

# VALTORC

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# ELECTRIC ACTUATORS

AVAILABLE IN:  
120V, 220VAC  
& 24VDC

# EL-700



## DESIGN FEATURES

### VALTORC EL-700 On-Off Rotary Electric Actuator

#### Standard Features

**Torque Output Range:** 347in-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

**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**



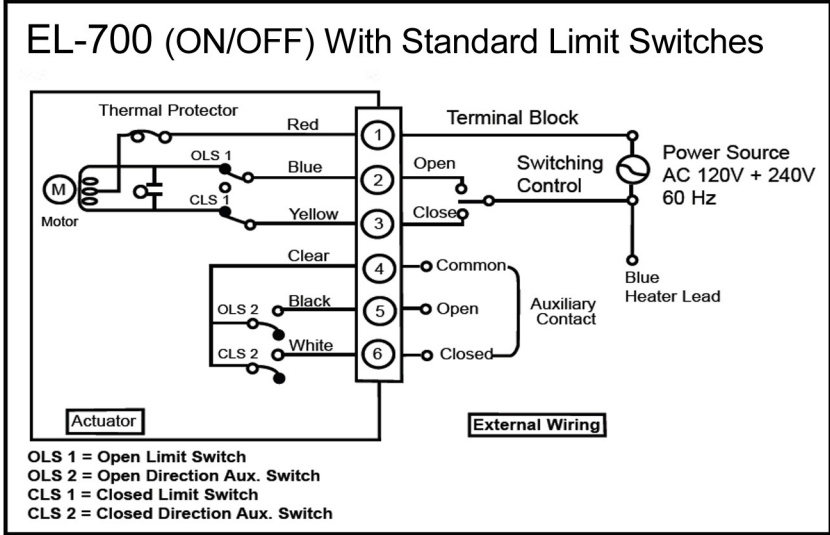
#### Optional Features

- 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

**ON-OFF SPECIFICATIONS**

**EL-700 On-Off Actuator Specifications**

Model	705	710	720	730
Output Torque(in-lb)	347	868	3472	17,359
Output Torque(Nm)	39.23	98.06	392.27	1961.32
Duty Cycle	75%	75%	50%	50%
Travel Speed at 60Hz(Sec)	25	25	25	50
Maximum Current (Amp. @ 110/220VAC)	.35/.18	.41/.22	1.66/.90	2.40/1.21
Enclosure Raiting	<b>WATERTIGHT NEMA 4, NEMA 4X</b>			
Weight(lb)	5.7	8.2	16.1	24.7





## 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

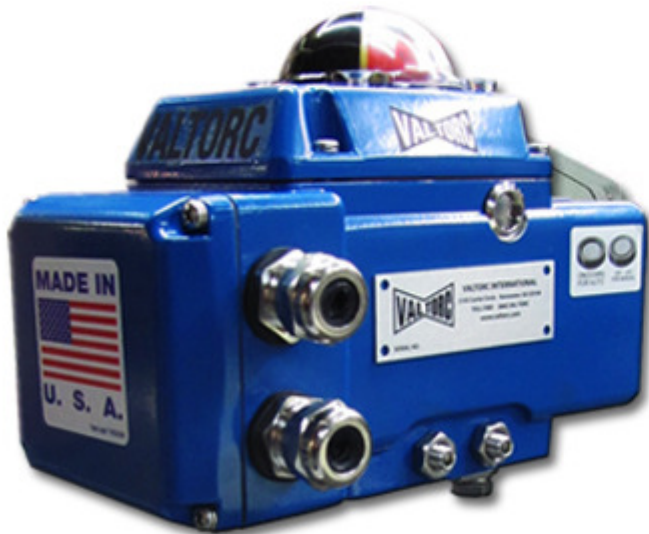
**Break:** An electro-mechanical brake is NOT required. The worm gear drive prevents back driving and hunting

