

**IMPERIUM**  
CONTROLS



# 24V Ball Valve

Quick Start Guide

## BEFORE YOU PROCEED

Make sure to register your products by visiting [www.imperium-controls.com/warranty](http://www.imperium-controls.com/warranty) or by scanning the QR code. Registering for warranty ensures faster service on any future unforeseen circumstances and keeps you connected on updates.

## REGISTER

Scan QR code to register your product for:

- **Warranty**
- **Faster Service**
- **Email Updates**



## PLEASE READ

Read all instructions carefully before installing or using this equipment. Keep this manual in a location that is readily available. The product must be installed, operated, and repaired by qualified personnel. Ensure to comply with all applicable local codes, standards, and safety regulations.

**WARNING:** Improper installation or use may cause serious injury and/or property damage.

## INTENDED USE

Imperium Controls are designed for professional agricultural and horticultural use, for the purposes of regulating the flow of water in irrigation systems. It is intended for indoor use only and is not intended for use with any other fluids except those recommended herein. The products are not intended to be used by individuals with reduced sensory, physical, or mental capabilities, or by individuals with lack of experience or knowledge. Not suitable for any other purpose than defined herein.


## INSTALLATION TIPS

- Use Teflon tape for threaded connections.
- Use in a dry location only.
- Do not over-tighten threaded connection into valve. Over-tightening of threaded connection could result in a cracked valve body and void the warranty.

## TECHNICAL SPECS

<b>Voltage</b>	<b>AC/DC 24V</b>
<b>Working Current</b>	<b>&lt;0.5A</b>
<b>Open/Close Time</b>	<b>&lt;5 Seconds</b>
<b>Wiring Control Method</b>	<b>OP04</b>
<b>Working Temperature</b>	<b>0-40°C (104°F)</b>
<b>Media Temperature</b>	<b>0-45°C (32 - 113°F)</b>
<b>Maximum Pressure</b>	<b>58 PSI</b>
<b>Valve Body Material</b>	<b>PVC</b>
<b>Lifetime</b>	<b>70,000 Cycles</b>
<b>Circulation Medium</b>	<b>Water</b>

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 **WARNING**  
Cancer and Reproductive Harm –  
[www.p65warnings.ca.gov](http://www.p65warnings.ca.gov)

Conforms to UL Std. 429  
Cert. to CSA Std. C22.2 No. 139

RECOGNIZED  
COMPONENT  
  
Intertek  
5028371

## IMPORTANT SAFETY INSTRUCTIONS

**DANGER: ELECTRICAL HAZARD.** To avoid fire, shock, death, or property damage, turn off power supply before wiring and before conducting maintenance.

**WARNING:** A valve may contain fluid under pressure. Take appropriate safety measures. Misuse can cause damage.

**WARNING:** Do not insert body parts or objects into the valve openings. This may cause serious injury.

- ① **Electrical Safety:** Before handling the motorized ball valve, always make sure that the power supply to the valve is switched off. Do not touch the electrical connections while the valve is powered on. To ensure safe use, properly ground the system when the power is on.
- ② **Protective Gear:** Wear appropriate protective gear such as gloves and safety glasses while handling the motorized ball valve to prevent any injuries.
- ③ **Water Safety:** Do not use the motorized ball valve with any fluids other than fresh water or irrigation water. Also, make sure that the water supply is clean and free from any contaminants that may damage the valve.
- ④ **Installation:** Ensure that the valve is installed correctly and securely to prevent any leaks. Check all connections for any signs of wear or damage before use. **WARNING:** Before connecting power, confirm correct voltage is being applied. Incorrect voltage may damage the equipment and void the warranty.
- ⑤ **Sealing:** Use a suitable sealant/Teflon tape and avoid ingress of the sealing material in the valve. This can impair proper functioning. When installing, do not overtighten. Overtightening may cause damage to the equipment and void the warranty.
- ⑥ **Maintenance:** Regularly check the valve for signs of wear or damage. If you notice any issues, stop using the valve immediately and have it repaired or replaced by a qualified professional. To reduce the risk of electric shock, always disconnect the electric power source and relieve pressure in the system before conducting maintenance.
- ⑦ **Operating Instructions:** Follow the operating instructions carefully. Do not exceed the recommended operating pressure or temperature limits (Refer to Packaging). Do not use the valve for any other purposes than those specified. It is the responsibility of the user to select the right product for the application.
- ⑧ **Storage and Operating Conditions:** Store in a clean, dry environment. Do not install outdoors or in humid environments. Protect from frost. Frost may damage the product and/or block moving parts, causing malfunctions. Ensure the product is operated in an area with adequate ventilation to dissipate heat. Do not store or use in contact with (or in the vicinity of) flammable materials.
- ⑨ **Emergency Shutdown:** In case of an emergency, shut off the power supply to the valve immediately. Also, have a shut-off valve installed in the system to isolate the valve from the rest of the system. Note that in the event of a power failure, the valve will return to its closed position.
- ⑩ **Qualified Personnel:** Only qualified personnel (such as a trained electrician) should handle the installation, maintenance, and repair of the motorized ball valve.

