

Features

- Miniature industrial quality quarter turn (90°) rotation
- Excellent power to size ratio only 4.6"H x 3"D
- Type 4X and IP67 weatherproof aluminum alloy enclosure
- Visual valve position indicator
- Manual override
- ISO5211 multi-flange valve mounting
- Heavy duty motor with overload protection
- Two auxiliary limit switches included with on-off models
- Self-locking all metal gear drive, no additional brake required
- EPS- Electronic Positioner models available
- Agency Approvals by CSA and CE

Applications

Industrial quality, extremely compact electric actuators are typically used to automate quarter turn (90°) ball valves and dampers. The 5617 series actuator is quick and easy to install with standard ISO5211 multi-flange mounting and a double square output drive. The actuator can be mounted in any orientation.

Operation

Electric actuator uses power-to-open and power-to-close, stays in the last known position with loss of power. On receipt of a continuous voltage signal, the motor runs and via a rugged all metal gear system rotates 90°. The motor is automatically stopped by internal cams striking limit switches. On receipt of a reversing continuous signal, the motor turns in the opposite direction reversing the output drive position. Actuators with EPS positioner use an analog input signal to control the drive output position. Rugged self-locking all metal gear train eliminates the need for additional braking.

Construction

Enclosure	Anti-corrosive coated aluminum alloy, Rated Type 4X and IP67
Output Drive	ISO5211 aluminum alloy, female double square
Visual Position Indicator	Yellow indicator with transparent clear cover
Gears	Rugged all metal flat and worm gears, self locking
Fasteners	Stainless Steel
Electrical Connections	Prewired cable with flying leads, 3 meters (9.8 feet)
Manual Override	Standard hex wrench (included) with protective cover
Motor	Heavy duty integral to housing
Product Nameplate	Metal with protective coating



Description

Excellent power to size ratio performance packed electric actuators take the valve automation industry to the next level. Features include compact size, rugged motor integral to actuator housing, all metal gears, manual override for emergency hand operation, visual valve position indicator and Type 4X and IP67 weatherproof enclosure. On-Off units include two auxiliary dry contact limit switches used to confirm valve position. Actuators with EPS positioner utilize a 4-20mA analog input signal to position the output drive anywhere between 0-90° and actuated valve flow can be controlled 0-100%.

Approvals



- CSA certified
 - Certified to UL429 and CSA C22.2 No.139-13
 - UL50E Type 4X weatherproof enclosure
- CE mark conformance– EN 60204-1:2006
 - ISO5211 mounting
 - IP67 weatherproof enclosure

Construction Features

Industrial quality actuator with excellent power to size ratio, only 4.6" height x 3" diameter

Auxiliary Limit Switches for confirming valve position standard in on-off units

Heavy duty integral motor design significantly reduces physical size of actuator

Electrical connection by prewired 3 meter (9.8 ft) cable with flying leads

ISO5211 International standard multi-flange valve mounting pad

Visual position indicator

Rugged aluminum alloy Type 4X and IP67 weatherproof enclosure

Self-locking all metal gear drive, no additional brake required

Manual Override with protective cover



Visual Valve Position Indicator

Available Actuated Models



Selection Guide

Stock Number	Torque		Voltage	Current F.L. Amps	Cycle Time* /90° (seconds)	Duty Cycle	Valve Mounting ISO5211	Square Output Drive	Agency Approvals	Enclosure Type
	Nm	in lbs								
ELECTRIC ACTUATORS OPEN-CLOSED version										
561701	16	140	AC110 50/60 Hz	0.3	12	60%	F03, F04, F05	11mm	CSA/CE	4X, IP67
561704	16	140	DC24	0.7	11	60%	F03, F04, F05	11mm	CSA/CE	4X, IP67
ELECTRIC ACTUATORS with EPS POSITIONER, 4-20mA INPUT										
561708	16	140	AC110 50/60 Hz	0.3	12	60%	F03, F04, F05	11mm	CSA/CE	4X, IP67
561709	16	140	DC24	0.7	15	60%	F03, F04, F05	11mm	CSA/CE	4X, IP67

* No load cycle times listed, full load cycle time 15 seconds

Voltage Tolerance: AC +/- 10%, DC +/- 5%

Electric Actuators

Valworx quarter turn electric actuators use power-to-open and power-to-close, stays in the last known position with loss of power. The actuator will rotate the output drive 90° to open or close ball valves or other type valves requiring a quarter turn function. Limit switches automatically stop the motor drive in either the open or closed position as required.