**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



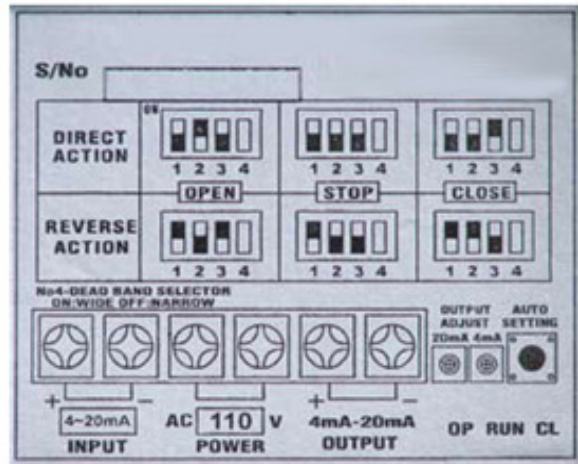
#### Optional Features

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

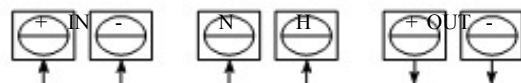
**MODULATING SPECIFICATIONS**

**EL-700M Modulating Actuator Specifications**

Model	710M	720M	730M
Output Torque(in lb)	868	3472	17,359
Output Torque(Nm)	98.06	392.27	1961.32
Resolution	80 (4-20mA) or 200 (2-10VDC) Steps		
Power Consumption	70VA	200VA	350VA
Power At Rest	2VA		
Duty Cycle	75%	50%	50%
Enclosure Rating	<b>WATERTIGHT, NEMA 4, NEMA 4X</b>		
Travel Speed at 60Hz(sec)	25	25	85
Insulation Resistance	100M ohm (500VDC)		
Maximum Current (Amp @ 110/220VAC)	65/35	1.8/9	3.2/1.6
Weight(lb)	8.6	16.5	26.1



