## RCS Actuators Sure 24, 25

## Optional Manual Override Available



NEMA 4


Sure 25

NEMA 4 Enclosure<br>Approvals (SURE 24 Only)<br>A.C. Models Only<br>Canadian Standards Association<br>Enclosure 4

## 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


## Temperature Range

| Standard: | $-40^{\circ} \mathrm{F}$ to $+150^{\circ} \mathrm{F}$ |
| :--- | :--- |
|  | $-40^{\circ} \mathrm{C}$ to $+65^{\circ} \mathrm{C}$ |
| Optional: | $-60^{\circ} \mathrm{F}$ to $+150^{\circ} \mathrm{F}$ |
|  | $-50^{\circ} \mathrm{C}$ to $+65^{\circ} \mathrm{C}$ |

Optional: Compliance to NFPA 130, capable of operation after exposure to ambient temperature of $482^{\circ} \mathrm{F}\left(250^{\circ} \mathrm{C}\right)$ for a minimum

NEMA 7 Enclosure
Approvals (SURE 24 Only)
A.C. Models Only

Canadian Standards Association
CSA NRTL/C—Class I, Divisions 1 and 2, Groups C and D
CSA NRTL/C—Class II, Divisions 1 and 2, Groups E, F and 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

Sure 24


## Model

Sure 24, Sure 25 loss of power. of one (1) hour.

## Voltage

115 VAC, 1 Phase, $50 / 60 \mathrm{~Hz}$.
230 VAC, 1 Phase, $50 / 60 \mathrm{~Hz}$.

## Torque Range

300 pound inches spring end (34 newton meters)

## Speed Range

5 and 10 seconds for $90^{\circ}$ revolution, motor operation
2 to 5 seconds, spring operation

## Spring

Helical torsion spring, spring steel, XYLAN ${ }^{\ominus}$ coated

## Special Features

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

115 and 230 VAC, 1 Phase, $50 / 60 \mathrm{~Hz}$.

| Model | Output Torque Inch Pounds (N.m) | Electrical Speed of Operation 60 Hz . $(50 \mathrm{~Hz}$.) | Spirit Speed of Operation | Duty Cycle <br> Rating <br> 115 Vac | Duty Cycle <br> Rating 220 Vac | Current Ratings$115 \mathrm{VAC}$ |  | Current Ratings 220 VAC |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | N.L.A.* | L.R.A.* | N.L.A.* | L.R.A.* |
| Sure 25-5 | 300 (34) | $\begin{gathered} 5 \text { seconds } / 90^{\circ} \\ \left(6 \text { seconds } / 90^{\circ}\right) \end{gathered}$ | 2 seconds $/ 90^{\circ}$ | 50\% <br> (1) | 50\% <br> (1) | 1.40 | 2.15 | CF** | CF** |
| Sure 25-10 | 300 (34) | 10 seconds/90 ${ }^{\circ}$ <br> ( 12 seconds $/ 90^{\circ}$ ) | 2 seconds/90 ${ }^{\circ}$ | $50 \%$ <br> (2) | $50 \%$ <br> (2) | 1.00 | 1.55 | CF** | CF** |
| Sure 24-10 | 300 (34) | 10 seconds/90 ${ }^{\circ}$ <br> ( 12 seconds $/ 90^{\circ}$ ) | 2 seconds $/ 90^{\circ}$ | $\begin{gathered} 25 \% \\ (1) \end{gathered}$ | $\begin{gathered} 25 \% \\ (1) \end{gathered}$ | 0.70 | 1.05 | 0.45 | 0.65 |
| Sure 49-5 | 600 (68) | 5 seconds/90 ${ }^{\circ}$ ( 6 seconds $/ 90^{\circ}$ ) | 2 seconds $/ 90^{\circ}$ | $\begin{gathered} 25 \% \\ (1) \end{gathered}$ | $\begin{gathered} 25 \% \\ (1) \end{gathered}$ | 1.10 | 1.80 | 1.00 | 1.20 |
| Sure 49-15 | 600 (68) | 15 seconds $/ 90^{\circ}$ $\left(18\right.$ seconds $/ 90^{\circ}$ ) | 2 seconds $/ 90^{\circ}$ | $\begin{gathered} 25 \% \\ (1) \\ \hline \end{gathered}$ | $\begin{gathered} 25 \% \\ (1) \\ \hline \end{gathered}$ | 0.55 | 1.55 | 0.35 | 0.90 |
| Sure 49-30 | 600 (68) | 30 seconds $/ 90^{\circ}$ <br> ( 35 seconds $/ 90^{\circ}$ ) | 2 seconds $/ 90^{\circ}$ | $\begin{gathered} 50 \% \\ (2) \end{gathered}$ | $\begin{gathered} 50 \% \\ (2) \end{gathered}$ | 0.65 | 0.70 | 0.30 | 0.35 |
| Sure 100-10 | 1200 (136) | 10 seconds $/ 90^{\circ}$ <br> (12 seconds/90 ${ }^{\circ}$ ) | $\begin{gathered} 5 \text { seconds } / 90^{\circ} \\ (\max ) \dagger \end{gathered}$ | $\begin{gathered} 25 \% \\ (1) \\ \hline \end{gathered}$ | $\begin{gathered} 25 \% \\ (1) \\ \hline \end{gathered}$ | 1.90 | 2.90 | 0.90 | 1.35 |
| Sure 100-30 | 1200 (136) | 30 seconds $/ 90^{\circ}$ <br> ( 35 seconds $/ 90^{\circ}$ ) | $\begin{gathered} 7 \text { seconds } / 90^{\circ} \\ (\max ) \dagger \end{gathered}$ | $\begin{gathered} 50 \% \\ (2) \end{gathered}$ | $\begin{gathered} 50 \% \\ (2) \end{gathered}$ | 0.65 | 0.95 | 0.35 | 0.45 |


