### Design Features

**Series 44000 On-Off Rotary Electric Actuators**

**Basic Actuator:**
- Torque Output Range - 347 lb.in. to 17,359 lb.in.
- Housing - NEMA 4X, watertight, corrosion-resistant, robust aluminum die-casting
- Electric Monitor - 120 VAC, single phase, 60 Hz totally enclosed, non-ventilated - high starting torque, reversible induction type, Class E insulation
- Thermal Overload Motor Protection - auto re-set thermal switches embedded in the motor windings - trip when the maximum winding temperature limit is exceeded
- Position Limit Switches - 2 x SPDT for Open and Close travel limit - easily adjustable, cam operated
- Position Indicator - mechanical dial type with highly visible yellow graduated indicator
- Space Heater - in the control's compartment
- Terminal Strip - refer to wiring diagrams for details
- Conduit Entries - 2 x 1/2" NPT, for motor and control
- Power Gears - alloy steel spur gears to final stage aluminum bronze worm sector gear
- Brake - an electro-mechanical brake is NOT required. The worm gear drive prevents back driving and hunting
- Bearings - high quality allow steel sleeve and ball bearings
- Manual Override - direct acting detachable handle
- Adjustable Mechanical Travel Stops
- Mounting Attitude - suitable for any attitude mounting
- Ambient Temperature Range - minus 13 degs F to +150 degs F
- Valve Mounting - directly to Center Line Valves, Series 200, 225, and 250 without brackets or drive adapters
- Certification and Approvals - CSA-NRTL/C, NEMA 4, 4X

**Optional Features:**
- 240 VAC/1/50-60Hz power
- 12/24 VDC 44005 through 44300
- 24 VAC/1/50-60Hz 44005 through 44400
- 2 x SPDT Auxiliary Switches
- Torque Limit Switches for Open and Close directions of travel
- Feedback Potentiometer - 500 ohm
- Feedback Transmitter - 4-20 mA
- De-clutchable Handwheel Override
- AWWA design - includes de-clutchable handwheel, Open/Close torque switches and Class B motor winding insulation

#### 44000 (ON/OFF) Standard Wiring

![44000 (ON/OFF) Standard Wiring Diagram]

#### 44000 (ON/OFF) With Open/Close Contact Output

![44000 (ON/OFF) With Open/Close Contact Output Diagram]
Series 44000M MODULATING Rotary Electric Actuators

Basic Actuator:
- Modulating Control Actuators - direct valve control by computer output, 4-20 mA and control signal, provides 4-20 mA output
- Torque Output Range - 347 lb.in. to 17,359 lb.in.
- Housing - NEMA 4X, watertight, corrosion-resistant, robust aluminum die-casting
- Electric Monitor - 120 VAC, single phase, 60 Hz totally enclosed, non-ventilated - high starting torque, reversible induction type, Class E insulation
- Thermal Overload Motor Protection - auto re-set thermal switches embedded in the motor windings - trip when the maximum winding temperature limit is exceeded
- Resolution - 100 to 400 increments through 90 degrees travel
- Power at Rest - 2VA
- Position Limit Switches - 2 x SPDT for Open and Close travel limit - easily adjustable, cam operated
- Position Indicator - mechanical dial type with highly visible yellow graduated indicator
- Space Heater - In the controls compartment
- Terminal Strip - refer to wiring diagrams for details
- Conduit Entries - 2 x 1/2" NPT, for motor and control
- Power Gears - alloy steel spur gears to final stage aluminum bronze worm sector gear
- Brake - an electro-mechanical brake is NOT required. The worm gear drive prevents back driving and hunting
- Bearings - high quality steel sleeve and ball bearings
- Manual Override - direct acting detachable handle
- Adjustable Mechanical Travel Stops
- Mounting Attitude - suitable for any attitude mounting
- Ambient Temperature Range - minus 13 degs F to +150 degs F
- Valve Mounting - directly to Center Line Valves, Series 220, 225, and 250 without brackets or drive adapters
- Certification and Approvals - CSA-NRTL/C, NEMA 4, 4X

Optional Features:
- 220 VAC/1/50-60Hz power
- 2 x SPDT Auxiliary Switches
- Input signal 4-20mA, 0-10 VDC
- Torque Limit Switches for Open and Close directions of travel
- De-clutchable Handwheel Override
- AWWA design - includes de-clutchable handwheel, Open/Close torque switches and Class B motor winding insulation

