

**LAKEWOOD INSTRUMENTS
MODEL 95 SERIES**

**SPRITE
TWO-WIRE, MOTORIZED
BALL VALVES**

INSTALLATION & OPERATION MANUAL



Lakewood Instruments

7838 North Faulkner Road, Milwaukee, WI 53224 USA

Phone (800) 228-0839 • Fax (414) 355-3508

<http://www.lakewoodinstruments.com>

Lakewood Instruments

Congratulations on your purchase of a Lakewood Instruments product. We would like to take this opportunity to welcome you to the Lakewood Instruments product family.

With proper care and maintenance, your product should give you trouble-free service. Please take the time to read and understand the operation manual, paying special attention to the sections on **INSTALLATION** and **MAINTENANCE**.

If, in the future, any parts or repairs are required, we strongly recommend that only original replacement parts be used. Our Customer Service Department would be happy to assist you with your parts or service requests.

We thank you for your selection and purchase of a Lakewood Instruments product.

MODEL 95 SERIES

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Features and Specifications

95 Series "SPRITE" MOTORIZED BALL VALVES



The model 95 series, "SPRITE", is a mini 2-way motorized ball valve designed as an economical alternative to solenoid valves for use in high-fouling environments. It is considered "mini" because it only measures approximately 3 inches wide by 3 inches tall.

The Sprite is motor-driven open by line voltage and motor-driven closed by way of a built in capacitor. This has the benefit of ensuring that the valve will close even on a complete loss of power and it only requires two wires to power it.

The long service life valve and actuator (approximately 70,000 to 100,000 cycles) includes a manual override and a visual indicator of valve position.

95 Series Specifications

Valve

Sizes	1/4, 1/2, 3/4, and 1 inch
Body/Ball/Stem	CPVC, Chrome-Plated Brass, or 316 Stainless Steel
Seal	EPDM
Seat	PTFE
Threads	NPT (Female)
Max Pressure	145 psi CPVC; 232 psi Brass; 232 psi Stainless

Actuator

Housing Material	ABS
Rating	IP67
Max Torque	2 Nm
Ambient Temp	-4°F to 113°F (-20°C to 45°C)
Power Supply	120/240 vac
Max Power	5 W
Current	25 ±5 mA
Running Time	5 - 7 seconds

ORDERING INFORMATION

VALVE ASSEMBLY MODEL NUMBER

<u>SIZE</u>	<u>CPVC</u>	<u>CHROME/BRASS</u>	<u>SS</u>
¼ INCH	95SP25	95SB25	95SS25
½ inch	95SP50	95SB50	95SS50
¾ inch	95SP75	95SB75	95SS75
1 inch	95SP100	95SB100	95SS100

95 SERIES "SPRITE" MOTORIZED BALL VALVES

PART NO.	DESCRIPTION
1269071	95SP25, ¼" CPVC MOTORIZED BALL VALVE
1269072	95SP50, ½" CPVC MOTORIZED BALL VALVE
1269073	95SP75, ¾" CPVC MOTORIZED BALL VALVE
1269074	95SP100, 1" CPVC MOTORIZED BALL VALVE
1269075	95SB25, ¼" chrome-plated brass MOTORIZED BALL VALVE
1269076	95SB50, ½" chrome-plated brass MOTORIZED BALL VALVE
1269077	95SB75, ¾" chrome-plated brass MOTORIZED BALL VALVE
1269078	95SB100, 1" chrome-plated brass MOTORIZED BALL VALVE
1269079	95SS25, ¼" 316 SS MOTORIZED BALL VALVE
1269080	95SS50, ½" 316 SS MOTORIZED BALL VALVE
1269081	95SS75, ¾" 316 SS MOTORIZED BALL VALVE
1269082	95SS100, 1" 316 SS MOTORIZED BALL VALVE

UNPACKING AND INSTALLATION

Unpacking

Inspect the shipping carton for obvious external damage. Note on the carrier's bill-of-lading the extent of the damage, if any, and ***notify the carrier***. Save the shipping carton until your motorized ball valve is in operation.

☛ If shipping damage has occurred, call the Lakewood Instruments Customer Service Department at (800) 228-0839 and return the ball valve to the factory in the original carton.

Installation

The "SPRITE" motorized valves are Normally Closed valves that can be mounted in any position with flow in either direction.

Water with high particulate may damage the seals of the ball valve and may require the use of a strainer up stream of the valve. If a strainer is used it should be flushed regularly.

Be sure to provide isolation and bypass valves. If your motorized valve ever fails, you need to be able to bypass it in order to service it.

Wiring

The actuator of the valve can be powered from either 120 vac or 230 vac with no changes required to the actuator. The actuator will draw approximately 5 W of power.

There are two wires attached to the actuator; a red and a black. Connect the black wire to the neutral connection and the red wire to the hot connection.

When power is applied to the red wire the valve will open and when power is removed the built-in capacitor will power the valve closed.