| *(N.L.A.) - No Load Ampere | (L.R.A.) - Locked Rotor Ampere |
| :--- | :--- |
| **(CF) - Consult Factory | $\dagger$ - Approximate, Based on Load |

(1) - Open/Close Service
(2) - Open/Close or Modulating Service
${ }^{* *}(\mathrm{CF})$ - Consult Factory $\quad \dagger$ - Approximate, Based on Load

## 24 VAC

| Model | Output Torque <br> Inch Pounds <br> $($ N.m) | Electrical Speed <br> of Operation <br> $60 \mathrm{~Hz} .(50 \mathrm{~Hz})$. | Spring Speed of <br> Operation | Duty Cycle Rating <br> 24 VAC | Current Ratings <br> 24 VAC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sure 49-30 | $600(68)$ | 30 seconds $/ 90^{\circ}$ <br> $\left(35\right.$ seconds $\left./ 90^{\circ}\right)$ | 2 seconds $/ 90^{\circ}$ | $25 \%$ |  |
| L.R.A.* |  |  |  |  |  |

## 12 and 24 VDC

| Model | Output Torque Inch Pounds (N.m) | Electrical Speed of Operation 60 Hz . 50 Hz .) | Spring Speed of Operation | Duty Cycle Rating 115 VAC | Duty Cycle <br> Rating <br> 230 VAC | Current Ratings 12 VDC |  | Current Ratings 24 VDC |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | N.L.A.* | L.R.A.* | N.L.A.* | L.R.A.* |
| Sure 49-5 | 600 (68) | 5 seconds $/ 90^{\circ}$ ( 6 seconds $/ 90^{\circ}$ ) | 2 seconds $/ 90^{\circ}$ | 50\% <br> (1) | 50\% <br> (1) | 1.00 | 22.00 | 1.00 | 12.30 |

## Limit Switches (Sure 24 and 25)

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

## Limit Switches (24 VDC Models)

Ratings: UL and CSA listed.
MIL-PRF-8805 Qualified Listing 25 amp at $277 \mathrm{VAC} ; 1 \mathrm{H}$. 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 and 100)

Standard: Four-single pole, double throw type (SPDT) with an option: for 2 additional Ratings: UL and CSA listed. $15 \mathrm{amp} \& 1 / 2$ H.P. at 125 or 250 VAC; $1 / 2 \mathrm{amp}$ at $125 \mathrm{VDC} ; 1 / 4 \mathrm{amp}$ at 250 VDC; Lamp Load - 5 amp at 120 VAC Optional: All double pole, double throw type (DPDT).
Ratings: UL and CSA listed. 10 amp at $125 / 250 \mathrm{VAC}$ (form ZZ); $1 / 2$ H.P. at 125 VDC; $3 / 4$ H.P. at 250 VAC

## Heater

PTC (Positive Temperature Coefficient) Heater Standard in all 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 $90^{\circ}$ or slower.
- With positioning accuracy of (+/-) $1 \%$ of total span.


