



## SPECIFICATION

**Model** PE500/ PE500S  
**Max. Supply Pressure** 150 psig  
**Signal Pressure** 100 psig  
**Output Pressure** 100 psig  
**Input Signal Connection** 1/4" NPT  
**Supply & Out-Put Connections** 1/4" NPT  
**Flow Capacity** 10 SCFM  
**Pressure Ratio** 1:1  
**Dead band** +/-5%  
**Temperature** -40°C to +80°C  
**Body** Aluminum /SS

## SALIENT FEATURES

High Accuracy • Quick Response • Greater Stability • Low Air Consumption • Large Flow Maintains Correct Actuator Position at High Stroking Speeds • Trouble free service • Economically

## PRODUCT DESCRIPTION

The Philair volume booster is used to speed up the normal stroking time of actuator, when the piping between instrumentation and operational area is long or when operational area has large capacity.

## PRODUCT OPERATION

The volume booster is used along with positioner for throttling operation of control valve to obtain high operating speeds. The positioner output is connected to signal port, line pressure to IN port and OUT port to the actuator. Increase of signal pressure causes movement of upper diaphragm along with lower diaphragm S/A, resulting in closing of exhaust port and opening of inlet port. When the outlet pressure equals the signal pressure, forces acting on both the diaphragm come to equilibrium and both inlet and outlet ports are closed. With the decrease of signal pressure the upward movement of diaphragm causes opening of exhaust port and closing of inlet port, thereby vending connected between signal and output ports acts as a damping device and permits adjustment of unit to obtain stability with maximum operating speed