



Compact Electric Actuated Ball Valves

2-way 316 Stainless Steel, Full Port
1/2" to 1" NPT

SERIES
MGVS-X

Features

- Industrial quality miniature actuator
- Direct mount Full Port 316 stainless steel ball valve
- Visual valve position indicator
- Rugged aluminum Type 4X and IP67 weatherproof enclosure
- Heavy duty motor with overload protection
- Manual override
- Two auxiliary limit switches included (on-off models)
- Silicone free valve with RTFE (reinforced Teflon) ball seats
- Triple RTFE/Viton live loaded stem seals, adjustable
- Valve Anti-static device
- EPS - Electronic Positioner System model available
- Actuator approvals by CSA and/or CE

Applications

On-off control of water, air, oil and other media compatible with the materials of construction. Working pressure 1000 PSI at 100°F (38°C). Suitable for media temperatures up to 266° F and steam up to 25 PSI with optional high temperature kit. Vacuum service up to 29"Hg. EPS positioner is available for controlling flow using an analog input control signal. Actuator designed for 60% duty cycle.

Operation

Electric actuated valve 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 the ball 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 valve position. Valves with EPS positioner use an analog input signal to control the position of the ball (flow). Electrical connection by prewired cable with flying leads (3 meter/9.8 feet)

Construction

Valve Body	316 stainless steel ASTM A351 CF8M
Ball/Stem	316 stainless steel
Ball Seats	RTFE (reinforced Teflon)
Stem Seals	RTFE / FKM (Viton)
Anti-static Device	Ball to Stem
Gear Drive	Rugged all metal flat and worm gears, self locking
Actuator Enclosure	Anti-corrosive aluminum alloy, Rated Type 4X/ IP67
Visual Valve Position Indicator	Yellow indicator with transparent clear cover
Fasteners	Stainless Steel
Auxiliary Limit Switches	2 x SPST (3A@125VAC,30VDC resistive), on-off models



Description

Electric actuated full port 316 Stainless Steel ball valves provide corrosion resistance and unrestricted flow. Adjustable live loaded stem seal packing helps compensate for wear, pressure and/or temperature fluctuations, extending the cycle life of the valve. 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/IP67 weatherproof enclosure. Actuators with EPS positioner utilize a 4-20mA analog input signal to position the output drive anywhere between 0-90° and flow 0-100%

Approvals

Actuators

- Actuators certified by CSA and/or CE
- CSA models certified to UL429, CSA C22.2 and UL50E Type 4X enclosure
- CE models include ISO5211 mounting and IP67 enclosure



Valves

- CE per PED 97/23/EC
- Pressure Tested per API-598
- MSS-SP-55



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Construction Features

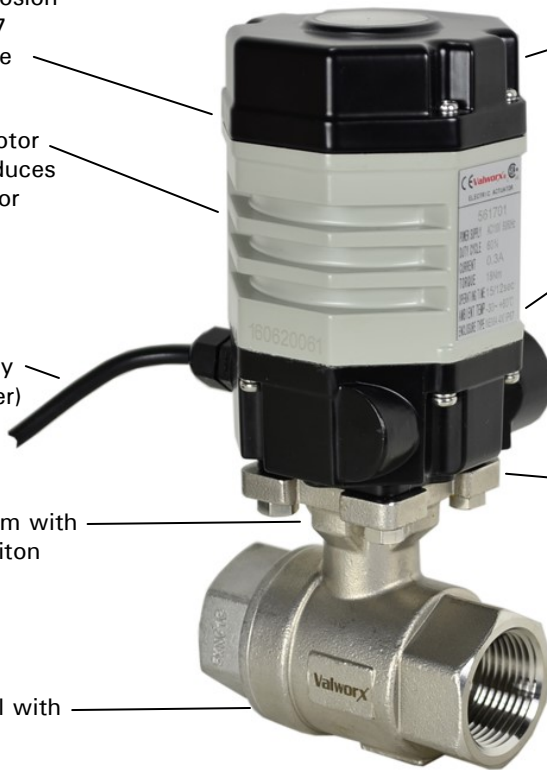
Rugged aluminum corrosion resistant Type 4X/IP67 weatherproof enclosure

Heavy duty integral motor design significantly reduces physical size of actuator

Electrical connection by prewired cable (3 meter)

316 stainless steel stem with leak free triple RTFE/Viton seal packing

316 stainless steel ball with RTFE seats



Auxiliary Limit Switches (2) for confirming valve position, on-off versions

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

Manual Override with protective cover

Direct mount ISO5211 flange, no brackets required

Full Port 316 Stainless Steel ball valve



Visual Valve Position Indicator

Pressure-Temperature*

Pressure Rating: 1000 PSI (69 Bar) non-shock

29" Hg vacuum, 25 PSI steam with high temp. kit

Media Working Temperature: 0 to 158° F (-18 to 70° C)

Media temperatures up to 266° F (130° C) with optional high temp. mounting kit

Ball Valve Temperature Rating: 0 to 366° F (-18 to 186° C)

Actuator Temperature Rating: -22 to +140° F (-30 to 60° C)

*See P/T chart

Pressure/Temperature Chart (PSI/°F)

