



Compact Electric Actuated Ball Valves

2-way Lead Free Brass, Full Port
1/2" to 1" NPT

SERIES
MGVB-X

Features

- Industrial quality miniature actuator
- Full Port lead free brass 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)
- Energized PTFE ball seats for lower torque and longer life
- Leak free Triple PTFE/FKM stem seal packing
- EPS - Electronic Positioner System model available
- Actuator approvals by CSA and/or CE
- Valve certified NSF372 & NSF61 for potable/drinking water

Applications

On-off control of water, air, oil and other media compatible with the materials of construction. Ideal where lead free and NSF approved construction are required for potable drinking water as well as general industrial applications. 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	Lead free brass C69300
Ball/Stem	316 stainless steel
Ball Seats	PTFE (Teflon) energized with FKM (Viton)
Stem Seals	PTFE (Teflon) with (2) additional FKM (Viton) seals
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 lead free ball valves provide unrestricted flow and minimum pressure loss. Energized PTFE ball seats are designed for low torque and extended cycle life. Leak free stem seal design. 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 actuated valve flow can be controlled 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

- IAPMO RT certified to:
 - NSF/ANSI 372 - 2011 Drinking Water
 - NSF/ANSI 61 - 2015
 - Weighted average lead content <= 0.25%
- Meets design MSS-SP-110



Electric Actuated Ball Valves

2-way Lead Free Brass, Full Port
1/2" to 1" NPT

SERIES
MGVB-X

Construction Features

Rugged aluminum corrosion resistant Type 4X and 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 PTFE and dual FKM (Viton) seals

316 stainless steel ball with energized PTFE seats for reduced torque and extended cycle life

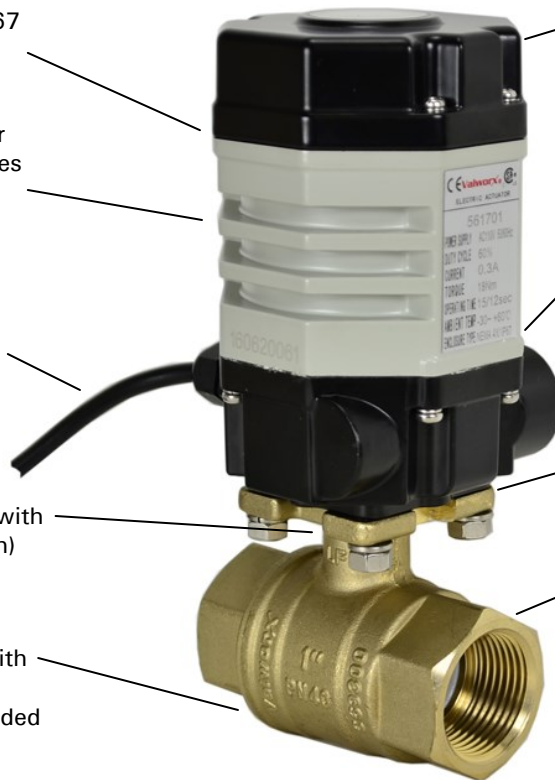
Auxiliary Limit Switches(2) for confirming valve position, on-off versions

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

Manual Override with protective cover

Direct mount ISO5211 flange, no brackets required

Full Port lead free brass ball valve, certified for use with potable/drinking water



Visual Valve Position Indicator

Pressure-Temperature*

Pressure Rating: 600 PSI CWP (41 Bar) non-shock 1/4 to 1-1/4 NPT sizes
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	600	600	600	600	550	400
°F	0	50	100	176	200	266

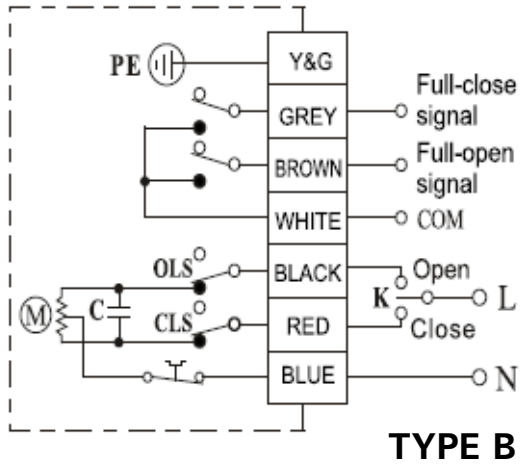
Pressure/Temperature Chart (Bar/°C)