## Industrial Products Group <br> RCS Actuators

16240 Port Northwest Drive

## Houston, TX 77041

T: 832-590-2306

## RCS Actuators Sure 49

## NEMA 4/6/7 Enclosure



## Approvals

A.C. Models Only
Canadian Standards Association

CSA NRTL/C—Enclosure 4
CSA NRTL/C—Class I, Divisions 1 and 2, Groups C and D

CSA NRTL/C—Class II, Divisions 1 and 2, Groups E, F and 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

## Model



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 vapability is required in the event of a loss of power.
Temperature Range
Standard:
$-40^{\circ} \mathrm{F}$ to $+150^{\circ} \mathrm{F}$ $-40^{\circ} \mathrm{C}$ to $+65^{\circ} \mathrm{C}$
Optional: $-60^{\circ} \mathrm{F}$ to $+150^{\circ} \mathrm{F}$ $-50^{\circ} \mathrm{C}$ to $+65^{\circ} \mathrm{C}$

Optional: Compliance to NFPA 130, capable of operation after exposure to ambient temperature of $482^{\circ} \mathrm{F}\left(250^{\circ} \mathrm{C}\right)$ for a minimum of 1 hour.

## Voltage

115 VAC, 1 Phase, $50 / 60 \mathrm{~Hz}$.
230 VAC, 1 Phase, $50 / 60 \mathrm{~Hz}$.
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 and 30 seconds for $90^{\circ}$ revolution, motor operation
2 to 5 seconds, spring operation

## Spring

Helical torsion spring, spring steel, XYLAN ${ }^{\circledR}$ coated

## Special Features

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

115 and 230 VAC, 1 Phase, $50 / 60 \mathrm{~Hz}$.


## 24 VAC

| Model | Output Torque Inch Pounds (N.m) | Electrical Speed of Operation 60 Hz . ( 50 Hz .) | Spring Speed of Operation | Duty Cycle Rating 24 VAC | Current Ratings 24 VAC |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | N.L.A.* | L.R.A.* |
| Sure 49-30 | 600 (68) | 30 seconds $/ 90^{\circ}$ ( 35 seconds $/ 90^{\circ}$ ) | 2 seconds/90 ${ }^{\circ}$ | $\begin{gathered} 25 \% \\ (2) \end{gathered}$ | 4.50 | 5.00 |

24 VDC

| Model | Output Torque Inch Pounds (N.m) | Electrical Speed of Operation 60 Hz . $(50 \mathrm{~Hz}$.) | Spring Speed of Operation | Duty Cycle Rating 115 VAC | Duty Cycle <br> Rating <br> 230 VAC | Current Ratings 12 VDC |  | Current Ratings 24 VDC |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | N.L.A.* | L.R.A.* | N.L.A.* | L.R.A.* |
| Sure 49-5 | 600 (68) | $\begin{gathered} 5 \text { seconds } / 90^{\circ} \\ \left(6 \text { seconds } / 90^{\circ}\right) \end{gathered}$ | 2 seconds $/ 90^{\circ}$ | $\begin{gathered} 50 \% \\ (1) \end{gathered}$ | $50 \%$ <br> (1) | 1.00 | 22.00 | 1.00 | 12.30 |

## Limit Switches (Sure 24 and 25)

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

## Limit Switches (24 VDC Models)

Ratings: UL and CSA listed.
MIL-PRF-8805 Qualified Listing 25 amp at $277 \mathrm{VAC} ; 1$ 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 and 100)

Standard: Four-single pole, double throw type (SPDT) with an option: for 2 additional Ratings: UL and CSA listed.
$15 \mathrm{amp} \& 1 / 2$ H.P. at 125 or 250 VAC; $1 / 2 \mathrm{amp}$ at $125 \mathrm{VDC} ; 1 / 4 \mathrm{amp}$ at 250 VDC;
Lamp Load - 5 amp at 120 VAC
Optional: All double pole, double throw type (DPDT).
Ratings: UL and CSA listed. 10 amp at $125 / 250 \mathrm{VAC}$ (form ZZ); $1 / 2$ H.P. at 125 VDC; $3 / 4$ H.P. at 250 VAC

## Heater

PTC (Positive Temperature Coefficient)
Heater Standard in all 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 $90^{\circ}$ or slower.
- With positioning accuracy of (+/-) $1 \%$ of total span.