P/T Chart						
PSI	1000	1000	1000	950	875	750
°F	0	50	100	158	200	266

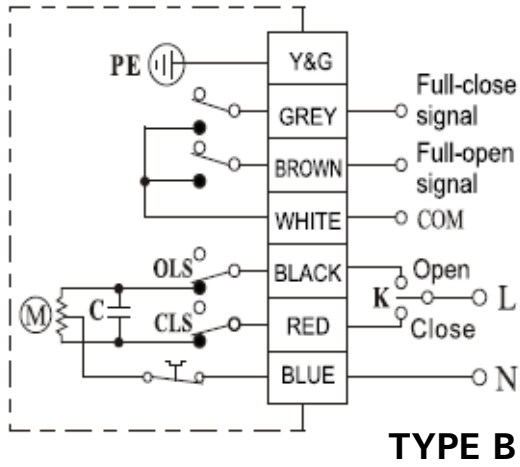
Pressure/Temperature Chart (Bar/°C)

P/T Chart						
Bar	69	69	69	65	60	52
°C	-18	10	38	70	93	130



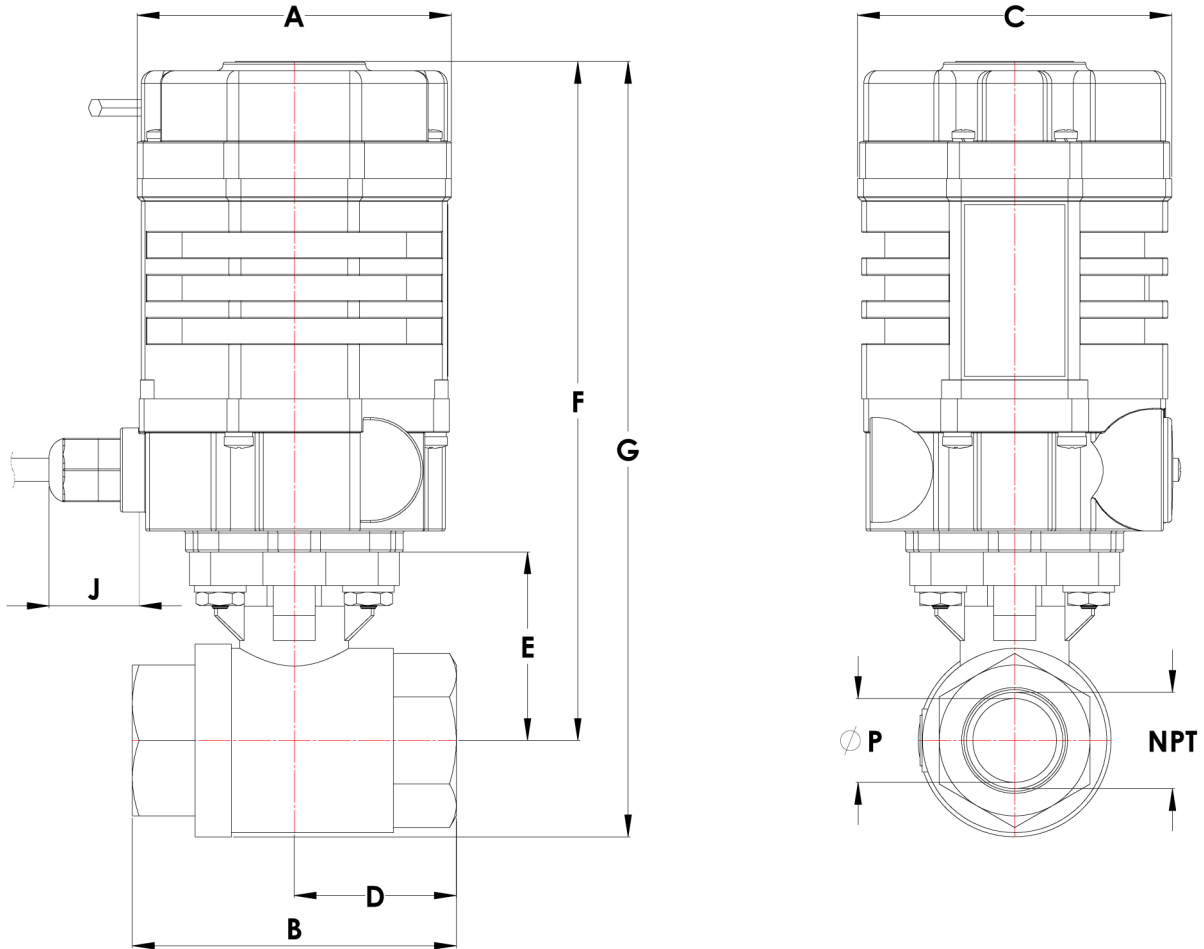
Electrical Wiring Diagrams

ON-OFF Valves AC Voltages





Dimensions



Pipe Size (NPT)		A	B	C	D	E	F	G	J	P	Weight
1/2	inch	2.95	2.57	2.95	1.29	1.46	6.06	6.77	0.85	0.59	3.5 lb
	mm	75	65.3	75	32.7	37	154	172	21.5	15	1.59 kg
3/4	inch	2.95	3.04	2.95	1.52	1.77	6.38	7.28	0.85	0.79	3.95 lb
	mm	75	77.3	75	38.7	45	162	185	21.5	20	1.79 kg
1	inch	2.95	3.49	2.95	1.74	2.11	6.71	7.76	0.85	0.98	4.6 lb
	mm	75	88.7	75	44.3	53.5	170.5	197	21.5	25	2.09 kg