

1" Solenoid Valve

User Guide

Reliable performance for automatic irrigation system control.



POELSANAR

For installation tips, other language options and more

Product Operating Principle

The solenoid valve is designed to control water flow in automatic irrigation systems via an electrical signal. When voltage (9V or 24V) is applied to the coil, it creates an electromagnetic field that moves the internal plunger mechanism. This movement directs the diaphragm, causing the valve to open or close. When the voltage is removed, the system returns to the closed position.

Operating Range

Type	Size	LxWxH	Flow Range	Pressure Rating (Bar)
9V	1"	70x112x134	0,05-9 m ³ /saat - 0,7-150 lt/dk	10
24V	1"	70x112x134	0,05-9 m ³ /saat - 0,7-150 lt/dk	10

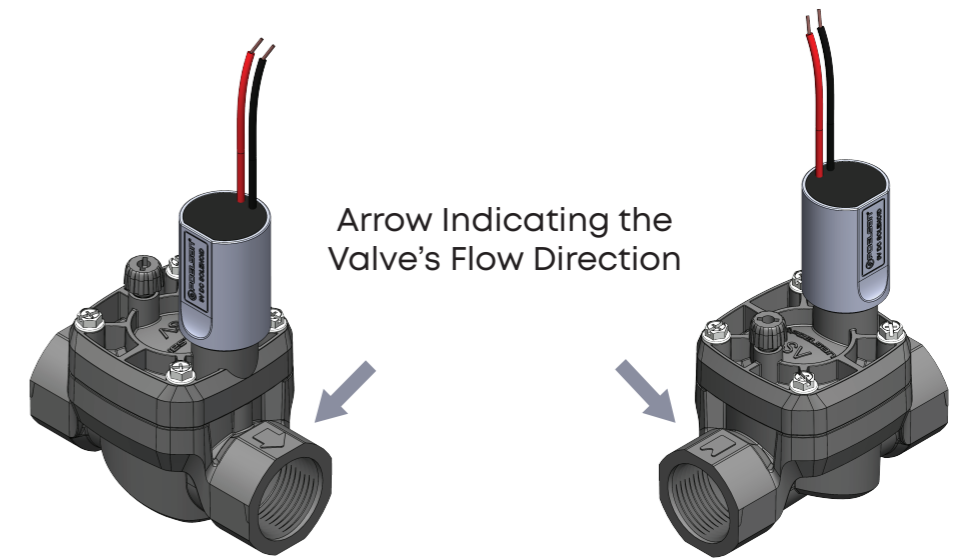
Parts No	Parts List
1	Valve Body
2	Valve Cover
3	Diaphragm Seal
4	Diaphragm Seat
5	Bleed Screw
6	Screw
7	Solenoid Coil
8	Diaphragm Spring

Warnings

- + Always isolate electrical connections from water during installation and maintenance.
- + Do not operate the valve outside the specified operating pressure and voltage values.
- + Do not energize the solenoid coil when it is not mounted on the valve.
- + Operate the coil only at the voltage indicated on it.
- + Do not install the valve with the coil facing downward. This may cause water leakage and coil failure.
- + Fully release system pressure before removing the valve.
- + Avoid damaging sensitive internal parts during installation and maintenance. After maintenance, check electrical connections and test proper valve operation.
- + Adjust flow when there is no pressure (water off). Do not use the adjustment screw to shut off the valve.

Before Operating the Valve

- + Ensure that all valves on the inlet line are open.
- + Check all pipe connections and ensure proper sealing.
- + If the water source contains sand or sediment, install a suitable filter upstream of the valve.



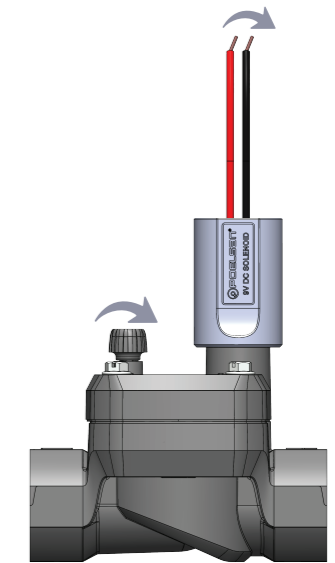
Product Installation

- + The arrow on the valve body indicates the water flow direction. Install the valve according to this direction.
- + Position the solenoid valve appropriately on the inlet or outlet line.
- + Wrap Teflon tape 3-4 turns clockwise around the male adapter or fitting threads.
- + Do not overtighten connections to avoid thread damage; hand tightening is recommended.
- + Do not use excessive Teflon tape on inlet and outlet connections. Excess tape may cause stress and thread damage.

Product Maintenance

- + Completely release system pressure before starting maintenance.
- + Remove all burrs, sand, and sediment accumulated on parts.
- + Refer to the exploded view diagrams and carefully disassemble the solenoid valve.
- + Clean all components, especially the diaphragm, diaphragm spring, and internal body surface, using compressed air or clean water.

Note: To manually open the valve, loosen the bleed screw or turn the coil counterclockwise.



Troubleshooting

Problem	Solution
Valve does not fully close	Tighten and check the solenoid coil. Remove the bleed screw and flush water through the valve. If the issue persists, remove and clean the diaphragm.
Valve does not open	Check the water source. Check the electrical connections. Test the solenoid coil with a coil that you know is functioning properly.
Valve opens and closes repeatedly	Check system pressure. If pressure exceeds 5.5 bar (80 psi), install a pressure regulator upstream of the valve.

