MODULATING FLOAT VALVE with PRESSURE SUSTAINING FEATURE

01/05

Classic Series

F110-13 (Globe)
F1110-13 (Angle)

Specifications

The Modulating Float Control Valve with Pressure Sustaining Feature shall be a pilot operated diaphragm valve designed to maintain a constant liquid level in a tank or reservoir. It shall throttle open on a lowering liquid level and throttle closed upon a rising liquid level. The valve shall also throttle to sustain a minimum upstream pressure during tank filling operations.

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.

Pilot control systems for valves 3” and smaller shall contain a Flow Clean Strainer, Adjustable Closing Speed Control, Pressure Sustaining Pilot and Modulating Float Pilot. Pilot control systems for valves 4” and larger shall contain an external Y-Strainer, Adjustable Closing Speed Control, Pressure Sustaining Pilot, Modulating Float Pilot and Isolation Ball Valves on all body connections. All pilot control systems shall utilize copper tubing and brass fittings regardless of valve size. The adjustment range of the pressure sustaining pilot shall be 20-200 psi.

The valve shall be Watts ACV Model F110-13 (Globe) or F1110-13 (Angle) pattern Modulating Float Control Valve.