## WIRING

- Suitable working voltage: AC/DC 24V.
- Only connect to CLASS 2 circuit.
- 2 wire control – auto spring return in case of power failure.
- When SW is closed, the valve is open.
- When SW is open, the valve is closed.
- Do not exceed the working voltage.

## LIQUID REQUIREMENTS

- Approved for use with water and nutrient solutions only.
- Not approved for use with oils or acids.
- Not for use with flammable liquids.

## TROUBLESHOOTING

### Valve will not open:

- 1 Check that the control wires are properly connected at the valve side and the control side.
- 2 Verify that the transformer powering the valve is at least 0.5A at 24V.
- 3 Verify that the wires go to a 24V lead and a common lead and not 24V and ground.

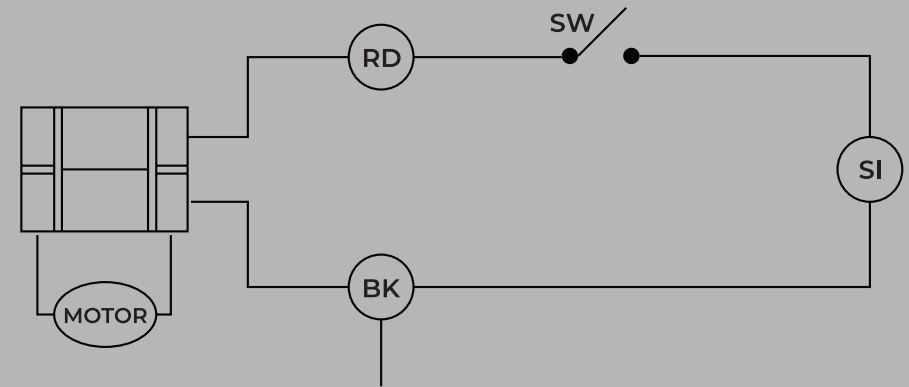
### Valve will not close:

- 1 Check for obstructions inside of the valve.

### Threaded end cracked:

- 1 It is possible that too much tape/dope was used on the male threads and the fitting was over torqued. A replacement valve is needed.

## OP04 WIRING DIAGRAM



## FAQ

- Q:** Does the valve require continuous power to hold its position?
- A:** It does require continuous power to hold open, however it is much less than the required opening amperage.
- Q:** Can these valves be installed outdoors?
- A:** Although the valves feature a water resistant housing, they are not recommended to be installed outdoors without a cover or enclosure.
- Q:** Will the valve close in the event of a power failure?
- A:** Yes, our valves will return to the home position in the event of a power loss.
- Q:** Does this valve work in both flow directions?
- A:** Yes, unlike standard solenoid valves, these ball valves are bi-directional and will flow in either direction.
- Q:** What is the correct mounting position?
- A:** Our valves can be mounted in both vertically up or vertically down orientations.

## WARRANTY AND LIMITATIONS

Imperium Controls warrants that the product and replacement parts (“Goods”) shall be free from defects in material and workmanship under proper and normal and recommended use for a period of 1 year from the date of shipment. Goods shall be considered defective only if a defect exists that materially impairs the value of the Goods to Customer and does not comply with Imperium’s specifications (or, if none, does not comply with normal industry tolerances or standards). Goods shall not be defective if the Goods comply with Customer’s instructions or if the Goods have been modified, have been subject to misuse or neglect or if the Goods are not operated in a typical fashion. In accordance with the terms of this limited warranty (“Warranty”), Imperium will, at its option, either replace any such defective Goods or parts thereof or issue Customer a credit for the purchase price of the defective Goods, provided that written notice of the defect is received by Imperium within 30 days of the appearance of such defect and within the 1-year warranty period. If notice is not given by the required deadlines set forth in this paragraph, any claim for breach of warranty is waived and Imperium shall not be liable. Upon receipt of notice of a possible defect in the Goods, Imperium shall issue instructions for their disposition. No Goods shall be returned to Imperium without its prior consent. Transportation charges for return and replacement under the Warranty will be borne by Imperium if the Goods are defective. Under no circumstances will Imperium’s liability exceed the purchase price of the defective Goods.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, Imperium Controls makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on the product’s label. No agent of Imperium is authorized to make any warranties beyond those contained herein or to modify

the warranties contained herein. To the extent consistent with applicable law, Imperium disclaims any liability whatsoever for special, incidental, or consequential damages resulting from the use or handling of this product.

**LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries, or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid, or at Imperium’s election, the replacement of product.

### 1 YEAR WARRANTY

Imperium Controls warrants the mechanical and electronic components of the 24V Ball Valve and guarantees the materials and workmanship free of defects, if used under normal operation conditions within a period of one (1) year from the purchase date. All returns and claims must be presented with the original proof of purchase.

If you find that there are any defects with this product that relate to either the workmanship or the materials but are not due to improper use or user error, Imperium Controls shall, at its discretion, either replace or repair the product using the appropriate new or reconditioned parts.

In the case that Imperium Controls decides to replace the entire product, the date of the limited warranty shall apply to the replacement from the date of the purchase of the initial product for one (1) year.

All RMA’s must be requested at:

[www.imperium-controls.com/rma-form](http://www.imperium-controls.com/rma-form)

