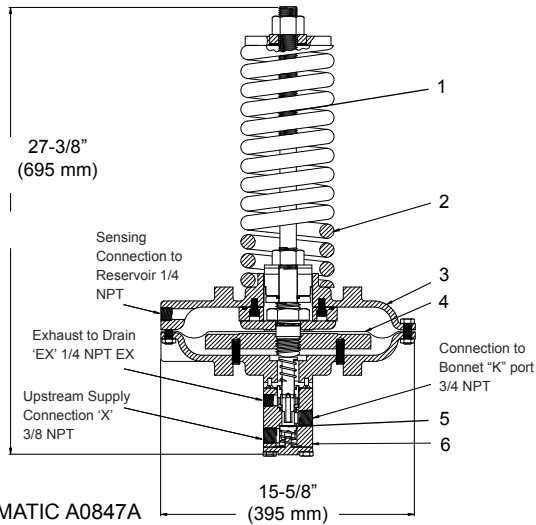


Model 301-4 Altitude Pilot Valve



1. Stem (Stainless Steel)
2. Spring (Steel)
3. Diaphragm Casing (Ductile Iron)
4. Diaphragm (Buna-N)
5. Inner Valve (Stainless Steel and EPDM)
6. Body (Stainless Steel)

Standard Materials:

Other standard material of the pilot construction include brass, aluminum, stainless steel, Buna-N

SCHEMATIC A0847A

Product Overview

An altitude pilot valve is spring and diaphragm operated; it controls the water level in a reservoir by sensing the hydrostatic head. When the hydrostatic head equals the spring force, the pilot connects port “X” (connection to main valve inlet) to port “K” (connection to main valve bonnet). The main valve closes. When the hydrostatic pressure decreases slightly, the port “X to K” connection is closed by the inner valve. When the hydrostatic pressure is reduced even further, the pilot connects port “K” (main valve bonnet) to “EX” (exhaust to atmosphere). Then the main valve opens.

Model 301-4 pilot is used as the standard pilot on all 106 and 206 series altitude valves.

Specifications

The pilot shall be Singer model 301-4 with the spring range specified.

- The pilot shall consist of a ductile iron housing and shall have a protective fusion bonded coating, which conforms to the ANSI / AWWA C116 / A21.16 (current version) specification.
- The 3-way valve body, seat and stem shall be of stainless steel construction.
- The inner valve shall have EPDM resilient compound for seating. The EPDM compound must be permanently bonded to the inner valve and be ground flat and square to assure maximum performance.
- The pilot shall utilize a rolling diaphragm stem seal to eliminate friction when the pilot actuates.
- The 3-way valve body shall be serviceable without removing the pilot from the valve. The inner valve shall be replaceable

Model	Spring Range / Elevation	Approximate fixed differential	
		Delayed opening	Approximate feet per turn
301-4	4 to 20 ft (1 to 6 m)	1 ft (0.3 m)	1 ft (0.3 m) per turn
301-4	10 to 60 ft (3 to 18 m)	1 ft (0.3 m)	2 ft (0.6 m) per turn
301-4	40 to 125 ft (12 to 38 m)	2 ft (0.6 m)	3 ft (0.9 m) per turn
301-5	60 to 225 ft (18 to 69 m)	3 ft (0.9 m)	6 ft (1.8 m) per turn

Ordering Instructions

Refer to page 293 for the order form and ordering instructions.