EPS - Electronic Positioning System

Valworx electric actuators with EPS- Electronic Positioning System provides an accurate valve positioning function whereby the movement of the actuator is controlled by a 4-20mA analog input control signal. Any change in the input signal results in a corresponding and proportional change in the position of the actuator output drive.

An internal microprocessor on the EPS circuit board continuously monitors the analog input and output signals and compares them to the physical position via a precision potentiometer feedback system, moving the actuator output as required to balance the signals.

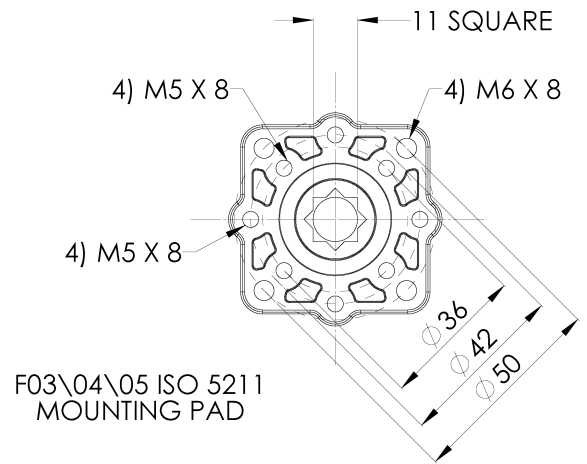
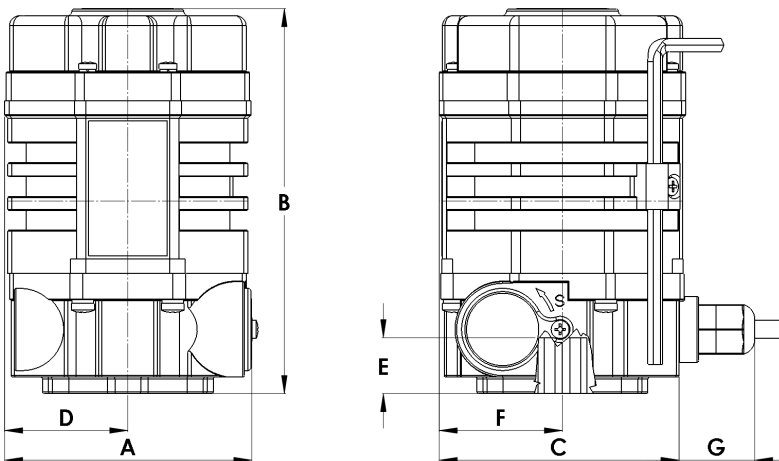
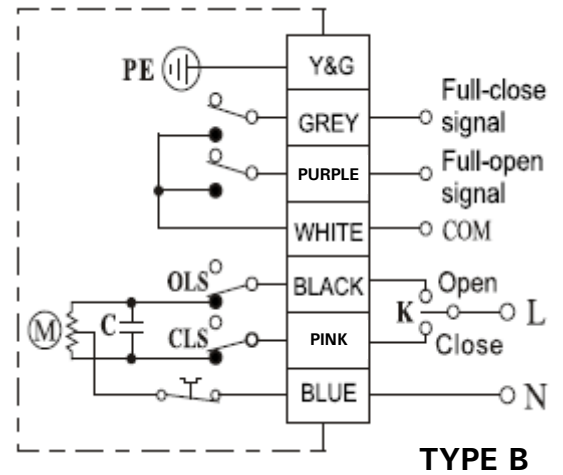
The EPS system is calibrated for 0-90° rotation at the factory. A 4-20mA output monitoring signal is provided as standard. The following functions are standard on the EPS module:

- Factory Calibration
- 4-20mA position output monitoring signal
- Selectable fail mode: Actuator will fail closed, fail open or stop in place (default setup) with loss of input command signal, provided main power is maintained. Actuator will stop in last known position with loss of main power.
- Local electrical manual operation using onboard switches (located under the top cover).
- Power on and diagnostic LED located under top cover.

