



ON-OFF FLOAT VALVE with PRESSURE SUSTAINING FEATURE

01/05

Classic Series

F110-18 (Globe)

F1110-18 (Angle)

Operation

The Watts ACV On-Off Float Control Valve with Pressure Sustaining Feature is designed to open fully or close drip-tight as commanded by the Float Control Pilot. The Float Pilot may be either valve or remote mounted. The valve closes drip tight when water level reaches the adjustable high-level setpoint, and opens fully when water level is below the adjustable low-level setpoint, allowing a calculated “draw-down” of water level to increase tank circulation. The valve will also throttle to sustain a minimum upstream pressure during tank filling operations.

The On-Off Float Pilot directs upstream pressure into and out of the cover chamber of the 3-way Accelerator Pilot. When the cover of the Accelerator Pilot is pressurized, the main valve cover chamber is vented downstream, causing the valve to open. When the cover of the Accelerator Pilot is de-pressurized, the main valve cover chamber is connected to upstream pressure, causing the valve to close drip tight. Valve opening and closing speeds are separately adjustable. When water level reaches the adjustable high-level setpoint, the Float Pilot de-pressurizes the cover chamber of the 3-Way Accelerator, closing the valve drip tight. The valve remains closed as water level decreases. When water level reaches the adjustable low-level setpoint, the Float Pilot pressurizes the cover chamber of the 3-Way Accelerator, opening the valve. High and low levels are separately adjustable by positioning stop collars on the float rod(s) at desired opening and closing setpoints.

The normally closed sustaining pilot remains open when upstream pressure is above the adjustable setpoint, and modulates toward a closed position if upstream pressure falls below the setpoint. As the sustaining pilot closes, fluid is directed into the main valve cover chamber, allowing the valve to modulate toward a closed position, raising upstream pressure. Normal on-off float control operation resumes when upstream pressure is above the sustaining pilot setpoint.



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Installation Guidelines

- Prior to installation, flush line to remove debris.
- Install valve horizontally “in line” (cover facing UP), so flow arrow matches flow through the line. Avoid installing valves 6” and larger vertically. Consult factory **prior** to ordering if installation is other than described.
- Install inlet and outlet isolation valves. **NOTE:** When using butterfly valves, insure disc does not contact control valve. Damage or improper valve seating may occur.
- Provide adequate clearance for valve servicing and maintenance.
- Install pressure gauge to monitor valve inlet pressure. If On-Off Float Pilot is remotely mounted it should be field connected with 3/8” minimum copper tubing in accordance with factory piping schematic.
- Float Pilot, Rods, and Ball should be mounted in a field installed “stilling well” for protection against surface turbulence and interference.
- Additional 12” Float Rods available. Consult Factory.

Other Watts ACV Float Control Valves

F110-10 / F1110-10 Modulating Float Control Valve
F110-13 / F1110-13 Modulating Float Control Valve with Pressure Sustaining Feature
F110-AS / F1110-AS Modulating Float Control Valve with Solenoid (On-Off) Feature
F110-14 / F1110-14 On-Off Float Control Valve