P/T Chart						
Bar	41	41	41	41	38	27
°C	-18	10	38	80	93	130



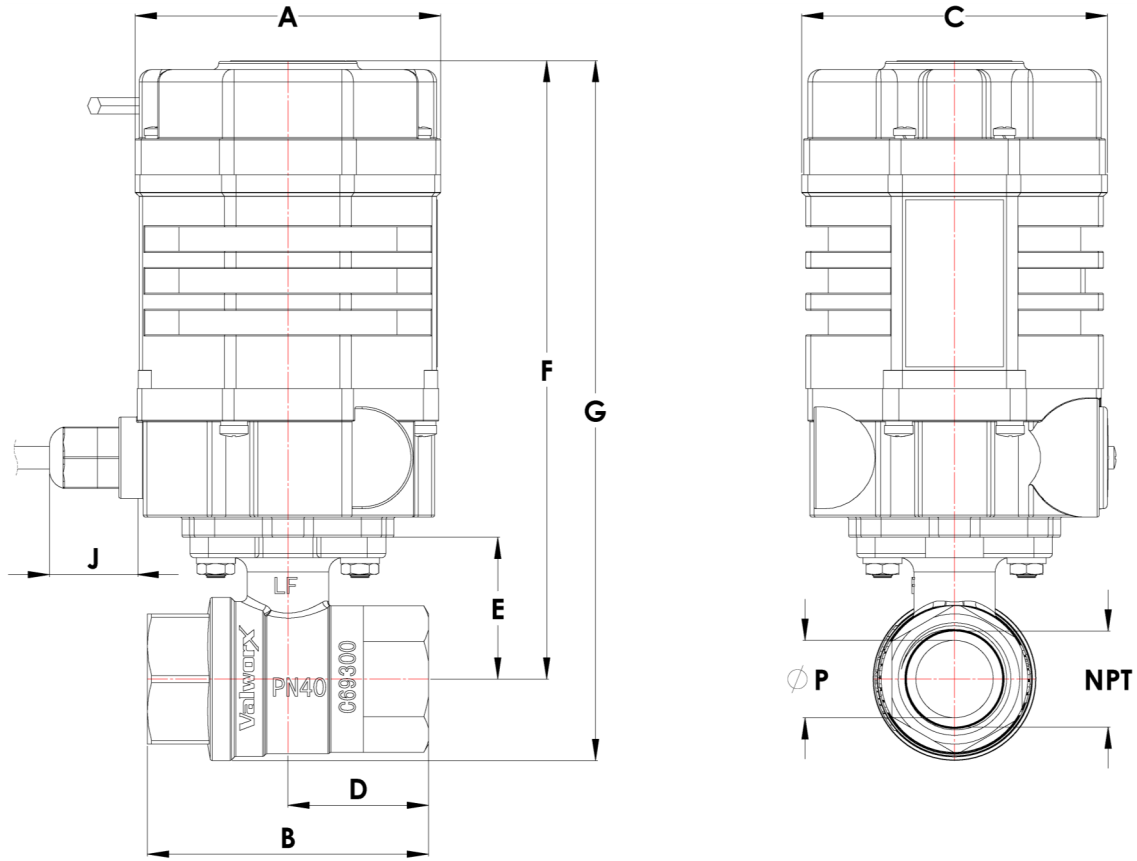
Electrical Wiring Diagrams

ON-OFF Valves AC Voltages





Dimensions



Pipe Size (NPT)		A	B	C	D	E	F	G	J	P	Weight
1/2	inch	2.95	2.50	2.95	1.25	1.26	5.87	6.55	0.85	0.59	3.4 lb
	mm	75	63.6	75	31.8	32	149	166.25	21.5	15	1.54 kg
3/4	inch	2.95	2.72	2.95	1.36	1.37	5.98	6.76	0.85	0.75	3.65 lb
	mm	75	69	75	34.5	34.8	151.8	171.8	21.5	19	1.66 kg
1	inch	2.95	3.32	2.95	1.66	1.75	6.36	186.25	0.85	1.00	4.2 lb
	mm	75	84.4	75	42.2	44.5	161.5	7.33	21.5	25	1.9 kg