**EL-700M WIRING DIAGRAM**



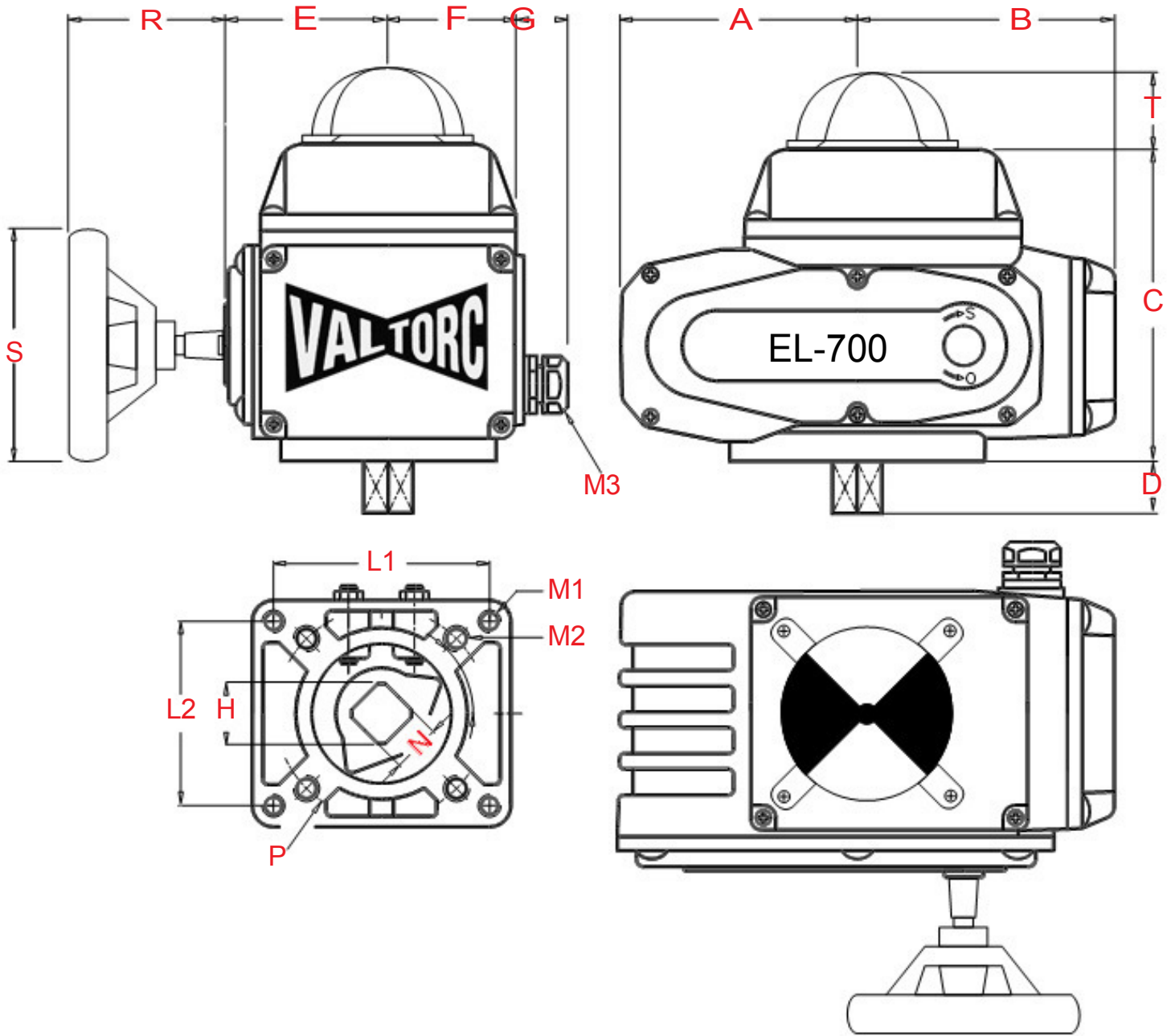
4-20mA/2-10VDC

AC110V

4-20mA

**DIMENSIONS**

**Dimensional Diagram**



## DIMENSIONS

**Dimensions**  
**Inches (Millimeters)**

<b>Dimension Inches(mm)</b>	<b>705</b>	<b>710 710M</b>	<b>720 720M</b>	<b>730 730M</b>
<b>A</b>	3.386 (86)	3.858 (98)	4.843 (123)	5.039 (128)
<b>B</b>	2.898 (74)	4.331 (110)	5.236 (133)	5.984 (152)
<b>C</b>	4.528 (115)	4.528 (115)	5.551 (141)	6.654 (169)
<b>D</b>	0.55 (14)	0.63 (16)	0.866 (22)	1.024 (26)
<b>E</b>	2.205 (56)	2.48 (63)	3.543 (90)	3.74 (95)
<b>F</b>	1.772 (45)	2.047 (52)	2.48 (63)	2.402 (61)
<b>G</b>	0.787 (20)	1.024 (26)	1.024 (26)	1.024 (26)
<b>L1</b>	2.677 (68)	3.228 (82)	4.646 (118)	5.827 (148)
<b>L2</b>	2.362 (60)	2.756 (70)	3.307 (84)	3.307 (84)
<b>P</b>	2.756 (70)	2.756 (70)	4.016 (102)	N/A
<b>N</b>	0.472 (12)	0.591 (15)	0.906 (23)	1.181 (30)
<b>H</b>	0.63 (16)	0.787 (20)	1.102 (28)	1.575 (40)
<b>M1</b>	M6 x 1	M6 x 1	M10 x 1.25	M12 x 1.25
<b>M2</b>	M8 x 1.25	M8 x 1.25	M10 x 1.25	
<b>M3</b>	1/2 NPT	1/2 NPT	1/2 NPT	1/2 NPT
<b>R</b>	2.913 (74)	2.913 (74)	2.913 (74)	2.913 (74)
<b>S</b>	4.724 (120)	4.724 (120)	4.724 (120)	4.724 (120)
<b>T</b>	1.102 (28)	1.102 (28)	1.102 (28)	1.102 (28)