44000M (Modulating) Standard Wiring

44000M (Modulating) With Additional Limit Switches
# Engineering Data

## Series 44000 Electric Actuators

### Series 44000 On-Off Actuator Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>44005</th>
<th>44010</th>
<th>44200</th>
<th>44300</th>
<th>44400</th>
<th>44600</th>
<th>44700</th>
<th>44800</th>
<th>44900</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output Torque (lb.in)</td>
<td>347</td>
<td>434</td>
<td>868</td>
<td>1,736</td>
<td>3,472</td>
<td>5,208</td>
<td>8,680</td>
<td>13,019</td>
<td>17,359</td>
</tr>
<tr>
<td>N.m.</td>
<td>39.23</td>
<td>49.03</td>
<td>98.06</td>
<td>196.13</td>
<td>392.27</td>
<td>588.4</td>
<td>980.66</td>
<td>1471</td>
<td>1961.32</td>
</tr>
<tr>
<td>Duty Cycle</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>80%</td>
<td>75%</td>
<td>50 &amp; 80%</td>
<td>50 &amp; 80%</td>
<td>50 &amp; 80%</td>
</tr>
<tr>
<td>Travel Speed at 60 Hz (sec)</td>
<td>12.5</td>
<td>12.5</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>37.5</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Maximum Current (Amp @ 120/240VAC)</td>
<td>0.35/0.18</td>
<td>0.41/0.22</td>
<td>0.41/0.22</td>
<td>1.25/0.70</td>
<td>1.66/0.90</td>
<td>1.62/0.88</td>
<td>2.28/1.21</td>
<td>2.33/1.17</td>
<td>2.40/1.21</td>
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<tr>
<td>Enclosure Rating</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Weight (lb.)</td>
<td>4.4</td>
<td>8.8</td>
<td>8.8</td>
<td>17.2</td>
<td>18.7</td>
<td>44</td>
<td>46.2</td>
<td>48.4</td>
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### Series 44000M Modulating Actuator Specifications

<table>
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<th>Model</th>
<th>44010M</th>
<th>44200M</th>
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<th>44900M</th>
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<tbody>
<tr>
<td>Output Torque (lb.in)</td>
<td>434</td>
<td>868</td>
<td>1,736</td>
<td>3,472</td>
<td>8,680</td>
<td>13,019</td>
<td>17,359</td>
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<tr>
<td>N.m.</td>
<td>49.03</td>
<td>98.06</td>
<td>196.13</td>
<td>392.27</td>
<td>980.66</td>
<td>1471</td>
<td>1961.32</td>
</tr>
<tr>
<td>Resolution</td>
<td>1/100-1/400 steps through 90 degrees</td>
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<td></td>
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<tr>
<td>Power Consumption</td>
<td>70 VA</td>
<td>70 VA</td>
<td>200 VA</td>
<td>200 VA</td>
<td>350 VA</td>
<td>350 VA</td>
<td>350 VA</td>
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<tr>
<td>Power at Rest</td>
<td>2 VA</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duty Cycle</td>
<td>100%</td>
<td>100%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
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<tr>
<td>Enclosure Rating</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel Speed at 60 Hz (sec)</td>
<td>12.5</td>
<td>25</td>
<td>12.5</td>
<td>25</td>
<td>25</td>
<td>37.5</td>
<td>50</td>
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<tr>
<td>Insulation Resistance</td>
<td>100 M. ohm (500 VDC)</td>
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<tr>
<td>Maximum Current (Amp @ 120/240VAC)</td>
<td>0.65/0.35</td>
<td>0.65/0.35</td>
<td>1.8/0.9</td>
<td>1.8/0.9</td>
<td>2.8/1.4</td>
<td>3.4/1.7</td>
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<tr>
<td>Weight (lb.)</td>
<td>9.7</td>
<td>9.7</td>
<td>18</td>
<td>18</td>
<td>48.4</td>
<td>48.4</td>
<td>50.6</td>
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### Dimensions
#### Inches (Millimeters)