## Industrial Products Group

## RCS Actuators

16240 Port Northwest Drive
Houston, TX 77041

Toll Free: 1-800-945-9898
F: 713-849-2879

## Sure 65

## Spring-Return Electric Actuator



RCS Actuators, a division of Dresser Natural Gas Solutions, is pleased to introduce the latest expansion to the SurePowr ${ }^{\text {TM }}$ Spring-Return electric actuator product line:

- The Sure 65 Series Spring Return electric actuator, with an output torque of 780 inch-pounds ( 88 NM) and is available in either clockwise or counter-clockwise spring return on loss of power.
- ISO 5211 mounting configuration allows for direct installation without the need for mounting and adaption hardware.
- Integral travel stops are provided for precise mechanical limitation of travel in the spring fail position.
- The enclosure is suitable for installation in NEMA 4X and NEMA 6 environments (IP 66 and IP 67)
- Actuator is CSA certified for NEMA 7 and NEMA 9 hazardous environments (Class I, Division 1, Groups C \& D, and Class II, Division 1, Groups E, F, and G) and CSA Zone 1.
- ATEX and IECEx certifications are pending.
- The standard units are suitable for use in ambient temperatures ranging from $-40^{\circ} \mathrm{F}$ to $+150^{\circ} \mathrm{F}\left(-40^{\circ} \mathrm{C}\right.$ to $\left.+65^{\circ} \mathrm{C}\right)$.
- The powder-coated enclosure and stainless steel external hardware provides maximum corrosion resistance in the most challenging environments. Optional coatings are available for offshore or other severe conditions.
- The integral power spring is coated for corrosion resistance and will provide reliable spring movement in case of primary power loss.
- A high-visibility indicator is provided as standard for ease of visual position monitoring.
- A thermally protected motor with Class " $B$ " insulation is standard in all models, and is available in 120 and 240 VAC, 50/60 hertz.
- Precision gears are machined from high strength alloy steel, and heat treated for maximum strength and durability. The permanently lubricated gear train eliminates the need for periodic maintenance and upkeep.
- Standard features include end of travel limit switches, 2 additional SPDT dry contact auxiliary switches, thermostatcontrolled heater, and a motor brake for optimal performance.
- Accessories such as analog and digital control modules, interposing relays, and potentiometers are available to tailor the units to specific process requirements.
- The Sure 65 complies with the requirements of NFPA 130 \& NFPA 502 for service in elevated temperatures of $482^{\circ} \mathrm{F}$ $\left(250^{\circ} \mathrm{C}\right)$ for a minimum of one hour.
- Pending: Optional integral declutchable manual override with electrical interlock.


| Model | Input Voltage 1-Phase, 50/60 Hz. | Output Torque | Electrical Speed of Operation $90^{\circ}$ Revolution | Spring Speed of Operation $90^{\circ}$ Revolution~ | Duty Cycle <br> Rating** <br> ( $22.5^{\circ} \mathrm{C}$ ) | Current Rating |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | N.L.A. | F.L.A. | L.R.A. |
| Sure 65-10 | 120 VAC | 780 lb. in (88 N-m) | 10 Seconds | 3 Seconds | 45\% | 1.10 A | 1.60 A | 1.90 A |
| Sure 65-10 | 240 VAC | 780 lb . in (88 N-m) | 10 Seconds | 3 Seconds | 45\% | 0.80 A | 0.85 A | 0.98 A |
| Sure 65-30 | 120 VAC | 780 lb . in (88 N-m) | 30 Seconds | 7 Seconds | 75\% | 0.52 A | 0.64 A | 0.89 A |
| Sure 65-30 | 240 VAC | 780 lb. in (88 N-m) | 30 Seconds | 7 Seconds | 75\% | 0.27 A | 0.32 A | 0.44 A |

(F.L.A.) - Full Load Ampere (N.L.A.) - No Load Ampere (L.R.A.) - Locked Rotor Ampere ~ Approximate, Based on Load -

Weight Without Manual Override [Lb/Kg] - 75/34


## Sure 65 Duty Cycle Ratings




[^0]** 240VAC Actuators Certified Duty Cycle Rating is $-40^{\circ} \mathrm{C}$ To $+40^{\circ} \mathrm{C}$ is $30 \%$ and $+40^{\circ} \mathrm{C}$ to $+65^{\circ} \mathrm{C}$ is $20 \%$ per UL429, 7th Ed., Clause 27

