APPLICATIONS:
Any system in which it is desired to multiply and volume boost a pneumatic signal to a large motor valve or similar equipment. Amplification of the input pneumatic signal is approximately 4:1.

FEATURES:
Pneumatic throttle
Direct action
Field reversible
(See 3 PS for snap action)

SUPPLY PRESSURE:
5 to 30 psig

VARIABLE PRESSURE:
0 to 30 psig

OUTPUT PRESSURE:
Snap - 0 psig or Supply Pressure
Throttle - Variable (0 - 30 psig)

OPERATION (Described for Throttle Action):
Variable Pressure (Orange) acting on the MAIN DIAPHRAGM is the actuating force of the pilot. The counteracting force is the Output Pressure (Yellow) acting on the DIFFERENTIAL DIAPHRAGM plus the BOOSTER SPRING. When Variable Pressure (Orange) is zero, the Diaphragm Assembly is held in an up position by the BOOSTER SPRING. As Variable Pressure (Orange) increases slightly to overcome the load of the BOOSTER SPRING, the Diaphragm Assembly moves downward to first close the upper seat which is the pressure vent (Yellow to Atmosphere). The lower seat, which is the Supply Gas inlet (Violet to Yellow), has not yet opened, so both seats are closed with the PILOT PLUG. If Variable Pressure (Orange) increases still further, the Supply Gas inlet (Violet to Yellow) opens to increase the Output Pressure (Yellow) only sufficiently to balance the added Variable Pressure (Orange) acting on the MAIN DIAPHRAGM.

With the Diaphragm Assembly in a balanced position any increase or decrease in Variable Pressure (Orange) will produce a proportional change in Output Pressure (Yellow) by opening either the Supply Gas inlet or the Output Pressure vent to re-establish the balance.

The 3 PG Pilot is actually a pressure multiplier and volume booster. Output pressure (Yellow) is approximately 4 times the Variable Pressure (Orange). Output Pressure (Yellow) accurately follows small changes in Variable Pressure (Orange) to properly position motor valves, etc. for throttling control.

For Snap Service, the 3 PG Pilot operates as described for the 3 PS Pilot on Page 40.1.
PILOTS AND ACCESSORIES

3PG THROTTLE PILOTS
DUCTILE / STEEL / 316SS

Kimray is an ISO 9001-1 certified manufacturer.

PILOTS AVAILABLE:

<table>
<thead>
<tr>
<th>CAT. NO.</th>
<th>PILOT</th>
<th>MAX W.P.</th>
<th>OPER. PRES.</th>
<th>KIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>YAE</td>
<td>3 PG</td>
<td>30</td>
<td>30</td>
<td>RXY</td>
</tr>
<tr>
<td>YAE1</td>
<td>3 PG-S</td>
<td>30</td>
<td>30</td>
<td>RXY</td>
</tr>
</tbody>
</table>

NOTES:

May be used as a 3 PS by reversing the supply and vent connections.

All openings are tapped 1/4" N.P.T.

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