



**FEATURES:**

- Single Adjusting Screw
- Accurate control
- Proportional control
- Intermittent bleed pilot construction
- Indirect or Direct Action
- Remote Installation
- 2500 psig operating pressure

**PRESSURE RANGE:**

50 PG	75-500 psig
75 PG	75-750 psig
150 PG	125-1500 psig
250 PG	200-2500 psig

**SUPPLY PRESSURE:**

20 & 30 psig

**SENSITIVITY:**

	SENSE PRESS CHANGE (psig)	OUTPUT PRESS CHANGE (psig)
50 PG	1 psig	1.6 psig
75 PG	1 psig	1.6 psig
150 PG	1 psig	1 psig
250 PG	1 psig	0.75 psig

**ADJUSTMENT:**

	SET POINT CHANGE (psig)
50 PG	20 psig / 1 TURN
75 PG	20 psig / 1 TURN
150 PG	40 psig / 1 TURN
250 PG	60 psig / 1 TURN

**APPLICATION:**

Pilot may be installed as Back Pressure Regulator with a Pressure Closing Motor Valve.

Pilot may be used as a pressure monitor that provides an output signal when the sense pressure falls below the set pressure, or when the signal goes above the set pressure.

Pilot may be used as a Pressure Reducing Regulator with a Pressure Opening Motor Valve.

**OPERATION:**

The DIAPHRAGM ASSEMBLY and the Bellows Assembly are the only moving units in the pilot. The PILOT PLUG consist of two stainless balls rigidly connected together. The upper seat of the PILOT PLUG is the vent for the Modulated Output Pressure (Yellow to Atmosphere). The lower seat of the PILOT PLUG is the Supply Pressure inlet to the Modulated Output (Violet to Yellow).

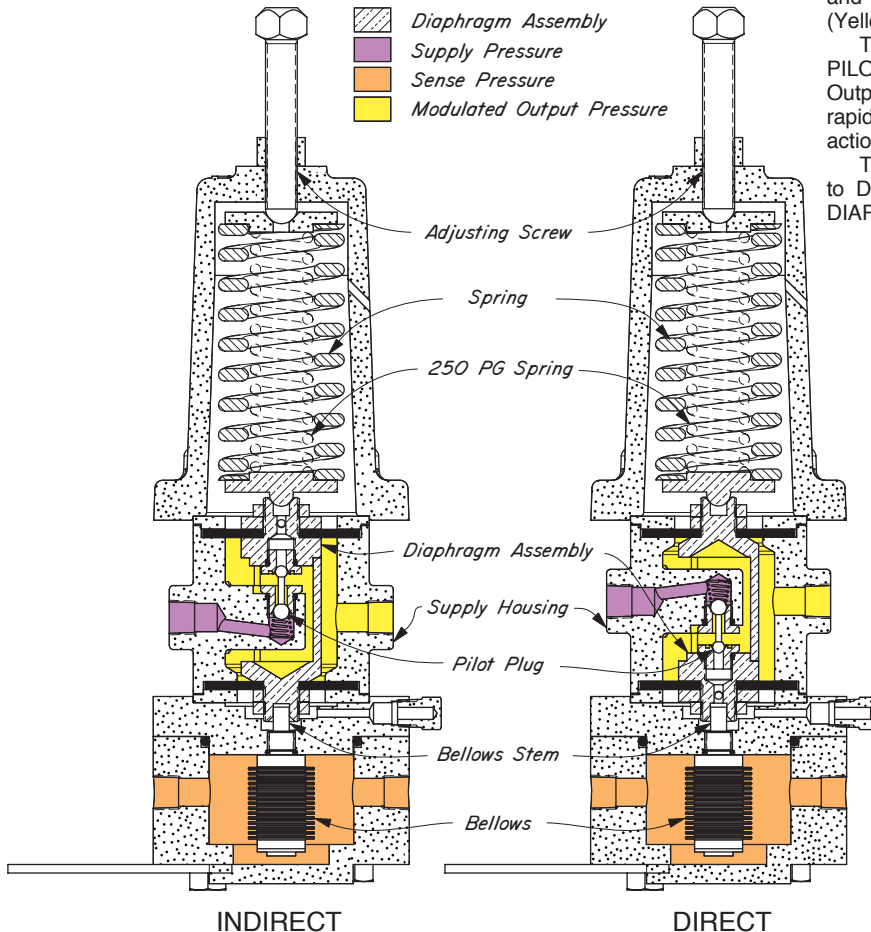
The SPRING in the bonnet loads the upper side of the DIAPHRAGM ASSEMBLY and is opposed at the opposite end by the BELLOWS STEM. The BELLOWS STEM is actuated by the Sense Pressure (Orange) acting on the outside of the BELLOWS.

Assume the SPRING is compressed with the ADJUSTING SCREW for a set pressure greater than the Sense Pressure (Orange). The DIAPHRAGM ASSEMBLY is forced downward by the SPRING. The upper seat of the PILOT PLUG (Yellow to Atmosphere) is closed and the lower seat of the PILOT PLUG (Violet to Yellow) is opened. This allows Supply Pressure (Violet) to provide a Modulated Output Pressure (Yellow).

As the Sense Pressure (Orange) increases to the set pressure, the BELLOWS begins to contract, moving the BELLOWS STEM upward against the DIAPHRAGM ASSEMBLY. This compresses the SPRING and closes the lower seat (Violet to Yellow) and opens the vent for the Modulated Output Pressure (Yellow) to decrease.

