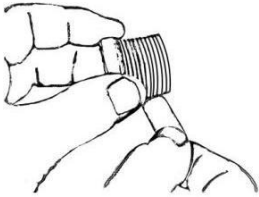


Thank you for purchasing your U.S. Solid Motorized Ball Valve. We are happy to have you as a customer! We want you to get most out of your new equipment, so we have included a few pointers to get you started. Unfold this manual for simple wiring diagrams, schematics, and specifications on your valve.

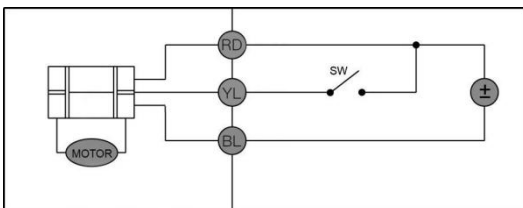


THREAD

U.S. Solid valves follow national standards for pipe threads. In US, we use NPT, while in Europe we use BSPT. We recommend use of Teflon tape to ensure seal of the NPT threading, as shown in the figure to the left.

WIRING SCHEMATIC

1. When the circuit is closed (switch connecting the valve is on), the valve will open, and remain open. Once open, the valve is de-energized.
2. When the circuit is open (switch connecting the valve is off or power is lost), the valve will close and remain closed. Once closed, the valve is de-energized.




HOW TO WIRE THIS VALVE

- In direct current (DC) situations, the red wire connects to the positive pole, and the blue wire connects to the negative pole. The valve opens when the yellow wire is simultaneously connected to the positive pole with the red wire, and the valve

closes when the yellow wire is disconnected and the red wire is connected to the positive pole alone. This means that the red and blue wires are always connected to the positive and negative poles, respectively, and the valve is controlled by parallel or disconnection of the third yellow wire with the red wire.

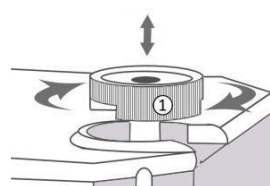
- In alternating current (AC) situations, polarity is not a concern. Simply connect the red and blue wires to any two poles of the power source. When the yellow wire is connected in parallel with the red wire to one pole, the valve opens. Conversely, when the yellow wire is disconnected and only the red wire is connected to one pole, the valve closes.

- You can also scan and watch the video 

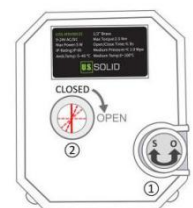


HOW TO OPEN OR CLOSE MANUAL

KNOB



1. Use this when the power is off.
2. Lift the hand-wheel ① gently and turn it left or right until the valve is in place.
3. The valve is fully closed when the red line on the position indicator ② points to "CLOSED" (vertical to the pipe). Likewise, the valve is fully open when it points to "OPEN" (parallel to the pipe).
4. Press down the hand-wheel when manual override operation is finished so that the valve can work properly when power is supplied.



FREQUENTLY ASKED QUESTIONS

Q: Does the valve require water or air pressure to work?

A: No. One of the benefits of motorized ball valves is they can work with little water pressure. This means a motorized ball valve can work even with gravity-fed arrangements.

Q: Can this valve be actuated manually?

A: For USS-MSV00201~207, yes, but for USS-MSV00211~216, no.

Q: Will this return to closed if power goes out?

A: No. It will still.

Q: Can this valve be used outside?

A: The motorized ball valves all have a rating of IP65, which means they can withstand water spray. However, if the valve is permanently installed outdoors, it is recommended that you enclose the motorized ball valve in some protecting housing.

Q: Can this motorized ball valve be powered continuously?

A: Due to the power limiting features of these valves, they can be hooked up to power non-stop without risk of overheating.

INSTRUCTIONS OF ENVIRONMENT

PROTECTION

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 electronic appliances. It does not contain dangerous nor 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 to repurpose old appliances, you are making an important contribution to the protection of our environment.



Please inquire with your local community authorities for the proper disposal location.

WARRANTY

All U.S. Solid motorized ball valves come with a one-year warranty. We realize that other questions or concerns may arise during the installation and operation of your valve. Please contact us or visit our website for help.

Email: service@ussolid.com

Website: www.ussolid.com



SPECIFICATIONS

Models: USS-MSV00...	213	211 212	201 202 203 204	205 206 207	214 215 216
Material	SS304			Brass	
Max. Torque	6 Nm	2 Nm	2.5 Nm		2 Nm
Voltage	9~24V AC/DC				
Max. Power	5 W	2W			
IP Rating	IP 65				
Max. Pressure	1.0 MPa				
Flow Medium Temp. Range	0°C~90°C				
Ambient Temp. Range	-5°C~40°C				

**MSV00201~207 have manual knobs.*