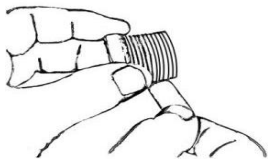


Thank you for purchasing your U.S. Solid Motorized Ball valve. We are happy to have you as a customer! We want you to get the most out of your new equipment, so we have included a few pointers to get you started. Unfold this manual for simple wiring diagrams, schematics, and specifications on your valve.



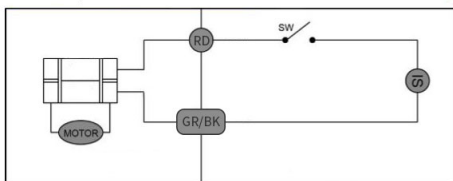
In the U.S.A. we use NPT, while in Europe we use BSPT. We recommend use of teflon tape to ensure seal of the NPT threading, as shown in the figure to the left.

### THREADING

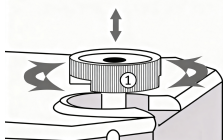
U.S.Solid Valves follow National Standards for

### WIRING SCHEMATIC

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

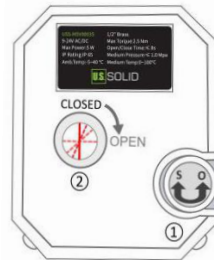


### HOW TO OPEN or CLOSE MANUALLY



1. It is only permitted to use when power is off.

2. Lift the **hand-wheel** 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**<sup>2</sup> 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 hand-wheel when manual override operation is finished so that the valve can work properly when power is supplied.



### NOTE:

The fundamental operating logic is identical across all manual override models: Power-off required → Lift/Rotate hand-wheel → Observe indicator orientation → Reset hand-wheel. Please note that external designs may vary by model: the position indicator may be a line or an arrow, and labels (such as "OPEN /CLOSED") may be in different locations or colors. Regardless of these visual variations, the indicator's orientation relative to the valve's internal flow path remains the constant standard: Perpendicular = CLOSED; Parallel = OPEN.

### FREQUENTLY ASKED QUESTIONS

1) Does the valve require water or air pressure to work?

Answer: 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.

2)Can this valve be actuated manually?  
 Answer: Yes. For valves with power-off reset function, lift the handwheel, rotate it gently in the desired direction, hold it stationary for approximately 5 seconds to allow the capacitor to fully discharge, then rotate it normally.

3)Will this return to closed if power goes out?  
 Answer: Yes.

4)Can this valve be used outside?  
 Answer: The motorized ball valves all have a rating of IP65, which means they can withstand spray from water. However, if permanently installed outdoors, it is recommended that you enclose the motorized ball valve in some protective housing.

5)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.

**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 electrical and 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 or repurposing 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.

UK DS3670YF

**SPECIFICATIONS**

Models: USS-MSV00...	035, 036, 037, 402, 403, 404, 461, 462, 463	038, 039, 040, 405, 406, 407, 421, 422, 423, 464, 465, 466	121, 122, 123, 124, 125, 126
Valve Body Material	Brass	SS304	UPVC
Max. Torque	2.5 Nm		2 Nm
Voltage	9V-24V AC/DC		9V-36V AC/DC
Open/Close Time	6-8s		5s
Max. Power	5 W		
IP Rating	IP65		
Max. Pressure	1.0 MPa		
Flow Medium Temp. Range	0°C to 90°C		1°C to 55°C
Ambient Temp. Range	-5°C to 40°C		1°C to 50°C

**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](mailto:service@ussolid.com)

Website: [www.ussolid.com](http://www.ussolid.com)