Specifications	Stock Number 561701
Type Operation	On-Off (Open-Closed)
Max Torque	16 Nm / 140 inch lbs
Voltage	AC110 50/60Hz +/- 10%
Current - Full Load Amps	0.3 A
Working Time (0-90°/no load)	12 sec
Duty Cycle	60%
Enclosure	Aluminum alloy
Enclosure Protection	Type 4X & IP67 weatherproof
Electrical Connections	Prewired cable with flying leads 3 meter (9.8 feet)
Working Angle Std°	90°
Temperature Range	-13 to +131 °F (-25 to +55 °C)
Motor Protection	Thermal overload
Motor Limit Switches	2 x SPDT
Auxiliary Limit Switches (2)	3A@125/250VAC, 30VDC resistive
Anti-condensation Heater	none
Manual Override	Hex wrench
Valve Mounting per ISO5211	F03, F04, F05
Output Drive (female double sq.)	11mm
Weight	2.7 lbs (1.2 kg)



CSA Listed to UL429
and CSA C22.2

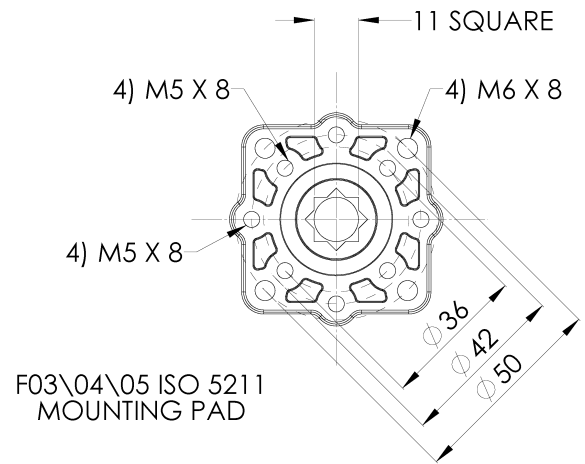
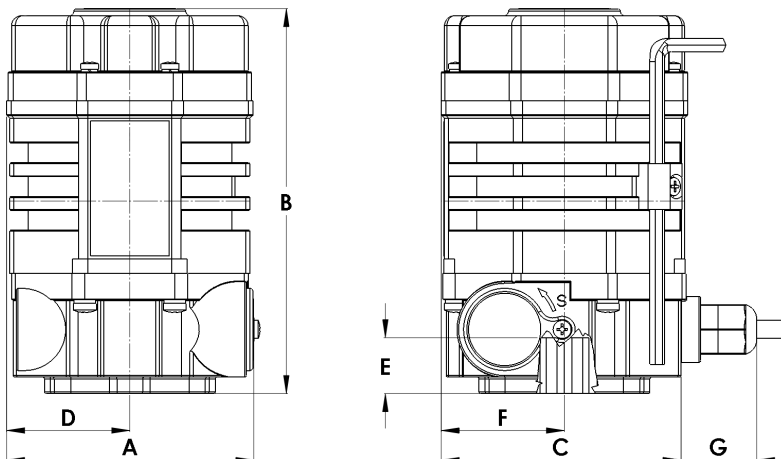
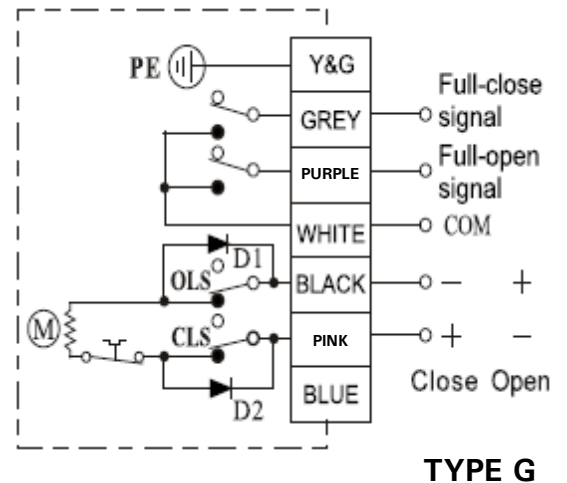


Stock Number		A	B	C	D	E	F	G	Weight
561701	inch	2.9	4.6	2.9	1.5	0.7	1.5	0.9	2.7 lbs
	mm	75.0	117.0	73.0	37.5	17.0	37.5	23.0	1.2 kg

Specifications	Stock Number 561704
Type Operation	On-Off (Open-Closed)
Max Torque	16 Nm / 140 inch lbs
Voltage	DC24 +/- 5%
Current - Full Load Amps	0.7 A
Working Time (0-90°/no load)	11 sec
Duty Cycle	60%
Enclosure	Aluminum alloy
Enclosure Protection	Type 4X & IP67 weatherproof
Electrical Connections	Prewired cable with flying leads 3 meter (9.8 feet)
Working Angle Std°	90°
Temperature Range	-13 to +131 °F (-25 to +55 °C)
Motor Protection	Thermal overload
Motor Limit Switches	2 x SPDT
Auxiliary Limit Switches (2)	3A@125/250VAC, 30VDC resistive
Anti-condensation Heater	none
Manual Override	Hex wrench
Valve Mounting per ISO5211	F03, F04, F05
Output Drive (female double sq.)	11mm
Weight	2.7 lbs (1.2 kg)