## Actuator Outline Dimensions

ALL DIMENSIONS ARE IN INCHES [MM]


Industrial Products Group
RCS Actuators
16240 Port Northwest Drive
Houston, TX 77041
T: 832-590-2306
Toll Free: 1-800-945-9898
F: 713-849-2879

DRESSEA NATURAL GAS SOLUTIONS

## RCS Actuators Sure 100

NEMA 4/6/7 Enclosure
Optional Manual Override Available


Approvals
A.C. Models Only
Canadian Standards Association

CSA NRTL/C—Enclosure 4 and 6
CSA NRTL/C—Class I, Divisions 1 and 2, Groups C and D
CSA NRTL/C—Class II, Divisions 1 and 2, Groups E, F and 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


## Model

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:
$-40^{\circ} \mathrm{F}$ to $+150^{\circ} \mathrm{F}$
$-40^{\circ} \mathrm{C}$ to $+65^{\circ} \mathrm{C}$
$-60^{\circ} \mathrm{F}$ to $+150^{\circ} \mathrm{F}$
$-50^{\circ} \mathrm{C}$ to $+65^{\circ} \mathrm{C}$

Optional:

Optional: Compliance to NFPA 130, capable of operation after exposure to ambient temperature of $482^{\circ} \mathrm{F}\left(250^{\circ} \mathrm{C}\right)$ for a minimum of 1 hour.

## Voltage

115 VAC, 1 Phase, $50 / 60 \mathrm{~Hz}$
230 VAC, 1 Phase, $50 / 60 \mathrm{~Hz}$

## Torque Range

1200 pound inches spring end ( 136 newton meters)

## Speed Range

10 and 30 seconds for $90^{\circ}$ revolution, motor operation 5 to 7 seconds, spring operation

## Spring

Helical torsion spring, spring steel, XYLAN ${ }^{\circledR}$ coated

## Special Features

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

115 and 230 VAC, 1 Phase, $50 / 60 \mathrm{~Hz}$

| Model | Output Torque Inch Pounds (N.m) | Electrical Speed of Operation 60 Hz . $(50 \mathrm{~Hz}$.) | Spirit Speed of Operation | Duty Cycle <br> Rating <br> 115 Vac | Duty Cycle Rating 220 Vac | Current Ratings$115 \text { VAC }$ |  | Current Ratings 220 VAC |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | N.L.A.* | L.R.A.* | N.L.A.* | L.R.A.* |
| Sure 25-5 | 300 (34) | 5 seconds/90 ${ }^{\circ}$ ( 6 seconds $/ 90^{\circ}$ ) | 2 seconds $/ 90^{\circ}$ | 50\% <br> (1) | 50\% <br> (1) | 1.40 | 2.15 | CF** | CF** |
| Sure 25-10 | 300 (34) | 10 seconds $/ 90^{\circ}$ <br> (12 seconds/90 ${ }^{\circ}$ ) | 2 seconds $/ 90^{\circ}$ | $\begin{gathered} 50 \% \\ (2) \end{gathered}$ | $50 \%$ <br> (2) | 1.00 | 1.55 | CF** | CF** |
| Sure 24-10 | 300 (34) | 10 seconds $/ 90^{\circ}$ $\left(12\right.$ seconds $/ 90^{\circ}$ ) | 2 seconds $/ 90^{\circ}$ | $\begin{gathered} 25 \% \\ (1) \end{gathered}$ | $\begin{gathered} 25 \% \\ (1) \\ \hline \end{gathered}$ | 0.70 | 1.05 | 0.45 | 0.65 |
| Sure 49-5 | 600 (68) | 5 seconds $/ 90^{\circ}$ ( 6 seconds $/ 90^{\circ}$ ) | 2 seconds $/ 90^{\circ}$ | $\begin{gathered} 25 \% \\ (1) \end{gathered}$ | $\begin{gathered} 25 \% \\ (1) \end{gathered}$ | 1.10 | 1.80 | 1.00 | 1.20 |
| Sure 49-15 | 600 (68) | 15 seconds $/ 90^{\circ}$ $\left(18\right.$ seconds $/ 90^{\circ}$ ) | 2 seconds $/ 90^{\circ}$ | $\begin{gathered} 25 \% \\ (1) \end{gathered}$ | $\begin{gathered} 25 \% \\ (1) \end{gathered}$ | 0.55 | 1.55 | 0.35 | 0.90 |
| Sure 49-30 | 600 (68) | 30 seconds $/ 90^{\circ}$ <br> ( 35 seconds $/ 90^{\circ}$ ) | 2 seconds $/ 90^{\circ}$ | $\begin{gathered} 50 \% \\ (2) \end{gathered}$ | $\begin{gathered} 50 \% \\ (2) \\ \hline \end{gathered}$ | 0.65 | 0.70 | 0.30 | 0.35 |
| Sure 100-10 | 1200 (136) | 10 seconds $/ 90^{\circ}$ $\left(12\right.$ seconds $/ 90^{\circ}$ ) | $\begin{gathered} 5 \text { seconds } / 90^{\circ} \\ (\text { max }) \dagger \end{gathered}$ | $\begin{gathered} 25 \% \\ (1) \end{gathered}$ | $\begin{gathered} 25 \% \\ (1) \end{gathered}$ | 1.90 | 2.90 | 0.90 | 1.35 |
| Sure 100-30 | 1200 (136) | 30 seconds $/ 90^{\circ}$ <br> ( 35 seconds $/ 90^{\circ}$ ) | $\begin{gathered} 7 \text { seconds } / 90^{\circ} \\ (\text { max }) \dagger \end{gathered}$ | $50 \%$ <br> (2) | $50 \%$ <br> (2) | 0.65 | 0.95 | 0.35 | 0.45 |


