

Series 64 Operations Instructions

The Series 64 positioner consists of a diaphragm (1) exposed to the signal pressure, of feedback spring (2), of a double-action spool valve (3) connected to the diaphragm through the rod (4). An increase of signal pressure on the diaphragm (1) causes the displacement of the spool valve (3) and consequently of the pistons in the cylinder. The shaft rotation is transmitted to the feedback spring (2) through the cam (7) and the lever (5), thus balancing the signal pressure on the diaphragm.

The cylinder shaft therefore will remain in stable position only as long as the feedback spring's force is equal to the air signal force on the diaphragm.

The spool valve is then in neutral position.

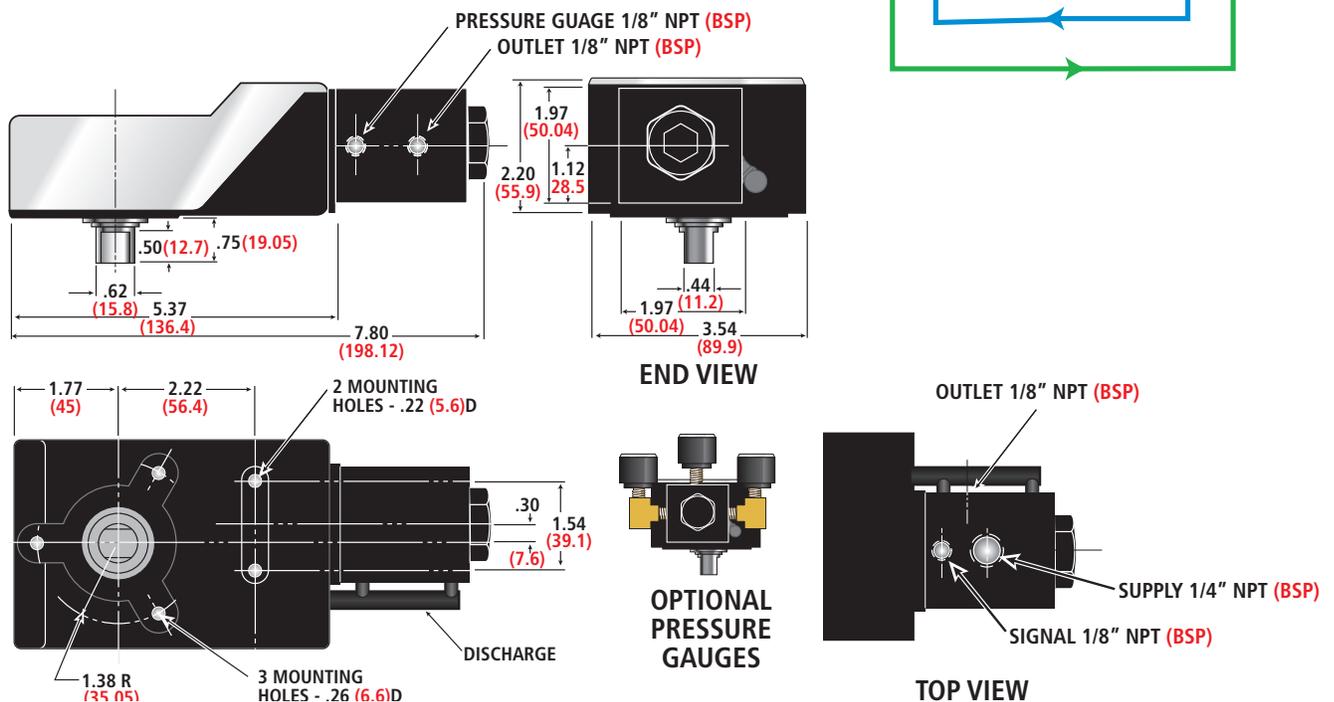
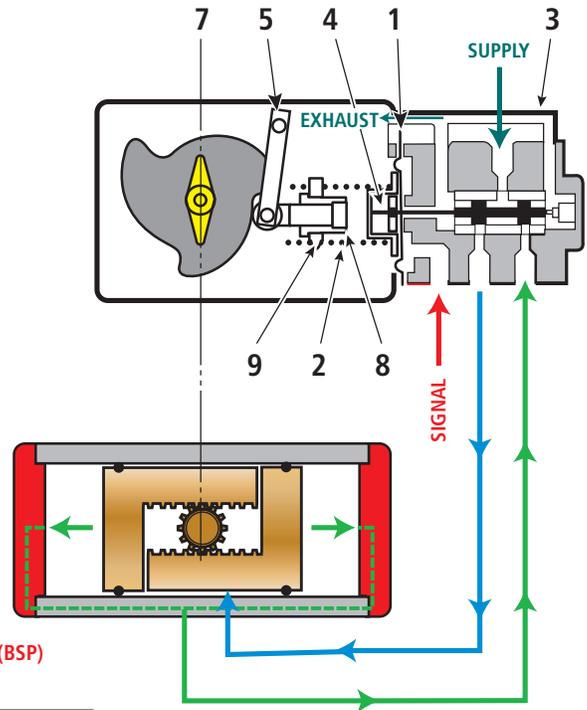
The position of the cylinder is determined by the signal pressure and by the shape of the cam.

For single action cylinders, the operation is identical to the above, except that one connection 'E' or 'F', is plugged. Reversal of action is accomplished by turning the cam (7) over and reversing the air connections to the cylinder.

Zero adjustment is carried out by setting of the nut (8), which determines the pre-loading of the feedback spring.

Range adjustment is carried out by setting of the screw (9) in order to vary the number of the spring's turns.

Figure 1



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