OPERATION

Description of Operation

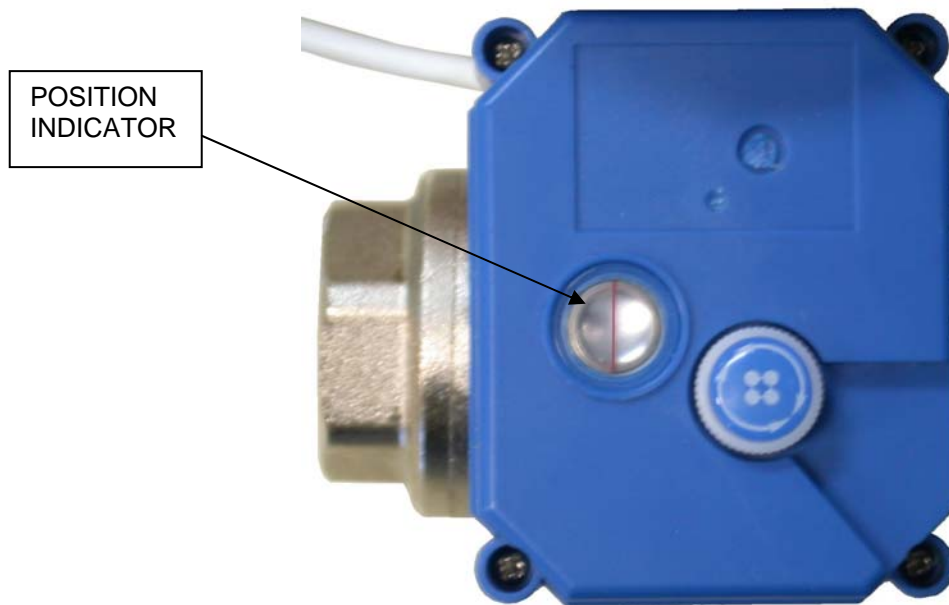
The model 95 Series motorized ball valves are normally closed valves that are powered open by line voltage and powered closed by an on-board capacitor when line voltage is removed. The capacitor is quick charging and will fully charge the first time power is applied to the actuator.

The actuator is designed so that if power is interrupted to the actuator in mid-operation, the capacitor will power the valve closed and the valve will not hang-up in the partly open position.

The actuator includes a valve position indicator and a manual operation hand wheel.

Position Indication

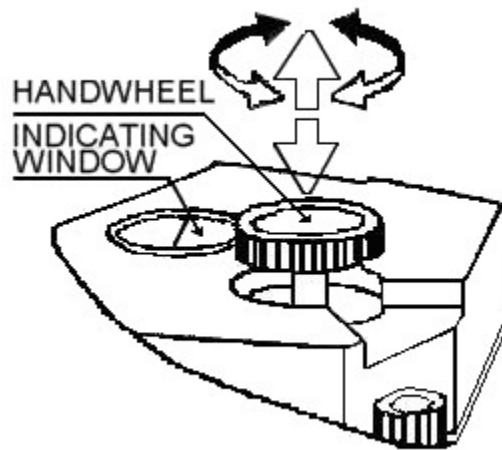
The position of the valve is indicated by the position indicator on top of the actuator next to the manual operation hand wheel. When the valve is open the indicator line is parallel to the direction of flow. When the valve is closed the indicator line is perpendicular to the direction of flow.



Shown in Closed Position

Manual Operation

The valve can be opened manually by use of the manual operation hand wheel.



To manually open the valve:

Remove the power source to the valve actuator. The valve will be closed.

Raise the manual hand wheel.

Start to turn the hand wheel and allow the capacitor power to bleed off before repositioning the valve. The first time you start to turn the hand wheel, the valve will rotate until the capacitor is fully discharged.

Once the capacitor is fully drained, the valve can be repositioned either open or closed.

Lower the manual hand wheel.

When power is restored to the actuator after a manual operation, the valve may rotate a couple of times until the limit switch is in the correct position.

WARNING: Do not try to reposition the valve with power connected to the actuator.

NOTE: If the valve is manually opened it will stay open until it is manually closed or power is restored to the actuator and the capacitor is recharged.

MAINTENANCE AND TECHNICAL SERVICE

Technical Service/Return Material Procedure



Technical Support for Lakewood Instruments can be reached by calling (800) 228-0839 or faxing (414) 355-3508, Monday through Friday, 7:30 a.m. - 5:00 p.m. CST.



Mail and returns should be sent to:

**Lakewood Instruments
7838 North Faulkner Road
Milwaukee, WI 53224 USA**

When any merchandise is returned to the factory, please call and obtain a return goods authorization (RGA) number and have the following information available:

- Customer's name, address, phone and fax numbers (shipping and billing).
- A hard copy purchase order number (no exceptions) for cases where repairs or parts are required that are not under warranty.
- A contact person's name and phone number to call if the equipment is beyond repair or to discuss any other warranty matter.
- Equipment model and serial numbers.
- Reason for return (i.e., repair, warranty, incorrect part, etc.).

We will then fax to your attention an RGA form that must accompany the returned item.

NOTE: THE RGA NUMBER MUST BE CLEARLY WRITTEN ON THE OUTSIDE OF THE PACKAGE(S) BEING RETURNED.

**ANY ITEMS SENT BACK TO THE FACTORY
WITHOUT AN RGA NUMBER WILL BE REFUSED
AND RETURNED TO SENDER**

For more information call toll free in the USA (800) 228-0839

Manufactured in the USA

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