DIAPHRAGM VALVE 4" - 8" MODEL 2250
PRESSURE REDUCING/SURGE ANTICIPATION
NORMALLY CLOSED VALVE

SPECIFICATIONS:

Operating Pressure: 2 to 200 PSI
Regulating Range: 5 to 125 PSI
Voltage Operating Range: 22-28 VAC
Low Current Requirement: 0.40 A at 24 VAC
Assembly: Valve comes fully assembled

MATERIALS
End Connections: Flanged 150 ANSI
Stem, Nut & Spring: Stainless Steel
Diaphragm: Nylon-Reinforced Buna-N
Disc: Buna-N
Disc Retainer: Cast Iron
Diaphragm Washer: Cast Iron
Disc Guide Seat: Bronze
Cover Bearing: Bronze
Optional: Purple Solenoid for Reclaimed Water

DIMENSIONS & WEIGHTS (NOMINAL)

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MODEL NO.</th>
<th>A (IN)</th>
<th>B (IN)</th>
<th>C (IN)</th>
<th>D (IN)</th>
<th>APPROX SHIP WT IN LBS</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot;</td>
<td>2250P</td>
<td>10.62</td>
<td>4.50</td>
<td>15.00</td>
<td>17.50</td>
<td>140</td>
</tr>
<tr>
<td>6&quot;</td>
<td>2250Q</td>
<td>13.38</td>
<td>5.50</td>
<td>20.00</td>
<td>21.75</td>
<td>280</td>
</tr>
<tr>
<td>8&quot;</td>
<td>2250R</td>
<td>16.00</td>
<td>6.75</td>
<td>25.38</td>
<td>26.00</td>
<td>500</td>
</tr>
</tbody>
</table>

PRESSURE LOSS (PSI) AT VARIOUS FLOWRATES

<table>
<thead>
<tr>
<th>SIZE</th>
<th>FLOWRATE (GPM)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 3000 3100 3200 3300 3400</td>
</tr>
<tr>
<td>4&quot;</td>
<td>1.0 2.3 4.0 6.3 9.0 12.3 16.0 20.3</td>
</tr>
<tr>
<td>6&quot;</td>
<td>USE 1 PSI</td>
</tr>
<tr>
<td>8&quot;</td>
<td>DROP IN THIS RANGE</td>
</tr>
</tbody>
</table>

APPLICATIONS

The 2250 Pressure Reducing Surge Anticipation Solenoid valve offers maximum performance combined with the reliability you have come to expect from Griswold Controls. Intended for use in medium to large irrigation systems, the valve can be used on slopes, banks and hilly terrain with no performance loss, making it the right choice for golf course irrigation. The 2250 is designed as a normally closed master valve for systems with high supply pressure and fast-acting valves. The 2259_R can be used with Reclaimed Water.
MODEL NUMBER SELECTION

```
2  2  5  0
```

Select a size (4"=P, 6"=Q, 8"=R)

DESCRIPTION:

- Normally Closed: Energize Solenoid to Open Valve, De-Energize to Close Valve
- Lightning Protected
- Watertight Epoxy Molded Solenoid Coil
- Slow Closing
- Surges Above Setting Are Automatically Relieved
- "No Surge or Hammer" Operation
- Will Throttle Against Flow Without Chatter
- Diaphragm-Disc Assembly Guided by Stainless Steel Stem in All Positions
- Completely Serviceable Without Removing Valve Body from the system

THEORY OF OPERATION

FULL OPEN OPERATION
When pressure in the cover chamber is relieved to a zone of lower pressure, the line pressure at the valve inlet opens the valve, allowing full flow.

TIGHT CLOSING OPERATION
When pressure from the valve inlet is applied to the cover chamber, the valve closes drip-tight.

PRESSURE REDUCTION
When the pressure in the system increases, the regulating pilot restricts the amount of fluid leaving the upper chamber. This causes the diaphragm to decrease the flow through area of the valve, reducing pressure system to its preset point.

PRESSURE COMPENSATION
When the flow demand in the system increases, the regulating pilot allows more fluid to leave the upper chamber. This causes the diaphragm to increase the flow through area of the valve, raising pressure system to its preset point.

SURGE ANTICIPATION
In the event of a surge, the regulating pilot restricts the amount of pressure to the upper chamber, closing the valve. To prevent Hammer, a relief pilot opens to relieve the surge pressure.