

# Plastic Remote Control Valves

**VP Series Contamination Resistant**



**The LP Plastic Remote Control Valves are ideal for use in residential and commercial irrigation applications.** These valves are also suitable for non-potable installations found in greenhouse, nursery and agricultural applications. The innovative metering design provides contamination resistance that keeps the valve working and maintenance to a minimum.

## Features

- Reverse flow design
  - Reverse flow provides zero pressure stress on the diaphragm for long life.
  - Should the diaphragm fail, this design allows the valve to fail in the closed position thereby preventing wasted water.
- EZ operation internal bleed lever allows water to escape downstream during manual operation.
- Simple, one-piece molded diaphragm
- Reinforced ribbed bonnet with added strength for surge protection, and the cover bolts are stainless steel threaded into brass inserts for long term durability.
- Ideal for low volume drip irrigation zones.
- Easily removable handle prevents tampering after flow adjustment.

## Closed

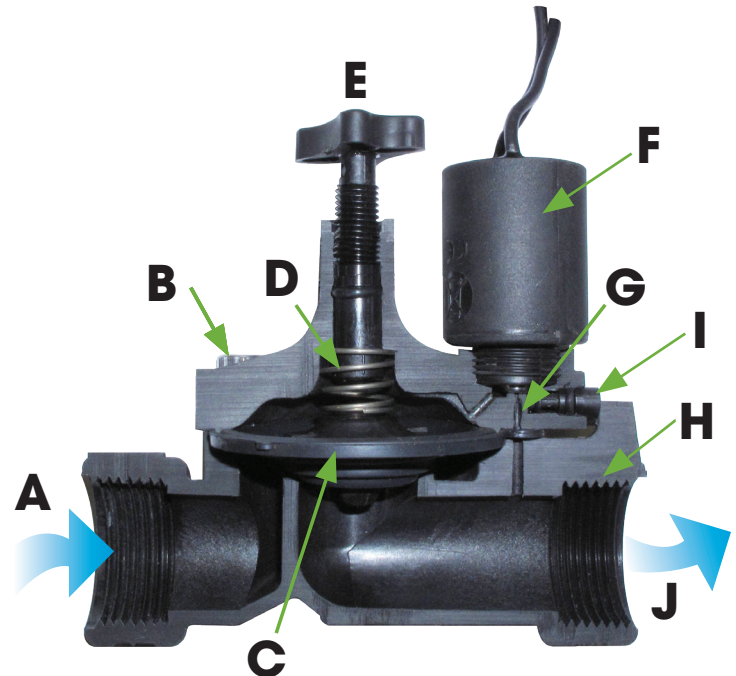
- Valve remains closed when there is equal static pressure on the top and bottom of the diaphragm.
- The area on top of the diaphragm is larger than the bottom surface area.
- This larger surface area on top of the diaphragm exerts a greater force causing the diaphragm to remain closed.

## Valve Operation

- When the solenoid is electrically energized or the manual bleed lever is lifted, the plunger is raised into the solenoid coil.
- The water can then escape from the top chamber faster than it can be re-filled.
- As the top chamber empties, the valve opens due to a greater force being applied underneath the diaphragm allowing water to flow out to the irrigation zone.

## Open

- The valve will remain open while the solenoid is energized or the manual bleed lever is in the up position.
- When the valve is de-energized or the bleed lever is lowered, the plunger drops to cover the exhaust port.
- The top chamber will fill with water and the force above the diaphragm builds, and with the aid of the diaphragm spring, the valve closes.



- |                                |                              |
|--------------------------------|------------------------------|
| <b>A.</b> Inlet                | <b>F.</b> Solenoid           |
| <b>B.</b> Stainless Steel Bolt | <b>G.</b> Exhaust Port       |
| <b>C.</b> Diaphragm            | <b>H.</b> Valve Body         |
| <b>D.</b> Diaphragm Spring     | <b>I.</b> Manual Bleed Lever |
| <b>E.</b> Flow Control         | <b>J.</b> Outlet Downstream  |

## Operating Pressures

Item Number	Model Number	Size	Operating PSI	Flow Range
01000530	VP-10	1"	3-150 PSI	0.25 – 40 GPM
01000550	VP-15	1 1/2"	10-150 PSI	20 – 70 GPM
01000560	VP-20	2"	10-150 PSI	30 – 100 GPM

## Pressure Loss in PSI

GPM	5	10	15	20	25	30	35	40	45	50	60	70	80	90	100
VP-10	3.3	3.8	4.3	4.8	5.5	6.5	7.9	9.8	12.4	15.7					
VP-15				4.4	5	5.5	6	6.5	7	7.5	8.5	9.7	10.9	12.4	14.2
VP-20						2.1	2.1	2.1	2.2	2.2	2.4	2.7	3.1	3.5	4.1