<table>
<thead>
<tr>
<th>Model</th>
<th>44005</th>
<th>44200 44010M 44200M</th>
<th>44300 44400 44300M 44400M</th>
<th>44600 44700 44600M 44700M</th>
<th>44800 44900 44800M 44900M</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>3.246 (82.5)</td>
<td>3.839 (97.5)</td>
<td>4.843 (123.0)</td>
<td>7.146 (181.8)</td>
<td>7.146 (181.8)</td>
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<tr>
<td>C</td>
<td>2.992 (76.0)</td>
<td>4.331 (110.0)</td>
<td>5.526 (133.6)</td>
<td>7.864 (199.5)</td>
<td>7.864 (199.5)</td>
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<tr>
<td>D</td>
<td>1.122 (28.5)</td>
<td>1.358 (34.5)</td>
<td>1.299 (33.0)</td>
<td>1.024 (26.0)</td>
<td>1.024 (26.0)</td>
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<tr>
<td>E</td>
<td>2.953 (75.0)</td>
<td>3.740 (95.0)</td>
<td>4.252 (108.0)</td>
<td>5.709 (145.0)</td>
<td>5.709 (145.0)</td>
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<tr>
<td>F</td>
<td>0.591 (15.0)</td>
<td>0.886 (22.5)</td>
<td>1.260 (32.0)</td>
<td>2.165 (55.0)</td>
<td>2.165 (55.0)</td>
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<tr>
<td>G</td>
<td>2.500 (63.5)</td>
<td>2.677 (68.0)</td>
<td>3.701 (94.0)</td>
<td>5.394 (137.0)</td>
<td>5.846 (148.5)</td>
</tr>
<tr>
<td>L1</td>
<td>2.008 (63.5)</td>
<td>2.146 (88.0)</td>
<td>2.461 (94.0)</td>
<td>4.134 (137.0)</td>
<td>4.134 (148.5)</td>
</tr>
<tr>
<td>L2</td>
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<td>3.228 (82.0)</td>
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<td>5.354 (136.0)</td>
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<td>P</td>
<td>2.362 (60.0)</td>
<td>2.756 (70.0)</td>
<td>3.307 (84.0)</td>
<td>4.567 (116.0)</td>
<td>4.567 (116.0)</td>
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<tr>
<td>N</td>
<td>2.756 (70.0)</td>
<td>2.756 (70.0)</td>
<td>2.756 (70.0)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>M1</td>
<td>1/2&quot; NPT</td>
<td>1/2&quot; NPT</td>
<td>1/2&quot; NPT</td>
<td>1/2&quot; NPT</td>
<td>1/2&quot; NPT</td>
</tr>
<tr>
<td>M2</td>
<td>1/2&quot; NPT</td>
<td>1/2&quot; NPT</td>
<td>1/2&quot; NPT</td>
<td>1/2&quot; NPT</td>
<td>1/2&quot; NPT</td>
</tr>
</tbody>
</table>

Dimensions are for basic actuator configuration. Consult factory for Center Line mounting details.
Actuator Overview

Adjustable mechanical stops, conduit entries and CSA label

Direct acting manual override

Power Gearing

Terminal strip, gearing, limit switch compartment

Final output sector gear and heavy duty bearings

Direct mounting detail

Data contained in this catalog is subject to change without notice
Flowseal/Center Line

Quarter Turn Product Line

Flowseal
High Performance Butterfly Valves
- Class 150-600
- Sizes 2" - 48"
- Wafer and Lug Body Styles
- Soft Seated: Zero Leakage
- Metal Seated: ASME Class IV Leakage
- Fire Safe: Meets API 607, Rev 4
- Metric Valves per ISO-5752
- Mil-Spec per Mil-V-24624(SH)
- Manual, Pneumatic and Electric Actuators

Center Line
Resilient Seated Butterfly Valves
- Rated to 150, 200 and 285 PSI Shut off
- Sizes 2" - 48"
- Wafer and Lug Body Styles
- Series 200 Cast or Ductile Iron Body
- Series 225-285 PSI Shut off
- Series 250 Carbon or Stainless Steel Body
- Series 400 Damper Style Valve
- Series 800 Fully Elastomer Lined Check Valve
- 2-way and 3-way Assemblies
- Manual, Pneumatic and Electric Actuators
Crane Valves North America
Thinking Globally

CENTER LINE®
Resilient Seated Butterfly and Check Valves

FLOWSEAL®
High Performance Butterfly Valves

FLOWSEAL MS®
Triple Offset Butterfly Valves

REVO®
Pneumatic Actuator

CRANE®
Cast Steel, Bronze, Iron and Alloy Valves

DUO-CHEK®
High Performance Wafer Check Valves

ALOYCO®
Corrosion Resistant Gate, Globe and Check Valves

JENKINS®
Bronze, Iron and Cast Steel and Alloy Valves

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