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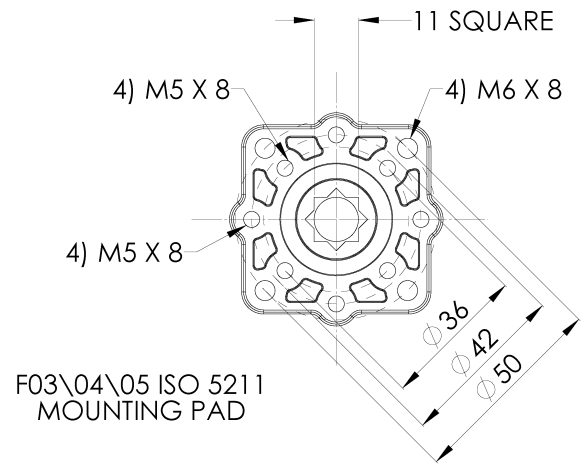
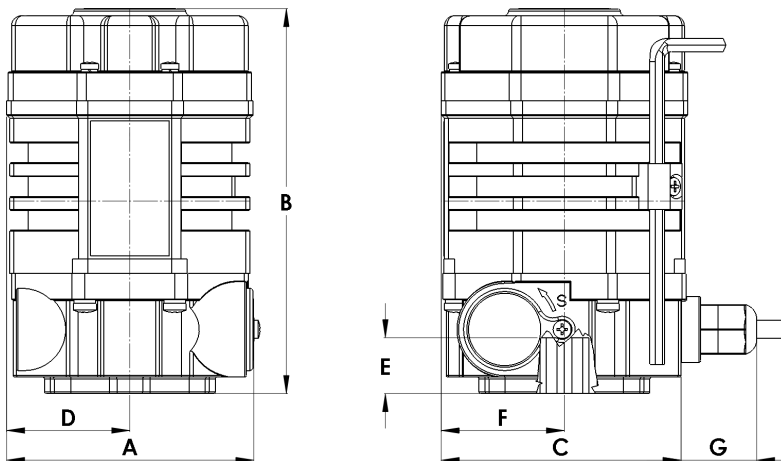
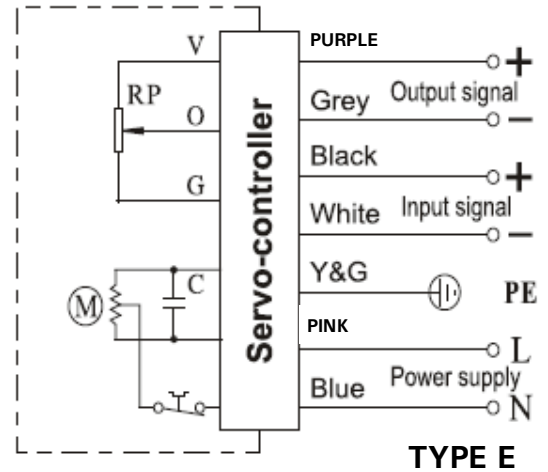


Stock Number		A	B	C	D	E	F	G	Weight
561704	inch	2.9	4.6	2.9	1.5	0.7	1.5	0.9	2.7 lbs
	mm	75.0	117.0	73.0	37.5	17.0	37.5	23.0	1.2 kg

Specifications	Stock Number 561708
Type Operation	EPS - Electronic Positioning System
Max Torque	16 Nm / 140 inch lbs
Voltage	AC110 50/60Hz +/- 10%
Input Signal	4-20mA
Output Monitoring Signal	4-20mA
Current - Full Load Amps	0.3 A
Working Time (0-90°/no load)	12 sec
Duty Cycle	60%
Enclosure	Aluminum alloy
Enclosure Protection	Type 4X & IP67 weatherproof
Electrical Connections	Prewired cable with flying leads 3 meter (9.8 feet)
Working Angle Std°	90°
Temperature Range	-13 to +131 °F (-25 to +55 °C)
Motor Protection	Thermal overload
Overall Accuracy	+/- 1.5%
Anti-condensation Heater	none
Manual Override	Hex wrench
Valve Mounting per ISO5211	F03, F04, F05
Output Drive (female double sq.)	11mm
Weight	2.7 lbs (1.2 kg)



