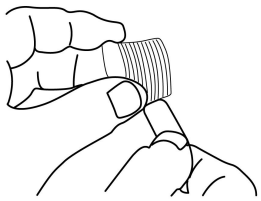
INSTALLATION AND MAINTENANCE MOTORIZED BALL VALVES

Manual No. 7791

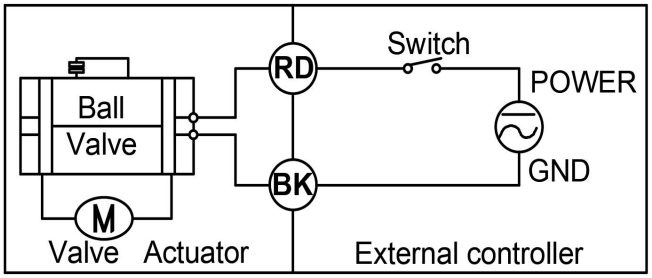
Thank you for buying our U.S. Solid Motorized Ball valve. We appreciate your patronage! Our aim is to ensure that you can make the most of your new equipment, which is why we have provided some helpful tips to help you get started. Please refer to this manual for straightforward wiring diagrams, schematics, and specifications for your valve. Simply unfold the manual to access this information.

THREADING



U.S.Solid Valves conform to National Standards for pipe thread. In the United States, we use NPT, whereas in Europe, we use BSPT. We advise using Teflon tape to ensure that the NPT threading is sealed properly. Please refer to the illustration on the left for further guidance.

WIRING SCHEMATIC



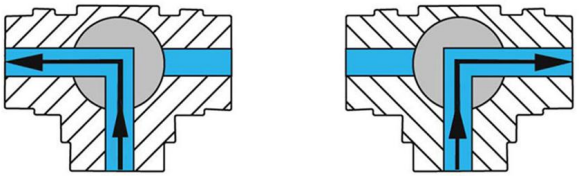
1. When the circuit is completed (the switch connecting to the valve is turned on), the valve will open and remain in an open state. Once opened, power consumption will be minimal.
2. When the circuit is interrupted (the switch connecting to the valve is turned off or power is lost), the valve will close. Once in this state, the valve will be completely powered off.

FLOW DIRECTION

- Situation1: Water enters from the bottom port.

a. With power, water flows through the left port;

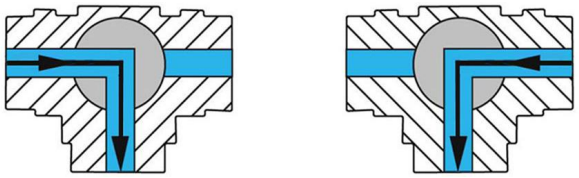
b. Without power, water flows through the right port.



- Situation2: Water enters from both the left and right ports.

a. With power, water flows through the left port to the bottom port.

b. Without power, water flows through the right port to the left port.



FREQUENTLY ASKED QUESTIONS

1) Does the valve need water or air pressure to operate? Answer: No! One of the advantages of motorized ball valves is that they can function with minimal water pressure. This means a motorized ball valve can work even with gravity fed arrangements.

2) Will the ball inside the valve return to its original position if the power goes out? Answer: Yes.

3) Can this valve be used outside? Answer: The motorized ball valves are all rated IP67, which indicates that they can endure temporary immersion between 15cm and 1m. However, if installed outdoors on a permanent basis, it is advised that you encase the motorized ball valve in a protective housing.

4) Can this motorized ball valve be powered continuously? Answer: Due to the power limiting features of these valves, they can be hooked up to power non-stop without risk of overheating.

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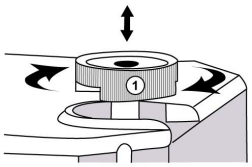
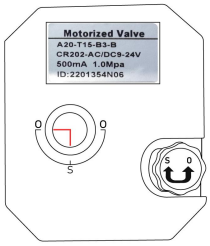
HOW TO OPEN/ CLOSE MANUALLY

1. It is only permissible to use when the power is turned off.
2. Carefully lift the **hand-wheel**① and turn it either to the left or right until the valve is correctly positioned.



3. The valve is fully closed when the red line on the **position indicator**② is pointing to "CLOSED" (perpendicular to the pipe). Similarly, the valve is fully open when the indicator points to "OPEN" (parallel to the pipe).



4. After completing the manual override operation, press down the hand wheel so that the valve can operate correctly when power is supplied.

INSTRUCTIONS OF ENVIRONMENT PROTECTION

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At the end of its life cycle, please do not dispose of this equipment by throwing it in the usual garbage. Instead, hand it over at a collection point for the recycling of electrical and electronic appliances. It does not contain dangerous or toxic products for humans, but inadequate disposal could still damage the environment. The materials are recyclable as mentioned. By recycling material or through other forms or re-purposing old appliances, you are making an important contribution to the protection of our environment. Please inquire with your local community authorities about the proper disposal location.

SPECIFICATIONS

Max. Torque	3 N m
Open/Close Time	~ 5 second
Max. Power	5 W
Max. Pressure	1.0 MPa
Flow Medium Temp. Rage	0 to 90 ℃
Ambient Temp. Range	-15 ℃ to 50℃
Life Time	⩾70000 times
Actuator Material	PPO
O-ring	FKM
Sealing	PTFE
Manual Override	Yes
On/Off Indicator	Yes
IP Rating	IP 67
Bore Type	Standard

Model	Material	Port Size	Voltage
USS-MSV10001	Brass	1/4''	9-24V
USS-MSV10002	Brass	3/8''	9-24V
USS-MSV10003	Brass	1/2''	9-24V
USS-MSV10004	Brass	3/4''	9-24V
USS-MSV10005	Brass	1''	9-24V
USS-MSV10006	SS304	1/2''	AC110-230V
USS-MSV10007	SS304	3/4'	AC110-230V
USS-MSV10008	SS304	1''	AC110-230V
USS-MSV10009	SS304	1/2''	9-24V
USS-MSV10010	SS304	3/4''	9-24V
USS-MSV10011	SS304	1''	9-24V
USS-MSV10012	SS304	3/8''	9-24V
USS-MSV10013	SS304	3/8''	AC110-230V
USS-MSV10014	Brass	3/8''	AC110-230V
USS-MSV10015	Brass	1/2''	AC110-230V
USS-MSV10016	Brass	3/4''	AC110-230V
USS-MSV10017	Brass	1''	AC110-230V
USS-MSV10018	SS304	1/4''	9-24V
USS-MSV10019	SS304	1/4''	AC110-230V
USS-MSV10020	Brass	1/4''	AC110-230V

WARNING

Brass Valves may contain lead which can not be used for drinking water.

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