



# TWO-WAY FLOW ALTITUDE VALVE with SOLENOID OVERRIDE FEATURE

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## Classic Series

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F127-31 (Globe)  
F1127-31 (Angle)

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### Specifications

The Two Way Flow Altitude Valve with Solenoid Override Feature shall be a pilot operated diaphragm valve designed to open, allowing flow into a reservoir or elevated storage tank (tank fill), and close drip tight when high water level is achieved. The valve shall also open allowing return flow (tank discharge), when upstream pressure falls below reservoir head pressure. It shall control water level by remotely sensing static tank head pressure, and open when the level is below the adjustable setpoint and close drip tight when the level is above the adjustable setpoint or as commanded by the Solenoid Pilot. The Solenoid shall have provisions for manual operation in the event of power outage. Solenoid voltage shall be \_\_\_\_\_ and enclosure shall be NEMA 4 General Purpose. The main valve shall close when the solenoid is energized.

The main valve shall be a hydraulically operated, single diaphragm actuated, globe or angle pattern valve. Y-pattern valves shall not be permitted. The valve shall contain a disc and diaphragm assembly that forms a sealed chamber below the valve cover, separating operating pressure from line pressure. The diaphragm shall be constructed of nylon reinforced Buna-N, and shall not seal directly against the valve seat and shall be fully supported by the valve body and cover. Rolling diaphragm construction will not be allowed and there shall be no pistons operating the main valve or any pilot controls.

The main valve body and cover shall be Ductile Iron ASTM A536, and all internal cast components shall be Ductile Iron or CF8M (316) Stainless Steel. All Ductile Iron components, including the body and cover, shall be lined and coated with an NSF 61 Certified Epoxy Coating applied by the electrostatic heat fusion process. All main valve throttling components (valve seat and disc guide) shall be Stainless Steel. The valve body and cover must be machined with a 360-degree locating lip to assure proper alignment.

The disc and diaphragm assembly shall contain a Buna-N synthetic rubber "Quad Seal" that is securely retained on 3-1/2 sides by a disc retainer and disc guide. Diaphragm assemblies utilizing bolts or cap screws for component retention will not be permitted.

The exposed portion of the Quad Seal shall contact the valve seat and seal drip-tight. The disc and diaphragm assembly must be guided by two separate bearings, one installed in the valve cover and one concentrically located within the valve seat, to avoid deflection and assure positive disc-to-seat contact. Center guided valves will not be permitted. All necessary repairs shall be made from the top of the valve while the body remains in line.

The pilot control system shall contain an Altitude Pilot, 3-Way Accelerator Pilot, 3-Way Solenoid Pilot with screw type Manual Operator, (1) Check Valve, separate Adjustable Opening and Closing Speed Controls, Visual Position indicator with air bleed petcock, 3-Way Ball Valve, external Y-Strainer and Isolation Ball Valves on all body connections. The pilot control system shall utilize copper tubing and brass fittings.

The valve shall be Watts ACV Model F127-31 (Globe) or F1127-31 (Angle) Two Way Flow Altitude Control Valve with Solenoid Override Feature.