CSA Listed to UL429
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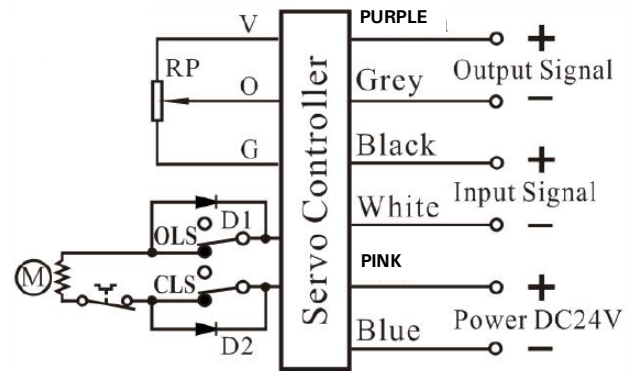


Stock Number		A	B	C	D	E	F	G	Weight
561708	inch	2.9	4.6	2.9	1.5	0.7	1.5	0.9	2.7 lbs
	mm	75.0	117.0	73.0	37.5	17.0	37.5	23.0	1.2 kg

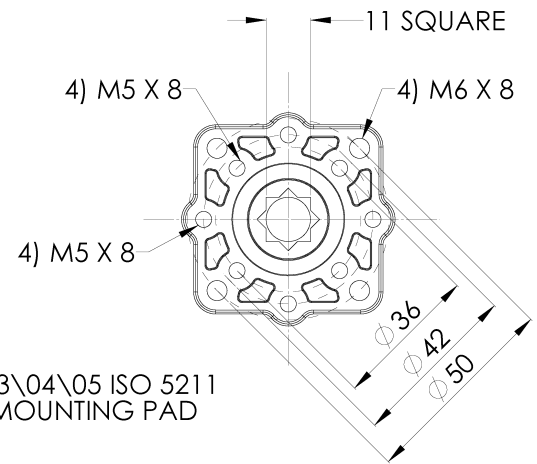
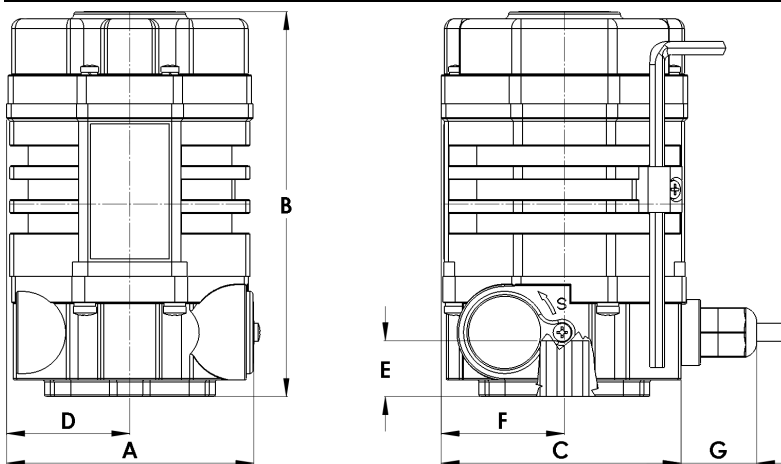
Specifications	Stock Number 561709
Type Operation	EPS - Electronic Positioning System
Max Torque	16 Nm / 140 inch lbs
Voltage	DC24 +/- 5%
Input Signal	4-20mA
Output Monitoring Signal	4-20mA
Current - Full Load Amps	0.7 A
Working Time (0-90°/no load)	15 sec
Duty Cycle	60%
Enclosure	Aluminum alloy
Enclosure Protection	Type 4X & IP67 weatherproof
Electrical Connections	Prewired cable with flying leads 3 meter (9.8 feet)
Working Angle Std°	90°
Temperature Range	-13 to +131 °F (-25 to +55 °C)
Motor Protection	Thermal overload
Overall Accuracy	+/- 1.5%
Anti-condensation Heater	none
Manual Override	Hex wrench
Valve Mounting per ISO5211	F03, F04, F05
Output Drive (female double sq.)	11mm
Weight	2.7 lbs (1.2 kg)



CSA Listed to UL429
and CSA C22.2



TYPE GEY



Stock Number		A	B	C	D	E	F	G	Weight
561709	inch	2.9	4.6	2.9	1.5	0.7	1.5	0.9	2.7 lbs
	mm	75.0	117.0	73.0	37.5	17.0	37.5	23.0	1.2 kg