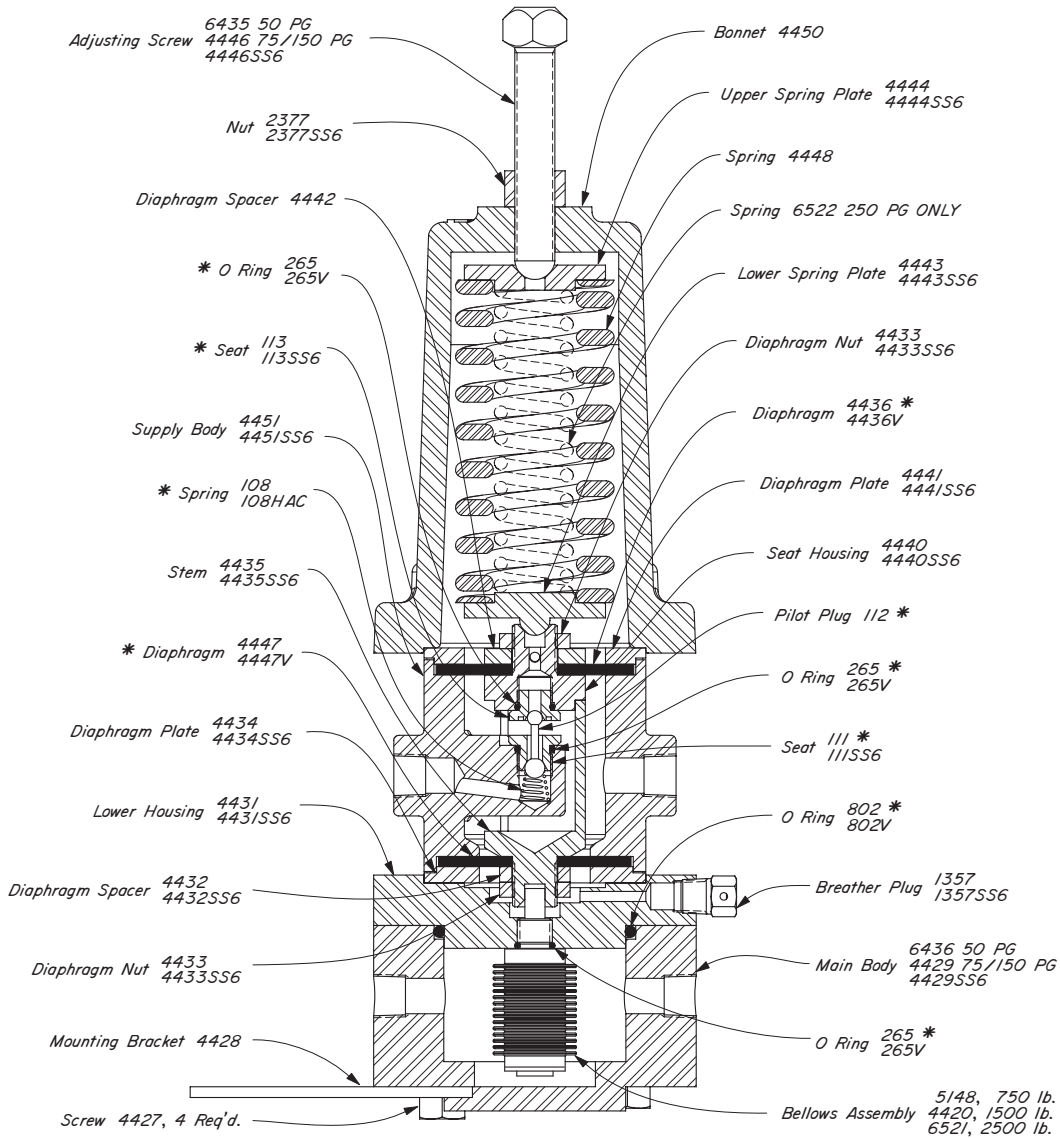
The intermittent bleed, three-way valve action of the PILOT PLUG against its seat adjusts the Modulated Output Pressure (Yellow) in and the set pressure. The rapid but stable repositioning produces a true throttling action.

The action of the pilot may be changed from Indirect to Direct by inverting the SUPPLY HOUSING and the DIAPHRAGM ASSEMBLY.



# PILOTS AND ACCESSORIES

50 / 75 / 150 / 250 PG PILOTS  
STEEL / SS6



## PILOTS AVAILABLE:

CAT. NO.	PILOT	MAX W.P.	OPER. PRES.	KIT
AFZ4	50 PG I.A. <sup>a</sup>	500	500	RBQ
AFZ5	50 PG D.A. <sup>b</sup>	500	500	RBQ
AFZ2	75 PG I.A. <sup>a</sup>	750	750	RBQ
AFZ2SS6	75 PG I.A. <sup>a</sup> SS6	750	750	RBQ-V
AFZ3	75 PG D.A. <sup>b</sup>	750	750	RBQ
AFZ	150 PG I.A. <sup>a</sup>	1500	1500	RBQ
AFZSS6	150 PG I.A. <sup>a</sup> SS6	1500	1500	RBQ-V
AFZ1	150 PG D.A. <sup>b</sup>	1500	1500	RBQ
AFZ1-SS6	150 PG D.A. <sup>b</sup> SS6	1500	1500	RBQ-V
AFZ6	250 PG D.A. <sup>b</sup>	2500	2500	RBQ
AFZ7	250 PG I.A. <sup>a</sup>	2500	2500	RBQ

<sup>a</sup> Indirect Action

<sup>b</sup> Direct Action

\*These are recommended spare parts and are stocked as repair kits.

## PILOT DIMENSIONS