| $* *($ 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 | $\dagger-$ Approximate, Based on Load |  |  |

## 24 VAC

| Model | Output Torque Inch Pounds (N.m) | Electrical Speed of Operation 60 Hz . $(50 \mathrm{~Hz}$.) | Spring Speed of Operation | Duty Cycle Rating 24 VAC | Current Ratings 24 VAC |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | N.L.A.* | L.R.A.* |
| Sure 49-30 | 600 (68) | 30 seconds $/ 90^{\circ}$ ( 35 seconds $/ 90^{\circ}$ ) | 2 seconds/90 ${ }^{\circ}$ | $\begin{gathered} 25 \% \\ (2) \end{gathered}$ | 4.50 | 5.00 |

## 24 VDC

| Model | Output Torque Inch Pounds (N.m) | Electrical Speed of Operation 60 Hz . 50 Hz .) | Spring Speed of Operation | Duty Cycle Rating 115 VAC | Duty Cycle <br> Rating <br> 230 VAC | Current Ratings 12 VDC |  | Current Ratings 24 VDC |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | N.L.A.* | L.R.A.* | N.L.A.* | L.R.A.* |
| Sure 49-5 | 600 (68) | 5 seconds $/ 90^{\circ}$ <br> (6 seconds/90 $)$ | 2 seconds/90 ${ }^{\circ}$ | 50\% <br> (1) | 50\% <br> (1) | 1.00 | 22.00 | 1.00 | 12.30 |

## Limit Switches (Sure 24 and 25)

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

## Limit Switches (24 VDC Models)

Ratings: UL and CSA listed.
MIL-PRF-8805 Qualified Listing.
25 amp at $277 \mathrm{VAC} ; 1$ 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 and 100)

Standard: Four-single-pole, double throw type (SPDT) with an option: for 2 additional Ratings: UL and CSA listed. 15 amp and $1 / 2$ H.P.at 125 or 250 VAC; $1 / 2 \mathrm{amp}$ at $125 \mathrm{VDC} ; 1 / 4 \mathrm{amp}$ at 250 VDC;
Lamp Load - 5 amp at 120 VAC
Optional: All double-pole, double throw type (DPDT).
Ratings: UL and CSA listed.
10 amp at $125 / 250 \mathrm{VAC}$ (form ZZ );
$1 / 2$ H.P. at 125 VDC; $3 / 4$ H.P. at 250 VAC

## Heater

PTC (Positive Temperature Coefficient) Heater Standard in all 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 its 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 $90^{\circ}$ or slower.
- With positioning accuracy of (+/-) $1 \%$ of total span.

