ELECTRIC ACTUATORS

EL-700

AVAILABLE IN:
120V, 220VAC & 24VDC
DESIGN FEATURES

VALTORC EL-700 On-Off Rotary Electric Actuator

Standard Features

**Torque Output Range:** 347 in-lb to 17,359 in-lb

**Housing:** NEMA 4, watertight, corrosion-resistant, powder coated, robust aluminum die cast

**Electric Motor:** 120VAC, single phase, 60Hz totally enclosed, non-ventilated, high starting torque, reversible induction type, Class F insulation

**Thermal Overload Motor Protection:** Auto reset thermal switch embedded in the motor winding - trips when the maximum winding temperature is exceeded

**Position Limit Switches:** 2 x SPDT for Open and Close travel limit - easily adjustable, cam operated

**Position Indicator:** Mechanical dome type with visible red/yellow closed/open indicator

**Terminal Strip:** Refer to wiring diagrams for details

**Conduit Entries:** 1 x 1/2” NPT for power and control wiring

**Power Gears:** Alloy steel spur gears to final stage aluminum bronze worm sector gear

**Break:** An electro-mechanical brake is NOT required. The worm gear drive prevents back driving and hunting

**Bearings:** High quality alloy steel sleeve and ball bearings

**Manual Override:** Handle

**Ambient Temperature Range:** -31°F to +150°F

**Certification and Approvals:** CE, NEMA 4X

**Internal Heater**

Optional Features

- 220V AC/1/50-60Hz power
- 12/24V DC
- 24V AC
- Torque Limit Switches for Close direction of travel
- Feedback Potentiometer - 1000ohm
- DeClutchable Handwheel Override
EL-700 On-Off Actuator Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>705</th>
<th>710</th>
<th>720</th>
<th>730</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>705</td>
<td>710</td>
<td>720</td>
<td>730</td>
</tr>
<tr>
<td>Output Torque (in-lb)</td>
<td>347</td>
<td>868</td>
<td>3472</td>
<td>17,359</td>
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<tr>
<td>Output Torque (Nm)</td>
<td>39.23</td>
<td>98.06</td>
<td>392.27</td>
<td>1961.32</td>
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<tr>
<td>Duty Cycle</td>
<td>75%</td>
<td>75%</td>
<td>50%</td>
<td>50%</td>
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<tr>
<td>Travel Speed at 60Hz (Sec)</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>50</td>
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<tr>
<td>Maximum Current (Amp. @ 110/220VAC)</td>
<td>.35/.18</td>
<td>.41/.22</td>
<td>1.66/.90</td>
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<td>Enclosure Rating</td>
<td>WATERTIGHT NEMA 4, NEMA 4X</td>
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<tr>
<td>Weight (lb)</td>
<td>5.7</td>
<td>8.2</td>
<td>16.1</td>
<td>24.7</td>
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EL-700 (ON/OFF) With Standard Limit Switches

- **Thermal Protector**
- **OLS 1 = Open Limit Switch**
- **OLS 2 = Open Direction Aux. Switch**
- **CLS 1 = Closed Limit Switch**
- **CLS 2 = Closed Direction Aux. Switch**

**Terminal Block**
- **Switching Control**
- **Auxiliary Contact**
- **Blue Heater Lead**

**Power Source**
- **AC 120V + 240V 60 Hz**

**External Wiring**
DESIGN FEATURES

VALTORC EL-700M Modulating Rotary Electric Actuator

Standard Features

**Control Module:** Direct Digital control input 4~20mA or 2-10VDC from controller. The module provides 4~20mA output for feedback

**Torque Output Range:** 868in-lb to 17,359in-lb

**Housing:** NEMA 4, watertight, corrosion-resistant, powder coated, robust aluminum die cast

**Electric Motor:** 120VAC, single phase, 60Hz totally enclosed, non-ventilated, high starting torque, reversible induction type, Class F insulation

**Thermal Overload Motor Protection:** Auto reset thermal switch embedded in the motor winding - trips when the maximum winding temperature is exceeded

**Resolution:** 80 steps (4-20mA) or 200 steps (2-10VDC) through 90° travel

**Power at Reset:** 2VA

**Position Indicator:** Mechanical dome type with visible red/yellow closed/open indicator

**Terminal Strip:** Refer to wiring diagrams for details

**Conduit Entries:** 2 x 1/2” NPT for power and control wiring

**Power Gears:** Alloy steel spur gears to final stage aluminum bronze worm sector gear

**Break:** An electro-mechanical brake is NOT required. The worm gear drive prevents back driving and hunting

**Bearings:** High quality alloy steel sleeve and ball bearings

**Manual Override:** Handle

**Ambient Temperature Range:** -31°F to +150°F

**Certification and Approvals:** CE, NEMA4X

Optional Features

- 220V AC/1/50-60Hz power
- 2 x SPDT Auxiliary Switches
- Torque Limit Switches for Close direction of travel
- DeClutchable Handwheel Override
- Space Heater
# MODULATING SPECIFICATIONS

## EL-700M Modulating Actuator Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>710M</th>
<th>720M</th>
<th>730M</th>
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<tr>
<td>Output Torque (in lb)</td>
<td>868</td>
<td>3472</td>
<td>17,359</td>
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<td>Output Torque (Nm)</td>
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<td>Resolution</td>
<td>80 (4-20mA) or 200 (2-10VDC) Steps</td>
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<td>Power At Rest</td>
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<td>Duty Cycle</td>
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<td>WATERTIGHT, NEMA 4, NEMA 4X</td>
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<tr>
<td>Travel Speed at 60Hz (sec)</td>
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<td>25</td>
<td>85</td>
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<tr>
<td>Insulation Resistance</td>
<td>100M ohm (500VDC)</td>
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<td>Maximum Current (Amp @ 110/220VAC)</td>
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<td>Weight (lb)</td>
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<td>16.5</td>
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![EL-700M Wiring Diagram](image)
## Dimensions

### Inches (Millimeters)

<table>
<thead>
<tr>
<th>Dimension Inches(mm)</th>
<th>705</th>
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<th>720</th>
<th>730</th>
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<td>4.528 (115)</td>
<td>5.551 (141)</td>
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<td>D</td>
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<td>0.63 (16)</td>
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<td>M3</td>
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<td>1/2 NPT</td>
<td>1/2 NPT</td>
<td>1/2 NPT</td>
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<td>2.913 (74)</td>
<td>2.913 (74)</td>
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<td>S</td>
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<td>4.724 (120)</td>
<td>4.724 (120)</td>
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<tr>
<td>T</td>
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<td>1.102 (28)</td>
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