## 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.


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