Industrial Products Group<br>RCS Actuators<br>16240 Port Northwest Drive<br>Houston, TX 77041<br>T: 832-590-2306<br>Toll Free: 1-800-945-9898<br>F: 713-849-2879

## RCS Actuators Sure 150

## Spring Return Electric Actuator

Dresser Natural Gas Solutions (NGS) RCS Actuators provide a complete line of fail-safe, spring-return electric actuators to the automation market. The RCS SurePower line offers the Sure 150 Spring-return actuator, offering the following features:

- Spring-ending torque of 1,800 inch-pounds ( 204 Nm ), and available in either clockwise or counter-clockwise spring fail rotation. The spring is made from heat treated steel. Xylan ${ }^{\text {® }}$ coated for corrosion resistance.
- Enclosure is rated for NEMA 4X and NEMA 6 environments (IP 66 and IP 67), and for NEMA 7 and NEMA 9 hazardous environments (Class I, Divisions 1 \& 2, Groups C \& D, and Class II, Divisions 1 \& 2, Groups E, F, and G).
- Standard temperature range of $-40^{\circ} \mathrm{F}$ to $+150^{\circ} \mathrm{F}\left(-40^{\circ} \mathrm{C}\right.$ to $\left.+65^{\circ} \mathrm{C}\right)$
- Powder-coated enclosure and stainless steel external hardware for maximum corrosion resistance for service in the most challenging applications. Optional coatings are available for offshore or other severe conditions.
- High-visibility indicator is standard for ease of visual position monitoring.
- Thermally protected motor with Class " $B$ " insulation standard in all models.
- Permanently lubricated geartrain eliminates the need for periodic maintenance and upkeep. Special lubricants are available for elevated or low-temperature applications.
- All gears are made from high-alloy steel, precision machined and heat treated for maximum strength and durability.
- An extensive range of control accessories are available for the Sure 150 electric actuator, including modules for analog control and network communication requirements, such as Modbus ${ }^{\oplus}$, Profibus ${ }^{\circledR}$ DP, and DeviceNet ${ }^{\text {™ }}$.


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

| Model | Output Torque Inch Pounds (N.m) | Electrical Speed of Operation 60 Hz . $(50 \mathrm{~Hz}$.) | Spring Speed of Operation | Duty Cycle <br> Rating <br> 115 Vac | Duty Cycle <br> Rating <br> 220 Vac | Current Ratings 115 VAC |  | Current Ratings 220 VAC |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | N.L.A.* | L.R.A.* | N.L.A.* | L.R.A.* |
| Sure 150-15 | 1800 (204) | 15 seconds/90 <br> ( 18 seconds $/ 90^{\circ}$ ) | $\begin{gathered} 5 \text { seconds } / 90^{\circ} \\ (\max ) \dagger \end{gathered}$ | $\begin{gathered} 25 \% \\ (1),(2) \end{gathered}$ | $\begin{gathered} 25 \% \\ (1),(2) \end{gathered}$ | 1.90 | 2.90 | 0.90 | 1.35 |

[^1]
## Outline Dimensions (Inches) - (Sure 150)

Weight
120 pounds $/ 54.5 \mathrm{Kg}$


## Conduit Entry

Conduit Entry



Bore Depth -1.50" CW Spring Return

## Notes

1. Direction of rotation is based on viewing actuator from top.
2. Actuator shown in power fail position.
3. Two keys are recommended for driving device.
4. Actuator suitable for mounting in any orientation.

## Standard Features

- Four SPDT Limit Switches
- PTC Heater
- Motor Brake
- Position Indicator
- Adjustable Travel Stops in fail position


## Industrial Products Group

RCS Actuators
16240 Port Northwest Drive
Houston, TX 77041
T: 832-590-2306

## Mountain Controls



Salt Lake City, UT 84109
Phone: 801-487-8795

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Electric Actuators
Modulating Controllers
Spring Return - SURE
Mounting to your valves.

## Electric Actuators

Spring Return Electric Actuators

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Water - Air - Hot Water - Steam
Pilot Valves

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Electric actuators mounted and tested to the valve of your choice.
Custom lightweight actuators for compact solutions


[^0]:    ** 120VAC Actuators Certified Duty Cycle Rating is $-40^{\circ} \mathrm{C}$ To $+40^{\circ} \mathrm{C}$ is $25 \%$ and $+40^{\circ} \mathrm{C}$ to $+65^{\circ} \mathrm{C}$ is $20 \%$ per UL429, 7th Ed., Clause 27

[^1]:    *(N.L.A.) - No Load Ampere
    (L.R.A.) - Locked Rotor Ampere
    (1) - Open/Close Service
    (2) - Open/Close or Modulating Service
    † - Approximate, Based on Load

