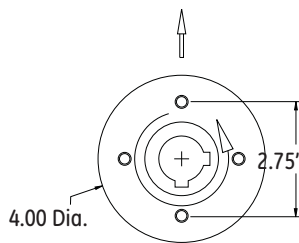


## Conduit Entries



CCW Spring Return

## Conduit Entries



CW Spring Return

## Notes

1. Direction of rotation is based on viewing actuator from top.
2. Actuator shown in a power fail position.
3. Mounting circle complies with ISO 5211 flange type F07 (except bolt thread). Bolt circle is on center line, not straddling center line.
4. Two keys are recommended for driving device.
5. It is recommended that the actuator be driven electrically in both directions for normal operation and prolonged life.



# Spring Return Electric

115 & 230 VAC, 1 Phase, 50/60 Hz.

Model	Output Torque Inch Pounds (N.m)	Electrical Speed of Operation 60 Hz. (50 Hz.)	Speed of Operation 60 Hz. (50 Hz.)	Duty Cycle Rating 115 VAC	Duty Cycle Rating 220 VAC	Current Ratings 115 VAC		Current Ratings 220 VAC	
						NLA*	LRA*	NLA*	LRA*
Sure 25-5	300 (34)	5 seconds/90° (6 seconds/90°)	2 seconds/90°	50% (1)	50% (1)	1.40	2.15	CF**	CF**
Sure 25-10	300 (34)	10 seconds/90° (12 seconds/90°)	2 seconds/90°	50% (2)	50% (2)	1.00	1.55	CF**	CF**
Sure 24-10	300 (34)	10 seconds/90° (12 seconds/90°)	2 seconds/90°	25% (1)	25% (1)	0.70	1.05	0.45	65%
Sure 49-5	600 (68)	5 seconds/90° (6 seconds/90°)	2 seconds/90°	25% (1)	25% (1)	1.10	1.80	1.00	1.20
Sure 49-15	600 (68)	15 seconds/90° (18 seconds/90°)	2 seconds/90°	25% (1)	25% (1)	0.55	1.55	0.35	0.90
Sure 49-30	600 (68)	30 seconds/90° (35 seconds/90°)	2 seconds/90°	50% (2)	50% (2)	0.65	0.70	0.30	0.35
Sure 100-10	1,200 (136)	10 seconds/90° (12 seconds/90°)	5 seconds/90° (max) +	25% (1)	25% (1)	1.90	2.90	0.90	1.35
Sure 100-30	1,200 (136)	30 seconds/90° (35 seconds/90°)	7 seconds/90° (max) +	50% (2)	50% (2)	0.65	0.95	0.35	0.45
Sure 150-15	1,800 (136)	15 seconds/90° (18 seconds/90°)	5 seconds/90° (max) +	25% (1), (2)	25% (1), (2)	1.90	2.90	0.90	1.35

## 24 VAC

Model	Output Torque Inch Pounds (N.m)	Electrical Speed of Operation 60 Hz. (50 Hz.)	Speed of Operation 60 Hz. (50 Hz.)	Duty Cycle Rating 115 VAC	Current Ratings 115 VAC	
					NLA*	LRA*
Sure 49-30	600 (68)	30 seconds/90° (35 seconds/90°)	2 seconds/90°	25% (2)	4.50	5.00

## 12 & 24 VDC

Model	Output Torque Inch Pounds (N.m)	Electrical Speed of Operation	Speed of Operation	Duty Cycle Rating 12 VDC	Duty Cycle Rating 24 VDC	Current Ratings 12 VDC		Current Ratings 24 VDC	
						NLA*	LRA*	NLA*	LRA*
Sure 49-5	600 (68)	5 seconds/90°	2 seconds/90° (1)	50% (1)	50%	1.00	22.00	1.00	12.30

\* (N.L.A.) — No Load Ampere

(L.R.A.) — Locked Rotor Ampere

(1) — Open/Close Service

(2) — Open/Close or Modulating Service

\*\* (CF) — Consult Factory

+ — Approximate, Based on Load

### Limit Switches (Sure 24 & 25)

**Standard:** Two-single pole, double throw type (SPDT) with an option for 2 or 4 additional.

**Ratings:** UL and CSA listed.  
MIL-PRF-8805 Qualified Listing  
25 amp at 277 VAC; 1 H.P. at  
125 VAC; 2 H.P. at 250 VAC

### Isolation Relays

To operate multiple actuators in parallel from a single signal requires isolating relays in the field wiring. Consult factory.

### Limit Switches (Sure 49, 100 7 150)

**Standard:** Four-single pole, double throw type (SPDT) with an option for 2 additional.

**Ratings:** Ratings: UL and CSA listed.  
15 amp & 1/2 H.P. at 125 or  
250 VAC  
1/2 amp at 125 VDC; 1/4 amp  
at 250 VDC  
Lamp Load: 5 amp at 120 VAC

**Optional:** All double pole, double throw type (DPDT).

**Ratings:** Ratings: UL and CSA listed.  
10 amp at 125 or 250 VAC (form ZZ)  
1/2 H.P. at 125 VDC; 3/4 H.P. at  
250 VDC

### Heater

PTC (Positive Temperature Coefficient)  
Heater standard in an AC Voltage Models

### Duty Cycle

The percentage of time the electric motor is energized vs. the time it is at rest, in reversing duty and with the actuator running at it's rated load - maximum published torque.

### Standard Modulating Duty Rating

- 12 motor starts (corrections) per minute.
- At the rated duty cycle for that model.
- With the speed of operation a minimum of 15 seconds for 90° or slower.
- With positioning accuracy of (+/-) 1% of total span.

# Mountain Controls



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Air Movers

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**BELLOFRAM**  
Precision Controls

Precision Air Regulators  
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**BelGAS**  
A Division of Emerson

Temperature Indicators  
Temperature Switches  
Capillary Bulb Type



**Marshalltown-Tempco**



**MOORE INDUSTRIES**  
WORLDWIDE

Process Controllers  
Multi-Loop  
Process Indicators with Switches



**POWERS PROCESS CONTROLS**  
*Quality...Our Commitment*

Control Valves – Globe Type  
Temperature Regulators  
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Temperature Controllers



**RCS**

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Modulating Controllers  
Spring Return – SURE  
Mounting to your valves.



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Ball Valves – 3-piece  
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**VALVES**

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**Valve Actuator Mounting**

We stock electric actuators and can provide the mounting and testing to the valve of your choice

**Mountain Controls**

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