Differential Pressure

Typical Applications

The PDP-Differential Pressure Pilot is used with the HD Regulator to maintain steam pressure at a set differential pressure above another media source. This is typical on an oil burner where steam used for atomization is injected into the oil burner at a set pressure above the incoming oil supply pressure. When oil pressure fluctuates (based on demand), the steam pressure will maintain a constant differential pressure above the oil pressure.

Features

- The PDP-Differential Pressure Pilot is used to maintain downstream steam pressure to a set differential pressure above loading pressure
- Accuracy to within ±2 PSI
- 3 overlapping spring ranges to choose from
- Pilot is installed using only four bolts
- Full port strainer and blowdown valve on pilot adapter for ultimate protection from dirt and scale
- Solid floating diaphragm
- Watson McDaniel’s pilots can be used with other manufacturers’ regulators

Options

- Solenoid pilot can be added for remote on/off control of regulator

MATERIALS for PDP Differential Pressure Pilot

<table>
<thead>
<tr>
<th>Component</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pilot Body &amp; Cover</td>
<td>Ductile Iron &amp; Cast Steel</td>
</tr>
<tr>
<td>Seat Gasket</td>
<td>302 SS</td>
</tr>
<tr>
<td>Diaphragm</td>
<td>Phosphor Bronze</td>
</tr>
<tr>
<td>Head &amp; Seat Assembly</td>
<td>Hardened SST (55 Rc)</td>
</tr>
</tbody>
</table>

OPERATING PRESSURES

Inlet Pressure Range:
- 15-300 PSIG (Standard Main Valve)
- 5-20 PSIG (Low Pressure Main Valve)

Minimum Differential Pressure:
- 10 PSI (Standard Main Valve)
- 3 PSI (Low Pressure Main Valve)

Material Specifications

- Pilot Body & Cover: Ductile Iron & Cast Steel
- Seat Gasket: 302 SS
- Diaphragm: Phosphor Bronze
- Head & Seat Assembly: Hardened SST (55 Rc)

How to Size / Order

PDP - DIFFERENTIAL PRESSURE PILOT
Specify:
- Reduced pressure range –

Example: PDP-Y: PDP Pilot with 3-25 PSIG spring

REGULATOR BODY
Specify:
- HD regulator body
- Regulator size or capacity
- End connections (threaded, 150/300# flanged)

Pressure Adjusting Screw

Units: inches

Pressure Range Model Code Spring Color Weight lbs
3-25 PDP-Y Yellow 16
20-100 PDP-B Blue 16
80-200 PDP-R Red 16